National Park Service
U.S. Department of the Interior



Big Spring Historic District
Ozark National Scenic Riverways
Cultural Landscape Report and Environmental Assessment

June 2017



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Big Spring Historic District
Ozark National Scenic Riverways
Missouri

BIG SPRING HISTORIC DISTRICT
OZARK NATIONAL SCENIC RIVERWAYS
CULTURAL LANDSCAPE REPORT AND
ENVIRONMENTAL ASSESSMENT
FINDING OF NO SIGNIFICANT IMPACT

INTRODUCTION

In compliance with the National Environmental Policy Act (NEPA) and implementing regulations published by the Council on Environmental Quality (CEQ) and the Department of the Interior, the National Park Service (NPS) prepared a Cultural Landscape Report and Environmental Assessment (CLR/EA) for the Big Spring Historic District (BSHD or park) within the Ozark National Scenic Riverways (OZAR). The CLR/EA presents detailed documentation of BSHD's historical development, evaluation of existing conditions, analysis of landscape characteristics, and an assessment of contributing features and integrity. This Finding of No Significant Impact (FONSI) describes the alternative the NPS has selected for implementation, provides the rationale for its selection, and explains why it will not have significant impacts on the human environment. A non-impairment determination is included in Attachment A.

BACKGROUND

The BSHD is a component of OZAR and is located in OZAR's southeast corner in Carter County, Missouri, 4 miles south of the town of Van Buren. The BSHD is in the Ozark Highlands, set adjacent to the Current River. The project area is surrounded by steep forested hills of oak and hickory, laced with streams and rivers. The enabling legislation states that OZAR was established in 1964 for "the purpose of conserving and interpreting unique scenic and other natural values and objects of historic interest" specifically including "the lands composing Big Springs, Alley Springs, and Round Spring State Parks." Big Spring State Park was established in 1924 to provide public access to and amenities at Big Spring and the Current River. Today, BSHD preserves and interprets the natural resources of Big Spring and the Civilian Conservation Corps (CCC) developed amenities and serves as an important recreation destination. BSHD is significant for its natural resources including the fresh water spring of Big Spring, one of the largest springs in the United States by volume. The BSHD is also significant for the Naturalistic style of landscape design and Rustic style of architecture that is associated with the 1930's era of public works projects undertaken during the Great Depression.

PURPOSE AND NEED

The purpose of this CLR/EA is to provide guidance for managing the Big Spring Historic District as a significant cultural landscape and important recreational area. This CLR/EA will provide the primary resource documentation and comprehensive guidance relevant to ultimate use and treatment of the BSHD cultural landscape. The project will provide guidance on preserving the historic character and contributing features of the BSHD cultural landscape as it developed between 1924 and 1969. It will provide long-term resource protection, sustainable cyclic maintenance, and visitor understanding and enjoyment.

There are a number of development projects in the planning stages proposed for the study area in the coming years. The CLR/EA will help guide the planning and compliance process for potential construction projects and assist in ensuring any developments fit into the more holistic goals of historic preservation and public interpretation of BSHD. The CLR/EA will also inform future projects in the study area that may have an impact on historic resources and the cultural landscape.

The proposed project is needed to document the changes to the cultural landscape over time, to provide holistic and integrated guidance for the long-term preservation and stewardship of the resources of the BSHD, and to ensure that these projects have no adverse effect on historic resources within the district. The project is needed to supplement baseline documentation, and to generate needed historical, archeological and natural resource data.

ALTERNATIVES CONSIDERED

The CLR/EA considered a no action alternative and an action alternative. These alternatives are discussed below.

No Action Alternative

The no action alternative provides "a baseline of existing impact continued into the future against which to compare impacts of action alternatives." Under the no action alternative, contributing and noncontributing features will be preserved and maintained. The no action alternative includes current park projects and those planned for the foreseeable future.

Action Alternative (Selected Alternative)

The selected alternative will focus on preserving contributing features and rehabilitating the historic setting. It will include repairing buildings, structures, vegetation, and small-scale features to reveal the intended park aesthetic of a maintained yet naturalistic park space. Spaces will be rehabilitated to reveal contributing features and elements of the designed landscape and to provide an immersive visitor experience that truly reads "Civilian Conservation Corps/Works Progress Administration." Vegetation management will assist in repairing the park setting. Replacement of contemporary features with those that reflect the intended Naturalistic and Rustic design principles will enhance the overall landscape composition. Improved visitor contact and wayfinding will bring new life into the park by encouraging visitors to explore the whole of the designed landscape and the natural areas beyond.

SIGNIFICANCE CRITERIA REVIEW

The intensity or severity of impacts resulting from implementing the selected alternative is evaluated using the ten criteria listed in 40 CFR § 1508.27. Key areas in which impacts were evaluated include cultural resources, vegetation, visitor use and experience, visual resources, and wilderness. As defined in 40 CFR § 1508.27, significance is determined by examining the following criteria.

(1) Impacts that may be both beneficial and adverse; a significant effect may exist even if the NPS believes that on balance the effect would be beneficial.

The selected alternative will result in both beneficial and adverse impacts. In general, the selected alternative provides beneficial effects on cultural resources, vegetation, visitor use and experience, visual resources, and wilderness. Cultural resources, visitor use and experience, and visual resources will benefit from the rehabilitation of contributing buildings, structures, and features, and removal of noncontributing features, utility lines and poles, and nonnative vegetation. Vegetation and wilderness will be improved from removing invasive species, and vegetation will also be improved by thinning vegetation in overgrown areas.

Adverse impacts on all resource topics will be local and short-term, with long-term adverse impacts on cultural resources and vegetation. Short-term adverse impacts on cultural resources, vegetation, visitor use and experience, visual resources, and wilderness will result from construction activities, temporary facility and trail closures, and removal of vegetation. Long-term adverse impacts will occur on vegetation from vegetation management changes to about 41 acres of vegetation. Ground disturbances under the selected alternative could adversely affect the integrity of unknown historic properties. Long-term adverse effects on cultural resources will occur from changes to historic structures that are not in keeping with their historic integrity. Alterations to historic structures to provide universal accessibility may constitute an adverse effect from changes to the historical feeling and design of the structures. To mitigate potential adverse impacts on historic properties, treatment activities will be implemented in accordance with the *2008 Programmatic Agreement among the National Park Service (U.S. Department of the Interior), the Advisory Council on Historic Preservation, and the National Conference of State Historic Preservation Officers for Compliance with Section 106 of the National Historic Preservation Act* (2008 Programmatic Agreement). To avoid potential adverse impacts on buried cultural resources, survey, evaluative testing, geophysical work, or monitoring may be required to identify and evaluate the potential for unknown cultural resources in areas of ground-disturbing activities. Other mitigation measures to avoid adverse impacts on the cultural landscape will be implemented as discussed in the CLR/EA (NPS 2016). Therefore, with the implementation of the programmatic agreement above, the level of adverse and beneficial effects will not be significant.

(2) The degree to which the proposed action affects public health or safety.

Temporary facility and area closures will keep the public away from areas where potentially harmful construction activities are occurring. Because the public will not be exposed to construction activities, the level of adverse effects from the proposed activities will not be significant.

(3) Unique characteristics of the geographic area such as proximity to historic or cultural resources, park lands, prime farmlands, wetlands, wild and scenic rivers, or ecologically critical areas.

The selected alternative will not affect wild and scenic rivers or ecologically critical areas because those resources do not exist in the project area. No wetlands, park lands, or prime farmlands will be impacted by the proposed activities.

The project area is within the cultural landscape of the BSHD. The BSHD is part of OZAR and was listed on the National Register of Historic Places (NRHP) in 1981. A cultural landscape inventory was first completed in 1999, updated in 2009, and then recently updated in 2016. The 1999 and 2009 inventories recorded the cultural landscape period of significance from 1925, when the Big Spring State Park was created, to 1950, when the last contributing structure was built. The 2016 inventory extends the period of significance to 1924-1969 to more holistically address the continuum of development that began with Big Spring State Park's establishment and occurred throughout the duration of state ownership. At least 60 structures or features contribute to the eligibility of the BSHD. The selected alternative will result in an adverse impact on the cultural landscape of the BSHD. To resolve potential adverse impacts, survey and data recovery measures will be taken to identify and salvage significant archeological deposits. All activities will comply with the Secretary of the Interior's Standards and Guidelines for Archeology and Historic Preservation (48 Federal Register (FR) 44716, revised), and archeological resources in the vicinity of the project area will be identified and delineated for avoidance prior to project work. To mitigate potential adverse impacts on historic properties, treatment activities will be implemented in accordance with the 2008 Programmatic Agreement. Additional mitigation measures and best management practices (BMPs) will be used to reduce the adverse impacts of the selected alternative on historical and cultural resources in the BSHD.

(4) The degree to which effects on the quality of the human environment are likely to be highly controversial.

Short-term adverse effects on the quality of the human environment will result during construction but are not anticipated to affect the quality of the human environment over the long-term. As described under Criterion 1, the selected alternative will have beneficial effects on visitor use and experience and visual resources from the rehabilitation of contributing buildings, structures, and features, and removal of noncontributing features, utility lines and poles, and nonnative vegetation. Beneficial and adverse effects on the human environment are not likely to be highly controversial or significant.

(5) The degree to which the possible effects on the human environment are highly uncertain or involve unique or unknown risks.

The activities under the selected alternative will not result in highly uncertain effects or involve unique or unknown risks. Temporary facility and area closures will keep the public away from areas where potentially harmful construction activities are occurring. Therefore, effects or risks on the human environment will not be significant.

(6) The degree to which the action may establish a precedent for future actions with significant effects or represents a decision in principle about a future consideration.

No future actions are planned that will result from implementation of the selected alternative; therefore, the selected alternative will not result in significant effects from a future action.

(7) Whether the action is related to other actions with individually insignificant but cumulatively significant impacts.

Although past, present, and reasonably foreseeable future actions when combined with the selected alternative will have short-term adverse cumulative effects on cultural resources, vegetation, visitor use and experience, and wilderness character, none of the effects will be cumulatively significant.

(8) The degree to which the action may adversely affect districts, sites, highways, structures, or objects listed on the National Register of Historic Places; or may cause loss or destruction of significant scientific, cultural, or historical resources.

The selected alternative will have local short- and long-term adverse impacts on historic and cultural resources resulting from changes to historic structures that are not in keeping with their historic integrity. Alterations to historic structures to provide universal accessibility may constitute an adverse effect from changes to the historical feeling and design of the structures. Short-term adverse impacts on cultural resources will result from temporary facility and trail closures. Ground disturbances under the selected alternative could adversely affect the integrity of unknown historic properties. Effects on the cultural landscape will be beneficial from rehabilitating contributing features and removing noncontributing features and utility lines and poles. Past, present, and reasonably foreseeable future actions will have long-term beneficial impacts and local short-term and long-term minor to moderate adverse cumulative effects on cultural landscapes and historic properties. To mitigate potential adverse impacts on historic properties, treatment activities will be implemented in accordance with the 2008 Programmatic Agreement. The NPS initiated consultation with the State Historic Preservation Office (SHPO) with a scoping letter. The SHPO also received a copy of the draft CLR/EA for review and comment. A letter response was received from the SHPO on January 25, 2017 (Attachment B).

(9) The degree to which the action may adversely affect an endangered or threatened species or its critical habitat.

Special status species include species listed as threatened or endangered under the Endangered Species Act (ESA), species protected under other federal regulations, and other species considered sensitive by OZAR and the state of Missouri. Several federally threatened or endangered species have the potential to occur in the project area. The selected alternative will not occur in habitat for these species or will not result in any adverse impacts on these species and, therefore, it is unlikely any threatened or endangered species will be impacted by proposed activities. Because no special status species will be adversely impacted by the selected alternative, this topic was dismissed from consideration in this CLR/EA. The BSHD sent a scoping letter to the U.S. Fish and Wildlife Service (Service) on December 12, 2016. The Service confirmed the species list for the EA in an email response on January 12, 2017 (Attachment B). The Service sent a follow up email on March 14, 2017 stating that they will discuss relevant

conservation measures with the park once they have more specific information about the project, but they do not expect any issues based on the current information they have.

(10) Whether the action threatens a violation of Federal, State, or local law or requirements imposed for the protection of the environment.

The selected alternative will not violate any Federal, State, or local laws or requirements imposed for the protection of the environment.

PUBLIC INVOLVEMENT

As part of public and agency scoping, BSHD staff sent a scoping letter to the U.S. Fish and Wildlife Service (USFWS) and Missouri State Historic Preservation Office (SHPO) on December 12 and December 13, 2016, respectively, to solicit input on issues of concern. The SHPO responded in a letter dated January 25, 2017 stating that they are in support of the overall goals and treatment plans of the CLR/EA and that they look forward to ongoing consultation as the plans are implemented. The USFWS response is described above under Criterion 9. These letters can be found in Attachment B.

The CLR/EA was made available for public review and comment on the park website and the NPS Planning, Environment, and Public Comment website during a 30-day period beginning January 16, 2017. No public comments were received on the CLR/EA.

AMERICAN INDIAN CONSULTATION

As part of tribal consultation, scoping letters were sent to federally recognized tribes and organizations on July 13, 2016 soliciting informal consultation on the CLR/EA. The tribes and governments that received letters are:

- Cherokee Nation (Tahlequah, Oklahoma)
- Delaware Nation (Anadarko, Oklahoma)
- Delaware Tribe of Indians (Bartlesville, Oklahoma)
- Eastern Shawnee Tribe of Oklahoma (Seneca, Missouri)
- Osage Nation (Pawhuska, Oklahoma)
- United Keetoowah Band of Cherokee Indians (Tahlequah, Oklahoma)

The BSHD sent copies of the Public Review Draft of the CLR/EA and solicited further comments from the same set of American Indian tribes on December 13, 2016. No comments were received by the tribes.

FINDING OF NO SIGNIFICANT IMPACT

Based on the review of the facts and analysis contained in the CLR/EA, the NPS has selected the action alternative for implementing the CLR/EA at the BSHD within OZAR. The selected alternative will not have a significant impact either by itself or in consideration of cumulative impacts. Accordingly, the requirements of NEPA, regulations promulgated by the CEQ, regulations promulgated by the Department of the Interior, and provisions of Director's Order 12 and the 2015 *National Park Service NEPA Handbook* have been fulfilled.

It is my determination that the selected alternative does not constitute a major federal action significantly affecting the quality of the human environment. Therefore, in accordance with the National Environmental Policy Act of 1969 and the CEQ regulations (40 CFR 1508 et. seq.), an environmental impact statement is not required and will not be prepared for implementation of the selected alternative.

Recommended: Laurence E. Johnson — 6/12/17

Larry Johnson, Superintendent — Date

Approved: [signature] — 6-5-2017

Cam Sholly, Regional Director
Midwest Region — Date

REFERENCES

National Park Service (NPS). 2015. NEPA Handbook. Available at: http://www.nps.gov/applications/npspolicy/DOrders.cfm.

National Park Service (NPS). 2016. Big Spring Historic District Ozark National Scenic Riverways Cultural Landscape Report and Environmental Assessment. Public Review Draft. December 13.

Chapter 1. Introduction

Introduction

This document presents the Cultural Landscape Report and Environmental Assessment (CLR/EA) for Big Spring Historic District (BSHD) within the Ozark National Scenic Riverways (OZAR) in southeast Missouri.

This CLR/EA presents detailed documentation of Big Spring Historic District's historical development, an evaluation of existing condition, analysis of landscape characteristics, and an assessment of contributing features and integrity.

This work builds upon the numerous studies, investigations and documents that already exist for Big Spring Historic District. These include the General Management Plan (GMP) / Environmental Impact Statement (EIS), 2016 Cultural Landscape Inventory (2016 CLI), the 1981 National Register of Historic Places (NRHP) nomination, Historic Structures Report (HSR) for the Dining Lodge and Help's Quarters (Dining Lodge) (HS-422), and several other plans and resource reports.

The National Park Service (NPS) uses the CLR/EA as the primary treatment document for significant cultural landscapes. It is also a primary document used to guide management and stewardship of BSHD. The intent of the CLR/EA is to establish a philosophy and a framework to guide treatment to enhance resource condition and visitor experience, support interpretive programming, and streamline compliance for implementation.

Study Area and Landscape Character Areas

The Big Spring Historic District is a component of Ozark National Scenic Riverways. It is located in the OZAR's southeast corner, in Carter County, Missouri, four miles south of the town of Van Buren. The study area encompasses the site of the former Big Spring State Park initially built by the Missouri State Park Board beginning in 1924, then intensely developed by the Civilian Conservation Corps (CCC) between 1933 and 1937 and the Works Progress Administration (WPA) between 1938 and 1941.

The study area encompasses the acreage of Big Spring Historic District as designated in the NRHP, and expands the area to 5,580 acres to include all components of the CCC/WPA designed landscape. The BSHD is in the Ozark Highlands, set adjacent to the Current River. The study area is surrounded by steep forested hills of oak and hickory, laced with streams and rivers. Manicured lawn grasses occur in the level areas. The BSHD's location on Big Spring branch and the Current River, with Big Spring as the main attraction, is a popular destination. It continues to draw a wide range of visitors who participate in recreational activities from hiking, camping, river recreation, picnicking, to scenic drives and interpretive programs.

The boundaries of BSHD extend from the Entrance Building (HS-432) on Peavine Road / State Highway 103 east to the Current River; north to Peavine Pavilion (HS-428), inclusive of Big Spring and the CCC-built system of Big Spring Stone Dikes (HS-711); and south along State Highway Z, inclusive of Chubb Hollow and the May/Winters Quarters (HS-444). In the center is the historic core, the most intensely developed area that includes the Dining Lodge (HS-422), cabins, and maintenance facilities. On the

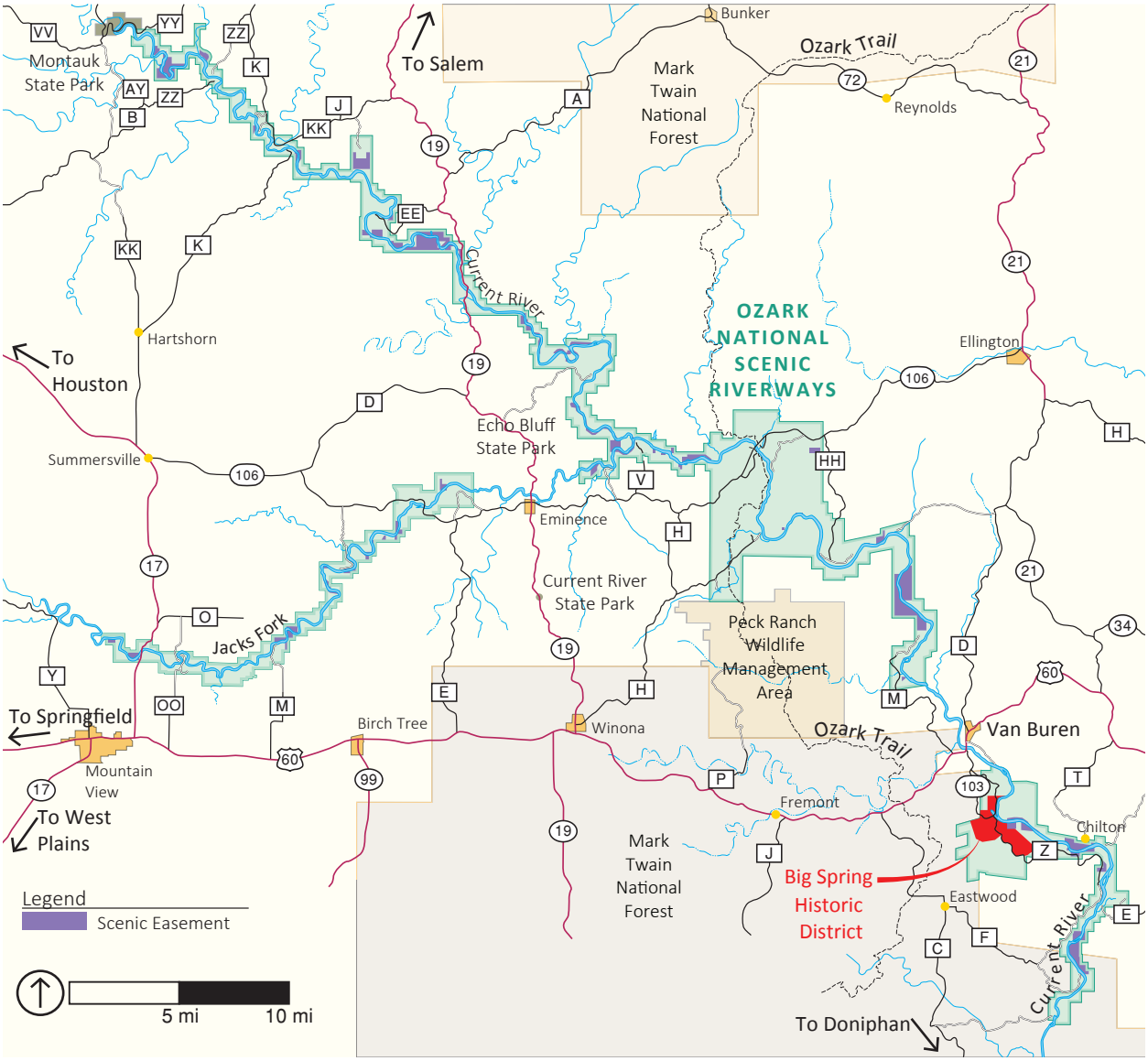


Figure 1-1. The Big Spring Historic District is a component of Ozark National Scenic Riverways. The study area was initially developed by the Missouri State Park Board beginning in 1924, and was extensively expanded by the CCC and WPA between 1933 and 1941. (Mundus Bishop, adapted from NPS OZAR Map)

west is the site of the CCC Dump, consisting of several acres within a broad wooded valley. Most of the southern part of the study area, extending south past Fire Tower Trail, consists of rugged, steep forested hillsides. In this area the CCC established their camp, and built a network of trails and primitive roads supporting forest management and fire suppression. Portions of the study area are located within a proposed federally-designated Wilderness Area plus Missouri state-designated "Big Spring Pines Natural Area" and "Big Springs Natural Area".

The Big Spring Historic District is an outstanding example of CCC and WPA Rustic style architecture and Naturalistic landscape design. The study area is significant for its sensitive design and construction that epitomizes the ideals of subordinating development to the natural and scenic character of the environment. For the study area, this resulted in minimal disruption of natural topography and a blending of man-made structures with natural surroundings. The natural landscape outside the intensive-use areas was preserved and set aside for wildlife and recreation. A cohesive aesthetic was attained throughout the study area through the use of on-site natural materials, expert hand craftsmanship and local construction techniques, and designs that adapted to the local climate. Subsequent development has been fairly minimal, allowing the historic character and rich narrative of Big Spring Historic District to remain intact.

The significance of the Big Spring Historic District was recognized by its listing in the NRHP on M 17, 1981. It is significant in the areas of architecture, landscape architecture, and conservation, with two distinct periods of significance—1925 to 1927 and 1933 to 1937. Initially defined as a 315 acre rectangular area that included Big Spring and the cluster of historic buildings and infrastructure built to facilitate recreation, the NRHP nomination expanded the historic district to 3,456 acres. The 2016 CLI expanded the period of significance and modified the acreage and boundary of the BSHD to holistically address the continuum of development that began with its establishment, and continued through state ownership and management. The proposed period of significance is 1924 to 1969, ending with the acquisition of the state park by the NPS. The proposed boundary eliminates the acreage east of the Current River as no park development occurred on the eastern side, and expands the boundary to include miles of trails built by the CCC, and the former state wildlife refuge and associated structures. In the 2016 CLI the acreage of the proposed historic district is expanded to 3,966 acres.[1.1]

The Big Spring Historic District includes many historic and contributing buildings, structures, and other features. These include a county road system; an extensive trail network; an intensely developed core development area with the Entrance Building (HS-432), State Park Museum Building (Museum) (HS-420), Pump House (HS-443), Dining Lodge (HS-422), Latrine (HS-423), and fifteen cabins; the developed area of Big Spring; three pavilion sites (Chubb Hollow Open Shelter House (HS-427), Big Spring Pavilion (HS-425), and Peavine Pavilion (HS-428)); the sites of the largely non-extant CCC

1.1 *Big Spring Historic District, Cultural Landscapes Inventory,* National Park Service, U.S. Department of the Interior, 2016. This area does contain the remnant rail-bed of the Atlantic and Pacific Railroad, which transported CCC workers and supplies to Big Spring; however, it is more accurate to classify that area as an adjacent contributing landscape rather than as part of Big Spring. Also, none of the former Big Spring State Park property north of the Peavine Pavilion is included because comprehensive redevelopment undertaken by the NPS in the 1970s completely changed the character and function of that portion of the landscape. It was converted from an airfield to a campground.

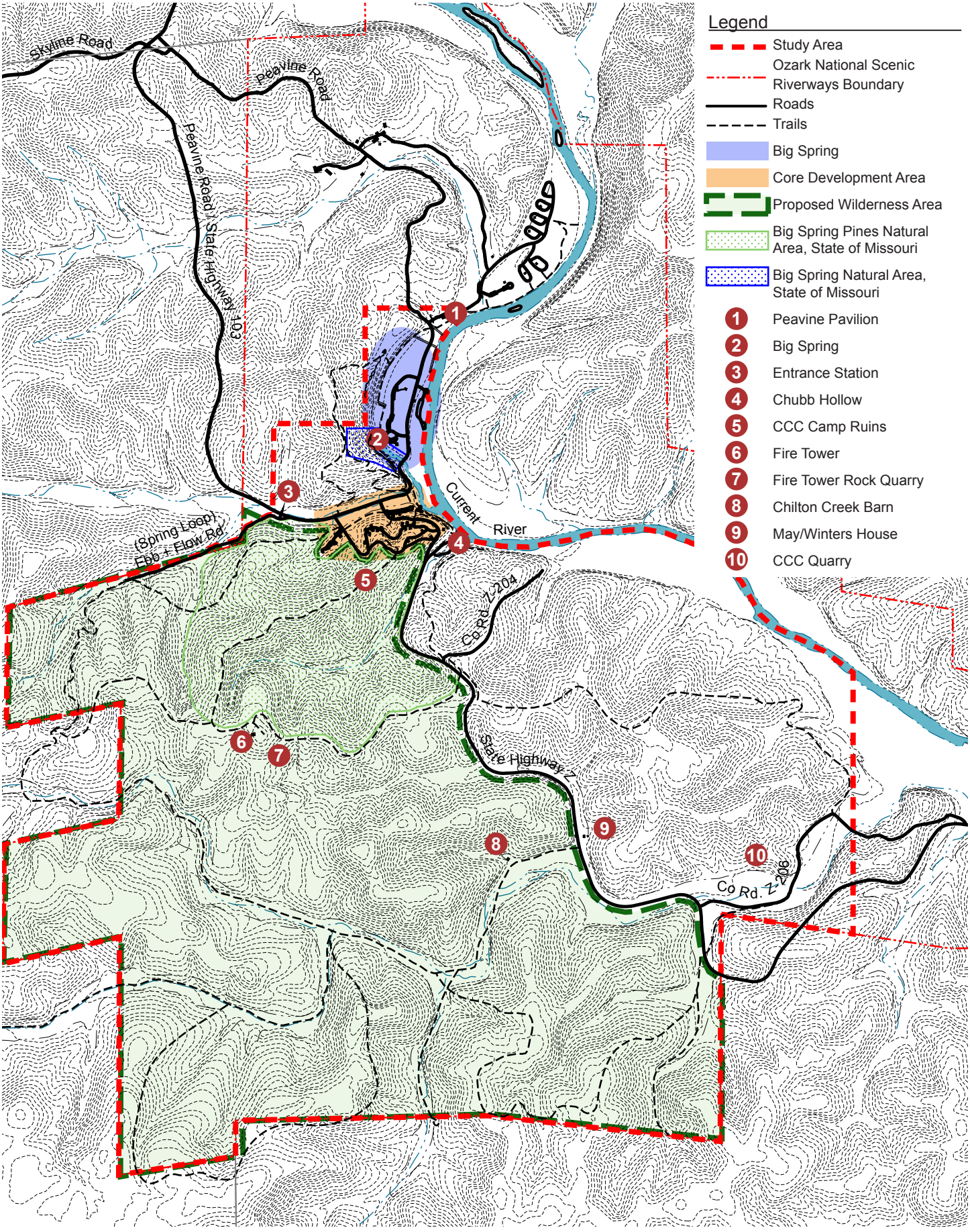


Figure 1-2. The Study Area includes the broader cultural landscape, including natural systems, topography, and roads and trails. {Topography compiled from 2016 USGS mapping, and GIS Data provided by NPS.} (Mundus Bishop 2015).

Camp Ruins and CCC Rock Quarry (HS-700); the CCC Dump; the historic wildlife game refuge; and the Fire Tower / Lookout Tower (HS-1404).

The cultural landscape is described in three sections: the study area, the core development area, and Big Spring. This organization allows for an overall description of the entire 3,966 acreage with detailed descriptions for the areas of the most intensely developed portions of Big Spring Historic District. Two landscape character areas, the core development area and Big Spring, have features and relationships that distinguish them from the remainder of the BSHD.

Study Area

The study area includes the broader cultural landscape of the hills, river, roads, trails, and features located outside of the two landscape character areas. The two CCC Quarries, the CCC Camp Ruins, the CCC Dump, the Fire Tower / Lookout Tower (HS-1404), and Chilton Creek Barn (HS-467), May / Winter Quarters (HS-444), and Peavine Pavilion (HS-428) are included in this section. Key landscape characteristics of the study area include spatial organization, topography, land use, circulation, and natural systems.

Core Development Landscape Character Area

The core development landscape character area (core development area) represents the area within Big Spring Historic District most intensely developed by the CCC and WPA between 1933 and 1941. Built as an active visitor and recreational use area, major facilities include the Entrance Building (HS-432), Latrine (HS-423), Museum (HS-420), Pump House (HS-443), Dining Lodge (HS-422), and fifteen cabins and recreational spaces. The core development area generally extends from the Entrance Building on the west to the Current River on the east, and from the Latrine on the north to the hillside where the cabins are clustered on the south. Key landscape characteristics include cluster arrangement, topography, circulation, vegetation, and spatial relationships between use areas. The associated network of county roads and CCC-built trails, and the Maintenance Area are included, as is Chubb Hollow.

Big Spring Landscape Character Area

The Big Spring landscape character area includes the natural formation of Big Spring and its immediate surroundings. One of the largest natural springs in the United States, Big Spring is the signature feature of this character area. The spring is surrounded by natural ridges and rock outcroppings on the west and the Current River to the east. The spring has been a recreational draw for visitors since the early 1900s. The Big Spring landscape character area generally extends from the vehicular bridge across Big Spring branch north to the northern limits of the early 20th century slough and the CCC-built Big Spring Stone Dikes (HS-711). Key characteristics include roads and trails, structures, recreational spaces, and plantings designed and built by the CCC in the 1930s.

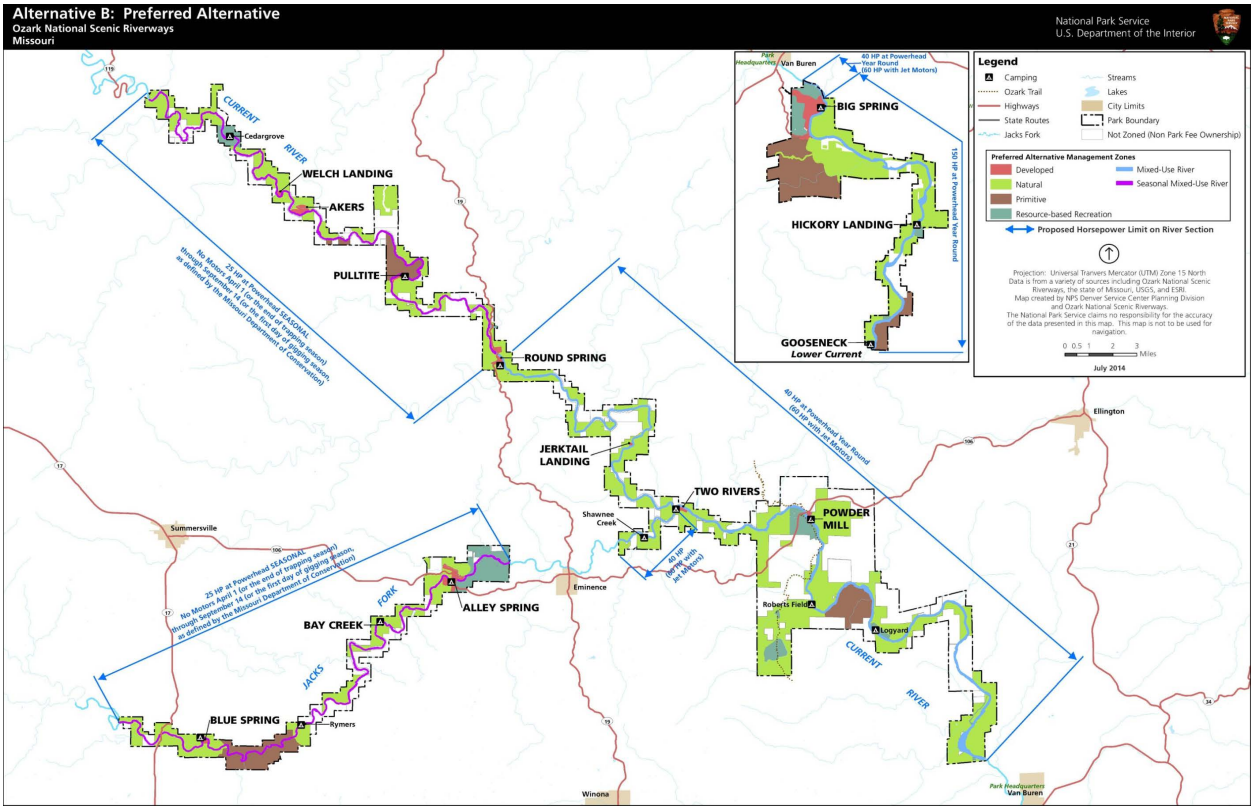


Figure 1-3. The Preferred Alternative Management Zones from the GMP identify three land use distinctions at BSHD to include Developed areas; Resource-based Recreation areas; and Natural areas. (GMP, 2015)

Project Purpose and Need

The purpose of this CLR/EA is to provide guidance for managing the Big Spring Historic District as a significant cultural landscape and important recreational area. This CLR/EA will provide the primary resource documentation and comprehensive guidance relevant to ultimate use and treatment of the Big Spring Historic District cultural landscape. The project will provide guidance on preserving the historic character and contributing features of the BSHD cultural landscape as it developed between 1924 and 1969. It will provide long-term resource protection, sustainable cyclic maintenance, and visitor understanding and enjoyment.

There are a number of development projects in the planning stages proposed for the study area in the coming years. The CLR/EA will help guide the planning and compliance process for potential construction projects and assist in ensuring any developments fit into the more holistic goals of historic preservation and public interpretation of Big Spring Historic District. The CLR/EA will also inform future projects in the study area that may have an impact on historic resources and the cultural landscape.

The proposed project is needed to document the changes to the cultural landscape over time, to provide holistic and integrated guidance for the long-term preservation and stewardship of the resources of the Big Spring Historic District, and to ensure that these projects have no adverse effect on historic resources within the district. The project is needed to supplement baseline documentation, and to generate needed historical, archeological and natural resource data.

The CLR/EA is needed to fulfill a critical role in the planning and compliance process for large scale projects and help ensure that any developments would fit into more holistic goals of historic preservation and public interpretation, consistent with the GMP. The CLR/EA is needed to determine the best mix of resource protection and visitor experience, based on the following:

- The enabling legislation of Ozark National Scenic Riverways;
- The range of public expectations and concerns;
- The natural and cultural resources in Big Spring Historic District;
- The impacts of the alternatives on resources within Big Spring Historic District and socioeconomic conditions within and outside of BSHD;
- Impacts on visitor use and experience;
- Improvement of the quality and diversity of visitor use;
- Long-term budget considerations and costs;
- Federally proposed Wilderness areas, as recommended by the GMP.[1.2]

1.2 *Ozark National Scenic Riverways, General Management Plan Summary*. (National Park Service, U.S. Department of the Interior: 2015).

Project Objectives

This CLR/EA addresses the following objectives.

- Augment the existing 2016 CLI site history by addressing any remaining research questions and creating a series of historic period plans. Confirm the boundary of the study area, and the period of significance for Big Spring Historic District in collaboration with the 2016 CLI.
- Document and evaluate the existing condition of the Big Spring Historic District cultural landscape to identify the qualities and features that comprise its sense of place.
- Address areas to be avoided or treatments for mitigating impacts from pending construction projects.
- Provide OZAR with Big Spring Historic District data for populating a GIS-based cultural landscape database, also for constructing a facilities hierarchy in the NPS Facility Management Software System (FMSS) database.
- Explore concepts for how the NPS can provide a cohesive, unified visitor experience at Big Spring Historic District, and to identify opportunities for accommodating universal access at key visitor facilities.
- Advise the future interpretive use of the study area, and examine the best ways for visitors to access the site with minimal resource impact.
- Determine a desired landscape condition and provide stewardship guidance for protecting the character and ambiance of the Big Spring Historic District cultural landscape.
- Provide parameters to guide concession operations within the Big Spring Historic District.

Methodology

The CLR/EA was conducted at a thorough level of investigation and documentation for historical research, existing condition assessment, and landscape analysis. The thorough level research methodology, as defined by the NPS, focused on the use of select documentation of known and presumed relevance, including primary and secondary sources that are readily available.[1.3]

The existing condition investigation was conducted according to best practices. A review of documentation included information from OZAR, the National Park Service's Midwest Regional Office (NPS-MWRO), and the National Park Service's Midwest Archeological Center (NPS-MWAC). This review included planning documents, administrative reports, technical reports, natural resource studies, and correspondence. Concurrent with this CLR/EA, a CLI has been prepared for Big Spring Historic District. The 2016 CLI was consulted for consistency as part of the CLR/EA.

Review of historical documentation included the 1981 NRHP nomination for Big Spring Historic District, historic drawings and photographs, and correspondence available from primary and secondary sources. Background data provided by the NPS was used to prepare CLR/EA drawings and illustrations. This data included GIS files and historic drawings, which were supplemented with field observations and measurements. Site investigations in October 2015 documented existing conditions. Archeological research focused on review

1.3 Robert R. Page, Cathy A. Gilbert and Susan A. Dolan. *A Guide to Cultural Landscape Reports: Contents, Processes and Techniques*. (Washington D.C.: National Park Service, 1998).

of previous archeological investigations. The CLR/EA did not include any additional archeological investigations.

Park Purpose and Significance

The enabling legislation states that OZAR was established in 1964 for "the purpose of conserving and interpreting unique scenic and other natural values and objects of historic interest" specifically including "the lands composing Big Springs, Alley Springs, and Round Spring State Parks." Big Spring State Park was established in 1924 to provide public access to and amenities at Big Spring and the Current River. Today, Big Spring Historic District preserves and interprets the natural resource of Big Spring, the CCC-developed amenities, and serves as an important recreational destination.

Big Spring Historic District is significant for its natural resources including the fresh water spring of Big Spring, one of the largest springs in the United States by volume. The spring, Big Spring branch, and the Current River are popular attractions and an extensive trail network provides access to natural areas.

The Big Spring Historic District is significant for the Naturalistic style of landscape design and Rustic style of architecture that is associated with the 1930's era of public works projects undertaken during the Great Depression. The Rustic style of architecture harmonizes buildings with the natural environment. The style is characterized by local materials, hand craftsmanship and details determined by the natural qualities of the site. In Naturalistic landscape design, emphasis is placed on the natural landscape with new features designed to be sympathetic and subordinate to the natural features.[1.4]

Big Spring Historic District was listed in the NRHP in 1981, and was one of the oldest and most popular national park areas in Missouri.

Management

The study area encompasses the majority of the Big Spring Historic District, owned and managed by the NPS as a park unit of the OZAR. The management of OZAR is primarily guided by the General Management Plan.

The GMP envisions enhanced opportunities for visitors to discover the natural wonders and Ozark heritage, while maintaining a mix of traditional recreational and commercial activities. Emphasis is placed on increasing opportunities for visitor education and connections to natural resources and cultural landscapes. The GMP provides for a mix of independent and guided traditional activities such as boating, floating, and hiking.

The GMP recommends the restoration of key ecosystem features, and preservation of cultural resources. It applies a comprehensive Riverway-wide approach, which identifies specific management zones. For Big Spring Historic District, these zones include: 1) Developed - to accommodate visitor services and recreation uses including administrative services; 2) Resource-based Recreation – to accommodate moderate levels of visitor use including recreational, natural and interpretive opportunities; 3) Natural areas – to support the ecological integrity of the OZAR, and where low-impact activities may occur; 4) Primitive areas – to retain their wild, natural character with some opportunities to experience the backcountry; and 5) Mixed-use - along the river, to allow motorized and non-motorized watercraft.[1.5]

1.4 Linda Flint McClelland. Building the National Parks: Historic Landscape Design and Construction. (Baltimore MD: The Johns Hopkins University Press, 1998), 243.

1.5 *Ozark National Scenic Riverways, General Management Plan Summary*. (National Park Service, U.S. Department of the Interior: 2015), 45.

The GMP recommends a wilderness designation for 3,430 out of 3,966 acres within the Big Spring Wilderness Study Area. The entire Big Spring Wilderness Study Area would be zoned Primitive. Within this area, the GMP retains the Fire Tower / Lookout Tower (HS-1404), Dump Incinerator (HS-432B), Chilton Creek Barn (HS-467), and CCC Camp Ruins, and removes the NPS training range with this area to be restored as a natural area. The GMP eliminates administrative vehicular use of the roads to the Fire Tower / Lookout Tower, NPS training range, and Chilton Creek Barn, but allows for these to be evaluated to determine the feasibility of restoring them to a CCC era condition for possible use as hiking trails.[1.6]

Under the GMP, the Current River would continue to be open to non-motorized watercraft year round. Motorized watercraft would be permitted from Van Buren to Big Spring year round, changing the existing regulation of engines rated 40 horsepower or less at the powerhead, to allow the use of engines rated 60 horsepower as long as they are equipped with a jet unit.[1.7] Boats and swimming at Big Spring and the Big Spring branch would not be permitted. Below the Big Spring branch, the Current River would continue to be open to motorized watercraft year round, limited to engines rated 150 horsepower or less at the powerhead.[1.8]

Management Issues

The following summarizes management issues identified in consultation with park staff and through research and evaluation of the cultural landscape. These issues relate to existing features, structures, or associated operations or maintenance that make it difficult for Big Spring Historic District to realize the vision and goals for the study area. Treatment recommendations assist in addressing these management issues.

Protection of Water Quality

Cooperation is needed between the NPS and adjacent land stewards in the Current and Jacks Fork watersheds to protect water quality and limit erosion. There is a need to control against accelerated runoff and surface water, and prevent soil erosion, thus helping maintain clarity of the river water.

Viewshed

Cooperation is needed to protect the scenic qualities of the river system and all waterbodies, particularly in protecting views and vegetation, as the riparian edge and scenic qualities make boating the river system attractive to visitors.

Vegetation Management

Some invasive plant species impact the study area, including garlic mustard (*Alliaria petiolata*), Japanese stiltgrass (*Microsteguim vimineum*), and non-native tree species.[1.9] Plant diversity is somewhat limited within Big Spring Historic District, where the majority of trees are of a similar age, and the mix of species is not representative of the historic forest environment. Big Spring Historic District does not have a current Vegetation Management Plan. Recommendations for forest management, including tree removals, plantings, etc., related to the historic character of Big Spring Historic District are needed.[1.10] A coordinated wildlife management plan is also needed, as is a plan for protection of threatened and endangered wildlife species.

1.6 *GMP,* 77.
1.7 *GMP,* 73.
1.8 *GMP,* 73.

1.9 Consultation with OZAR staff, CLR/EA Work Session November 2015.
1.10 Vegetation management goals related to Big Spring Natural Area and Big Spring Pines Natural Area, as well as long-term monitoring plots (e.g. ECS, USFS NCFES, and possible fire monitoring plots), would also need to be incorporated into a potential vegetation management plan.

Architectural Barriers Act (ABA) Accessibility
Many buildings and structures within the BSHD are not universally accessible, either due to a lack of connecting walkways, steep gradients, or issues related to the building such as door width. The Dining Lodge (HS-422) has an accessible entrance at the back door, but not to the front entry. None of the cabins are accessible, although vehicular and pedestrian access to several of the cabins could be made universally accessible. It is desirable for the Museum (HS-420), Dining Lodge, and a certain number of cabins and trails be universally accessible. This CLR/EA will assist with site access recommendations. A Historic Structures Report or an Accessibility Study will be needed to address accessibility within the buildings and cabins.

Building Repair and Maintenance
Big Spring Historic District's current strategy for maintaining buildings and structures is through routine daily maintenance such as leaf-blowing, clean-up, and minor repairs. The park utilizes prescribed burns in accordance with the park burn plan, and burn units include areas around the cabins to control vegetation. Additional guidance is needed to protect buildings and structures from elements, repair storm and flood damage, and ensure security and fire protection. The 1996 HSR identified deficiencies in the Dining Lodge (HS-422), and provided guidance for preservation and repair of the historic building. Additional HSRs are needed for the remaining historic buildings and the cabins, as this would greatly assist in care of these buildings.

Concession Challenges
Traditionally, the Dining Lodge (HS-422) and cabins have been operated through a concession agreement, which has included a restaurant, lodging and boating access to the Current River. At this time, the concession operation has been inactive since early 2014, and there are no agreements currently under consideration. The park has identified a number of needed upgrades to utilities, buildings, and the landscape. These improvements are needed to preserve historic resources, and for continual operation, but it may be four to five years before the facilities will be ready for a new concessionaire. The park would like to open boat service again, and possibly have this as a required service of the new concessionaire.

Stormwater / Flooding
Sensitive natural, cultural, and archeological resources are in need of protection from erosion and environmental degradation. The Current River frequently floods, making stormwater runoff an issue in some places, such as the Maintenance Area where storm water runs through the middle of the site. The Latrine (HS-423) has been flooded several times, submerged under five to seven feet of water. While river floods are natural, and not due to increased development upstream, flooding of the historic buildings and structures is an issue. Gabions were installed in the early 1980s and 1990s to restore an eroded bank in the vicinity of Big Spring Stone Dike #3 (HS-711) but no repairs to the Big Spring Stone Dikes were undertaken to protect the historic features against flooding.

Balance Resource Protection and Recreation
The Current River is a popular boating area, with boat ramps and loading areas often used by the local community and visitors to the region. This type of recreational use needs to be planned in concert with protection of natural and cultural resources to protect them from pollution and overuse.

Archeological Resources
The study area includes significant prehistoric and historic archeological resources. The Chubb Hollow Site is listed in the NRHP for its association with aboriginal occupation.

The site is threatened by erosion and subsurface resources have been damaged by 20th century additions to the landscape. Recommendations are needed to protect the prehistoric and historic resources.

Current Projects
Several projects are planned within the study area. Current Project Management Information System (PMIS) projects include replacing the bridge across Big Spring branch; utility upgrades; and renovation of the Dining Lodge (HS-422), cabins, and retaining walls.

- The utility project (to update and bury lines) is the first priority, and is in the design phase. It will tie into the Dining Lodge and Cabins. Construction for utilities will begin in 2016. There is an existing electric corridor through the study area, with 5400 volt power boxes and poles through the core development area.
- The bridge replacement across Big Spring branch is currently being designed. The preferred alternative is for a concrete bridge to replace the existing wooden bridge. The bridge project is led by Federal Highway Administration; the Environmental Assessment for this construction is currently underway.
- The Dining Lodge project is not yet funded.

Scoping Process for this CLR/EA

Scoping is an early and open process to determine the breadth of issues and alternatives to be addressed in an environmental assessment. Park staff and resource professionals of the NPS-MWRO conducted internal scoping. This interdisciplinary process defined the purpose and need, identified potential actions to address the need, determined the likely issues and impact topics, and identified the relationship of the proposed action to other planning efforts at Big Spring Historic District.

As part of tribal consultation, scoping letters were sent to federally recognized tribes for consultation with OZAR on July 13, 2016 to determine if any ethnographic or other resources are in the project area and to inquire whether local tribes wanted to be involved in the environmental compliance process. The tribes and governments that received letters are:

- Cherokee Nation (Tahlequah, Oklahoma)
- Delaware Nation (Anadarko, Oklahoma)
- Delaware Tribe of Indians (Bartlesville, Oklahoma)
- Eastern Shawnee Tribe of Oklahoma (Seneca, Missouri)
- Osage Nation (Pawhuska, Oklahoma)
- United Keetoowah Band of Cherokee Indians (Tahlequah, Oklahoma)

The National Historic Preservation Act (NHPA)((16 USC 470 et seq.) requires the consideration of impacts on cultural resources, either listed in or eligible to be listed in, the NRHP. Park staff sent a scoping letter to the Missouri State Historic Preservation Office (SHPO) on July 13, 2016 to solicit input on issues of concern. The Missouri SHPO responded to the scoping letter in a letter dated January 25, 2017 stating support of the CLR/EA goals and

recommended overall treatment plans. OZAR will continue to consult with SHPO as part of ongoing consultation as the plans are implemented.

The park also sent a scoping letter on December 12, 2016 to the U.S. Fish and Wildlife Service (USFWS) to solicit input on issues of concern. The USFWS responded to the scoping letter in an email dated January 12, 2017 concurring with the species list identified in the EA and the NPS determination that the proposed CLR/EA would have no effect on listed or candidate species.

Issues and Impact Topics

An important part of the decision-making process is seeking to understand the consequences of making one decision over another. This CLR/EA identifies the anticipated impacts of possible actions on certain resources, Big Spring Historic District visitors, and neighbors. The impacts are organized by topic, such as "cultural resources" or "visual resources." Impact topics serve to focus the environmental analysis and ensure the relevance of impact evaluation.

Impact topics were developed from the questions and comments brought forth during scoping; site conditions; staff knowledge of resources; and any laws, regulations, policies, or orders applicable to the project. Some topics were dismissed from detailed analysis because the resource is not present in the study area or because the action alternatives would either have no effect on the impact topic or the effects would be minimal. Some impact topics were retained even though the effects of the alternatives would be minimal because the impact topic is a particularly sensitive resource or was identified as an important topic in scoping.

Impact Topics Selected for Analysis

The issues identified during scoping that are evaluated in this CLR/EA are potential effects on the following resources:

- Cultural resources – cultural landscapes, historic structures, and historic and prehistoric archeological resources
- Vegetation, including threatened and endangered species
- Visitor use, interpretation, and recreation
- Visual resources
- Wilderness and Natural Areas

Table 1 discusses the retained impact topics; the reasons for retaining the topic; and relevant laws, regulations, and policies.

Impact Topics Dismissed from Further Consideration

The following impact topics or issues were eliminated from consideration because either the resources are not present in the areas proposed for management implementation or because the effects, if any, would be minimal.

Geology and Paleontology

The NPS Organic Act and NPS Management Policies 2006 (NPS 2006) direct the NPS to preserve and protect geologic resources, maintain natural geologic processes, and preserve and protect paleontologic resources.

Although OZAR contains important geologic and paleontologic resources, the proposed action and alternatives would have little to no impact on site geology or paleontology because no extensive excavation is proposed. As a result, the action alternatives would have local short-term and long-term negligible adverse effects on geologic and paleontologic resources in the project area. Because impacts on geologic and paleontologic resources would be no more than negligible under the proposed action alternatives, this impact topic was dismissed from further analysis.

Wetlands

The Clean Water Act; Executive Order 11990, "Wetland Protection"; NPS 2006; and Director's Order 77-1 direct that water resources and wetlands be protected and that wetlands and wetland functions and values be preserved. Although wetlands are likely present within a small section of the study area along the Current River, the proposed treatment recommendations under the action alternatives would not occur within wetlands. Because the proposed recommendations under the action alternatives would have a minimal impact on wetlands, wetlands was dismissed as an impact topic in this CLR/EA.

Floodplains

EO 11988, "Floodplain Management" requires an examination of impacts on floodplains and potential risks involved in placing facilities within floodplains. NPS Management Policies 2006 and DO 77-2: Floodplain Management provides guidelines for proposed actions in floodplains. Floodplains have been identified in the study area; however, the action alternatives do not propose work activities or structures in a floodplain. No work is proposed within the floodplain with the exception of rehabilitation of the Big Spring Stone Dike (HS-711) system. Proposed rehabilitation of the Big Spring Stone Dike system includes the removal of heavy or overgrown vegetation on the Big Spring Stone Dikes so they can reflect the historic setting; however, the action alternative does not propose work activities that would affect the topography of the floodplain or propose new structures in a floodplain. Because there would be no impact on floodplains under any alternative, floodplains was dismissed as an impact topic in this CLR/EA.

Indian Trust Resources

Secretarial Order 3175 requires that any anticipated impacts on Indian trust resources from a proposed project or action by Department of the Interior agencies be explicitly addressed in environmental documents. The federal Indian trust responsibility is a legally enforceable fiduciary obligation on the part of the United States to protect tribal lands, assets, resources, and treaty rights. The order represents a duty to carry out the mandates of federal law with respect to American Indian and Alaska Native tribes. None of the lands of the park are trust resources according to this definition; therefore, Indian

Table 1. Impact Topics Retained and Relevant Laws, Regulations, and Policies

Impact Topic	Reasons for Retaining Impact Topic	Relevant Laws, Regulations, and Policies
Cultural landscapes, historic structures, and historic and prehistoric archeological resources	The treatment recommendations for cultural landscapes are key issues of this CLR/EA. Because implementing one or more of the alternatives may result in changes to cultural landscapes and historic structures and because ground disturbances may affect archeological sites (i.e., disturb buried artifacts), this topic was retained for further analysis.	Sections 106 and 110 of the NHPA; ACHP implementing regulations regarding the "Protection of Historic Properties" (36 CFR 800); DO-28: Cultural Resource Management Guidelines; NPS Management Policies 2006; Secretary of the Interior's Standards for the Treatment of Historic Properties; NEPA; Secretary of the Interior's Standards for the Treatment of Historic Properties with Guidelines for the Treatment of Cultural Landscapes (1996); Secretary of the Interior's Standards and Guidelines for Archeology and Historic Preservation; DO-28A: Archeology
Vegetation	The treatment recommendations could affect vegetation communities through clearing and thinning activities.	NPS Organic Act; NPS Management Policies 2006; Resource Management Guidelines (NPS-77); Federal Noxious Weed Control Act; EO 13112, "Invasive Species"
Visitor use, interpretation, and recreation	The action alternatives could affect overall visitor understanding of the Big Spring Historic District, including interpretive and educational opportunities, and could also affect recreational opportunities; therefore, this topic was retained for further analysis.	NPS Organic Act; NPS Management Policies 2006
Visual resources	Modifications to the cultural landscape proposed in the action alternatives may alter the views for Big Spring Historic District visitors; therefore, this topic was retained for further analysis.	NPS Management Policies 2006
Wilderness	The CLR/EA recommendations may include work in proposed wilderness areas and could affect wilderness characteristics; therefore, this topic was retained for further analysis.	NPS Management Policies 2006; DO-41: Wilderness Stewardship; Wilderness Act (16 USC 1133(b))

trust resources was dismissed as an impact topic in this CLR/EA.

Environmental Justice

EO 12898, "General Actions to Address Environmental Justice in Minority Populations and Low-Income Populations" requires all federal agencies to incorporate environmental justice into their missions by identifying and addressing the disproportionately high and/or adverse human health or environmental effects of their programs and policies on minorities and low-income populations and communities. According to the Environmental Protection Agency, environmental justice is the …fair treatment and meaningful involvement of all people, regardless of race, color, national origin, or income, with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies. Minority populations make up approximately 5% of the population in Carter County.[1.11] About 24% of the residents live below the poverty level, compared with 15.5% statewide. Although minority and low-income populations are present in Carter County, no actions in the alternatives would have disproportionate health or environmental effects on these populations or communities as defined in the Environmental Protection Agency's "Draft Environmental Justice Guidance"; therefore, environmental justice was dismissed as an impact topic in this CLR/EA.

Wildlife and Threatened and Endangered Species

Wildlife

OZAR contains animals common to both eastern deciduous forests and prairies to the west. Common wildlife observed in OZAR includes several species including small mammals, amphibians, reptiles, and birds. Because the proposed recommendations under the action alternatives would result in minor thinning of vegetation and would result in a beneficial effect on the overall health of forests and vegetation communities, the recommendations would have a slight adverse effect on wildlife and wildlife habitat. Because impacts on habitat would be no more than negligible under the proposed action alternatives, this impact topic was dismissed from further analysis.

Special Status Species

Special status species include species listed as threatened or endangered under the Endangered Species Act (ESA), species protected under other federal regulations, and other species considered sensitive by the OZAR and the state of Missouri. Several federally threatened or endangered species have the potential to occur in the study area. The proposed action alternatives would not occur in habitat for these species and/or would not result in any adverse impacts to these species and, therefore, it is unlikely species would be impacted by proposed activities. Because no special status species would be adversely impacted by the action alternatives, this topic was dismissed from consideration in this CLR/EA.

Special Status Plant Species

Three federally listed threatened or endangered plant species have the potential to occur within the area. These species have not been recorded in the study area, and the Big Spring Historic District does not provide suitable habitat for these species. Because the proposed recommendations under the action alternative would not affect suitable habitat for threatened and endangered plant species, this topic was dismissed from analysis.

Socioeconomics

The town of Van Buren, Missouri is located in the southeastern Missouri Ozarks. The town,

1.11 "U.S. Census Bureau. 2014. Quick Facts – Carter County, Missouri." Accessed: May 24, 2016. http://www.census.gov/quickfacts/table/PST045215/29035.

with a population of about 820, serves as the county seat of Carter County. The town also serves as a destination for recreational use of the Current River, as well as viewing Big Spring.[1.12] The local economy in Van Buren is based on tourism and service-oriented businesses including several lodging options, restaurants, outfitters, and retail. Under the no action alternative, current levels of economic activity may be affected by closure of the historic cabins and lodge, and other closures or detours during construction activities. Impacts under the action alternatives would improve the overall quality of the visitor experience by enhancing the projects currently in the planning stages. Because no adverse socioeconomic effects were identified, this impact topic was dismissed from detailed discussion in this CLR/EA.

1.12 *Van Buren 2014*

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Chapter 2. Site History

Introduction

Ozark NSR preserves the largest natural spring in Missouri and one of the largest in the world, with a daily flow of 288 million gallons. Surrounded by acres of oak hickory forest along the Current River, the rugged hillsides of the Courtois Hills frame the spring and park development. Established as Big Spring State Park in 1924 to protect the spring, conserve wildlife, and to provide public recreation, the park was further developed by the CCC / WPA in the 1930s and 1940s. The work completed by these public work programs embodies the distinctive characteristics of Naturalistic landscape design and the Rustic architectural style and typifies the character of building and landscape seen today. Subsequent episodes of construction was led by the NPS in the 1970s, following designation of the area as part of the Ozark National Scenic Riverways.

The site history chapter presents an overview of the developmental history of Big Spring Historic District. This includes the earliest documented American Indian settlement, the establishment of the state park, development of the park by the CCC and WPA, and modifications undertaken by the NPS and into the present-day.

The chapter begins with a historical overview which provides background and context for understanding the development of Big Spring Historic District. This is followed by a statement of significance and period of significance. The period of significance is recommended as 1924 to 1969 to encompass implementation of the park, the CCC / WPA era of construction and development that continued until 1969. The statement of significance is followed by a detailed chronology of physical development and change, divided into six periods of landscape development. Each period of landscape development begins with a summary describing how the landscape would have appeared at that time.

Historical Overview

Small, temporary campsites were first established near Big Spring during the Woodland Period, 7000 BCE.[2.1] During this period people were part of the Hunter-Forager Tradition, and hunted white-tailed deer and small fauna and exploited forest resources including berries, seeds, and nuts.[2.2] Population size was small and probably limited to familial groups. The Osage were the most prevalent American Indian group in the Current River valley by the sixteenth and seventeenth centuries, when French and Spanish traders explored the region. In these days, Big Spring was referred to as "the spring that roars."[2.3] The Osage predominance waned and they eventually ceded all their tribal lands, over 45,000 square miles, to the United States government in 1825.[2.4]

In the early nineteenth century, European Americans settled the region in increasing numbers, attracted by generous U.S. land grants. The rugged Courtois Hills are not conducive to large-scale farming, therefore most new settlers established small farmsteads and engaged in subsistence agriculture.[2.5] The advent of the railroad made the region accessible at a larger scale, and the rich forests and inexpensive land were attractive to East Coast lumbering companies. Timber harvesting brought short term prosperity to the region and resulted in the development of towns and milling centers.

2.1 Chapman, *Indians and Archaeology of Missouri,* 96.
2.2 Chapman, *Indians and Archaeology of Missouri,* 96.
2.3 *2016 CLI*, 35.
2.4 *2016 CLI*, 24.
2.5 *2016 CLI*, 24.

By 1920, timber resources were depleted and lumber mills closed, leaving widespread unemployment and a landscape devastated by unregulated clear cutting.

In response to the environmental damage, a local effort grew to protect the spring, conserve wildlife and the forest environment, and to provide recreational opportunities along the Current River. The nationwide automobile trend and the statewide "Get Missouri Out of the Mud" campaign spurred the state to invest in roadway improvements. Improved roads allowed for better access to tourist and recreation destinations, particularly the Current River valley.[2.6] Community activists led a pivotal role in establishing Big Spring as a state park. Dr. T. W. Cotton, a Van Buren businessman and local land owner, bundled and consolidated properties for state purchase. Ultimately, the state acquired 4,258 acres for Big Spring State Park – the largest state park in Missouri when established in December 1924.

While initial state park development was constrained by the state's modest budget, roads, trails, campgrounds, wildlife pens, and recreational amenities were built. Thousands visited Big Spring State Park the first year.[2.7] Soon afterwards, floods along the Current River destroyed most of the state park buildings, campgrounds and picnic areas. With the onset of the Great Depression, repair efforts were largely stalled.

As a result of the Great Depression, nearly two million American workers lost their jobs. In response, President Franklin D. Roosevelt signed the Emergency Conservation Work Act which laid the foundation of the CCC. The CCC would employ thousands of unemployed Americans, and by 1936, over 2,000 CCC camps were established across the United States, including one at Big Spring State Park.[2.8]

In June 1933, CCC Company 1710 arrived at Big Spring State Park. A master plan was developed which provided guidance for CCC projects. It identified areas for recreational playfields, parking areas, hiking trails, scenic overlooks, and river access points. It included locations for lodging, visitor orientation, concessions, and maintenance areas. The CCC, and later the Works Progress Administration (WPA), would construct over 40 buildings and miles of trails between 1933 and 1943.

To implement the plan, Donald A. Blake was hired as architectural foreman and John Warren Teasdale as landscape architect.[2.9] Blake and Teasdale's designs blended Tudor influences with the Rustic architectural style, popular in public parks at the time. Buildings blended with the landscape, using native materials: locally quarried dolomite and oak timbers. Landscape design was Naturalistic in style, with new features subordinated to the native topography and setting. "Irregular rock, placed with smooth cleavage outside, and with a shade of cement not too pronounced, but that would blend with the color of the predominant rocks used," characterized the work at Big Spring State Park, as described by Superintendent N. Curtis Case.[2.10] Leo Anderson, an expert stone mason, directed stone cutting, dressing, and laying.[2.11] Donald A. Blake eventually became park superintendent and his ongoing architectural leadership provided a continuity of architectural design, evident in the landscape of today.[2.12]

2.6 *2016 CLI,* 30-31.
2.7 Donald L. Stevens, Jr., *A Homeland and a Hinterland: The Current and Jacks Fork Riverways Historic Resource Study. National Park Service*, 1991.
2.8 *2016 CLI,* 30.
2.9 *2016 CLI*, 40.
2.10 *2016 CLI,* 40.
2.11 *2016 CLI,* 40-41.
2.12 *2016 CLI,* 40.

The last major construction project ended in 1937 and CCC Company 1710 departed Big Spring State Park, razing their camp. Beginning in 1938, the WPA continued the legacy, building Rustic style cabins and other structures. The WPA program dissolved as World War II production jobs increased and the American economy recovered. "The departure of the WPA bookended a ten year period of extraordinary development during which the identity of the Big Spring State Park was fully realized and appreciated by the visiting public."[2.13]

Further development of Big Spring State Park slowed afterwards, and the state park placed a renewed emphasis on the protection and reintroduction of wildlife populations. By the end of World War II, the Missouri State Park Board (MSB) was severely underfunded. With no influx of federal cash or labor, the park's lodges, cabins, shelters and other recreational facilities fell into disrepair.

In the 1950s, the state park expanded and infrastructure was further developed. Efforts grew to convert the state park to a national park, due to increased commercial and private attempts to develop a hydroelectric power plant on the Current River. It became clear that the riverways in Missouri needed additional protection from development. Joseph Jaeger, the director the Missouri State Park Board, decided to spearhead the initiative to transfer ownership and protection of the Current and Jacks Fork rivers to the federal government. Missouri Governor Forrest Smith voiced his support in 1949, and in 1964 President Lyndon B. Johnson signed legislation establishing 134 miles of free-flowing waterways as the OZAR "For the purpose of conserving and interpreting unique scenic and other natural values and objects of historic interest, including preservation of portions of the Current and Jacks Fork Rivers in Missouri as free-flowing streams, preservation of springs and caves, management of wildlife, and provisions for use and enjoyment of the outdoor recreation resources thereof by the people of the United States."[2.14]

In late 1969, the Missouri State Park Board transferred ownership of Big Spring State Park to the federal government, as federal rules stipulated that lands had to be donated, not sold.[2.15] The NPS assumed management for the state park that covered a 5,828.04 acre area.[2.16] There had been few modern intrusions or alterations to the park since the CCC / WPA work, and most of the historic features and landscape remained intact. In the 1970s, the NPS upgraded utilities, repaired roads, replaced bridges, and established a new campground north of the BSHD. In 1981 Big Spring Historic District was listed in the NRHP for its significance in architecture, landscape architecture, and conservation.

2.13 *2016 CLI,* 50.

2.14 *OZAR Enabling Legislation. U.S. Code, 2011 Edition* Title 16, Conservation. Chapter 1 - National Parks, Military Parks, Monuments, and Seashores, Subchapter LXX - Ozark National Scenic Riverways. U.S. Government Printing Office.

2.15 *2016 CLI,* 52.

2.16 *2016 CLI,* 7.

Statement and Period of Significance

Big Spring Historic District was listed in the NRHP on March 17, 1981 under Criterion C, as it embodies the distinctive characteristics of a type, period, or method of construction. Big Spring Historic District is a significant example of Naturalistic style landscape design and the Rustic architectural style that is associated with CCC era park construction. The Naturalistic style placed emphasis on the natural landscape, and new features, including buildings, walls, roads and trails, were designed to be sympathetic and subordinate to the natural features.

Materials, type of construction, and details were determined by the natural qualities of the environment. At Big Spring Historic District this included extensive use of native oak and local dolomite as building materials, which matched in color and texture the natural environment. Architect Donald A. Blake integrated a Tudor influence into many of the Rustic buildings, which resemble the picturesque Victorian cottages made popular in the nineteenth century by Andrew Jackson Downing.[2.17] Native plantings were intended to blend the buildings with the landscape. Elements of the Naturalistic style include boulder lined parking areas, Rustic steps and stone-paved paths, and the scenic orientation towards the spring and river.

The CCC projects at Big Spring State Park reflect the Naturalistic style while accommodating recreational facilities and desired use of the area as an active recreational destination, a growing trend in the 1930s. Recreational facilities, such as an improved swimming area in the river, along with scenic overlooks, picnic grounds, playfields, and miles of hiking trails all reflect the active recreation uses that brought the visitor in contact with nature.[2.18] Consideration should be given into the district's potential for national significance under Criterion A, for association with events that have made a significant contribution to the broad patterns of our history, including the history of federal work relief programs during the Great Depression. The CCC program signified the federal government's engagement in public works and public welfare, at a time when one out of four young Americans was out of work. The federal program of the CCC was intended to alleviate the disastrous conditions of the American economy and environment. The CCC and WPA provided employment for thousands of Americans, and the legacy of their work is showcased at Big Spring Historic District, considered one of the best examples in the state of Missouri.[2.19] As a CCC project and campsite, Big Spring Historic District represents historically important federal policies and periods of public works, has a direct association with events that promoted the betterment of society, and is associated with national trends in the development of recreation.

As part of its significance, Big Spring Historic District is an important record of early conservation efforts and wildlife management. The state park, established in 1924, focused on active recreation as well as conservation of wildlife and protection of the environment, a mission which was carried out further by the CCC and WPA, and through the 1940s.

2.17 Bonnie Stepenoff. The Big Spring Historic District, The Civilian Conservation Corps Builds a State Park to Last. (Cape Girardeau, Missouri; Southeast Missouri State University, 2003).

2.18 *2016 CLI,* 31.

2.19 *Big Spring Historic District, National Register of Historic Places Inventory - Nomination Form.* (1980), 10.

The NRHP lists the historic district with two periods of significance – the first dates from 1925 to 1927 and the second dates from 1933 to 1937.[2.20] As proposed by the 2016 CLI, the period of significance should span from 1924 to 1969. This would encompass the implementation of the park, the CCC era of construction, and the development of the cultural landscape that continued until 1969.[2.21]

Periods of Landscape Development

Six periods of landscape change describe the physical evolution of the Big Spring Historic District. The beginning and end of each period corresponds to and documents a point of major physical modifications or significant change in development patterns.

The periods of development are described through narrative text and illustrations. Three periods fall within the period of significance, noted in bold text.

12000 BCE to 1540 CE: American Indian Settlement

1541 to 1923: European Settlement and Development

1924 to 1932: State Park Development

1933 to 1943: CCC and WPA Development

1944 to 1969: Post-CCC / WPA era

1970 to 1981: NPS Development and Stewardship

2.20 *NRHP,* 10
2.21 *2016 CLI,* 7.



Figure 2-1. An artist's depiction of an early settlement shows shelters called 'wickiups' built with willow branches and covered in bark or hide. (Chapman, *Indians and Archaeology of Missouri*.)

12000 BCE to 1540 CE: American Indian Settlement

American Indian groups inhabited the Current River area throughout the Paleo-Indian, Archaic and Woodland periods, until about the middle Mississippian period (AD 1000-1350).[2.22] The Ozarks were a habitable region during the Paleo-Indian period, and as temperatures warmed people took advantage of new food resources in the lowlands and practiced horticulture. Historical accounts indicate that during the pre-contact period, the Ozark highlands were primarily prairie and oak savanna, whereas steep valley slopes and valley bottoms were dominated by thick deciduous and pine forest.[2.23]

Paleo-Indian (pre - 7,000 BCE)
People first settled the Current River basin as early as 12,000 years ago.[2.24] Early hunters were few in number and traveled widely in search of game, establishing intermittent campsites.[2.25]

Archaic (7,000 BCE to 600 BCE)
During the late Paleo-Indian and early Archaic periods, the Dalton Culture occupied the Current River basin. This time was a transition between the Pleistocene hunter groups and the more generalized Archaic forager groups in the region.[2.26] The settlement system typical during the Dalton period consisted of small, minimal use campsites where they spent longer periods of time, supplementing their diet by collecting edible plants, made available by warmer temperatures.[2.27] Evidence of their settlements has been found at Chubb Hollow, Spring Valley, and along Peavine Road.

One known settlement during this time was within Chubb Hollow. It was occupied intermittently from the Late Archaic through the Mississippian period.[2.28] Archeological evidence suggests that the Chubb Hollow site was utilized for resource extraction, tool manufacture, and food processing.[2.29]

The Spring Valley site was utilized during the Dalton period for lithic manufacture, as evidenced by lithic scatter.[2.30]

The Quartzite site was utilized during the Archaic period as a lithic workshop.[2.31]

The Gnat Alley site was occupied as a temporary occupation site between the Early Archaic and Middle Archaic.[2.32]

The Peavine Site was utilized during the Late Archaic as a limited activity site for lithic manufacture.[2.33]

The Cherty Branch site was used as Late Archaic base camp and food preparation site.[2.34]

2.22 Zedeño, *Cultural Affiliation Study.* 16.
2.23 Robert B. Jacobson and Alexander Primm. *Historical Land-Use Changes and Potential Effects on Stream Disturbance in the Ozark Plateaus, Missouri.* U.S. Department of the Interior, U.S. Geological Survey Water-Supply Paper 2484, 1997, 12.
2.24 Zedeño, María Nieves and Robert Christopher Basaldú. *Ozark National Scenic Riverways, Missouri Cultural Affiliation Study.* Bureau of Applied Research In Anthropology, The University of Arizona, Tucson AZ. Prepared for National Park Service, 2003.
2.25 Chapman, *Indians and Archaeology of Missouri,* 28.
2.26 Zedeño, *Cultural Affiliation Study.* 18.
2.27 Chapman, *Indians and Archaeology of Missouri,* 38.
2.28 *2016 CLI*, 23.
2.29 DeVore, Steven. Archeological Investigations Associated with the Federal Highway Program, OZAR. Lincoln, NE: National Park Service, MidWest Archeological Center, 1985, 93.
2.30 Archeological Survey of Missouri, Spring Valley Dalton Site. Missouri Archeological Society, Columbia, 1993.
2.31 Price, James. *Side-Hollow Archaeology in OZAR*. Technical Report No. 9. National Park Service, MidWest Archeological Center, 1991.
2.32 Price, *Side-Hollow Archaeology in OZAR*. Technical Report No. 9. National Park Service, MidWest Archeological Center, 1991.
2.33 Price, *Side-Hollow Archaeology in OZAR*. Technical Report No. 9. National Park Service, MidWest Archeological Center, 1991.
2.34 Price, *Side-Hollow Archaeology in OZAR*. Technical Report No. 9. National Park Service, MidWest Archeological Center, 1991.

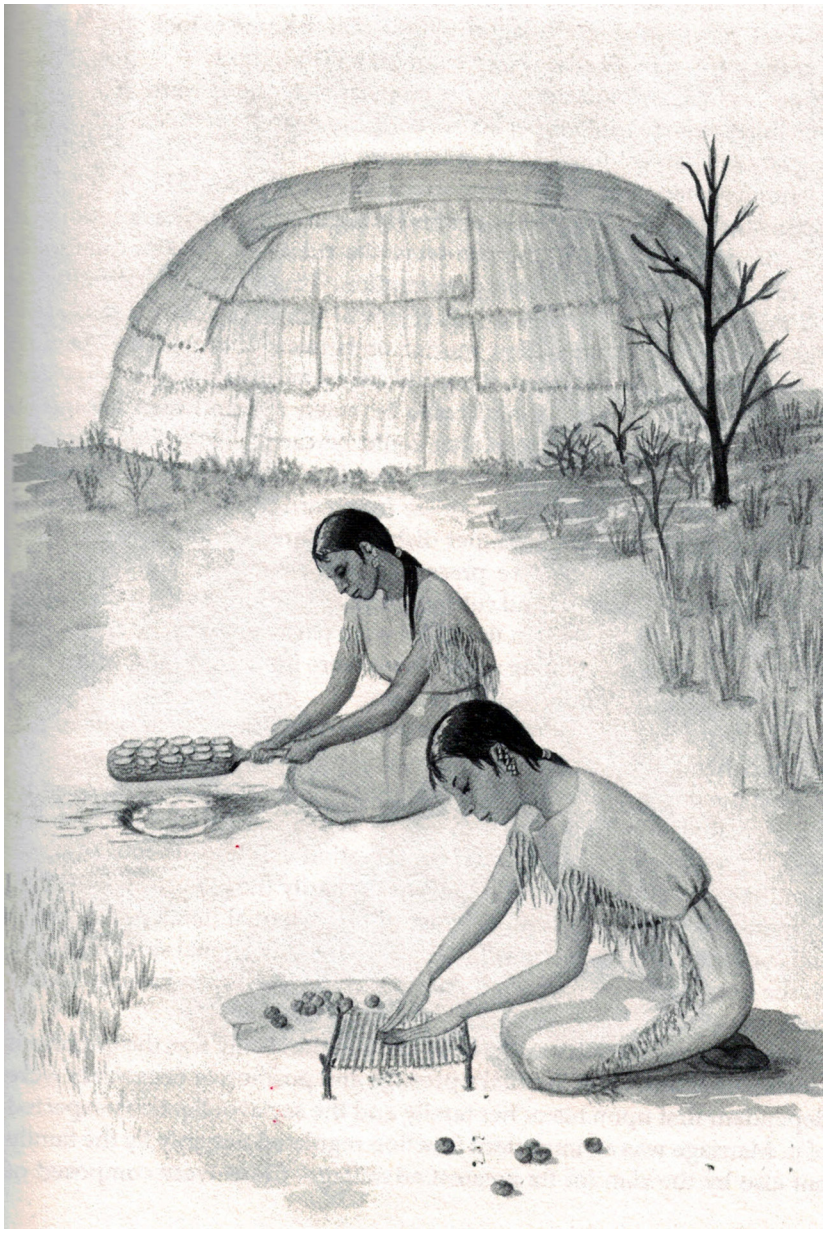


Figure 2-2. Settlement during the Dalton period consisted of small, minimal use campsites where they supplemented their diet by collecting edible plants, (Chapman, *Indians and Archaeology of Missouri*.)

Woodland (600 BCE to 900 CE)
Several general trends characterize the Woodland period: spread of agricultural economy, increase in sedentism, adoption of ceramic technology, ritual activity involving burial mound construction, and participation in long-distance exchange networks.[2.35] Woodland groups had an increase in reliance on wild and domesticated plants.

Woodland sites in the eastern Ozarks are located on natural terraces or on the floodplains of the Current River valley. It has been postulated that the Ozarks at this time was a place of overlapping traditions and where critical resources were utilized by more than one group, creating localized social networks.[2.36]

During the Middle Woodland period (250 BCE to 450 CE), people began gardening, settling into organized village communities, trading widely, and creating elaborate art objects.[2.37]

Mississippian Period (900 CE to 1540 CE)
The Mississippian period witnessed the development of complex and socially stratified communities, subsistence increasingly relied on maize cultivation, and settlement patterns became more sedentary.[2.38]

A thriving population resided along the Current River during the Mississippian period, with evidence of settlements at Shawnee Creek, Round Spring, Isaac Kelley, Owls Bend, and Gooseneck. Populations continued to be dispersed in small farmsteads or hamlets along the major valleys, with limited activity locales on shelters and ridges.[2.39]

1300 CE to 1540 CE
By 1300 CE, ceramic evidence suggests that the American Indian population left the Ozark region. This coincides with widespread population increases in settlements along the Mississippi River valley in southeast Missouri and northeast Arkansas. The reason for abandonment of the region is unknown.[2.40]

2.35 Zedeño, *Cultural Affiliation Study.* 22.
2.36 Zedeño, *Cultural Affiliation Study.* 25.
2.37 Chapman, *Indians and Archaeology of Missouri,* 53, 63.
2.38 Chapman, *Indians and Archaeology of Missouri,* 71.
2.39 Zedeño, *Cultural Affiliation Study.* 26.
2.40 Lynott, M., H. Neff, J. E. Price, J. W. Cogswell, and M. D. Glascock. *Inferences About Prehistoric Ceramics and People in Southeast Missouri: Results of Ceramic Compositional Analysis.* American Antiquity 65(1):103-126.



Figure 2-3. Concrete piers remain in the Current River, adjacent to Big Spring, located outside of the BSHD, from the Atlantic & Pacific Railroad originally built to support lumber companies in the region. (2016 CLI)

1541 to 1923: European Settlement and Development

When the French and Spanish arrived in the region, they encountered few American Indians living in the area. A trade network was established between the Europeans and American Indians, which extracted wildlife and mineral resources, but the land would have appeared as a wilderness to most Europeans. In the nineteenth century small farms were established in the region, and areas of forest were cleared for farmland, including the field north of Big Spring. The railroad had a greater impact upon the landscape, providing access for timber companies who harvested shortleaf pine for sawlogs and oak for railroad ties. Cutting was selective, and did not greatly alter the landscape.[2.41] A lumber camp and two sawmills were established in Chubb Hollow.[2.42]

1541 to 1650

Few American Indian settlements were within the Current River basin at this time, although the area was used for hunting through 1650.[2.43]

1600s, late

In the late 1600s, the French were the first Europeans to permanently settle in the Ozark region. Later, this area became part of the French province of Louisiana and forts and settlements were established along the Mississippi River and interior waterways.[2.44] European settlers brought violence and disease as they passed through the region looking for gold. Later sixteenth and seventeenth century explorers noted a prevalence of American Indian settlements along the Mississippi River and in southeast Missouri. A few villages were in the hills east of the Current River, but no recorded settlements were in the Current River valley.[2.45]

1700 to 1800s

The Osage, Kansas, Ponca, and Mahas tribes occupied current day Missouri. The Osage tribe was the most prevalent near the Current River. Although hostile to European settlers, the Osage did develop strong trading relationships with French trappers and traders who traveled the area.[2.46]

1800s

American Indian tribes displaced east of the Mississippi River began a western migration and settled in the Ozark region. Altercations erupted between various tribes and Europeans who competed for hunting and trading resources.[2.47]

1803

The United States purchased the Louisiana territory from Spain, resulting in increased European American settlement of the Mississippi River and associated riverways.[2.48] Pocahontas Randolph had a minor mandate to explore the area, and called Big Spring by its native name, "The Spring that Roars."[2.49] The area around the spring was known as Bear Camp or Bark Camp, "either from a camp for bear hunters, or on account of temporary bark-covered huts constructed there."[2.50]

2.41 Robert B. Jacobson and Alexander T. Primm. *Historical Land-Use Changes and Potential Effects on Stream Disturbance in the Ozark Plateaus, Missouri.* USGS Open-File Report 94-33, 1994, 1.
2.42 The date the camp and sawmills were established is unknown. E.B. Williamson. *Dragonflies Collected in Missouri*. Occasional Papers of the Museum of Zoology, University of Michigan. June 6, 1932, No. 240.
2.43 *2016 CLI,* 23.
2.44 *2016 CLI,* 24.
2.45 *2016 CLI,* 24.
2.46 *2016 CLI,* 24.
2.47 *2016 CLI,* 24.
2.48 *2016 CLI,* 24.
2.49 *2016 CLI*, 35.
2.50 *Shaper, 2001. In, 2016 CLI,* 35.



Figure 2-4. Big Spring and its location in the Current River Valley was an ideal location for state park development, date unknown. (OZAR Archives)



Figure 2-5. Before the 1925 bridge in Van Buren was built, people ferried across the Current River to access Big Spring State Park, date unknown. (OZAR Archives)

1825
The Osage tribe ceded 45,000 square miles in Missouri and Arkansas to the United States.[2.51]

1833
The town of Van Buren, four miles north of Big Spring, was founded as the seat of Ripley County along an old American Indian crossing.[2.52]

1854
Congress passed the Graduation Act, encouraging settlement in the Ozark region. Settlers, primarily from Tennessee, Virginia, and the Carolinas, of Scotch-Irish heritage, built small farms and homesteads in the rugged terrain of the Courtois Hills. The region was reached by river highways due to the difficulty of overland travel. The hills were not conducive to large-scale farming, so most settlers engaged in subsistence agriculture.[2.53] The Scotch-Irish were "clannish," self-sufficient, and integrated well into the rugged setting and with the American Indians.[2.54] Their handcrafted cabins and barns, crafts, dance and music continue to influence the region.

1859
Van Buren was established as seat of Cater County, when Ripley and Shannon Counties were combined.[2.55]

1870s and 1880s
The region's abundance of timber attracted East Coast lumber companies. The industry brought economic prosperity from the development of railroads, milling centers, and towns, and new settlers arrived in the region, seeking jobs in the mills.[2.56]

1887
Prior to 1887 the Missouri Lumber and Mining Company obtained a railroad right-of-way for property north of Big Spring branch.[2.57] In 1887, the Kansas City, Fort Scott, and Memphis Railroad entered an agreement with Missouri Lumber and Mining Company to build a railroad from Toliver Pond in Carter County to Willow Spring in Howell County – often referred to as the Current River Railroad. Construction was completed in 1889, and the railroad was used primarily to transport timber and timber products. During the CCC development of Big Spring State Park, it was used to transport workers and supplies.[2.58]

1889
The Kansas City, Fort Scott, and Memphis Railroad was built east of the Current River.

1913
Thomas Morgan purchased a 400-acre tract of land, including Big Spring from the federal government. This was the first recorded ownership of the land. Morgan sold the land to Henry and Martha Sawyer, who then sold to Dr. T. W. Cotton and L.Z. Hosack.[2.59]

1920s
By 1920, the region's timber resources were depleted and lumber mills closed.[2.60]

2.51 *2016 CLI,* 24.
2.52 *2016 CLI,* 35.
2.53 *2016 CLI,* 24.
2.54 Rossiter, Phyllis. A Living History of the Ozarks. Gretna, LA: Pelican Publishing Company, 2006, 283.
2.55 Rossiter, Phyllis. A Living History of the Ozarks. Gretna, LA: Pelican Publishing Company, 2006, 403.
2.56 Jacobson and Primm. *Historical Land-Use Changes,* 25.
2.57 Stepenoff. *The Civilian Conservation Corps Builds a State Park to Last,* 4.
2.58 *2016 CLI, 28.*
2.59 *2016 CLI,* 36.
2.60 *2016 CLI,* 25.

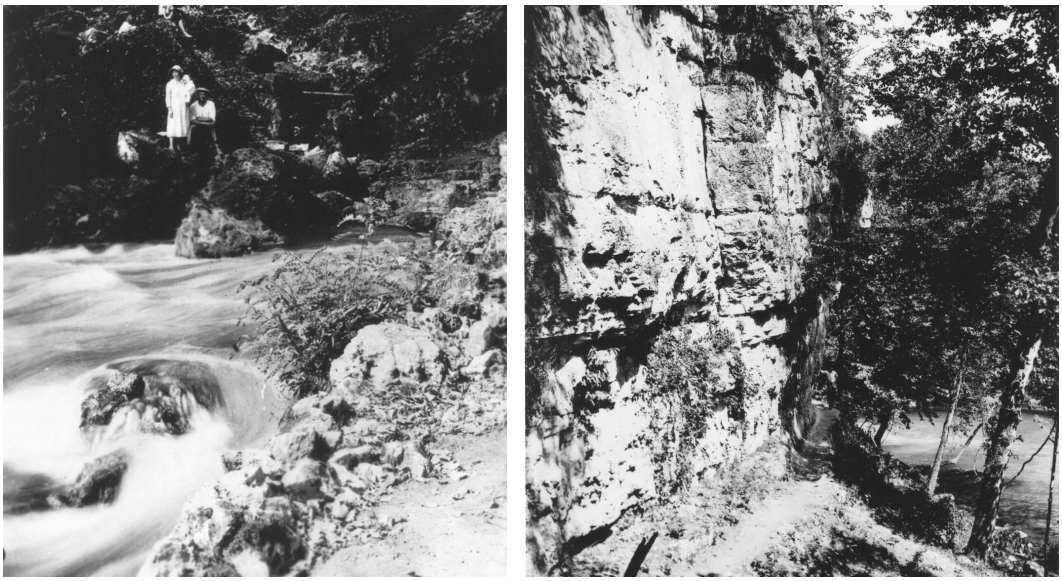


Figure 2-6. Missouri State Park Board improved a foot trail to Big Spring that likely followed a social trail that pre-dated park development. (OZAR Archives)



Figure 2-7. The cave inside Big Spring, one of the largest springs in the United States, date unknown. (OZAR Archives)

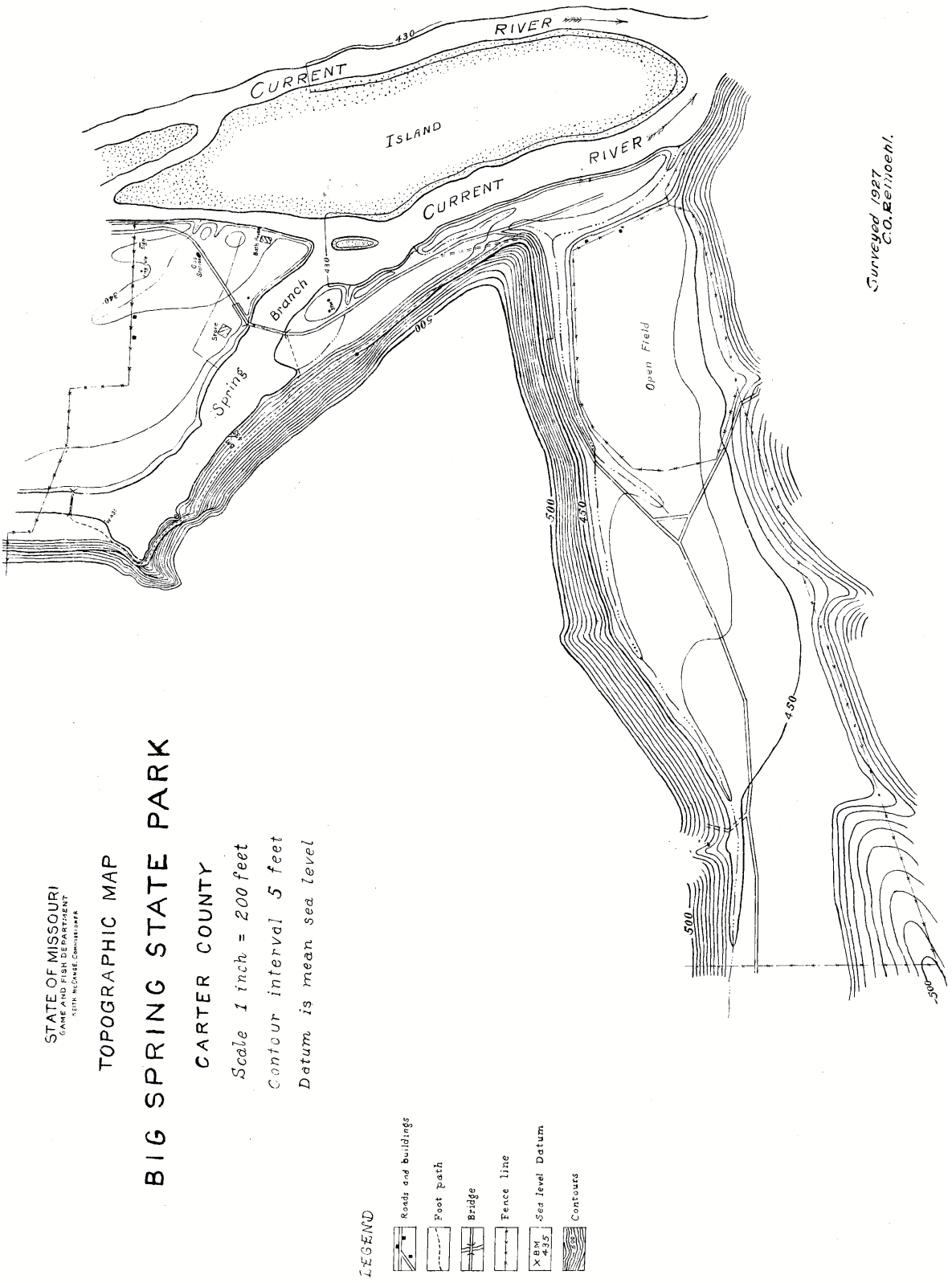


Figure 2-8. Near Big Spring, a bath house, store, gas station, two latrines, flag pole, sign, and stove served campers, 1927. (OZAR Archives)



Figure 2-9. By 1927, the state had built roads, trails, several buildings, and a water tank. Three other structures are shown located in Chubb Hollow, which were remains of a lumber camp and sawmill, 1927. (OZAR Archives)



Figure 2-10. A 'pontoon' style bridge crossed Big Spring branch just north of its confluence with the Current River. The store is in the background, date unknown. (OZAR Archives)



Figure 2-11. A 'pontoon' style bridge crossed Big Spring branch; the bath house is in the background on the Current River, date unknown. (OZAR Archives)



Figure 2-12. Road and bridge improvements made Big Spring more accessible, and visitation of the park expanded, 1930. (OZAR Archives)



Figure 2-13. The Current River was popular for floating trips, 1931. (OZAR Archives)



Figure 2-14. A major flood of the Current River submerged the Big Spring campground and picnic areas, resulting in extensive damage, date unknown. (OZAR Archives)



Figure 2-15. The CCC Camp at Big Spring State Park, date unknown. (OZAR Archives)



Figure 2-16. CCC Company 1710 remained at Big Spring for more than four years, and was joined by companies 734 and 1740 for brief periods, 1935. (OZAR Archives)

1924 to 1932: State Park Development

After the departure of the timber companies, many left the region, while others returned to subsistence agriculture and open range grazing in the uplands.[2.61] The the Current River valley became known for its beautiful natural scenery, and was a tourist destination. With its rugged topography and natural spring, Big Spring was an ideal location for a new state park. Initial park development included roads, trails, campgrounds, picnic areas, and recreational amenities. Development was clustered around the area of Big Spring branch and Big Spring, which was developed into a park-like setting with grass and shade trees. Adjacent park land was restored as woodlands and areas were fenced to preserve deer and turkey populations.

1924
While the Missouri state park program was initiated in 1919, the first state parks were not established until 1924. Three of Missouri's first eight parks, Big Spring, Alley Spring, and Round Spring, were created along the Current and Jacks Fork River.[2.62]

1925
The Missouri State Park Board established Big Spring State Park in December 1924, encompassing 4,416 acres. While initial park development was slow, park roads, property fencing, and campsites were built.[2.63] Boundary fencing and cattle guards were built to minimize destructive impacts of free-grazing practices. Turkey and deer pens were built to assist in repopulation efforts.[2.64]

The primary public approach to Big Spring at this time was likely from the south, as the property north of Big Spring branch remained under the private ownership of Dr. T. W. Cotton.

A bridge across the Current River in Van Buren was built July 17, 1925, making Big Spring State Park more accessible to visitors traveling along the east-west highway, which later became US Highway 60.[2.65] For most of the twentieth century, roads in the Current River valley were primitive wagon trails.[2.66]

1927
By 1927, the state had built roads, trails, several buildings, bridges, and a water tank. A 'pontoon' style bridge floated across Big Spring branch just north of its confluence with the Current the Current River. A pedestrian foot bridge crossed Big Spring branch on the north side, connecting the campground near the spring to a trail (present-day Spring Branch Trail) along the western edge of Big Spring branch. Near Big Spring, a bath house, store, gas station, two latrines, flag pole, sign, and stove served campers. A trail (present-day Rocky Ridge Trail) extended along an old wagon trail to the top of the ridge over Big Spring. [2.67]

One of the state park's principal functions was as a game preserve. The southern portion of the state park was managed as a game refuge, and "immediately after acquisition, the state began stocking the park with wild turkey and deer." [2.68]

1928
A major flood of the Current River submerged the campgrounds and picnic areas, resulting in extensive damage. A new graded dirt road from the railroad station at Chicopee to the

2.61 Jacobson and Primm. *Historical Land-Use Changes,* 25.
2.62 *2016 CLI,* 25.
2.63 *2016 CLI,* 36.
2.64 *2016 CLI,* 188.
2.65 *2016 CLI,* 36.
2.66 *2016 CLI,* 36.
2.67 C.O. Remoehl. *Topographic Map, Big Spring State Park, (Showing Big Spring), Carter County.* (State of Missouri, Game and Fish Department, 1927).
2.68 Stepenoff. *The Civilian Conservation Corps Builds a State Park to Last,* 6.

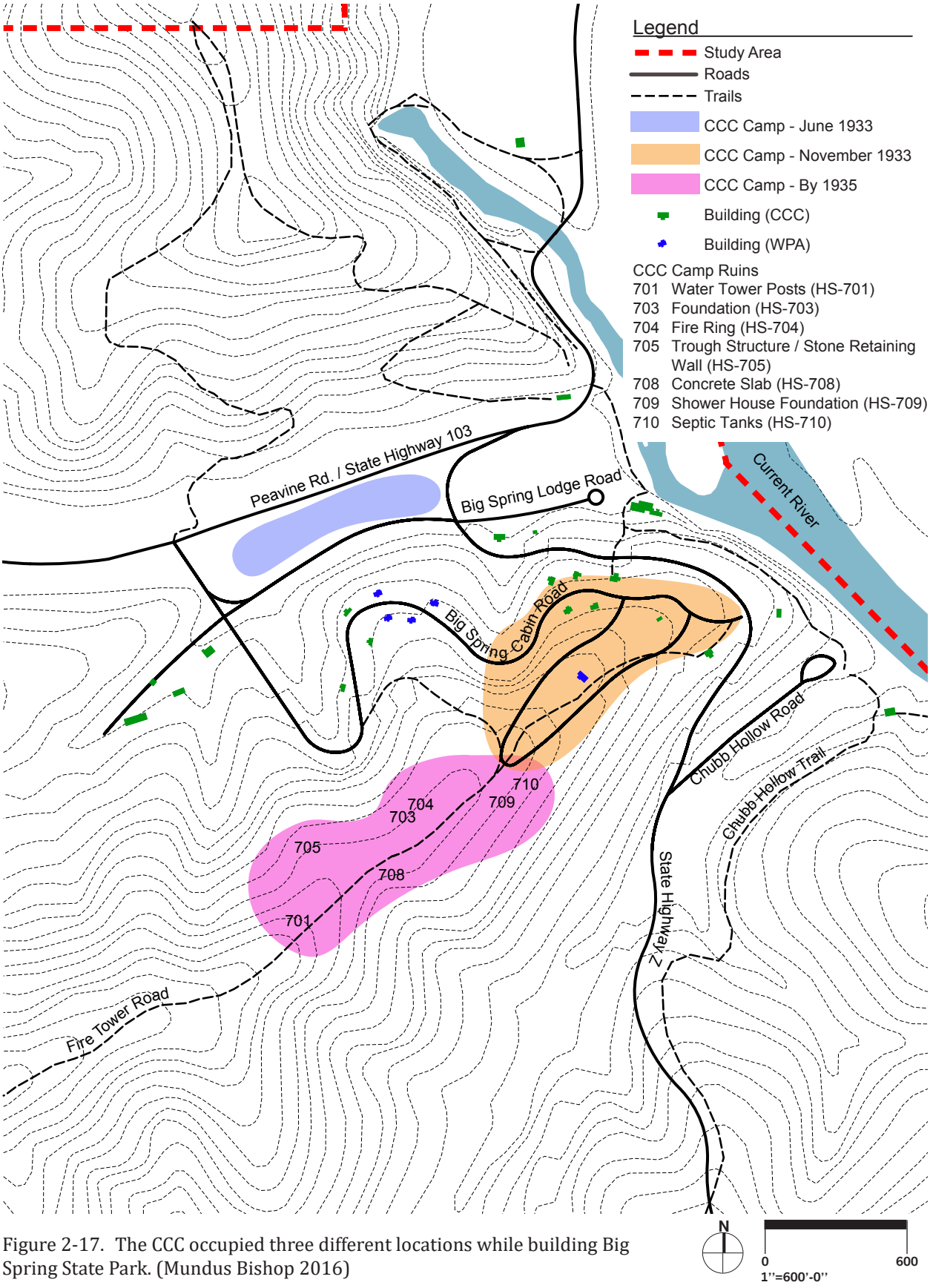


Figure 2-17. The CCC occupied three different locations while building Big Spring State Park. (Mundus Bishop 2016)

park was completed after the flood made the old road impassable.[2.69]

1930s

The state built a caretaker's house (possibly HS-416), concession building, shelter house, zoo, and vehicle and foot bridges over Big Spring branch, replacing buildings and structures damaged by the 1928 flood. The existing pontoon bridge over Big Spring branch was replaced with a new vehicular bridge. Overhead electrical wires were extended from Van Buren to the park, and Big Spring was illuminated at night.[2.70]

2.69 *2016 CLI,* 70.
2.70 *2016 CLI,* 70.



Figure 2-18. In June 1933, CCC Company 1710 set up a tent camp at Spring Hollow, near the entrance to Big Spring State Park, date unknown. (OZAR Archives)



Figure 2-19. The CCC built a dining hall, fire ring, water trough, retaining walls, water tower, shower house, septic tanks, gymnasium, and new barracks at their third and final camp, date unknown. (OZAR Archives)

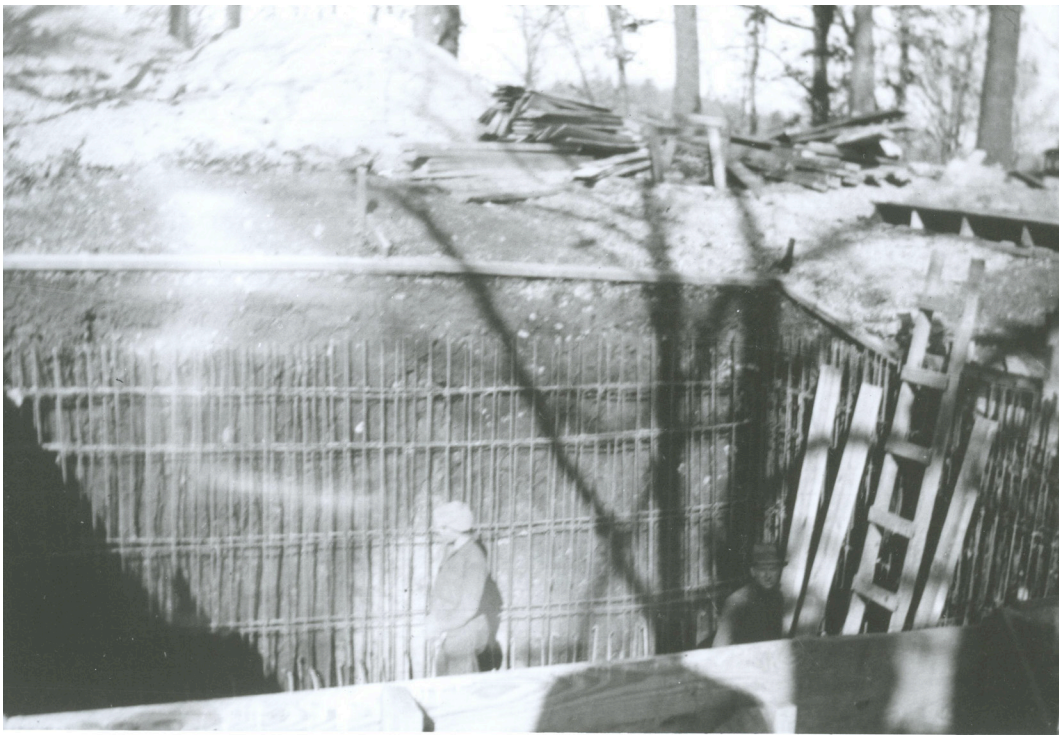


Figure 2-20. The CCC built an 18'x7' septic tank at their camp, date unknown. (OZAR Archives)

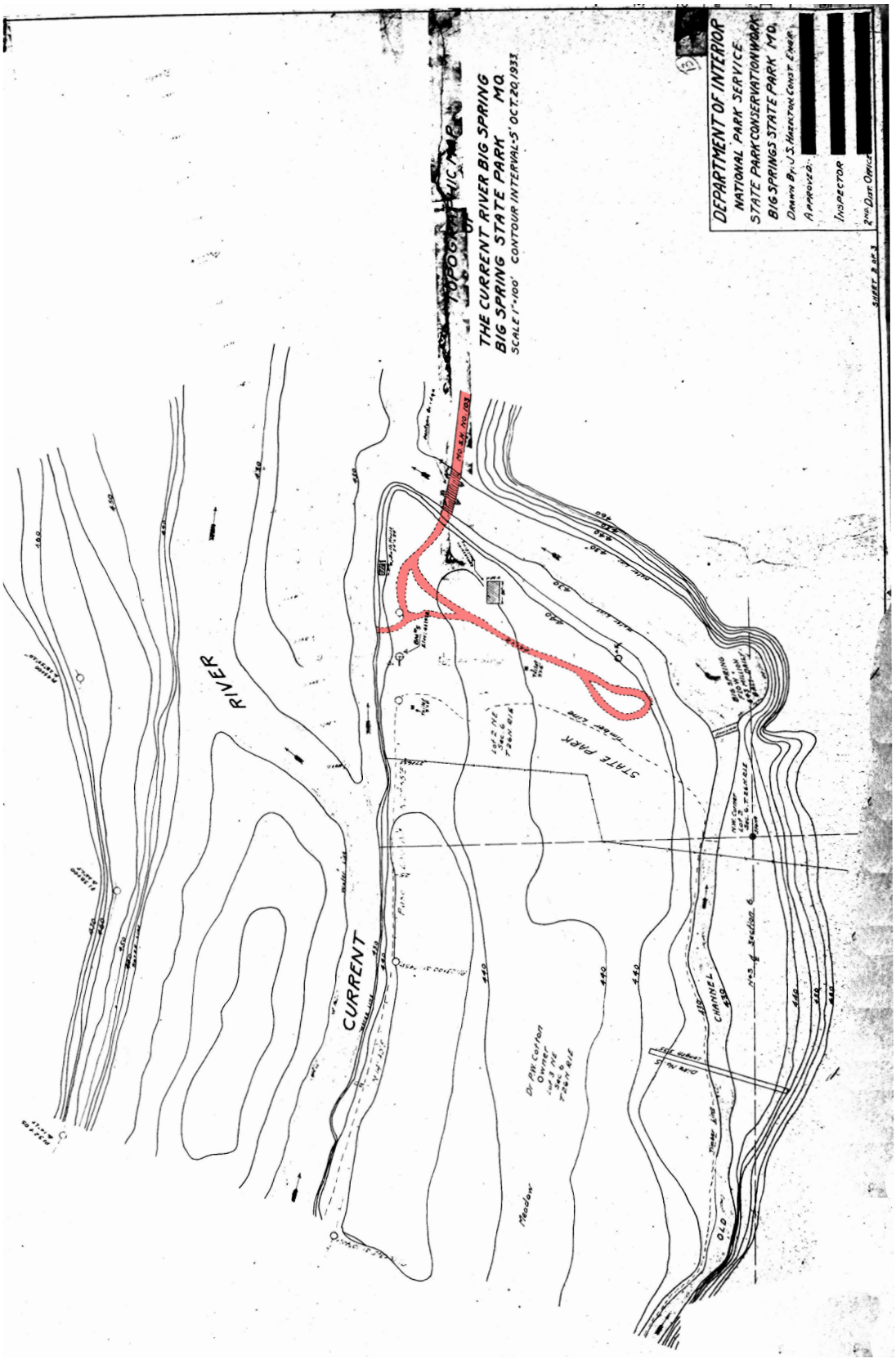


Figure 2-21. In 1933, a bridge crossed Big Spring branch and provided access to a bath house, concession building, and two toilets, 1933. (OZAR Archives)

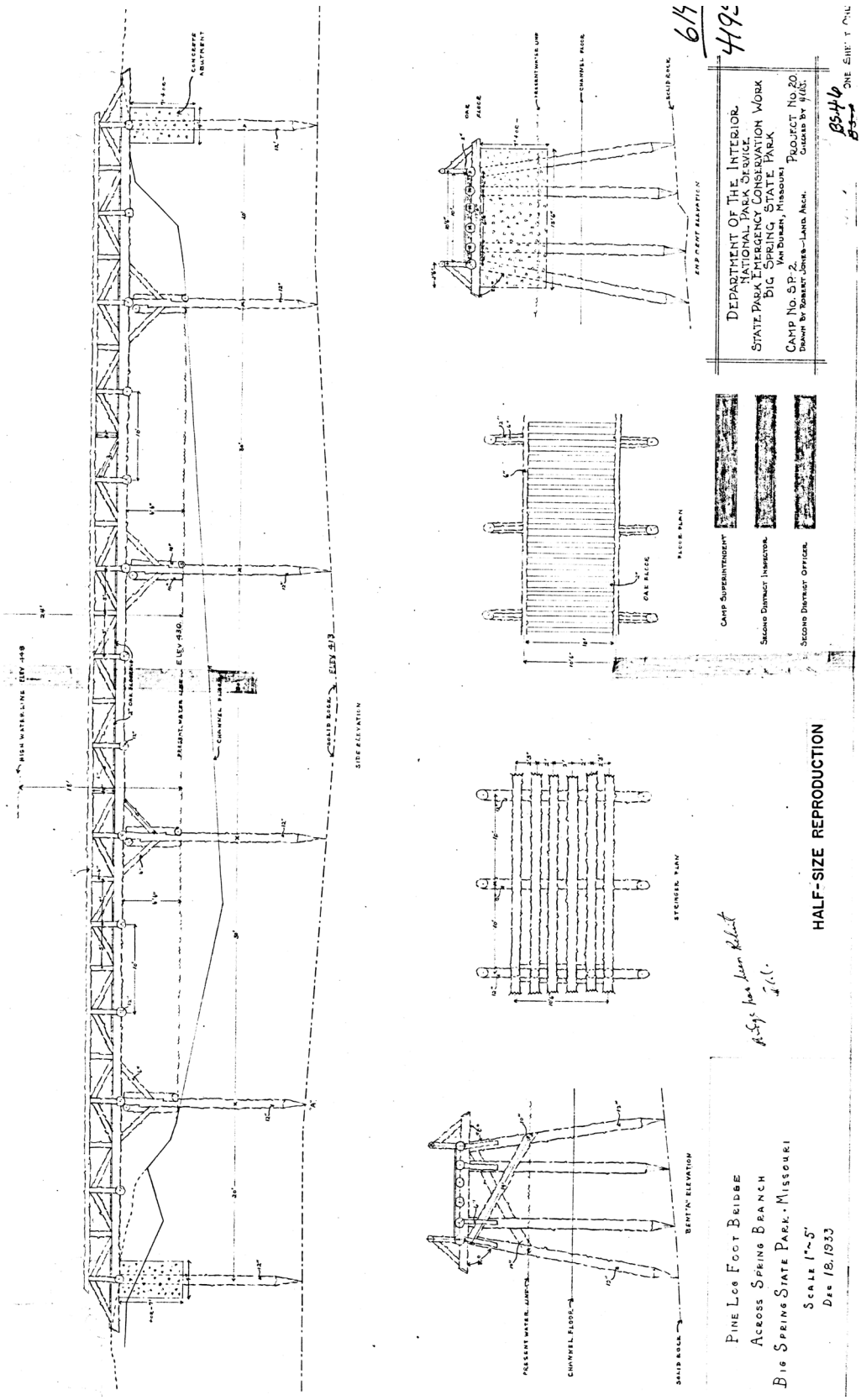


Figure 2-22. Landscape Architect Robert Jones designed a new pine log bridge for Big Spring branch, 1933. (OZAR Archives)



Figure 2-23. Workers used a pile driver for support pilings. The bridge was engineered to support a 10-ton load and wide enough for a vehicle to cross, date unknown. (OZAR Archives)



Figure 2-24. CCC Quarry workers, date unknown. (OZAR Archives)



Figure 2-25. The CCC chiseled rocks to have smooth cleavage outside with clean edges for irregular courses, 1936. (OZAR Archives)



Figure 2-26. The CCC harvested trees on-site and cut dimensional timbers for buildings, date unknown. (OZAR Archives)



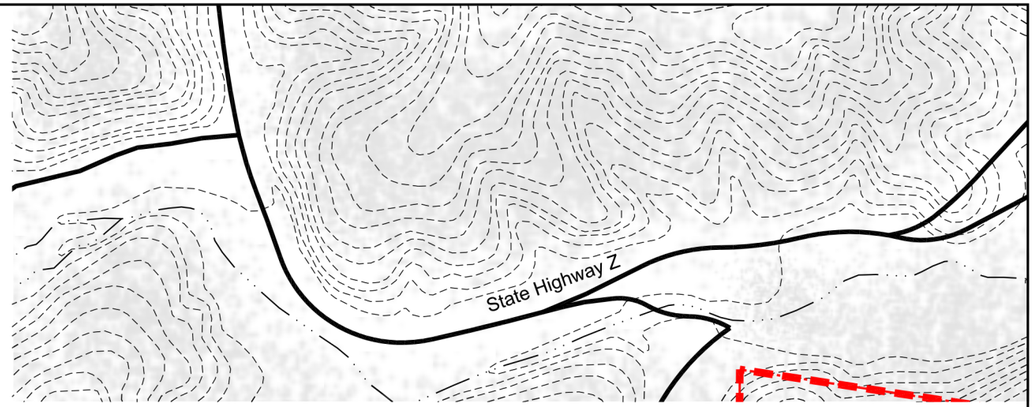
Figure 2-27. Leo Anderson, an expert stone mason, oversaw CCC enrollees and directed stone cutting and dressing, date unknown. (OZAR Archives)



Figure 2-28. The CCC stockpiled stones for building use, date unknown. (OZAR Archives)



Figure 2-29. The CCC paved an existing trail along the west side of Big Spring branch with gravel, dates unknown (OZAR Archives)



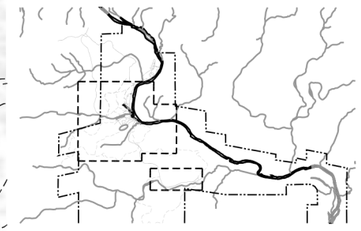
South West Portion of Big Spring State Park Historic District

Rocky Ridge Trail
Spring Branch Trail
A
406
407 408
Peavine Road
(Spring Loop)
Ebb + Flow Road
Current River
Chubb Creek
State Highway Z
See South West Portion, Above

Legend
- Study Area
- Ozark National Scenic Riverways Boundary
- Road
- Trail
- River
- Building
- Lawn
- Manicured
- Forest

Buildings and Structures
406 Cabin #406 (c. 1927-1933) (Original Location)
407 Cabin #407 (c. 1927-1933) (Original Location)
408 Cabin #408 (c. 1927-1933) (Original Location)

A Big Spring Shelter (1932)



Key

Sources:
1991 Roads and Trails Study, 2015 Big Spring Area Trails Map, Google Maps, Park GIS, FEMA Floodplain Maps, USGS Contour Data, HPSC0120.pdf, OZAR_614_41028B_[id212928].pdf, OZAR_614_41075_[id235384].pdf, OZAR_614_41094A_[id68873].pdf, OZAR_614_41954_[id165165].pdf, OZAR_614_41910_id55311.pdf, HPSC0107.pdf, HPSC0108.pdf

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DECEMBER 2016

UNITED STATES
DEPARTMENT OF THE INTERIOR

BIG SPRING
HISTORIC DISTRICT

TITLE OF PROJECT
CULTURAL LANDSCAPE REPORT
AND ENVIRONMENTAL ASSESSMENT
TITLE OF DRAWING
1924 TO 1932: STATE PARK DEVELOPMENT
NAME OF PARK
BIG SPRING HISTORIC DISTRICT

Illustration 2-1.

REGION MIDWEST | COUNTY CARTER | STATE MISSOURI

1933 to 1943: CCC and WPA Development

In response to the Great Depression, federal work relief programs were implemented to employ thousands of Americans. The public works projects undertaken by the CCC and WPA at Big Spring State Park incorporated design principles popular at the time for state and national parks. The idea that each park have its own architectural theme, in keeping with the park's natural character, was widespread throughout the U.S.[2.71] Designs for new buildings employed the Rustic architectural style characterized by hand craftsmanship, use of native materials, and details influenced by Ozark culture. The landscape design placed emphasis on the natural landscape with new features designed to be sympathetic and subordinate to the natural features.

The CCC established a camp at Big Spring State Park in 1933 and set about developing a recreational complex. The men cleared timber for fire prevention; built the Big Spring Stone Dikes (HS-711) to prevent flooding; constructed miles of roads and trails; dug a quarry for dolomite; installed overhead utility lines; built cabins, a Dining Lodge (HS-422), Entrance Building (HS-432), Fire Tower / Lookout Tower (HS-1404), and other buildings; and planted native trees and shrubs. After 1937 the WPA completed the CCC's vision and built several cabins, a concession building, and a bath house.

The designed landscape included wooded areas in contrast to open recreational fields. Vegetation was mostly comprised of native plantings, with a few ornamental trees and shrubs. Buildings blended in color and texture with the native landscape, and were predominately clustered on the hillside to the south of Big Spring. Trails and roads followed topography and natural drainages, and connected the new complex of development on the south with Big Spring. The Tudor/ Rustic styled buildings and Naturalistic landscape designs blended artifice with nature, creating a recreational complex that encouraged an intimate connection with nature. Access to the park was possible by the river as well as an entrance road, framed by the Entrance Portal Walls (HS-432A) and Entrance Building (HS-432) and visitor orientation.

<u>1933</u>

In June 1933, CCC Company 1710 – which trained in Fort Leavenworth, Kansas – established a tent camp at Spring Hollow, near the entrance to Big Spring State Park. By November, the CCC moved to the newly constructed Camp Haines. This camp was group of barracks and buildings built on the hillside in what later became the cabin area. They moved again for a third and final time to a new camp higher on the hill (near the present location of the water tower). This last camp included a dining hall, fire ring, water trough, retaining walls, a 20,000 gallon water storage tank, shower house, septic tank, new barracks, and a gymnasium.[2.72] CCC Company 1710 remained at Big Spring State Park for more than four years, and was joined by companies 734 and 1740 for brief periods.[2.73]

The CCC documented buildings and structures built by the state in an October 1933 topographic survey. (See Figure 2-21) The survey showed Peavine Road / State Highway 103 terminating at Big Spring with a pontoon bridge over the channel. A drive connected several buildings – a bath house on the river's edge, a concession building near Big Spring, and two toilets. A pedestrian

2.71 McClelland, Linda Flint. *Building the National Parks: Historic Landscape Design and Construction*. Baltimore MD: The Johns Hopkins University Press, 1998, 243.

2.72 *2016 CLI,* 41.

2.73 *2016 CLI,* 41.



Figure 2-30. The CCC built a natural boulder edge along the Spring Branch Trail. (above, c. 1934-1937, below, date unknown.) (OZAR Archives)

footbridge crossed Big Spring branch. The CCC razed three of the state park buildings from 1934 to 1936.

1934

Donald A. Blake designed the Entrance Building (HS-432), Museum (HS-420), Pump House (HS-443), cabins, and Dining Lodge (HS-422), utilizing dolomite quarried on-site and heavy oak timbers.

Soon after arriving on site, the CCC began cutting a fire safety zone and clearing out fallen timber. However, the most pressing issue was addressing flood control. Construction engineer J.S. Hazelton surveyed the Current River valley and designed the Big Spring Stone Dikes (HS-711) to control flooding. The state obtained an easement from Dr. T. W. Cotton, who owned the property north of the spring, and the CCC built five stone and timber dikes on his property.[2.74] According to J.S. Hazelton "the dikes consist of two rows of piling…tied together by heavy plank. The rock fill of the dike is built with an apron of riprap on each side of the work to prevent scouring and undermining." Two-hundred men in CCC Company 1710 spent nine months building the dikes by hand. They hauled 6,200 truckloads of rock from the quarry to fill the five dikes. The CCC utilized the best construction practices of the day, using second growth white and post oaks – species known to be decay resistant. The cost of materials alone was $6,000.[2.75]

CCC Company 1710 built a new foot bridge over Big Spring branch. The structure was designed by landscape architect Robert Jones. Construction was supervised by John Templeton. Workers used a pile driver for support pilings. The bridge was engineered to support a 10-ton load and wide enough for a vehicle to cross. The bridge was built with hand-hewn native pine logs and stained brown.[2.76]

The CCC built a log foot bridge, created a ditch to protect the Big Spring picnic area, stabilized drainage channels and stream edges with stone, and built a stone culvert (HS-427A) at Chubb Hollow to direct water under Highway Z. Two foot bridges – Big Spring Foot Bridge (HS-469) and Chubb Hollow Foot Bridge (HS-456) were both built with stone abutments and timber spans over drainage routes.

Between November 1933 and April 1934, Company 734 cleared four acres for a new campground at Chubb Hollow, cleared nineteen miles of roads, and installed four miles of telephone lines. In March, they built a Fire Tower / Lookout Tower (HS-1404).[2.77]

CCC Company 1710 built three cabins, Cabins #401 (HS-401), #402 (HS-402), and #403 (HS-403). The gable cabins were Rustic style with Tudor influences, constructed of exposed timber framing and irregular coursed cut stone walls with screened front porch entries, exterior stone chimneys, and casement windows. 'Type B' Cabin #401 (HS-401) was built shortly after two 'Type A' cabins, Cabins #402 (HS-402) and #403 (HS-403). Cabin #401 (HS-401) was a larger 'L' shaped cabin with a side gable, steep roof, and two large stone chimneys.[2.78] To connect these buildings, the CCC built the Cabin Path System and Stairs (HS-713), a system of hiking trails with long flights of mortared stone steps.[2.79]

2.74 Big Spring State Park, Master Plan. (U.S. Department of the Interior, National Park Service, 1936).

2.75 Big Spring State Park, Master Plan. (U.S. Department of the Interior, National Park Service, 1936).

2.76 *2016 CLI,* 40.

2.77 *2016 CLI,* 41.

2.78 Donald A. Blake, *Type "A" Cabins, State Park Emergency Conservation Work, Big Spring State Park.* (U.S. Department of the Interior, National Park Service, 1934.) and Donald A. Blake. *Type "B" Cabins, State Park Emergency Conservation Work, Big Spring State Park.* (U.S. Department of the Interior, National Park Service, 1934.)

2.79 *2016 CLI,* 42.



Figure 2-31. The Big Spring Stone Dikes (HS-711), constructed of stone and oak timber helped prevent the Current River from flooding Big Spring, date unknown. (OZAR Archives)



Figure 2-32. The rock fill of the Big Spring Stone Dikes (HS-711) was built with an apron of rip-rap on each side of the work to prevent scouring and undermining, date unknown. (OZAR Archives)

The CCC installed gravel paths between buildings, planted shrubs at the headquarters and barracks, added flowers to the window boxes, and added of border of native hardwood pines, redbuds, and bush clover around the perimeter of the camp. A stone Dump Incinerator (HS-432B) with a terracotta liner and steel door was built in the middle of the dump site.

1935

The CCC built a swimming area near the confluence of Big Spring branch and the Current River.[2.80] They stabilized the shoreline and used rock bedding to create a beach which became a popular recreational amenity.

Three cabins, #406 (HS-406), #407 (HS-407), and #408 (HS-408), were relocated and remodeled by the CCC. Originally, the cabins were in an open field overlooking the Current River, north of the present-day Dining Lodge (HS-422).[2.81] The CCC removed the cabins to use the area around the Dining Lodge as a recreational playfield. The single story, side gabled cabins were relocated west of Cabins #401 (HS-401), #402 (HS-402), and #403 (HS-403), creating a larger cabin area. Each relocated cabin contained three rooms, screened front porch entries, and exterior stone chimneys.

Donald A. Blake designed and the CCC built Cabin #413 (HS-413) above the Current River as the officers' quarters then later the fire watchman quarters. It contained four rooms, a basement, a cross gabled screened porch, and clapboard siding with corner boards.[2.82]

The CCC relocated and remodeled a house for the state park superintendent, Cabin #416 (HS-416). Originally built by the state park in the 1930s, it was relocated to the Maintenance Area from an unknown location. The one and a half story building was remodeled as a wood framed gable cabin with two porches, a full basement, a concrete foundation faced with irregular coursed stone, an exterior stone chimney, and a knotty pine interior.[2.83]

The CCC built a single story Latrine (HS-423) or bath house (HS-423) with exposed timber framing and irregular coursed cut stone walls with a gable roof that had gable dormers over the two entrances – one for women and one for men. The Latrine (HS-423) was built into the side of steep slope, south of the spring. A stone retaining wall and abutments (HS-423A) were dry-laid against the sides of the creek.[2.84]

Near the cabins, the CCC built a Picnic Shelter (HS-496), as a small one story, gable roof, open structure with massive pieces of cut stone and an irregularly coursed chimney and fireplace.

In Chubb Hollow, the CCC built the Chubb Hollow Open Shelter House (HS-427) as a partially open-sided shelter with a hipped roof and flagstone floor. Walls were built as irregular course cut-stone masonry with timber framing. The structure was built symmetrically with two rooms flanking a central chimney with built-in plank benches in both rooms. It was built on a small plateau overlooking the Current River.[2.85]

The CCC built a single story, open sided, Pump House (HS-443) with an asymmetrical gable roof and a combination of exposed timbers

2.80 *2016 CLI,* 41.
2.81 The original construction date of Cabins #406 (HS-406), #407 (HS-407), and #408 (HS-408) is unknown. Based on analysis of historic plans and photographs, these cabins were likely built between 1927 to 1933.
2.82 *2016 CLI,* 71.
2.83 *2016 CLI,* 71.
2.84 *2016 CLI,* 79.
2.85 *2016 CLI,* 80.

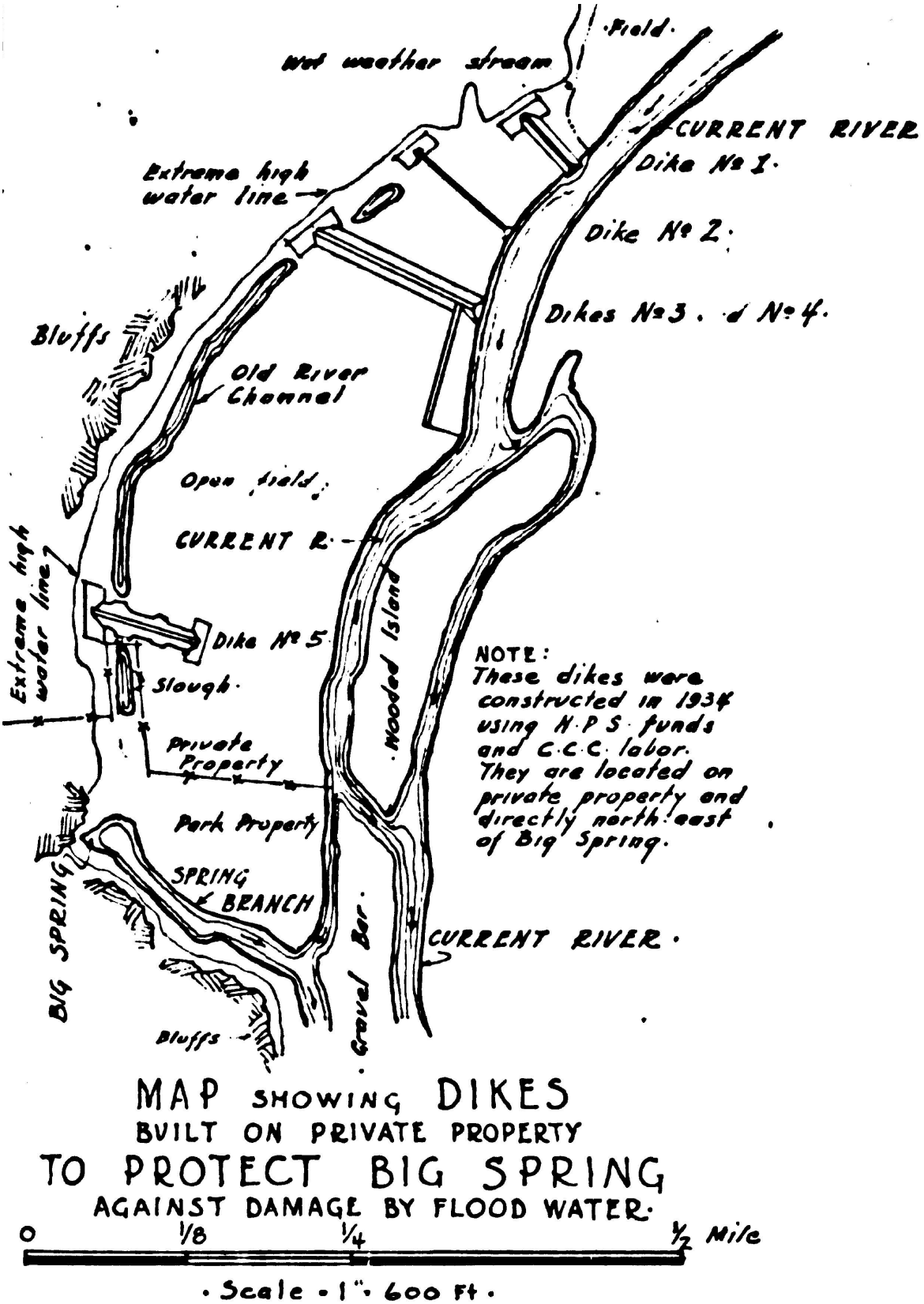


Figure 2-33. The five Big Spring Stone Dikes (HS-711) were built on private property north of Big Spring using NPS funds and CCC labor, 1936. (OZAR Archives)

and irregular coursed cut stone walls.[2.86] The Fire Tower / Lookout Tower (HS-1404) was completed, the Fire Tower Stone Retaining Wall (HS-1404F), and two privy sites were built. The Fire Tower Rock Quarry (HS-1404E) was excavated. The CCC began building a concession building, which was later converted to a Museum (HS-420).

The existing Cabin Path System and Stairs (HS-713) were extended to the newly constructed cabins, Dining Lodge (HS-422), and shelters. Stone retaining walls, paving stones, and stone steps were built into the hillsides.[2.87] Spring Branch Trail, which pre-dated CCC development, was improved with gravel paving, stone steps, and natural boulder walls built into the trail. The CCC added stone steps to the edge of Big Spring branch. Historic photographs depict wooden platforms used as boat docks or fishing piers. The CCC built several drinking fountains (HS-712) in the Rustic style with stone steps and a concrete basin, set on a stone base. Fountain #1 was built near the Big Spring Pavilion (HS-425), Fountain #2 in front of the Museum (HS-420), Fountain #3 near the Picnic Shelter (HS-496), and four (Fountains #4, #5, #6, and #7) in Chubb Hollow.

In 1935, Route 16, a major route between Shannon and Carter counties, was improved and renamed as U.S. Highway 60.[2.88] This greatly improved visitor access to the park.

1936

A laundry / bath house (later converted to Cabin #414 (HS-414)) was built as a one-and a half story cross-gabled stone building with timber sills, stone steps leading to a basement, and a gabled rear porch entry.[2.89]

The CCC built the Maintenance Shop (HS-417) as a two story, three room, gambrel roof building with a cut-stone foundation and chimney, and exterior staircase.[2.90] The Maintenance Storage Building (HS-418) was built as a single story, one room front gable building with a mortared cobblestone foundation and clapboard siding.[2.91]

The concession building (converted to the Museum (HS-420) c. 1948) was completed. The one-story, gable building was a combination of coursed stone and timber with windows along most facades.

The CCC built the Dining Lodge (HS-422). It was designed by Donald A. Blake. The stone building was set into the hill with a heavy rock retaining wall and narrow flagstone terrace that overlooked the confluence of Big Spring branch and the Current River. The cross gable building had timber framing with irregular coursed cut stone walls, two porches, a large flagstone entrance court, and a massive exterior stone chimney.[2.92]

A retaining wall and foundation were built behind the Dining Lodge (HS-422). The CCC built the gravel Main Parking Area (HS-714) with stone curbs in front of the Museum (HS-420) and Pump House (HS-443). A double asphalt walk was designed for both sides of the parking area with flagstone depressions for drainage. The walks were not built. Planting areas were edged with a combination of boulders and cut stone curb. A small area was designated for bus parking. New trails were built, connecting the Dining Lodge with Big Spring.

The Entrance Building (HS-432), designed by Donald A. Blake was built. The cross gable building had timber framing and irregular

2.86 *2016 CLI,* 80.
2.87 *2016 CLI,* 42.
2.88 *2016 CLI,* 25.
2.89 *2016 CLI,* 77.
2.90 *2016 CLI,* 78.
2.91 *2016 CLI,* 77.
2.92 *2016 CLI,* 79.

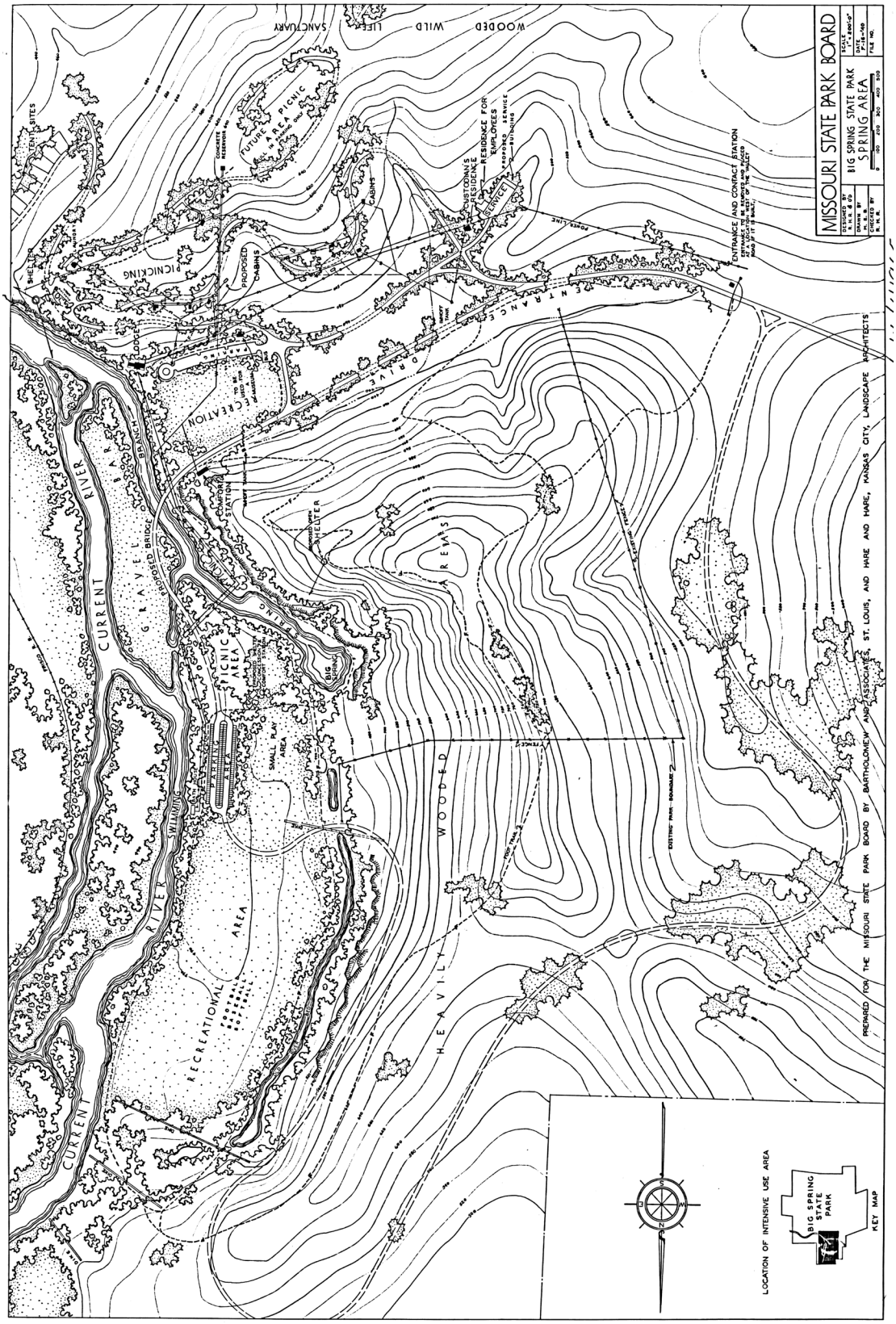


Figure 2-34. The plan proposed a new recreational playfield and parking area north of Big Spring, 1940. (OZAR Archives)

coursed cut stone walls. The building had an exterior stone chimney and an interior restroom. Located on Peavine Road / State Highway 103, the primary access road into the park, it was originally used as a visitor center.

During construction of the Entrance Building (HS-432), the road was narrowed from forty foot wide to twenty-four foot wide. The Entrance Building was flanked by two forty foot long stone walls on either side of the park road. The ends terminated with large stone piers, and drainage was provided by semicircular arches and drainage ditches on both sides of the road. On the north wall, a wood gate was added at the old equestrian road. A cattle guard was built from steel railroad rails and the building to keep free-grazing cattle from entering the park.[2.93] The CCC planted ornamental trees and shrubs at the park entrance.

A 1936 trail map indicates a series of foot trails and fire trails built by the CCC that created a network encompassing most of the state park. The fire trails, which helped the CCC patrol for fires, were also used as foot or horse trails. The trails traversed elevations from 430' to 900' above sea level. Trails were often built over old wagon trails. Set in the rugged terrain of oak and pine forests, the trails had views of the surrounding hills, river valley, and stone bluffs.[2.94]

While the park flooded in 1936, no damage was recorded to buildings or structures. The Big Spring Stone Dikes (HS-711) remained intact and protected Big Spring.

2.93 *2016 CLI,* 80.
2.94 *Trail Map of Big Spring State Park.* (U.S. Department of the Interior, National Park Service, and Missouri Game and Fish Department, 1936).

1937

The CCC built a single story, wood framed Maintenance Garage (HS-419) with clapboard siding on a cut-stone foundation.[2.95] Construction of the Cabin Road System (HS-401B) was completed with stone curbs and stone retaining walls at cabin parking areas.[2.96] Power lines were built from the Entrance Building (HS-432), connecting to the Maintenance Area, cabins, Dining Lodge (HS-422), and Big Spring. Flood lights illuminated Big Spring.[2.97]

The CCC built thirteen rock ledges using rough quarried stone along the western bank of Big Spring branch to help avert flooding.[2.98] The dry-laid walls were stacked to resemble natural rock formations. Completed in 1937, the ledges marked the last major construction project before CCC Company 1710 departed Big Spring State Park. When the CCC departed in 1937, they razed their camp.

1938

Beginning in 1938, the Works Progress Administration (WPA) continued the legacy of the CCC at Big Spring State Park.

In November 1938, Donald A. Blake designed cabin "Type E" as a Rustic style, single story, four room, side-gable cabin with an intersecting gabled screened porch entry. Later that year, the WPA built six "Type E" timber cabins - #404 (HS-404), #405 (HS-405), #409 (HS-409), #410 (HS-410), #411 (HS-411), and #412 (HS-412).[2.99]

2.95 *2016 CLI,* 78.
2.96 *2016 CLI,* 42.
2.97 *Big Spring State Park, Power Line Job-134.* (U.S. Department of the Interior, National Park Service, and Missouri Game and Fish Department, 1937).
2.98 *2016 CLI*, 42.
2.99 Blake. *Big Spring State Park, Cabins, Type E*. (Missouri State Park Board,1938).



Figure 2-35. The Big Spring Foot Bridge (HS-469) spanned the Spring Valley branch, connecting a trail from the Dining Lodge to the bath house. (OZAR Archives)

1939
The WPA built Cabin #415 (HS-415), a single story, gable roof building with four rooms, interior stone chimney, enclosed porch, entrance accented with a pediment dormer and narrow pilasters, and clapboard siding. It was originally used as employee housing.

1940
The CCC foot bridge that crossed Big Spring branch was replaced with a new single-lane timber bridge.[2.100]

The Chilton Creek Barn (HS-467) was built in the late 1930s or early 1940s, according to Chester Barnes who worked in CCC Company 1710 and then served as refuge manager until 1950. The wood frame Chilton Creek Barn with a hayloft was used as part of the wildlife refuge.[2.101]

1941 to 1942
The WPA built a concession stand and boat docks on the east side of the bridge. The johnboat concession would become a popular fixture of the state park.

The Help's Quarters was added onto the east side of Dining Lodge (HS-422).[2.102] The retaining wall was extended east, coinciding with the Help's Quarters addition.

1944 to 1968: Post CCC / WPA Era
After the departure of the WPA, development of the park slowed and the state placed emphasis on the protection and reintroduction of wildlife. Extensive wildlife fencing, the May / Winters Quarters (HS-444), and the Chilton Creek Barn were built to support the park's use as a wildlife refuge. The next burst of development followed the unexpected donation of 1,100 acres of land from the Dr. T. W. Cotton family in 1957. The donation opened the area north of Big Spring branch for development. New roads, parking areas, trails, and campgrounds were built, including the Peavine Pavilion (HS-428) and an airplane landing strip.

1946
The laundry building (HS-414) was converted to a duplex cabin.[2.103]

1949 to 1950
The May / Winters Quarters (HS-444) was built to house the Big Spring game warden.[2.104] Extensive fencing enclosed acres of adjacent forest, and nearby fields were planted with hay and alfalfa to supplement the deer herd's grazing diet.

Late 1940s
The State of Missouri built the radio shed south of the Fire Tower / Lookout Tower (HS-1404).[2.105]

1947
The state park built the Big Spring Pavilion (HS-425), featuring a standard design developed by the Missouri State Park Board. It was built as a one room, open sided structure with a hip roof supported by square columns. A single brick oven and fireplace were built on the north wall.[2.106]

c.1948
The CCC concession building near the Dining Lodge was converted to a Museum (HS-420).

1954
Dr. T. W. Cotton deeded a 1.7 acre tract of land to the state with the stipulation that a permanent marker commemorate the donation. The Missouri State Park Board demolished a privately owned concession building originally operated by the Dr. T. W. Cotton family.[2.107]

2.100 *2016 CLI,* 50.
2.101 *2016 CLI, 82.*
2.102 *2016 CLI, 72.*
2.103 *2016 CLI, 78.*
2.104 *2016 CLI, 80.*
2.105 *2016 CLI, 83.*
2.106 *2016 CLI,* 79.
2.107 *2016 CLI,* 51.



Figure 2-36. The CCC added Big Spring Foot Bridge (HS-469) and stone steps to the water edge, c. 1934-1937. (OZAR Archives)



Figure 2-37. The footbridge was built with hand-hewn native pine logs and stained brown, 1935. (OZAR Archives)

1957

The Dr. T. W. Cotton family donated over 1,100 acres of land to the state park.[2.108] This included land north of Big Spring branch, allowing park development north of Big Spring. New roads, parking areas, trails, and campgrounds were built. Improvements included the construction of Peavine Road, an airplane landing strip, and the Peavine Pavilion (HS-428).[2.109]

Peavine Pavilion (HS-428), similar in design to the Big Spring Pavilion (HS-425), was built as an open-sided hipped roof structure with square columns and two interior stone chimneys with grills. It was built between 1957 and 1963.

1959

To protect the Current River, proposals were prepared to protect the area as a national recreation area and as a national monument. Ultimately, both of these proposals were rejected by the NPS if favor of a national scenic waterway.[2.110]

1964

On August 24, President Lyndon B. Johnson signed legislature (Public Law 88-492) establishing 134 miles of free-flowing waterways as the OZAR "to conserve and interpret the scenic, natural, scientific, ecological, and historic values and resources with the National Riverways, and to provide for public outdoor recreational use and enjoyment of those resources."[2.111]

2.108 *2016 CLI,* 51.
2.109 *2016 CLI,* 52.
2.110 *Roads and Trails Study,* 11.
2.111 *GMP,* 1.



Figure 2-38. The CCC built a ditch to protect the Big Spring picnic area, date unknown. (OZAR Archives)



Figure 2-39. The CCC stabilized the drainage channels and stream edges with stone, date unknown. (OZAR Archives)



Figure 2-40. The CCC stabilized steep slopes with rock outcropping from the quarry, date unknown. (OZAR Archives)



Figure 2-41. The CCC built stone culverts to direct water under roads, date unknown. (OZAR Archives)



Figure 2-42. The CCC built truck trails, often along old wagon trails, date unknown. (OZAR Archives)



Figure 2-43. The CCC used equipment for road construction, date unknown. (OZAR Archives)



Figure 2-44. Cabin #401 (HS-401) was built shortly after two 'type A' cabins, c. 1934-1937. (OZAR Archives)

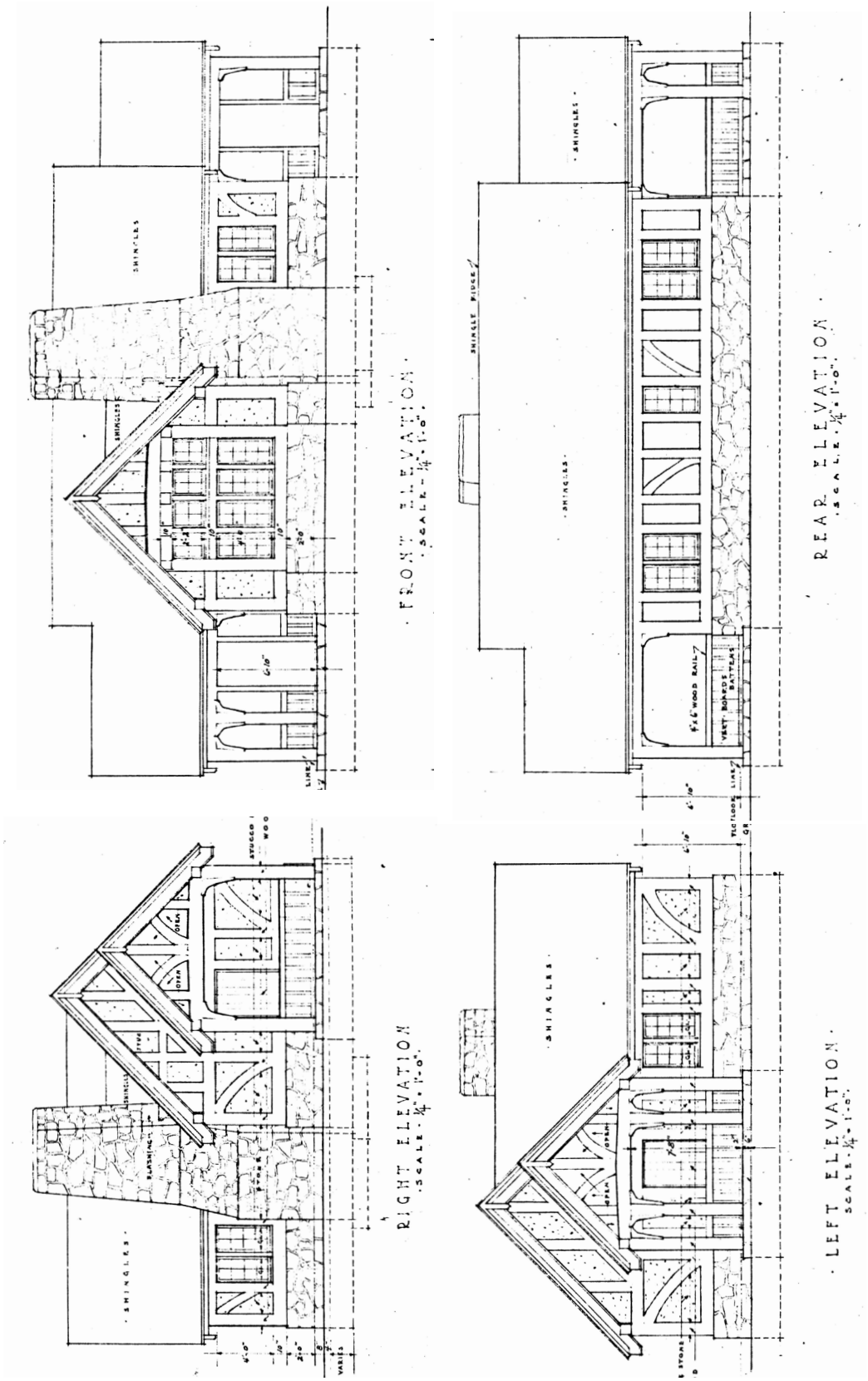


Figure 2-45. Architect Donald A. Blake designed the 'type B' cabin (HS-401) with an 'L' shaped floor plan, 1934. (OZAR Archives)



Figure 2-46. Cabin #402 (HS-402) (shown) and Cabin #403 (HS-403) were constructed with exposed timber framing and irregular coursed cut stone walls. Both are 'type A' cabins, date unknown. (OZAR Archives)

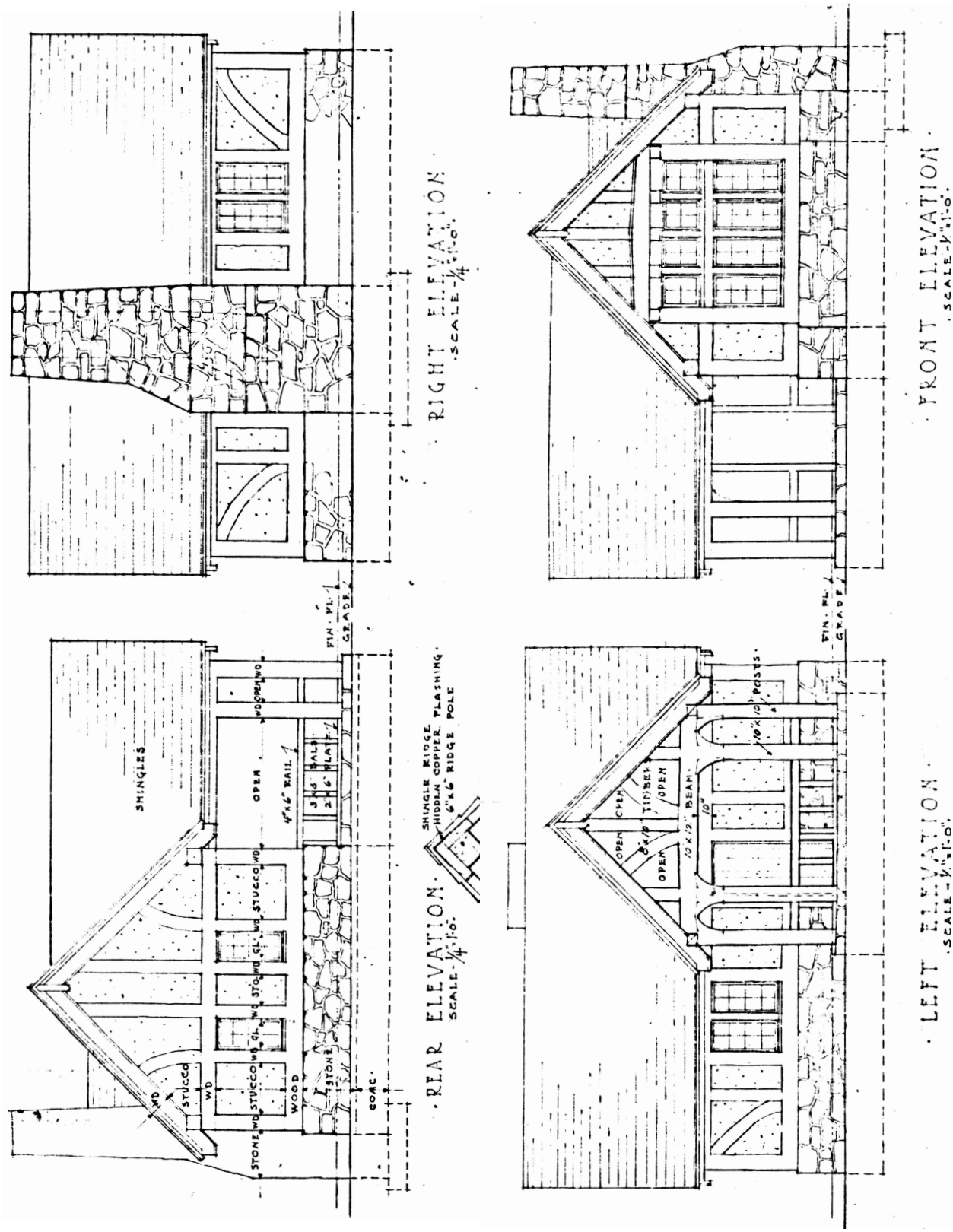


Figure 2-47. Architect Donald A. Blake designed 'type A' cabin in the Rustic style with Tudor influences, 1934. (OZAR Archives)



Figure 2-48. The CCC improved the river bank at the swimming area, date unknown. (OZAR Archives)



Figure 2-49. Cabins #406 (HS-406), #407 (HS-407). and #408 (HS-408) were originally built by the MSB in the 1930s, c. 1930. (2016 CLI, 38)

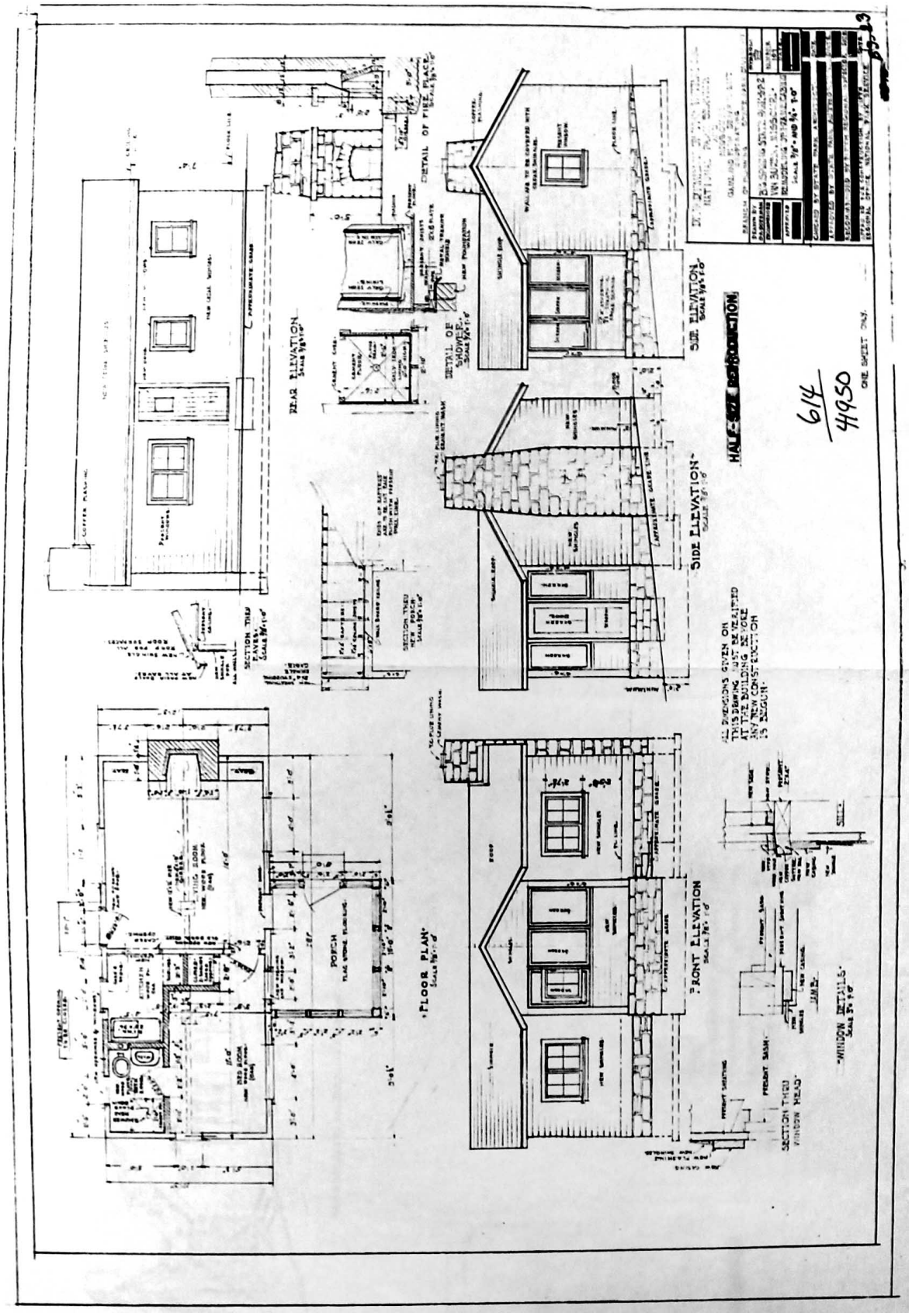


Figure 2-50. The CCC prepared plans to relocate and remodel three cabins, date unknown. (OZAR Archives)



Figure 2-51. Cabins #406 (HS-406), #407 (HS-407), and #408 (HS-408) were in an open field overlooking the Current River, date unknown. (OZAR Archives)

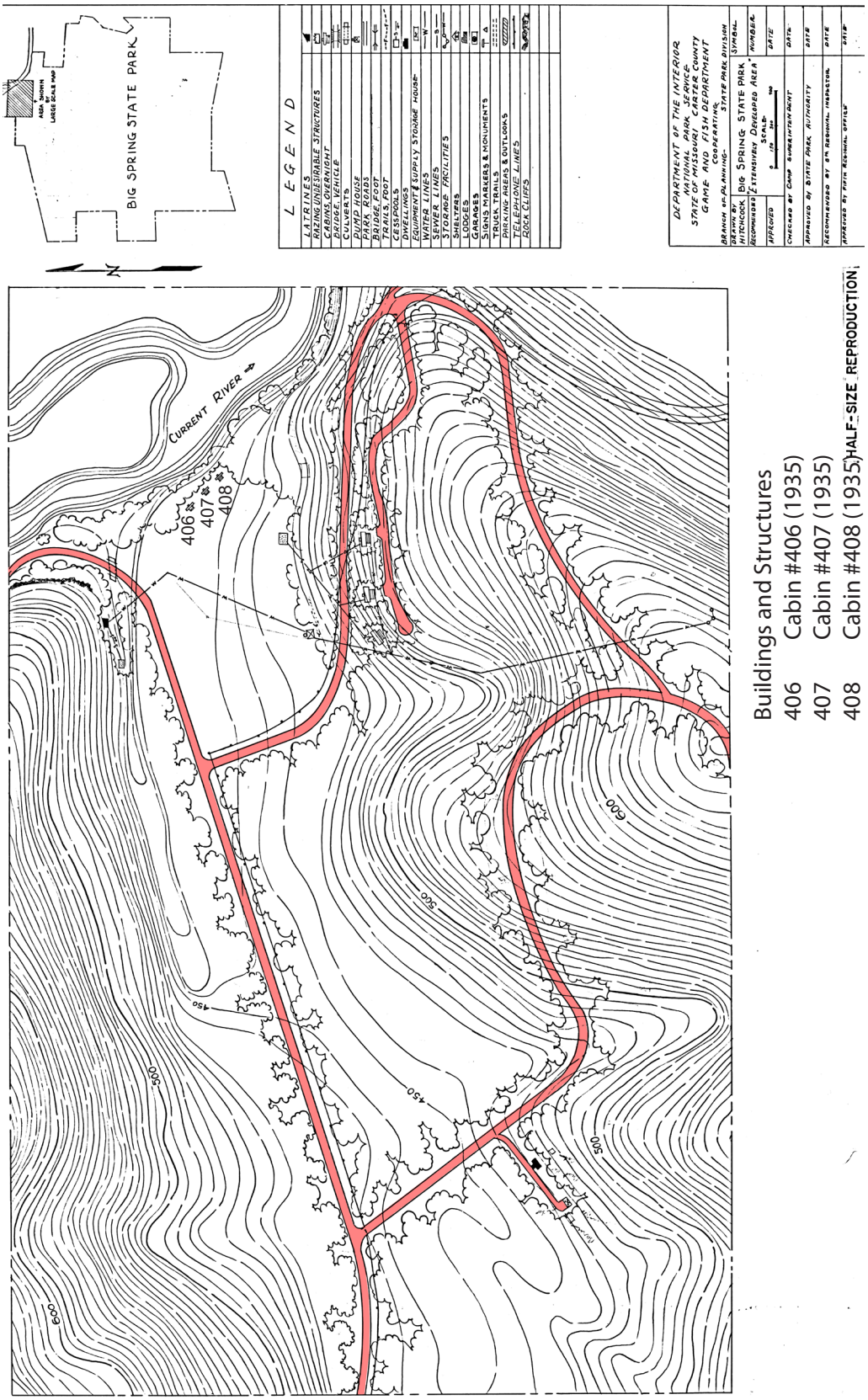


Figure 2-52. A CCC survey indicates the original location of Cabins #406 (HS-406), #407 (HS-407), and #408 HS-408), date unknown. (OZAR Archives)



Figure 2-53. Cabins #406 (HS-406), #407 (HS-407), and #408 (HS-408) were relocated and remodeled with new screen porch entries and exterior stone chimneys, date unknown. (OZAR Archives)



Figure 2-54. Cabin #416 (HS-416) was moved to the Maintenance Area from an unknown location, date unknown. (OZAR Archives)

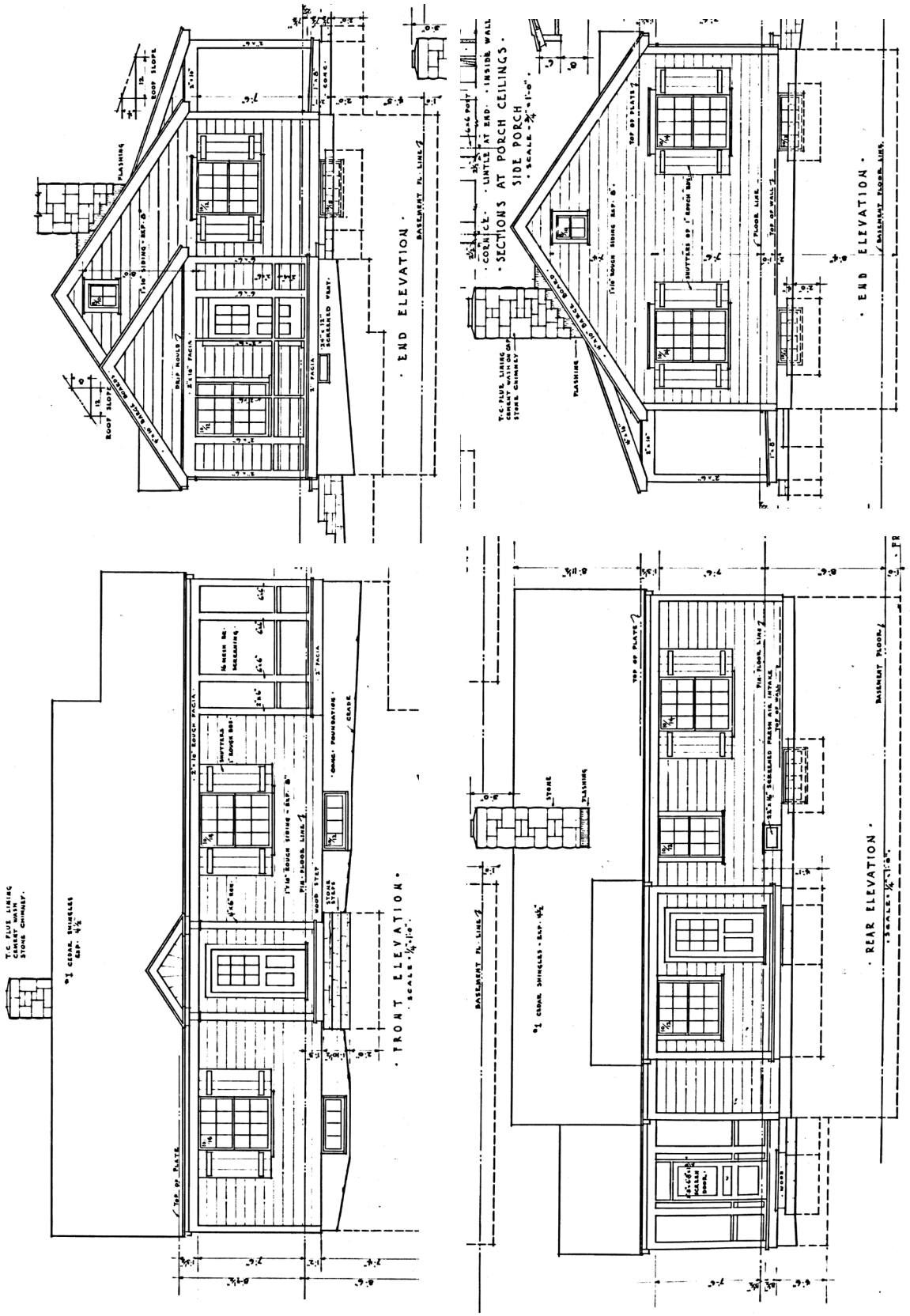


Figure 2-55. Donald A. Blake designed and the CCC built Cabin #413 (HS-413) as the fire keeper's quarters in 1935. Drawing dated 1939. (OZAR Archives)



Figure 2-56. Cabin #416 (HS-416) during remodeling. (OZAR Archives)

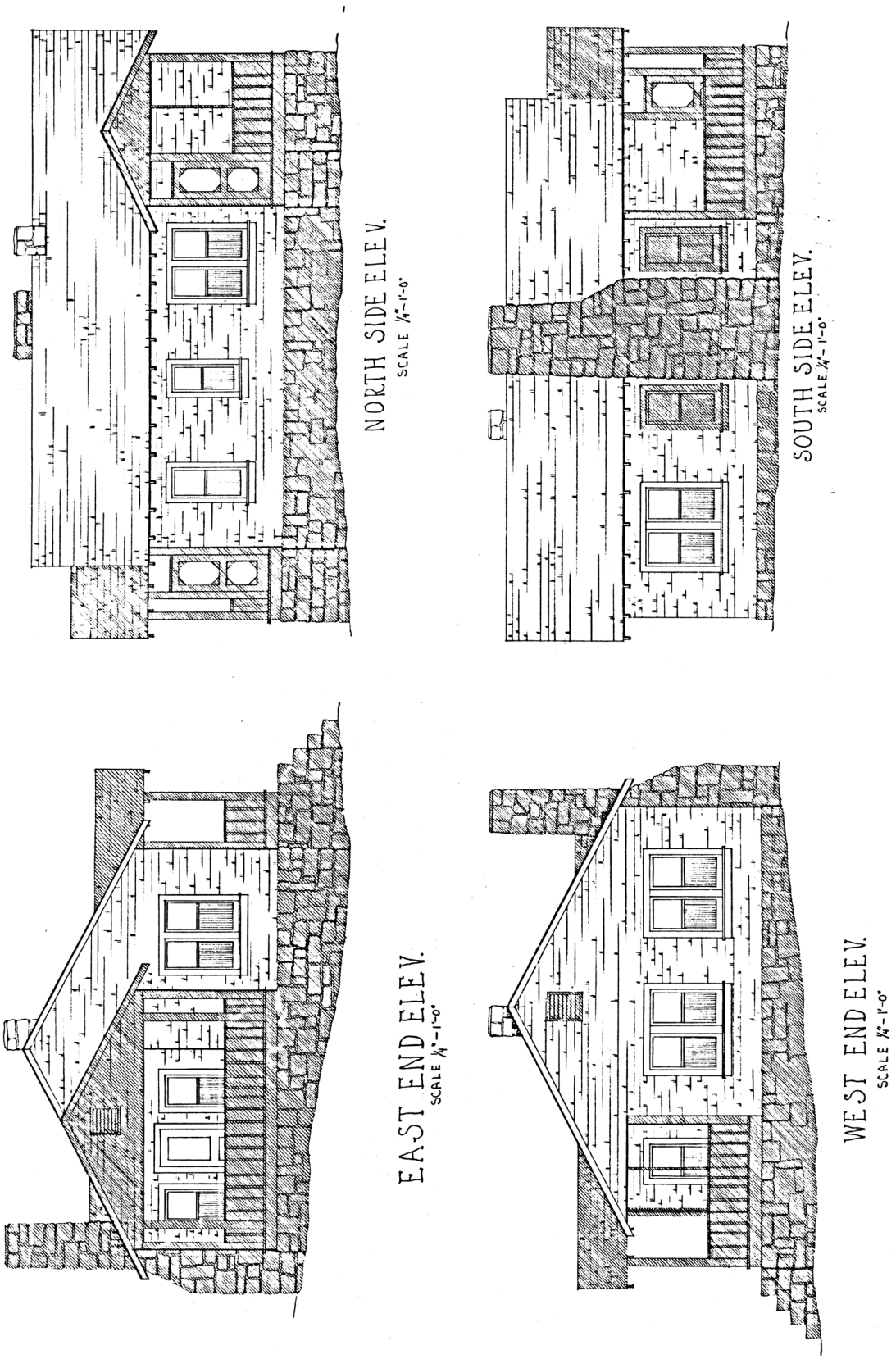


Figure 2-57. Donald A. Blake prepared plans to remodel Cabin #416 (HS-416). Areas of remodel are shaded in, date unknown. (OZAR Archives)



Figure 2-58. Stone steps were added to the front entry of Cabin #416 (HS-416) and the porch was enclosed, date unknown. (OZAR Archives)



Figure 2-59. The CCC added wood siding to Cabin #416 (HS-416), date unknown. (OZAR Archives)



Figure 2-60. The CCC built the Latrine (HS-423) with exposed timber framing and irregular coursed cut stone walls. A stone retaining wall and abutments were dry laid against the embankment, date unknown. (OZAR Archives)

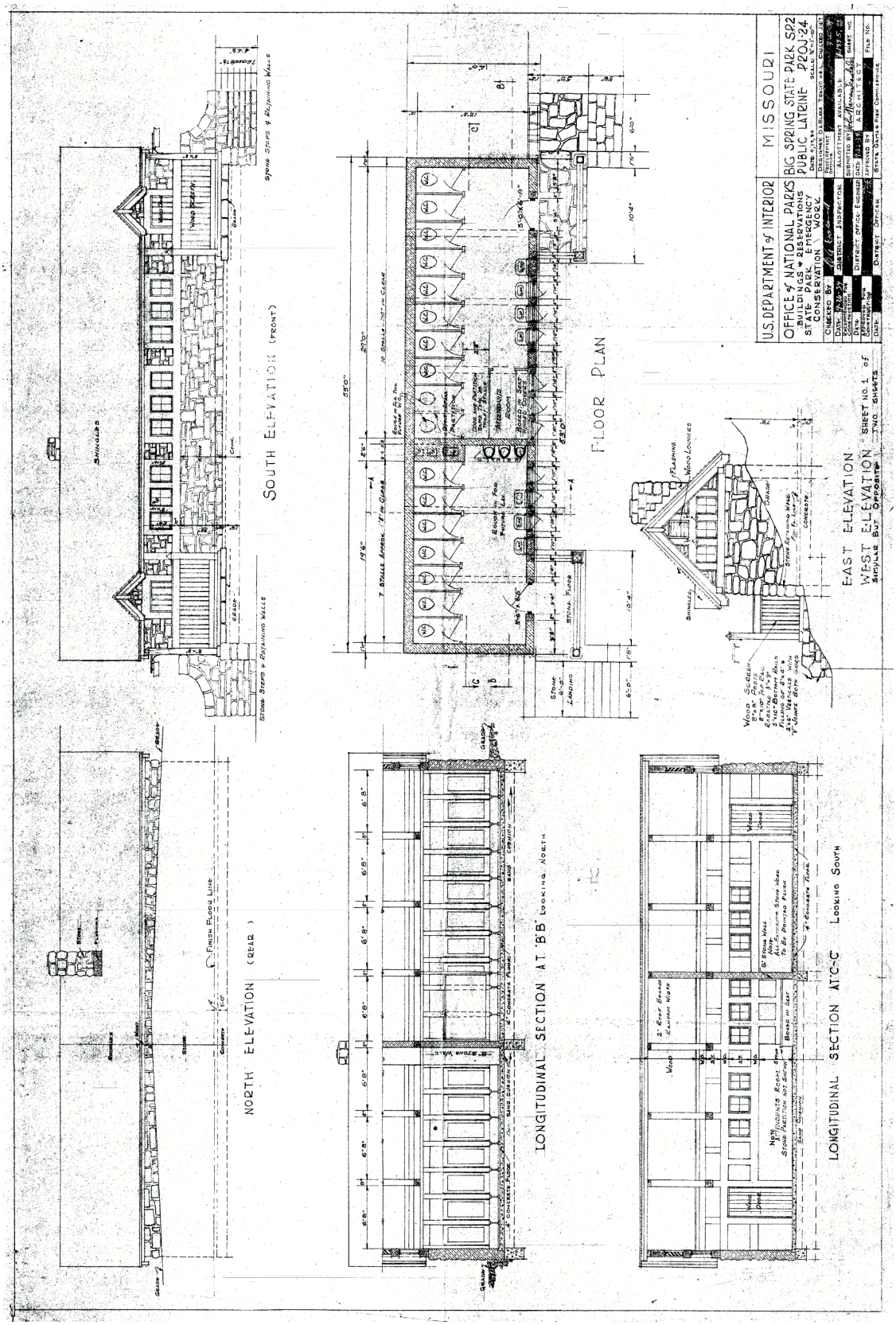


Figure 2-61. Donald A. Blake designed the Latrine (HS-423) in the Rustic style with Tudor influences, 1934. (OZAR Archives)



Figure 2-62. Vegetation covered the rubble wall in front of the Latrine (HS-423), date unknown. (OZAR Archives)



Figure 2-63. The gable roof Latrine (HS-423) has two gable dormers over the entrances to the men's and women's restrooms, date unknown. (OZAR Archives)



Figure 2-64. The CCC cleared the forest to build the Picnic Shelter (HS-496), date unknown. (OZAR Archives)



Figure 2-65. The open sided Picnic Shelter (HS-496) was used as a picnic area, date unknown. (OZAR Archives)

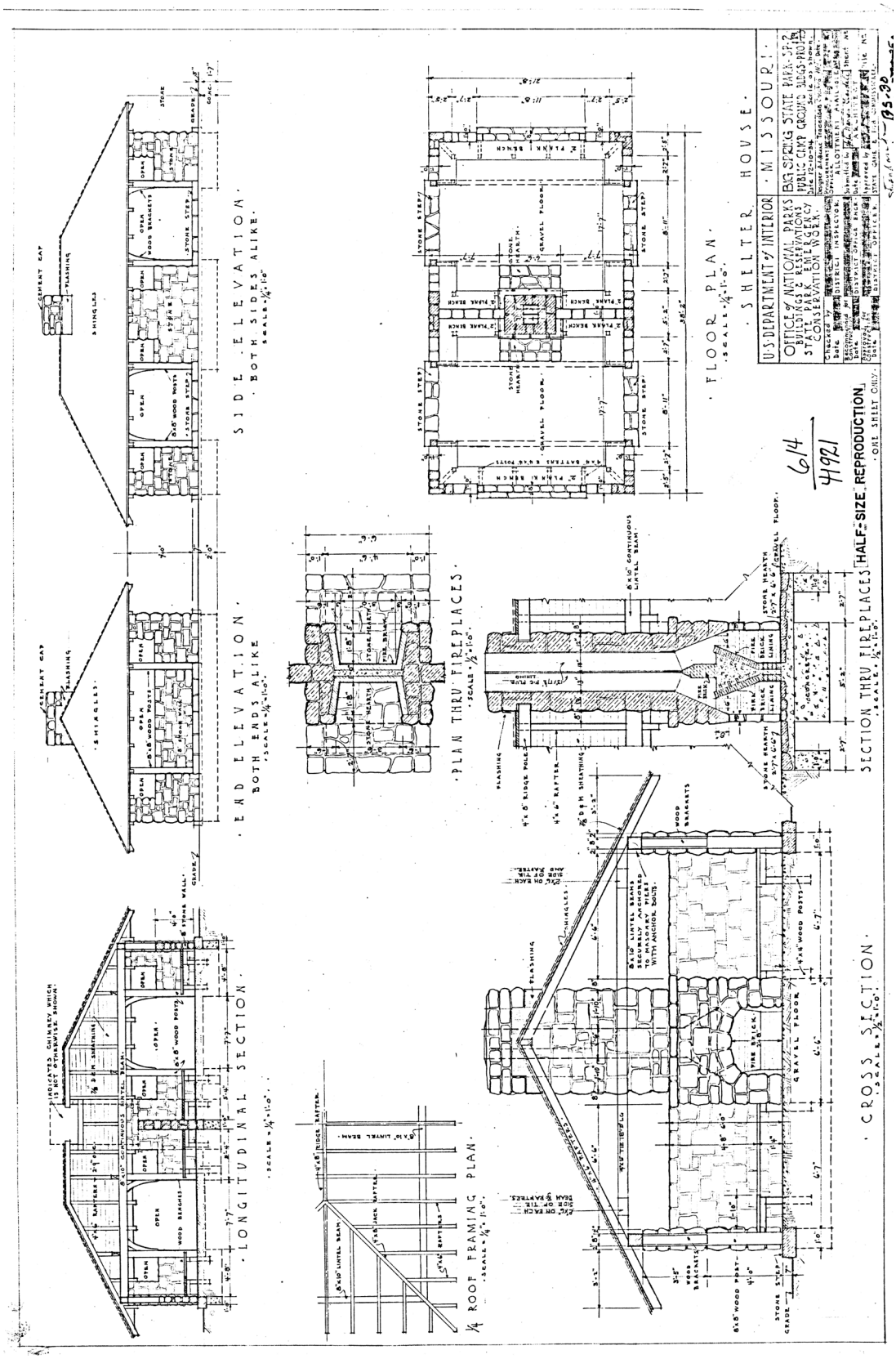


Figure 2-66. The CCC built the Chubb Hollow Open Shelter House (HS-427) as a partially open-side structure with a hip roof and flagstone floor, 1934. (OZAR Archives)

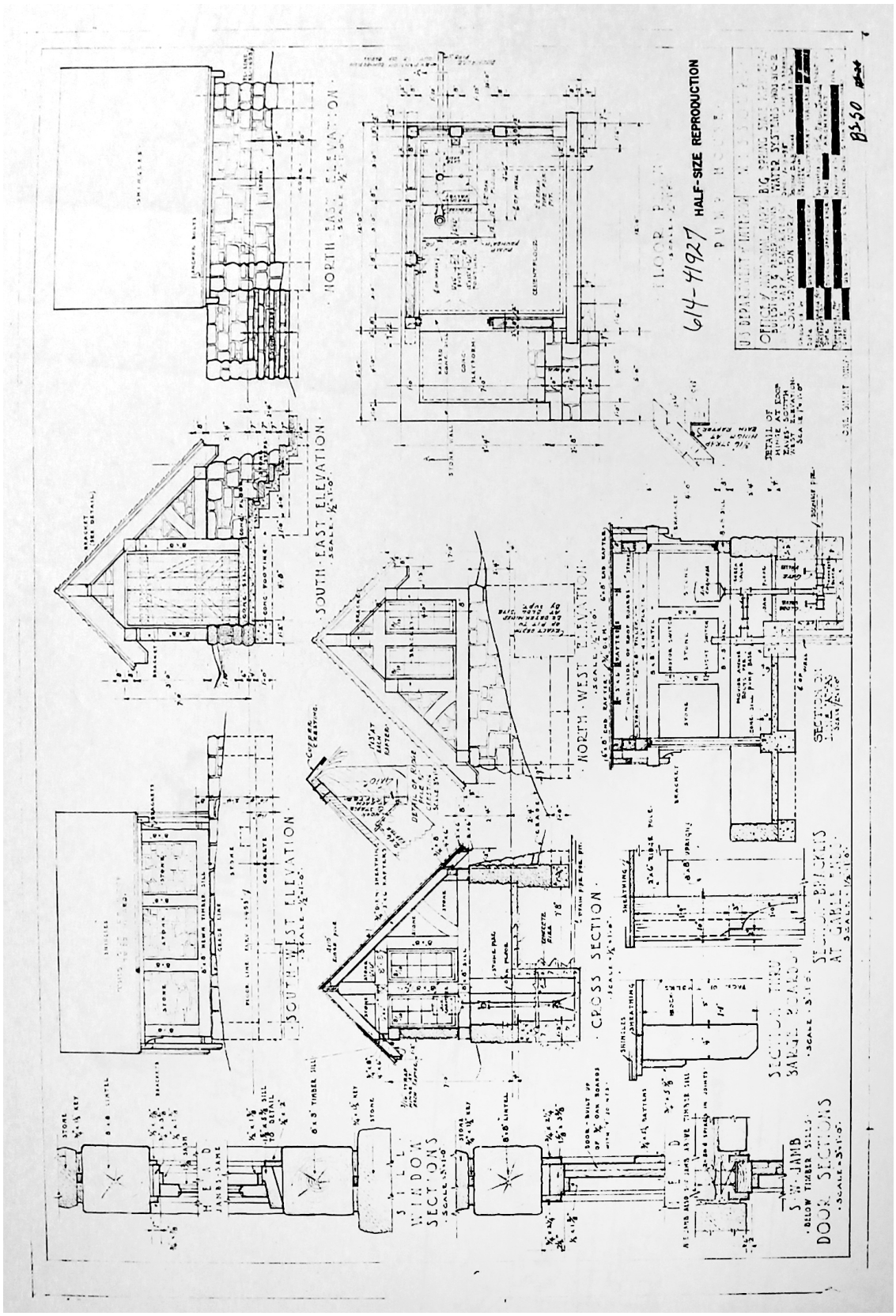


Figure 2-67. Drawing for the Pump House (HS-443), 1935. (OZAR Archives)



Figure 2-68. The CCC dug a pit for the Pump House (HS-443), date unknown. (OZAR Archives)



Figure 2-69. The Pump House (HS-443) replaced an older pump house that was adjacent to the new building, date unknown. (OZAR Archives)



Figure 2-70. The CCC built a single story, open sided, Pump House (HS-443) with an asymmetrical gable roof and a combination of exposed timbers and irregular coursed cut stone walls, date unknown. (OZAR Archives)

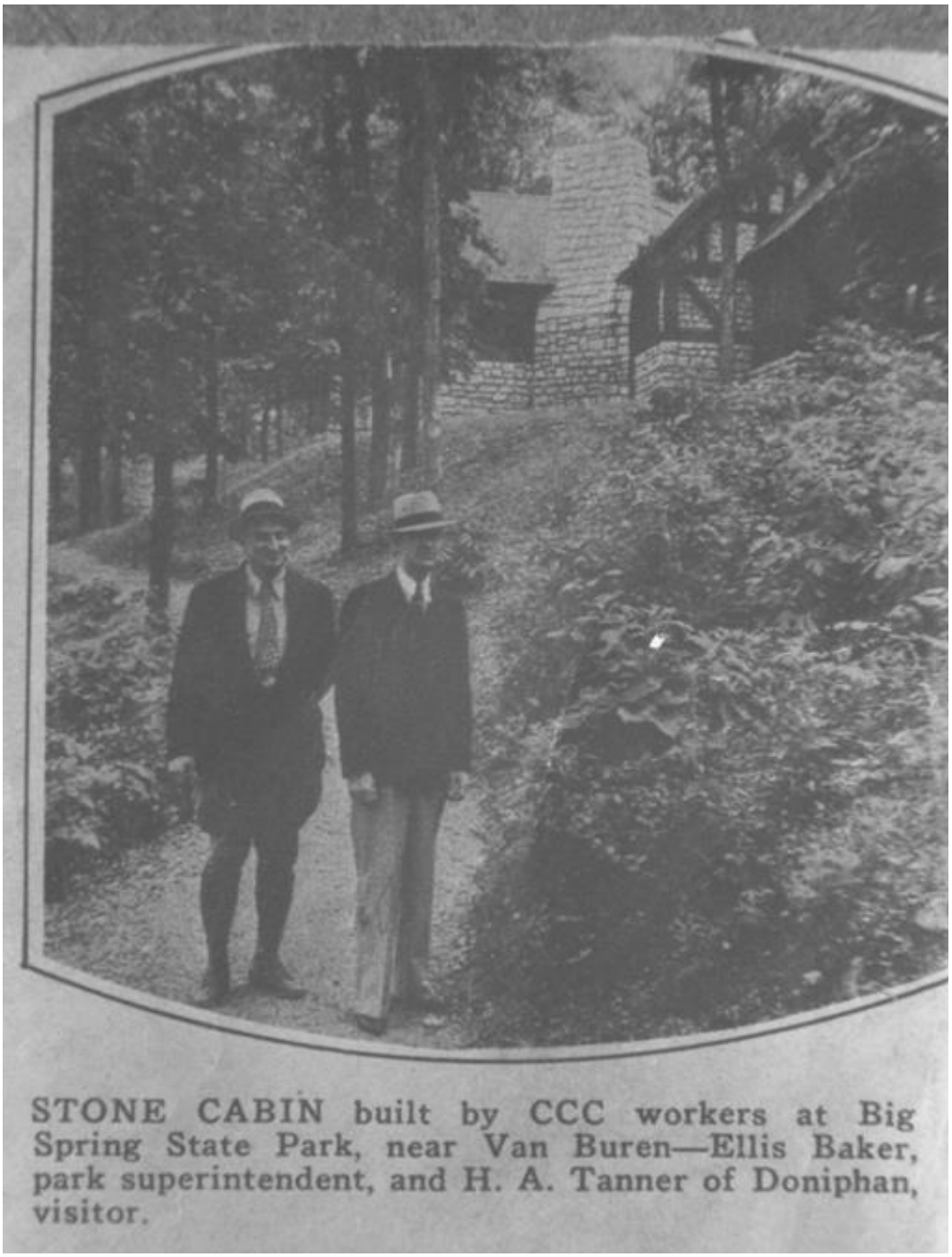


Figure 2-71. The CCC built a series of stone walks and steps to connect the existing cabins with newly developed cabins and park facilities, 1957. (OZAR Archives)

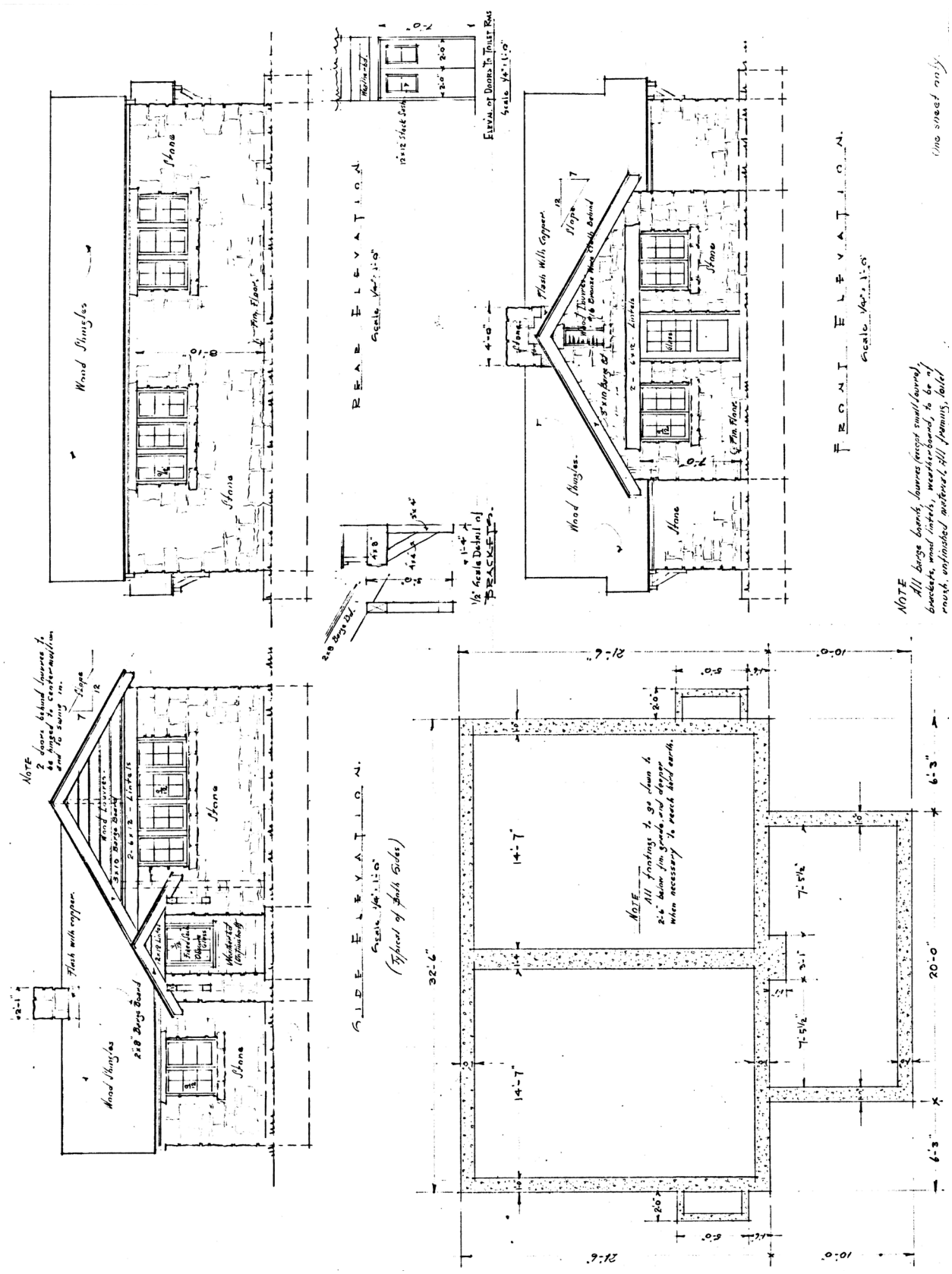


Figure 2-72. A laundry / bath house (HS-414) was built as a one- and a half story cross-gabled stone building with timber sills, stone steps leading to a basement, and a gabled rear porch entry, 1935. (OZAR Archives)



Figure 2-73. A laundry / bath house was later converted to Cabin #414 (HS-414), date unknown. (OZAR Archives)



Figure 2-74. The Maintenance Shop (HS-417) was a two-story, three-room, gambrel roof building with a cut stone foundation and chimney, and exterior staircase, date unknown. (OZAR Archives)

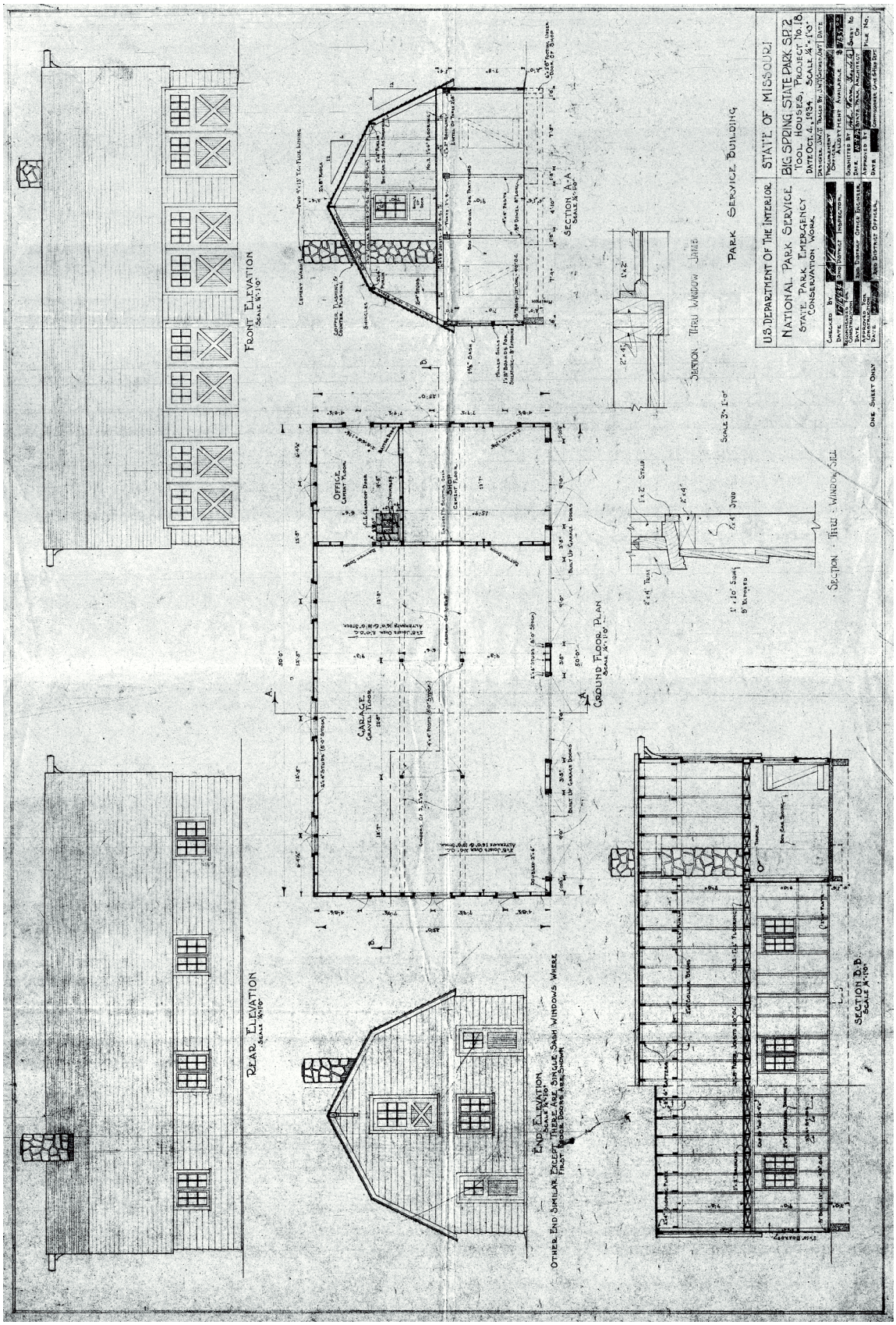
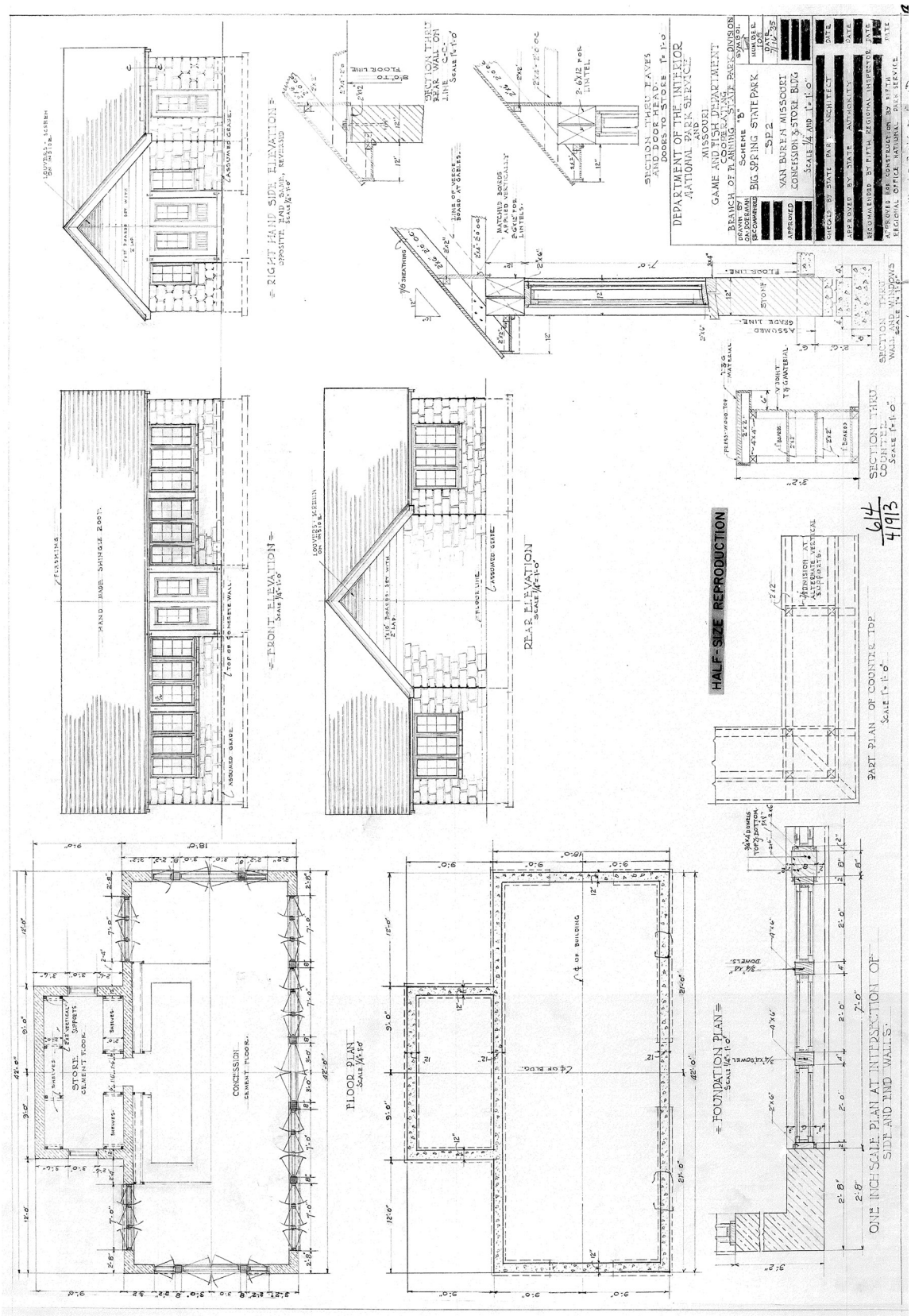


Figure 2-75. John Warren Teasdale designed the Maintenance Shop (HS-417), 1934. (OZAR Archives)



Figure 2-76. The one-story, gable building was a combination of coursed stone and timber with windows along most facades, date unknown. (OZAR Archives)


DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE
MISSOURI
GAME AND FISH DEPARTMENT
COOPERATING
BRANCH OF PLANNING AND STATE PARKS DIVISION
SCHEME "B"
BIG SPRING STATE PARK
-SP 2
VAN BUREN MISSOURI
CONCESSION & STORE BLDG
SCALE 1/4 AND 1"-1'-0"
HALF-SIZE REPRODUCTION
4913
FRONT ELEVATION
REAR ELEVATION
RIGHT HAND SIDE ELEVATION
SECTION THRU REAR WALL ON LINE C-C
SECTION THRU EAVES AND DOOR HEAD DOORS TO STORE
SECTION THRU COUNTER
SECTION THRU WALL AND WINDOWS
PART PLAN OF COUNTER TOP
FLOOR PLAN
FOUNDATION PLAN
ONE INCH SCALE PLAN AT INTERSECTION OF SIDE AND END WALLS
CONCESSION
STORE
CEMENT FLOOR
SHELVES
FLOOR LINE
ASSUMED GRADE
HAND MADE SHINGLE ROOF
FLASHING
LOUVERS-SCREEN ON INSIDE
FLOOR SLAB
TOP OF CONCRETE WALL
MATCHED BOARDS
2"x6" FOR LINTELS
2"x12" FOR LINTEL
STONE
ASSUMED GRADE LINE
1/2 SHEATHING
1"x3" MATERIAL
TONGUE AND GROOVE
SHELVES
SHELVES
SHELVES

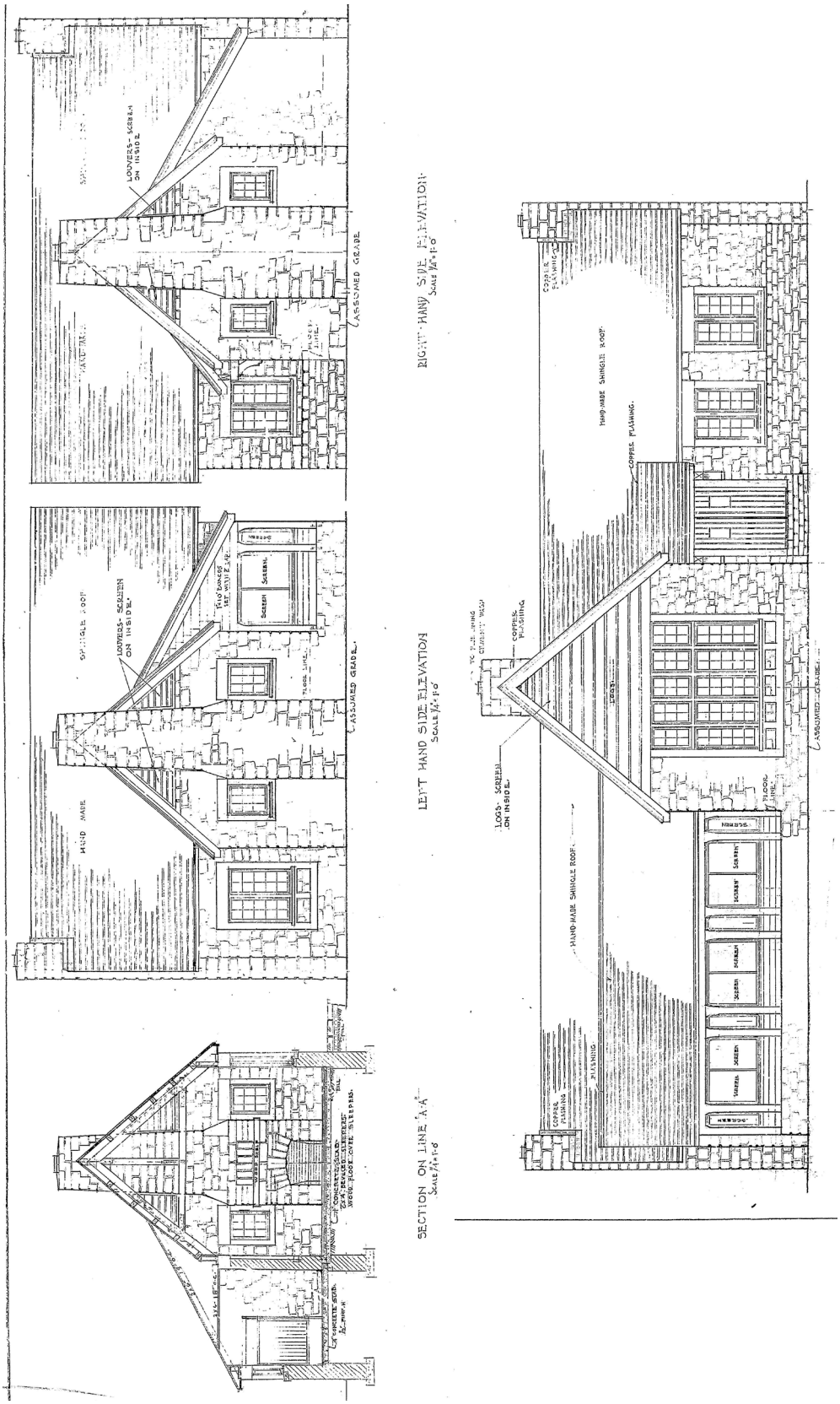


Figure 2-78. Donald A. Blake designed the Dining Lodge (HS-422) in the Tudor style with Prairie School influences, 1935. (OZAR Archives)

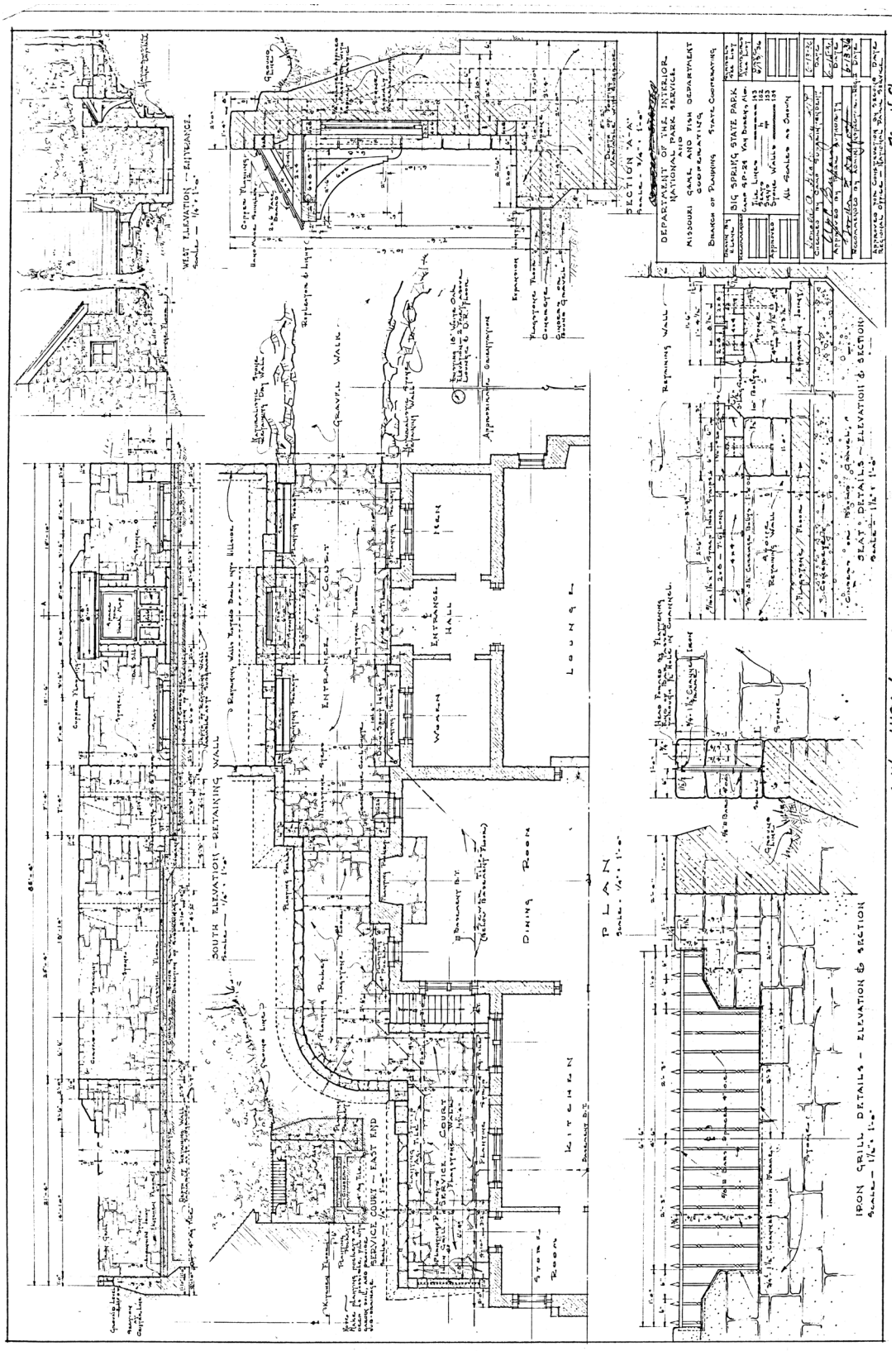


Figure 2-79. The Dining Lodge (HS-422) flagstone entrance court was drawn by H.R. Lenz and approved by Donald A. Blake, 1936. (OZAR Archives)

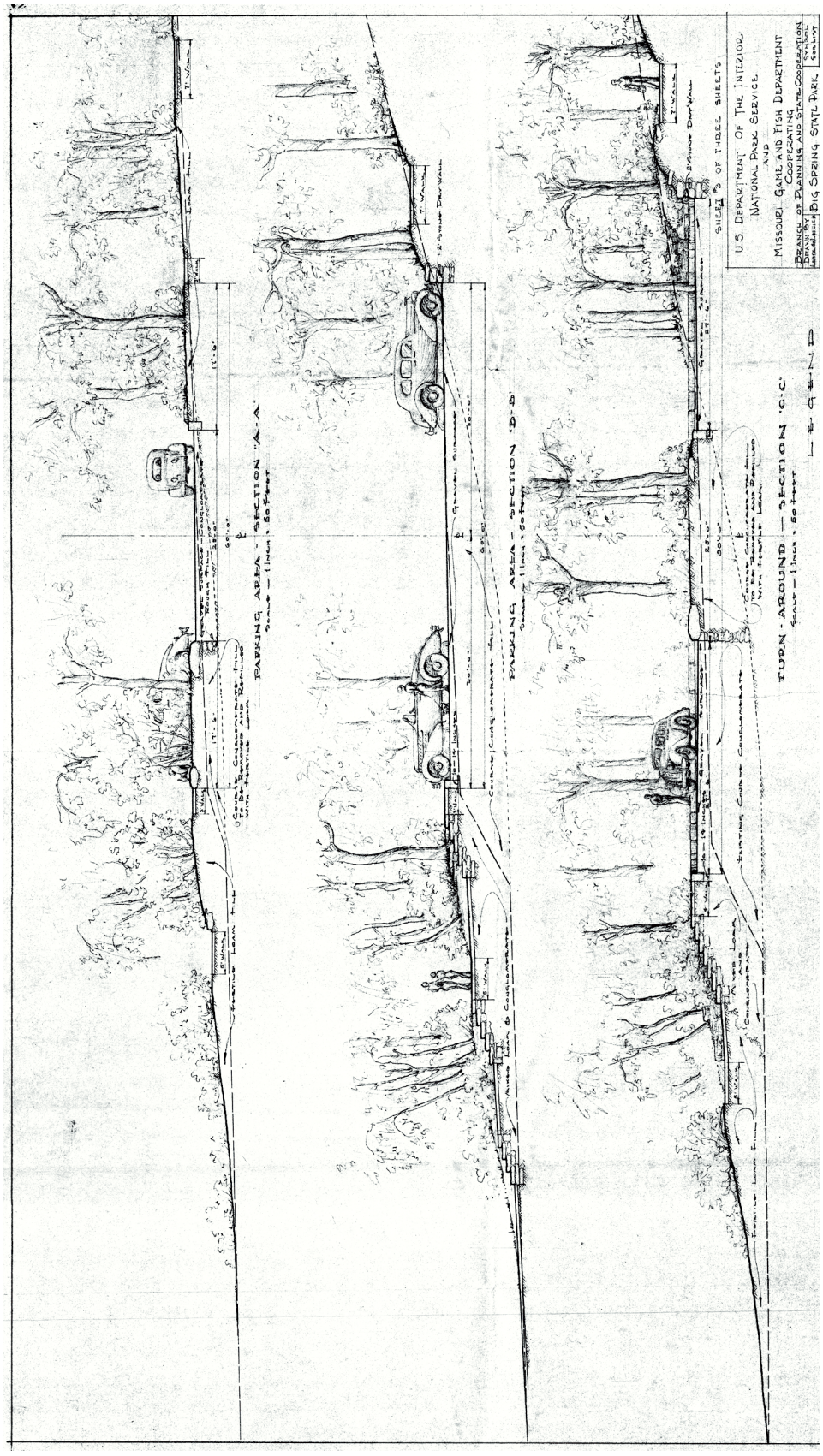


Figure 2-80. The Main Parking Area (HS-714) construction began in 1936, 1936. (OZAR Archives)



Figure 2-81. The Dining Lodge (HS-422) was set at the end of the long, gravel Main Parking Area (HS-714) with stone curbs, date unknown. (OZAR Archives)



Figure 2-82. Two latrines built by the state park were removed by the CCC to build the Dining Lodge (HS-422), date unknown. (OZAR Archives)



Figure 2-83. The Dining Lodge (HS-422) construction began in 1936, date unknown. (OZAR Archives)

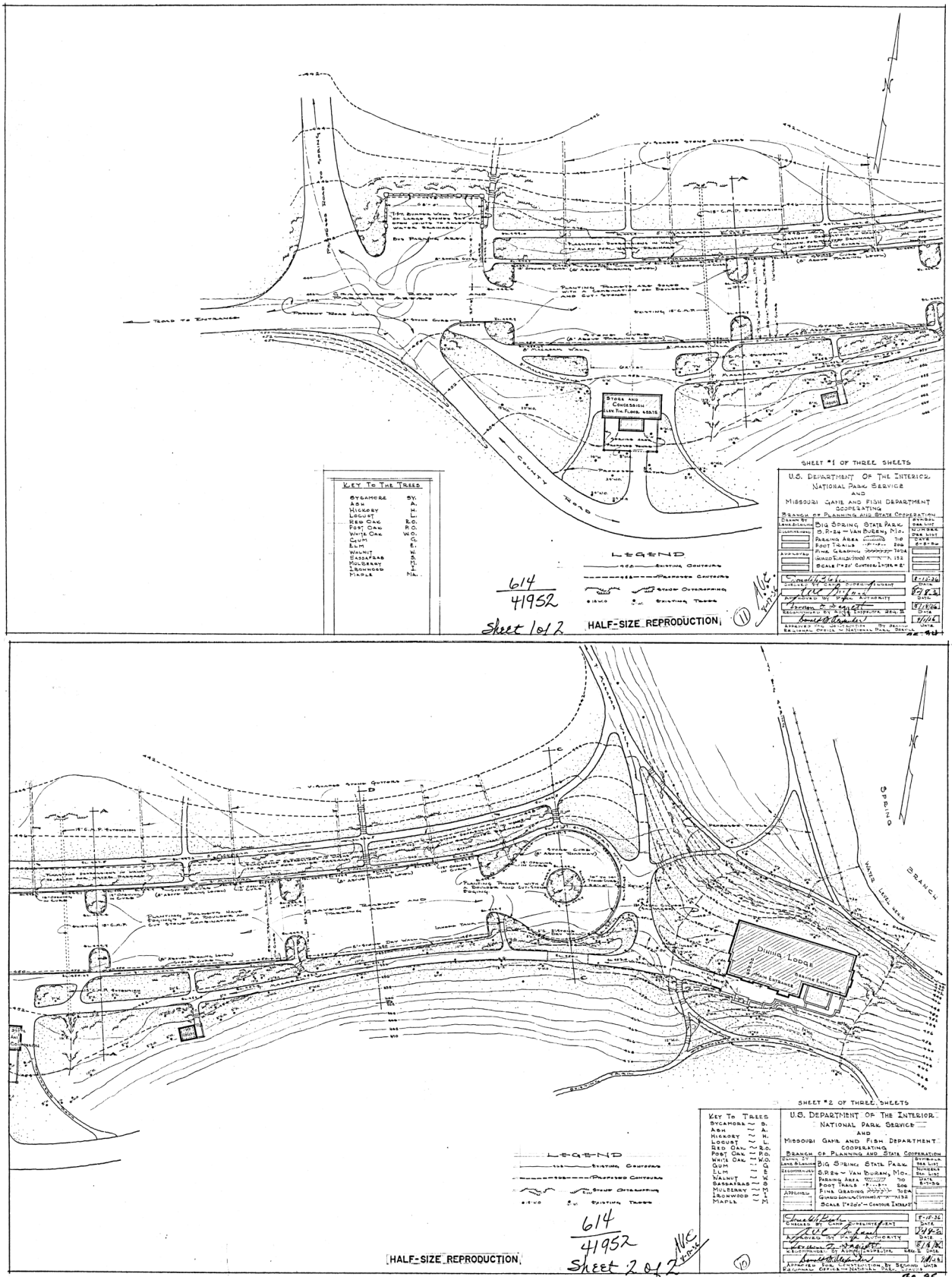


Figure 2-84. The CCC built the Main Parking Area (HS-714) with stone curbs for the Dining Lodge (HS-422) in front of the concession building (Museum (HS-420)) and Pump House (HS-443), 1936. (OZAR Archives)



Figure 2-85. The CCC graded the Main Parking Area (HS-714), date unknown. (OZAR Archives)



Figure 2-86. The Main Parking Area (HS-714) was built in front of the concession building (Museum (HS-420)) and Pump House (HS-443), off Highway Z, date unknown. (OZAR Archives)



Figure 2-87. The CCC built the variable height Dining Lodge Retaining Wall and Fountain (HS-422A) with a circular, stepped fountain on axis with the rear door of the Dining Lodge (HS-422), date unknown. (OZAR Archives)



Figure 2-88. The Dining Lodge (HS-422) was set into a hill overlooking the confluence of the Current River and Big Spring branch, date unknown. (OZAR Archives)



Figure 2-89. The cross gable Dining Lodge (HS-422) had timber framing with irregular coursed cut stone walls, two porches, a large flagstone entrance court, and a massive exterior stone chimney, date unknown. (OZAR Archives)



Figure 2-90. The CCC built stone steps to the river edge, date unknown. (OZAR Archives)

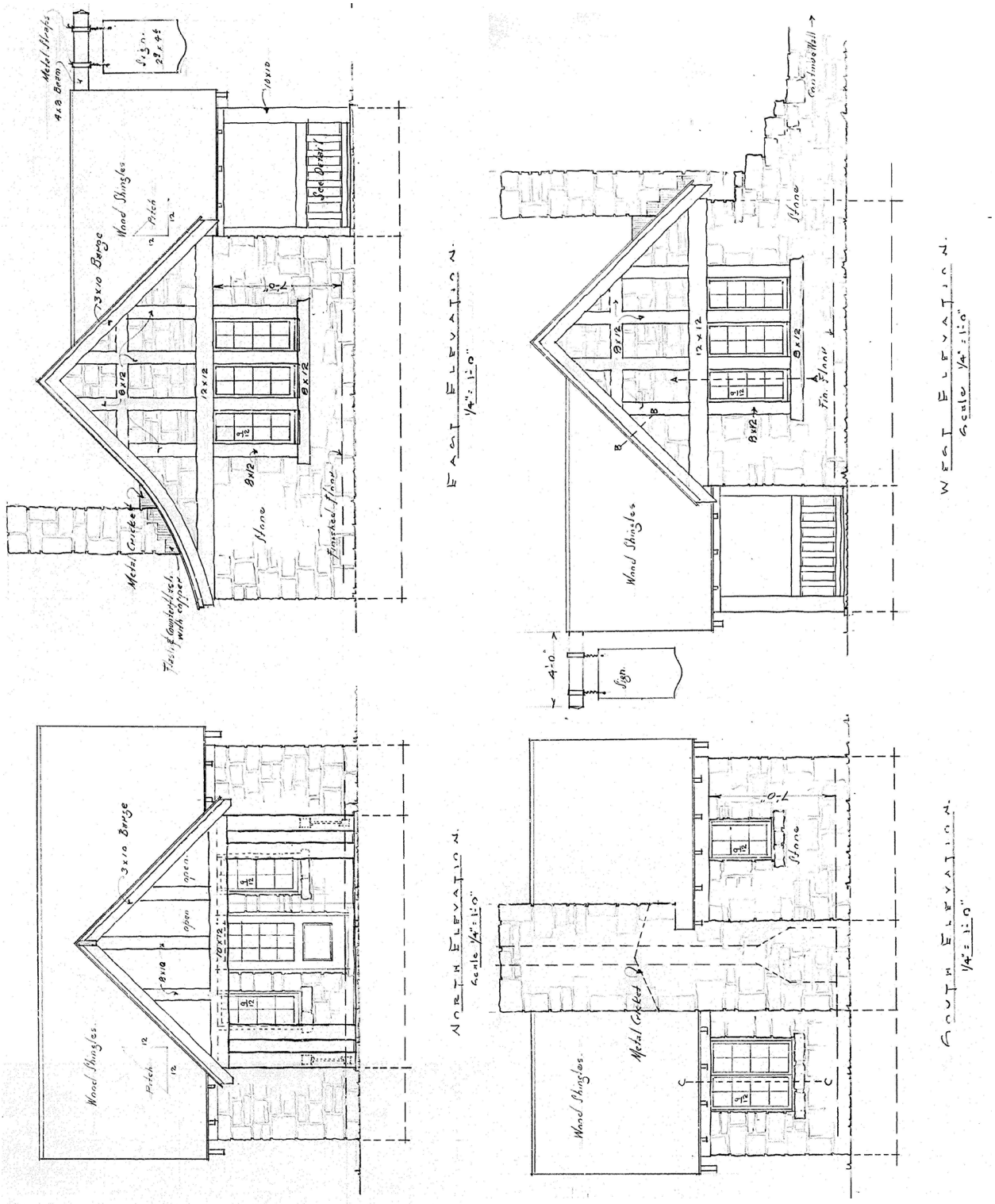


Figure 2-91. Donald A. Blake designed the Entrance Building (HS-432) in the Rustic style with Tudor influences, 1935. (OZAR Archives)

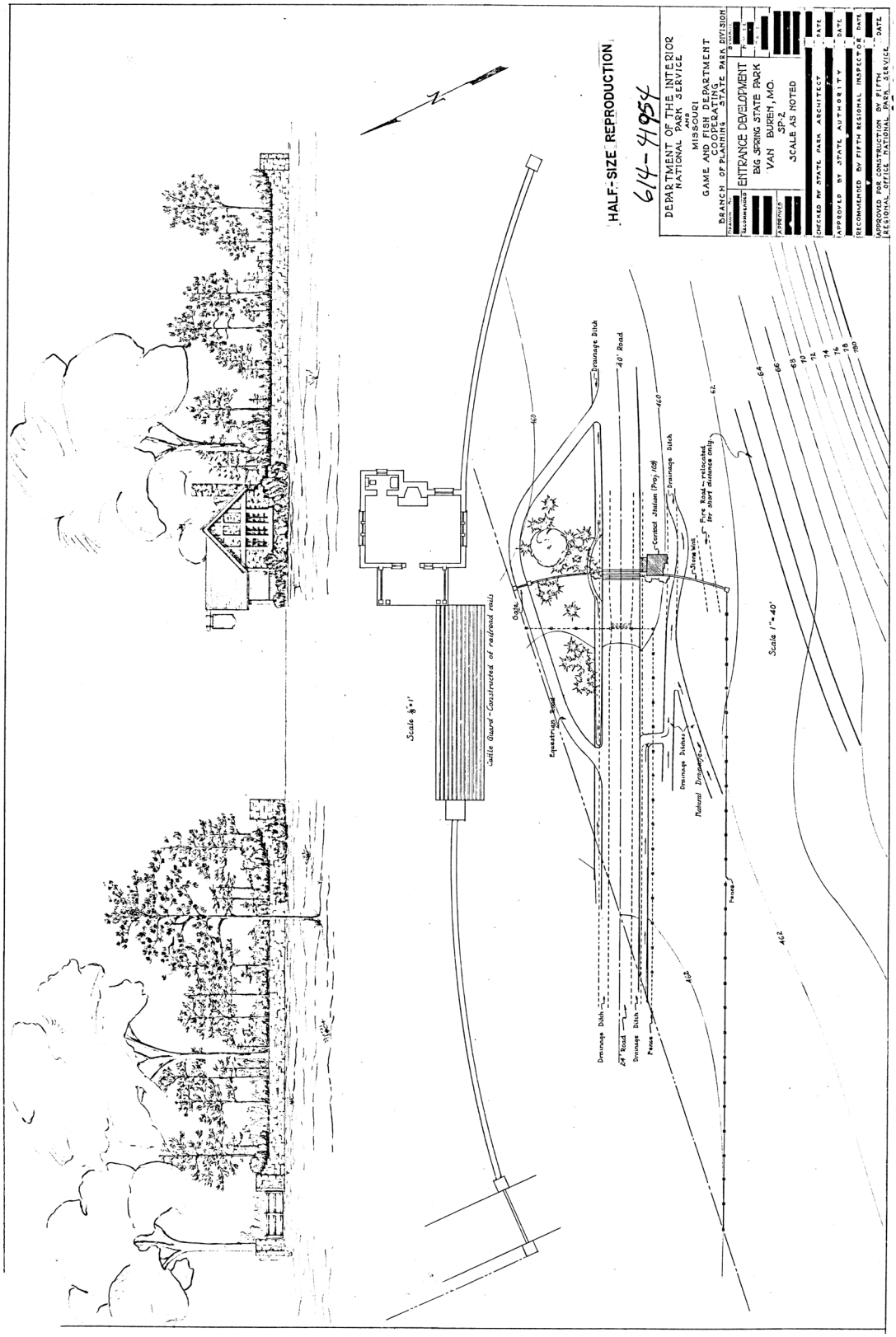


Figure 2-92. The Entrance Building (HS-432) was built on Peavine Road / State Highway 103, the primary access into the park. During construction the road was narrowed from 40' to 24' wide. A cattle guard kept free-roaming cattle from entering the park, date unknown. (OZAR Archives)



Figure 2-93. CCC workers cleared the site to build the Entrance Building (HS-432), date unknown. (OZAR Archives)



Figure 2-94. The cross gable Entrance Building (HS-432) had timber framing and irregular coursed cut stone wall, date unknown. (OZAR Archives)



Figure 2-95. The Entrance Building (HS-432) under construction, 1936. (OZAR Archives)



Figure 2-96. The Entrance Building (HS-432) on Peavine Road / State Highway 103 was originally used as a visitor center, date unknown. (OZAR Archives)



Figure 2-97. The Entrance Building (HS-432) was flanked with two forty foot walls with end piers and drainage arches, date unknown. (OZAR Archives)



Figure 2-98. The CCC planted ornamental trees and shrubs at the Entrance Building (HS-432), 1936-1937. (OZAR Archives)



Figure 2-99. A wooden fence extended from the Entrance Building (HS-432) along the road, date unknown. (OZAR Archives)



Figure 2-100. During construction of the Entrance Building (HS-432), the road was narrowed from 40' wide to 24' wide, date unknown. (OZAR Archives)

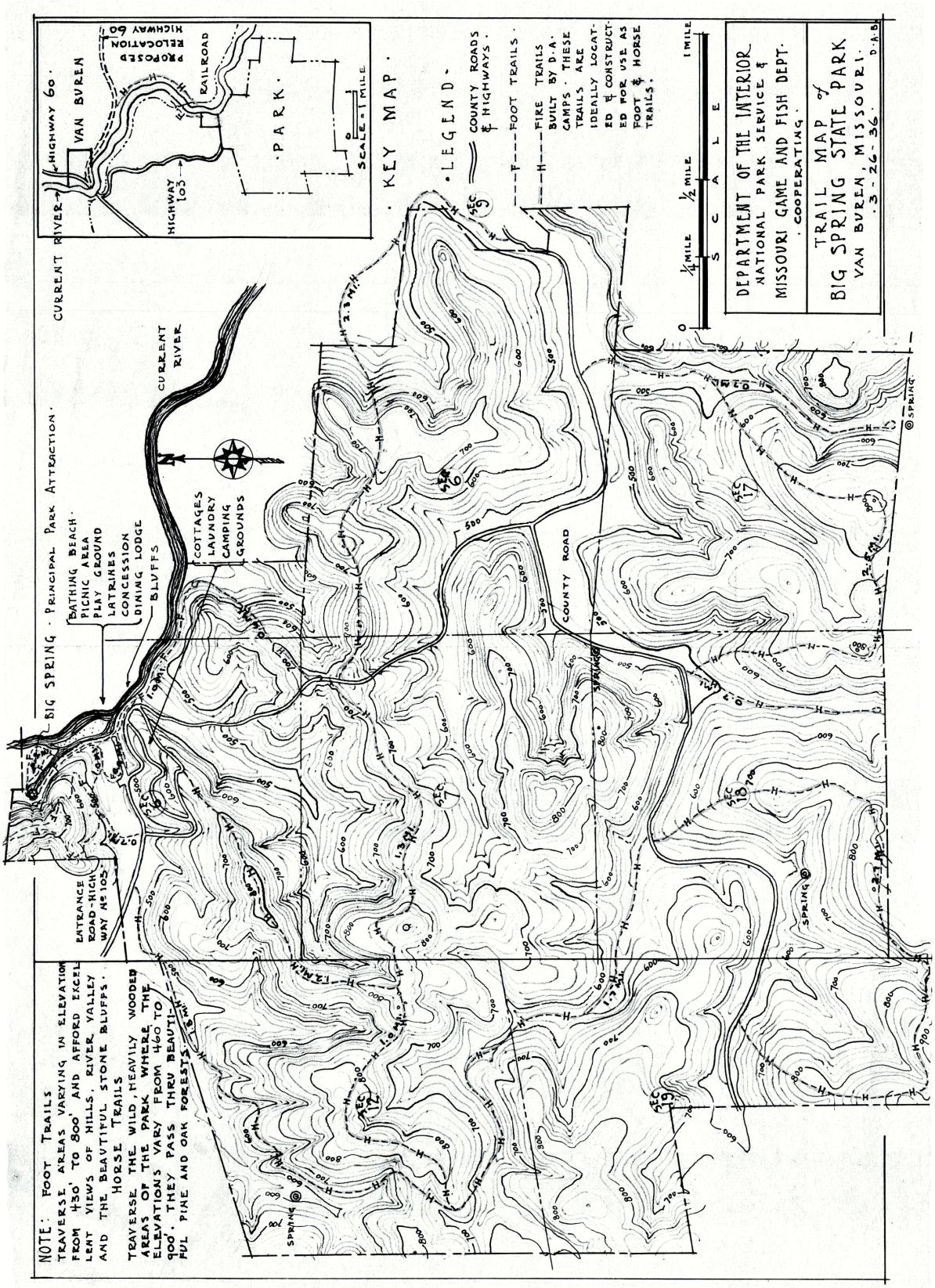


Figure 2-101. A 1936 trail map indicates a series of foot trails and fire trails built by the CCC that created a network encompassing most of the state park, 1936. (OZAR Archives)

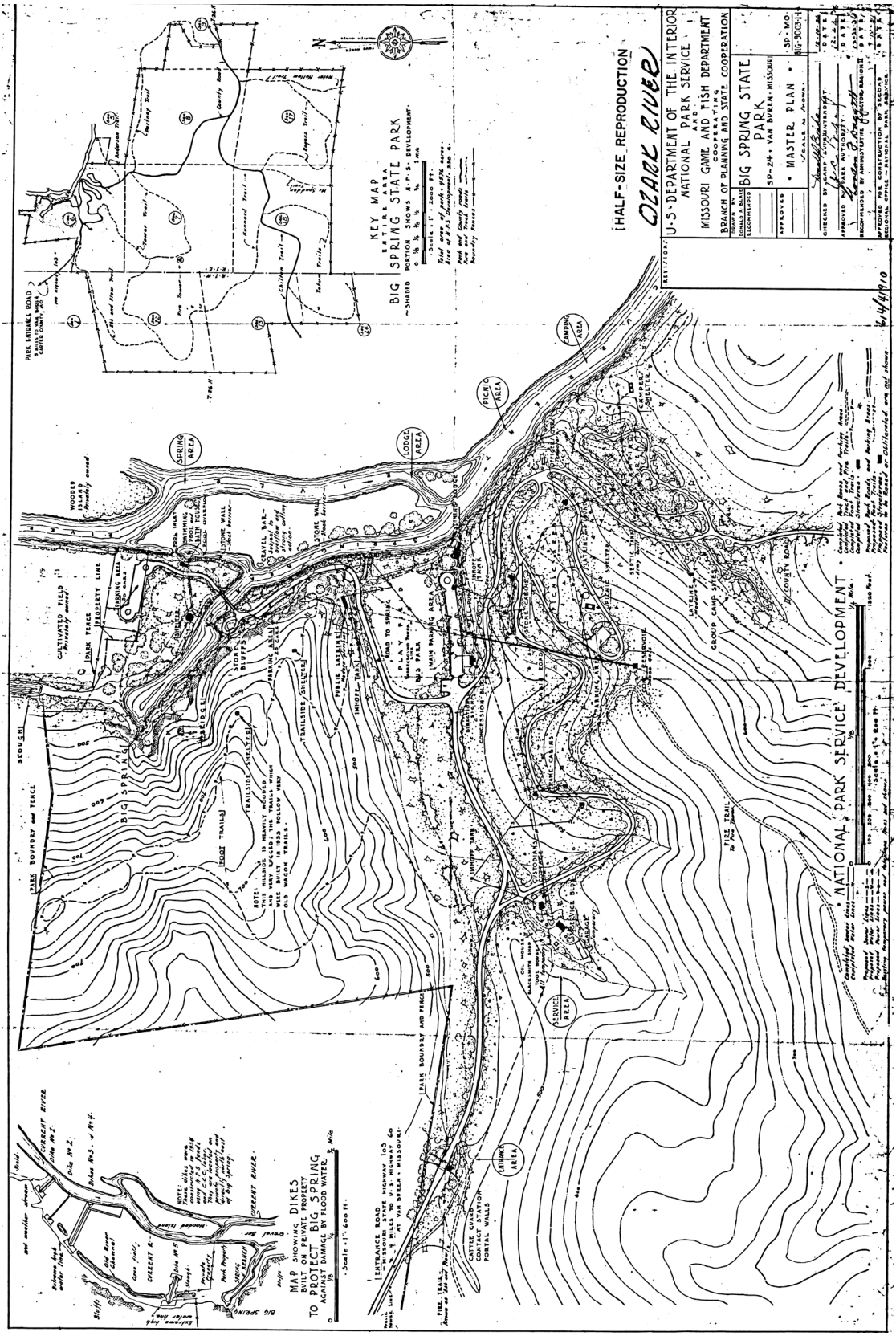


Figure 2-102. A 1936 master plan located most the CCC planned improvements. The campground at Chubb Hollow was not realized at this time, 1936. (OZAR Archives)



Figure 2-103. The 1940 master plan proposed a new parking area and shelter at Big Spring. The plans were not realized, 1940. (OZAR Archives)

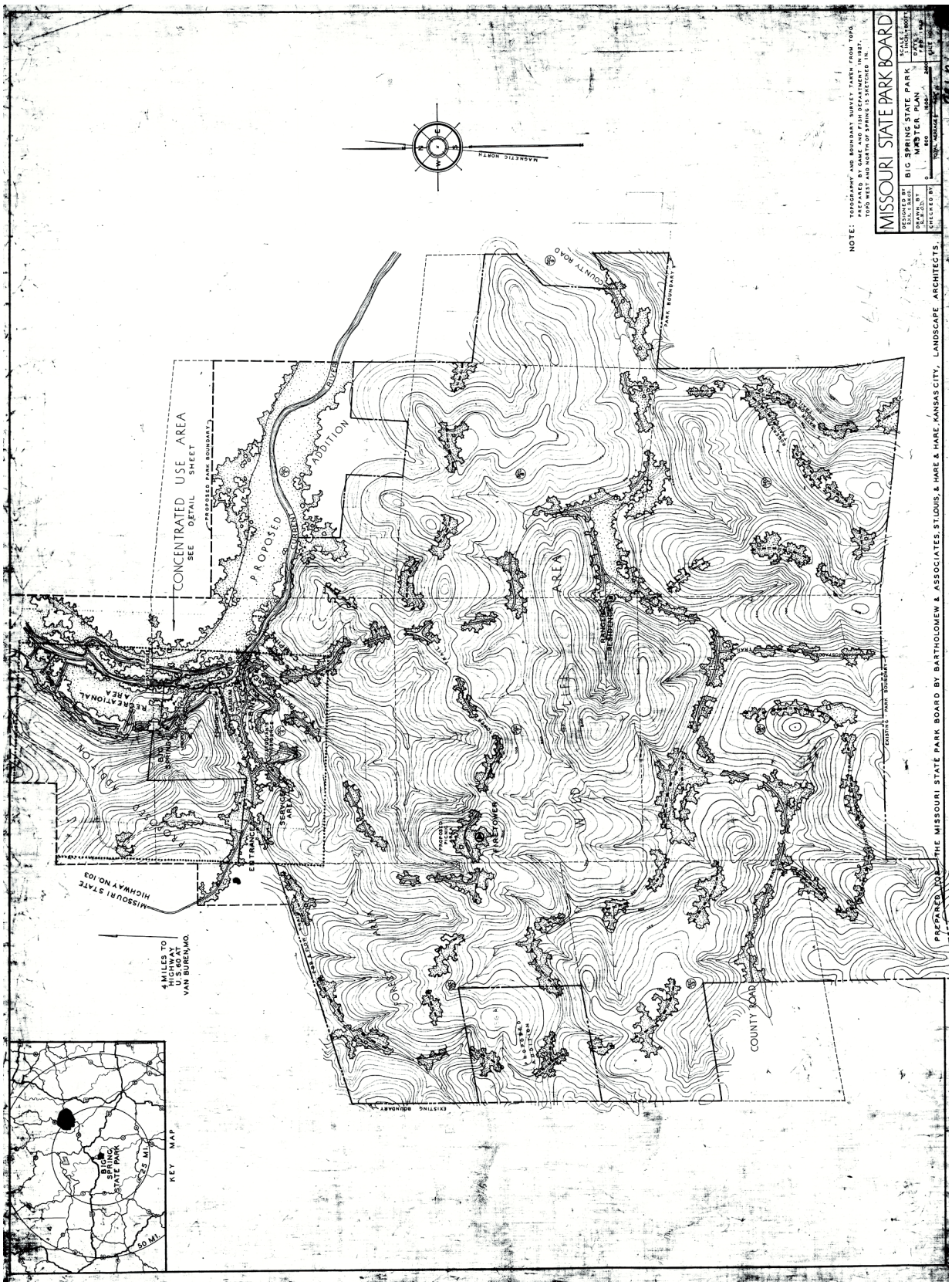


Figure 2-104. The overall 1940s master plan was not realized, 1940. (OZAR Archives)

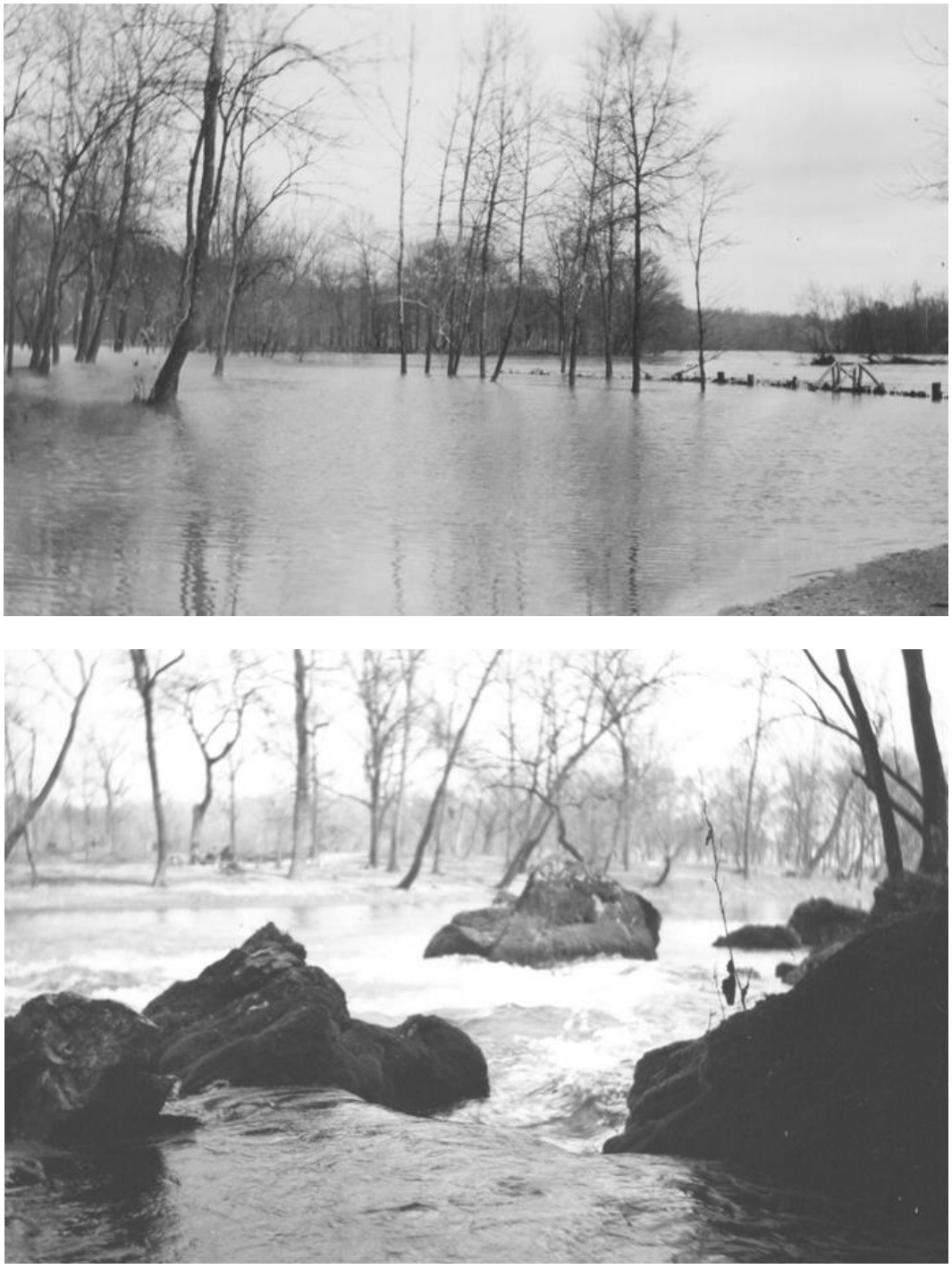


Figure 2-105. No damage was recorded to buildings or structures after a 1936 flood. The CCC built Big Spring Stone Dikes (HS-711) remained intact and protected Big Spring, 1936. (OZAR Archives)



Figure 2-106. The CCC built a single story, wood framed Maintenance Garage (HS-419) with clapboard siding on a cut-stone foundation, date unknown. (OZAR Archives)

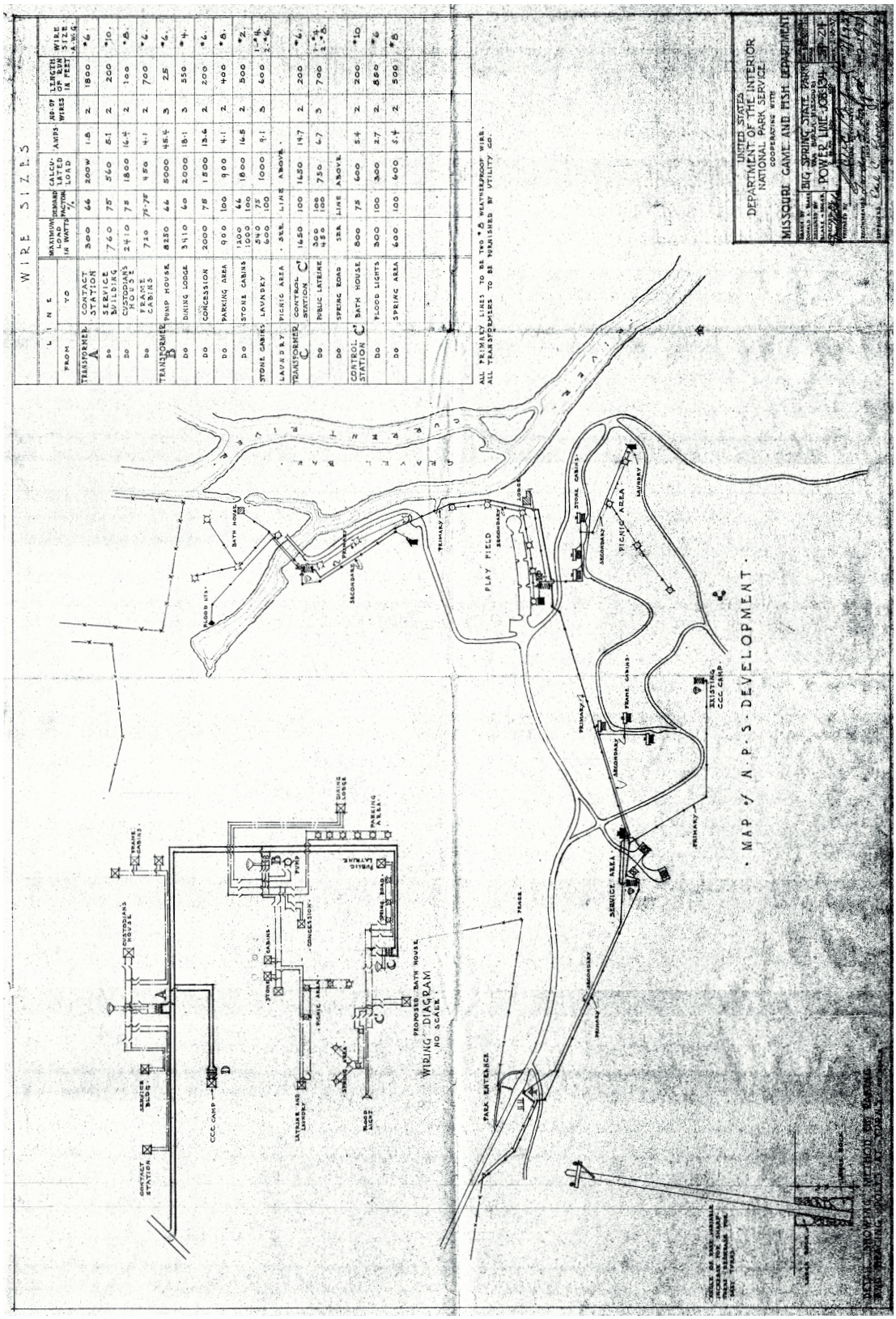


Figure 2-107. The CCC built power lines from the Entrance Building (HS-432), connecting to the Maintenance Area, Dining Lodge (HS-422), cabins, and Big Spring. Flood lights illuminated Big Spring, 1937. (OZAR Archives)

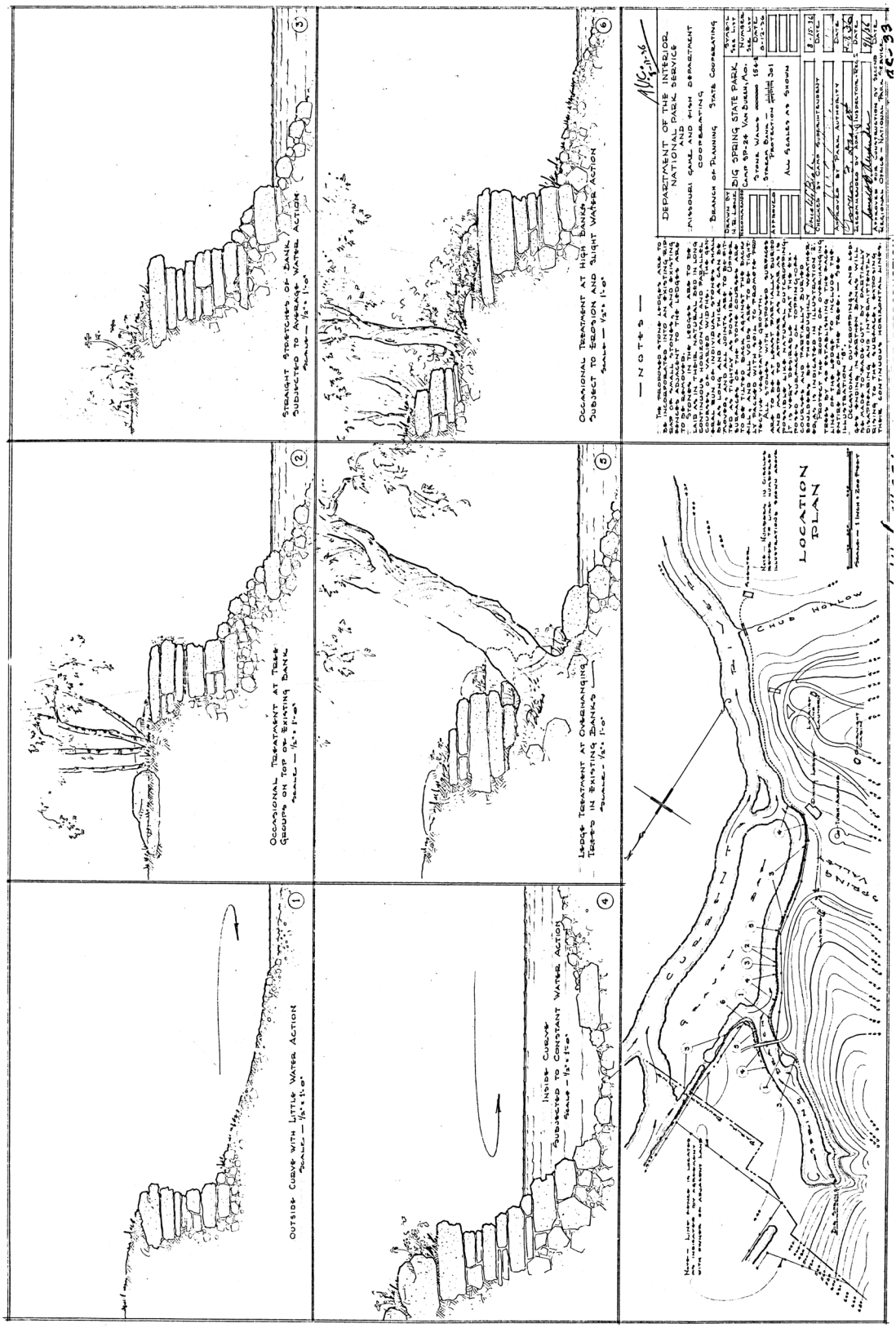


Figure 2-108. The CCC built thirteen rock ledges using rough quarried stone along the western bank of Big Spring branch to help avert flooding, 1936. (OZAR Archives)



Figure 2-109. The CCC razed their camp when they departed in 1937, date unknown. (OZAR Archives)



Figure 2-110. The CCC salvaged and stock piled building materials from their razed camp, date unknown. (OZAR Archives)

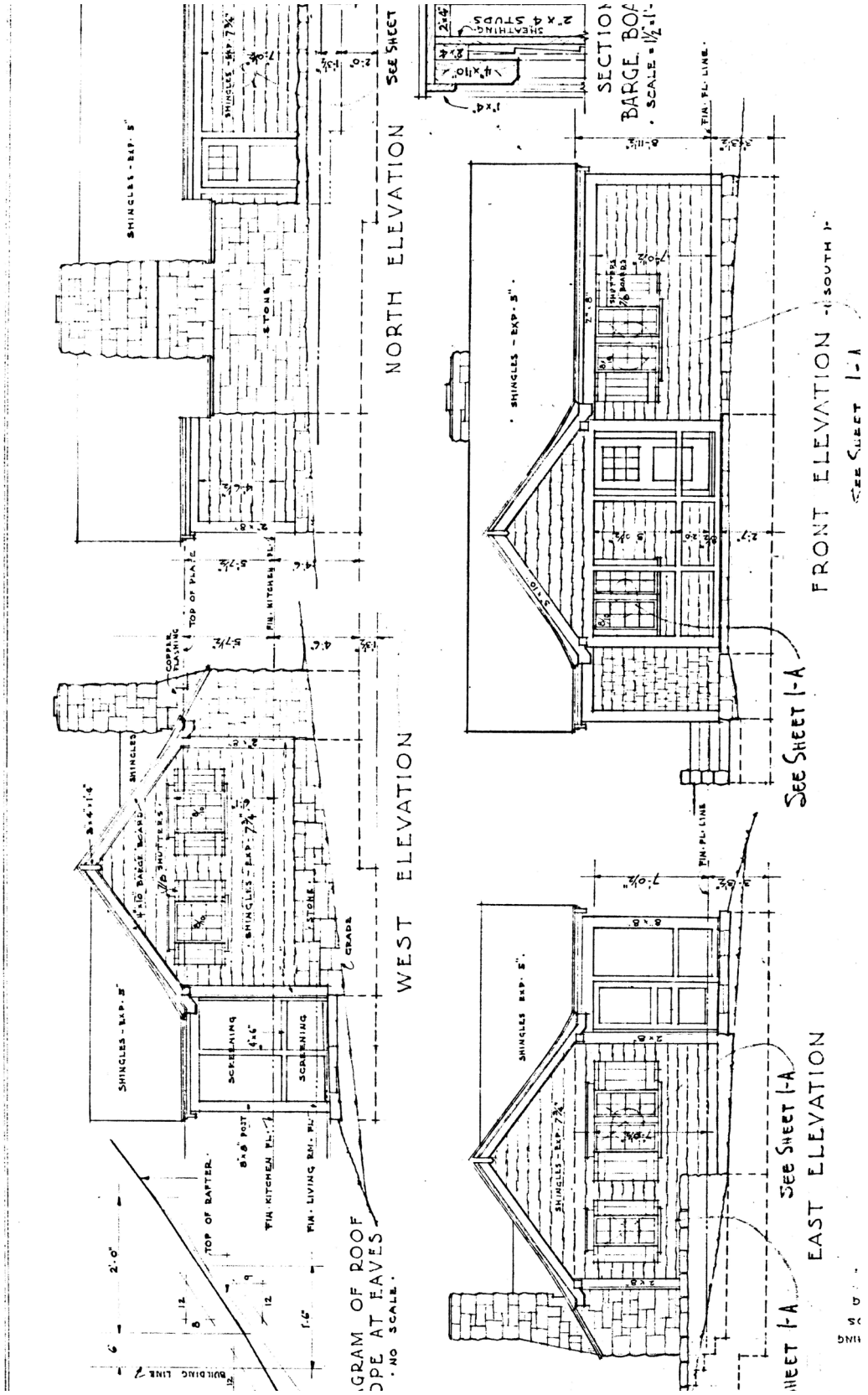


Figure 2-111. Donald A. Blake designed cabin 'type E' as a rustic style, single story gable cabin, 1938. (OZAR Archives)



Figure 2-112. The WPA built six 'type E' cabins in 1939, date unknown. (OZAR Archives)



Figure 2-113. The CCC foot bridge that crossed Big Spring branch was replaced with a new single-lane timber bridge, dates unknown (OZAR Archives)



Figure 2-114. The WPA built a concession stand and boat docks on the east side of the bridge. The johnboat concession would become a popular fixture of the state park era, date unknown. (OZAR Archives)



Figure 2-115. The WPA built a concession stand and boat docks on the east side of the bridge. The johnboat concession would become a popular fixture of the state park era, dates unknown (OZAR Archives)

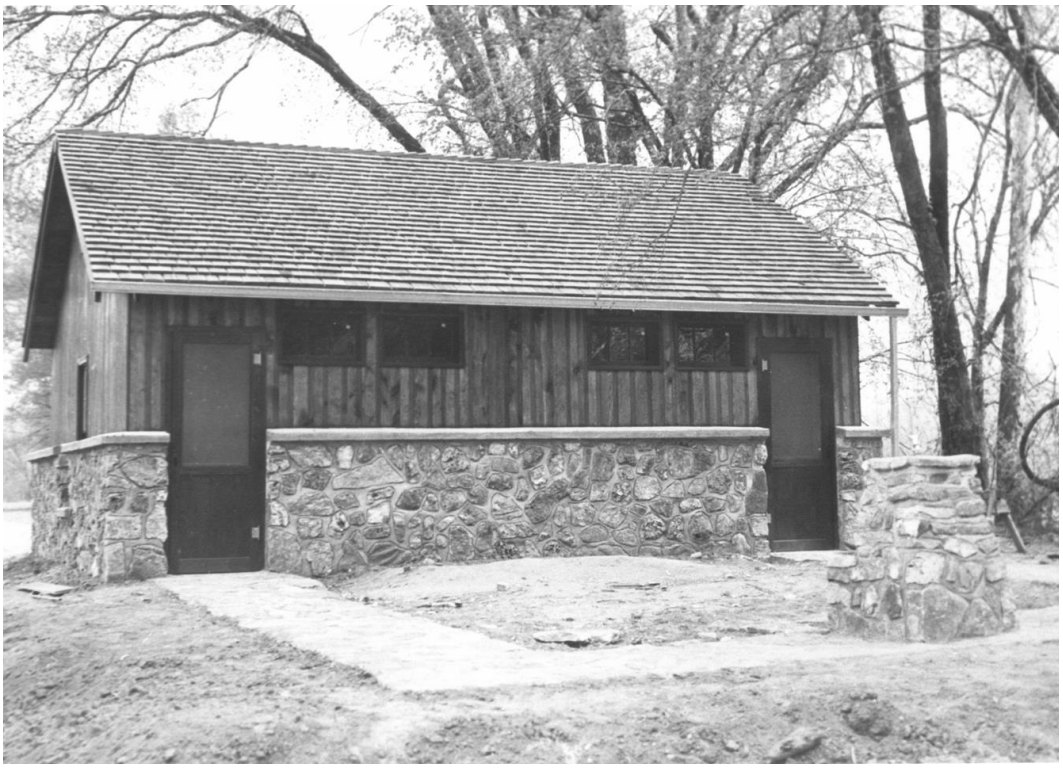


Figure 2-116. The WPA built a bath house near the Big Spring parking area, overlooking the Current River, date unknown. (OZAR Archives)

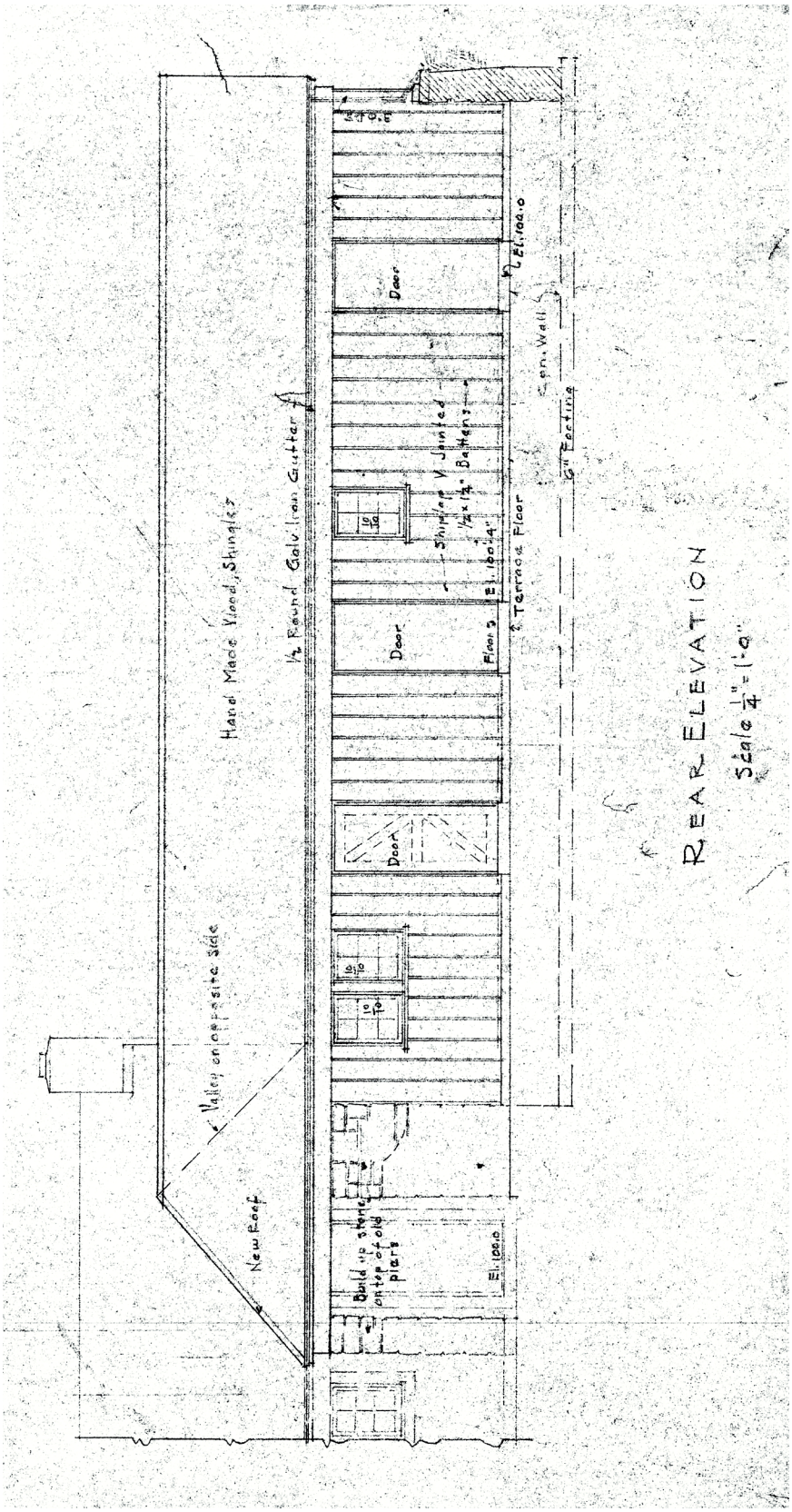


Figure 2-117. The Help's Quarters was added onto the Dining Lodge (HS-422), date unknown. (OZAR Archives)

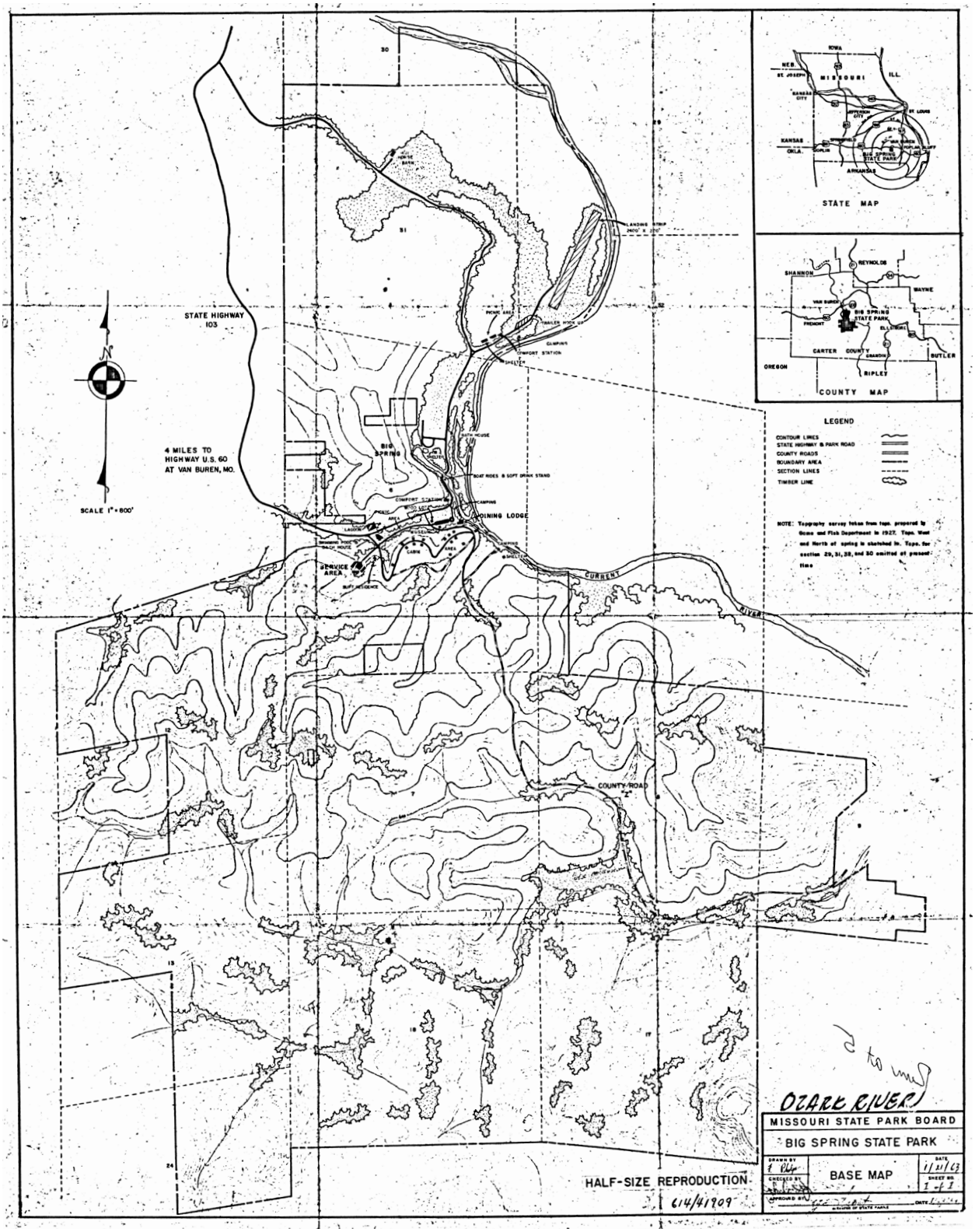


Figure 2-118. The Dr. T. W. Cotton family donated over 1,100 acres to the state park, allowing park development north of Big Spring, 1963. (OZAR Archives)

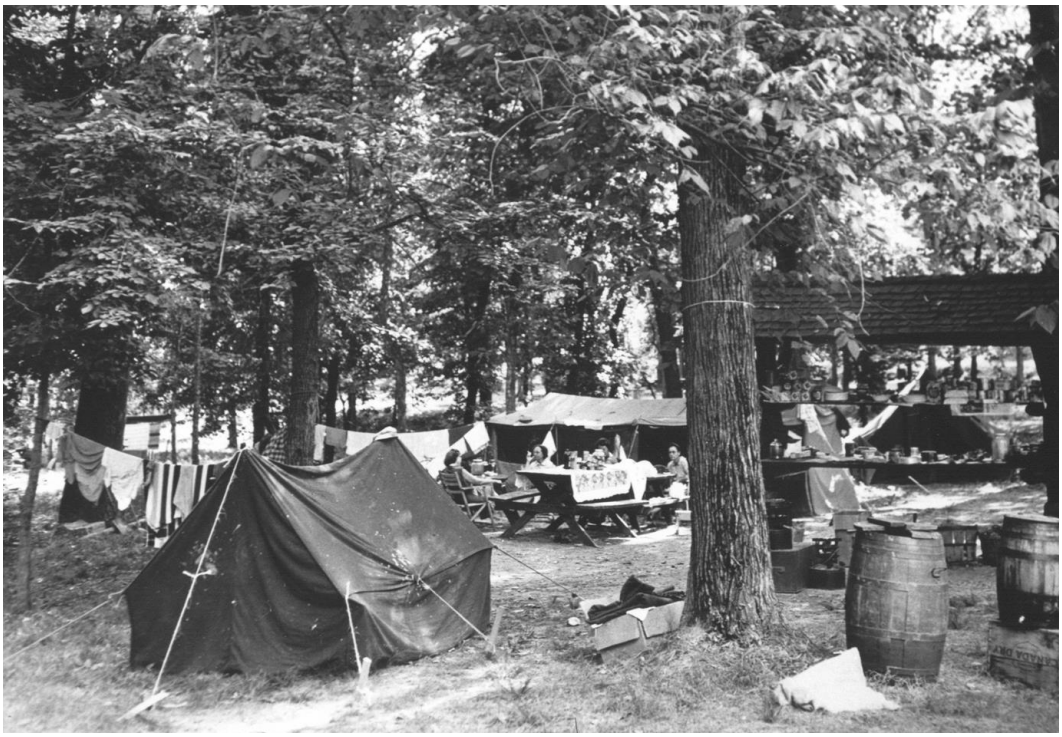


Figure 2-119. The state park was a popular camping destination, 1955. (OZAR Archives)



Figure 2-120. Visitors swimming in the Current River, date unknown. (OZAR Archives)

To Van Buren

Peavine Road

Rocky Ridge Trail

Spring Branch Trail

State Highway 103

Peavine Road

(Spring Loop)
Ebb + Flow Road

Big Spring
Maintenance
Access Road

Big Spring
Cabin Road

CCC Camp

Chubb Hollow
Road

Trail

State Highway Z

Chubb Hollow

Chubb Creek

Fire Tower Road

Co Rd. Z-204

Connector Loop

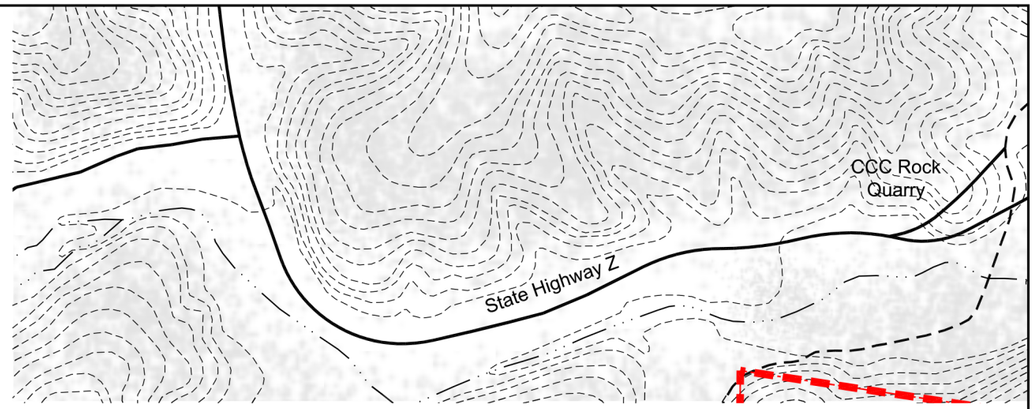
Fire Tower Road

Long Bay Loop

See South West
Portion Above

1404

Fire Tower
Rock Quarry



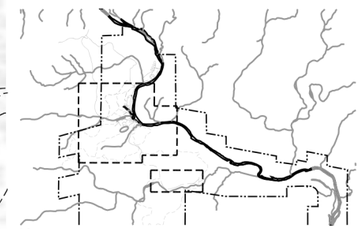
South West Portion of Big Spring State Park Historic District

Legend

- Study Area
- Ozark National Scenic Riverways Boundary
- Road
- Trail
- River
- Building (CCC)
- Building (WPA)
- Dike
- Lawn
- Manicured
- Forest

Buildings and Structures

1404 Fire Tower / Lookout Tower (c. 1935)



Key

Sources:
1991 Roads and Trails Study, 2015 Big Spring Area Trails Map, Google Maps, Park GIS, FEMA Floodplain Maps, USGS Contour Data, HPSC0120.pdf, OZAR_614_41028B_[id212928].pdf, OZAR_614_41075_[id235384].pdf, OZAR_614_41094A_[id68873].pdf, OZAR_614_41954_[id165165].pdf, OZAR_614_41910_id55311.pdf, HPSC0107.pdf, HPSC0108.pdf, OZAR_614_41968_[id219692].pdf, OZAR_614_41964_[id55323].pdf, HPSC0106.pdf, OZAR_614_41910_[id55311].pdf

N W E S

0 1000
1" = 1000'-0"

DECEMBER 2016

UNITED STATES
DEPARTMENT OF THE INTERIOR

BIG SPRING
HISTORIC DISTRICT

TITLE OF PROJECT
CULTURAL LANDSCAPE REPORT
AND ENVIRONMENTAL ASSESSMENT

TITLE OF DRAWING
1933 TO 1943: CCC AND WPA DEVELOPMENT

NAME OF PARK
BIG SPRING HISTORIC DISTRICT

Illustration 2-2.

REGION MIDWEST | COUNTY CARTER | STATE MISSOURI

1970 to present: NPS Development and Stewardship

When the NPS acquired Big Spring State Park they made few modifications to the landscape. New buildings and features included four modern timber framed restrooms, a boat launch, a new campground north of the BSHD, and the Big Spring Craft Cabin (458). Circulation was modified to the north of Big Spring and Big Spring branch, by a new circular parking area and loop drive. Vegetation was added to the edge of the field north of Big Spring. Other portions of the BSHD have maintained the design characteristics and spatial relationships established in earlier periods.

1970
NPS acquired the state park that covered a 5,828.04 acre area.[2.112]

1970 to 1975
After the NPS acquired the park, they built four modern latrines – two at Big Spring, one at Chubb Hollow, and one at Peavine. The latrines were timber framed restrooms with board and batten siding. The Peavine Latrine had a gable roof, while the other latrines had multi-directional, diagonally ridged shed roofs.[2.113] The NPS built a new campground to the north of Peavine Pavilion (outside of the BSHD).

1972
The Big Spring Craft Cabin (458) was designed by Charles Lessig and built by the NPS. It was originally designed as an open-fronted speaker's platform for the OZAR dedication. First moved to an area near the Peavine Pavilion (HS-428), it was later relocated to the Big Spring picnic area. [2.114]

1973
Roads were repaired and utilities were upgraded throughout the Big Spring Historic District.[2.115]

As early as 1973, planning began for an upgraded bridge over Big Spring Branch. The WPA bridge needed replacement and the approach on the south side was identified as problematic due to a sharp turn and steep grade.[2.116]

1974
A boat dock was built on the Current River, near the Dining Lodge (HS-422). This served the boat ride concessionaire, who previously operated from a dock on Big Spring branch.[2.117]

1975
The post-CCC concession building and docks built in the 1940s were removed in order to realign the road across Big Spring Branch.[2.118]

1977
NPS built a new timber bridge across Big Spring branch, replacing the narrow WPA bridge.[2.119] A two-lane glulam timber bridge featuring six spans supported by timber piles, it was of a rustic design that emulated the bridge it replaced. The immediate setting, however, no longer retained significant features dating to either the CCC (1933-1937) or WPA (1938-1942) eras of development.[2.120]

The central curved portion of the Dining Lodge (HS-422) retaining wall was removed and replaced with a concrete wall.

2.112 *2016 CLI,* 32.
2.113 *2016 CLI,* 81.
2.114 *2016 CLI, 58.*
2.115 HOK. *Big Spring Area, Ozark National Scenic Riverways, Carter County, Missouri.* U.S. Department of the Interior, National Park Service, 1978.
2.116 *2016 CLI,* 57.
2.117 *2016 CLI,* 81.
2.118 *2016 CLI,* 57.
2.119 *2016 CLI,* 57.
2.120 *2016 CLI,* 57.

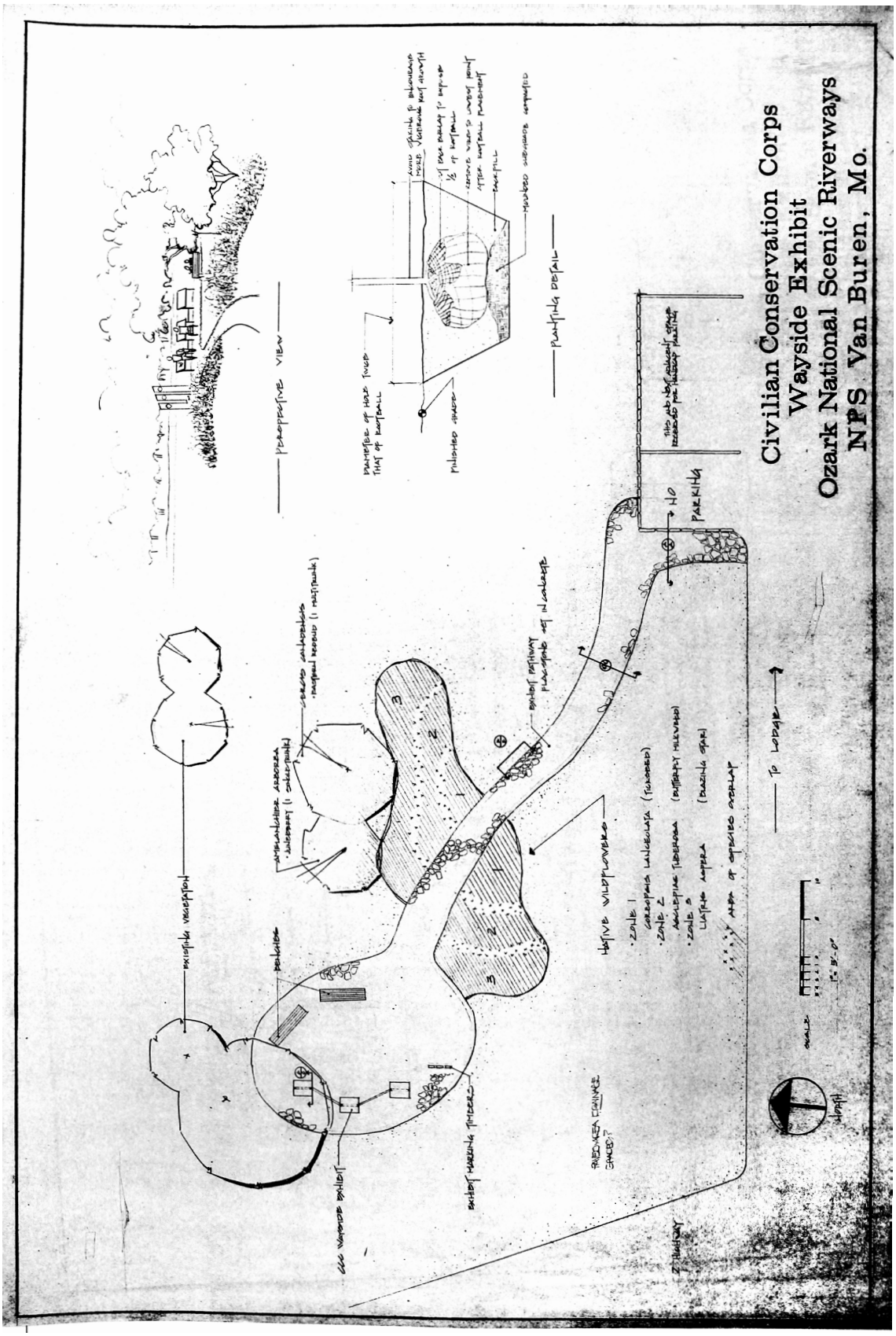


Figure 2-121. NPS prepared plans for two CCC wayside exhibits, date unknown. (OZAR Archives)

1979
The cabin electrical systems were rewired.[2.121]

1980s
The decking of the Chubb Hollow Foot Bridge (HS-456) was replaced after a flood.[2.122]

1981
On March 17, the Big Spring Historic District was listed in the National Register for its significance in architecture, landscape architecture, and conservation. The historic district encompassed 315 acres containing Big Spring and a cluster of historic buildings and structures that facilitated recreation along the Current River and Big Spring branch.[2.123]

1983
NPS replaced many of the cabin roofs.

Big Spring Natural Area was established on February 14, 1983, covering 17 acres.

1985
Chubb Hollow Road and the parking area were paved in asphalt. New culverts were added to direct water below the road to drainage ditches.[2.124]

Pre-1989
The NPS built two wayside exhibits at the Dining Lodge (HS-422). One exhibit at the entrance to the parking area included a flagstone pathway set on concrete with a stone curb on the east side. The exhibit area included three exhibit marking timbers, three wayside exhibits commemorating CCC contributions, and two benches.[2.125] Another wayside exhibit was built between the turning loop and approach to the Dining Lodge. It included flagstone paving set on concrete, one exhibit timber marking, and one wayside exhibit.[2.126]

1989
Construction plans were prepared for a new parking area at Big Spring and improvements to Peavine Road. The plans resulted in a large circular turnaround at Big Spring, numerous parking areas with rock barriers, a new flagstone path with metal benches to Big Spring, and tree plantings. The Big Spring Loop Road was overlaid with asphalt.[2.127] The work included Removal by NPS of large rocks that had surrounded playfields and Big Spring loop during state park era.

1991
The cabins were rehabilitated with improvements to kitchens, bathrooms, and fireplaces. Some cabins were reroofed, painted, and had landscape drainage improvements.[2.128]

1993
A November flood damaged several buildings and structures adjacent Big Spring branch and the Current River. The Latrine (HS-423) was flooded, causing extensive building damage and destroying most the interior lab equipment. The building has been closed since this time.[2.129] The Big Spring Pavilion (HS-425) was largely destroyed by the flood, and the entire shelter was removed from its base. It was subsequently restored with damaged materials replaced in-kind.[2.130] The

2.121 *2016 CLI, 76-78.*
2.122 *2016 CLI,* 80.
2.123 *2016 CLI,* 7.
2.124 *Parking Areas.* U.S. Department of the Interior, National Park Service, 1985.
2.125 *Civilian Conservation Corps, Wayside Exhibit, Ozark National Riverways.* U.S. Department of the Interior, National Park Service.
2.126 *Civilian Conservation Corps, Wayside Exhibit*. The date of the installation is not noted on the drawing; it is pre-1989.
2.127 *Upgrade Peavine Rd. and Big Spring Parking, Big Spring, Ozark National Scenic Riverways.* U.S. Department of the Interior, National Park Service, 1989.
2.128 *2016 CLI, 76-78.*
2.129 *2016 CLI, 79.*
2.130 *2016 CLI, 79.*

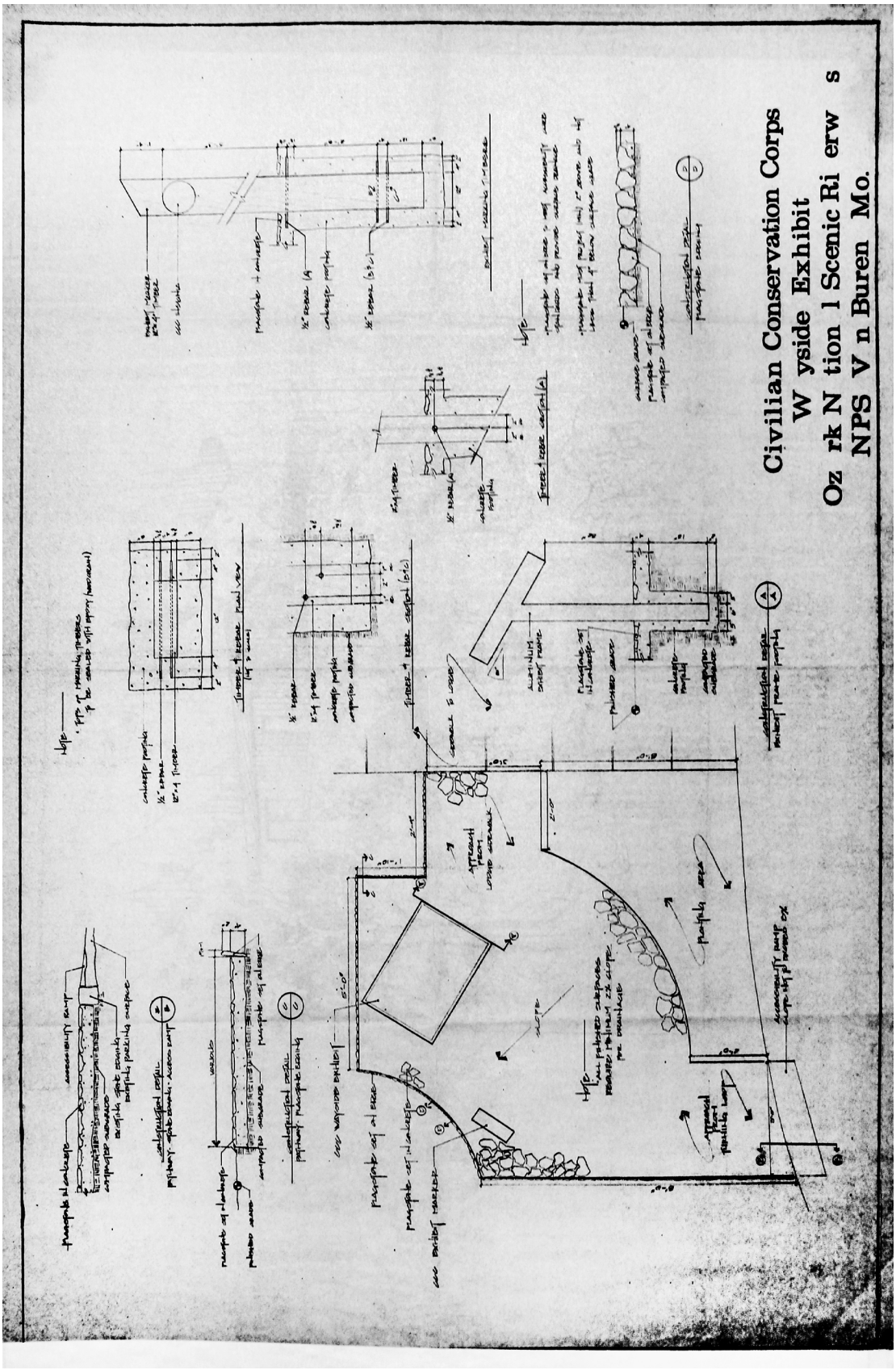


Figure 2-122. NPS prepared plans for two CCC wayside exhibits, date unknown. (OZAR Archives)

Chubb Hollow Foot Bridge (HS-456) was damaged. The deck was completely removed and a portion of the footing was washed out. It was renovated the following year.[2.131]

Big Spring Pines Natural Area was established on January 29, 1993, covering 345 acres.

1994
The Dining Lodge (HS-422) was renovated.[2.132]

2002
Peavine Road was repaired with an asphalt overlay.[2.133]

2003
A modern privy near the Big Spring Stone Dike #1 (HS-711) and Peavine Road was removed.[2.134]

2004
A new dock was built on the Current River below the Dining Lodge (HS-422), replacing the old, deteriorated dock built in 1974.[2.135]

The Big Spring Craft Cabin (458) was relocated from the floodway adjacent the Peavine Pavilion (HS-428) to the Big Spring open playfield.2.136

2009
In September, the CCC Powder Magazine (HS-701) was structurally stabilized. The dynamite box was elevated with a new open shelter.[2.137]

2011
Two NPS latrines built in the 1970s were demolished and replaced with modern precast structures, one west of the Big Spring Craft Cabin (458) and the other near the Big Spring Boat Launch.

2013
The Chilton Creek Barn (HS-467) was rehabilitated.

2014
Most of the cabins were reroofed.

2016
The Big Spring Historic District was expanded from 315 acres that included the core development area and Big Spring to 3,966 acres that added miles of CCC roads and trails, two CCC quarries, the CCC Camp Ruins, Fire Tower / Lookout Tower (HS-1404), CCC Dump, and wildlife refuge areas. Conversely, the area east of the Current River was removed from the historic district.[2.138]

2.131 *2016 CLI, 80.*
2.132 *2016 CLI, 79.*
2.133 National Park Service, *Upgrade Peavine Road.* Drawing. Van Buren, MO: U.S. Department of the Interior, 2002.
2.134 *2016 CLI,* 73.
2.135 *2016 CLI,* 73.
2.136 *2016 CLI, 81.*
2.137 *2016 CLI,* 82.
2.138 *2016 CLI,* 7.

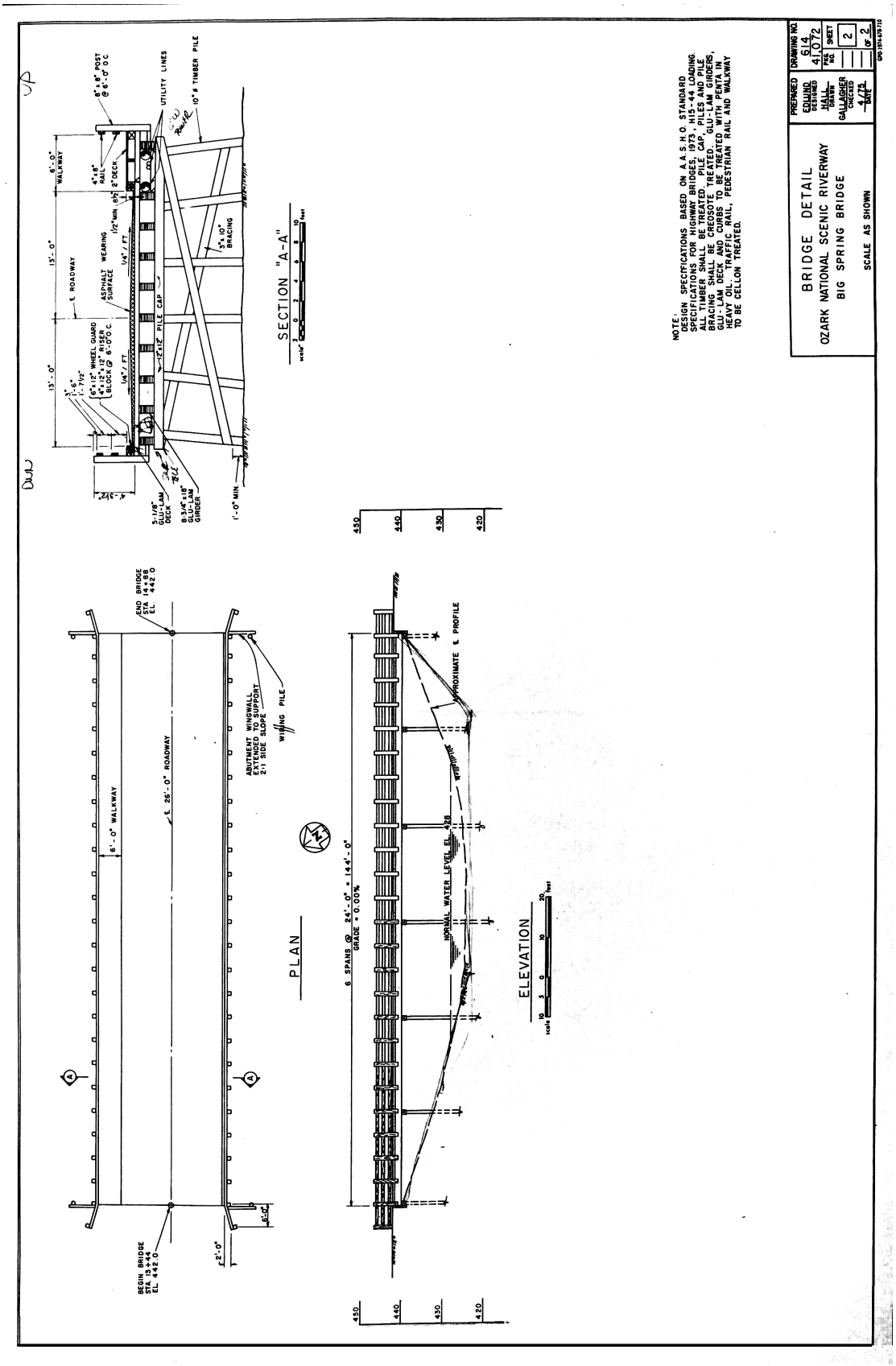


Figure 2-123. NPS prepared plans for the Big Spring Branch Vehicular Bridge which replaced the WPA bridge, 1975. (OZAR Archives)

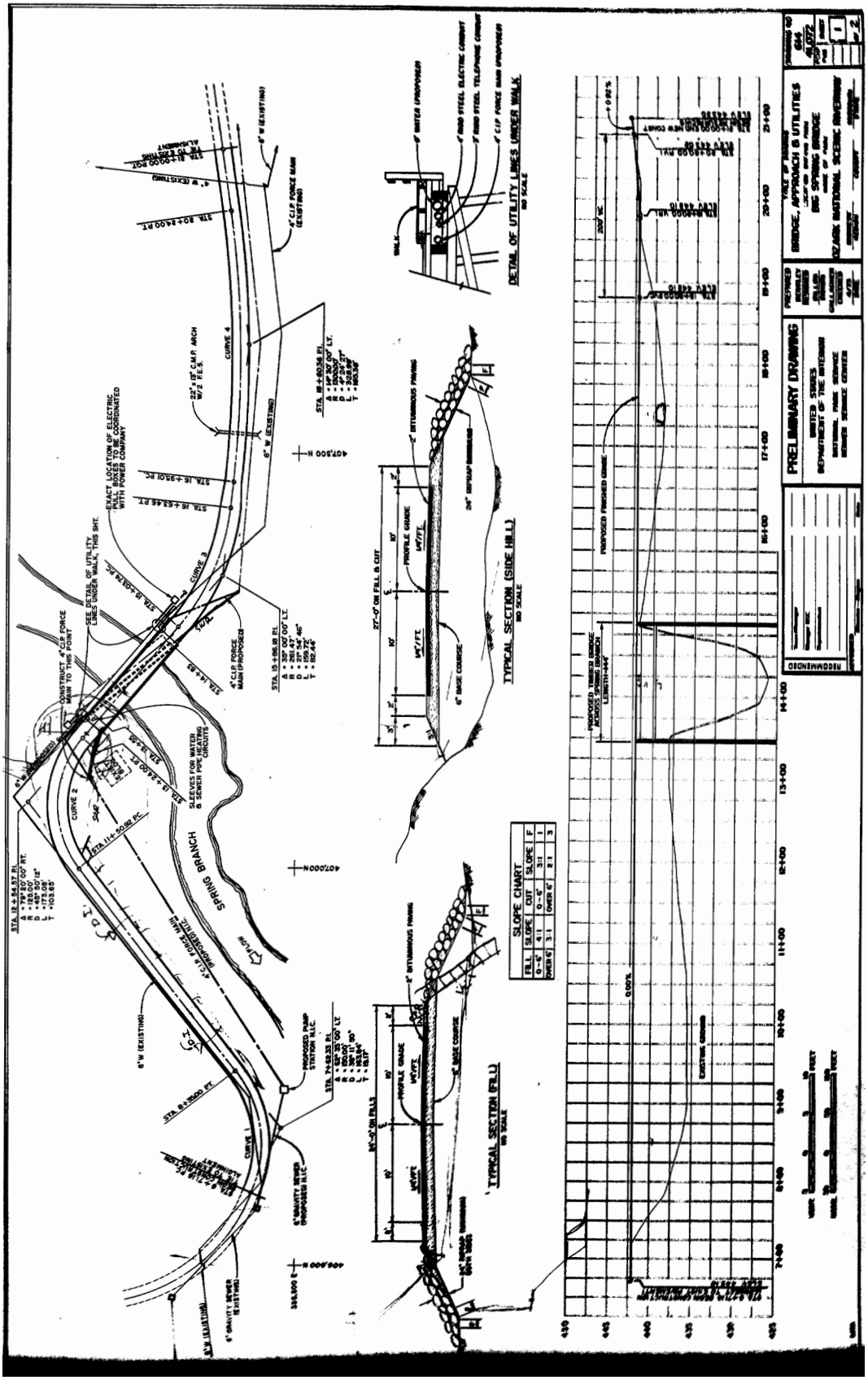
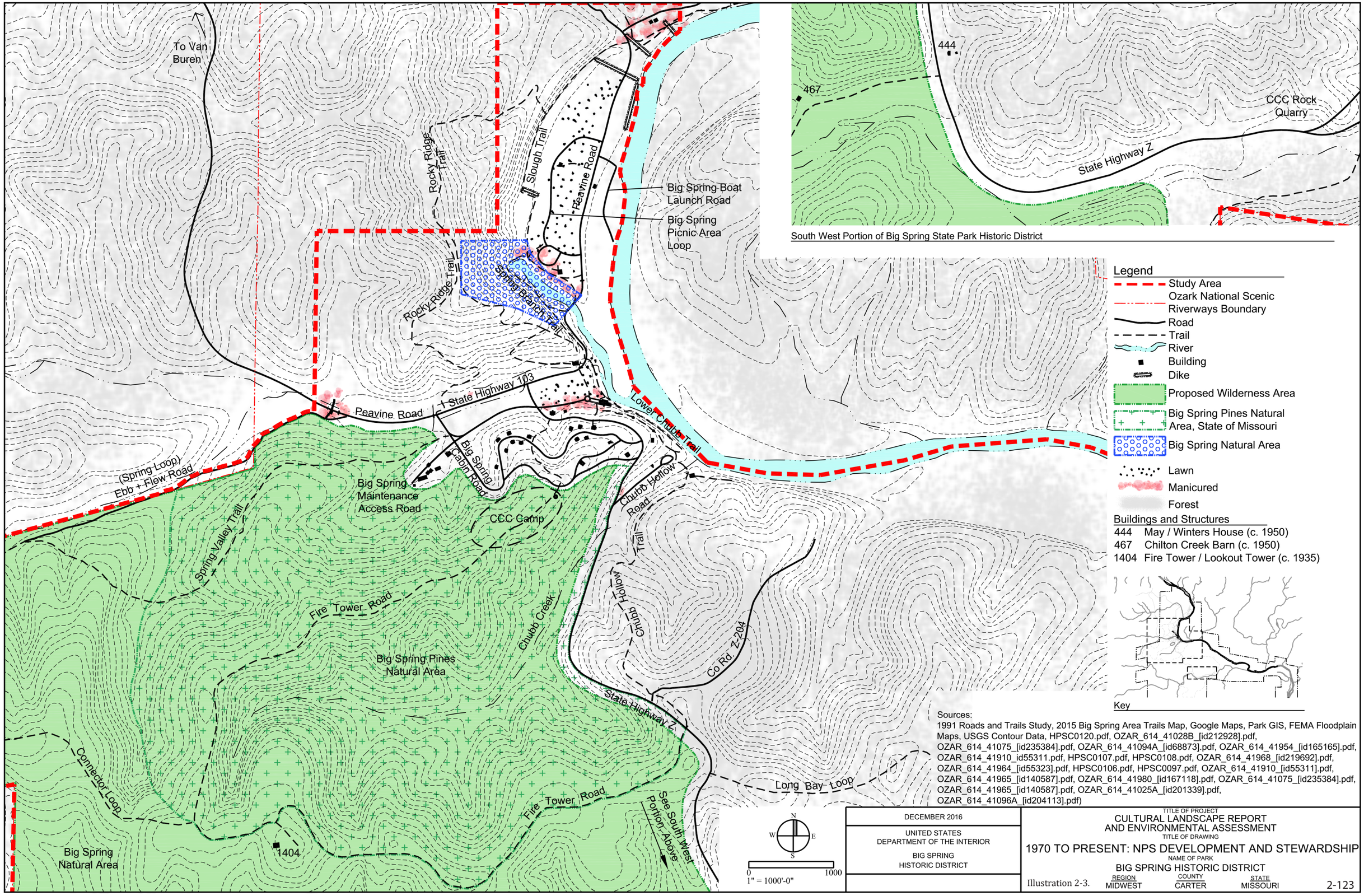


Figure 2-124. NPS prepared plans to replace the Big Spring Branch Vehicular Bridge, 1975. (OZAR Archives)

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Sources:
1991 Roads and Trails Study, 2015 Big Spring Area Trails Map, Google Maps, Park GIS, FEMA Floodplain Maps, USGS Contour Data, HPSC0120.pdf, OZAR_614_41028B_[id212928].pdf, OZAR_614_41075_[id235384].pdf, OZAR_614_41094A_[id68873].pdf, OZAR_614_41954_[id165165].pdf, OZAR_614_41910_id55311.pdf, HPSC0107.pdf, HPSC0108.pdf, OZAR_614_41968_[id219692].pdf, OZAR_614_41964_[id55323].pdf, HPSC0106.pdf, HPSC0097.pdf, OZAR_614_41910_[id55311].pdf, OZAR_614_41965_[id140587].pdf, OZAR_614_41980_[id167118].pdf, OZAR_614_41075_[id235384].pdf, OZAR_614_41965_[id140587].pdf, OZAR_614_41025A_[id201339].pdf, OZAR_614_41096A_[id204113].pdf)

DECEMBER 2016

UNITED STATES
DEPARTMENT OF THE INTERIOR

BIG SPRING
HISTORIC DISTRICT

TITLE OF PROJECT
CULTURAL LANDSCAPE REPORT
AND ENVIRONMENTAL ASSESSMENT

TITLE OF DRAWING
1970 TO PRESENT: NPS DEVELOPMENT AND STEWARDSHIP

NAME OF PARK
BIG SPRING HISTORIC DISTRICT

Illustration 2-3.

REGION MIDWEST | COUNTY CARTER | STATE MISSOURI

Chapter 3. Existing Condition and Landscape Analysis

Introduction

This chapter presents the existing condition and analysis of integrity for the Big Spring Historic District cultural landscape. Photographs, existing condition matrices and plans, and illustrative analysis diagrams describe the BSHD through an assessment of landscape characteristics.

Site investigations recorded the existing condition of the cultural landscape in November 2015, and October 2016, for CCC built trails. This assessment was undertaken to understand the cultural landscape as a whole, to identify and document those qualities that contribute to its historic character, and those individual features that contribute to its significance.

This chapter is organized to present the existing condition assessment and analysis for the study area first, followed by more detailed assessments and analyzes for two landscape character areas—core development character area and Big Spring landscape character area.

The existing condition of the cultural landscape is evaluated using the following criteria.

Good – Those features of the landscape that do not require intervention. Only minor or routine maintenance is needed at this time.

Fair – Some deterioration, decline, or damage is noticeable; the feature may require immediate intervention. If intervention is deferred, the feature will require extensive attention in a few years.

Poor – Deterioration, decline, or damage is serious; the feature is seriously deteriorated or damaged, or presents a hazardous condition. Due to the level of deterioration, damage or danger, the feature requires extensive and immediate attention.

The study area and two landscape character areas are evaluated and analyzed according to a series of landscape characteristics, which include tangible and intangible aspects of the landscape. These characteristics collectively create the historic character of Big Spring Historic District and aid in understanding its cultural importance. The landscape characteristics serve as categories under which individual features are documented and listed. The evaluation and analysis is completed according to the following landscape characteristics.

Natural Systems and Features are those natural aspects that have influenced the development and physical form.

Land Use is the organization, form, and shape of the landscape in response to land use.

Spatial Organization / Topography / Views is the arrangement of elements creating the ground, vertical, and overhead planes that define and create space, including the arrangement of topography, buildings, and vegetation. Topography is the three-dimensional configuration of the landscape surface. Views are features that create or allow a range of vision which can be natural or designed and controlled.

Cluster Arrangement is the location and pattern of buildings and structures in a landscape and associated outdoor spaces.

Circulation are features and materials that constitute systems of movement, including vehicular and pedestrian routes.

Buildings and Structures are three-dimensional man-made constructs.

Small Scale Features are the human-scaled elements that provide detail and function.

Archeological Sites are sites that contain surface or subsurface remnants related to historic or prehistoric land use.

Vegetation is indigenous or introduced trees, shrubs, vines, groundcovers, herbaceous materials, and natural vegetative cover.

Assessment of Integrity

Integrity is the ability of a cultural landscape to convey its significance. It is assessed to determine if the landscape characteristics that shaped the cultural landscape during the period of significance are present as they were historically. Integrity is evaluated according to seven aspects or qualities: location, design, setting, materials, workmanship, feeling, and association. The Big Spring Historic District cultural landscape retains integrity in all seven aspects: location, setting, feeling, materials, workmanship, design, and association.

Location, Setting, Feeling
Location is the place where the cultural landscape was constructed or where a historic event occurred. Setting is the physical environment of the cultural landscape. Feeling is the cultural landscape's expression of the aesthetic or historic sense of a particular period of time.

Big Spring Historic District retains integrity in location, setting, and feeling. The Rustic style buildings and features remain in their original locations set within the natural landscape of the steep wooded hills and broad river valleys associated with the Current River.

Materials and Workmanship
Materials are the physical elements that were combined or deposited during the particular period(s) of time and in a particular pattern or configuration to form the cultural landscape. Workmanship includes the physical evidence of the crafts of a particular culture or people during any given period in history or prehistory.

Contributing features associated with the historic designed landscape retain original workmanship and materials. The Rustic style Entrance Building (HS-432), Museum (HS-420) (HS-420), Pump House (HS-443), Dining Lodge (HS-422), cabins, and shelters retain materials from their original construction by the CCC and WPA. Original materials include wood frame timbers and course cut dolomite, both natural materials acquired from the BSHD. Modern additions, such as latrines and maintenance / storage buildings, do not use the CCC / WPA palette of materials and workmanship.

Design
Design is the combination of elements that create the form, plan, space, structure, and style of a cultural landscape. Big Spring Historic District retains integrity of design as a historic designed landscape designed and built by the CCC and completed by the WPA. It is an outstanding example of CCC and WPA Rustic style architecture and Naturalistic landscape design. The BSHD is significant for its sensitive design and construction that epitomizes the ideals of subordinating development to natural and scenic character. The use of naturalistic practices of landscape design, and a focus on landscape preservation harmonizes the built features. For the BSHD, this resulted in minimal disruption of natural topography and a blending of man-made structures with natural surroundings.
The natural landscape outside the intensive-use areas—core development area and Big

Spring—was preserved. A cohesive aesthetic was attained through the use of on-site natural materials, expert hand craftsmanship, and designs adapted for local climate and regional construction techniques. Subsequent development has been fairly minimal, preserving original materials and allowing the historic character of Big Spring Historic District to remain intact. Minor modifications, such as the addition of latrines, storage buildings, or small scale features, and minor road reconfigurations have not diminished the overall integrity of the design.

Association

Association is the direct link between an important historic event or person and a cultural landscape. Big Spring Historic District retains integrity in association as being a CCC designed and built landscape, and WPA built landscape. BSHD is the best preserved example of a functioning CCC camp within the state of Missouri. Two CCC quarries, a Fire Tower / Lookout Tower (HS-1404) built for forest management, remnants of CCC Camp Haines, and a dump site, as well as the numerous buildings, structures, roads, and trails built by enrollees retains the association with the CCC and WPA.

Contributing and Non-Contributing Features

Contributing features are those individual elements and characteristics that remain from the period of significance and contribute to the integrity of Big Spring Historic District. Non-contributing features are recent additions, not built within the period of significance and do not contribute to the integrity of the district.

Study Area

Contributing features

- The Current River
- Big Spring branch
- Big Spring
- Steep hillsides and narrow valleys
- Hollows, streams and floodplains
- Views to river and natural areas
- Peavine Road / State Highway 103
- State Highway Z
- Ebb and Flow Road (Spring Loop)
- County Road Z-206
- County Road Z-204
- Fire Tower Road
- Rocky Ridge Trail
- Spring Branch Trail
- Lower and Upper Chubb Trails
- Chubb Hollow Trail
- Fire Tower Trail
- Chilton Trail
- Tatum Trail
- Kinnard Loop
- McSpadden Trail
- Chilton Loop
- Water Hollow Trail
- Long Bay Loop
- Connector Loop
- Spring Loop
- Peavine Pavilion (HS-428)
- Peavine Pavilion setting
- May / Winters Quarters (HS-444)
- May / Winters Quarters Garage Foundation (HS-444A)

- May / Winters Driveway
- May / Winters setting
- Chilton Creek Barn (HS-467)
- Wildlife Fencing
- Chubb Hollow archeological site
- Camp Haines
- CCC Camp Ruin (HS-702 through HS-710)
- CCC Road Remnant
- CCC Dump and Dump Incinerator (HS-432B)
- CCC Rock Quarry (HS-700)
- CCC Powder Magazine (HS-701) and Big Spring Dynamite Box
- Fire Tower Rock Quarry (HS-1404E)
- Fire Tower / Lookout Tower (HS-1404)
- Fire Tower Privy Sites #1 (HS-1404C) and #2 (HS-1404D)
- Fire Tower Stone Retaining Wall (HS-1404F)
- Fire Tower Radio Shed Site (HS-1404G)
- Fountains (HS-712) (7)
- CCC Stone Curbs and Markers
- CCC Stone Retaining Walls
- CCC Stone Culverts
- CCC Stone Water Crossings
- Native Vegetation

Non-Contributing features
- May / Winters Quarters Outbuilding
- May / Winters Shed
- Peavine Latrine
- Peavine Footbridge
- Interpretive Waysides
- Site furnishings – benches, picnic tables, grills, trash receptacles, signs, lighting, play equipment
- Big Spring Branch Vehicular Bridge
- Water Tower
- Slough Trail
- Peavine Trail

Core Development Character Area

Entrance / Museum / Dining Lodge
Contributing features
- Entrance experience and entrance drive (State Highway 103 / Peavine Road)
- Entrance Building (HS-432)
- Entrance Portal Walls (HS-432) and Wood Gate
- Entrance Drainage Ditches and Culvert
- Service Road at Entrance
- Main Parking Area (HS-714)
- Playfield
- Dining Lodge and Help's Quarters (HS-422)
- Stone walk at Dining Lodge
- Dining Lodge Retaining Wall and Fountain (HS-422A)
- State Park Museum Building (HS-420)
- Museum Flagpole
- Pump House (HS-443)
- Latrine (HS-423)
- Dining Lodge Retaining Wall and Abutments

Non-Contributing features
- Dining Lodge Stone Staircase
- Walkway to Boat Dock
- Boat Dock
- Walkway to Cabins
- Lighting – street and pedestrian
- CCC Commemorative Stone
- Utility boxes, propane tank

Cabins
Contributing features
- Steep hillside setting and woodland
- Cabin Road System (HS-401B)
- Cabin Path System and Stairs (HS-713)
- Cabins (HS-401 through HS-415)
- Picnic Shelter (HS-496)

Chubb Hollow
Contributing features
- Chubb Creek
- Views to creek and river

- Chubb Hollow Road
- Campground Drive
- Chubb Hollow Open Shelter House (HS-427)
- Chubb Hollow Foot Bridge (HS-456) – foundation only
- Chubb Hollow Stone Culvert (HS-427A)
- Chubb Hollow Campground
- Playfield

Non-Contributing features
- Chubb Hollow Latrine (424)
- Chubb Hollow Foot bridge #1 and #2 (wooden structure)
- Chubb Hollow Kiosk
- Stone Benches (2)

Maintenance
Contributing features
- Maintenance Area Drive
- Road Remnant
- Maintenance Shop (HS-417)
- Maintenance Storage Building (HS-418)
- Maintenance Garage (HS-419)
- Cabin #416 / Lower Current District Maintenance Office (HS-416)
- Cabin #416 Driveway, retaining wall, and path

Non-Contributing features
- Maintenance Area Flammable Storage Shelter
- Maintenance Area Metal Awning
- Maintenance Fuel Storage Tanks
- Maintenance Storage Building
- Paint and Storage Shed (493)
- Water System Building (478)
- Loading Dock

Big Spring Landscape Character Area

Contributing features
- Big Spring Stone Dike #3 (HS-711) – North
- Big Spring Stone Dike #5 (HS-711) – South
- Retaining Wall and Abutments
- Playfield
- Peavine Road
- Steps near Big Spring
- Stone Retaining Wall
- Play Equipment
- Steps to Small Spring
- Stone Step to Gauging Station
- Stone Steps to Road
- Rocky Ridge Trail
- Big Spring Pavilion (HS-425)
- Cotton Plaque (HS-472)
- Boulder Edge
- Stone Interpretive Pedestal
- Maple Trees at Peavine Road

Non-Contributing features
- Big Spring Picnic Area Loop Drive
- Big Spring Parking
- Slough Trail
- Slough Trail Parking
- Playfield Parking
- Big Spring Latrine Parking
- Boat Ramp and Parking
- Spring Branch Trail - Parking Area to Interpretive Circle
- Spring Branch Trail - Interpretive Circle to Big Spring
- Spring Branch Trail - Big Spring Overlook
- Stone Paving at Parking Areas
- Big Spring Craft Cabin (458)
- Big Spring Latrine (476)
- Boat Ramp Latrine
- Big Spring Branch Vehicular Bridge
- Kiosk
- Wood Parking Barriers
- Boulders
- Metal Benches
- Metal Picnic Tables
- Trash Receptacles
- Barbecue Grills
- Traffic / Parking Signage
- Transformers

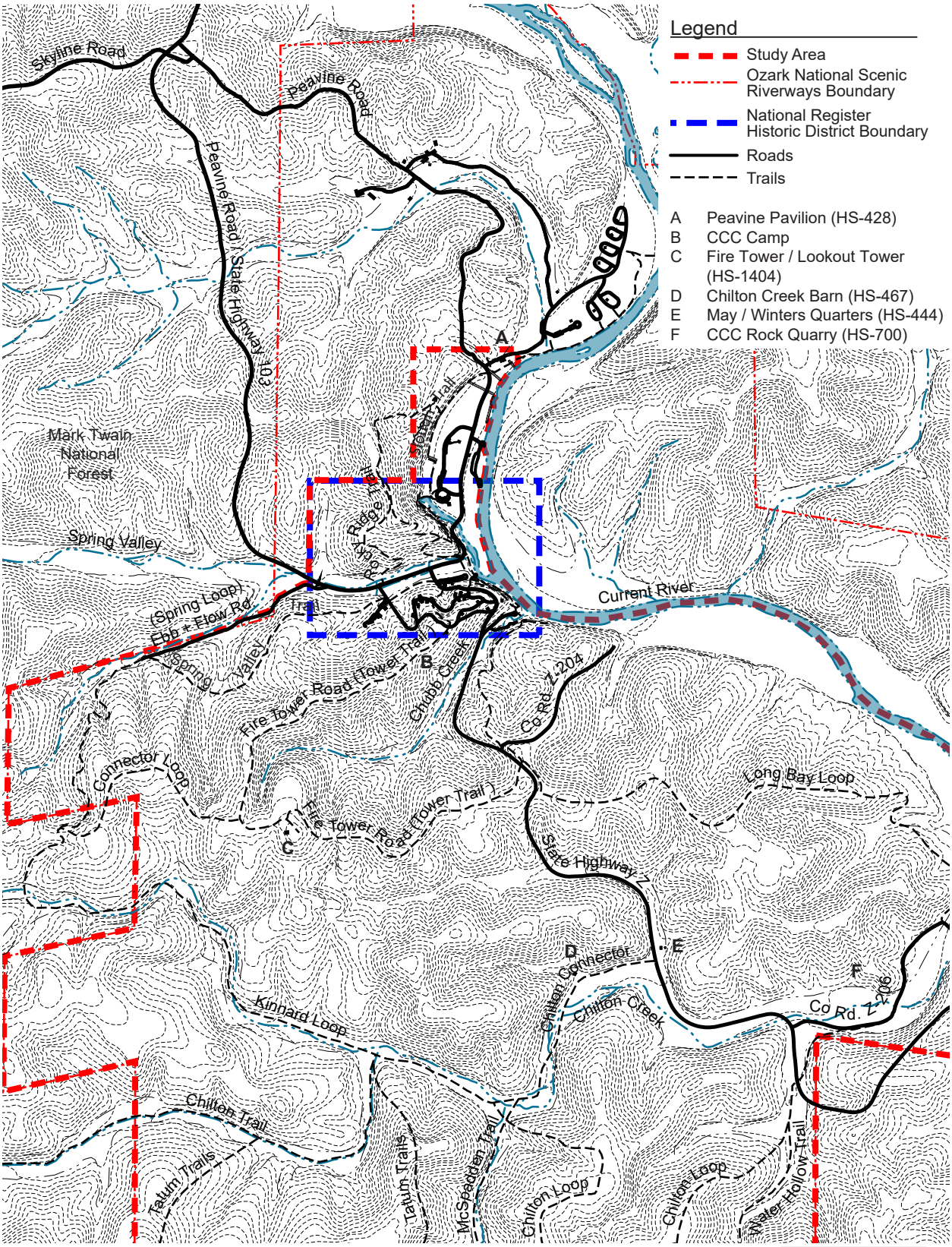


Figure 3-1. The study area encompasses the NRHP historic district and the expanded areas proposed by the 2016 CLI. (Mundus Bishop 2016)

Study Area

The study area includes the broader cultural landscape associated with Big Spring, including the distinct areas of the May / Winter Quarters (HS-444) and Peavine Pavilion (HS-428). The road and trail system is included within the study area section, as are two CCC Quarries, CCC Camp Ruins, CCC Dump, the Fire Tower / Lookout Tower (HS-1404), and Chilton Creek Barn (HS-467).

This section evaluates the existing condition of the study area cultural landscape and documents modifications and changes over time. The evaluation is described through seven landscape characteristics.

- Natural Systems and Features
- Land Use
- Spatial Organization / Topography / Views
- Archeological Sites
- Circulation
- Buildings and Structures
- Small Scale Features
- Vegetation

The evaluation and analysis is presented as narrative text, complemented by photographs and diagrams. This is followed by matrices describing existing condition.

Natural Systems

The study area is located on the Current River in the rugged Courtois Hills region of southeast Missouri. It is characterized by the steep hills and valleys of the Ozark foothills with a 700 foot difference between the valley floors and ridges. The natural systems and features of the study area include the rugged terrain of these steep hills and valleys, created by water systems of the Current River and its floodplain, and Big Spring and Big Spring branch. The variable climate of the Ozark

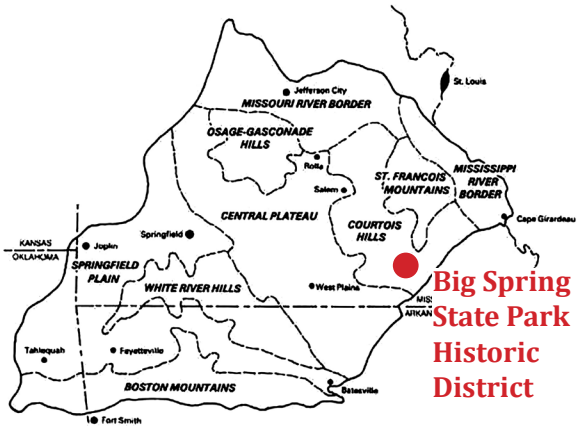


Figure 3-2. The sub-regions of the Ozarks. Big Spring Historic District is located in the Courtois Hills. (Rafferty, The Ozarks: land and life)

Highlands and its diverse plant and wildlife communities are integral components of the cultural landscape.

Geologists date the origins of the Current River to between 60 and 120 million years ago, during the Cretaceous period. Crustal uplifts created the topography of the region. Geology is characterized by sinkholes, caves, and underground drainage. Bedrock consists mainly of dolomite, sandstone and chert that form low mountains.[3.1]

The Current River is designated as an Outstanding National Resource Waters because of its exceptional water quality.[3.2] It begins at Montauk Springs, some 50 miles northwest of Big Spring. Hundreds of springs empty into the Current River and supply more than 90 percent of its water.[3.3] Springs range

3.1 Stevens, Donald L., Jr. A Homeland and a Hinterland: The Current and Jacks Fork Riverways: Historic Resource Study, Ozark National Scenic Riverways. Ozark National Scenic Riverways, Van Buren, Missouri, 1991.

3.2 This designation has national, recreational, and ecological significance. Stringent federal and state standards are designed to protect against any degradation in the water quality of the Current River. GMP, 169.

3.3 Douglas N. Mugel, Joseph M. Richards, and John G. Schumacher. "Geohydrologic Investigations and Landscape Characteristics of Areas Contributing Water to Springs, the Current River, and Jacks Fork, Ozark National Scenic Riverways, Missouri." *National Park Service*. Accessed May 2016. http://pubs.usgs.gov/sir/2009/5138/

in volume from a few gallons a day to the largest—Big Spring—that pumps 288 million gallons of water into the Current River daily.[3.4] The Current River is ideal for recreation, and allows for leisurely float trips.

The Current River's floodplain is a diverse and dynamic environment due to the high frequency of flooding. It rises an average of six to ten feet during the yearly rainy season; nineteen feet during a ten-year flood; and more than thirty feet during a 100-year flood. Many of the study area's visitor facilities are within this zone and at risk during flood conditions.

Big Spring is the largest spring in Missouri and one of the three largest in North America.[3.5] Water enters Big Spring through an extensive underground cave system that extends for miles to the north and west. As millions of gallons of water flow from the spring daily, they erode an estimated 173 tons of minerals, giving the water its unique indigo hue.[3.6] Fifty-five degree water emerges from Big Spring cave and cascades five feet over dolomite ledges to Big Spring branch. This eighty foot wide channel is several feet deep and joins the Current River a quarter of a mile downstream.[3.7]

The climate of the region is temperate. Summers are warm with average highs around seventy degrees, accompanied by high humidity. Winters are cold, with averages around thirty-five degrees. Precipitation averages forty-five inches per year, predominately as rain. Flash floods due to heavy rain, causes quick rises and falls of the water elevation in rivers and streams. Storms and tornadoes are common.

Vegetation is predominately second growth oak hickory forest, with some silver maples and cottonwoods on streambanks. The Ozark National Scenic Riverway contains the most diversified flora of any part of the state of Missouri, including the greatest number of species.[3.8]

The study area is an important conservation area with varied wildlife populations unique to the Ozark Plateau, including aquatic, terrestrial and avian, and subterranean species. The fauna is typical of the eastern Ozark region with species common to both the western prairie and eastern deciduous forests. Birds are abundant in the region with excellent opportunities for recreational bird watching. River fish populations include approximately 125 different species. Amphibian and reptile species include twenty-three snakes, eight lizards, eighteen turtles, fourteen salamanders and newts, and thirteen frogs and toads. [3.9]

No known threatened or endangered plant species have been recorded in the study area, and two mammals are listed as endangered by the USFWS.

The Courtois Hills are the most rugged terrain in the Missouri Ozarks. The sharp rises in topography and dense forest limited access to the region until the advent of the automobile in 1920s. American Indians, the first settlers of the region, were extremely mobile and covered large swaths of land looking for

3.4 *2016 CLI,* 214.
3.5 Mugel et al. "Geohydrologic Investigations."
3.6 Jeffrey L. Imes, L. Niel Plummer, Michael J. Kleeschulte, and John G. Schumacher. "Recharge Area, Base-Flow and Quick-Flow Discharge Rates and Ages, and General Water Quality of Big Spring in Carter County, Missouri, 2000-04" *National Park Service.* Accessed May 2016. http://pubs.usgs.gov/sir/2007/5049/
3.7 *NRHP,* 2.
3.8 Chastain, R.A., Struckhoff, M.A., Grabner, K.W., Stroh, E.D., He, H., Larsen, D.R., Nigh, T.A., and Drake, J., 2006, Mapping Vegetation Communities in Ozark National Scenic Riverways–Report to the National Park Service: U.S. Geological Survey Open-File Report, 2006.
3.9 GMP, 174-177.

food to survive. In the floodplain of the meandering river course, sediment deposits on river terraces created good habitat and agricultural land that made the area favorable for American Indian settlement.

The region's oak and pine forests attracted the lumber industry in the late 1800s, who built railroads, rail systems, roads and towns that increased access to the region. After the lumber companies left, the wagon trails they built were used to develop roads to support the rising trend of outdoor recreation. The picturesque countryside of the Current River Valley was an ideal location for a state park. In 1924 more than 4,000 acres was set aside, making it the largest state park in Missouri at the time. Flash flooding in 1928 obliterated many early state park buildings. With the CCC arrival in 1933, flood protection projects were prioritized. These included the five Big Spring Stone Dikes (HS-711) on the slough to limit flood water from inundating Big Spring, and rock revetments along the shores of Big Spring branch and other drainage routes to protect the banks from erosion caused by the quick rise and fall of flood waters.

The naturally occurring Big Spring and the Current River were the center of the state park development. Buildings and structures to support recreation were built in a concentrated area in the hollow of Big Spring branch, preserving most of natural landscape as a conservation area. The establishment of the Mark Twain Forest in 1939 further protected the primitive wilderness that characterizes the Big Spring natural areas. The variable climate and location along the Current River resulted in the popularity of the area, bringing summer visitors who boat and swim in the Current River, and recreate in the broad flat hollows.

Analysis of Integrity

Today, the natural systems of the Big Spring Historic District – the Current River, Big Spring branch, and Big Spring remain largely the same as the period of significance and contribute to the integrity of the study area. The distinctive steep forested hillside and valleys, meandering river, and dense oak hickory vegetation are important characteristics that contribute to the significance of the cultural landscape.



Figure 3-3. Big Spring is one of the largest single-conduit springs in the United States and one of the largest in the world. (Mundus Bishop 2016)



Figure 3-4. The Current River's floodplain is a diverse and dynamic environment due to the high frequency of flooding. (Mundus Bishop 2016)

Land Use

The study area is a component of the Ozark National Scenic Riverways, with a mission to conserve and interpret the natural and cultural resources of Big Spring and the Current River. Land uses within the study area include developed visitor facilities, lodging associated with the Dining Lodge (HS-422) and cabins, camping and picnicking at Chubb Hollow, and recreation at Big Spring Pavilion (HS-425) and Peavine Pavilion (HS-428). Resource-based recreation is associated with trails, and river recreation with support facilities such as boat ramps and parking. River recreation includes fishing, john boating, canoeing, tubing, and swimming. Land based recreational uses include hiking, birding, and picnicking. A large portion of the study area is natural forest, with a portion recommended for designation as a wilderness area. Adjacent to the study area on the west side is Mark Twain National Forest.

Analysis of Integrity

The recreational land use of the study area is consistent with that of the historic period. The study area retains integrity and is significant as a recreational area as intended by its development by Missouri State Parks and the CCC and WPA.

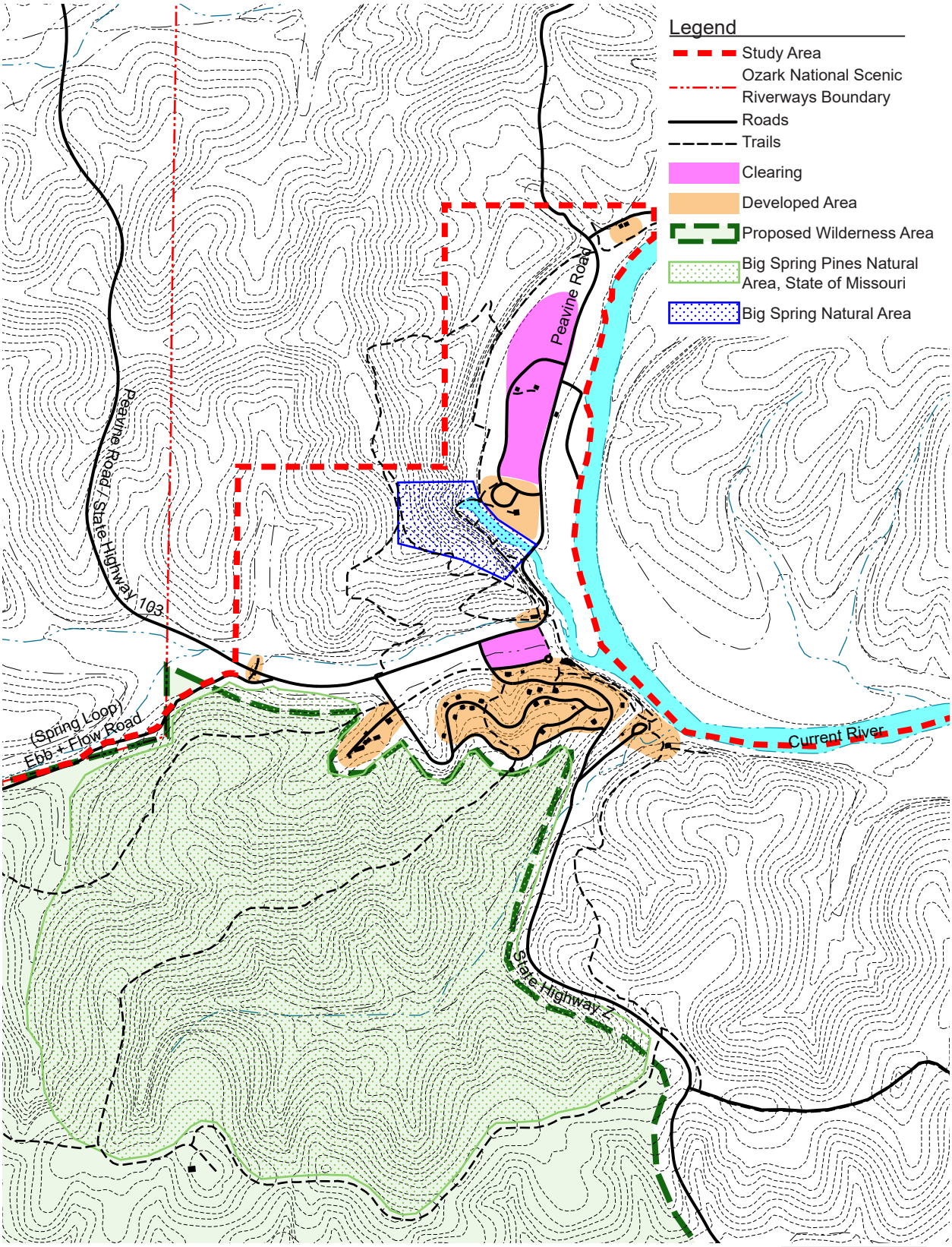


Figure 3-5. The spatial organization of BSHD is defined by forested hillsides, in contrast to two cleared play fields, and building clusters, that preserve the natural areas. (Mundus Bishop 2016)

Spatial Organization / Topography / Views

The study area is set to the west of the Current River and is defined by steep forested hillsides and narrow drainages that divide the study area into discrete spaces. A 700 foot difference in elevation exists between the ridgelines and valley floors, and the wooded landscape provides a sense of enclosure. The enclosed areas are in contrast to park-like areas at lower elevations associated with active uses. These areas include an open play field adjacent the core development area and another located north of Big Spring.

Built features are generally clustered together, allowing for the preservation of natural areas. Spatially, buildings and most park features were designed and situated in response to the Current River, Big Spring branch, and Chubb Creek. River overlooks and access to the river were key components of the CCC designed landscape, and these components remain today. Roads were constructed in response to the native topography, winding across hillsides, and providing views to prominent buildings, clearings, and Big Spring branch.

Big Spring is located at the base of a cliff face and hill which rises to the west and frames the western side of the study area. North of Big Spring is a wide flat valley, formed by the floodplain of the Current River, and a large open play field. To the south, the cliff blocks views between the Big Spring landscape character area from the core development area.

North of Big Spring is a large playfield. This space was originally cleared for farmland prior to development of the state park and has remained essentially unchanged since that time. The Big Spring Picnic Loop Drive was added after the period of significance, and disrupts the size, openness, and views across the field.

The Peavine Pavilion (HS-428), to the north end of the study area, is spatially distinct from the remainder of the park. Set on a level terrace above the river, the setting remains essentially unchanged since the period of significance.

The Museum (HS-420), Dining Lodge (HS-422), and cabins are clustered together on a hillside south of Big Spring. This development was sited to provide views to the river and natural areas, and the forest vegetation used to blend the buildings with the landscape. This arrangement remains unaltered since the period of significance. The Maintenance Area and the CCC Dump are spatially separate from the remainder of the development, intentionally placed to keep these features out of view of visitors.

The west edge and entrance to the park was designed to be a gateway and threshold into the park. The Entrance Building (HS-432) and adjacent walls were arranged to frame the view and create a pleasant entry experience. The views and structures that define this area remain unchanged since the period of significance. However, the Entrance Building (HS-432) no longer serves as a visitor orientation stop, and the change in building use diminishes the character and experience of the area.

Chubb Hollow is spatially distinct from the remainder of the park, separated by a steep hillside from the cabins and Dining Lodge (HS-422). Chubb Creek divides the hollow into two sections, north and south. The CCC developed the hollow into a camping and picnicking retreat, and this character and spatial arrangement remains.

South of the core development area, the May / Winters Quarters (424) is another spatially distinct area. The house, outbuildings, and surrounding landscape have a residential

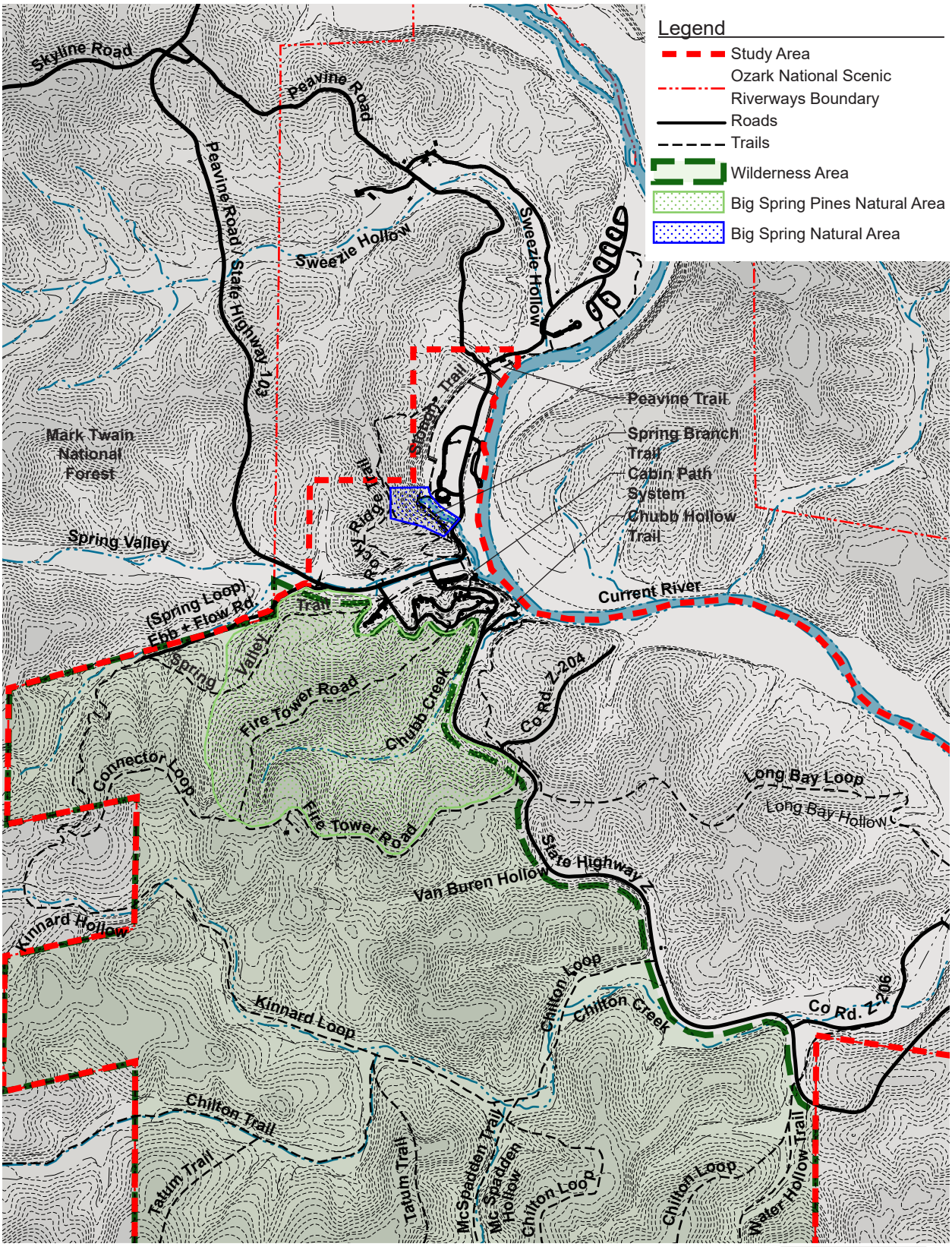


Figure 3-6. The study area is characterized by the steep hills and valleys of the Ozark foothills, with a 700 foot difference between the valley floors and oak hickory forested ridges. (Mundus Bishop 2016)

character, with lawn and ornamental plants. The area is spatially separated from the other areas by the surrounding forest. This area has retained its spatial characteristics since the period of significance.

The Fire Tower Rock Quarry (HS-1404E) is at the far southeast edge of the study area and is characterized by a large clearing, in contrast to the wooded hillside above and below. The large clearing is extant from the 1930s, although vegetation has begun to recolonize, particularly at the quarry edges, which has altered its historic appearance.

Analysis of Integrity

Very few modern intrusions or changes have occurred to the spatial organization, topography, and views since the period of significance, and these characteristics retain integrity. Vegetation has grown and obscured some views, specifically along the Spring Branch Trail, the Fire Tower Rock Quarry (HS-1404E), and Dining Lodge (HS-422). The 1980s modification to the Big Spring Picnic Loop Drive has disrupted the spatial arrangement of the playfield. The 1970s realignment of Peavine Road and Big Spring Branch Vehicular Bridge modified the crossing and approach to the branch, making it a less direct approach. The topography of the study area has not been altered since the period of significance, except for natural flooding that has eroded portions of Big Spring branch and Chubb Hollow. The spatial organization, topography, and views are contributing features of the cultural landscape.



Figure 3-7. Remnants of the 1935 camp of CCC Company 1710, including several building foundations, are on the hill near the water tower on Fire Tower Road (Tower Trail). (Mundus Bishop 2015)



Figure 3-8. Building foundations and other remnants remain at the CCC Camp Ruin site. (Mundus Bishop 2015)

Archeological Sites

The study area includes prehistoric and historic archeological sites. Prehistoric sites include the Chubb Hollow Site, Spring Valley Dalton Site, and four archeological sites near Peavine Road. Historic archeological sites include three CCC camp sites, two quarries, and a dump. Additionally, there are submerged archeological resources in the Big Spring branch.[3.10]

Chubb Hollow is nationally significant for its prehistoric archeology which includes evidence of the American Indian groups who occupied this site as early as 10,000 years ago. The site dates to the Dalton Culture, which brought substantial settlement and habitation of the Current River valley.

The Spring Valley Dalton Site is a possible Late Archaic site that sits underneath the Latrine (HS-423). The site has not been extensively surveyed for artifacts, and has been disturbed twice. The first was in the late 1930's when the CCC built the Latrine, and the second was in 1994 when artifacts were discovered during laying of a new water line. Artifacts consist of stone bifaces and flakes.[3.11]

Four sites were discovered during investigations in 1989 and 1990 prior to relocating and widening Peavine Road: Gnat Alley Woods Site; the Quartzite Site; the Peavine Road Site; and the Cherty Branch Site.[3.12] The Gnat Alley Woods Site is a terrace approximately 4 meters higher than the Current River Floodplain.[3.13] The Quartzite Site is an undisturbed site which served as a prehistoric quartzite workshop.[3.14] The Peavine Road Site is a small site with light lithic scatter.[3.15] The Cherty Branch Site contains an intermittent stream which has exposed debitage.[3.16]

Remnants of the 1935 camp of CCC Company 1710, including several building foundations, are on the hill near the water tower on Fire Tower Trail. In June 1933, CCC Company 1710, which trained in Fort Leavenworth, Kansas, set up a tent camp in Spring Hollow near the entrance of Big Spring State Park. A second camp, was constructed on the hill overlaying where the rectal cabins are now located, extending south and east. This may have later merged with a later third camp higher on the hill, near the present-day location of the water tower. This camp included many buildings and structures, all of which were razed in 1937 when the CCC departed.

Building foundations and other remnants remain, including the CCC Camp Ruin Dining Hall Remnant (HS-702), a CCC Camp Ruin Foundation (HS-703), CCC Camp Ruin Fire Ring (HS-704), CCC Camp Ruin Trough Structure (HS-705), CCC Camp Retaining Wall (HS-706), CCC Camp Ruin Water Towers Posts (HS-707), CCC Camp Concrete Slab Foundation (HS-708), CCC Camp Ruin Shower House Foundation (HS-709), CCC Camp Ruin Septic tanks (HS-710), a dirt path that makes a loop with the main drive, and miscellaneous debris – such as concrete pieces and clay pipe. All extant features are contributing and retain integrity.

A lumber camp and two sawmills were established in Chubb Hollow at an unknown

3.10 Espenshade, Christopher T. and Grant Day. Phase I Archaeological Survey, Fhwa Project Pra-Ozar 10(2), Big Spring Bridge Project: Carter County, Missouri (Arpa Permit 2015-5). Prepared For Federal Highway Administration, Sterling, VA. 2015.

3.11 Archaeological Survey of Missouri, ASM Site Number 23CT389, Spring Valley Dalton Site, 23CT-5-13-93. (Missouri Archaeological Society - University of Missouri - Columbia, 1993).

3.12 James E. Price. Side-Hollow Archaeology in Ozark National Scenic Riverways, Carter County, Missouri. (National Park Service, U.S. Department of the Interior, 1991), i.

3.13 Price. *Side-Hollow Archaeology*, 7.

3.14 Price. *Side-Hollow Archaeology*, 9.

3.15 Price. *Side-Hollow Archaeology*, 10.

3.16 Price. *Side-Hollow Archaeology*, 10.



Figure 3-9. The CCC created the CCC Rock Quarry (HS-700) by blasting the area with dynamite for dolomite blocks. Each meticulously cut each piece of stone was used for architect Donald A. Blake's designs. c. 1933. (OZAR Archives)



Figure 3-10. Today the CCC Rock Quarry (HS-700) remains similar to its condition when the CCC left in 1937. (Mundus Bishop 2015)

date.[3.17] It is possible there are remnants from these structures.

One of the most unifying characteristics of the study area is the CCC's use of stone as a building material. One of the first activities the CCC undertook was the establishment of two quarries.

The CCC Rock Quarry (HS-700), located in the south of the study area, is characterized by a 30' tall by 650' long stone cliff, created by the CCC blasting the area with dynamite for dolomite blocks. CCC enrollees would meticulously cut each piece of stone for architect Donald A. Blake's designs. Two ancillary structures, the CCC Powder Magazine (HS-701) and dynamite box, associated with the CCC Rock Quarry (HS-700) were stabilized in 2009. This included the repair of the siding and roof of the CCC Powder Magazine. The dynamite box was elevated and an overhead canopy added. Aside from these repairs and forest vegetation that has encroached into the quarry, the CCC Rock Quarry remains similar to its condition when the CCC left in 1937.

The Fire Tower Rock Quarry (HS-1404E), located in a wooded area off Fire Tower Trail, is on a naturally occurring rock seam with many loose dolomite boulders and piles of flagstone. The CCC quarried these loose stones and used them throughout the study area in the construction of stone revetments along channels, stone paving for paths, and stone markers and edges within parking areas. A steel stone chisel remains from the CCC's use of the site.

Submerged archeological resources include at least seven cut-off pilings from the original CCC bridge over the Big Spring branch, as well as a possible stone pier support.[3.18]

Two concrete piers, likely associated with the former johnboat dock, occur on the southeastern bank. Additionally, a linear arrangement of rock features northwest of the Big Spring Branch Bridge appear to represent the remnants of supports from the former float bridge.[3.19]

CCC Dump and Dump Incinerator (HS-432B)

The CCC Dump is on the west end of the study area, accessed from Ebb and Flow Road (Spring Loop). The approximately half acre site was used by the CCC to discard construction debris, and other waste. Near the center of the dump is a CCC-built stone and mortar Dump Incinerator (HS-432B) used to discard flammable construction debris. The remainder of the debris is predominately metal and glass, which could not be burned. The remnants within the dump and incinerator reveal the cultural footprints left by the CCC through the discarded jars, cans, loose brick, and rubble. The dump was likely used throughout much of the State Park Era. The CCC Dump and Dump Incinerator remain similar to the period of significance. They reveal the day-to-day operations of a working CCC dump, and contribute to the cultural landscape.

Analysis of Integrity

The prehistoric archeological sites are significant resources in their own right, but are non-contributing to the historic Big Spring landscape. The CCC camp ruins and quarries, along with associated remnants and structures, contribute to the cultural landscape and retain integrity. Few modifications have occurred since the since the 1930s.

3.17 The date the camp and sawmills were established is unknown. Williamson. *Dragonflies Collected in Missouri*.

3.18 Espenshade, Archaeological Survey, Fhwa Project, ii.

3.19 Espenshade, Archaeological Survey, Fhwa Project, iii.



Figure 3-11. Peavine Road / Highway 103 is the main vehicular route and entrance to Big Spring State Historic District. It connects the core development area with Big Spring. (Mundus Bishop 2015)



Figure 3-12. State Highway Z is the primary north south route through the study area, connecting the cabins to Chubb Hollow, the May / Winters Quarters (HS-444), and CCC Rock Quarry (HS-700). (Mundus Bishop 2015)

Circulation

The study area's circulation system consists of vehicular, pedestrian, and water routes. Most of the roads and trails were built during the period of significance, integrated into the rugged terrain. Today these routes support ongoing recreational uses.

Vehicular Circulation
Existing vehicular routes include state highways that provide access to the study area, two county roads, internal park roads, and several service drives and parking areas. Peavine Road / State Highway 103 connects the study area to Van Buren. State Highway Z extends from this road to the south to the park's edge. County Road Z-204 provides access to the Current River, and County Road Z-206 accesses the CCC Rock Quarry (HS-700) and is the southern edge of the study area. Park roads facilities, Big Spring Picnic Loop Drive, the Cabin Road System (HS-401B), and Chubb Hollow Road, connect to parking and recreational facilities. Service drives access maintenance and operations areas, and are generally closed to the public such as Ebb and Flow Road (Spring Loop) that accesses the state park dump site. Some double as trails such as Fire Tower Trail that terminates at the Fire Tower / Lookout Tower (HS-1404). A few existing roads were originally built as trails.

The vehicular circulation system was generally developed by the CCC between 1933 and 1937. This work extended earlier roads—Ebb & Flow Road (Spring Loop), Peavine Road and State Highway Z—into a fully developed park system with additional and improved roads connecting access routes to visitor facilities and recreational experiences. The CCC-built work extended Peavine Road to the north, and added the road to the Dining Lodge (HS-422), the Cabin Road System (HS-401B), and Chubb Hollow Road. Big Spring vehicular circulation was developed in the 1970s, as the property to the north was in private ownership during the CCC tenure.

Analysis of Integrity -
The vehicular circulation remains similar to the original system built by the CCC, as present during the period of significance and retains integrity. Most existing roads follow original 1930s configurations and alignments. Modifications included rerouting and narrowing Peavine Road / State Highway 103 in 1940, a minor reroute of State Highway Z in the 1960s. During the 1970s, modifications to roads included rerouting Peavine Pavilion Road, minor changes to the road at the Dining Lodge (HS-422), modifications to parking pull ins and routes at the cabins, and removal of two roads–between the Maintenance Area and Main Parking Area (HS-714) (of which a remnant landform remains), and from the Dining Lodge north to Peavine Road / State Highway 103.

Additional modifications occurred in 1989, including a complete modification to the big spring picnic loop, which included an expanded parking area and a new connection to Peavine Road that cut through the playfield. Today, many fire roads built by the CCC are recreational hiking trails. These include Ebb and Flow Road (Spring Loop), Connector Loop, Kinnard Loop, Chilton Loop, Chilton Trail, and Partney Trail (Long Bay Loop).

Pedestrian Circulation
The study area's pedestrian circulation system routes consist of miles of hiking trails in natural areas and walkways associated with parking areas and visitor facilities. The trails are a mix of surfaces including earthen, stone, and stone steps. Two footbridges are associated with these trails, both at Chubb Hollow.

This system was primarily developed by the CCC in association with the state park



Figure 3-13. State Highway Z follows the natural topography of the rolling hillsides. (Mundus Bishop 2015)



Figure 3-14. Most existing roads follow 1930s configurations and alignments. The road is adjacent to the cabins, above, has been modified with new parking pull-outs. (Mundus Bishop 2016)

development of 1933 to 1937. The CCC built a series of foot trails, and horse and fire trails that traversed 400 feet in elevation change and provided remarkable views of the hills, river valley, and stone bluffs of the study area. Several trails followed earlier wagon roads including Rocky Ridge Trail and Chilton Creek Trail. Chilton Creek Trail served as a county road into the 1940s, and by the late 1950s had been converted into a hiking trail. The CCC improved Rocky Ridge Trail in 1933 with stone steps. Others served for fire protection routes including Fire Tower Road (known as Tower Trail in the 1930s), Kinnard Loop, Tatum Trail, and Chilton Loop Trail. Slough Trail was built by the NPS on the old 1934 road bed that followed the alignment of the Big Spring Stone Dikes (HS-711). Within the core development area, a series of trails connects the cabins with the Dining Lodge (HS-422) and Museum (HS-420). The majority of the trails extend into the natural areas, and follow ridges, streams and creeks.

Peavine Trail, was developed in the 1970s in association with the improvement of the study area as part of the establishment of the national park. This short .1 mile trail parallels the Current River following on an old road bed that remains from when the road was rerouted north of the pavilion in the 1970s.

Features associated with the trails include two footbridges at Chubb Hollow, built by the CCC in the 1930s. The wooden portions of these have been replaced but the original abutments remain. Trails in the core development area include long flights of stone steps.

Trails that pre-date the CCC-development include the Big Spring Trail, originally built prior to 1927. By 1936, the trail was extended to the Dining Lodge (HS-422) and the original CCC-built steps and stone retaining walls. An interpretive circle was added between 1960 and 1970, and portions of the trail were replaced with mortared flagstone between the 1960s to 1970s, and again in 1989. Additional trail work was completed in the 1990s, including trail repairs and wayfinding signage throughout the system.

Analysis of Integrity -
The pedestrian circulation remains similar to the system developed by the CCC and the original trails of the 1920s. The trails present during the period of the significance are extant and the system retains integrity. Most trails follow their original configurations and alignments. Some trails have changed in use, and others have been slightly modified including replacement of stone steps with timber or concrete.

A few trails are missing from the period of significance, including Water Hollow Trail, McSpadden Trail, and portions of Chilton Trail and Tatum Trail. These have been washed out due to reoccurring floods and are obscured by dense vegetation. In these cases, the trail corridor is typically visible as a slight trace.

The following pages graphically illustrate the analysis of the study area's circulation system as it changed over time. It documents the State park's early development, construction of roads and trails by the CCC and WPA, modifications by Missouri State Parks, and those made by the NPS in the 1970s.

Water Circulation
Water routes along the Current River provide access to the BSHD. Boating and kayaking are popular activities within OZAR, and visitors enter and exit the study area from the river at two formal access points. A boat ramp occurs east of Peavine Road, and a small boat dock is below the Dining Lodge (HS-422).

The boat ramp provides access to the Current River from Peavine Road. Two asphalt-paved



Figure 3-15. Two boat ramps occur at the Current River, connected by a parking area and accessed by Peavine Road. (Mundus Bishop 2015)



Figure 3-16. Stone Retaining Wall and Abutments (HS-423A). (Mundus Bishop 2015)

ramps are available, separated by a wide parking area that accommodates boat trailers. The boat ramps and parking area are in good condition.

The boat dock is located at the confluence of the Current River and Big Spring branch, below the Dining Lodge (HS-422). The boat dock is built of dimensioned lumber, and is in fair condition.

Analysis of Integrity -
The water circulation remains similar to the period of significance. The boat ramp was added in the 1970s, located at the former location of a CCC-designed swimming hole that had been destroyed by flooding. The current access was expanded since the period of significance to include the additional ramp. The Current River has been and continues to be a popular summer recreational area for boaters. Although the existing access points are not the original materials, the locations and pattern of use in these areas contributes to the significance of the cultural landscape and the pattern of water circulation retains integrity.

Constructed Waterways

Constructed waterways include a series of stone abutments along Big Spring branch, the five Big Spring Stone Dikes (HS-711), constructed by the CCC in the floodplain of the river.

The five Big Spring Stone Dikes (HS-711) were built in 1934 along the slough to protect Big Spring from flood waters. Of the five, Big Spring Stone Dikes #3 and #5 remain. (re: Big Spring character area).

<u>CCC Stone Abutments</u>
The CCC built mortared native stone retaining walls to stabilize the shore of Big Spring branch and allow pedestrian trails and access to the source. These retaining walls were designed to blend into the landscape with long continuous courses of varied widths to appear as a natural outcropping. Loose laid stone revetment walls were placed by the CCC in thirteen locations along Big Spring branch. The revetment walls were intended to fade out by partially disappearing and intermittently reappearing.

The abutments extend all along the west side of Big Spring branch from the bridge to the Dining Lodge (HS-422), and along the west edge of the Current River north of Big Spring branch (near location of non-extant swimming pool and bath house).

The revetment walls along Big Spring branch are no longer visible. Segments of the stone abutments have been removed at the boat ramp and others have either become eroded or overgrown with vegetation.

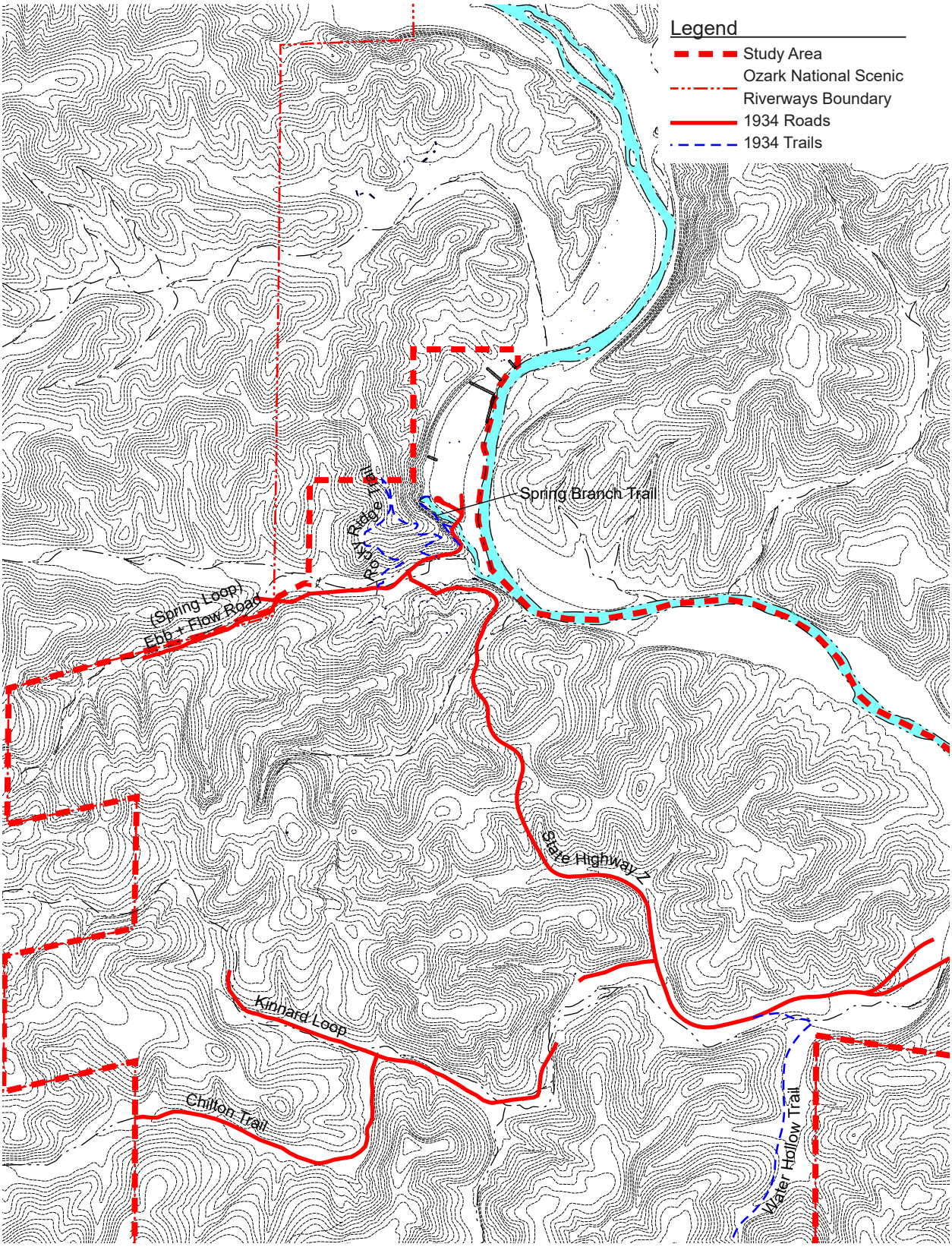


Figure 3-17. Roads and Trails, 1934. (Mundus Bishop 2016)

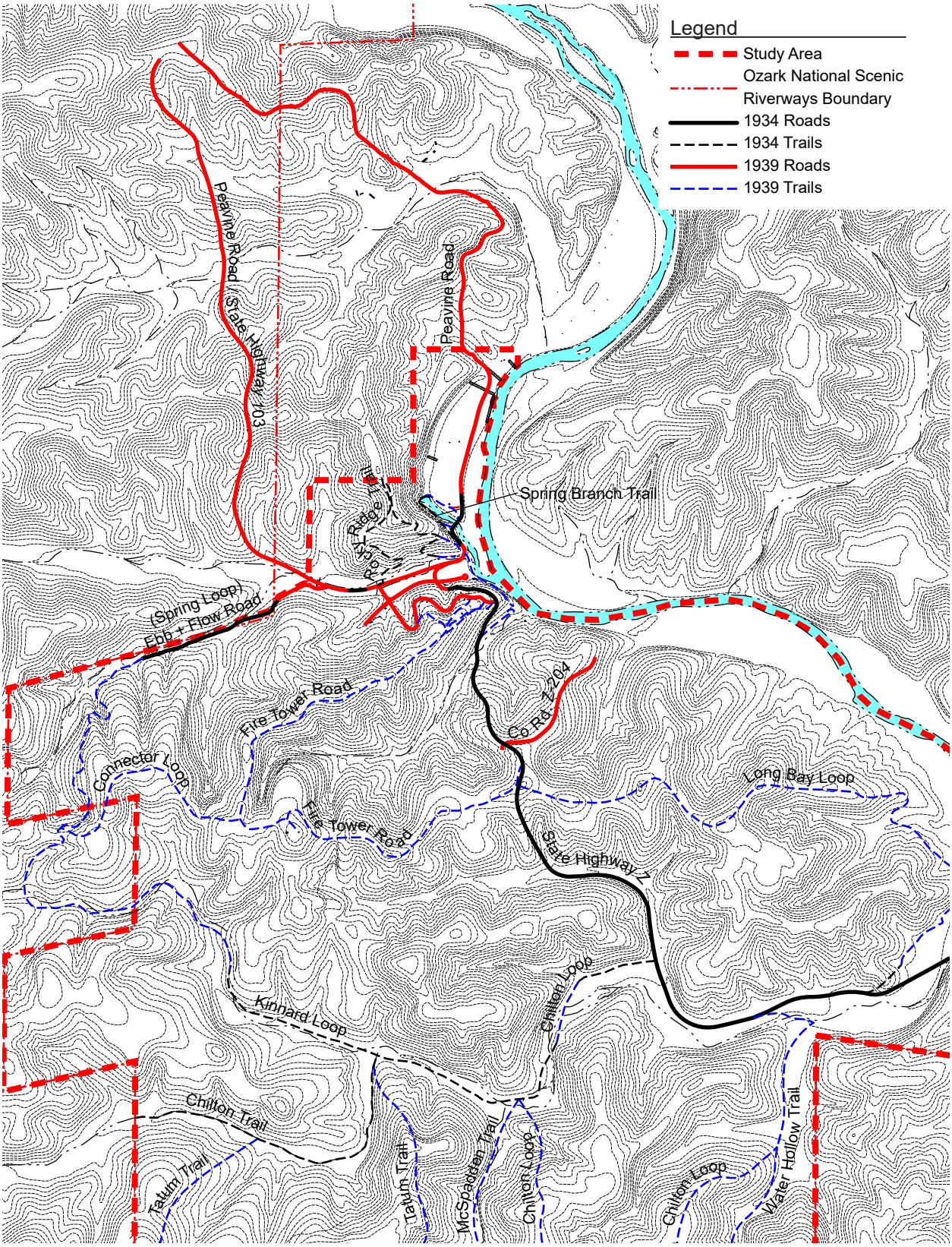


Figure 3-18. Roads and Trails built by the CCC and WPA, 1939. (Mundus Bishop 2016)

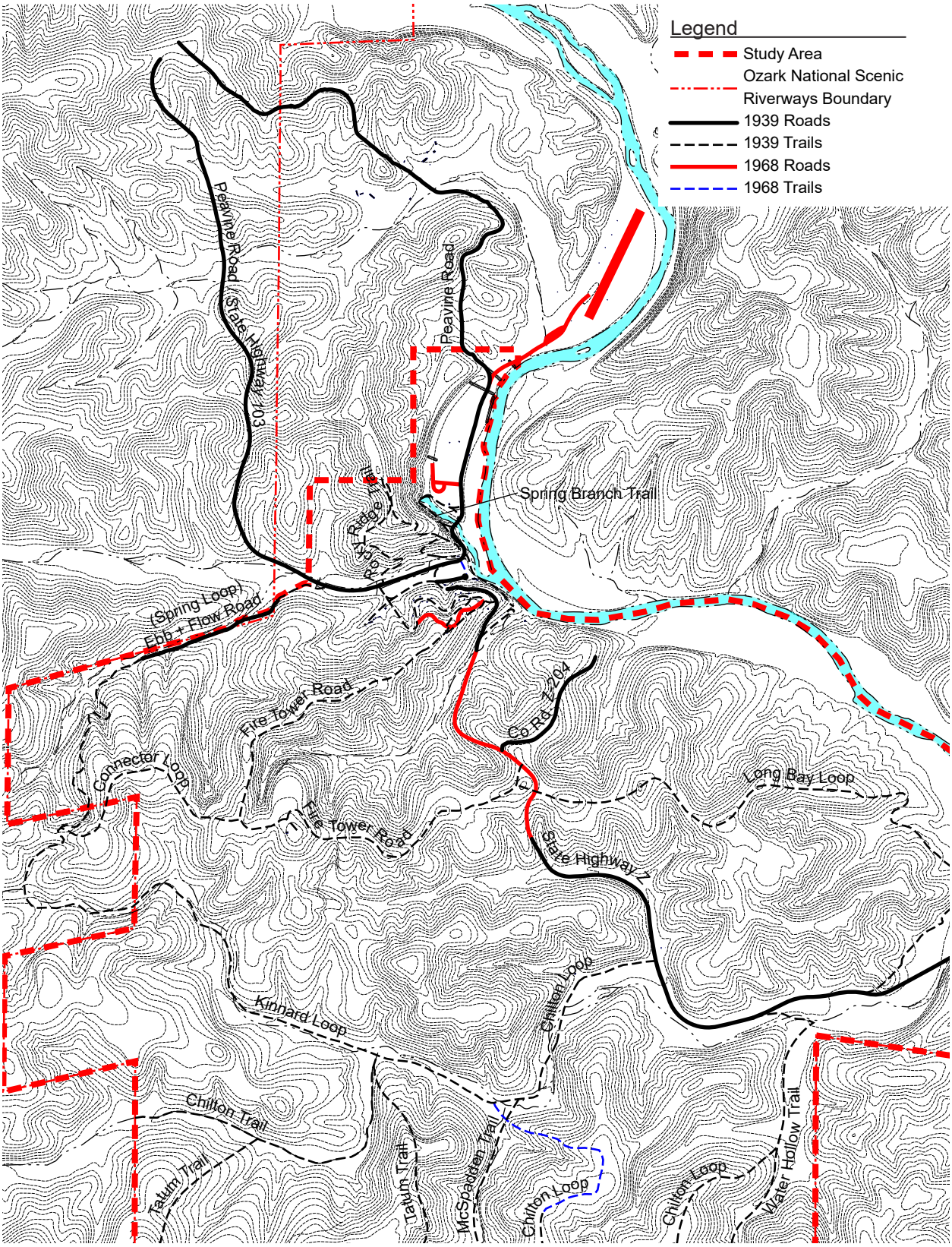


Figure 3-19. Roads and Trails, 1968. (Mundus Bishop 2016)

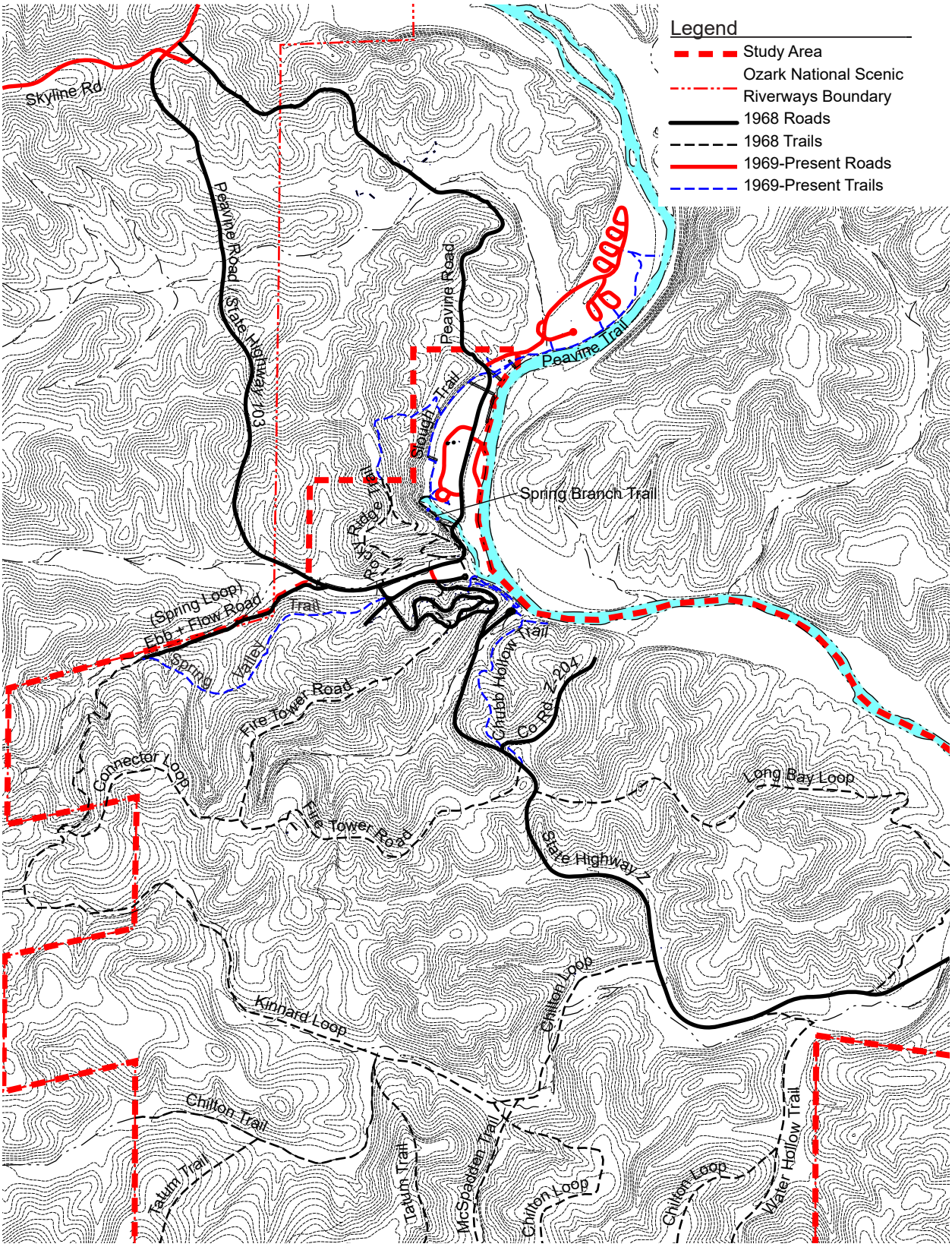


Figure 3-20. Roads and Trails, built by the NPS, 1969-Present. (Mundus Bishop 2016)



Figure 3-21. Designed elements were situated in response to the Current River. River overlooks and access were key components of the CCC designed landscape. These components remain today. (Mundus Bishop 2016)



Figure 3-22. The study area includes two open, level playfields that contrast with the forested hillsides. (Mundus Bishop 2015)



Figure 3-23. Pedestrian circulation is primarily narrow and rugged recreational trails constructed by the CCC, such as the Big Spring Trail (above) Chubb Hollow Trail (below). (Mundus Bishop 2016)



Figure 3-24. Built between 1957 and 1963, Peavine Pavilion (HS-428) was intended to be compatible with the earlier CCC buildings, but simpler and less expensive to build. (Mundus Bishop 2015)



Figure 3-25. May / Winters Quarters (HS-444) was built between 1949 and 1950 as the residence for the state park's first refuge manager. It is set within a large shaded lawn, surrounded by a post and wire fence, that dates from when the state park served as a wildlife conservation area. (Mundus Bishop 2015)

Buildings and Structures

The buildings and structures in this section include only those of the broader cultural landscape, outside the core development area and Big Spring. They include visitor facilities associated with Peavine Pavilion (HS-428), including Peavine Latrine; the May / Winters Quarters (HS-444) buildings and structures; the Fire Tower / Lookout Tower (HS-1404) and other fire protection features built by the CCC; the CCC Dump and Dump Incinerator (HS-432B); the CCC quarries and associated features; the water tower; and Chilton Creek Barn (HS-467).

Peavine Pavilion

The Peavine Pavilion (HS-428), at the north end of the study area, is set within a man-made clearing in a dense oak hickory forest, on a terrace overlooking the Current River. The clearing is mown grass with several large mature trees. In addition to the pavilion, the site includes a modern latrine, Peavine Latrine (#429), a small parking area, paths, a footbridge, and several contemporary small scale features such as lighting, grills, picnic tables, trash receptacles, and signage. Built between 1957 and 1963, Peavine Pavilion was similarly constructed to Big Spring Pavilion (HS-425). The design of these shelters was intended to be compatible with the earlier CCC buildings, but simpler and less expensive to build. The modern latrine was built by the NPS in the 1970s. The road was rerouted at the same time due to flooding, modifying its original alignment from between the pavilion and the river to the north side of the pavilion. The original road alignment is now a trail, leading to a contemporary footbridge. Other contemporary features include stone steps connecting the upper terrace where the pavilion is set to a lower terrace with a recreational lawn with a swing set, eight feet below. In 1993, a major flood damaged the Big Spring Pavilion, removing the structure from its base. The pavilion was immediately reset. The Peavine Pavilion and its setting remain in original locations. However, the site has undergone many modifications including rerouting the road and addition of contemporary features. Some modifications occurred during the period of significance and others afterwards. Even with these modifications, Peavine Pavilion and its setting contribute to the cultural landscape and retain integrity.

May / Winters Quarters

The May / Winters Quarters (HS-444), at the southern end of the study area, was built by Missouri State Parks between 1949 and 1950 as the residence for the state park's first refuge manager, Chester Barnes. The site includes the residence set within a man-made clearing surrounded by a large shaded lawn. It is accessed by a gravel driveway that connects to the non-extant garage built at the same time, of which a concrete foundation remains. Modern structures include an outbuilding and shed, and several utilities added later, including a propane tank, satellite dish, utility poles, and overhead utility lines. Post and wire fencing from the time the state park served as a wildlife conservation area remains at the south side of the site. The site and residence remains similar to the period of significance, with only minor changes including the loss of the garage. The residence, garage foundation, driveway, and post and wire fencing are contributing features that reflect the importance of conservation to the park's early establishment.

Fire Tower / Lookout Tower

The Fire Tower / Lookout Tower (HS-1404) is set on a high ridge with panoramic views in all directions, located near the center of the study area. Built by the CCC in 1934, the Fire Tower / Lookout Tower is one of several features constructed for forest fire



Figure 3-26. The Fire Tower / Lookout Tower (HS-1404) is no longer used for fire monitoring and is closed to public use, however it continues to provide the historic vantage point of the 1930s and 1940s, with views of the Current River, the Courtois Hills and the surrounding forest.(Mundus Bishop 2015)

prevention and monitoring. Others are roads and trails, including the four-mile Fire Tower Trail. In addition to the Fire Tower / Lookout Tower, the site includes other CCC-built features from 1935: two privy sites of which concrete foundations over septic tanks remain, a low stone retaining wall, and portions of a low loose laid boulder wall. A concrete platform and twenty-five foot tall iron pole remain from the 1945 to 1950 Radio Shed, the Fire Tower / Lookout Tower and associated structures remain in their original locations, although the structures are no mainly remnants of earlier features. The vegetation around the Fire Tower / Lookout Tower and on the adjacent hills has become more dense. The Fire Tower / Lookout Tower and site remains similar to the period of significance. Although it is no longer used for fire monitoring and is closed to public use, the tower continues to provide the historic vantage point of the 1930s and 1940s, eighty feet above the ground, with views of the Current River, the Courtois Hills and the surrounding forest. The Fire Tower / Lookout Tower and structures, and the remnants of the Radio Shed contribute to the cultural landscape.

Big Spring Branch Vehicular Bridge

The Big Spring Branch Vehicular Bridge is a two-lane wood bridge over Big Spring branch. The bridge has been in the same approximate location since the 1920s. The Missouri State Park Board first built the bridge as a floating wooden pontoon. It was damaged by the 1928 flood and replaced in the 1930s. The WPA replaced the bridge circa 1940. The wood framing of the bridge was similar to the Chubb Hollow Foot Bridge (HS-456). The NPS replaced the bridge with its current structure in 1977, replacing the WPA bridge. The 1977 bridge was in a different alignment from the historic, and required the removal of the WPA concession stand. In 1989, an asphalt overlay was added to Peavine Road, including the Big Spring Branch Vehicular Bridge. No components of the early CCC bridge remain. The Big Spring Branch Vehicular Bridge is non-contributing.

Water Tower

This modern water tower is located at the edge of the CCC Camp, next to a gravel parking area. It is a non-contributing structure.

Analysis of Integrity

Buildings and structures of the study area represent all periods of development within Big Spring Historic District. This includes buildings, bridges, and structures constructed by the CCC and WPA during the 1930s to the 1940s, and 1950s features built by the State of Missouri. The NPS added modern latrines and bridges in the 1970s, that were a departure from the historic design and building pattern. The contributing buildings and structures retain integrity, and contribute to the cultural landscape.



Figure 3-27. The Dump Incinerator (HS-432B) was used to discard flammable construction debris. The Dump Incinerator, and surrounding CCC Dump, are extant from the period of significance. (Mundus Bishop 2015)



Figure 3-28. One of seven stone Fountains (HS-712) in the study area. (Mundus Bishop 2015)

Small Scale Features

Contributing small scale features of the study area include CCC built drinking Fountains (HS-712), stone markers in parking areas, stone curbs and retaining walls, and wildlife fencing. These are all extant from the period of significance. The Fountains, curbing and walls enhance the overall character and feeling of the historic district, as the extensive and varied use of stone is a unifying characteristic. Wildlife fencing is an important remnant depicting the area's original use as a preserve, is extant from the period of significance, and has had few modifications.

Additional small scale features that post-date the period of significance include features that provide safety and infrastructure, clarify access, improve visitor experience, and assist in interpretation. These features include timber and concrete stairs, regulatory signs, utility infrastructure (culverts, propane tanks, utility poles, overhead utility lines, utility boxes and meters, ac units, hydrants, etc.), lighting, fences, railings, gates, picnic tables, benches, trash receptacles, mailboxes, flag poles, play equipment, fire pits, grills, commemorative plaques, trail markers, bulletin boards, and interpretive waysides. Most of the modern, non-contributing features are associated with buildings or structures and do not detract from the cultural landscape.

Fountains (HS-712)
Seven rustic style stone drinking Fountains were built by the CCC between 1934 and 1937. Fountain #1 is at the Big Spring Pavilion (HS-425); Fountain #2 is centrally located at the Museum (HS-420); Fountain #3 is at the Picnic Shelter (HS-496) near the cabins; four are at Chubb Hollow, Fountain #4 is near the Chubb Hollow Open Shelter House (HS-427); Fountain #5 is at the parking area; Fountain #6 and #7 are in the campground. The Fountains are rough-cut stone with one step at the base and a concrete basin on top. They are in varying stages of disrepair, but contribute to the cultural landscape.

CCC Stone Curbs and Markers
The CCC installed a combination of stone curbs and markers to edge gravel parking areas. Ten to fourteen inch wide stone curbs remain at the Main Parking Area (HS-714) and at the parallel parking areas for the cabins. Originally, the stone curbs were eight inches above the adjacent pavement. After numerous asphalt overlays, most of the stone curbs only retain an inch or two of separation, and are in poor condition. Stone markers define the parking areas at Big Spring and Chubb Hollow parking areas. The Chubb Hollow stone markers date to the CCC period. The Big Spring markers were added in the 1980s and are non-contributing.

CCC Stone Walls
The CCC built mortared native stone retaining walls to stabilize slopes and to provide pedestrian trails and access. Retaining walls are throughout the historic district, allowing for parking areas and buildings to be integrated into the hillsides.

Today, the mortared native stone retaining walls at parking areas, buildings, and at Big Spring remain. Many are in disrepair with failing mortar joints and damaged stones. While minor maintenance has occurred to repair the existing walls, the CCC stone retaining walls remain largely as they did during the period of significance. There is an upcoming project to stabilize and repair the masonry of the stone retaining walls at the Dining Lodge and Entrance.

CCC Stone Culverts and Water Crossings
The CCC built native stone culverts to direct water under roads and trails. Culverts are throughout the historic district, and are typically modest in scale.



Figure 3-29. CCC stone retaining wall near the Dining Lodge (HS-422). (Mundus Bishop 2016)



Figure 3-30. The CCC stone retaining curb at the Main Parking Area (HS-714) is in fair to poor condition. (Mundus Bishop 2016)

Today, the stone culverts at the State Highway Z, at Chubb Hollow and the intersection with Peavine Road, remain. Many culverts and stone water crossings located along the trail system are in disrepair with failing stones and areas of wash-out. Maintenance has occurred to repair the culverts in the core development area, but the stone culverts and water crossings along many of the trails are in poor condition.

Wildlife Fencing

Wildlife fencing is present extensively in the southern portion of the study area, particularly on the eastern side of Highway Z between the hillside quarry and Chubb Hollow. An extant section of fence extends behind the May / Winters Quarters (HS-444), where the game warden once lived, south to the CCC Rock Quarry (HS-700). The fencing was built in the 1920s as part of early conservation efforts to improve turkey and deer populations. Extant fence sections are contributing and retain integrity.

Analysis of Integrity

The Fountains (HS-422), stone markers, stone curbs, stone walls, stone culverts and water crossings, and wildlife fencing are contributing features that are extant from the period of significance. Since the period of significance, only minor maintenance to repair masonry features has occurred. The contributing small scale features retain integrity.

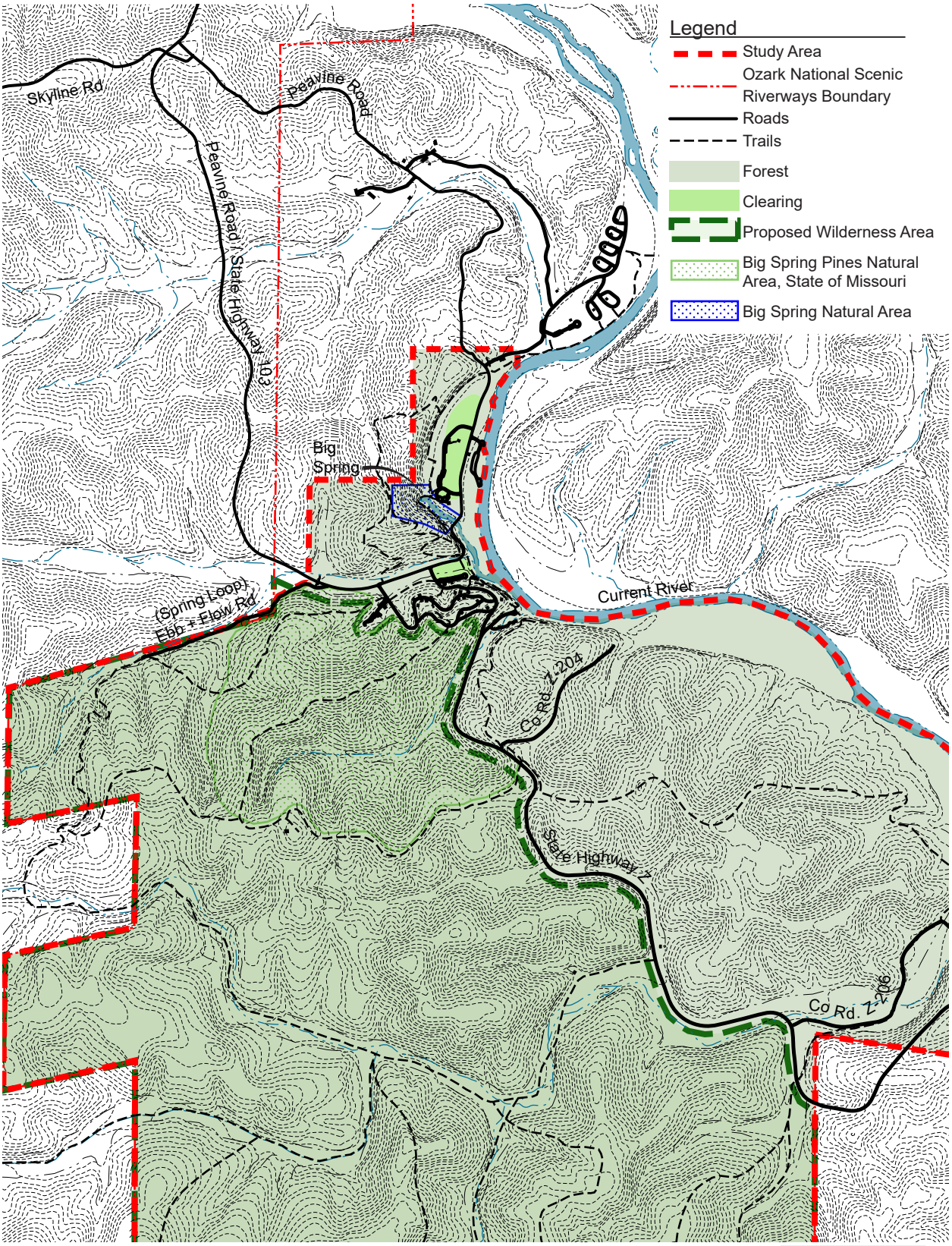


Figure 3-31. Vegetation types include oak hickory forest as an upland plant community on the upper slopes and ridges, portions of mown lawn, and a lowland streambank plant community along the Current River. (Mundus Bishop 2016)

Vegetation

The vegetation of the study area includes oak hickory forest, streambank vegetation, two areas of open mown lawn, and maintained areas that combine lawn and shade trees.

The oak hickory forest is an upland plant community on the upper slopes and ridges of the Current River. It consists of black, white and red oak; Ozark pignut; and shagbark and mockernut hickory. Understory plants include high and low-bush huckleberry, smooth sumac, sassafras, cinquefoil, and dwarf iris.

The streambank community is a lowland plant community on the lower banks of the Current River. It consists of silver maples and cottonwoods, with a number of herbaceous species, including clearweed, green-headed cone flower, and leatherwood. A gravel bar in the Current River consists of Ward's willow, witch hazel, alder, and sycamore trees. Swamp dogwood, water willow, and chairmaker's rush are also common.

Several areas are developed and maintained as open lawn or play fields with shade trees. The Big Spring picnic area, playfield at the Dining Lodge, campgrounds and picnic areas at Chubb Hollow, picnic area at Peavine Pavilion, and the May / Winters Quarters (HS-444) have maintained landscapes. Planted trees include pines, hackberries, and oak. A planted row of shade trees grows along Peavine Road near the Big Spring picnic area. A detailed description of vegetation within each of these areas is included in the core development area and Big Spring character areas.

The park utilizes prescribed fires in accordance the park burn plan. Prescribed burn units include areas around the Cabins. A few non-native cedars exist, and the park has some, but not many, invasive trees.

Analysis of Integrity

The present-day patterns and type of vegetation within the study area remains similar to the period of significance and retains integrity. The dense oak hickory forest remains dominant in the natural, primitive, and resource-based recreation zones. Man-made patterns of clearings in the developed areas remain similar to historic patterns. Some encroachment of forest has occurred, particularly at the CCC Rock Quarry (HS-700).



Figure 3-32. The vegetation within the study area includes oak hickory forest on the upper elevations, and streambank vegetation along the Current River. (Mundus Bishop 2015)

Matrix 3-1. Study Area Matrix - Archeological Sites

CHUBB HOLLOW			
Feature	**Description**	**Condition**	**Contributing / Non-Contributing**
Chubb Hollow Archeological Site	Archeological site is a concentration of prehistoric human activity, listed on the National Register of Historic Places. Includes evidence of intermittent occupation from the Late Archaic to Mississippian stages.	Good / Fair	Contributing
CAMP HAINES			
Feature	**Description**	**Condition**	**Contributing / Non-Contributing**
Camp Haines (1933)	CCC first permanent camp named after Company 1710's commanding officer, Lieutenant P.C. Haines. Constructed barracks and other buildings located on hillside in present-day cabin area. Evidence of ground disturbance, and possibly the remnant of a washing station.	Unknown	Contributing
CCC CAMP			
Feature	**Description**	**Condition**	**Contributing / Non-Contributing**
CCC Camp Ruin Site (1935)	Building foundations and other remnants remain, including concrete foundations, cellar depressions, and debris associated with camp life, such as jars, cans, loose bricks, and rubble.	Good	Contributing
CCC Road Remnant (1935)	12' wide dirt path.		Contributing
CCC Camp Ruin Dining Hall Remnant (HS-702) (1935)	Concrete dock 3'-8"x9'-10"x6'-6" has poured concrete base and metal pipe rails on top. The dock was at the rear of the CCC Dining Hall, and was the location for trash receptacles.	Good	Contributing
CCC Camp Ruin Foundation (HS-703) (1935)	Poured concrete 20' x 20' is set into hillside. It is 8' tall on one side and 1'-2" on the opposite.	Good	Contributing
CCC Camp Ruin Fire Ring (HS-704) (1935)	Mortar and stone elliptical structure measures 10'-10" x 8'-7" with a varying height.	Good	Contributing
CCC Camp Ruin Trough Structure (HS-705) (1935)	Poured concrete basin measures 3'-8" x 6'-0" x 1'-8".	Good	Contributing
CCC Camp Retaining Wall (HS-706) (1935)	Dry laid stone wall measures 12' x 14' x 3'. It extends from the trough structure.	Good	Contributing
CCC Camp Ruin Water Tower Posts (HS-707) (1935)	Four poured concrete square posts, each measures 2'x2' and forms a 10'x9'-6" area. This is the former location of the Big Spring Water Tower, which fed water to the Pump House (HS-443) and ultimately to the park.	Good	Contributing
CCC Camp Ruin Concrete Slab Foundation (HS-708) (1935)	Poured concrete slab measures 25'x21' and stands 3'-4" on the lower side of the hill. It was either a part of the social hall or a shower house.	Good	Contributing



Figure 3-33. A dense oak hickory forest is the dominant vegetation type throughout the study area. (Mundus Bishop 2015)

CCC CAMP			
Feature	**Description**	**Condition**	**Contributing / Non-Contributing**
CCC Camp Ruin Shower House (HS-709) (1935)	Three poured concrete walls measure 60'x19'x1'-6". Portions of the middle wall are broken.	Good	Contributing
CCC Camp Ruin Septic Tanks (HS-710) (1935)	Poured concrete slab measures 18'x7'. Three privy holes each measure 32'x32' and are covered with sheet metal nailed into concrete.	Good	Contributing
Imhoff Tank Foundation (HS-423A)	Poured concrete slab.	Fair	Contributing
Miscellaneous Debris	Pieces of concrete and clay pipe are scattered on the ground.	Good	Contributing
Vegetation	Dense oak hickory forest surrounds the CCC Camp Ruin Site with no visible clearing. Vegetation has encroached on building remnants.	Fair	Contributing

CCC QUARRY			
Feature	**Description**	**Condition**	**Contributing / Non-Contributing**
CCC Rock Quarry (HS-700) (1933)	Located near present-day County Road Z-206, blast evidence remains from when the CCC used dynamite to remove limestone rock from the hillside. The rock bed cut is approximately 200 meters. This quarry provided much of the limestone material that defines the Big Spring Historic District character.	Good	Contributing
CCC Powder Magazine (HS-701) (1933; 2009)	Near the CCC Rock Quarry (HS-700) is a small wooden powder magazine with a corrugated metal roof and sides. It was originally used to store gunpowder. It was structurally stabilized in 2009.	Good	Contributing
Dynamite Box (1933; 2009)	Near the CCC Rock Quarry (HS-700) is a container with corrugated metal sides. It is elevated on a wooden frame with a wooden overhead structure. It was originally used to store dynamite. It was structurally stabilized in 2009.	Good	Contributing
Fire Tower Rock Quarry (HS-1404E) (ca. 1935)	Located near the present-day Fire Tower / Lookout Tower (approximately 750' southeast) is an area with an exposed rock seam where loose limestone and flagstone was removed from the surface, rather than being excavated. A steel stone chisel remains on site near the exposed rock.	Good	Contributing

Matrix 3-2. Study Area Matrix - Circulation

CIRCULATION			
Vehicular			
Feature	**Description**	**Condition**	**Contributing / Non-Contributing**
Peavine Road / State Highway 103 (1920s)	Primary vehicular access to the park from Van Buren. Two-lane, 24' wide asphalt paved road extends from entrance building, across Big Spring Branch Vehicular Bridge, where it parallels the Current River and creates a loop outside of the study area. The road is 6.17 miles in length within the study area.	Good	Contributing
State Highway Z (State Highway 103 to south park boundary) (Before 1927)	Two-lane, 20' wide asphalt paved road extends from park's south boundary and terminates at Peavine Road / State Highway 103. Outside the study area, Highway Z parallels the Current River on its west bank. The road is 2.96 miles in length within the study area.	Fair	Contributing
Big Spring Branch Vehicular Bridge	re: Building and Structures		
County Road Z-206 (1934 to 1936)	Gravel surfaced road connects to Highway Z at both ends and provides access to CCC Rock Quarry. The road is .63 miles in length within the study area.	Fair to Poor	Contributing
County Road Z-204 (1934 to 1936)	Asphalt surfaced road extends from State Highway Z east toward the Current River. The road is .64 miles in length.	Good	Contributing
Cabin Road System (HS-401B) (1937)	12' wide asphalt paved loop road extends from State Highway 103 and connects to Highway Z. A combination of parallel and pull-in gravel parking areas at cabins are lined with stone curbs and stone retaining walls. The .69 mile north segment is asphalt paved. The .32 mile south segment is gravel paved.	Good	Contributing
Big Spring Picnic Loop Drive (1989 to 1990)	Two-lane, 24' wide asphalt paved road. Portions of the parking areas have large boulders that contain traffic and flush native stone paving that delineates parking spaces. The road is .51 miles in length.	Good	Non-contributing
Chubb Hollow Road (1934 to 1995)	Two-lane, 18' wide asphalt paved road extends from State Highway Z to the Chubb Hollow parking turn-around. The road is .13 miles in length.	Good	Contributing
Ebb and Flow Road (before 1927; improved 1934 to 1936)	Gravel surfaced service drive extends from the Entrance Building (HS-432) southwest, through the CCC Dump to the Ebb and Flow Spring. The proximity of the road to the dump may put archeological and cultural resources at risk. Outside of the study area the road connects to Fire Tower Road (Tower Trail). The service road is closed to public vehicular traffic. The road is .60 miles in length within the study area.	Fair	Contributing

CIRCULATION			
Vehicular			
Feature	**Description**	**Condition**	**Contributing / Non-Contributing**
Fire Tower Road (Tower Trail) (1934)	North segment: gravel surfaced service drive accesses the Fire Tower / Lookout Tower. The service road is closed to public vehicular traffic. It is 1.51 miles in length.	Good	Contributing
	South segment: grass surfaced service drive extends from Highway Z through the CCC Camp Ruins and connects to the Fire Tower / Lookout Tower. The service road is closed to public vehicular traffic. It is 1.18 miles in length.	Good	Contributing
Maintenance Area Entry Drive (1935; expanded after 1978)	16' wide gravel drive is boulder lined with a gated entrance. Access is from the asphalt paved cabin loop drive, off Peavine Road \ State Highway 103. The access drive is .13 miles in length.	Good	Non-contributing
Drive at Peavine	24' wide asphalt drive extends from Peavine Road to the campground outside of the study area.	Good	Non-contributing
Parking at Peavine	Eighteen asphalt head-in parking stalls have concrete wheel stops. Two stalls are accessible.	Good	Non-contributing
May / Winters Quarters Driveway	10' wide, single lane, gravel drive from State Highway Z becomes less apparent at garage foundation.	Fair	Contributing

Pedestrian			
Feature	**Description**	**Condition**	**Contributing / Non-Contributing**
Ebb and Flow Road (Spring Loop) (Before 1927; improved 1934 to 1936)	re: Vehicular Circulation. 2.0 miles. It extends through the CCC Dump. This proximity may put archeological and cultural resources at risk. Connects with the Kinnard Trail.	Fair	Contributing
Fire Tower Road (Tower Trail) (1934 to 1936)	re: Vehicular Circulation. 2.69 mile looped trail, also known as CCC Loop and Lookout Loop.	Good	Contributing
Peavine Trail (1970s)	North south trail extends from Peavine Road to the campground. South of Peavine Road it connects with the Slough Trail. It follows an old road bed for .1 miles, south of the pavilion.	Good	Non-contributing
Cabin Path System and Stairs (HS-713) (1934 to 1938)	System of hiking trails with long flights of mortared stone steps to Cabins #401-#407 (HS-401 - HS-407), #411-#413 (HS-411 - HS-413), #422 (HS-422), and #428 (HS-428). The paths connect the cabin area to the Dining Lodge (HS-422), with routes from Cabins #401 (HS-401), #404 (HS-404) / #410 (HS-410) and #413 (HS-413). Walk-in CCC Camp #1 and Chubb Hollow also have a series of stone steps.	Fair	Contributing

Pedestrian			
Feature	**Description**	**Condition**	**Contributing / Non-Contributing**
Ebb and Flow Road (Spring Loop) (Before 1927; improved 1934 to 1936)	re: Vehicular Circulation. 2.0 miles. It extends through the CCC Dump. This proximity may put archeological and cultural resources at risk. Connects with the Kinnard Trail.	Fair	Contributing
Fire Tower Road (Tower Trail) (1934 to 1936)	re: Vehicular Circulation. 2.69 mile looped trail, also known as CCC Loop and Lookout Loop.	Good	Contributing
Peavine Trail (1970s)	North south trail extends from Peavine Road to the campground. South of Peavine Road it connects with the Slough Trail. It follows an old road bed for .1 miles, south of the pavilion.	Good	Non-contributing
Cabin Path System and Stairs (HS-713) (1934 to 1938)	System of hiking trails with long flights of mortared stone steps to Cabins #401-#407 (HS-401 - HS-407), #411-#413 (HS-411 - HS-413), #422 (HS-422), and #428 (HS-428). The paths connect the cabin area to the Dining Lodge (HS-422), with routes from Cabins #401 (HS-401), #404 (HS-404) / #410 (HS-410) and #413 (HS-413). Walk-in CCC Camp #1 and Chubb Hollow also have a series of stone steps.	Fair	Contributing
Upper and Lower Chubb Trails (1934 to 1936)	A 1/2-mile trail from the Dining Lodge (HS-422) to Chubb Hollow. Upper trail on top of the bluff overlooking the Current River, and lower trail along the river's edge. Two wooden platforms (1970s) overlook the Current River.	Good	Contributing = Upper Non-contributing = Lower
Chubb Hollow Trail (1934 to 1936)	Connects to Chubb Hollow Open Shelter House (HS-427). A .76 mile trail extends to Fire Tower Road (Tower Trail) and County Road Z-204. Two footbridges, one built by CCC and other in 1970s.	Good	Contributing
Spring Branch Trail (Before 1927; modified by 1936; modified in 40s, 60s, 70s, and 80s)	Trail extends from the Dining Lodge (HS-422) past the Latrine (HS-423) along the west bank of Big Spring branch. Trail is composed of several different surfacing types, re: Big Spring landscape character area.	Good to Fair, varies	Contributing
Slough Trail (1999 to 2000)	8' to 10' wide trail is .58 miles in length. It extends from Big Spring north along the two extant Big Spring Stone Dikes (HS-711) - #3 and #5. A portion of the trail is mortared stone and is in good condition. The portion of the path on Big Spring Stone Dike #5 is stone rubble and soil; it is in fair condition. The portion of the path between Big Spring Stone Dikes #3 and #5 is located in a clearing that is likely an old road bed or buried utility corridor. Along Big Spring Stone Dikes #3, the path is rubble embankment and is in fair condition.	Good to Fair, varies	Non-contributing
Rocky Ridge Trail (Before 1927; 1933; post 1957)	Steep narrow trail extends from Peavine Road / State Highway 103 at the Latrine (HS-423)to the top of the ridge above Big Spring and extends to the Slough Trail. The 1.22 mile trail has many CCC stone steps and walls.	Fair	Contributing

Pedestrian			
Feature	**Description**	**Condition**	**Contributing / Non-Contributing**
Peavine Trail System	Five foot wide concrete sidewalk connects Peavine Pavilion (HS-428) with parking. Five foot wide sidewalk connects Peavine Pavilion to stairs, Peavine Latrine, and the concrete pad with drinking fountain.	Good	Non-contributing
Steps to River at Peavine	Eight foot wide stone path with eighteen steps down to the Current River. Six inch height stone curb and wood railing on both sides. Some steps have been repaired with concrete.	Fair (mortar and concrete is loose)	Non-contributing
Peavine Trail	North south trail extends from Peavine Road to the campground. South of Peavine Road it connects with the Slough Trail.	Good	Non-contributing
Fire Tower Road	10' to 12' wide trail, gravel surfaced connects Highway Z to Fire Tower and loops back to CCC Camp. Between Highway Z and Fire Tower, the trail is a one-way service road (2-track). Some damage due to erosion.	Good	Contributing
Chilton Trail	Narrow one-lane dirt track, 12 to 15' wide. Cleared tree corridor varies between 24 to 30' wide. West of the Chilton Creek Barn there are several water crossings where the trail is washed out. Trail is visible and followed visually due to cleared trees from the road corridor.	Varies, poor to fair condition.	Contributing
Tatum Trail	The trailhead for Tatum Trail is difficult to locate, since it has been washed out by flooding and the valley is heavily overgrown with woody vegetation. Lower portion of the loop is narrow, dirt at 5 to 8' wide. The upper portion of the trail is dirt and is a variety of widths, in places it is narrow at 8' and others it is wide at 15' and feels more like an old road. The upper portion of the trail has a noticeable crest and deep swales on either side, approximately 12" deep. The trail ends at private property at the south.	Varies, poor to fair condition.	Contributing
Kinnard Loop	Reads as an old road and is narrow, approximately 15' wide, set within a larger cleared corridor 25'. Dirt surface covered with grasses and non-woody vegetation. Swales occur intermittently on both sides of the trail.	Fair	Contributing
McSpadden Trail	Trailhead is missing, washed out by recurring floods. Trail is evident in places but not easily followed, and appears to end at small spring and pool. This trail reads as trail and is 5' clear at the widest, most legible point.	Poor	Contributing
Chilton Loop	Reads as old road, ditches on both sides, vary from 6 to 10" in depth, slight crown to the trail. 14 to 16' wide, cleared corridor of 20' to 30' but whole corridor is covered with tall non-woody vegetation. Dirt surface, with stone water crossings in the hollow.	Fair / Poor	Contributing

Pedestrian			
Feature	**Description**	**Condition**	**Contributing / Non-Contributing**
Water Hollow Trail	Trailhead and trail are missing, unable to find a definite route although it is visible as a trace in some places.	Poor	Contributing
Long Bay Loop	Narrow, 8 to 10' dirt, rutted / eroded by water throughout. Portions are washed out in lower sections. Upper end of trail is across Highway Z and downhill from Fire Tower Road.	Fair / Poor	Contributing
Connector Loop	Gravel-surfaced, approximately 15' wide, set within a larger cleared corridor 25'.	Good / Fair	Contributing
Spring Loop	Gravel-surfaced, approximately 15' wide.	Good / Fair	Contributing

Matrix 3-3. Study Area Matrix - Buildings and Structures

PEAVINE			
Feature	**Description**	**Condition**	**Contributing / Non-Contributing**
Peavine Pavilion (HS-428) (1945 to 1946)	Open, timber-framed picnic shelter 21'-4"x41'-4" with wood shingled hip roof is supported on square columns. Two interior brick chimneys with two grills and a sink at one end. Concrete floor. 4' wide concrete sidewalk surrounds all sides of the Peavine Pavilion (HS-428).	Fair (horizontal railings have some dry rot, some rot as base of columns, not ABA compliant)	Contributing
Peavine Latrine (1970 to 1975)	Restroom has board and batten siding and an asphalt shingled gable roof. One exterior drinking fountain.	Good	Non-contributing
Footbridge	Wood footbridge crosses drainage channel.		
MAY / WINTERS QUARTERS			
Feature	**Description**	**Condition**	**Contributing / Non-Contributing**
May / Winters Quarters (HS-444) (1949 to 1950)	Bungalow style, single story, gable roof, wood frame house 32'-6"x31'-6" is built on a concrete foundation with two cross gable porches, and an interior brick chimney. The open front porch is 10'x6' and screened back is 5'x15'. Both porches have four (4) concrete steps. The quarters has single hung windows, asphalt shingles, and is painted white. It once housed the state park's game warden.	Good	Contributing
May / Winters Quarters Garage Foundation (HS-444A) (1949 to 1950)	Raised 24" concrete foundation with asphalt paved interior meets grade on uphill side. An entrance ramp is cut stone with a stone edge on both sides. Two concrete steps lead up to the garage foundation.	Fair	Contributing
May / Winters Quarters Outbuilding (ca. 2000)	Modern concrete block building 8'x10' has a ramp to a single door and a back window.	Good	Non-contributing

MAY / WINTERS QUARTERS			
Feature	**Description**	**Condition**	**Contributing / Non-Contributing**
Shed (pre 1976)	Single story, modern shed with vertical board and batten siding, and a tin roof.	Fair / poor (window panes missing; wood siding is rotting)	Non-contributing
CCC DUMP			
Feature	**Description**	**Condition**	**Contributing / Non-Contributing**
Dump Incinerator (HS-432B) (1934 to 1939)	Coursed stone chimney with a terra cotta liner and steel door. Located near the CCC Dump site, southwest of the core development area.	Fair	Contributing
FIRE TOWER			
Feature	**Description**	**Condition**	**Contributing / Non-Contributing**
Fire Tower / Lookout Tower (HS-1404) (1934)	80' steel lookout tower with a hip roof and metal panel walls has metal steps to the top. It was used by the CCC to monitor fire activity with windows on each elevation. It is not currently open due to safety concerns. It is located on a high ridge with panoramic views in all directions. Over 70 years of graffiti, including from the CCC-era, is on the interior of the structure.	Good / fair	Contributing
Fire Tower Privy Sites #1 (HS-1404C) and #2 (HS-1404D) (1935)	Concrete foundation remnants over septic tanks, 75' from Fire Tower / Lookout Tower (HS-1404)	Remnant	Contributing
Fire Tower Stone Retaining Wall (HS-1404F) (1935)	Low stone retaining wall located west of the Fire Tower / Lookout Tower (HS-1404) and extends north south into the woods.	Remnant	Contributing
Fire Tower Radio Shed Site (HS-1404G) (1945 to 1950)	A concrete platform and a 25' high iron pole, south of the Fire Tower / Lookout Tower (HS-1404), remains from where the radio shed once stood.	Remnant	Contributing
BIG SPRING BRANCH VEHICULAR BRIDGE			
Feature	**Description**	**Condition**	**Contributing / Non-Contributing**
Big Spring Branch Vehicular Bridge (1920s; 1930s; 1970s; 1989)	Two-lane asphalt paved wood bridge with timber posts, framing, decking, and rails. A separated and elevated wood deck on the north side is a pedestrian route.	Poor	Non-contributing
WATER TOWER			
Feature	**Description**	**Condition**	**"Contributing / Non-Contributing"**
Water Tower	Modern tower is at the edge of the CCC Camp Ruin, next to a gravel parking area.	Good	Non-contributing

Matrix 3-4. Study Area Matrix - Small Scale Features

PEAVINE			
Feature	**Description**	**Condition**	**Contributing / Non-Contributing**
Lighting	15' tall wood posts with square light fixtures.	Fair (post is rotting)	Non-contributing
Play Area	Swing set with four swings is downhill from Peavine Pavilion (HS-428) in a level area with wood edging. One swing is missing.	Fair / poor (remove trees from fall area)	Contributing
Grills	Two standard square elevated pits	Good	Non-contributing
Picnic tables	Eight picnic tables are inside Peavine Pavilion (HS-428); four picnic tables are outside.	Good	Non-contributing
Kiosk	Standard wood kiosk has asphalt shingled gable roof.	Good	Non-contributing
MAY / WINTERS QUARTERS			
Feature	**Description**	**Condition**	**Contributing / Non-Contributing**
Wildlife fencing (1949 to 1950)	South of May / Winters Quarters (HS-444) are metal stakes with 6" wire mesh. It extends east west and connects to a wire mesh gate at the driveway entrance, and follows the road west of May / Winters Quarters.	Poor / fair	Contributing
Propane Tank	Tank set on concrete.	Good	Non-contributing
CCC DUMP			
Feature	**Description**	**Condition**	**Contributing / Non-Contributing**
CCC Dump (1934 to 1936)	Dump site where the CCC discarded camp trash. Within this area is a stone and mortar Dump Incinerator (HS-432B) that was built by the CCC.	Fair	Contributing

Matrix 3-5. Study Area Matrix - Vegetation

PEAVINE			
Feature	**Description**	**Condition**	**Contributing / Non-Contributing**
Lawn	Mown lawn around buildings and structures, and at playground.	Good	Contributing
Forest Vegetation	Predominately red and white oak forest with hickory trees. Several red oaks surround Peavine Pavilion.	Good	Contributing
River Vegetation	Cottonwood, sassafras and willow are along the river edge.	Good	Contributing

MAY / WINTERS QUARTERS			
Feature	**Description**	**Condition**	**Contributing / Non-Contributing**
Clearing	The May / Winters Quarters (HS-444) is in a clearing in the forest. The open grass lawn has several tall yellow pine, red oak, and hackberry trees.	Good	Contributing
Foundation planting	Boulder edged flower beds around May / Winters Quarters (HS-444) foundation with lilac, peony, and iris.	Poor	Non-contributing
Forest	The forest is predominately red and white oak.	Good to Fair	Contributing



Figure 3-34. Entrance Building (HS-432) (Mundus Bishop 2015)



Figure 3-35. The Maintenance Area is tucked into a sloping forested hillside to screen it from view. (Mundus Bishop 2015)

Core Development Character Area

Introduction

The core development area represents the most intensely developed region within Big Spring Historic District. Built primarily by the CCC and WPA between 1933 and 1941, it was designed as Big Spring State Park's active visitor and recreational use area, where major facilities were located. These include the Entrance Building (HS-432), Latrine (HS-423), Museum (HS-420), Pump House (HS-443), Dining Lodge (HS-422), fifteen cabins, Chubb Hollow, and recreational spaces.

This section describes the existing conditions and analysis of the core development area. It is organized to describe the entire landscape character area as a whole, followed by descriptions of four distinct areas.

- Entrance Building / Museum / Dining Lodge
- Cabins
- Chubb Hollow
- Maintenance Area

The first part of this section describes the existing condition and analysis of spatial organization, topography, views and vistas, circulation, and vegetation for the core development area as a whole. This is illustrated by a series of analysis diagrams describing the changes over time for the core development area.

The second part of this section provides evaluation and analysis the four distinct areas, based on their individual character. These include cluster arrangement, buildings and structures, and small scale features.

Spatial Organization

The core development area is set west of the Current River, within a narrow valley defined by steep forested hillsides to the north and south. Built features that support visitor and operational uses are concentrated within the core development area. Buildings and uses are clustered in distinct arrangements, intentionally sited to limit views of man-made features, and to blend with the natural landscape.

At the west edge, the siting of the Entrance Building (HS-432) and Entrance Portal Walls (HS-432A) at the center of a level open space creates a stunning threshold and arrival experience into the study area. From this point, the open space begins to broaden slightly outward, affording a long view towards the Museum (HS-420) to the east with the Dining Lodge (HS-422) in the far background. To the south, the Maintenance Area is tucked into a sloping forested hillside, sited and organized to minimize views into maintenance operations. This broad, level open space continues, extending to the Current River where its eastern end it becomes a mown grass playfield. The Latrine (HS-423) anchors the northeastern corner, set on a low hillside overlooking the Current River and the playfield. Two clusters of buildings define the southern edge, one consisting of visitor facilities and the cabins as the other.

The Museum (HS-420), Pump House (HS-443) and Dining Lodge (HS-422) line the southern edge of the playfield, connected by the long linear Main Parking Area (HS-714). The Museum, Pump House and parking area are set into the lower edge of the sloping hillside on a low rise above, and overlooking, the playfield. The siting of the Dining Lodge



Figure 3-36. The Dining Lodge (HS-422) was sited to be prominent and visible from the river below. (Mundus Bishop 2016)



Figure 3-37. The cabins are clustered on the southern hillside, creating a separation between private and public spaces, while also providing views. (Mundus Bishop 2016)

(HS-422) at the far eastern end, overlooking the Current River, completes the arrival experience. Fifteen cabins are nestled into the southern hillside overlooking the valley, the playfield and the Current River. All were sited and designed to purposefully to blend with the natural landscape and afford views into the forest. Thirteen are set into the north facing hillside or along the ridge line, with two on the southern facing hillside. Chubb Hollow sits at the bottom of this southern hillside on a low ridge within Chubb Hollow.

The core development area was initially built by the Missouri State Park system, beginning in 1924. Development was limited to the construction of three cabins, Cabin #406 (HS-406), #407 (HS-407), and #408 (HS-408) set within the level open space of the hollow where the playfield is today. In 1933, when the CCC began design and construction, they focused their efforts on transforming this setting into a centralized visitor and recreational use area organized around this open space. The CCC removed or reused existing buildings, including the three cabins, and rebuilt and set them on the hillside to the south.

The CCC intentionally designed the spatial organization of the core development area to create a distinct visitor experience and an orchestrated sequence of arrival and immersion. This began outside the Big Spring State Park, along the long hill as Peavine Road / State Highway 103 descends towards the Entrance Building (HS-432), sited at its base to define the Big Spring Historic District's boundary and arrival threshold. The relatively broad open valley floor became the central open space, around which the main visitor facilities were organized. The buildings were organized into two distinct clusters—the linear arrangement of the Latrine (HS-423), Dining Lodge (HS-422), Museum (HS-420), and Pump House (HS-443) arranged in relationship to the playfield, and the cluster of cabins set into the steeply sloping hillside. The main visitor facilities, the Museum and Dining Lodge and structures were sited to be prominent and visible—from the entrance drive for the Museum, and from the Current River for the Dining Lodge. Clustering the cabins on the southern hillside created a distinct separation between uses and afforded views, while providing privacy.

Analysis of Integrity

Very few modern intrusions or changes have occurred since the period of significance. The core development area retains its arrangement of visitor facilities with cabins located on the hillside, connected by winding roads and trails through steep topography and dense forest. In the 1970s, the NPS modified the entrance road to eliminate one route between the Maintenance Area and Main Parking Area (HS-714). Within the Maintenance Area, several buildings were added, and utility and roadway upgrades occurred. The changes were minor, and did not alter the spatial organization of the core development area. The spatial organization retains integrity and contributes to the historical character of the core development area.



Figure 3-38. The Entrance Building (HS-432) from the west (HS-432), date unknown. (OZAR Archives)



Figure 3-39. The Entrance Building (HS-432) is set at the center of a level open space that creates a stunning threshold and arrival experience into the study area. (Mundus Bishop 2016)

Circulation

Circulation within the core development area includes Peavine Road / State Highway 103 as the main vehicular route and entrance road; the Cabin Road System (HS-401B) and State Highway Z, both of which connect to the highway; the Main Parking Area (HS-714); and pedestrian walkways and trails. The circulation patterns are integral features of the cultural landscape, connecting visitor uses and assisting in orchestrating movement and experiences.

The two state highways pre-date development of the area into a state park. Early park development and the later work of the CCC and WPA capitalized on the locations of these circulation routes and integrated them into the design and organization of the core development area. Peavine Road / State Highway 103 became the Big Spring State Park entrance drive, a major vehicular route connecting the core development area and Big Spring. State Highway Z became the primary north south route, following the natural topography of the rolling hillsides and connecting the cabins and Chubb Hollow. The CCC added an access route to the Maintenance Area, the Main Parking Area (HS-714) along the front façade of the Museum (HS-420), and a narrow road with a turn-around to access the overlook at Chubb Hollow. As part of the development of the cluster of cabins, the CCC built an additional two-mile loop road that followed the natural topography of the south hillside. This narrow vehicular route is set within the wooded hillside, and provides access to the fifteen cabins.

Pedestrian circulation is primarily narrow and rugged recreational trails, and a few walkways that connect visitor facilities. These include the Rocky Ridge Trail that connects the Latrine (HS-423) with Big Spring to the north, Spring Branch Trail along Big Spring branch and the Current River, and the Cabin Path System and Stairs (HS-713) that connect the cabins with the Dining Lodge (HS-422) and one another. The Fire Tower Trail begins at the Cabin Road System (HS-401B), connecting the Museum (HS-420) to the north and the cabins with the site of the CCC Camp Ruins.

Analysis of Integrity

The vehicular and pedestrian circulation within the core development area follows the same configuration as during the period of significance with only minor changes. The NPS removed a road between the Maintenance Area and the Main Parking Area (HS-714). Another road between the Dining Lodge (HS-422) and Peavine Road / State Highway 103, was removed and replaced by a pedestrian trail, now known as the Upper Cabin Trail. The 1970s work by the NPS slightly modified the Main Parking Area, removing the bus pull in at the far western edge, modifying curb radii, and modifying walks and the service drive at the Dining Lodge to accommodate the changed entrance location. Pedestrian circulation routes were repaired over the years with concrete and timber steps replacing the CCC stone steps.

The following pages graphically illustrate the analysis of the core development area as it changed over time. It documents the early development of the State Park, and illustrates the subsequent construction by the CCC and WPA, Missouri State Parks, and the NPS.

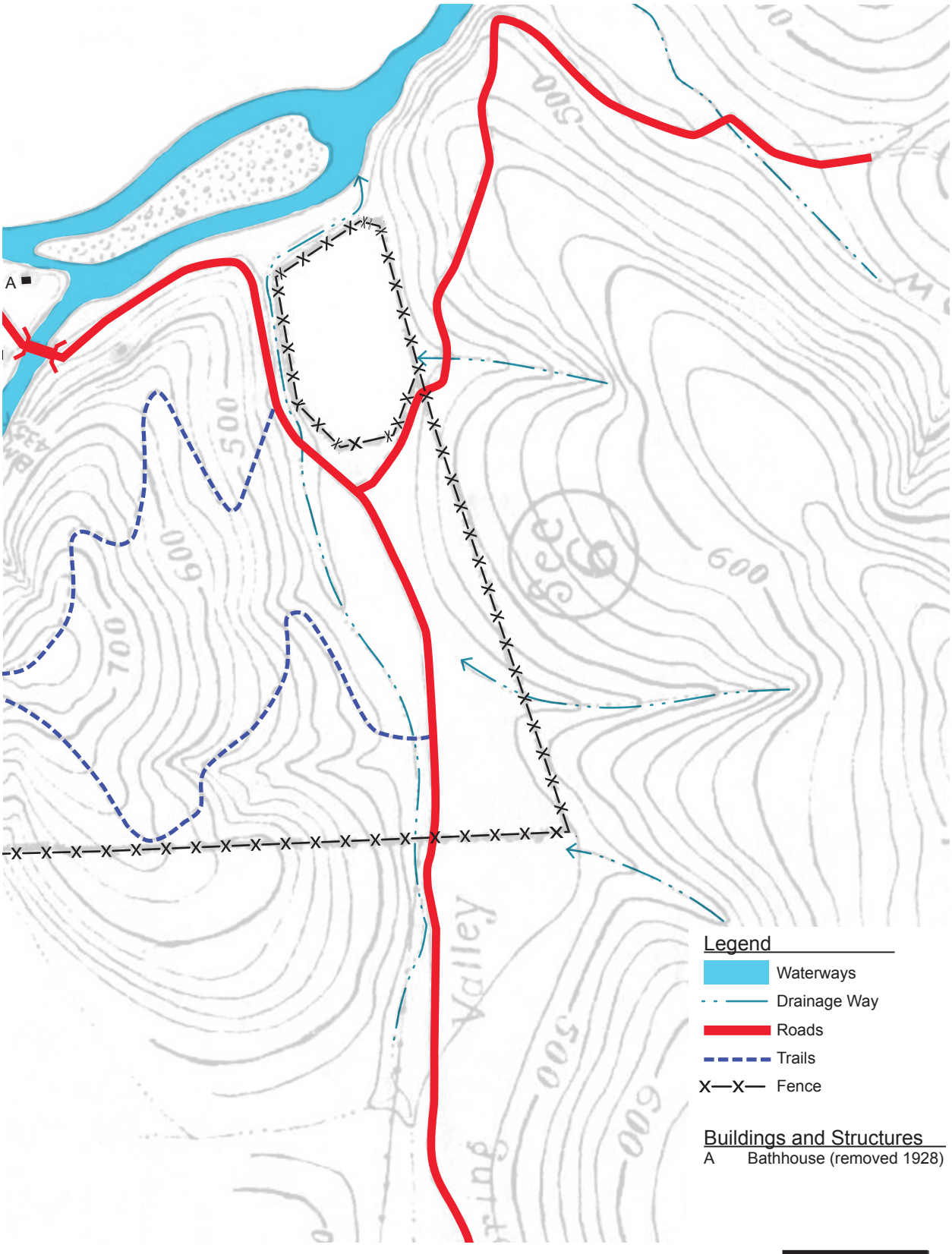


Figure 3-40. Core Development Area, 1927 (Mundus Bishop 2016, HPSC0107.pdf)

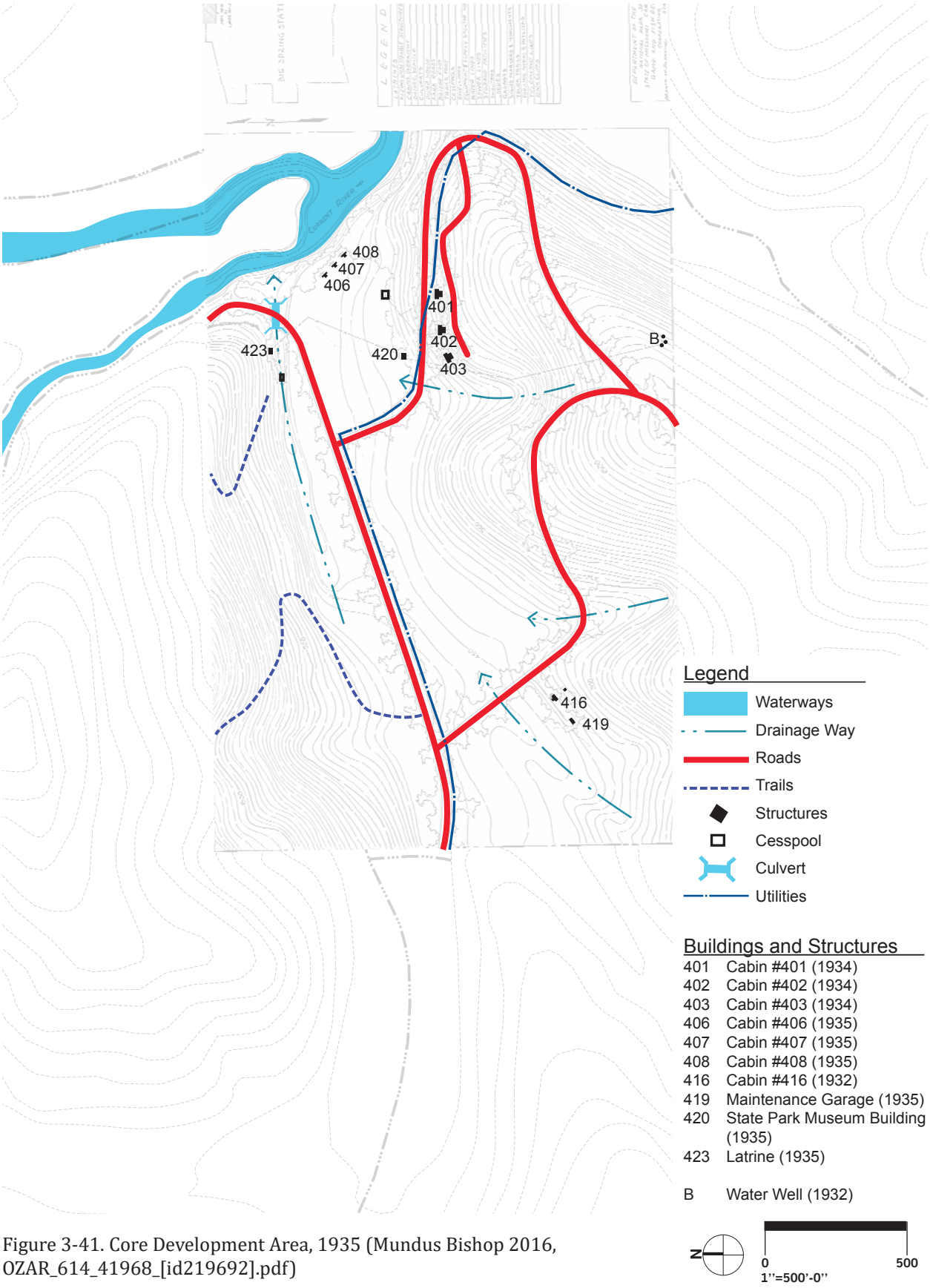


Figure 3-41. Core Development Area, 1935 (Mundus Bishop 2016, OZAR_614_41968_[id219692].pdf)

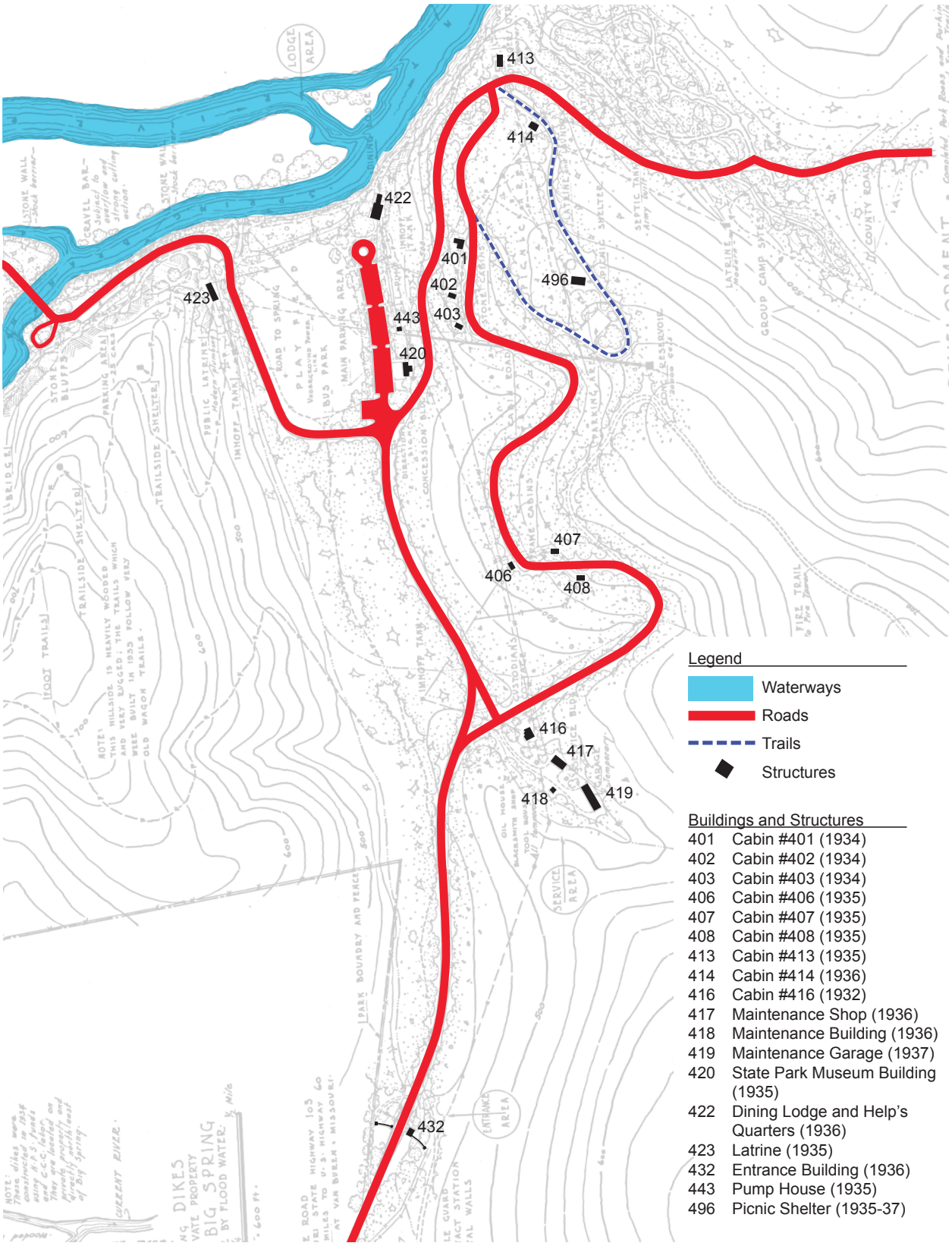


Figure 3-42. Core Development Area, 1936 (Mundus Bishop 2016, OZAR_614_41964_[id55323].pdf)

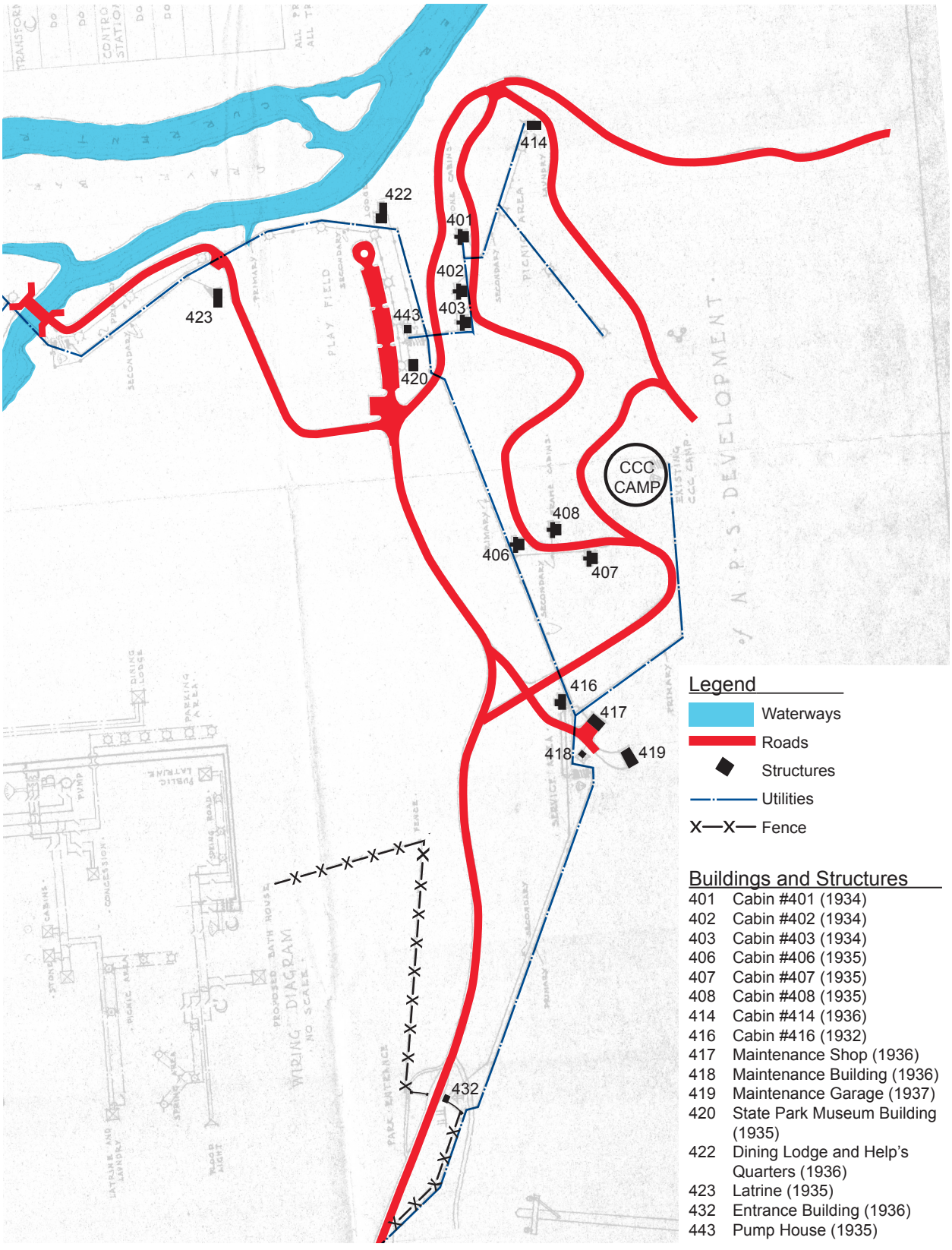


Figure 3-43. Core Development Area, 1938 (Mundus Bishop 2016, HPSC0106.pdf)

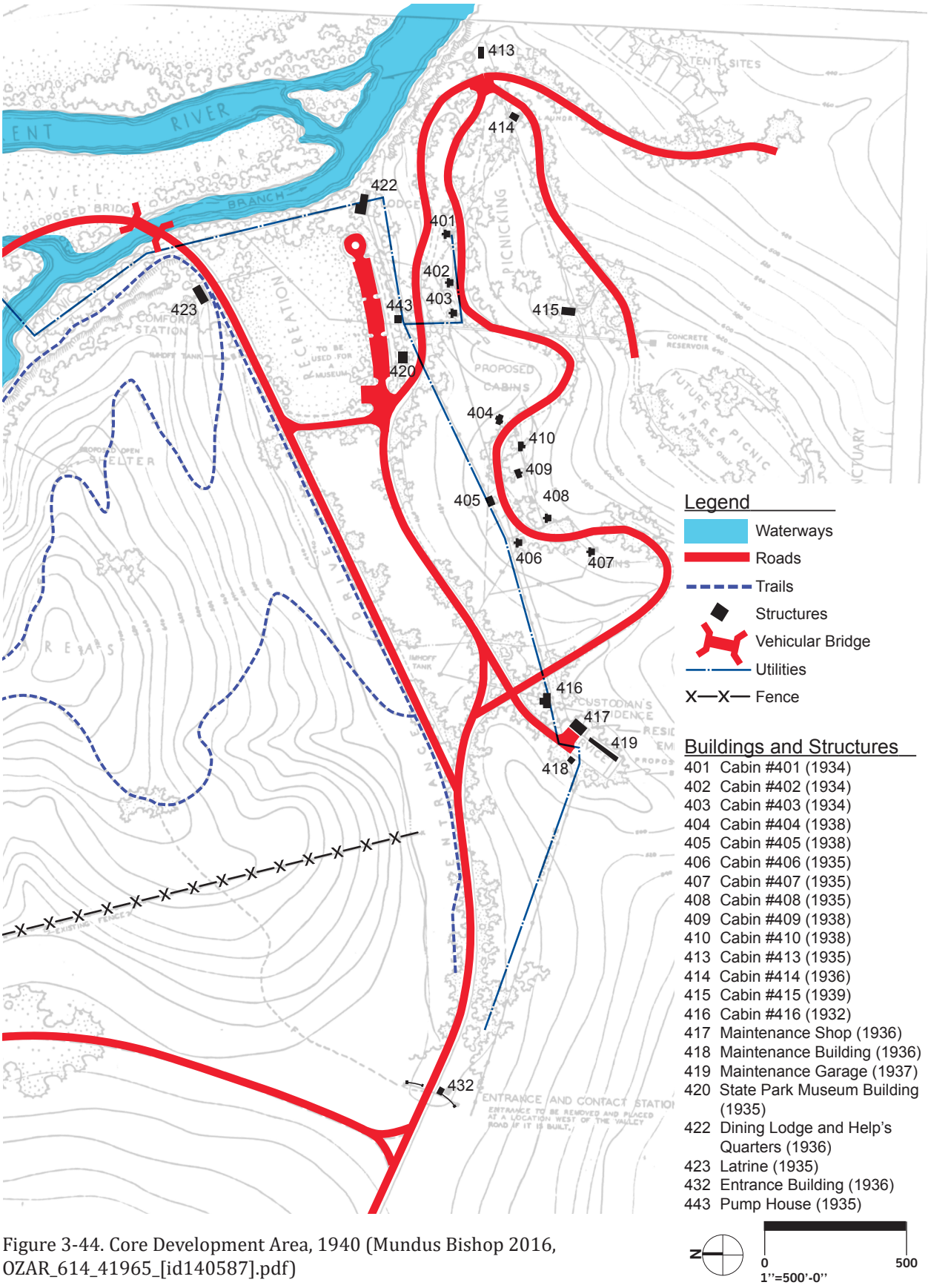


Figure 3-44. Core Development Area, 1940 (Mundus Bishop 2016, OZAR_614_41965_[id140587].pdf)

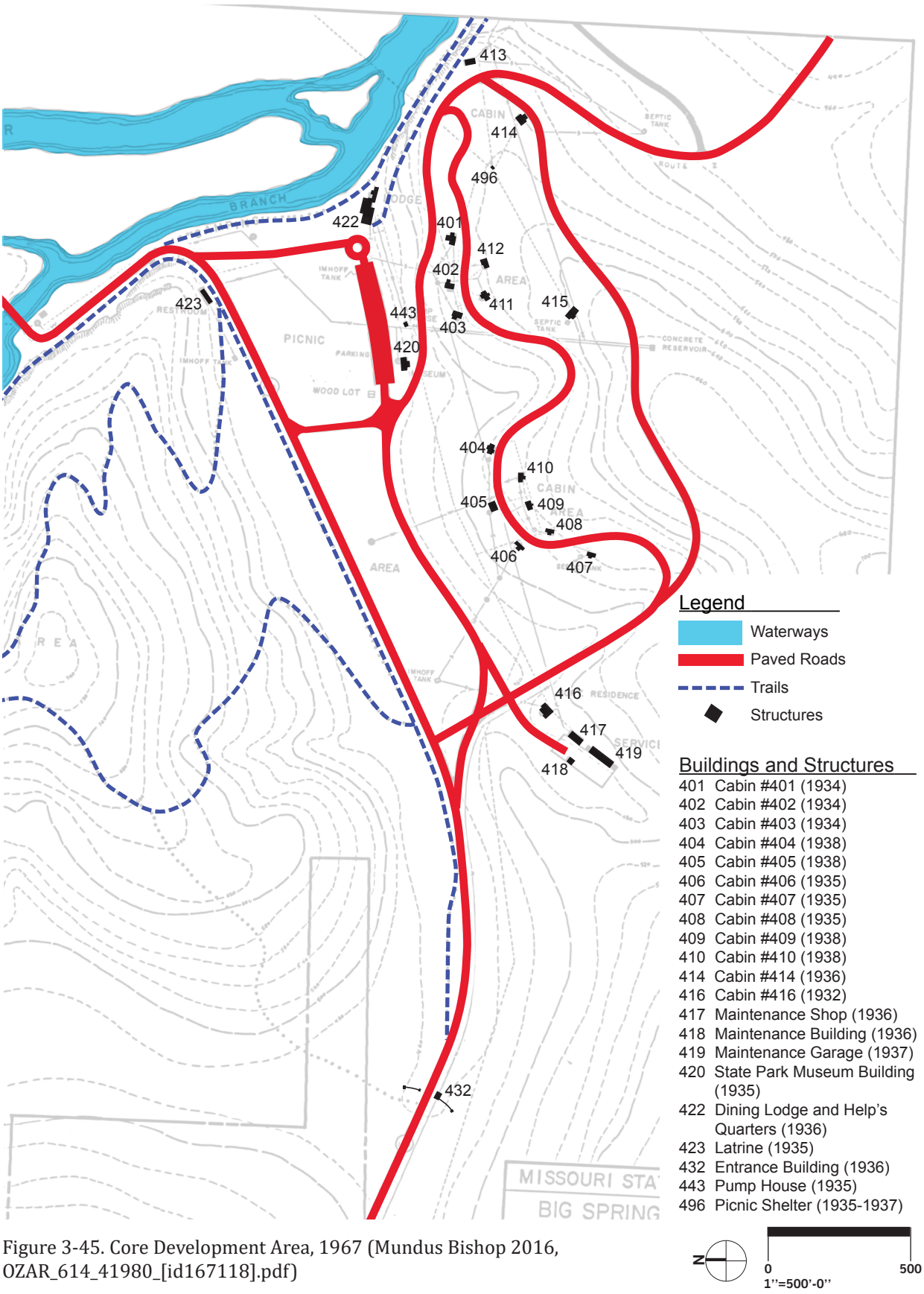


Figure 3-45. Core Development Area, 1967 (Mundus Bishop 2016, OZAR_614_41980_[id167118].pdf)

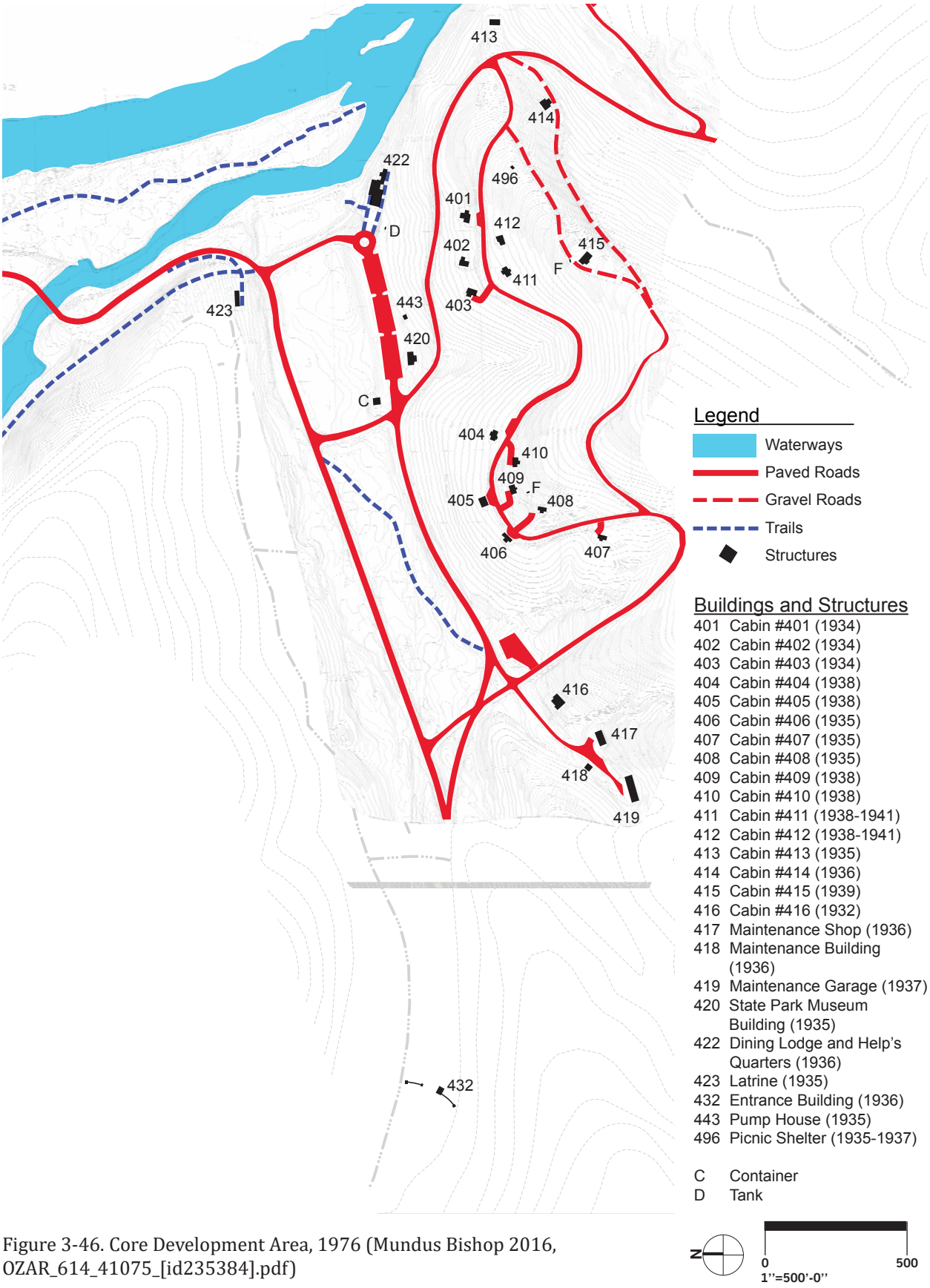


Figure 3-46. Core Development Area, 1976 (Mundus Bishop 2016, OZAR_614_41075_[id235384].pdf)

Vegetation

The vegetation of the core development area consists of the dense oak hickory forest that characterizes the hillsides, contrasted by trees and shrubs of the areas associated with Museum (HS-420) and Dining Lodge (HS-422), and mown grasses of open areas and the playfield. This pattern of dense forest of oak and hickory trees covering the rugged topography contrasted by low vegetation in open areas assists in defining the spatial organization of the core development area.

During the CCC and WPA work in the 1930s and 1940s, trees, shrubs and groundcovers were planted as part of the Museum (HS-420) and Dining Lodge (HS-422) complex to create a naturalistic setting that reflected the surrounding native forest, but were planted in a pattern and density for an aesthetic appeal. The hillsides associated with the cabin development were thinned and vegetation pruned to provide views. At the edge of the Current River, the CCC stabilized shorelines and installed erosion control measures to protect the river embankments. At Chubb Hollow, the CCC graded the slopes of Chubb Hollow and installed erosion protection along both sides of the steep embankment at the Chubb Hollow Open Shelter House (HS-427). During the NPS work of the 1970s, trees and shrubs at the Museum and Dining Lodge were removed. Additional CCC plantings were removed subsequently by concessionaires and the NPS in order to ease maintenance operations, and either not replaced or replaced with a different species in a different location.

Analysis of Integrity

The vegetation patterns generally remain similar to the period of significance. However, the native forest has become more dense and now encroaches into previously open areas, and many CCC plantings have been altered or removed. A few original species, *vinca major* for example, are now considered invasives. Vegetation at the Dining Lodge (HS-422) has become overgrown. The loss of understory vegetation, especially shrubs, is diminishing the integrity of the setting. Historically this area was deliberately planted with shrubs arranged in natural groupings and the landscape was maintained with a more manicured appearance than presently. Some encroachment of native vegetation is evident, especially near buildings and along trails. Some trees are in poor health and are hazardous in high visitor use areas, near buildings, recreation areas, and trails. Some invasive species have propagated in natural areas, threatening the health of the oak hickory forest.



Figure 3-47. The vegetation around the Dining Lodge (HS-422) helps to blend the building with the landscape. (Mundus Bishop 2015)



Figure 3-48. The playfield is one of the few areas of maintained, mown lawn. Shade trees have been added at the edges of the lawn. (Mundus Bishop 2015)



Figure 3-49. The vegetation of the cabin area includes oak / pine forest, found on narrower ridges with acidic soil. (Mundus Bishop 2016)



Figure 3-50. The vegetation today remains similar to the period of significance, however the native forest is more dense an encroaches into previously open areas. (Mundus Bishop 2015)

Entrance Building / Museum / Dining Lodge

Spatial Organization

The initial impression of Big Spring Historic District begins on the drive from Van Buren along the narrow wooded route of Peavine Road / State Highway 103, which follows the ridges and hollows of the Ozark Highlands. As the road descends a steep hill, the Entrance Building (HS-432) and Entrance Portal Walls (HS-432A) appear, architecturally announcing the gateway into the study area. The single story irregular cut stone building was originally used as a visitor center but has not served this role for some time. The two stone Entrance Portal Walls form a slight arc, embracing the entrance. In front of the building is a flagpole. A stone culvert extends under the north wall, through an arched opening. The building and Entrance Portal Walls are in fair condition, and are scheduled for repair in the near future.

The stone Entrance Building (HS-432) and Entrance Portal Walls (HS-432A) set into the natural landscape and designed in the Rustic architectural style, are the first glimpse of the distinct architectural aesthetic of the core development area. This aesthetic creates a consistency in site design, buildings and structures, and vegetation.

Cluster Arrangement and Buildings

The main visitor facilities—the Latrine (HS-423), Museum (HS-420), Pump House (HS-443) and Dining Lodge (HS-422)—are organized in a linear arrangement in relationship to the playfield and to the Current River.

The single story Museum (HS-420) (1936) anchors the western edge of the open space of the playfield, and is set back from the Main Parking Area (HS-714) in alignment with the Dining Lodge (HS-422) to the east. The building faces north, towards the playfield. The setting includes a flag pole, set in front of the building, and a stone culvert to its east side that was part of the original drainage system. An inscribed stone boulder, installed in 2003, commemorates the legacy of the CCC. A propane tank sits slightly behind the building. The smaller Pump House (HS-443) (1936) is just east of the Museum (HS-420), and is set back somewhat hidden from view. It functions as it did historically, and remains connected to the water tower on the southern hillside.

Located across the playfield on its northeastern edge, and set on a low rise is the Latrine (HS-423) (1935). The building is set within the wooded hillside, somewhat hidden from view, but sited for views to the playfield, visitor facilities and the Current River. Below the rise and along the small creek, large cut stones dry laid against the slope stabilize the embankment, and create a long curved wall (1934 to 1936).

At the far eastern end of the playfield, is the Dining Lodge (HS-422) (1934 to 1937), set perpendicular to, and above, the Current River. Although this building is the largest structure within the core development area, its mass and scale is diminished by it being tucked into the natural sloping hillside. At the same time, the siting and orientation of the building gives it a commanding presence and stunning views. The initial construction included the Dining Lodge Retaining Wall and Fountain (HS-422A), a cut stone retaining wall that allowed for the building to fit into the hillside and created the service and entrance courtyard. At the center of the wall is a niche with a low raised platform with a circular fountain. The Dining Lodge was initially completed in 1936. In 1937, the building was expanded to the east. At some point the retaining wall was lengthened with a concrete wall, which is in poor condition and is not compatible with the aesthetic of

the core development area. The entrance to the building was shifted from an at-grade side entrance on the south façade to the terrace on the east façade. The original terrace was modified to accommodate the change in use, and stone steps were added to address the change in grade. A stone walkway was added, and the original entrance route was modified to serve as a service route.

Circulation

The long linear Main Parking Area (HS-714) connects the Museum (HS-420), Pump House (HS-443) and Dining Lodge (HS-422). Originally constructed by the CCC, light modifications were made to the parking area by the NPS in 1973, including changes to the turn-around at the Dining Lodge and openings in the curb for drainage. Historic CCC drawings indicate the original intent to build two walkways and associated topography along its north and south edges, which would have connected the Museum with the Dining Lodge. Neither were built, although the topography on the north could accommodate a walkway. Today, pedestrians use the parking area for a circulation route, shared with vehicles. The parking area remains similar to its arrangement of the 1970s, and is in good condition.

Constructed Waterways

Constructed waterways include two ditches at the Entrance Building (HS-432) and a series of stone abutments along Big Spring branch to the Dinging Lodge (HS-422) (see Study Area for description of the abutments)

The ditches at the Entrance Building (HS-432) flank either side of the road. They cross under the Entrance Portal Walls (HS-432A) through twin stone arches, and then converge to the east of the Entrance Building and become one. The ditches were constructed by the CCC in 1934, but have become filled with sediment over time and do not drain properly during periods of heavy rainfall.

Small Scale Features

Contemporary small scale features include interpretive signs and panels, lighting, a stone staircase, boat dock, and utilities including electrical boxes and power lines, propane tanks, HVAC units and screen fences. A group of interpretive signs are located on the original bus pull in at the west edge of the Main Parking Area (HS-714), where the topographic form is intact. This location and the number of signs is very conspicuous and disrupts the view towards the Museum (HS-420) from the Big Spring Historic District entrance. Low-level pedestrian lights at the Dining Lodge (HS-422) are in disrepair, and sited in a manner that disrupts the historic setting. A stone staircase with wood handrails at the Dining Lodge connects to the boat dock, built of dimensioned lumber. The size, scale, material use, and construction of each conflicts with the simplicity of the original CCC craftsmanship and use of materials.

An electrical line pre-dated the CCC development of Big Spring State Park, extending from the west edge and across the Main Parking Area (HS-714). As the utility was upgraded, large electrical transformers were added, placed for convenience of the utility, including the transformer in the parking area, and not in respect to the cultural landscape. Propane tanks serve the Museum (HS-420), Pump House (HS-443), and Dining Lodge (HS-422). Unfortunately, the three tanks are highly conspicuous, and where screens have been added they are even more conspicuous. Two are located along the major trail between the Dining Lodge and cabins. HVAC units serve the Dining Lodge, and are located within the service drive where they are highly conspicuous.

Vegetation

In addition to constructing structures, buildings, roads, trails, ditches and erosion control measures, the CCC planted trees,



Figure 3-51. The stone and concrete culvert extends under Peavine Road / State Highway 103. (Mundus Bishop 2015)



Figure 3-52. The wood gate near the Entrance Building (HS-432) is in poor condition and the remnant road is difficult to discern. (Mundus Bishop 2015)

shrubs and groundcovers, transplanted and moved plant material, and thinned vegetation. The CCC-built landscape setting of the Museum (HS-420) and Dining Lodge (HS-422) included informally arranged plantings. Groupings of trees accentuated each building, set in patterns that created backdrops, and orchestrated views to showcase the building's architecture. Understory plantings covered the hillside below the Dining Lodge, complementing the tree groupings and giving a natural base to the building. Several mature trees remain near the Museum and Dining Lodge, and the hillside retains some low groundcovers. However, over time trees have been removed and multiple changes made to plantings in both species and locations making the original planting palette and patterns difficult to discern.

Low mown grasses characterize the large open space of the playfield, and the areas around the Museum (HS-420), Pump House (HS-443) and Dining Lodge (HS-422). The mown grasses of the playfield remain similar to the period of significance; however the landscape setting of the buildings included a greater variety of species and patterns.

Analysis of Integrity

The Entrance Building (HS-432), Latrine (HS-423), Museum (HS-420), Pump House (HS-443), and Dining Lodge (HS-422), along with their associated original features, cluster arrangement and site contribute to the significance of the core development area. This area retains most of its original features within their original locations, with few modifications. Although some characteristics, such as vegetation, have changed or diminished since the period of significance, the area in its entirety retains integrity in all aspects including location, setting, design, craftsmanship, materials, association and feeling.

Matrix 3-6. Core Development Area Matrix - Entrance Building/Museum/Dining Lodge

SPATIAL ORGANIZATION			
Feature	**Description**	**Condition**	**"Contributing / Non-Contributing"**
Playfield (1934)		Good	Contributing
Topography		Good	Contributing

CIRCULATION			
Vehicular Circulation			
Feature	**Description**	**Condition**	**"Contributing / Non-Contributing"**
Entrance Drive (Peavine Road / State Highway 103) (1934)	Two-lane, 24' wide asphalt paved. Entrance Drive widens at building, where a cattle guard built of steel railroad ties originally crossed the road (it is non-extant). CCC built drainage ditches extend on both sides of road. Paved pullout on north side of building.	Good	Contributing
Service Road at Entrance Building (1927)	Built as part of Entrance Building (HS-432) construction, the road was originally the equestrian route into the park, accessed by the wood gate. It was needed due to the cattle guard at the road.	Poor	Contributing
Ebb & Flow Road (Spring Loop)	Relocated in 1934 to build Entrance Building complex.	Fair / Poor	Contributing
Cabin Road System (HS-401B) (1934)	re: cabins	Good	Contributing
Main Parking Area (HS-714)	Asphalt paved, 24' wide road with pull-in parking on each side. Stone curb at parking edges with drainage openings (block-outs). Ends in turnaround / drop-off at Dining Lodge.	Good / Fair	Contributing
Boat Ramp / Launch (1974)	Wood ramp with wood guard railings and benches located below Dining Lodge (HS-422) and adjacent to the Current River.	Good	Non-contributing

Pedestrian Circulation			
Entrance Building			
Feature	**Description**	**Condition**	**"Contributing / Non-Contributing"**
Ebb & Flow Road (Spring Loop) (1934)	Graded road bed that extends from Entrance Drive, just east of Entrance Building (HS-432) south. Extends through woods and connects to Fire Tower / Lookout Tower (HS-1404) site, loops back to connect to cabins.	Fair	Contributing
Dining Lodge			
Feature	**Description**	**Condition**	**"Contributing / Non-Contributing"**
Stone Staircase and Path	8' wide stone steps with wood hand railings set into hillside, connects Dining Lodge (HS-422) with boat ramp at the Current River. Approximately 26 risers with 24" to 30" wide treads and 9" to 10" riser height.	Fair	Non-contributing
Gravel Walkway to Boat Ramp	Narrow path from stone staircase to boat ramp	Fair	Non-contributing
Entrance Walkway (1936 original)	9' wide path built as stone with concrete overlay connects parking drop-off with front door. Ends at three (3) masonry stone steps with concrete overlay and uneven riser heights and wood railing on one side at building entrance.	Good to Fair; drainage issue at drop-off	Contributing
Low Stone Wall	Parallels entrance walkway, less than 9" height built of granite stone curbing	Good	Unknown
Stone Walk at Dining Lodge	10" wide masonry stone path from service drive to building entrance	Fair; steep	Unknown
Service Drive (1936 original)	12' wide asphalt / dirt / concrete driveway with concrete curb. Connects Main Parking Area (HS-714) with rear building entrance.	Poor, drainage issues	Contributing
Concrete Steps to Propane Tank and Cabins	Seven steps at 4' wide with 6" risers. First riser is 12" height concrete curb (edge of service drive). Steps continue to cabins.	Fair	Unknown
Walkway to Cabins	Near Dining Lodge (HS-422), narrow path with 7 concrete steps, and 15 timber steps and 12" concrete curb	Fair	Non-contributing
Spring Branch Trail	Crushed dolomite surface, extends from stone staircase to Latrine (HS-423)	Fair	Unknown
Lower Chubb Hollow Trail	Crushed dolomite surface, extends from stone staircase to Chubb Hollow	Good	Non-contributing

BUILDINGS AND STRUCTURES			
Entrance Building			
Feature	**Description**	**Condition**	**"Contributing / Non-Contributing"**
Entrance Building (HS-432) (1936)	Rustic style building, 20'x16' single story side with gabled roof, and a 7'x14' open cross gable porch. Half-timber construction with irregular coursed cut stone walls, with a cut stone exterior chimney, and an interior bathroom in a rear 4'-5"x 9' projection. Cut stone paving at building entrance. Historically used as visitor center.	Fair	Contributing
Entrance Portal Walls (HS-432A) (1936)	Two cut stone wall sections form an arc, 151'-6" long that extends across both sides of Entrance Drive. Ends terminate in large stone piers. Wire and wood fence extends from south wall to west. Drainage is accommodated through semicircular arches in each wall. South wall extends from, and is attached to Entrance Building (HS-432). North wall includes a wood gate across a foot path / old equestrian road. A cattle guard built of steel railroad ties originally crossed the road between the two walls.	Fair	Contributing
Museum			
Feature	**Description**	**Condition**	**"Contributing / Non-Contributing"**
State Park Museum Building (HS-420) (1936)	Single story two room gabled building, 18'x 42' with a 9'x18' extension, with oak half-timber framing and coursed stone infill and gable pediments on curved brackets. Interior has concrete floor, exposed ceiling construction, and ribbon windows of 6-light casements. Entrances have stone thresholds, 58" x 77" in size, and 9" step.	Good to Fair	Contributing
Pump House (HS-443) (1936)	Single story structure, 10' x12' one room building with a 5'x10' coursed cut stone porch, built with half-timber framing with irregular coursed cut stone infill, an asymmetrical gable roof with cedar shingles, and concrete floor.	Good	Contributing

Dining Lodge			
Feature	**Description**	**Condition**	**"Contributing / Non-Contributing"**
Dining Lodge (HS-422) (1934 to 1936) and Help's Quarters	Single story, Rustic style cross-gabled building, 31'x 122' in size, with half-timber and coursed stone masonry walls and logs in the gable ends. Building has two porches, massive exterior stone chimney. Windows throughout are 6-light casements with 4-light transoms. Large stone terrace on south end has concrete overlay, and is building entrance, with low stone wall and three (3) stone masonry steps with concrete overlay and uneven riser heights.	Good to Fair	Contributing
Dining Lodge Retaining Wall and Fountain (HS-422A) (1936)	130' long retaining wall ranging in height from 8'-6" to 10'-6," wall steps to grade on south end. Built of cut stone set in irregular courses, wall creates the service courtyard. At the building, the wall is stepped back and raised with a circular fountain set in front.	Good to Fair	Contributing
Latrine (HS-423) (1935)	Single story gabled building with gable dormers over the two entrances. Half-timber framing with irregular course cut stone infill. Four light sash windows on continuous wood sill, with concrete floor.	Poor	Contributing

CONSTRUCTED WATERWAYS			
Entrance Building			
Feature	**Description**	**Condition**	**Contributing / Non-Contributing**
Drainage Ditches (1934)	Two ditches at Entrance Building (HS-432); converge and become one.	Fair	Contributing
Dining Lodge			
Feature	**Description**	**Condition**	**"Contributing / Non-Contributing"**
Stone Abutments (1934)	Layered stone ledges, set into the embankment for stream protection along Big Spring branch, extending from bridge to Dining Lodge (HS-422). Segments removed at the boat ramp at the Dining Lodge.	Fair	Contributing

SMALL SCALE FEATURES			
Entrance Building			
Feature	**Description**	**Condition**	**"Contributing / Non-Contributing"**
Entrance Portal Walls (HS-432A)	re: buildings and structures	Fair	Contributing
Flagpole		Fair	Contributing
Wood Gate (1934)		Fair	Contributing
Wire and Wood Fence (1934)	Extends from south Entrance Portal Wall (HS-432A) to west, parallel to Entrance Drive	Fair	Contributing
Stone and Concrete Culvert (1934)	Extends under Entrance Drive, just north of Entrance Building (HS-432).	Fair to Good	Contributing
Electrical Box	On east side of south wall, just south of drainage ditch	Good	Non-contributing
Power Line	Public line, extended from Entrance Building (HS-432) to Maintenance Area, to cabins to Dining Lodge (HS-422) from outside source. Transformers remain at Main Parking Area (HS-714) for the Museum (HS-420) / Dining Lodge.	Good	Non-contributing
Museum			
Feature	**Description**	**Condition**	**"Contributing / Non-Contributing"**
Flagpole	Gray galvanized steel	Good	Contributing
Wood Sign Post	Painted wood	Good	Contributing
Fountain #2 (HS-712) (1934-1937)	CCC built drinking fountain with rough cut stones of a heavy design in the Rustic style, with a stone step attached and a concrete basin set on a stone pad.	Good	Contributing
Stones	One is 11 x 25 inches; and the second is 12 x 28 inches; blasted block stone	Good	Contributing
CCC Commemorative Stone / Monument	Small native stone boulder with bronze plaque, reads as follows: 'THIS WALNUT TREE WAS PLANTED IN COMMEMORATION OF THE LEGACY OF THE CIVILIAN CONSERVATION CORPS AND THE MEN WHO REFORESTED OUR NATION'S PUBLIC LANDS. JUNE 21, 2003' (Walnut tree is missing)	Good	Non-contributing
Interpretive Signs	Three interpretive pedestal signs; two wood benches; sign noting interpretive area; crushed gravel walkway and space	Fair	Non-contributing
Propane Tank		Unknown	Non-contributing
Stone Culvert (after 1950)		Good	Contributing

Dining Lodge			
Feature	**Description**	**Condition**	**"Contributing / Non-Contributing"**
Retaining Wall and Abutments (HS-423A) (between 1934 and 1936)	Large cut stones dry laid against the sides of a creek that flows in front of the Latrine (HS-423). The stone ledges are set into banks in long continuous courses with tight joints.	Fair	Contributing
Flagpole		Good	Contributing
Pedestrian Light		Good	Non-contributing
Low Level Lighting	Uplighting and small bollards occur at front entrance	Very Poor	Unknown
Wood Posts	One post at service drive		Non-contributing
Propane Tank	Silver tank on concrete pad with fence enclosure of wood slats, and gate on one end.	Unknown	Non-contributing
Electrical Transformer	Standard green box, set at curve of drop-off at Dining Lodge.	Unknown	Non-contributing
Wood Footbridge		Good	Non-contributing
Latrine			
Feature	**Description**	**Condition**	**"Contributing / Non-Contributing"**
Retaining Wall and Abutments (HS-423A) (between 1934 and 1936)	Large cut stones dry laid against the sides of a creek that flows in front of the Latrine (HS-423). The stone ledges are set into banks in long continuous courses with tight joints.	Fair	Contributing



Figure 3-53. The Main Parking Area (HS-714) looking toward the Dining Lodge (HS-422), with the Pump House (HS-443) and Museum (HS-420) to the right, date unknown. (OZAR Archives)



Figure 3-54. The Main Parking Area (HS-714) looking toward the Dining Lodge (HS-422), with the Pump House (HS-443) and Museum (HS-420) to the right. (Mundus Bishop 2015)



Figure 3-55. Entrance Building (HS-432), 1936. (OZAR Archives)



Figure 3-56. Entrance Building (HS-432). (Mundus Bishop 2015)



Figure 3-57. Entrance Portal Walls (HS-432A), c. 1936. (OZAR Archives)



Figure 3-58. Entrance Portal Walls (HS-432A). (Mundus Bishop 2015)



Figure 3-59. East Entrance Portal Wall (HS-432A) arch over ditch during construction, 1936. (OZAR Archives)



Figure 3-60. East Entrance Portal Wall (HS-432A) arch over ditch. (Mundus Bishop 2015)



Figure 3-61. Latrine (476), date unknown. (OZAR Archives)



Figure 3-62. Latrine (476). (Mundus Bishop 2015)



Figure 3-63. Museum (HS-420), date unknown. (OZAR Archives)



Figure 3-64. Museum (HS-420). (Mundus Bishop 2015)



Figure 3-65. Pump House (HS-443), date unknown. (OZAR Archives)



Figure 3-66. Pump House (HS-443). (Mundus Bishop 2015)



Figure 3-67. The Dining Lodge (HS-422). (Mundus Bishop 2016)



Figure 3-68. Dining Lodge (HS-422). (Mundus Bishop 2016)

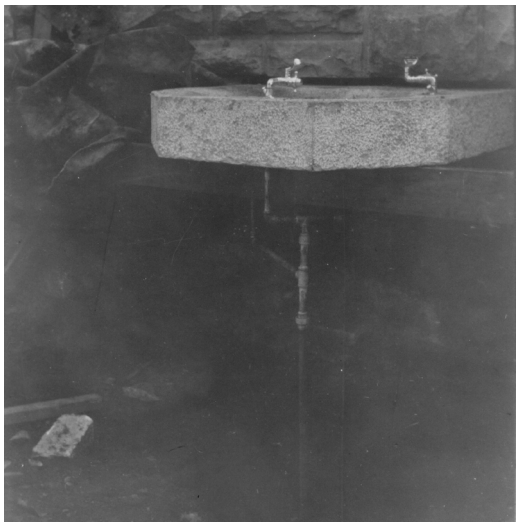


Figure 3-69. Dining Lodge Retaining Wall and Fountain (HS-422A), date unknown. (OZAR Archives)



Figure 3-70. Dining Lodge Retaining Wall and Fountain (HS-422A), date unknown. (OZAR Archives)



Figure 3-71. Dining Lodge Retaining Wall and Fountain (HS-422A). (Mundus Bishop 2015)



Figure 3-72. Dining Lodge Retaining Wall and Fountain (HS-422A), date unknown. (OZAR Archives)



Figure 3-73. Dining Lodge Retaining Wall and Fountain (HS-422A). (Mundus Bishop 2015)

Cabins

Spatial Organization
The fifteen cabins are organized as a distinct, informal cluster arrangement in which each is set perched on the hillside, sited to minimize views of man-made features and to maximize views of the natural landscape. The narrow, winding Cabin Road System (HS-401B) connects the cabins in a two-mile looped system. The Cabin Path System (HS-713) consists of several trails built of stone steps and paving connecting the cabins to the road, and to the Museum (HS-420) and Dining Lodge (HS-422) below. The cabins, the Cabin Road System and portions of the Cabin Path System and Stairs were built by the CCC and WPA.

Cluster Arrangement and Buildings
The west grouping of cabins, Cabins #404 (HS-404), #405 (HS-405), #406 (HS-406), #407 (HS-407), #408 (HS-408), #409 (HS-409), #410 (HS-410), include seven Rustic style wood framed buildings, set on both sides of the Cabin Road System (HS-401B). Six (Cabins #404, #405, #409, #410, #411, #412) were designed by the CCC architectural foreman Donald A. Blake as 'Type E' cabins, and all have the same architectural style and building footprint. Two (Cabins #404 and #410) have a modified 'Type E' footprint and are slightly larger. Three of these (Cabins #406, #407, and #408) were relocated from the open space below to their current location in 1935. The CCC remodeled them to fit with the rustic architectural style. Four cabins (Cabins #404, #405, #409, #410, #411, and #412) were built in 1938 by the WPA using CCC plans.

The east grouping includes five cabins, Cabins #401 (HS-401), #402 (HS-402), #403 (HS-403), #411 (HS-411), and #412 (HS-412), set overlooking the Dining Lodge (HS-422) and open expanse of the playfield. Three (Cabins #401, #402, and #403) were the first cabins built by the CCC in 1934. Cabins #402 and #403 were built first as 'Type A' cabins with a simple rectilinear floor plan and five rooms. 'Type B' Cabin #401 was built shortly afterwards as a larger 'L' shaped cabin with two stone chimneys. It is the only 'Type B' cabin. The remaining two cabins (Cabins #411 and #412) in this grouping are 'Type E' cabins, built in 1938 by the WPA using CCC building plans.

Two additional cabins, Cabins #413 (HS-413) and #414 (HS-414), were built by the CCC, and one, Cabin #415 (HS-415), was built by the WPA for use as ranger's house, laundry / restroom, and helper's house, respectively. Instead of being clustered together, they are slightly more isolated due to their use. Cabin #413 is the only cabin on the east side of State Highway Z, overlooking the Current River. Built in 1935, this asymmetrical cross gable, Rustic style wood cabin was likely designed by architect Donald A. Blake; however plans were not found. Cabin #414, built in 1936, is a stone and wood cabin that originally contained men's and women's restrooms and showers, and a laundry room. It is a one and half story building with a basement and three gabled entrances. Cabin #415 is fifty feet uphill from the east grouping of cabins, set within a wide open space on the top of the hill, physically separate from the other cabins. Designed in 1939 as a helper's house, this four room rustic style house is wood-framed and wood-sided with a basement. These three cabins were converted to rental cabins by the NPS in the 1970s. Cabin interiors were modified, while the exteriors retained the original construction.

The Picnic Shelter (HS-496) is set in a clearing on top of the hill surrounded by large oak and pine trees. The open gabled shelter with a massive stone fireplace is sited with remarkable views of the surrounding valley. Site amenities include CCC built drinking Fountain #3 (HS-712) and two contemporary

picnic tables. The Picnic Shelter is in fair to poor condition.

The cabins are all in fair condition, reflective of deferred maintenance. Exterior and interior finishes, including bathrooms and kitchens, are outdated. Evidence of decay and rot is prevalent at the cabin bases. Plumbing, electrical, and mechanical systems require continual repair, especially during peak summer usage. Current utility systems do not adhere to energy efficiency guidelines. The cabins are accessed by many steps and are not universally accessible.

Circulation
The Cabin Road System (HS-401B) (1934) provides access to each cabin, where each has either a pull-in or a parallel parking space, originally designed with stone curbs and retaining walls built by the CCC. Most parallel spaces are on the downhill side of the road, while most pull-in spaces are on the uphill side. The original CCC configuration included pull-through drives between Cabins #408 (HS-408) and #409 (HS-409). These were changed to pull-in spaces by the NPS in 1973, along with other minor modifications. The configuration of the original parallel spaces remains the same. Cabins below the road are accessed by steep stone steps from the parking spaces. Many of which have been repaired with concrete and timber. None of the cabins comply with ABA. New additions to each cabin setting include level pads of gravel paving edged with timbers where picnic tables are set. The geometric form and use of materials detracts from the historic character.

Small Scale Features
Contemporary small scale features occur at each cabin including an identification sign, and two trash receptacles. At a few stone staircases, contemporary wood railings have been added. Some stone walls have been replaced with wood timber retaining walls. The gathering spaces built of gravel with timber edges, where picnic tables and fire pits are placed, diminish the integrity of the cabin setting.

Vegetation
The vegetation surrounding the cabins during the period of significance was primarily the oak hickory forest primarily composed of red and white oaks, with a low native understory. The forest was significantly less dense historically then it is today. Historically, clearings were made around each cabin, some trees were planted, others thinned, and some cabins had understory plantings of ornamental vegetation. Today, some hackberry trees are near some of the cabins. The man-made clearings at the Picnic Shelter (HS-496) and Cabins #414 (HS-414) and #415 (HS-415), are filling in with the encroachment of pine trees. Invasive species, shrubs and grasses, are near buildings and structures.

Analysis of Integrity
The cabins, Picnic Shelter (HS-496), the Cabin Road System (HS-401B) with pull-ins and parallel parking spaces, and trails contribute to the significance of the core development area. The cabin and hillside retain original features within their original locations, with some modifications. Some features including original steps and walls have been modified, and new features such as the gathering areas of timber and gravel diminish the integrity of the setting. Minor modifications to the Cabin Road System (HS-401B) in the 1970s, and interior remodels of Cabins #413 (HS-413), #414 (HS-414), and #415 (HS-415) have minimal impact on the cultural landscape. In general, these features retain integrity in all aspects.

Cabins have stone walls or wood retaining walls. The cabin identification signs, trash receptacles, terraces, fire pits, and tables are all contemporary features.

Matrix 3-7. Core Development Area Matrix - Cabins

SPATIAL ORGANIZATION			
Feature	**Description**	**Condition**	**"Contributing / Non-Contributing"**
Topography	Cabins are set on a fairly steep hillside on the looped Cabin Road System (HS-401B).	Good	Contributing
Woodland	Dense oak hickory forest, predominately mature white and red oaks. Many weedy shrubs and grasses.	Fair	Contributing
Views	Cabins sited to minimize views of constructed features, maximize views of nature.	Good	Contributing

CIRCULATION			
Vehicular Circulation			
Feature	**Description**	**Condition**	**"Contributing / Non-Contributing"**
Cabin Road System (HS-401B) (1937)	One mile, 12' wide asphalt paved road with gravel parking pull-outs lined with stone curbs and stone retaining walls.	Good	Contributing
Pedestrian Circulation			
Feature	**Description**	**Condition**	**"Contributing / Non-Contributing"**
Cabin Path System and Stairs (HS-713) (1934)	System of hiking trails with long flights of mortared stone steps to Cabins #401-#407, #411-#413,# 422, and #428. The paths connect the cabins to the Dining Lodge (HS-422) with routes from Cabins #401, #404 / #410, and #413.	Fair	Contributing

BUILDINGS AND STRUCTURES			
Feature	**Description**	**Condition**	**"Contributing / Non-Contributing"**
Cabin #401 (HS-401) (1934)	*Building* - CCC built Rustic style with Tudor influences, single story, steep side gable, "type B" stone and timber cabin with five rooms 28'-8" x 28'-9", two exterior stone chimneys, and two screened front porches. Downhill from the Cabin Road System (HS-401B).	Fair (west porch in poor condition, wood rot, loose boards, screens damaged)	Contributing
(1970s)	*Parking* - Parallel to the Cabin Road System (HS-401B), gravel with stone curb, two trash receptacles, and a cabin identification sign.	Good	Non-contributing
	Path to cabin - Combination of steep stone steps and stone path with wood railing. Concrete threshold at porched entry.	Fair	Contributing
	Path to lodge -Combination of stone and wood steps from the terrace north to the Cabin Road System (HS-401B) and continuing north to the Dining Lodge (HS-422).	Fair	Contributing

BUILDINGS AND STRUCTURES			
Feature	**Description**	**Condition**	**"Contributing / Non-Contributing"**
	Wood timber retaining wall - 5' foot tall	Good	Non-contributing
	Terrace - Timber edge, stone fire pit with steel grill, and picnic table.	Good	Non-contributing
	View - From cabin to Dining Lodge (HS-422).	Good	Contributing
Cabin #402 (HS-402) (1934)	*Building* - CCC built Rustic style with Tudor influences, single story, side gable, "type A" stone and timber cabin 15'-9"x28', exterior stone chimney, and screened front porch entry. Brown asphalt shingles. Downhill from the Cabin Road System (HS-401B).	Fair	Contributing
(1970s)	*Parking* - Parallel to the Cabin Road System (HS-401B), gravel with stone curb, two trash receptacles, and cabin identification sign.	Good	Non-contributing
	Path to cabin - Stone steps (23) with some concrete step replacements, and a wood railing.	Poor (needs resetting)	Contributing
	Wood timber retaining wall - 3'tall.	Good	Non-contributing
	Terrace - Timber edge, steel fire pit, and picnic table.	Good	Non-contributing
Cabin #403 (HS-403) (1934)	*Building* - CCC built Rustic style with Tudor influences, single story, side gable, "type A" stone and timber cabin (12'-6"x28'), exterior stone chimney, and screened front porch entry. Brown asphalt shingles. Downhill from the Cabin Road System (HS-401B).	Fair	Contributing
(1970s)	*Parking* - Parallel to the Cabin Road System (HS-401B), gravel with stone curb, two trash receptacles, and a cabin identification sign.	Good	Non-contributing
	Path to cabin - Stone steps (21) and wood railing.	Poor (need resetting)	Contributing
	Wood timber retaining wall - 3' tall.	Good	Non-contributing
	Terrace - Timber edge with steel fire pit and picnic table.	Good	Non-contributing
Cabin #404 (HS-404) (1938)	*Building* - WPA built Rustic style, single story, side gable with intersecting gabled screened front porch entry, modified "type E" timber cabin (15'-2"x30'-8") with four rooms, exterior stone chimney connected to a stone wall (12-18" tall). Downhill from the Cabin Road System (HS-401B).	Fair	Contributing
(1970s)	*Parking* - Parallel to the Cabin Road System (HS-401B), gravel with stone curb, two trash receptacles, and a cabin identification sign.	Good	Non-contributing
	Path to cabin - Stone steps with stone cheek walls and wood railing. Stone threshold at entry. Top steps rebuilt.	Poor (top steps rebuilt)	Contributing
	Wood timber retaining wall - Tiered, 6-8' tall. Set behind cabin with a wood guardrail on top of wall.	Good	Non-contributing
	Terrace - Timber edge, fire pit, and picnic table.	Good	Non-contributing

BUILDINGS AND STRUCTURES			
Feature	**Description**	**Condition**	**"Contributing / Non-Contributing"**
Cabin #405 (HS-405) (1938)	*Building* - WPA built Rustic style, single story, side gable with intersecting gabled screened porch entry, "type E" timber cabin (12'-6"x28'-3") with four rooms, and exterior stone chimney. Downhill from the Cabin Road System (HS-401B).	Fair	Contributing
(1970s)	*Parking* -Parallel to the Cabin Road System (HS-401B), gravel with timber wall, wood railing, wood handrail, two trash receptacles, and a cabin identification sign. Grass between timber wall and parking.	Good	Non-contributing
	Path to cabin - Stone steps with stone cheek walls and wood railing. First flight of steps is concrete with stone overlay. Stone threshold with stone steps at both front and rear entries. Wood railing at rear entry.	Fair	Contributing
	Stone wall - At front entry and meets building on both sides.	Fair (some repair)	Contributing
	Terrace - Timber edge, fire pit, and picnic table.	Good	Non-contributing
Cabin #406 (HS-406) (Relocated and Remodeled by CCC in 1935)	*Building* - CCC built Rustic style, single story, side gable with front entry and intersecting gabled screened rear porch entry, timber cabin (12'-6"x28'-3") with four rooms, and exterior stone chimney. Downhill from the Cabin Road System (HS-401B).	Fair	Contributing
	Parking - Parallel to the Cabin Road System (HS-401B), gravel with stone curb, wood guardrail, two trash receptacles, and a cabin identification sign.	Fair (wood guardrail broken)	Non-contributing
	Path to cabin - Stone steps with stone curb to stone threshold at front entry. Stone steps at screened porch rear entry.	Fair (some repair)	
	Stone wall - 4' tall. Wood guardrail on top of wall.	Fair (wood guardrail broken)	Contributing
	Stone rubble wall (in between CCC walls)	Poor (failing)	Non-contributing
	Terrace - Timber edge, fire pit, and picnic table.	Fair	Non-contributing
Cabin #407 (HS-407) (Relocated and Remodeled by CCC in 1935)	*Building* - CCC built Rustic style, single story, side gable with intersecting gabled screened back porch, timber cabin (12'-6"x28'-3") with four rooms, and exterior stone chimney. Downhill from the Cabin Road System (HS-401B).	Fair	Contributing
	Parking - Parallel to the Cabin Road System (HS-401B), gravel with stacked rubble wall, wood guardrail, two trash receptacles, and a cabin identification sign.	Fair / poor (wood guardrail broken / stacked rubble wall failing)	Non-contributing

BUILDINGS AND STRUCTURES			
Feature	**Description**	**Condition**	**"Contributing / Non-Contributing"**
	Path to cabin - Ramped with stone cheek wall. Path is steep and slick in wet conditions. Wood railing on both sides of path. Stone steps to stone threshold at front door.	Poor (steep and slick path, masonry failures)	Contributing
	Wood timber retaining wall - 2' to 3' tall.	Good	Non-contributing
	Terrace - Gravel paved with timber edge, fire pit, and picnic table.	Good	Non-contributing
Cabin #408 (HS-408) (Relocated and Remodeled by CCC in 1935)	*Building* - CCC built Rustic style, single story, side gable with intersecting gabled screened entry porch, timber cabin (12'-6"x28'-3") with four rooms, and exterior stone chimney. Uphill from the Cabin Road System (HS-401B).	Fair	Contributing
	Parking - asphalt paved to cabin along old CCC route with (2) trash receptacles and a cabin identification sign.	Good	Non-contributing
	Path to cabin - stepped timber walk to terrace. Stone threshold with two stone steps at rear door.	Good	Contributing
	Terrace - gravel paved with timber edge, fire pit, and picnic table.	Good	Non-contributing
Cabin #409 (HS-409) (1938)	*Building* - WPA built Rustic style, single story, side gable with intersecting gabled screened entry porch, "type E" timber cabin (12'-6"x28'-3") with four rooms, and exterior stone chimney connected to low stone wall (30" tall). Uphill from the Cabin Road System (HS-401B).	Fair	Contributing
	Parking - Asphalt spur with two trash receptacles and a cabin identification sign.	Good	Non-contributing
	Path to cabin - Stone path to rear door (30" wide) with two stone steps to stone threshold.	Good	Contributing
	Terrace - Gravel paving with timber edge, fire pit, and picnic table.	Good	Non-contributing
Cabin #410 (HS-410) (1938)	*Building* - WPA built Rustic style, single story, side gable with intersecting gabled screened entry porch, modified "type E" timber cabin (15'-2"x30'-8") with exterior stone chimney connected to low stone wall (30" tall). Uphill from the Cabin Road System (HS-401B).	Fair	Contributing
(1970s)	*Parking* - Asphalt with gravel between Cabin #409 and #410.	Good	Non-contributing
	Path to cabin - Stone threshold with two stone steps at screened entry porch. Concrete path to rear door (30" wide).	Good	Contributing

BUILDINGS AND STRUCTURES			
Feature	**Description**	**Condition**	**"Contributing / Non-Contributing"**
Cabin #411 (HS-411) (WPA 1938 and 1941)	*Building* - Rustic style, single story, side gable with intersecting gabled screened front porch entry, "type E" timber cabin (12'-6"x28'-3"), exterior stone chimney connected to a stone retaining wall (4' from back of cabin). Uphill from the Cabin Road System (HS-401B).	Fair	Contributing
	Path to cabin - Stone steps with stone cheek wall, and wood railing.	Good	Contributing
	Terrace - Timber edge, fire pit, and picnic table.	Good	Non-contributing
	Social trail to Cabin #412		Non-contributing
Cabin #412 (HS-412) (1938 and 1941)	*Building* - Rustic style, single story, side gable with intersecting gabled screened front porch entry, "type E" timber cabin (12'-6"x28'-3"), exterior stone chimney connected to a stone retaining wall (4' from back of cabin). Uphill from the Cabin Road System (HS-401B).	Fair / poor (wood beams and posts need replaced)	Contributing
	Path to cabin - Steep stone steps, stone entry walk, and wood railing	Poor (steps need to be replaced)	Contributing
	Terrace - Timber edge, fire pit, and picnic table.	Good	Non-contributing
	Social trail to Cabin #411	Good	Non-contributing
Cabin #413 (HS-413) (1935)	*Building* - Rustic style, single story with basement, asymmetrical cross gable roof with screened front porch entry (2 doors), wood-framed timber cabin (25'x27') with clapboard siding and corner boards, and exterior stone chimney.	Fair	Contributing
	Parking - Looped gravel drive with pull-in parking	Good	Non-contributing
	Wood retaining wall - 3' tall	Good	Non-contributing
	Concrete pavers - Square pavers (12"x12"), attached at edge of screened porch	Poor (cracked, settling)	Non-contributing
	Terrace - Gravel paved with timber edge, fire pit, and picnic table.	Good	Non-contributing
Cabin #414 (HS-414) (1936)	*Building* - Rustic style with Tudor influences, one- and one-half story with basement, cross gable, stone cabin (12'-6"x28') with accent timbers, exterior stone chimney, and three gabled entrances.	Fair	Contributing
	Parking - Gravel access drive with gated entry.	Good	Non-contributing
	Path to cabin - Stone steps to (3) entries and basement. Wood railing at south entry.	Fair (missing sign marker)	
	Wood side porch - 16x16.	Good	Non-contributing
	Wood board fence - 6' tall fence restricts access to the basement.	Fair (need basement door)	Non-contributing

BUILDINGS AND STRUCTURES			
Feature	**Description**	**Condition**	**"Contributing / Non-Contributing"**
Cabin #415 (HS-415) (1939)	*Building* - WPA built Rustic style, single story, side gable roof with roof extension over one entry, wood-framed timber cabin (25'x36') with five rooms and a basement. Clapboard siding and corner boards, interior stone chimney, and screened side porch (9'x15').	Fair	Contributing
	Path to cabin - Stone steps (4 steps) to (3) entries.	Good	
	Wood retaining wall - 12-18" tall	Fair	Non-contributing
Picnic Shelter (HS-496) (1935-1939)	Structure - Massive cut-stone irregular coursed chimney with interior fireplace with mantel and iron bracing at hearth (replaced with buff brick). Open gabled roof with brown asphalt shingles and large square posts. Concrete and stone floor (10'x9'). Open view towards river, with large framing trees.	Fair / poor (wood beam / posts need replacement)	Contributing
Fountain #3 (HS-712) (1934-1937)	re: small scale features		
	Two picnic tables	Good	Non-contributing
Dining Lodge (HS-422) (1934-1936) and Help's Quarters	re: Entrance Building, Dining Lodge, and Museum		Contributing

SMALL SCALE FEATURES			
Feature	**Description**	**Condition**	**"Contributing / Non-Contributing"**
Fountain #3 (HS-712) (1934-1937)	CCC built drinking fountain with rough cut stones of a heavy design in the Rustic style, with a stone step attached and a concrete basin set on a stone pad.	Poor (missing stones, broken and exposed pipes)	Contributing
Utilities	Unmarked, uncovered water / sewer line located west of Cabin #403		

VEGETATION			
Feature	**Description**	**Condition**	**"Contributing / Non-Contributing"**
Forest	Dense oak hickory forest, predominately mature white and red oaks. Many weedy shrubs and grasses.	Fair	Contributing
	Vegetation - Dogwood shrubs		



Figure 3-74. Cabin #401 (HS-401), 1936. (OZAR Archives)



Figure 3-75. Cabin #401 (HS-401). (Mundus Bishop 2015)



Figure 3-76. Cabin #402 (HS-402), c. 1935. (OZAR Archives)



Figure 3-77. Cabin #402 (HS-402). (2016 CLI(Jackson / NPS 2104))



Figure 3-78. Cabin #402 (HS-402), c. 1934-1937. (OZAR Archives)



Figure 3-79. Cabin #402 (HS-402). (Mundus Bishop 2015)



Figure 3-80. Cabin #403 (HS-403), c. 1934-1937. (OZAR Archives)



Figure 3-81. Cabin #403 (HS-403). (Mundus Bishop 2015)



Figure 3-82. Cabin #404 (HS-406), September 1976. (2016 CLI (William L. Philyaw))



Figure 3-83. Cabin #404 (HS-404). (Mundus Bishop 2016)



Figure 3-84. Cabin #405 (HS-405). (Mundus Bishop 2015)



Figure 3-85. Cabin #406 (HS-406) or #407 (HS-407), c. 1935. (OZAR Archives)



Figure 3-86. Cabin #406 (HS-406). (Mundus Bishop 2016)





Figure 3-87. Cabin #407 (HS-407). (Mundus Bishop 2016)



Figure 3-88. Cabin #408 (HS-408). (Mundus Bishop 2015)



Figure 3-89. Remodeled Cabin #408 (HS-408), date unknown. (OZAR Archives)



Figure 3-90. Cabin #408 (HS-408). (2016 CLI(Jackson / NPS 2013))



Figure 3-91. Cabin #409 (HS-409). (Mundus Bishop 2016)



Figure 3-92. Cabin #410 (HS-410), date unknown. (OZAR Archives)



Figure 3-93. Cabin #410 (HS-410). (Mundus Bishop 2015)



Figure 3-94. Cabin #411 (HS-411). (Mundus Bishop 2015)



Figure 3-95. Cabin #412 (HS-412). (Mundus Bishop 2015)



Figure 3-96. Cabin #413 (HS-413). (Mundus Bishop 2015)



Figure 3-97. Cabin #414 (HS-414), date unknown. (OZAR Archives)



Figure 3-98. Cabin #414 (HS-414). (Mundus Bishop 2016)



Figure 3-99. Cabin #415 (HS-415). (Mundus Bishop 2016)



Figure 3-100. Picnic Shelter (HS-496), date unknown. (OZAR Archives)



Figure 3-101. Picnic Shelter (HS-496). (Mundus Bishop 2015)



Figure 3-102. The two room Chubb Hollow Open Shelter House (HS-247) is in fair condition. (Mundus Bishop 2016)



Figure 3-103. The Chubb Hollow Open Shelter House (HS-247) has a central chimney, and built-in plank benches. (Mundus Bishop 2015)

Chubb Hollow

Spatial Organization
Chubb Hollow is a picnicking and camping area set on Chubb Creek, west of the Current River, developed by the CCC between 1933 and 1937. The recreational area is three distinct spaces—picnicking and parking near the river, a four acre clearing for the group campground on the west side, and the site of the Chubb Hollow Open Shelter House (HS-427) on the south.

Access, parking, camping and picnicking are located on a relatively level ridge on the north side of Chubb Creek. On the south, and higher ridge, the CCC created an open clearing high above the Current River where they placed Chubb Hollow Open Shelter House (1935). The structure was prominently sited for views both towards the river and adjacent woodlands, and towards the shelter from the river. The front of the shelter faces north onto a playfield with drinking Fountain #4 (HS-712), one of four built by the CCC in this area. A wooden footbridge (1933 to 1937) spans high above Chubb Creek, and connects the two areas via a short trail.

Circulation
Chubb Hollow is accessed by Chubb Hollow Road, which connects to State Highway Z. A stone culvert diverts water under the highway. A short grass drive connects Chubb Hollow Road with group camp sites, and extends to the shelter. Chubb Hollow Road terminates at a turnaround near the river. This road has been modified since the end of the period of significance. It was paved with asphalt and slight modifications were made to the terminus. The Upper and Lower Chubb Trails connect Chubb Hollow with the Dining Lodge (HS-422) to the north, and with the Current River. The upper trail extends north and includes two wooden overlooks with views to the Current River. The lower trail follows the river's edge at the base of the bluffs, continuing east past the shelter.

Small Scale Features
Contemporary small scale features include a second footbridge east of the shelter, picnic tables, grills, trash receptacles and signage. The modern Chubb Hollow Latrine (424) was added by the NPS in the 1970s, accessed by stone steps north of the road.

Analysis of Integrity
Chubb Hollow and its associated original features, spatial organization and site design remains similar to its original CCC development of 1933 to 1937. The 1981 Big Spring Development Concept Plan shows two pit toilets located next to the Chubb Hollow Picnic Shelter. It is not known if the structures predated the NPS era, or when after 1981 they were removed[3.20]. The area retains its original features, with few modifications including alterations to Chubb Hollow Road.

3.20 2016 CLI, 57.

Matrix 3-8. Core Development Area Matrix - Chubb Hollow

CIRCULATION			
Vehicular Circulation			
Feature	**Description**	**Condition**	**"Contributing / Non-Contributing"**
Chubb Hollow Road	Twelve foot wide asphalt drive terminates with turn-around loop used for parking, with stone markers at parking edge.	Good	Contributing
Campground Drive	Eight foot wide, single lane, gravel drive extends from the Chubb Hollow Road through the group camp area and ends at the Chubb Hollow Open Shelter. Wood timbers define parking areas.	Good / fair	Contributing
Pedestrian Circulation			
Feature	**Description**	**Condition**	**"Contributing / Non-Contributing"**
Chubb Hollow Foot Bridge #1 (HS-456) (between 1933-1937)	4' x 32' foot bridge with wood decking and railings is built on stone piers over a drainage route with channelized edges.	Good	Contributing
Chubb Hollow Foot Bridge #2	Foot bridge with wood decking and railings built on stone pier over drainage with channelized edges.	Good	Non-contributing
Chubb Hollow Trail System and Stairs (1935)	Trail from the parking area over the foot bridge. Stairs extend from foot bridge #1 to the shelter, adjacent to the Fountain #4 (HS-712). Timber risers with gravel treads are contained by a stone edge on both sides.	Good / fair	Contributing
Lower Chubb Hollow Trail	Trail follows Current River to Dining Lodge.	Good	Non-Contributing
Upper Chubb Hollow Trail	Trail at top of hill from Chubb Hollow to Dining Lodge. Two river overlooks.	Good	Contributing
BUILDINGS AND STRUCTURES			
Feature	**Description**	**Condition**	**"Contributing / Non-Contributing"**
Chubb Hollow Open Shelter House (HS-427) (1935)	Single story, partially open shelter, 21'-6"x 33'-6", has hip roof and two wood lintel entrances. Walls are irregular course cut-stone masonry with timber framing. Structure is symmetrical with two rooms flanking a central chimney, built-in plank benches (12" height) in both rooms around all walls. All wood is painted. Floor is flagstone with continuous concrete pad at bases on all sides. It is sited on a small plateau with overlooking the Current River.	Good	Contributing
Chubb Hollow Latrine (424) (1970-1975)	Restroom has board and batten siding and an asphalt shingled multi-directional, diagonally ridged shed roof. Five foot wide path with twelve steps leads to the restroom from the drive to a concrete pad that surrounds the restroom.	Poor	Non-contributing

SMALL SCALE FEATURES			
Feature	**Description**	**Condition**	**"Contributing / Non-Contributing"**
Chubb Hollow Stone Culvert (HS-427A) (between 1933-1936)	Two to three foot wide drainage channel built with native stone walls and floor, diverts water under State Highway Z	Good	Contributing
Fountains #4, #5, #6, #7 (HS-712) (1934-1937)	(4) CCC built drinking fountains with rough cut stones of a heavy design in the Rustic style, with a stone step attached and a concrete basin set on a stone pad. Fountain #4 is near the Chubb Hollow Open Shelter House (HS-427); Fountain #5 is at the parking area; Fountain #6 and #7 are in the campground.	Fair (needs repairs)	Contributing
Hawes Plaque (HS-471)	1'-6" x 2'-2" plaque on cliff face above Lower Chubb Trail	Good	Contributing
Kiosk	Wood kiosk sign	Good	Non-contributing
Stone Benches (2)	Bench located along Upper Chubb Trail with view toward the Current River.	Good	Non-contributing

VEGETATION			
Feature	**Description**	**Condition**	**"Contributing / Non-Contributing"**
Chubb Hollow Campground (1934)	Group camp site #3 located in clearing south of asphalt drive and west of the drainage route. It has four picnic tables, three fire grates, and CCC built Fountains #5 and #6 (HS-712).	Good	Contributing
Play Field	Open area at the shelter and the westernmost CCC built Fountain #7 (HS-712).	Good	Contributing

VIEWS			
Feature	**Description**	**Condition**	**"Contributing / Non-Contributing"**
	View to river	Fair	Contributing
	View to forest	Good	Contributing
	View from trails to shelter	Fair	Contributing



Figure 3-104. Chubb Hollow Foot Bridge (HS-456) wood decking and railing rebuilt, date unknown. Only the stone piers are contributing. (Mundus Bishop 2016)



Figure 3-105. There are four CCC built drinking fountains (Fountain #4, #5, #6, #7 (HS-712)) in Chubb Hollow, all are in need of repair. (Mundus Bishop 2016)



Figure 3-106. The Hawes Plaque is a contributing feature. The stone bench (1 of 2) is a contemporary addition. (Mundus Bishop 2016)



Figure 3-107. Cabin #416 (HS-416), date unknown. (OZAR Archives)



Figure 3-108. Cabin #416 (HS-416). (Mundus Bishop 2015)

Maintenance Area

Spatial Organization

The Maintenance Area is set in a man-made clearing within the forest, to the south of the Entrance Building (HS-432). It is accessed from Peavine Road / State Highway 103 by a short drive, and is physically and visually separated from visitor use areas. The site is set between two natural drainages that converge and extend to Spring Hollow and the Current River. Sloping hillsides covered with dense vegetation surround the cluster of buildings and structures on three sides.

Cluster Arrangement and Buildings

The Maintenance Area is a cluster of buildings and structures, organized around a central maintenance yard used for vehicle parking, circulation, and storage. At the eastern end, a gravel area provides parking for vehicles on the south side of drive. The Maintenance Area, inclusive of the drive, yard and buildings and structures, was built by the CCC for Big Spring State Park operations beginning in 1934. It was expanded after 1978, to accommodate additional buildings and structures for the NPS. These additions were arranged around an enlarged maintenance yard, which retained the drive and respected the original arrangement. The general configuration of the drive and yard have remained similar to the arrangement that existed during the period of significance. A stone driveway, west of Cabin #416 (HS-416), built between 1934 and 1938, remains and is covered with grass. The Maintenance Area was originally connected to the Museum (HS-420) and Dining Lodge (HS-422) via a narrow road built in 1934. This road was removed sometime after 1976.

The seven buildings within the Maintenance Area include four built by the CCC between 1935 and 1937—Cabin #416 (HS-416), Maintenance Shop (HS-417), Maintenance Storage Building (HS-418), and Maintenance Garage (HS-419). All are designed in the Rustic style. Moved to the site and remodeled by the CCC for use as the Big Spring State Park superintendent's house, Cabin #416 is a large timber framed cabin with two cross gable screened porch entries, which were expanded during the original CCC remodel, and enclosed in the early 1970s.[3.21] The original location of the building was near the Dining Lodge. The remainder of the building and structures within the Maintenance Area were added in the 1970s and later for NPS operations.

The Maintenance Shop (HS-417), built in 1935, is a large barn with two pairs of garage doors and a gambrel roof. The building has been slightly modified with changes made to its garage door, modifying doors to windows, and removing sets of garage doors. A metal canopy has been added since the period of significance. The Maintenance Storage Building (HS-418), built in 1935, was originally used as a tool shed. A sign above the door states its use as an electric shop. The Maintenance Garage (HS-419) is a large, rustic style, wood frame building with a saltbox roof. It has nine sets of cross-braced double doors. The only known changes to the Maintenance Storage Building and Maintenance Garage, both build in 1937, are utility upgrades completed by the NPS in the 1970s.

Analysis of Integrity

The four contributing buildings remain in their original locations with only minor changes to the building facades and utility systems since the period of significance. The remaining buildings and structures are contemporary, non-contributing outbuildings needed in the NPS's day-to-day operations.

3.21 Note – original location of Cabin #416 (HS-416) is unknown.

Matrix 3-9. Core Development Area Matrix - Maintenance Area

CIRCULATION			
Vehicular Circulation			
Feature	**Description**	**Condition**	**"Contributing / Non-Contributing"**
Maintenance Area Drive	16' foot wide gravel drive is boulder lined with a gated entrance. Access is from the Cabin Road System (HS-401B), off Peavine Road / State Highway 103.	Good	Contributing
Road Remnant (1934 - 1938)	Remnant road visible as a linear clearing in the forest with a flat route were the road once was. It extended from the Maintenance Area Drive to the Dining Lodge (HS-422).	Fair	Contributing
Cabin #416 (HS-426) Driveway (1934 - 1938)	12' wide laid stone drive extends from the maintenance area drive to Cabin #416 (HS-416).	Good	Contributing
Parking	Gravel parking area north of Cabin #416 (HS-416), on north side of maintenance road.	Good	Non-contributing
Maintenance Yard	Approximately 50' wide gravel area used for vehicle parking, circulation, and storage.	Good	Non-contributing

Pedestrian Circulation			
Feature	**Description**	**Condition**	**"Contributing / Non-Contributing"**
Path to Cabin #416 (HS-416)	Stone steps at front and side entries. (16) concrete steps from Maintenance Area Drive to a 6' wide central landing. Front door has (6) concrete block steps. (7) stone steps at side entry.	Fair	Contributing

Buildings and Structures			
Feature	**Description**	**Condition**	**"Contributing / Non-Contributing"**
Cabin 416 (HS-416) (1935)	Building - CCC built Rustic style, one and one-half story, asphalt shingle gable roof, timber framed cabin 39' x 32' with stone foundation basement, exterior stone chimney, and two screened porch entries with stone steps.	Good	Contributing
	Stone retaining wall - 3' tall stone wall with concrete mortar joints.	Poor / fair (reset failing stone; concrete repair doesn't match historic)	Contributing
	Terrace - Concrete slab 28' x 12', with one picnic table, connects the front and side entries.	Good	Non-contributing

Buildings and Structures			
Feature	**Description**	**Condition**	**"Contributing / Non-Contributing"**
Maintenance Shop (HS-417) (1936)	Building - 25'x50' gambrel roof building with a cut-stone foundation and chimney, drop siding, and two pairs of outward swing garage doors. First floor interior has one large bay and two smaller offices. An exterior staircase at gable end leads to the second floor. Windows throughout are 6-lite wood sash. Metal canopy 28' x 16' is on the north side of the Maintenance Shop (HS-417). It has a concrete pad below the canopy and gravel on three sides. A concrete sidewalk connects from pad to wooden staircase on the west side of the building.	Good	Contributing
Maintenance Fuel Storage Tanks (After 1978)	Wood fenced area with propane tanks and maintenance equipment, associated with the Maintenance Shop (HS-417).	Good	Non-contributing
Maintenance Storage Building (HS-418) (1936)	Building - CCC built single story, front gable with asphalt shingle, one room building 20'-6"x20'-6" with a mortared cobblestone foundation, clapboard siding, 9-lite wood sash windows, and tongue and groove interior walls. Concrete steps to door with an "Electric Shop" sign overhead.	Fair (some rotting boards at bottom)	Contributing
Maintenance Garage (HS-419) (1935)	Building - CCC built Rustic style, single story wood frame building 25'-5"x92'-6" with a saltbox roof. It sits on a cut-stone foundation and is sheathed with clapboard siding. There are nine sets of cross-braced double doors, the floor is concrete, and the windows are 9-lite wood sash. 3' wide concrete sidewalk extends to the entrance.	Fair / poor (water damage at foundation)	Contributing
Maintenance Storage Building #419A (After 1978)	Building - Single story, front gable with asphalt shingles, one room building 15'x16' with a concrete foundation, and clapboard siding. A roll-up garage door is on the side of the building.	Poor (wood timbers broken and contain rot)	Non-contributing
Maintenance Flammable Storage Shelter (After 1978)	Building - Raised wooden platform with asphalt shingle, gable roof. It has a work table and is used to store flammable materials.	Fair (wood beams are rotting)	Non-contributing
Paint and Storage Shed (493) (After 1978)	Building - Single story, asphalt shingle, side gable, concrete block building 15'x15' is painted brown. It has two doors and no windows. It is used for fuel storage.	Good	Non-contributing
Water System Building (478)	Building - White metal building on concrete foundation with one concrete step to door. Separate outbuilding is also metal with a wall vent.	Good	Non-contributing
Maintenance Storage Shelter (After 1978)	Building - Elevated wood framed storage building with asphalt shingle gable roof and roof vent. Building has one access door and no windows.	Good	Non-contributing

Buildings and Structures			
Feature	**Description**	**Condition**	**"Contributing / Non-Contributing"**
Fuel Area (After 1978)	Structure - Raised platform for fuel storage, associated with Maintenance Storage Building (HS-419A).	Poor (wood timbers broken and contain rot)	Non-contributing
Loading Dock (After 1978)	Structure- Raised wooden shelter 16'x12' has (3) wood steps.	Good	Non-contributing
Maintenance Pipe Storage Shelter (After 1978)	Structure- Raised wooden platform on concrete pedestal has asphalt shingle, gable roof. Side is open and used for pipe storage.	Good	Non-contributing
Maintenance Wash Station (After 1978)	Structure - Wood frame storage area with angled roof.	Good	Non-contributing
Maintenance Firehose Storage Building (After 1978)	Structure - Small wood framed firehose storage building, fuel tank storage, and fire hydrant.	Good	Non-contributing

Small Scale Features			
Feature	**Description**	**Condition**	**"Contributing / Non-Contributing"**
Maintenance Area Gate	Metal pole gate with boulders on both sides.	Good	Non-contributing
Dumpsters	(2) dumpsters located east of the parking area at the Maintenance Area entrance.	Good	Non-contributing



Figure 3-109. CCC remodel of Cabin #416 (HS-416), date unknown. (OZAR Archives)



Figure 3-110. Cabin #416 (HS-416). (Mundus Bishop 2015)



Figure 3-111. CCC remodel of Cabin #416 (HS-416), date unknown. (OZAR Archives)



Figure 3-112. Cabin #416 (HS-416). (Mundus Bishop 2015)



Figure 3-113. Maintenance Shop (HS-417), c. 1936. (OZAR Archives)



Figure 3-114. Maintenance Shop (HS-417). (Mundus Bishop 2015)



Figure 3-115. Maintenance Shop (HS-417). (Mundus Bishop 2015)



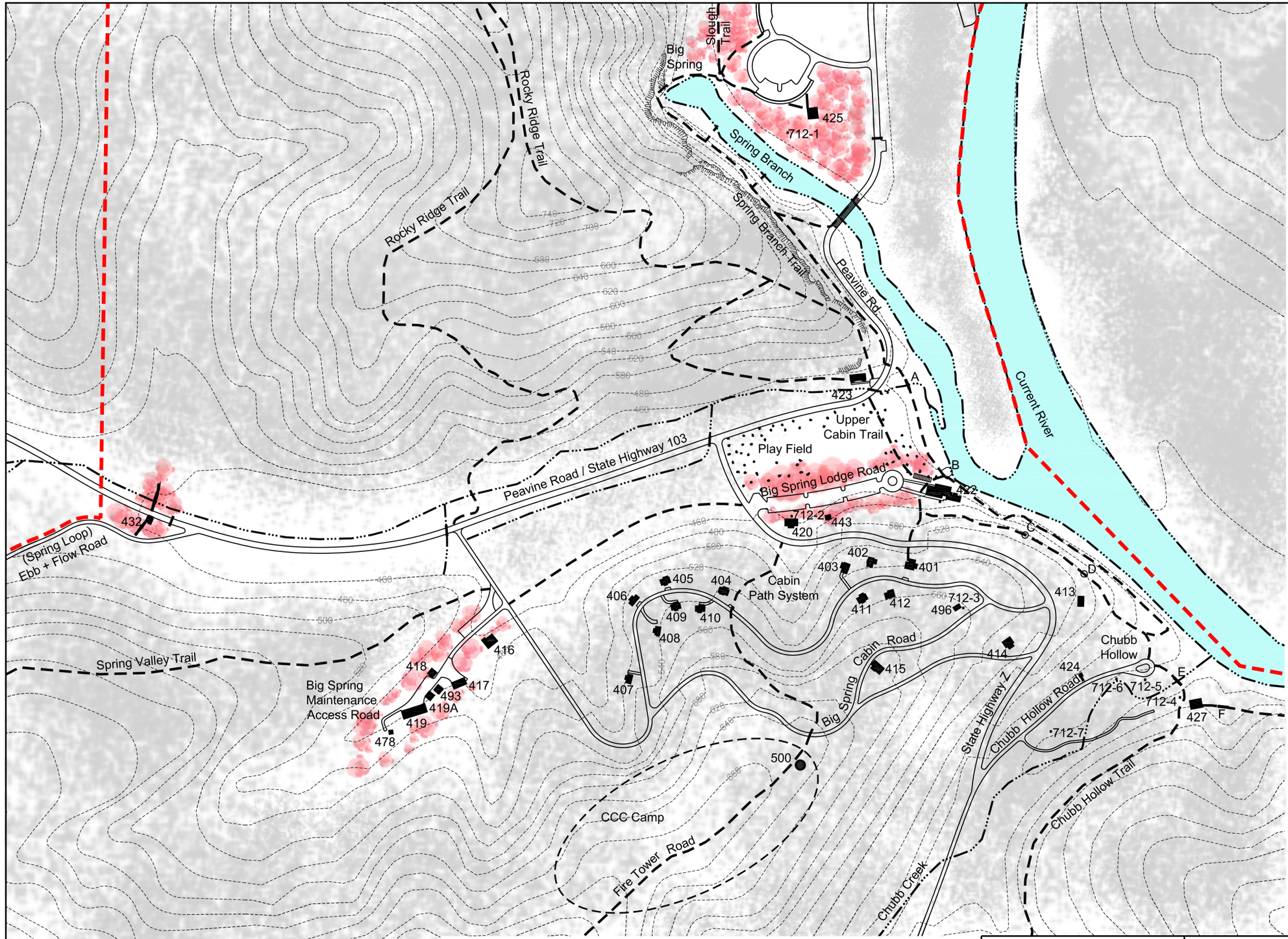
Figure 3-116. Maintenance Storage Building (HS-418). (Mundus Bishop 2015)



Figure 3-117. Maintenance Garage (HS-419), c. 1937. (OZAR Archives)



Figure 3-118. Maintenance Garage (HS-419). (Mundus Bishop 2015)



Legend

- Study Area
- Road
- Trail
- River
- Floodplain
- Building
- Culvert
- Bridge
- Cliff
- Dike
- Lawn
- Manicured Vegetation
- Forest

Buildings and Structures

401	Cabin #401
402	Cabin #402
403	Cabin #403
404	Cabin #404
405	Cabin #405
406	Cabin #406
407	Cabin #407
408	Cabin #408
409	Cabin #409
410	Cabin #410
411	Cabin #411
412	Cabin #412
413	Cabin #413
414	Cabin #414
415	Cabin #415
416	Lower Current District Maintenance Office / Cabin #416
417	Maintenance Shop
418	Maintenance Storage Building
419	Maintenance Garage
419A	Garage-Maintenence Storage
420	State Park Museum Building
422	Dining Lodge and Help's Quarters
423	Latrine
424	Chubb Hollow Vault Toilet
425	Big Spring Shelter
427	Chubb Hollow Open Shelter House
432	Entrance Building
443	Pump House
493	Paint & Storage Shed
478	Water System Building
496	Picnic Shelter
500	Water Tower
702	Fountains
A	Lodge Footbridge
B	Boat Dock
C	Overlook
D	Overlook
E	Chubb Hollow North Footbridge
F	Chubb Hollow South Footbridge

Sources:
1991 Roads and Trails Study, 2015 Big Spring Area Trails Map, Google Maps, Park GIS, FEMA Floodplain Maps, USGS Contour Data, HPSC0120.pdf, OZAR_614_41028B_[id212928].pdf, OZAR_614_41075_[id235384].pdf, OZAR_614_41094A_[id68873].pdf, OZAR_614_41954_[id165165].pdf,

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DECEMBER 2016

UNITED STATES
DEPARTMENT OF THE INTERIOR

BIG SPRING
HISTORIC DISTRICT

DWG # 614 132280

TITLE OF PROJECT
CULTURAL LANDSCAPE REPORT
AND ENVIRONMENTAL ASSESSMENT

TITLE OF DRAWING
EXISTING CONDITION - CORE DEVELOPMENT AREA

NAME OF PARK
BIG SPRING HISTORIC DISTRICT

Illustration 3-1.

REGION MIDWEST | COUNTY CARTER | STATE MISSOURI

Big Spring Landscape Character Area

Introduction

This landscape character area focuses on Big Spring and its immediate surroundings. One of the largest natural springs in the United States, Big Spring is the park's most important and well-known feature. The spring is surrounded by natural ridges and outcroppings on the west, and the Current River to the east. The Big Spring landscape character area extends from the vehicular bridge across Big Spring branch north to the northern limits of the early 20th century slough and the CCC built Big Spring Stone Dike (HS-711) system. Key characteristics include Big Spring, roads, trails, structures, recreational spaces, and plantings, many of which were built by the CCC in the 1930s.

The existing condition and analysis of Big Spring landscape character area describes natural systems, spatial organization, topography, views, constructed waterways, circulation, buildings and structures, and vegetation. A series of analysis diagrams illustrates the changes over time.

Natural Systems

The Big Spring landscape character area is adjacent to the wide alluvial plain of the Current River. Big Spring is the largest of hundreds of springs that empty into the river, supplying more than 60 percent of its water. As millions of gallons of water flow from the spring daily, they erode an estimated 173 tons of minerals, giving the water its unique indigo hue.[3.22]

Big Spring flows into Big Spring branch, which is approximately 2400 feet in length and 80 feet wide. In 1938 the CCC built the Big Spring Stone Dikes (HS-711) along the slough north of the Big Spring, which previously routed high water from the Current River into Big Spring branch. The construction of the Big Spring Stone Dikes eliminated most flows in the slough.

Analysis of Integrity

The natural systems of the Big Spring landscape character area, including Big Spring and Big Spring branch, remain similar to the period of significance. The natural systems retain integrity and contribute to the cultural landscape.

3.22 Jeffrey L. Imes, L. Niel Plummer, Michael J. Kleeschulte, and John G. Schumacher. "Recharge Area, Base-Flow and Quick-Flow Discharge Rates and Ages, and General Water Quality of Big Spring in Carter County, Missouri, 2000-04" *National Park Service.* Accessed May 2016. http://pubs.usgs.gov/sir/2007/5049/



Figure 3-119. View towards Big Spring from the parking area. (Mundus Bishop 2016)



Figure 3-120. Big Spring and cave at right. (Mundus Bishop 2015)



Figure 3-121. The playfield north of Big Spring was originally cleared for agricultural use in the late 1800s. This space established long views in the north south direction towards the Big Spring. (Mundus Bishop 2015)



Figure 3-122. Big Spring Pavilion and the playground are set in a park-like area with grass and shade trees, on a level plain above the river, at the base of a large hill to the west. (Mundus Bishop 2015)



Figure 3-123. Big Spring Pavilion and the parking area are set above and to the east of Big Spring, connected by a path. (Mundus Bishop 2015)

Spatial Organization / Topography / Views

The Big Spring landscape character area is situated within the valley floor of the Current River. The west edge is framed by the hillside above Big Spring and from the base of the hill a large open field extends from Big Spring branch on the south to Big Spring Stone Dike #3 (HS-711) on the north. This relatively level space was formerly an agricultural field, and today is primarily a playfield with the Big Spring Pavilion (HS-425) set at the southern edge.

This level plain above the river has been cleared of vegetation since agricultural and timbering practices began in the late 1800s. In 1939, the large tract north of Big Spring was added to the state park, allowing development of the former agricultural fields for recreational uses. By 1960, the field was established as a playfield defined by the road. This space established long views in the north south direction towards the Big Spring Pavilion (HS-425) and Big Spring from Peavine Road. Improvements in the 1989 modified the road and parking within the open field, but the spatial qualities remained the same.

Analysis of Integrity

The spatial organization / topography / views of Big Spring character area have remained similar to those of the period of significance. The basic character of a wide meadow at the base of a wooded hillside bounded by the Current River has remained unchanged. Vegetation encroaches into the field and the Big Spring Craft Cabin (458) placed at the center of the field obstructs the open view. The historic spatial qualities of the Big Spring character area remain from the period of significance, retain integrity, and contribute to the cultural landscape.



Figure 3-124. The Big Spring Stone Dikes (HS-711) were constructed of wood framing and rubble fill. They were also used as roads. Date unknown. (OZAR Archives)



Figure 3-125. Slough Trail over Big Spring Stone Dike (HS-711) #5. (Mundus Bishop 2015)

Constructed Waterways

Several flood control features including embankments and the Big Spring Stone Dikes (HS-711) were built between 1934 and 1937 by the CCC near Big Spring, the slough, within Big Spring branch and along the Current River to protect Big Spring and enhance its recreational uses.

The five Big Spring Stone Dikes (HS-711) were built in 1934 along the slough to protect Big Spring from flood waters. Of the five, Big Spring Stone Dikes #3 and #5 remain, the others have been damaged due to flooding. Both were built of wood framing and rubble fill. Big Spring Stone Dikes #5 (700' length) is an integral part of the Slough Trail and is used as a pedestrian crossing across the slough. Big Spring Stone Dikes #3 (600' length) is visible from the slough trail. The landforms associated with the other three Big Spring Stone Dikes remain, but they are difficult to discern.

Rock ledges, or stone abutments, were built as a revetment to control erosion along the west bank of Big Spring branch by the CCC. They were constructed at 13 sites on the west bank of Big Spring branch and extended beneath the bridge, and from the bridge to the Dining Lodge (HS-422). Another extended along the west edge of the Current River near the location of the non-extant swimming pool and bath house. Remnants of these embankments remain in places, however they are difficult to discern.

Analysis of Integrity

The constructed waterways have changed since the period of significance, with some features deteriorated due to flooding and other natural processes. Even with these changes, the Big Spring Stone Dikes (HS-711) and stone embankments retain integrity and contribute to the cultural landscape.



Figure 3-126. Big Spring Branch Vehicular Bridge, c. 1934-1937. (OZAR Archives) The bridge was primarily designed for pedestrian traffic, see original plans on page 2-29.



Figure 3-127. Big Spring Branch Vehicular Bridge. (Mundus Bishop 2015)

Circulation

The circulation system at Big Spring includes Peavine Road, Big Spring Picnic Area Loop, and the boat ramp parking area. Pedestrian routes include both paved and natural surfaces, and include routes connecting Big Spring to the parking area, and several trails. Many roads and trails follow historic routes that have evolved from natural surface roads and trails to the current paved roads.

Peavine Road (c. 1932) is the primary vehicular access to Big Spring and the boat ramp on the Current River. It connects the landscape character area to the core development area and the campground to the north. It follows the historic alignment of early county and farm roads that followed the river's edge. A small parking area, three spaces, is located near Big Spring branch.

Big Spring Picnic Area Loop (1989), provides vehicular access to parking for Big Spring, Big Spring Pavilion (HS-425), picnic areas, Slough Trail, restrooms and other recreational facilities. The road configuration was built by the NPS in 1989, replacing a rectangular parking area and return drive from the 1950s, built by Missouri State Parks after the property was acquired in 1939 and Big Spring Pavilion (HS-425) built in 1945. The 1989 construction modified the 1950s road to create the current loop drive, and the circular configuration of the Big Spring parking area. A second parking area is near the public restrooms.

Pedestrian circulation includes two trails—Big Spring Trail and Slough Trail, and a secondary paved route to the loop drive. Spring Branch Trail connects the parking area with Big Spring, and continues along the west bank of Big Spring branch. The trail has several different surfaces dependent on location. Between the parking area and Big Spring, the trail is primarily mortared flagstone paving, likely completed in the late 1960s or early 1970s. At Big Spring, the trail follows the water's edge, and passes under the cliff. South of Big Spring, along the west edge of Big Spring branch the trail is native stone laid flat as cobble paving. Mortared native stone steps occur where needed to climb or descend the trail. Three sets of steps lead from the trail down to the edge of Big Spring branch. In places the trail is retained by stone rubble walls. Spring Branch Trail was formalized by state parks in 1927, and further developed by the CCC in the 1930s with paving, walls and steps.

Rocky Ridge Trail is located on the western hillside above Big Spring. The trail was built by the CCC in 1935. From the Latrine (HS-423), the trail climbs the steep hillside, follows the ridge directly above Big Spring, and descends the hill to meet Slough Trail. The trail has many stone steps and small stone retaining walls.

Slough Trail extends from Big Spring to the north to where it crosses the slough on Big Spring Stone Dike #5 (HS-711) and follows a historic road alignment for approximately ½ mile where it connects to Peavine Road.

Analysis of Integrity

Vehicular circulation in the Big Spring character area has been altered since the period of significance. The 1989 reconfiguration of the road and parking area modified the vehicular routes and are non-contributing features. Pedestrian circulation remains similar to the period of significance including the trails built by state parks and the CCC. Although the mortared flagstone walk and retaining wall along Spring Branch Trail modified the surface condition, this trail retains integrity. The trail is in fair to good condition, and includes sections in need of stabilization including the rubble walls near Big Spring. Rocky Ridge Trail and Slough Trail retain integrity and are contributing features.

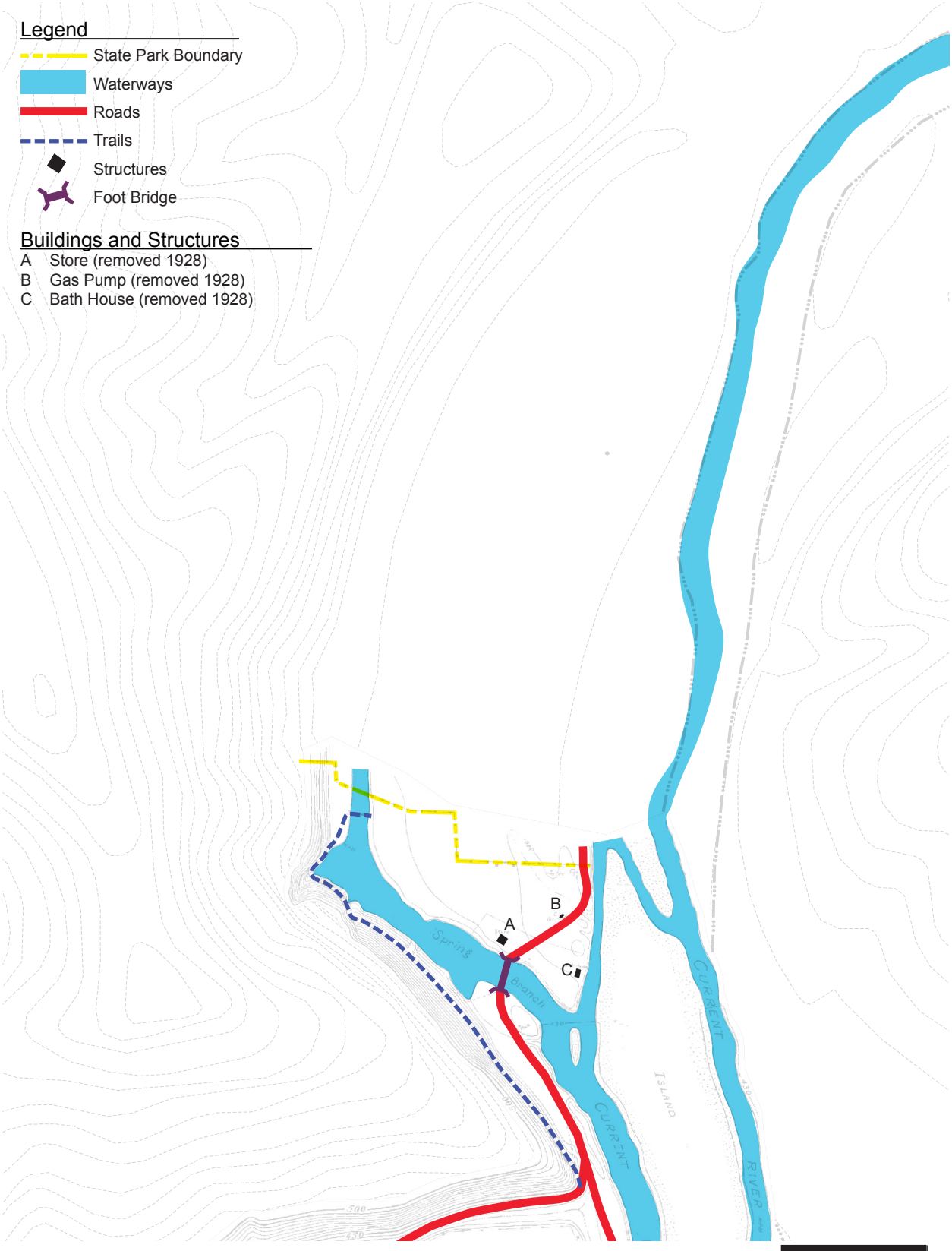


Figure 3-128. Big Spring, 1927. Existing Roads, Trails, Buildings, and Structures. (Mundus Bishop 2016, HPSC0108.pdf)

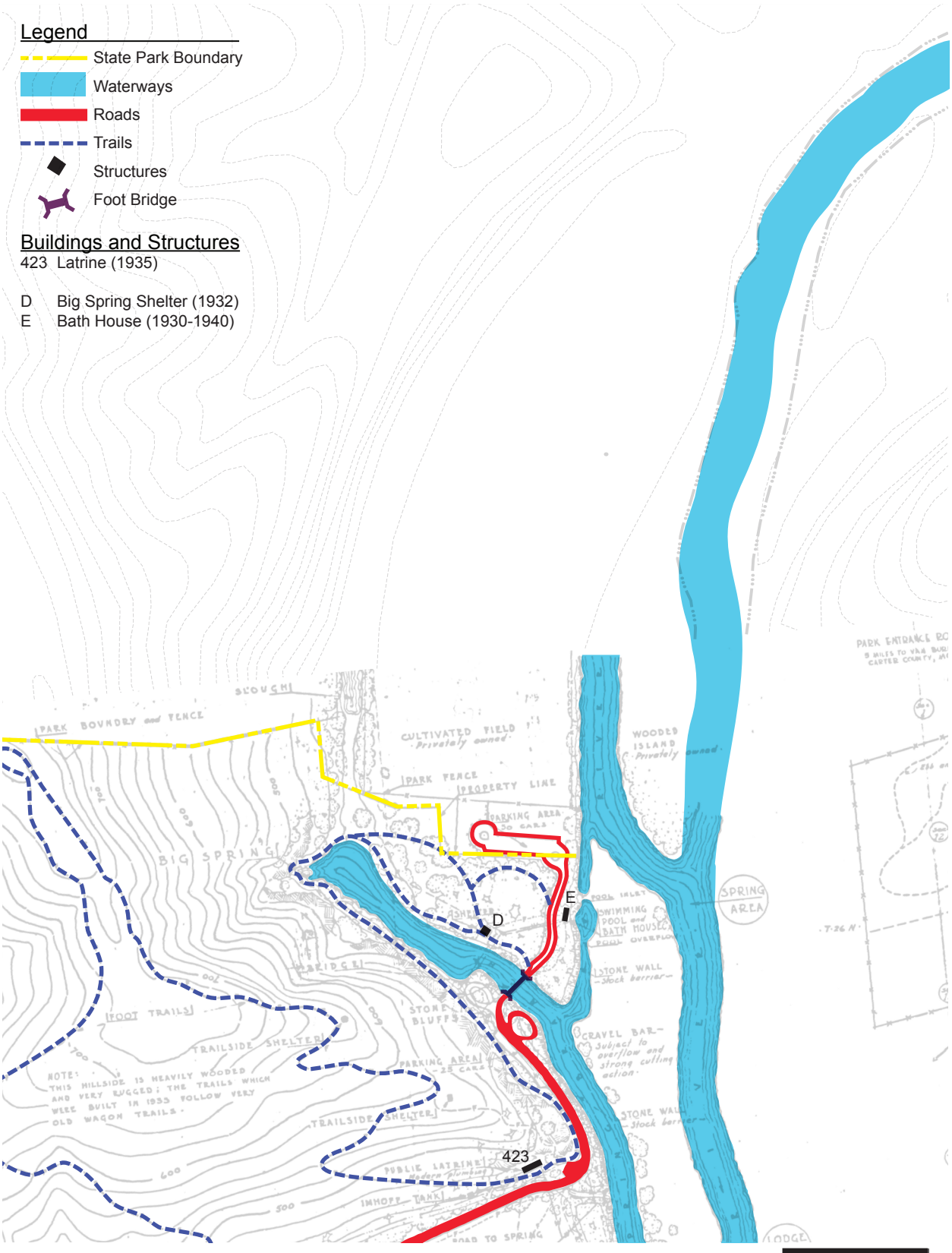


Figure 3-129. Big Spring, 1933. Existing Roads, Trails, Buildings, and Structures. (Mundus Bishop 2016, OZAR_614_41910_[id55311].pdf)

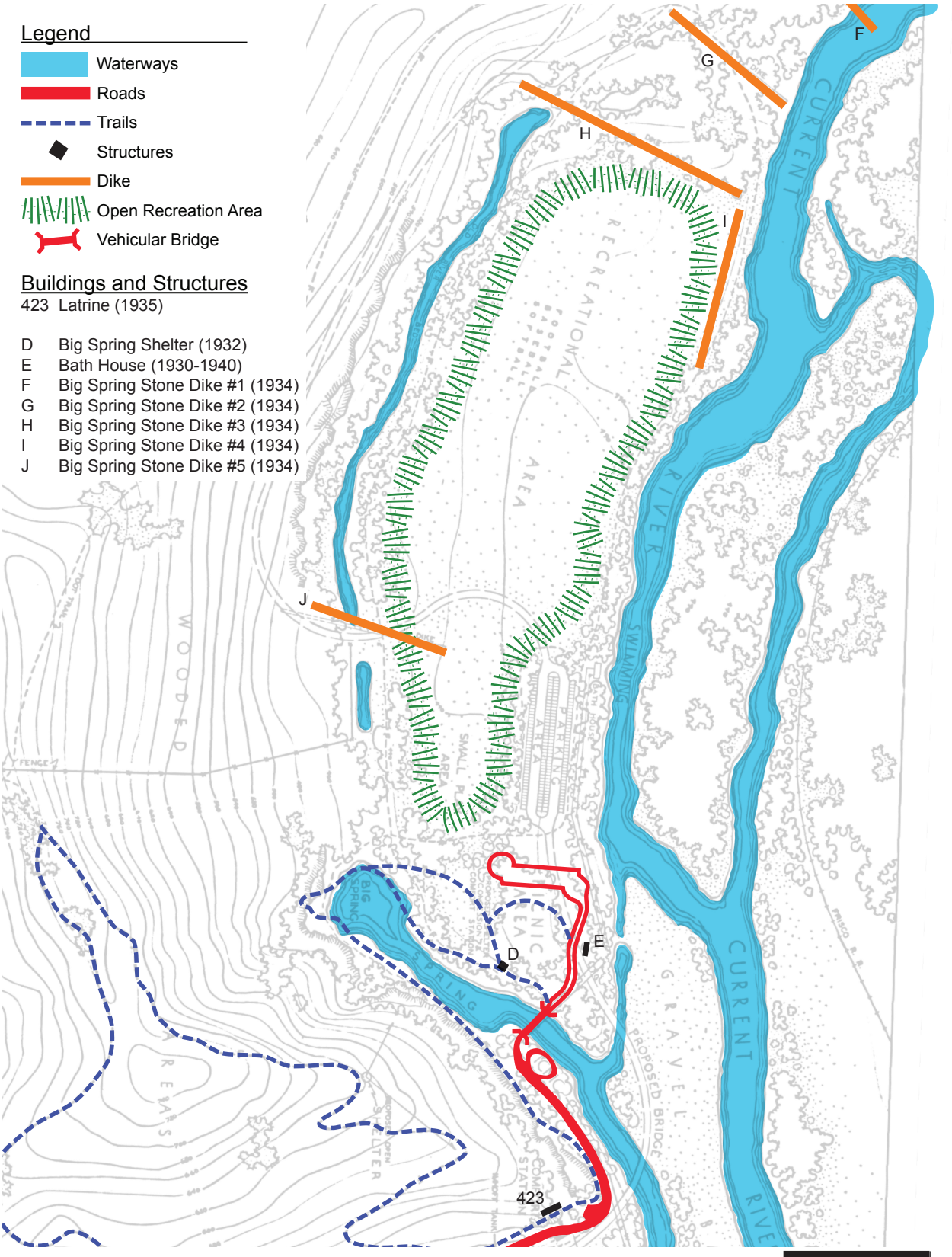


Figure 3-130. Big Spring, 1940. Existing Roads, Trails, Buildings, and Structures. (Mundus Bishop 2016, OZAR_614_41965_[id140587].pdf)

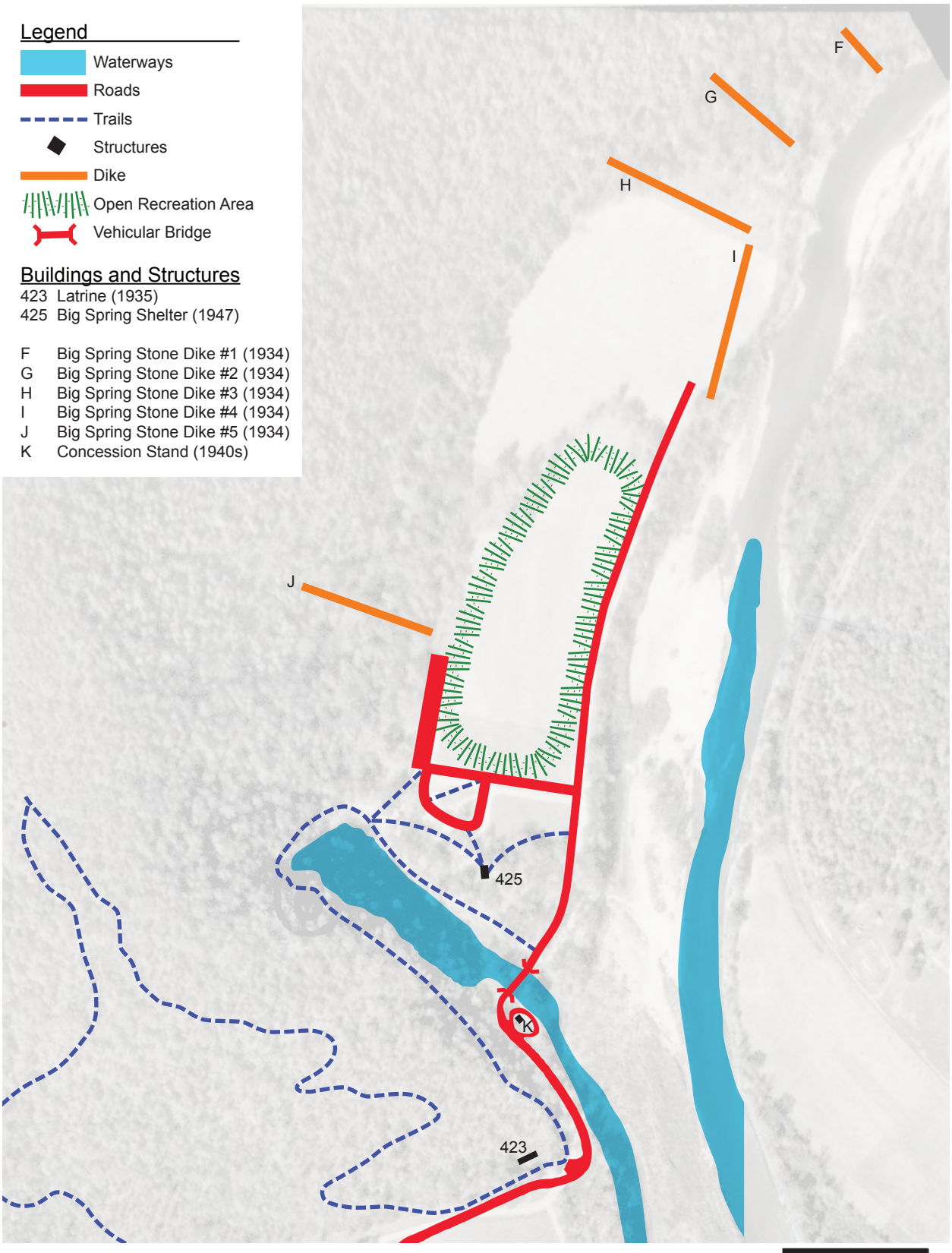


Figure 3-131. Big Spring, 1955. Existing Roads, Trails, Buildings, and Structures. (Mundus Bishop 2016, HPSC0097.pdf)

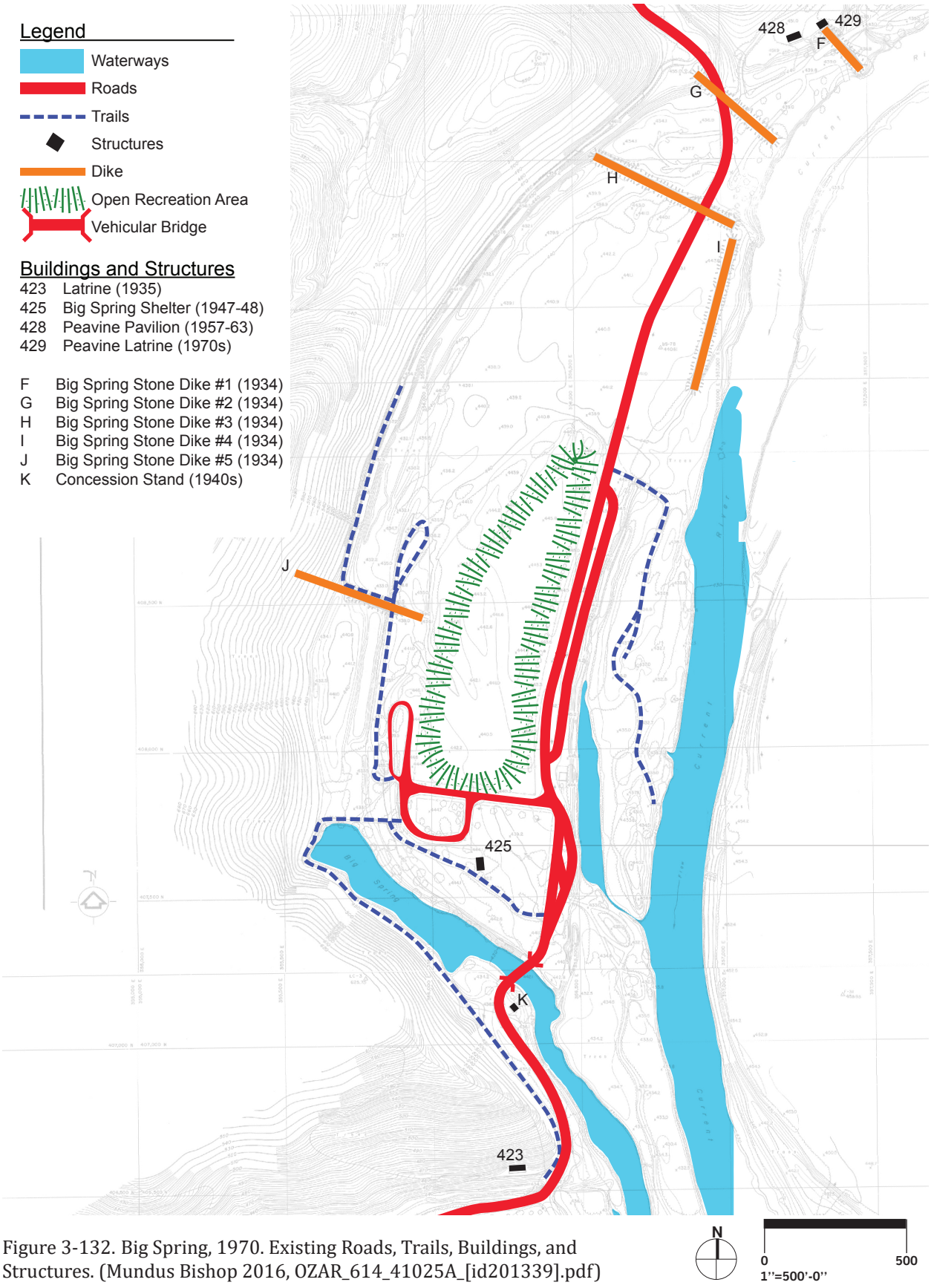


Figure 3-132. Big Spring, 1970. Existing Roads, Trails, Buildings, and Structures. (Mundus Bishop 2016, OZAR_614_41025A_[id201339].pdf)

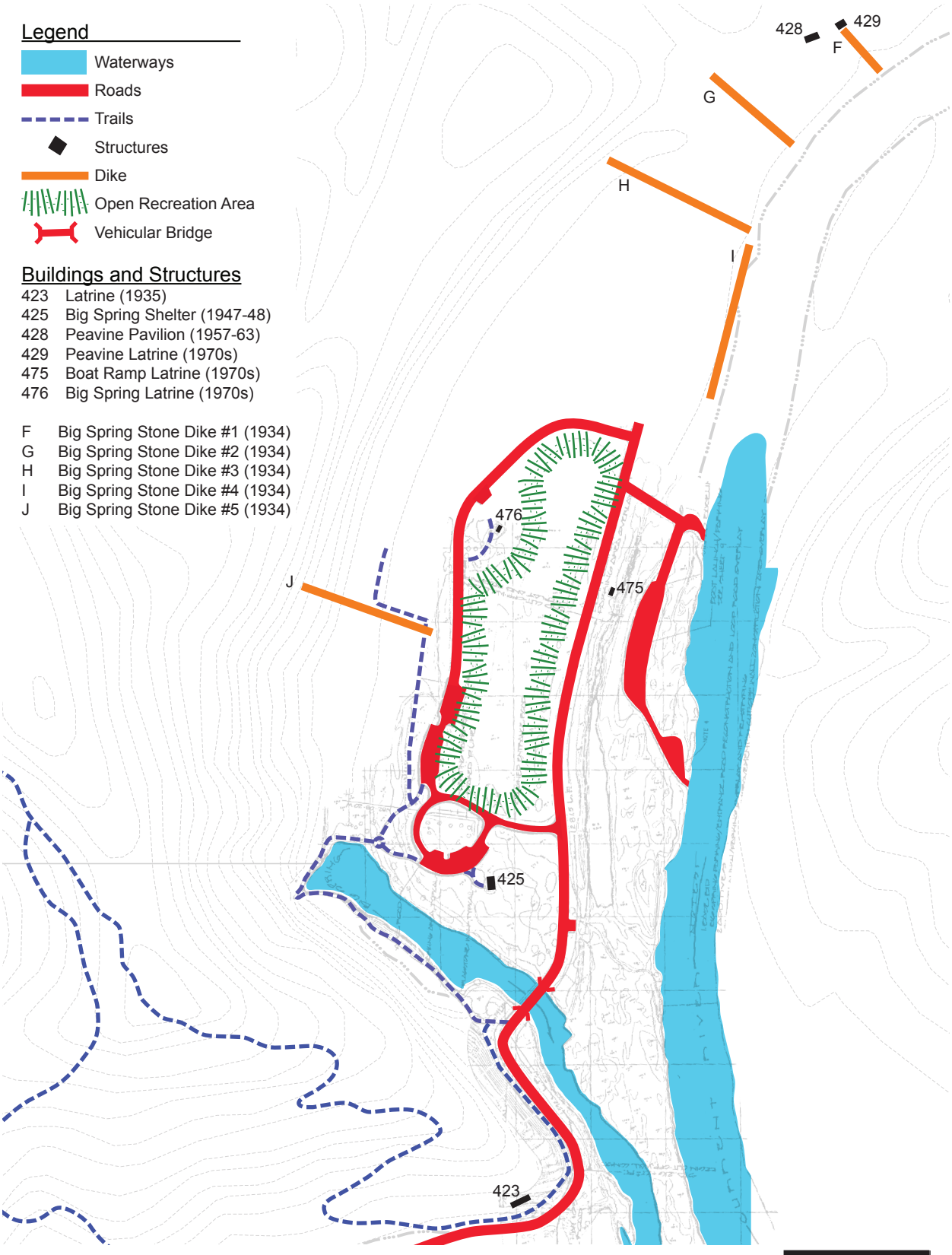


Figure 3-133. Big Spring, 1989. Existing Roads, Trails, Buildings, and Structures. (Mundus Bishop 2016, OZAR_614_41096A_[id204113].pdf)



Figure 3-134. Big Spring Branch Vehicular Bridge, note diagonal struts, Circa 1940. (OZAR Archives)



Figure 3-135. Big Spring Branch Vehicular Bridge. (Mundus Bishop 2015)



Figure 3-136. The trail to the spring was originally an unimproved dirt path. Stone abutments can be seen at the edge of the water, at right. Date unknown. (OZAR Archives)



Figure 3-137. The trail to the spring from the parking area has been modified since the period of significance with new stone surfacing and retaining walls. (Mundus Bishop 2016)



Figure 3-138. The CCC built a trail at the edge of the bluff, stabilized by native cut stone. Date unknown. (OZAR Archives)



Figure 3-139. The CCC-designed trail remains in its original alignment, however their stone work is difficult to discern. (Mundus Bishop 2016)



Figure 3-140. Trail at the spring, date unknown. (OZAR Archives)



Figure 3-141. The trail at the spring has been washed out in places, and is in fair condition. (Mundus Bishop 2016)



Figure 3-142. Big Spring Pavilion (HS-425). (Mundus Bishop 2015)



Figure 3-143. Big Spring Craft Cabin (458) center, and Big Spring Latrine (476) at right. (Mundus Bishop 2015)

Buildings and Structures

Buildings and structures in the Big Spring character area include Big Spring Branch Vehicular Bridge, Big Spring Pavilion (HS-425), two restroom buildings, and the Big Spring Craft Cabin (458).

Big Spring Branch Vehicular Bridge was built by the NPS in 1977, replacing a circa 1940 WPA bridge. The 1977 construction revised the alignment of the bridge across Big Spring branch, and required the removal of the Concession Stand (1935) built by the CCC. The 1969 bridge replaced the footbridge built by the CCC in 1939. The stone and wood concession building was formerly located south of the bridge on the west side of Big Spring branch. The bridges have been vulnerable to damage from flood waters since the early 1920s.

Big Spring Pavilion (HS-425) was built by Missouri State Parks around 1947. Two contemporary latrine buildings are located within the landscape character area. These recently built prefabricated concrete structures replaced deteriorated structures, originally installed by the NPS between 1970 and 1975. "The Big Spring Craft Cabin was designed by Charles Lessig and constructed by the NPS in 1972. It was originally designed as an open-fronted speaker's platform for the OZAR dedication ceremony next to Big Spring. Following structural alterations, it has since been used to interpret historic Ozark farmstead life. First moved to an area near the Peavine Pavilion, it was later relocated to its current location in the field north of the spring in 2004, following a damaging flood event."[3.23]

Analysis of Integrity

Buildings and structures within the Big Spring landscape character area changed during the period of significance, and were modified after its end. Features associated with the initial state park development of the 1920s, including a store, boat house, latrines, and gas station were removed prior to the CCC work (pre-1928). Big Spring Pavilion (HS-425) was added in the 1940s. It remains in its original location, and contributes to the cultural landscape. The 1940 WPA bridge was replaced by the 1977 vehicular bridges. The existing bridge is a non-contributing feature, and is scheduled for replacement. The Big Spring Craft Cabin (458) and the restrooms are non-contributing features.

3.23 *2016 CLI, 81.*



Figure 3-144. The stone interpretive pedestal at left, circa 1970s, is still in use with its contemporary interpretive panel. Interpretive panels, at right, occur throughout the area. The low stone wall and flagstone walk were added circa 1970. (Mundus Bishop 2015)

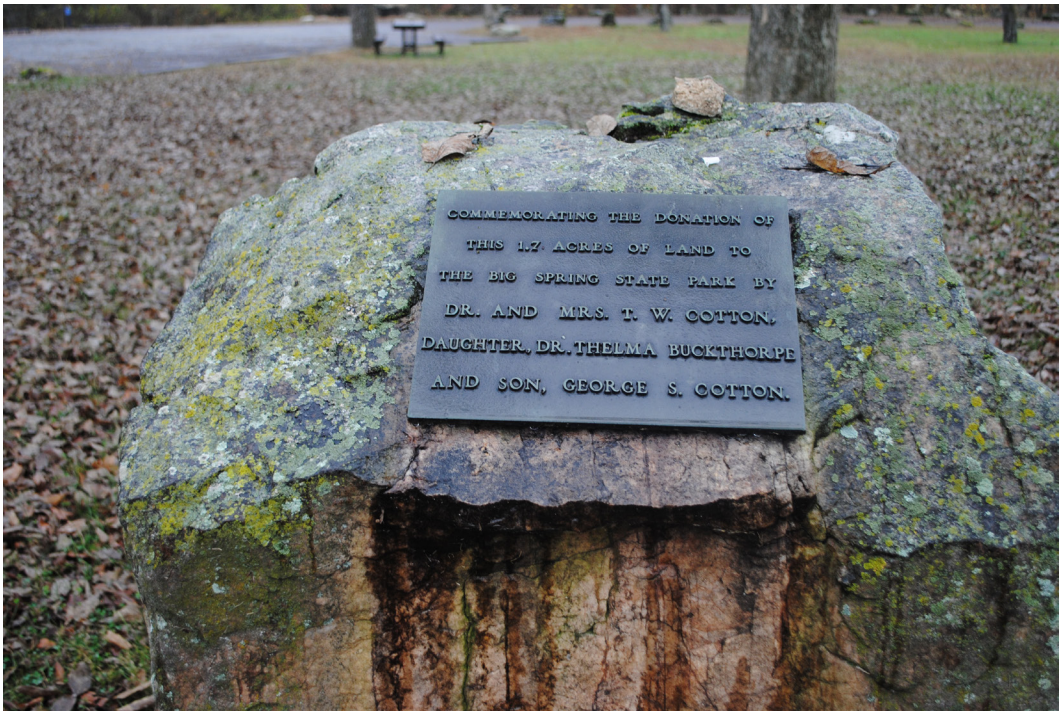


Figure 3-145. The Cotton Plaque (HS-472) honors the donation of land by the Dr. T. W. Cotton family. (Mundus Bishop 2015)

Small Scale Features

Small scale features include the CCC-built stone drinking Fountain #1 (HS-712), of similar construction to others in the study area. It marks the location of the non-extant CCC-built stone shelter that was removed and replaced with the existing Big Spring Pavilion (HS-425). The Cotton Plaque (HS-472), a large boulder with a commemorative plaque, is located within the circular parking area. It notes the Dr. T. W. Cotton family's donation of 1.7 acres of land to 'Big Spring State Park.'

Features associated with CCC construction include the boulders used to edge walkways and the parking area. After 1950, stone walls and stone pedestals for interpretive panels were installed with the repaving of the section of Spring Branch Trail from the parking area to Big Spring.

Contemporary small scale features include signs, picnic tables, kiosks, benches, boulders, memorials, drinking fountains, trail markers, interpretive exhibits, and stone paving. Most were installed during or after the parking and road reconfiguration in 1989, and are contemporary NPS standards. These later additions and contemporary features are non-contributing.

Analysis of Integrity

Features associated with state parks and the CCC, built or modified during the period of significance, contribute to the cultural landscape. These include the stone drinking Fountain #1 (HS-712), commemorative marker, boulder edges, stone abutments, and pedestals for interpretive panels. The stone abutments along Big Spring branch have been modified since the period of significance due to flooding and repaving of the Spring Branch Trail. Few modifications have been made to other features since the period of significance and they retain integrity.



Figure 3-146. Stone drinking Fountain #1 (HS-712) near the Big Spring Pavilion (HS-425). (Mundus Bishop 2015)



Figure 3-147. The playground equipment dates from the 1960s, and while in good condition, it does not meet contemporary safety standards. (Mundus Bishop 2015)



Figure 3-148. The vegetation in the Big Spring character area includes riparian shrubs along the bank of Big Spring branch. Historically, the CCC had cleared much of this vegetation to provide a view of the water from the trail. (Mundus Bishop 2016)



Figure 3-149. Big Spring has a park-like setting, characterized by a maintained lawn with groupings of mature shade trees. (Mundus Bishop 2015)



Figure 3-150. A single row of maples lines Peavine Road on the eastern edge of the field. (Mundus Bishop 2015)

Vegetation

The Big Spring character area vegetation consists of the dense forest of oaks and hickory on the steep hillsides, the vegetation associated with the Current River and Big Spring branch, and plantings associated with the developed spaces associated with the playfield and Big Spring Pavilion (HS-425).

The playfield is a large open space with mown grasses and tree groupings on the south, and a formal line of maples planted along Peavine Road. These trees were planted in the late 1970s.[3.24] The long, single row of maple trees line the open play field and define its eastern edge.

The area around Big Spring Pavilion (HS-425), near Big Spring branch has a park-like setting, characterized by a maintained lawn with groupings of mature shade trees. This area has been used as a park setting since the 1920s, and remains so today. It is likely that the large shade trees are remnants of the previously forested area, that have been maintained over the years.

Analysis of Integrity

The vegetation has changed since the period of significance, with additional trees encroaching into the large open field. The vegetation around the spring and Big Spring Pavilion remain similar to the historic vegetation patterns. Overall, the vegetation patterns retain integrity and contribute to the cultural landscape.

3.24 Park Staff

Matrix 3-10. Big Spring Character Area

NATURAL SYSTEMS			
Feature	**Description**	**Condition**	**"Contributing / Non-Contributing"**
Big Spring		Good	Contributing
Small Spring		Good	Contributing

SPATIAL ORGANIZATION / TOPOGRAPHY / VIEWS			
Feature	**Description**	**Condition**	**"Contributing / Non-Contributing"**
Playfield	The playfield is a large flat area of mown grasses. The field is the largest open space in the Big Spring Historic District and one of the few areas of 'long views'. This playfield area is a large alluvial flood plain that was previously farmed before being added to the park in 1939.	Good	Contributing

CIRCULATION			
Vehicular Circulation			
Feature	**Description**	**Condition**	**"Contributing / Non-Contributing"**
Peavine Road (1920s)	Two-lane, 24' wide asphalt paved road follows the eastern edge of the playfield.	Good	Contributing
Big Spring Picnic Area Loop (1989-1990)	Two-lane, 24' wide asphalt paved road. Portions of the parking areas have large boulders placed to contain traffic, and flush native stone paving delineating parking spaces. The road provides access to the trailhead, picnic area, and Big Spring Latrine Parking, and then returns to Peavine Road.	Good	"Non-contributing Compatible"
Big Spring Parking (1989-1990)	20 standard parking spaces, 1 accessible parking space	Good	"Non-contributing Compatible"
Slough Trail Parking (1989-1990)	16 standard parking spaces, 2 accessible parking spaces, 4 RV parking spaces	Good	Non-contributing
Playfield Parking (1989-1990)	12 standard parking spaces, 4 RV parking spaces	Good	Non-contributing
Big Spring Latrine Parking	4 accessible parking spaces	Good	Non-contributing
Boat Ramp and Parking (1974)	Boat ramp and parking area is adjacent to the Current River. The concrete ramp and asphalt paved parking area are located adjacent to the river and buffered from Peavine Road by forest vegetation.	Good	Non-contributing

Pedestrian Circulation			
Feature	**Description**	**Condition**	**"Contributing / Non-Contributing"**
Slough Trail (1999-2000)	8' to 10' wide natural surface trail is .58 miles in length. It extends from Big Spring north along the two extant Big Spring Stone Dikes #3 and #5 (HS-711). A portion of the trail is mortared stone and is in good condition. The portion of the path on Big Spring Stone Dike #5 is stone rubble and soil; it is in fair condition. The portion of the path between Big Spring Stone Dikes #5 and #3 is located in a clearing that is likely an old road bed or buried utility corridor. Along Big Spring Stone Dike #3, the path is rubble embankment and is in fair condition.	Good	Non-Contributing
Spring Branch Trail (1927)	Leads from the parking area to Big Spring, where it continues along the west bank of Big Spring branch, ultimately connecting to the Dining Lodge (HS-422) to the south. The trail is composed of several different surfacing types.	Good	Contributing
Spring Branch Trail - Parking Lot to Interpretive Circle (1989)	This portion of the trail is mortared flagstone paving.	Good	Non-Contributing
Spring Branch Trail - Interpretive Circle to Big Spring (1960s-1970s)	This section of trail is 7' wide, mortared flagstone paving with a mortared native stone edge, retaining walls, and guard walls. The mortared flagstone paving ends just east of Big Spring.	Good	Non-Contributing
Spring Branch Trail - Spring to Bridge (1940s)	From the Big Spring south along the west side of Big Spring branch the trail consists of native stone laid flat in a cobble paving and mortared native stone steps where needed to climb or descend on the trail and three sets of steps that lead from the trail down to the water edge. In places the trail is retained by stone rubble walls. The Big Spring Trail follows the water edge and passes under steep limestone cliffs.	Fair	Contributing
Spring Branch Trail - Big Spring Overlook (1960s-1970s)	Adjacent to the mouth of Big Spring is a small flagstone pad with mortared stone walls for seating and safety. This is the terminus of the accessible Big Spring Trail. Areas at the base of the retaining wall along the water edge have eroded and threaten the stability of the wall.	Fair	"Non - Contributing Compatible"
Steps near Big Spring (1938)	Native stone placed in naturalistic style.	Good	Contributing
Stone Retaining Wall (1938)	Native stone, dry laid Rustic style wall used to support trail and steps above. Occurs several places along the Big Spring Trail, west side of Big Spring.	Fair	Contributing
Steps to Small Spring (1938)	Native stone steps, 18" wide, leading from trail down to the Small Spring. Steps have been repaired in places with concrete.	Poor	Contributing
Stone Step to Gauging Station (1938)	Native stone steps, 18" wide, leading from trail down to gauging station. Steps have been repaired in places with concrete.	Fair	Contributing

Pedestrian Circulation			
Feature	**Description**	**Condition**	**"Contributing / Non-Contributing"**
Stone Steps to Road (1938)	Native stone mortared steps, 4' to 8' wide, connecting Spring Branch Trail to Peavine Road / Big Spring Branch Vehicular Bridge .	Good	Contributing
Rocky Ridge Trail (1927, 1933, post-1957)	The trail begins at the Latrine (HS-423) and climbs a steep hill, following the ridge directly above Big Spring before descending down the hill to meet the Slough Trail. The trail has many stone steps and small native stone rubble retaining walls. Portions of the trail follow historic wagon road alignments.	Good	Contributing
Stone Paving at Parking Areas (1989)	Mortared stone paving band outlining parking spaces	Good	Non-contributing
Flagstone Trail - Parking Lot to Interpretive Circle (1989)	Mortared flagstone paving, 7' wide leading from parking areas down to interpretive circle.	Good	Non-contributing
Flagstone Trail- Interpretive Circle to the Big Spring (after 1950)	Mortared flagstone paving, 7' wide leading from interpretive circle to Big Spring. The first leg of the trail has a mortared stone edge along the water edge, the second portion of the trail has mortared stone retaining walls along each side of the trail. A mortared stone interpretive pedestal is located at the 'elbow' of the trail.	Good	Contributing

CONSTRUCTED WATERWAYS			
Feature	**Description**	**Condition**	**"Contributing / Non-Contributing"**
Big Spring Stone Dike #1 (HS-711) (1934)	Built by CCC labor using NPS funds on private property directly northeast of Big Spring. Big Spring Stone Dike #1 is northernmost dike.	N/A	Non-extant
Big Spring Stone Dike #2 (HS-711) (1934)	Built by CCC labor using NPS funds on private property directly northeast of Big Spring. Big Spring Stone Dikes #2 is directly south of Big Spring Stone Dikes #1.	N/A	Non-extant
Big Spring Stone Dike #3 - North (HS-711) (1934)	Built by the CCC, one of two remaining Big Spring Stone Dikes, built of native rocks piled around oak pilings and laid at a right angle to the course of the Current River. Big Spring Stone Dikes #3 is 600’ long. Five Big Spring Stone Dikes were originally built, but only two remain.	Good	Contributing
Big Spring Stone Dike #4 (HS-711) (1934)	Built by CCC labor using NPS funds on private property directly northeast of Big Spring.	N/A	Non-extant
Big Spring Stone Dike #5 - South (HS-711) (1934)	Built by the CCC, one of two remaining Big Spring Stone Dikes (originally five), built of native rocks piled around oak pilings and laid at a right angle to the course of the Current River. Big Spring Stone Dike #5 is 700’ long.	Good	Contributing

CONSTRUCTED WATERWAYS			
Feature	**Description**	**Condition**	**"Contributing / Non-Contributing"**
Stone Abutments (1934-1936)	Built as a revetment and noted as stone wall on CCC drawing, stone wall extends all along west side of Big Spring branch from the bridge to the dining lodge, and along the west edge of the Current River north of Big Spring branch (near location of non-extant swimming pool and bath house). Consists of large cut-stones dry laid against the sides of Big Spring branch; stone ledges are set into the banks in long continuous courses with tight joints.	Poor	Contributing

BUILDINGS AND STRUCTURES			
Feature	**Description**	**Condition**	**"Contributing / Non-Contributing"**
"Big Spring Pavilion (HS-425) (1947)"	Big Spring Pavilion was built in 1947. It is a 41'-6"x21'-6" one-room, open-sided picnic shelter with a wood shingled hip roof supported by square wood columns. A brick oven and fireplace are located at the center of the north wall and the floor is poured concrete.	Fair	Contributing
Big Spring Craft Cabin (458) (1972)	Wood construction, rustic cabin.	Fair	Non-contributing
Big Spring Latrine (476) (2010)	New prefabricated, precast concrete restrooms. Replacing restrooms originally established in 1977.	Good	Non-contributing
Boat Ramp Latrine (2010)	New prefabricated, precast concrete restrooms. Replacing restrooms originally established in 1977.	Good	Non-contributing
Big Spring Branch Vehicular Bridge (1977)	Wood timber construction vehicle bridge with asphalt paved drive lanes and 5' wide wood decking walkway on north side.	Good	"Non-contributing Compatible"

SMALL SCALE FEATURES			
Feature	**Description**	**Condition**	**"Contributing / Non-Contributing"**
Fountain #1 (HS-712) (1934-1937)	CCC built drinking fountains are rough cut stones of a heavy design in the Rustic style, each with a stone step attached and a concrete basin set on a stone pad. Fountain #1 is near the Big Spring Pavilion (HS-425).	Good	Contributing
Cotton Plaque (HS-472)	Large native stone boulder with bronze plaque, reads as follows: 'COMMEMORATING THE DONATION OF THIS 1.7 ACRES OF LAND TO THE BIG SPRING STATE PARK BY DR. AND MRS. T.W. COTTON, DAUGHTER, DR. THELMA BUCKTHORPE AND SON, GEORGE S. COTTON'	Good	Contributing
Boulder Edge (c 1940s)	Mortared, native stone boulder edge along water edge, behind interpretive circle.	Good	Contributing

SMALL SCALE FEATURES			
Feature	**Description**	**Condition**	**"Contributing / Non-Contributing"**
Stone Wall (after 1950)	Mortared native stone retaining wall and guard rail wall, with flat stone cap, Rustic style. Height of walls vary from 12'' to 36". Drain blockouts allow storm water to flow off of trail into Big Spring. Areas along the water side of the wall are being undermined by erosion.	Fair	Contributing
Stone Interpretive Pedestal (after 1950)	Small, mortared native stone interpretive pedestal, with sloping top. Contemporary interpretive panel mounted to top of pedestal. Size is approximately 48" x 28" x 12'-18". There are two identical pedestals, one located at 'circle' area of Big Spring Trail and one located at 'elbow' of Big Spring Trail.	Good	Contributing
Kiosk (1989)	NPS style wood information kiosk	Good	Non-contributing
Wood Parking Barriers (1989)	NPS style wood parking barriers	Good	Non-contributing
Boulders (1989)	Large native stone boulders delineate the edge of the parking area.	Good	Non-contributing
Play Equipment (1960s)	Galvanized play equipment - slides, swings and jungle gym	Fair	Non-contributing
Metal Benches	6' metal park benches with back	Good	Non-contributing
Metal Picnic Tables	6' metal park picnic tables	Good	Non-contributing
Trash Receptacles	Metal trash receptacles	Good	Non-contributing
Barbecue Grills	Steel, pedestal barbecue grills	Good	Non-contributing
Traffic / Parking Signage	Standard traffic signage	Good	Non-contributing
Transformers		Good	Non-contributing
USGS Gauge Transmitter	Transmitter pole, located north side of Big Spring branch, downstream from bridge	Good	Non-contributing

VEGETATION			
Feature	**Description**	**Condition**	**"Contributing / Non-Contributing"**
Maple Trees (c 1970)	Single row of maple trees planted 20'-25' on center, 30' off edge of road, lining the playfield area, and defining the eastern edge of the playfield.	Good	Non-contributing

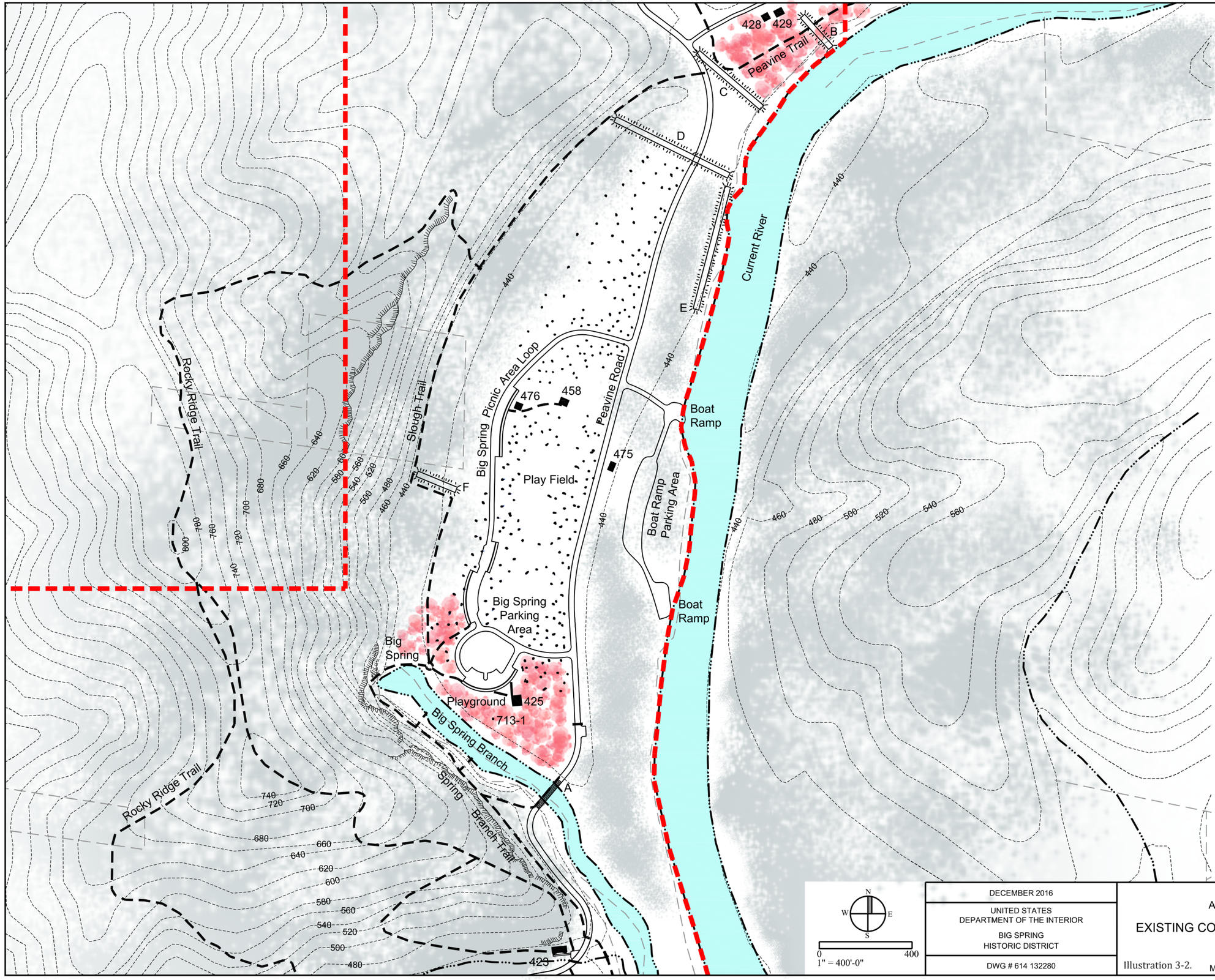


Illustration 3-2.

Affected Environment

This section provides an overview of the environmental context and natural systems of the study area. This section describes resources potentially affected by the alternatives. It is organized by impact topics that were derived from NPS internal scoping and external public scoping.

Cultural Resources – Cultural Landscapes and Archeological Sites

Cultural Landscapes

The Big Spring Historic District is part of the OZAR and was listed on the NRHP in 1981. A cultural landscape inventory was first completed in 1999,[3.25] updated in 2009,[3.26] and then recently updated in 2016 (currently in draft form).[3.27] The 1999 and 2009 inventories recorded the cultural landscape period of significance from 1925, when the Big Spring State Park was created, to 1950, when the last contributing structure was built (the May / Winters Quarters (HS-444)).[3.28] The 2016 inventory extends the period of significance to 1924-1969, in order to more holistically address the continuum of development that began with Big Spring State Park's establishment and occurred throughout the duration of state ownership.[3.29]

The Missouri State Park system was established in 1919 and Big Spring State Park was one of the initial eight parks created in 1924. It was the largest state park at the time, consisting of 4,416 acres.[3.30] By 1928, the state had built a store, filling station, and two campgrounds. From 1928 to 1932, three side gable cabins, park keeper's house, concession stand, shelter house, zoo, and vehicle and foot bridges had been added.

Like many Midwest states, Missouri was deeply affected by the Great Depression of the 1930s. The CCC (originally the Emergency Conservation Work Program) and the WPA were established by the early to mid-1930s in response to severe unemployment and poverty during the Great Depression. This program was designed to put the unemployed to work and their responsibilities included reforesting public lands; building roads, trails, and bridges; and building in-state and national parks and other public lands across the country.[3.31] Big Spring State Park was established in 1924 by the Missouri State Park Board. The NPS established a CCC camp at Big Spring State Park in 1933. CCC workers at Big Spring State Park were responsible for construction of 12 miles of road throughout the park and the flood-controlling Big Spring Stone Dike (HS-711) system, Latrine (HS-423), Picnic Shelter (HS-496), Fire Tower / Lookout Tower (HS-1404), several cabins, garage, and custodian's home. In 1936, a Dining Lodge (HS-422), walled Entrance Building (HS-432), and parking areas were added. The Big Spring State Park architecture and surrounding landscape is a good example of CCC Rustic style and Naturalistic style.

At least sixty structures or features contribute to the eligibility of the Big Spring Historic District. Any maintenance or construction activities have the potential to impact individual structures or features or the Big Spring Historic District as a whole.

Archeology

The earliest evidence for human occupation of the Big Spring Historic District is

3.25 *CLI,* 1999.
3.26 *CLI*, 2009.
3.27 *CLI*, 2016.
3.28 *CLI,* 2009.
3.29 *CLI,* 2016.
3.30 *CLI,* 2016.
3.31 *Griffen and Gray,* 2012.

represented by Dalton serrated and lanceolate projectile points. The Dalton occupation is considered a transition period between the big game hunters of the early Paleoindian period and the more generalized forager groups common during the Archaic period. Dalton components have been found at two sites near Big Spring.

Dating approximately from 7000 to 1000 BC, the Archaic period is characterized by broad spectrum hunting and gathering reflected in the marked increase in the use of ground stone technology, the proliferation of projectile point styles, and use of the atlatl.[3.32] Sites with Archaic components have been recorded within the Big Spring Historic District.

The Woodland period (1000 BCE to 900 CE) is characterized by horticultural subsistence strategies, increasing sedentism, the introduction of ceramic technology, burial mound construction, and long-distance exchange networks. Early Woodland sites are difficult to differentiate from Late Archaic sites unless ceramics are present. Early Woodland ceramics have been found at sites in Carter County and in private collections from the Current River basin.[3.33] The Middle Woodland is characterized by increasing population, reliance on both wild and domesticated plant foods, and increasing social stratification. Interregional exchange networks developed during this period, namely the Hopewell culture, although there is little evidence that groups in the Current River valley participated in the Hopewell exchange system. Evidence suggests instead that these groups had localized exchange networks. The Late Woodland is defined by the disappearance of Hopewell artifacts and the beginning of shell-tempered ceramics.[3.34]

The Mississippian period (900 CE to 1700 CE) is characterized by increasingly complex and socially stratified communities dependent on corn agriculture, extensive exchange networks, and control of resources for ritual purposes. Sites tended to be of variable size with large regional centers surrounded by farmsteads that were in turn surrounded by special activity sites. Many of the large settlements were surrounded by fortifications and had platform mounds. Archaeological remains in the region surrounding the Big Spring Historic District primarily consist of small artifact scatters and isolated projectile points and ceramics, suggesting the area was used for short-term occupations. Between AD 1250 and 1300, the paucity of remains in the eastern Ozark Uplands and the apparent population growth in the Little Black River valley lowlands suggests the uplands were essentially abandoned in favor of the river bottom lowlands.[3.35] There is evidence for limited use of the area as a hunting ground during the Late Mississippian period, dating to as late as AD 1650.[3.36]

The Historic period in the region begins with French contact in 1673, by Fathers Marquette and Joliet. At that time, the region was under the control of the Osage, whose territory stretched from near the confluence of the Osage River and the Missouri River to north of the Big Spring Historic District and south to the Arkansas River.[3.37] There is little evidence for significant Osage occupation of the Current River valley and existing cultural remains point to sporadic hunting activity in the region.

The United States acquired southeastern Missouri after the Louisiana Purchase in 1803. Americans began moving west of the Mississippi River soon after, which resulted

3.32 *NPS* 2009; *O'Brien and Wood,* 1998.
3.33 *Zedeno and Basaldu,* 2003.
3.34 *Zedeno and Basaldu,* 2003.
3.35 *Stevens*, 1991; *Zedeno and Basaldu*, 2003.
3.36 *NPS* 2009; *Stevens,* 1991.
3.37 *Stevens,* 1991.

in increased hostility with Osage groups. The Osage ceded most of their Missouri lands to the United States with the Osage Treaty of 1808, and the Treaty of 1825, making way for increased American settlement of the region.[3.38] American population in Missouri greatly increased after the War of 1812, although settlement of the Ozark uplands lagged behind the surrounding lowlands of the Mississippi River and Missouri River valleys. Little is known about the Historic period of the Big Spring Historic District prior to the establishment of Big Spring State Park.

Proposed activities that involve new ground disturbance have the potential to impact archaeological sites. Buried prehistoric and historic archaeological sites likely exist, specifically in the valley bottoms where alluvial deposition is most common. Flood events have been common historically and are assumed to also have occurred prehistorically.

Wilderness

The Wilderness Act directs the NPS to protect and manage wilderness so that it "generally appears to have been affected primarily by the forces of nature, with the imprint of man's work substantially unnoticeable," and so that it "has outstanding opportunities for solitude, or a primitive and unconfined type of recreation." DO 41: Wilderness Stewardship[3.39] provides accountability, consistency, and continuity in the NPS wilderness stewardship program and guides NPS efforts in meeting the letter and spirit of the Wilderness Act (16 USC 1133(b)). The Wilderness Act directs that "each agency administering any area designated as wilderness shall be responsible for preserving [its] wilderness character." The five qualities of wilderness character are (1) untrammeled, (2) undeveloped, (3) natural, (4) offers outstanding opportunities for solitude or primitive and unconfined recreation, and (5) other features of scientific, educational, scenic, or historical value.

In the 1984 OZAR General Management Plan[3.40], a wilderness study was completed that evaluated the entire OZAR for wilderness suitability. Big Spring Historic District was identified as a potential wilderness area. Due to land ownership and uses in those areas that did not conform to wilderness, the plan noted that a legislative wilderness designation would be precluded at that time. The plan did, however, recognize the wilderness qualities of Big Spring and other areas and stated the agency's commitment to take another look at the same areas in the future when circumstances surrounding land ownership and use changed.

During the development of the recently updated OZAR GMP, Big Spring Historic District was found to warrant further study for wilderness designation. Of 3,434 acres studied, 3,430 were recommended to Congress for inclusion in the national wilderness preservation system.

The Big Spring Historic District overlaps the area proposed for wilderness designation. Included in the proposed wilderness are several miles of trails and roads constructed by the CCC, the quarry they mined for dolomite blocks, the ruins of a camp they occupied, and a Fire Tower / Lookout Tower (HS-1404). Features within the former Big Spring State Park that are included in the Big Spring Historic District, but outside the proposed wilderness, are several features associated with the CCC-era construction and former Big Spring State Park. These are cabins, lodge, infrastructure recreation

3.38 *Stevens,* 1991.
3.39 *NPS* 2013.
3.40 *NPS,* 1984

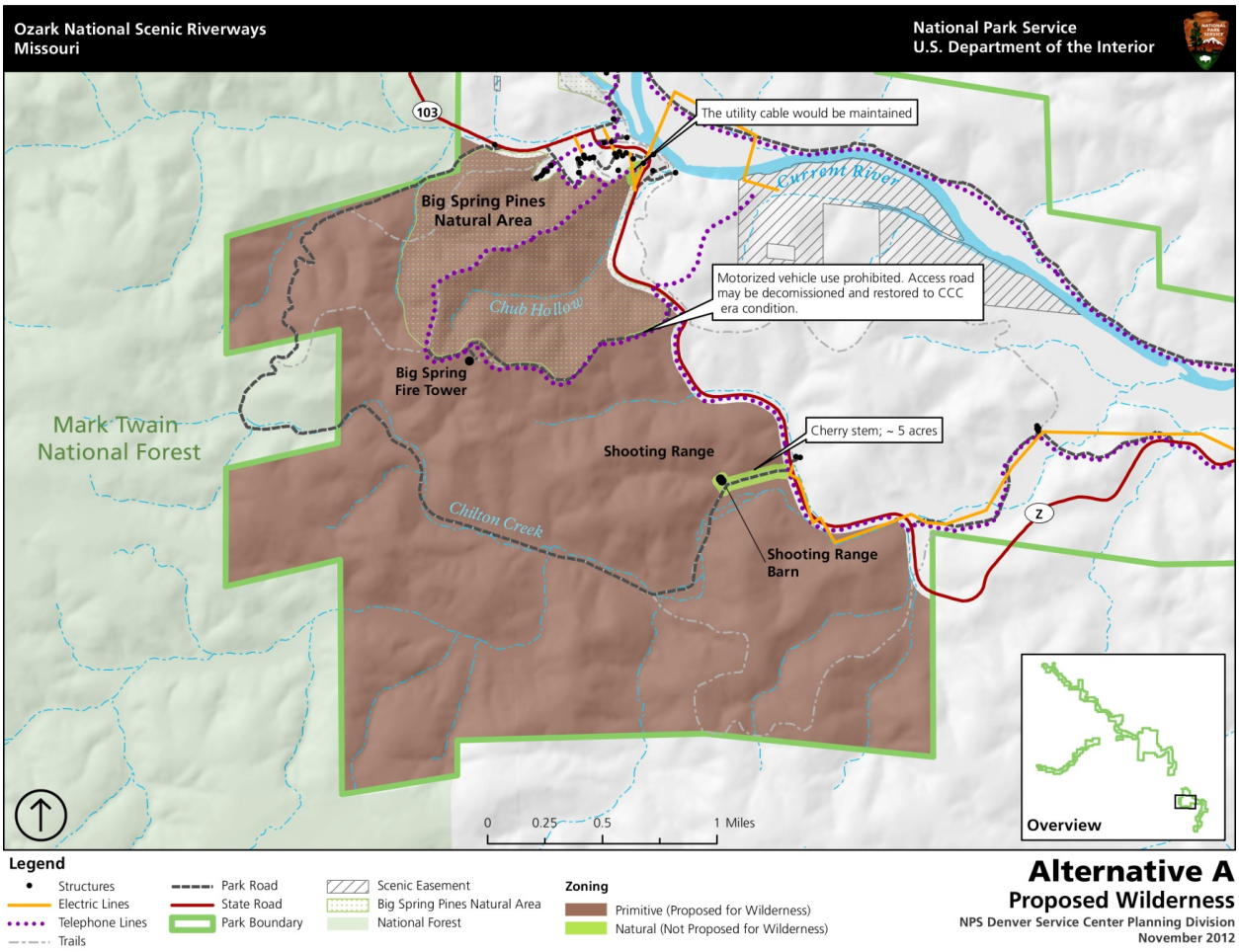


Figure 3-151. Proposed Wilderness Areas. (GMP 2014)

facilities, and a residence. Recommendations in the 2014 GMP preferred alternative for proposed wilderness include the following:

- The entire Big Spring Wilderness Study Area would be zoned primitive.
- The Fire Tower / Lookout Tower (HS-1404), Dump Incinerator (HS-432B), Chilton Creek Barn (HS-467), and CCC-era camp would be retained.
- The NPS training range would be removed and the area restored.
- Motorized vehicle use would be prohibited on the access roads to the Fire Tower / Lookout Tower (HS-1404), NPS training range, storage area, and Chilton Creek Barn (HS-467). The roads would be evaluated to determine the feasibility of restoring them to a CCC-era condition, allowing them to melt away or eliminating them altogether.
- The buried utility communication cable that serves the cabins and residents located further down the line would be proposed as a potential wilderness addition and would remain in use until it fails or until another utility route outside the wilderness was designated. Once decommissioned, the cable would be evaluated to determine the feasibility of removal and restoring the area. Once the nonconforming use was extinguished, the utility corridor would be administratively converted to wilderness.

If wilderness is designated, a wilderness stewardship plan would be developed to guide preservation, management, and use of NPS wilderness areas. Such a plan would be developed with public involvement and would contain specific measurable objectives for preservation of wilderness characteristics and values as specified in the Wilderness Act and NPS Management Policies 2006. Wilderness stewardship plans integrate wilderness planning, management, and monitoring and articulate management actions that preserve or enhance wilderness character.

Vegetation. Information on vegetation resources is primarily based on the GMP. The OZAR lies within the oak / hickory forest region of the eastern deciduous forest. Four major vegetation communities with ten vegetation associations are found within the OZAR. These vegetation communities, which are described below, and associations consist predominately of forest, except for some open areas and cultivated sites.

Upland Plant Community

Upland plant communities are found on the OZAR upper slopes and ridges. This community type contains four different climax forests and two distinct types of open upland sites.[3.41] The most common upland association in the national park system unit is the oak / hickory forest, found on drier upper slopes and ridges. This association includes black, white, and red oak; Ozark pignut; and shagbark and mockernut hickory. Understory plants include high and low-bush huckleberry, smooth sumac, sassafras, cinquefoil, and dwarf iris. The sugar maple white oak association dominates west- and south-facing slopes due to intense solar radiation. On the wetter east- and north-facing slopes, this association also includes northern red oak and red ash. Understory species include paw-paw, bladdernut, flowering dogwood, and wild geranium. The oak / pine association is found on narrower ridges with acidic soils derived from sandstone, chert, and felsite. Understory vegetation is dominated by lowbush huckleberry and farkleberry. In the upper slopes of hills and ravines, the white oak / red maple association is found. This association also includes winged elm and mockernut hickory. The rock ledge association is one of two open upland plant

3.41 *NPS* 1991.



Figure 3-152. The Current River within the Big Spring Historic District. (ERO 2015)



Figure 3-153. Canoe access point on the Current River within Big Spring Historic District. (ERO 2015)

associations found scattered throughout the national park system unit. Common species include red cedar, blue ash, chinquapin oak, poison ivy, and golden currant. The open glades or "barrens" association is found on felsite rock exposures and ridges. Characteristic species include hairy lip fern, spikemoss, early saxifrage, pine weed, and woodrush.

Streambank Community (riparian areas)
The streambank community is one of the most diverse, dynamic, and complex terrestrial habitats in the national park system unit. These riparian areas are divided into three vegetation associations, including silver maple / cottonwood, American elm / green ash, and sugar maple / bitternut hickory. The silver maple / cottonwood association occurs on stabilized gravel bars with deeper alluvial deposits. It supports a number of herbaceous species, such as clearweed, green-headed cone flower, and leatherwood. The American elm / green ash association is found on richer soils that receive less frequent flooding. Understory plants include trumpet creeper, spice bush, blackbrush, poison ivy, and blue phlox. The sugar maple / bitternut hickory association is the climax forest of the streambank community. Herbaceous species consist of wild ginger, bloodroot, wood nettle, and maidenhair fern.

Flooding is an important factor in the formation and maintenance of the OZAR riparian environments. Not only does it shape the physical landscape, but flooding can also aid in the dispersal and propagation of plant seeds and distribute nutrients. In turn, riparian areas perform a range of important ecological functions, such as stabilizing streambanks, regulating stream temperatures, filtering pollutants, retaining nutrients, and providing habitat for numerous wildlife species. In addition to the streambank vegetation communities described above, riparian areas of the OZAR are classified based on variations in physical landform characteristics. These include the natural springs, active channels, active low floodplains, stable floodplains, and terraces. The natural Big Spring provides habitat for a variety of native aquatic and riparian vegetation, with 17 different taxa and less than 20 percent bare cover documented in a vegetation monitoring study completed adjacent to the spring.[3.42] Very few nonnative species were documented in this study around the spring itself. Active channels are characterized by proximity to the river where frequent flooding occurs. Vegetation development is limited and coarse materials such as gravel and sand are common. Active low floodplains are slightly elevated above active channels and typically receive several seasonal floods each year. Soils are relatively sandy and vegetation is characteristic of frequently flooded riverfront forests of sycamore, elm, ash, and hackberry. Stable floodplains are higher in elevation and are subject to only occasional flooding by the highest seasonal floods. Flood disturbance is minimal, resulting in more developed silty soils that support less flood-tolerant plant species such as oak, maple, and hickory. Terraces are remnants of former floodplains and rarely flood except during the most extreme storm events. Soils are well-developed loamy and silty alfisols that support flood-intolerant species, such as mesic forest shrubs and herbs. Most terraces in the OZAR have been cleared in the past for agricultural use.[3.43]

3.42 David E. Bowles, and Hope R. Dodd, *Floristics and Community Ecology of Aquatic Vegetation Occurring in Seven Large Springs at Ozark National Scenic Riverways, Missouri (U.S.A.), 2007–2012*. (2015).
3.43 *USGS* and *MDC* 2000.

Gravel Bar Community
The gravel bar community consists of the Ward's willow / witch-hazel association, which is commonly found with alder and sycamore trees. These trees help stabilize gravel bars and allow other plants to become established, such as swamp dogwood, water willow, and chairmaker's rush.

Visitor Use

The Big Spring area is highly visited to view the spring itself; however, visitors also come for amenities and activities including (NPS 2016):

- Campgrounds (tent and RV camping)
- Picnic areas
- Dining Lodge (HS-422)
- Housekeeping cabins
- Recreation on the Current River
- Hiking (several miles of hiking trails)
- Scenic overlooks
- Wildlife viewing and bird watching
- Playfields
- Big Spring Historic District programs (e.g., tours and campfire programs)
- Special events such as Heritage Days

The Dining Lodge (HS-422) and CCC-era cabins are open during the warmer months and are typically operated by a private concessionaire (although they are currently closed for renovations). The cabins are available to rent and the nearby lodge serves meals for guests.

The Current River passes through the park and is used by visitors for bird watching, scenic viewing, swimming, fishing, canoeing, and boating. In the past, rowdy behavior by visitors has been a problem on the river, but law enforcement efforts have been increased to help control issues with rowdy visitors.

Visual Resources

The landscape of the Ozarks is characterized by steep slopes and narrow valleys, thick forests of primarily oak and also hickory and pine, and meandering streams and rivers.

Within the Big Spring Historic District (5,580 acres) are miles of trails and roads constructed by the CCC, a quarry that was mined for dolomite blocks, the ruins of an occupied camp, and a Fire Tower / Lookout Tower (HS-1404). Also included is housing for the park manager who managed the reintroduction of deer into the region.

Big Spring is a dramatic focal point for public interest and is one of three of the largest springs in the United States, along with Idaho's Snake River Spring Complex and Florida's Silver Spring. Since the flow from springs varies with local rainfall, any of these three springs could be biggest on any given day depending on the weather. At an average daily flow of 288 million gallons of water, underground passages carry water from as far as 45 miles away to emerge at the spring. According to Perry (1976), "Water enters this spring through conduits in a great system of caves that extends for miles north and west. An estimated 175 tons of minerals a day are eroded by the water. It gushes forth in a foaming cataract at the foot of a hundred foot high cliff of Gasconade dolomite and tumbles five feet into a pool that is one hundred yards in diameter. The stream created by this spring is a hundred feet wide and several feet deep, and joins the Current River a quarter of a mile downstream. Water in Big Spring branch is a constant 55 degrees and has an indigo tint." The spring can be seen from the visitor parking area, and a wheelchair accessible walkway leads right to the spring. The accessible Slough Trail is nearby, along with several other trails that are not suitable for wheelchairs.

The overall landscape of the Big Spring Historic District contains many significant elements of the "Naturalistic" style. A dominant characteristic of this style found in the Big Spring Historic District is the planting of large stands of trees (NPS 2009). Additional elements of the Naturalistic style displayed in the Big Spring Historic District include boulder-lined parking areas, the rustic steps and stone-paved paths of the trail systems, and the scenic orientation toward elements such as the spring and river. A large open playfield between Peavine Road and the Main Parking Area (HS-714) was designed to accommodate recreation and open the view of the valley bottom. In some cases, natural processes had to be circumvented to ensure a certain aesthetic would be preserved. An early concern was that a major flood could reroute the Current River through an old channel and permanently submerse the spring. Thus, one of the first jobs for the CCC was to construct the five Big Spring Stone Dikes (HS-711) for flood control. Another important Naturalistic element in the Big Spring Historic District is the purposeful siting of the cabins and surrounding landscape to achieve a sense of harmony between the buildings and the surroundings[3.44].

The Current River, which is located in southeastern Missouri in the Ozarks region, runs through the Big Spring Historic District. The river flows through the Courtois Hills region, which has the most rugged terrain in the Missouri Ozarks.[3.45] The sharp ridges rise between 500 and 700 feet above the valley floors, creating a maze of deep narrow valleys. In addition, numerous karst features, such as springs, caves, and sinkholes, are common throughout the Ozarks region.

Recreation trails in the Big Spring Historic District also provide multiple viewing opportunities for visitors. Some of the visual resources available on these trails include:

- Bird watching (bald eagles, kingfishers, blue herons, and numerous song birds)
- CCC-era features such as walls, paths and steps, and structures
- Scenic overlooks from dolomite bluffs and outcroppings
- Lush vegetation such as spring wildflowers, lichens, mosses, and ferns
- Old-growth shortleaf pine forests that have been in existence for the past two centuries
- Historic structures such as the Fire Tower / Lookout Tower (HS-1404), including 360-degree panoramic views from the tower of the Ozark Plateau

3.44 2016 CLI, 32.
3.45 *NPS* 2016.

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Chapter 4. Treatment Alternatives

Introduction

This chapter presents treatment alternatives for the repair, protection and stewardship of the cultural landscape of Big Spring Historic District. These treatment alternatives were developed during the Alternatives Work Session in May 2016. This chapter describes the alternatives considered, including the no action alternative and an action alternative. The agency preferred alternative is the action alternative, presented in Chapter 6 - Treatment Plan and Implementation, with detailed treatment recommendations. The action alternative address protection of resources, improvements to visitor experience and access, and provisions for future research.

A summary of the alternatives, organized by area, is presented as a matrix (Matrix 4-11).

The *No Action Alternative* provides a basis for comparison with the action alternative. Under the no action alternative, contributing and non-contributing features would be preserved and maintained. The no action alternative includes current park projects and those planned for the foreseeable future.

The *Action Alternative* would focus on preserving contributing features and rehabilitating the historic setting. It would repair buildings, structures, vegetation and small scale features to reveal the intended park aesthetic of a maintained yet naturalistic park space. Spaces would be rehabilitated to reveal contributing features and elements of the designed landscape, and to provide an immersive visitor experience that truly reads "CCC/WPA." Vegetation management would assist in repairing the park setting. Replacement of contemporary features with those that reflect the intended Naturalistic and Rustic design principals would enhance the overall landscape composition. Improved visitor contact and wayfinding would bring new life into the park by encouraging visitors to explore the whole of the designed landscape and the natural areas beyond.

Treatment Approaches

Four distinct approaches to the treatment of the cultural landscape were considered.[4.1] The recommended treatment approach depended on a variety of factors, including the desired future condition, proposed use, and historical significance of the property. The no action alternative would follow a preservation approach, and the action alternative would follow a rehabilitation treatment approach. Brief descriptions of each treatment approach considered follows.

Preservation is an appropriate treatment approach for a cultural landscape with a continuity of use and few modifications. This approach is suited for a property where its distinctive materials, features, and spaces are intact, and for which extensive modifications or additions are not required. The preservation treatment approach allows contributing features to be preserved, restored, or repaired. The no action alternative follows this approach.

Rehabilitation is an appropriate treatment approach for a cultural landscape with a long period of significance, has undergone few modifications, and has integrity in one or more characteristics: location, setting, materials, workmanship, feeling, and association. Rehabilitation is appropriate for a property where new additions are contemplated. The rehabilitation treatment approach allows for features to be preserved, rehabilitated, reconstructed, or restored. The action alternative follows this approach.

4.1 Page et al., *A Guide to Cultural Landscape Reports.*

Reconstruction is an appropriate treatment approach for a cultural landscape with a vast amount of documentation that would allow, by means of new construction, the form, features, and detailing of a non-surviving features to be replicated to its appearance at a specific period of time and in its historic location.

Restoration is an appropriate treatment for a cultural landscape with documentation to accurately depict the form, features, and character of a landscape as it appeared during a particular period of time by removing features from other periods in history and reconstructing missing features from the restoration period.

Treatment Goals

The following goals assist in determining the desired landscape condition and appropriate stewardship guidance for protecting the character and ambiance of the cultural landscape of Big Spring Historic District.

1. Preservation and rehabilitation actions will protect Big Spring Historic District's cultural landscape, including its historic character and individual features as these contribute to its significance and reinforce its importance.

2. Cultural resources will be protected through accepted preservation practices including preservation, stabilization, restoration and repair. The cultural landscape will be protected by repairing features and patterns, restoring select missing historic features, and by allowing removal of non-contributing features.

3. A cohesive, unified visitor experience will be provided at Big Spring Historic District with universal access provided at key visitor destinations and facilities, and interpretation integrated with the cultural landscape. Visitor engagement will be provided through an authentic and safe multi-sensory experience with measures for universal accessibility.

4. Known, potential, and unknown archeological resources will be protected.

5. Areas to be avoided or treatments for mitigating impacts from pending construction projects will be addressed in order to preserve the cultural resources.

6. Deferred maintenance needs will be identified for walks, walls, vegetation, building exteriors, and other landscape features, and recommendations provided for repair and upkeep.

7. The tolerance and acceptance for new additions within the cultural landscape will be identified and the character for new additions will be depicted.

8. Opportunities for further research and investigation, to include HSRs, archeological investigations and other documentary needs, will be identified.

Matrix 4-11. Treatment Alternatives Matrix

TREATMENT ALTERNATIVES MATRIX		
	No Action Alternative	**Action Alternative**
Treatment Approach	**preservation**	**rehabilitation**
Further Study / Research		
Archeological Investigations	X	X
HSR for Core Development Area	X	X
Study Area		
Circulation		
Repair contributing trails	limited	X
Remove non-contributing walls and features associated with contributing trails and replace with compatible materials and designs		X
Provide universally accessible access to select buildings	Dining Lodge (HS-422), cabins	Dining Lodge (HS-422); Cabins #409 (HS-409), #410 (HS-410), #413 (HS-413); Museum (HS-420), Big Spring Pavilion (HS-425), and Peavine Pavilion (HS-428)
Buildings and Structures		
Repair May / Winters Quarters (HS-444) and setting (ornamental plantings, reset fence)		X
Provide improved visitor access to CCC Rock Quarry (HS-700)		X
Small Scale Features		
Repair stone Fountains (HS-712)	X	X
Core Development Area		
Circulation		
Repair contributing trails	limited	X
Trails - Remove associated non-contributing walls and features; and replace with compatible materials		X
Preserve pedestrian bridge(s)	X	X
Provide walkway at edge of the Main Parking Area (HS-714)		X
Repair entrance drive and setting		X

TREATMENT ALTERNATIVES MATRIX		
	No Action Alternative	**Action Alternative**
Treatment Approach	**preservation**	**rehabilitation**
Buildings and Structures		
Rehabilitate Dining Lodge (HS-422)	X	X
Rehabilitate site of Museum (HS-420) and Dining Lodge (HS-422)		X
Rehabilitate Museum (HS-420) for compatible use (visitor contact, etc.)		X
Rehabilitate Entrance Building (HS-432) and site for visitor access		X
Rehabilitate 15 cabins	X	X
Rehabilitate site of cabins		X
Rehabilitate Picnic Shelter (HS-496) and setting		X
Repair Latrine (HS-423) and stone walls	X	visitor contact/ wayfinding
Preserve Chubb Hollow Open Shelter House (HS-427)	X	X
Rehabilitate site of Chubb Hollow		X
Preserve Maintenance buildings	X	X
Small Scale Features		
Repair boat dock	X	design to be compatible
Remove non-contributing interpretive panels		X
CCC Camp		
Preserve CCC Camp Ruin	X	X

TREATMENT ALTERNATIVES MATRIX		
	No Action Alternative	**Action Alternative**
Treatment Approach	**preservation**	**rehabilitation**
Big Spring		
Circulation		
Repair contributing trails	limited	X
Accessible trail from parking area to Big Spring; lower stone wall		X
Repair contributing walls and abutments to full extents	limited	X
Provide overlook at Rocky Ridge Trail		X
Preserve boat ramps, river access	X	X
Buildings and Structures		
Repair Big Spring Pavilion (HS-425) and Peavine Pavilion (HS-428)	X	X
Remove non-contributing Big Spring Craft Cabin (458) and Relocate Big Spring Latrine (476)		X
Repair Big Spring Branch Vehicular Bridge	X	X
Preserve contributing Big Spring Stone Dikes (HS-711)	X	X
Upgrade play equipment to safety standards		X
Vegetation		
Repair playfield to historic extent		X

Matrix 4-12. Treatment Alternatives Matrix - Trails

TREATMENT ALTERNATIVES - TRAILS		
	No Action Alternative	**Action Alternative**
Treatment Approach	**preservation**	**rehabilitation**
Trails		
Spring Branch Trail	X	repair needed
Rocky Ridge Trail	X	repair needed
Slough Trail	X	maintain
Cabin Path System and Stairs (HS-713)	X	repair needed
Lower Chubb Trail	X	maintain
Chubb Hollow Trail	X	maintain
Peavine Trail	X	maintain
Fire Tower Trail	X	repair needed
Ebb and Flow Road (Spring Loop)	close and reclaim (Wilderness)	close and reclaim (Wilderness)
Connector Loop	X	maintain
Long Bay Loop	X	maintain
Kinnard Loop	X	maintain
Chilton Trail	X	maintain
Chilton Loop	X	maintain
Tatum Trail	X	maintain
McSpadden Trail	X	maintain
Water Hollow Trail	X	maintain

Treatment Alternatives

No Action Alternative would provide a basis for comparison with the action alternative, including the preferred alternative. Under the no action alternative, the present level of use, management, interpretation, maintenance and operations would continue. This alternative includes all projects currently under consideration by park staff.

Action Alternative would include the repair and improvement projects currently under consideration, and add more actions to fully rehabilitate the study area and its contributing features. This approach is well-suited for the Big Spring Historic District as the cultural landscape has a long period of significance with contributing features from multiple periods, and requires new construction and adaptive reuse for contemporary and compatible uses.

No Action Alternative

The no action alternative would include actions that the park would undertake as part of regular operations, and emphasizes maintaining contributing and non-contributing features. The no action alternative would include actions identified in the GMP, and actions already identified and/or in-progress. Planning and rehabilitation projects are part of this alternative, specifically the following actions.

Replace Failing Non-Sustainable Utilities for Dining Lodge and Cabins.
Existing utility systems at the Dining Lodge (HS-422) and cabins have met their useful life cycle and are failing. The area has had numerous water leaks, downed electric lines, sewer line blockages and failing septic tanks at Cabin #413 (HS-413), and Cabin #414 (HS-414). Problems are also associated with an older overhead electric line service in a heavily wooded area. Replacement of these utilities is intended to improve aesthetics by returning the area to a more natural look, minus overhead and visible utilities. After project completion, the utility infrastructure of exposed piping, and overhead lines will be placed underground resulting in a more natural character and improved visitor experience. The first phase of the project includes upgrades to electric and sewer systems, to begin in 2017. Water systems will be addressed in a later project. The utility project includes:

- Repair and replacement of failing electrical, water and sewer utility systems serving 15 cabins and the Dining Lodge (HS-422). Installation of propane gas distribution systems to serve the cabins.

- Design and installation of these utilities as primarily one underground corridor to minimize resource impact and maximize visitor visual experience.

- Electrical: Demolishing of approximately 6000’ of existing overhead power lines, poles and transformers. Installation of approximately 5500’ of underground lines in conduit with transformer vaults/distribution panels: 1000’ of Primary (7200v) and 4500’ of Secondary (240v).

- Propane: Installation of 3000’ linear feet of Propane service line, and installation of eight Propane tanks.

- Water: Installation of approximately 6500’ of new water distribution lines and apparatuses • 3850’ of 6” main line • 750’ of 2” line • 1850 of 1” service lines • 16 new water meters (each individual cabin is not metered at present) • 5 new fire hydrants • valves

- Sewer: Installation of approximately 4,650' of gravity sewer collection lines, both 4" and 6" lines. Install 15 cleanout units or manholes, one at each cabin. Install sewer pump station with 750' of force main for Cabin #413 (HS-413), and Cabin #414 (HS-414) (to abandon failing septic tank system). Include the need for $75,000 for archeological review and cultural resource review. Include any NEPA environmental concerns next to a wilderness area.

Restore the Landscapes of Big Spring Historic District.

This project will improve visitor safety and experiences by addressing deteriorating walls, steps, staircases, trails, and plantings. Safety issues will be mitigated and protect cultural resources, returning the asset condition from poor to good. This project will result in rehabilitation of portions of the cultural landscape. Visitor safety, satisfaction and educational experience will be improved.

- Stone retaining walls - Stone Entrance Portal Walls (HS-422A) and Dining Lodge Retaining Walls and Fountain (HS-422A) - (1934 to 1937) will be stabilized and repaired. These walls, in their current state of deterioration, pose a significant hazard to visitors. Stabilization and repair will preserve these historic assets and provide a safe and enjoyable visitor experience.

- Repair wooden staircases, steps, retaining walls at cabins, deteriorated boat dock, and eroded landscaping. Remove invasive plant species. Improve trail conditions and add/or replace wayside exhibits to improve and enhance visitor experience.

Rehabilitate OZAR's Sole Concession-Run Historic District Lodging Cabins and Dining Lodge.

Rehabilitation of the Dining Lodge (HS-422) and 15 cabins is needed to repair deteriorating conditions, stabilize historic resources, and provide upgrades to meet current codes and bring them into good condition. The rehabilitation is needed to provide universal accessibility for park visitors. This project will directly improve the viability of the sole concession operation of the park, increasing the accommodation for a wider range of visitors and revitalizing the lodge /dining operations. Rehabilitating these buildings will reestablish these contributing features as vital components of the cultural landscape. The project will provide a quality visitor experience, and support the park's sole concessionaire responsible for providing lodging.

- This project will repair fifteen cabins for a total of 10,068 square feet, and the Dining Lodge (HS-422) consisting of 3,315 square feet. The work includes complete repair of the interior and exterior of each cabin and the Dining Lodge.

- Work includes removal of obsolete non-historic fabric and restoration or replacement with elements to maintain the historic character of the cabins. Cabin bathrooms and kitchens will be upgraded. Cabins will be made accessible to the extent that grade will allow.

- The Dining Lodge (HS-422) will be made accessible and life safety code issues will be corrected. Kitchen facilities in the Dining Lodge will be updated.

- Light fixtures, floor coverings, and the finishes of the interior and exterior hardware, fabric and fixtures will be repaired or restored. Plumbing and

electrical systems, exterior building envelopes, and mechanical systems will be modernized to provide a safe and quality experience.

Big Spring Branch Vehicular Bridge Replacement.
The Federal Highway Administration, Eastern Federal Lands Highway Division (FHWA), in cooperation with the NPS, is replacing the existing bridge carrying Pea Vine Road over Big Spring branch. The new bridge will be constructed in the same location as the existing wooden bridge, and will be a concrete structure with wood rails. The anticipated date of construction is 2017.

Additional Projects.
The No Action alternative includes additional smaller projects that are ongoing or recently completed. These include repairs to address mold in the Dining Lodge (HS-422), replacement of missing timbers and signs at the Entrance Building (HS-432), minor repairs to roofs and exteriors of buildings, and plans to rehabilitate Big Spring Pavilion (HS-425) and Peavine Pavilion (HS-428).

Boat Ramp Walk Bridge
This project is for the removal and replacement of an existing walk bridge that has been damaged due to the December 2015 flood. The location of this foot bridge is on the path connecting the Boat Ramp Latrine and the Big Spring boat ramp.

Rehabilitate Welcome Sign
Remove and replace a hand hewed support beam for a welcome sign at the Entrance Building and restore and repaint the existing welcome sign. The welcome sign is not historic and it will be rehabbed, repainted and replaced after beam is complete.

Latrine Repairs
The Latrine (HS-423) has an upcoming project to replace sections of wooden safety rails around two sections of hand chipped stone porches and stairs. The wooden safety rails around this set of entry porches and stairs have deteriorated and collapsed over time. Approximately sixteen feet of safety rails will be replaced with the same type materials and same design of the original construction on each stone porch.

Picnic Shelter Repairs
This project will repair the open sided Picnic Shelter (HS-496). The beams will be reconstructed or repaired to match the original design using the same type of wood in the original construction. The chimney will also be repaired to insure the integrity of the chimney. The wooden shake shingles on the roof will also be replaced.

Natural resource projects planned for the near future include managing for invasive plant species, stabilizing banks as needed, and the continuing use of prescribed fire to manage vegetation.

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Legend

- Study Area
- Contour (20' Interval)
- Inholdings
- Road
- Trail
- River
- Floodplain
- Building
- Culvert
- Bridge
- Cliff
- New Bridge
- Big Spring Pines Natural Area

Buildings and Structures

401	Cabin #401
402	Cabin #402
403	Cabin #403
404	Cabin #404
405	Cabin #405
406	Cabin #406
407	Cabin #407
408	Cabin #408
409	Cabin #409
410	Cabin #410
411	Cabin #411
412	Cabin #412
413	Cabin #413
414	Cabin #414
415	Cabin #415
416	Lower Current District Maintenance Office / Cabin #416
417	Maintenance Shop
418	Maintenance Storage Building
419	Maintenance Garage
419A	Garage-Maintenence Storage
420	State Park Museum Building
422	Dining Lodge and Help's Quarters
423	Latrine
424	Chubb Hollow Latrine
425	Big Spring Shelter
427	Chubb Hollow Open Shelter House
432	Entrance Building
443	Pump House
493	Paint & Storage Shed
478	Water System Building
496	Picnic Shelter
500	Water Tower
712	Fountain, Typ

A	Lodge Footbridge
B	Boat Dock
C	Overlook
D	Overlook
E	Chubb Hollow North Footbridge
F	Chubb Hollow South Footbridge

Treatment Recommendations

①	Repair Stone Walls
②	Rehabilitate Dining Lodge
③	Remove Invasive Vegetation
④	Repair Wood Stairs, Staircases, Stairs
⑤	Repair Boat Dock
⑥	Rehabilitate 15 Cabins (#401 to #415)
⑦	Repair Walls, Walks at Cabins

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1" = 400'-0"

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UNITED STATES
DEPARTMENT OF THE INTERIOR

BIG SPRING
HISTORIC DISTRICT

DWG # 614 132281

TITLE OF PROJECT
CULTURAL LANDSCAPE REPORT
AND ENVIRONMENTAL ASSESSMENT

TITLE OF DRAWING
NO ACTION ALTERNATIVE - CORE DEVELOPMENT AREA

NAME OF PARK
BIG SPRING HISTORIC DISTRICT

Illustration 4-3.

REGION	COUNTY	STATE
MIDWEST	CARTER	MISSOURI

Rocky Ridge Trail
Peavine Road / State Highway 103
Upper Cabin Trail
Play Field
Big Spring Lodge Road
Big Spring Branch
Current River
Big Spring Cabin Road
State Highway Z
Chubb Hollow Road
Chubb Hollow
Chubb Hollow Trail
Fire Tower Road
CCC Camp
423
422
420
443
712-2
401
402
403
404
405
406
407
408
409
410
411
412
413
414
415
416
424
496
712-3
500
712-7
A
B
C
D

Legend

- Study Area
- Contour (20' Interval)
- Road
- Trail
- River
- Floodplain
- Building
- Culvert
- Bridge
- Cliff
- Big Spring Pines Natural Area

Buildings and Structures

401	Cabin #401
402	Cabin #402
403	Cabin #403
404	Cabin #404
405	Cabin #405
406	Cabin #406
407	Cabin #407
408	Cabin #408
409	Cabin #409
410	Cabin #410
411	Cabin #411
412	Cabin #412
413	Cabin #413
414	Cabin #414
415	Cabin #415
416	Lower Current District Maintenance Office / Cabin #416
422	Dining Lodge and Help's Quarters
424	Chubb Hollow Latrine
443	Pump House
496	Picnic Shelter
500	Water Tower
712	Fountain, Typ

A	Lodge Footbridge
B	Boat Dock
C	Overlook
D	Overlook

Treatment Recommendations

1. Rehabilitate Dining Lodge
2. Repair Stone Retaining Wall
3. Remove Invasive Vegetation
4. Repair Trails to Cabins (Contributing and Non Contributing)
5. Repair Boat Dock and Staircase
6. Rehabilitate 15 Cabins
7. Repair Walls, Walks, etc. at 15 Cabins

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1" = 200'-0"

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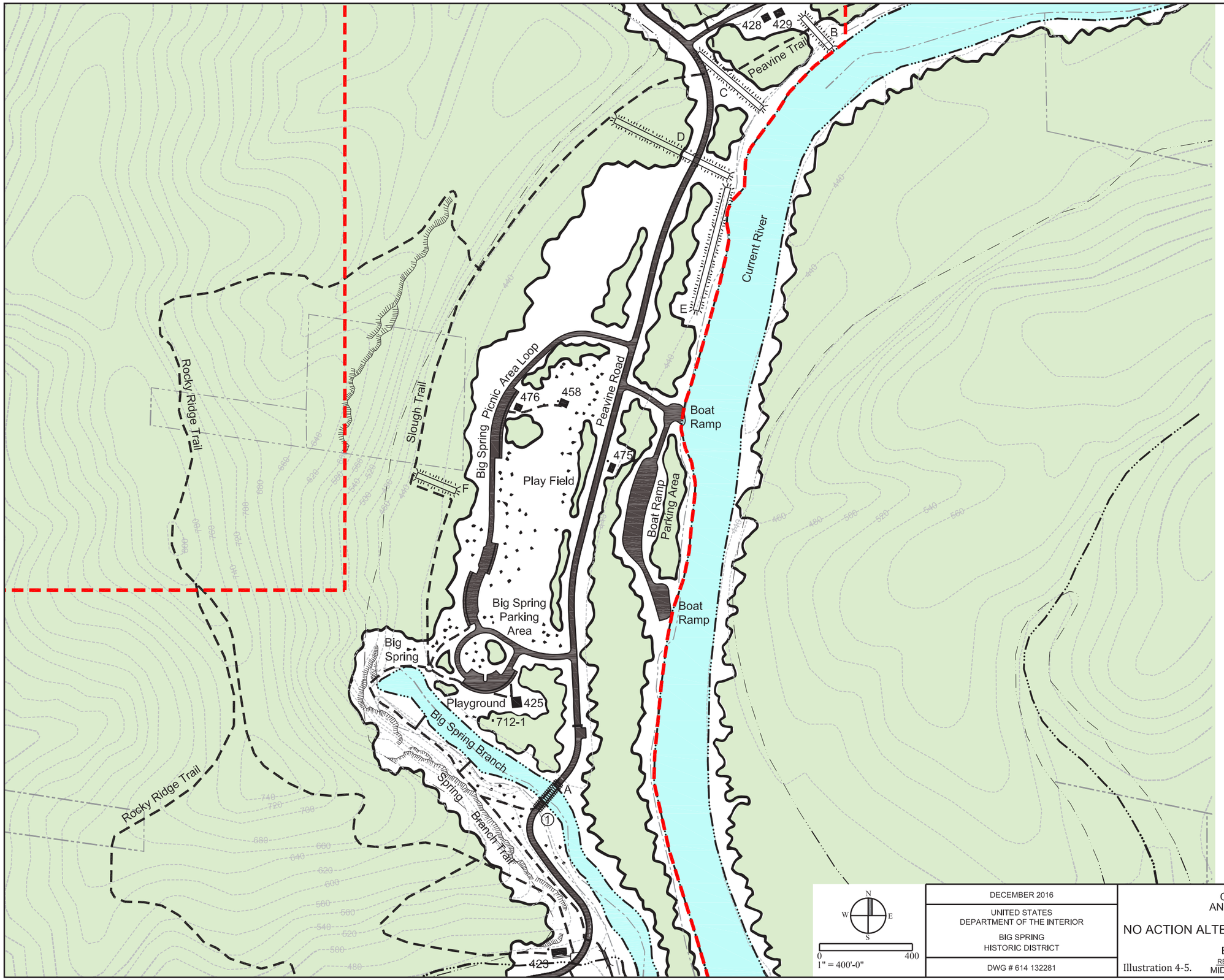
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HISTORIC DISTRICT

DWG # 614 132281

TITLE OF PROJECT
CULTURAL LANDSCAPE REPORT
AND ENVIRONMENTAL ASSESSMENT
TITLE OF DRAWING
NO ACTION ALTERNATIVE - MUSEUM, DINING LODGE AND CABIN
NAME OF PARK
BIG SPRING HISTORIC DISTRICT

Illustration 4-4. REGION MIDWEST COUNTY CARTER STATE MISSOURI



Legend

- Study Area
- Contour (20' Interval)
- Inholdings
- Road
- Trail
- River
- Floodplain
- Building
- Culvert
- Bridge
- Cliff
- Dike System to Remain
- New Bridge

Buildings and Structures

423	Latrine
425	Big Spring Pavilion
428	Peavine Pavilion
429	Peavine Latrine
458	Big Spring Craft Cabin
475	Boat Ramp Latrine
476	Big Spring Latrine
712	Fountain

A	Big Spring Branch Vehicular Bridge
B	Big Spring Stone Dike #1
C	Big Spring Stone Dike #2
D	Big Spring Stone Dike #3
E	Big Spring Stone Dike #4
F	Big Spring Stone Dike #5

Treatment Recommendations

① Bridge Replacement

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1" = 400'-0"

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TITLE OF PROJECT
CULTURAL LANDSCAPE REPORT
AND ENVIRONMENTAL ASSESSMENT

TITLE OF DRAWING
NO ACTION ALTERNATIVE - BIG SPRING CHARACTER AREA

NAME OF PARK
BIG SPRING HISTORIC DISTRICT

Illustration 4-5.

REGION MIDWEST | COUNTY CARTER | STATE MISSOURI

Action Alternative
The action alternative would include repair and improvement projects under consideration as part of the No Action Alternative, and would add actions to fully rehabilitate the historic setting.

The action alternative would utilize a rehabilitation approach which is well-suited for the Big Spring Historic District as the cultural landscape requires repair of features in order to maintain its historic integrity, and requires new construction and adaptive reuse for contemporary and compatible uses.

The action alternative would preserve and repair contributing features and would replace features that are not compatible with the historic CCC/WPA aesthetic. Expanded opportunities for visitor contact and improved wayfinding would enrich the visitor experience throughout the Big Spring Historic District. This alternative would allow the most extensive change to existing conditions in order to rehabilitate the cultural landscape to the greatest extent possible. Rehabilitation projects include the following actions.

Study Area

Spatial/Topography/Views
- Preserve contributing spatial organization, topography, and historic views.

- Preserve the scale and form of the cultural landscape as a contributing feature, with the naturalistic landscape design, use of native materials, and Rustic architecture.

- Preserve the pattern of open versus enclosed spaces.

- Relocate or place utilities underground to minimize their appearance. Move utilities to less visually intrusive locations, out of major viewsheds.

- Repair contributing views by thinning vegetation in key locations.

Archeological Sites
- Clear vegetation to reveal the form of the CCC Camp. Consider opening this area for visitors and interpreting the site to educate visitors about the CCC.

- Provide visitor access to the CCC Rock Quarry (HS-700) by adding a trail from Co. Road Z-206 to the quarry and Big Spring Dynamite Box.

Circulation
- Preserve contributing roads. Do not widen existing roads or modify road alignments.

- Preserve contributing trails. Do not alter the alignment of historic trails or widen. Maintain trails throughout the study area as pedestrian routes only.

- Monitor trails and associated features for erosion, disrepair and deterioration. Restore diminished trails and features as possible.

- Maintain trails with natural surfacing, and utilize natural, native materials used for water breaks and steps. Replace dimensional lumber used on historic trails with a style that more closely resembles that which would have been used historically, such as round, unpeeled lumber.

Buildings and Structures
- Allow for specific additions or alterations that are compatible with the historic character of the landscape and meet contemporary needs.

- Preserve Peavine Pavilion (HS-428) and its park-like setting with mown lawn and shade trees. Provide universally accessible access to the structure.

- Preserve the Fire Tower / Lookout Tower (HS-1404), and allow for guided visitor access only.

- Maintain existing footbridges throughout the study area. Rehabilitate the footbridges to more closely reflect the historic design character.

- Preserve the Chilton Creek Barn (HS-467) as a contributing structure.

- Preserve the May/Winters Quarters (HS-444), May/Winters Quarters Garage Foundation (HS-444A), and contributing features.

Small Scale Features
- Repair contributing Fountains (HS-712) found throughout the study area. Repair water connections and restore the fountains to working condition.

- Replace non-contributing small scale features such as benches, picnic tables, and waysides to match the historic character.

Vegetation
- Maintain specific zones with more maintained vegetation than currently. Specific areas will be maintained as forest character, while others will have a more park-like and maintained appearance.

- Manage proposed Wilderness areas as Wilderness until official Wilderness status is officially declared.

Recommendations for Further Research
- Update the HSR for the Dining Lodge (HS-422). Undertake HSRs for the Entrance Building (HS-432), Maintenance buildings, Museum (HS-420), cabins, and Latrine (HS-423). All buildings warrant further investigation regarding contributing features.

- Complete further documentation for archeological resources.

<u>Core Development Area</u>

Entrance Building (HS-432)
- Preserve the gateway and entrance experience created by the Entrance Portal Walls (HS-432A), Entrance Building and trees that frame the view into the park.

- Preserve the drainage ditches and culvert, and maintain these ditches to provide drainage away from the road and building.

- Rehabilitate the setting of the Entrance Building, creating a welcoming area by adding visitor contact and wayfinding within the Entrance Building.

Dining Lodge (HS-422)
- Preserve the Dining Lodge as a contributing feature of the cultural landscape. Create a universally accessible entrance to the Dining Lodge at the historic south entrance.

- Rehabilitate the setting of the Dining Lodge by repairing the character of vegetation, walks, and removing non-contributing features. Clear overgrown vegetation adjacent the building, particularly where it interrupts views to the river.

- Remove non-contributing features from the Dining Lodge setting including the pedestrian lights, interpretive panels.

- Repair the boat dock to provide safe access on and off watercraft.

- Preserve the Main Parking Area (HS-714) at the Museum (HS-420) and Dining Lodge (HS-422), maintaining the existing width and length of the area. Add a pedestrian route at the north edge of the parking area to connect the Museum and Dining Lodge.

- Preserve the open playfield north of the Museum and Dining Lodge.

Museum (HS-432)
- Preserve the Museum and setting as a contributing feature of the cultural landscape, including walks, flagpole, and Fountain #2 (HS-712).

- Rehabilitate the Museum to provide universal accessibility.

- Open the Museum to visitors and rehabilitate the interior.

Latrine (HS-423)
- Rehabilitate the Latrine for use as a visitor contact area, where visitors may receive information on trails and wayfinding.

- Rehabilitate the setting of the Latrine by clearing overgrown vegetation that encroaches around the building.

Cabins
- Preserve and repair cabins and the historic setting. Preserve stone steps and retaining walls, and arrangement of cabins in relation to the roads and trails.

- Repair retaining walls to be compatible with the historic setting.

- Modify picnic areas to a more naturalistic appearance in material and dimensions, so they blend with the natural topography.

- Provide universally accessible access to Cabin #409 (HS-409), Cabin #410 (HS-410), and Cabin #413 (HS-413). These buildings would need modifications at the threshold and to door widths to be made accessible.

Chubb Hollow
- Preserve the Chubb Hollow Open Shelter House (HS-427) and setting. Preserve Chubb Hollow as a distinct area from the remainder of the historic district. Maintain trees and grass areas to create a park-like aesthetic, and maintain the group campground.

- Provide a view to the river from the end of Chubb Hollow Road, by thinning vegetation.

Maintenance Area
- Preserve the contributing buildings and road within the maintenance area.

- Allow for additions and upgrades within the maintenance area. Ensure the integrity of contributing buildings and the linear spatial organization is not damaged by additions.

- Consider moving maintenance activities out of the historic district if the space fails to meet the needs of park staff.

<u>Big Spring</u>

- Repair Big Spring Branch Trail, stone steps and revetment work. Clear encroaching vegetation, and reset steps as needed. Repair stone abutments at Big Spring branch.

- Modify and lower the non-contributing retaining wall at the spring, to allow visitors in wheelchairs the ability to see over the wall.

- Maintain the playground, upgrading equipment and replacing in-kind.

- Maintain non-contributing features at Big Spring, including kiosks, benches, picnic tables, etc.

- Maintain the Big Spring Loop Drive as a non-contributing feature. Maintain existing parking areas and boulder edge.

- Maintain the open play field, and repair to its full historic extent by removing vegetation at the northern end.

- Thin vegetation between the parking area and Big Spring branch in order to maintain views to Big Spring.

- Preserve Big Spring Pavilion (HS-425) and rehabilitate to provide universal access.

- Remove Big Spring Craft Cabin (458) from the playfield and relocate. Relocate the Big Spring Latrine (476) from the field. The Big Spring Latrine may be located to the Big Spring Picnic Shelter/playground area if located outside of the historic view. Alternatively a new restroom could be added that is more in keeping with the historic scene.

- Preserve the boat ramps and parking area adjacent the Current River.

- Preserve Big Spring Stone Dikes (HS-711), removing vegetation if it threatens the historic resource.



Legend

- Study Area
- Contour (20' Interval)
- Road
- Trail to Preserve
- Repair Contributing Trail
- New Walkway / Trail
- River
- Floodplain
- Building to Preserve
- Culvert
- Bridge
- Cliff to Preserve
- Reestablish Historic Views
- New Bridge Compatible with Historic Character
- Big Spring Pines Natural Area

Buildings and Structures

401	Cabin #401
402	Cabin #402
403	Cabin #403
404	Cabin #404
405	Cabin #405
406	Cabin #406
407	Cabin #407
408	Cabin #408
409	Cabin #409
410	Cabin #410
411	Cabin #411
412	Cabin #412
413	Cabin #413
414	Cabin #414
415	Cabin #415
416	Lower Current District Maintenance Office / Cabin #416
417	Maintenance Shop
418	Maintenance Storage Building
419	Maintenance Garage
419A	Garage-Maintenence Storage
420	State Park Museum Building
422	Dining Lodge and Help's Quarters
423	Latrine
424	Chubb Hollow Latrine
425	Big Spring Shelter
427	Chubb Hollow Open Shelter House
432	Entrance Building
443	Pump House
493	Paint & Storage Shed
478	Water System Building
496	Picnic Shelter
500	Water Tower
712	Fountain

A	Lodge Footbridge
B	Boat Dock
C	Overlook
D	Overlook
E	Chubb Hollow North Footbridge
F	Chubb Hollow South Footbridge

Treatment Recommendations

1. Rehabilitate Museum and Dining Lodge
2. Rehabilitate Entrance Building and Site (Historic Widths, Gates, Setting)
3. Reestablish Historic Character Plantings
4. Rehabilitate Latrine and Stone Walls
5. Restore Stone Retaining Wall and Abutments (Full Extents)
6. Reestablish Spatial Qualities of CCC Camp and mark Building Outlines
7. Thin Vegetation to Provide River Views
8. Improved Wayfinding / Park Sign

N W E S

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1" = 400'-0"

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HISTORIC DISTRICT

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AND ENVIRONMENTAL ASSESSMENT

TITLE OF DRAWING
TREATMENT ALTERNATIVE 1 - CORE DEVELOPMENT AREA

NAME OF PARK
BIG SPRING HISTORIC DISTRICT

Illustration 4-6. REGION MIDWEST COUNTY CARTER STATE MISSOURI

Legend

- Study Area
- Contour (20' Interval)
- Road
- Trail
- Repair Contributing Trail
- New Walkway / Trail
- River
- Floodplain
- Building
- Culvert
- Bridge
- Cliff
- Reestablish Historic Views
- Big Spring Pines Natural Area

Buildings and Structures

401	Cabin #401
402	Cabin #402
403	Cabin #403
404	Cabin #404
405	Cabin #405
406	Cabin #406
407	Cabin #407
408	Cabin #408
409	Cabin #409 - Provide ADA Access
410	Cabin #410 - Provide ADA Access
411	Cabin #411
412	Cabin #412
413	Cabin #413 - Provide ADA Access
414	Cabin #414
415	Cabin #415
416	Lower Current District Maintenance Office / Cabin #416
422	Dining Lodge and Help's Quarters
424	Chubb Hollow Latrine
443	Pump House
496	Picnic Shelter
500	Water Tower
712	Fountain, Typ

A	Lodge Footbridge
B	Boat Dock
C	Overlook
D	Overlook

Treatment Recommendations

① Rehabilitate Museum and Dining Lodge
② Rehabilitate Museum and Dining Lodge Site
③ Reestablish Historic Character of Plantings
④ Repair Contributing Trails with Compatible Design / Material
⑤ Replace Boat Dock and Staircase with Compatible Design / Material
⑥ Rehabilitate Cabins
⑦ Repair Cabins Contributing Walls and Walks; Replace Non-contributing with New Feature Compatible in Design / Materials
⑧ Establish Accessible Routes along Historic Patterns
⑨ Preserve Contributing Features and Patterns
⑩ Repair Parking Area, Remove Non-Contributing Features

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1" = 200'-0"

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HISTORIC DISTRICT

DWG # 614 132281

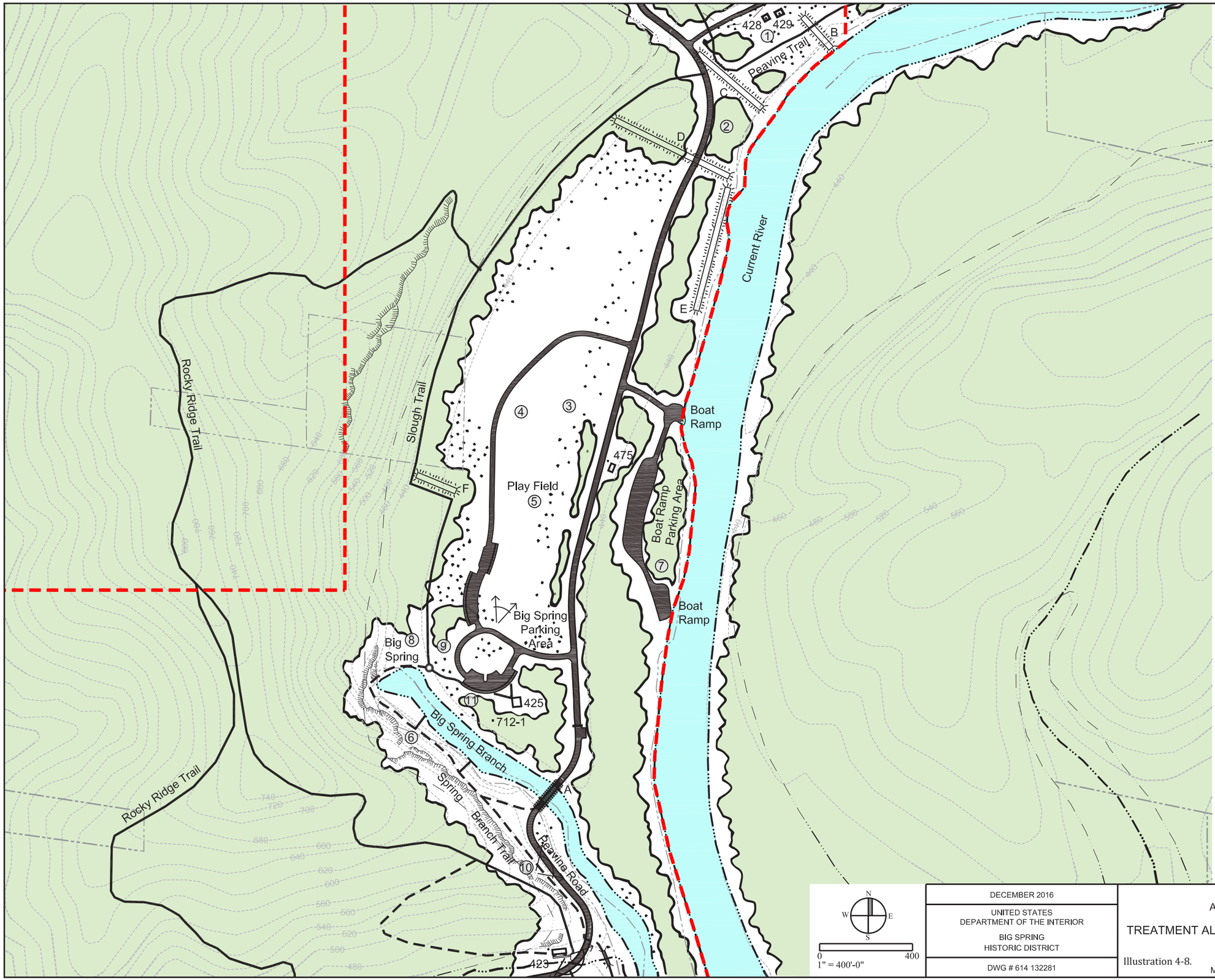
TITLE OF PROJECT
CULTURAL LANDSCAPE REPORT
AND ENVIRONMENTAL ASSESSMENT

TITLE OF DRAWING
TREATMENT ALTERNATIVE 1 - MUSEUM, DINING LODGE AND CABIN

NAME OF PARK
BIG SPRING HISTORIC DISTRICT

REGION MIDWEST | COUNTY CARTER | STATE MISSOURI

Illustration 4-7.



Legend

- Study Area
- Contour (20' Interval)
- Road
- Trail to Preserve
- Repair Contributing Trail
- River
- Floodplain
- Building to Preserve
- Culvert
- Bridge
- Cliff to Preserve
- Reestablish Historic Views
- Dike System to Repair
- New Bridge Compatible with Historic Character

Buildings and Structures

423	Latrine
425	Big Spring Pavilion
428	Peavine Pavilion
475	Boat Ramp Restroom
712	Fountain

A	Big Spring Branch Vehicular Bridge
B	Big Spring Stone Dike #1
C	Big Spring Stone Dike #2
D	Big Spring Stone Dike #3
E	Big Spring Stone Dike #4
F	Big Spring Stone Dike #5

Treatment Recommendations

1. Repair Peavine Pavilion (HS-425) and Provide Universal Access
2. Repair / Stabilize 5 Dikes
3. Relocate Big Spring Craft Cabin
4. Relocate Big Spring Latrine (476)
5. Reestablish Play Field to Historic Extents
6. Stabilize / Repair Spring Branch Trail Remove Vegetation, Re-construct Stone Walls / Abutments
7. Maintain Boat Ramp and Associated Facilities
8. Modify Non-contributing Wall
9. Preserve Non-contributing Walks
10. Add Overlook
11. Replace In-kind Playground Equipment

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TREATMENT ALTERNATIVE 1 - BIG SPRING CHARACTER AREA

NAME OF PARK
BIG SPRING HISTORIC DISTRICT

Illustration 4-8.

REGION	COUNTY	STATE
MIDWEST	CARTER	MISSOURI

Chapter 5. Environmental Consequences

Introduction

This "Environmental Consequences" chapter analyzes both beneficial and adverse impacts that would result from implementing either of the alternatives considered in this CLR/EA. This chapter also includes methods used to analyze direct, indirect, and cumulative impacts. Impacts are evaluated based on context, duration, and whether they are direct, indirect, or cumulative. A summary of the environmental consequences for each alternative is provided in "Chapter 4. Treatment Alternatives." The resource topics presented in this chapter and the organization of the topics correspond to the resource discussions contained in "Chapter 3: Existing Condition and Landscape Analysis."

This CLR/EA assesses whether significant impacts would occur as a result of the proposed action, resulting in an environmental impact statement, or whether a finding of no significant impact is the appropriate decision document.

General Methods

This section describes the environmental impacts, including direct, indirect, and cumulative impacts, and their significance for each alternative. Overall, the NPS based the impact analyses and conclusions on the review of existing literature and park studies, information provided by experts within the park and other NPS personnel, other agencies, professional judgment and park staff insights, and public input.

Direct, indirect, and cumulative effects are analyzed for each resource topic carried forward, which requires considerations of impact type, context, and duration as defined below:

- **Type** describes the classification of the impact as either beneficial or adverse, direct, or indirect:
    - *Beneficial*: A positive change in the condition or appearance of the resource or a change that moves the resource toward a desired condition.
    - *Adverse*: A change that moves the resource away from a desired condition or detracts from its appearance or condition.
    - *Direct*: An effect that is caused by the action and occurs in the same time and place.
    - *Indirect*: An effect that is caused by the action but is later in time or farther removed in distance, but is still reasonably foreseeable.
- **Context** describes the area or location in which the impact would occur. Effects may be site-specific, local, regional, or even broader.

- **Duration** describes the length of time an effect would occur – either short-term or long-term:
    - *Short-term* impacts generally last only during construction, and the resources resume their preconstruction conditions following construction.
    - *Long-term* impacts last beyond the construction period, and the resources may not resume their preconstruction conditions for a longer period following construction, or may never return to preconstruction conditions.

Cumulative Impacts

Cumulative impacts (or effects) are defined as "the impact on the environment that results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions, regardless of what agency (federal or nonfederal) or person undertakes such other actions" (40 CFR 1508.7). Cumulative impacts can result from individually minor, but collectively significant, actions taking place over a period of time. The CEQ regulations that implement NEPA require assessment of cumulative impacts in the decision-making process for federal projects.

Methods for Assessing Cumulative Impacts

Cumulative impacts were determined by combining the impacts of the action alternative and the no action alternative with other past, present, and reasonably foreseeable future actions. Past actions include activities that influenced and affected the current conditions of the environment near the project area. Ongoing or reasonably foreseeable future projects near the park or the surrounding region might contribute to cumulative impacts. The geographic scope of the analysis includes actions in the project area as well as other actions in the park or surrounding lands, including the town of Van Buren and Carter County, where overlapping resource impacts are possible. The temporal scope includes actions within a range of approximately 10 years.

Once identified, past, present, and reasonably foreseeable future actions were then assessed in conjunction with the impacts of the alternatives to determine if they would have any added adverse or beneficial impacts on a particular resource or visitor use. The impacts of past, present, and reasonably

foreseeable future actions vary for each resource. Cumulative impacts are considered for each alternative and are presented in the environmental consequences discussion for each impact topic.

Past, Present, and Reasonably Foreseeable Future Actions

The following past, present, and reasonably foreseeable future actions are relevant to the analysis of the impacts on resources and values that would result from the alternatives and are based on actions described in the park's GMP and from internal scoping. Past, present, and reasonably foreseeable management actions of the park include:

- Replace Failing Non-Sustainable Utilities for Dining Lodge (HS-422) and Cabins.
- Restore the Landscapes of Big Spring Historic District.
- Rehabilitate OZAR's Sole Concession-Run Historic District Lodging Cabins and Dining Lodge.
- Roads and Trails Master Plan (to be completed in 2017-2018). CLR recommendations should reflect the plan, but cannot be part of the no action alternative.
- The new Big Spring Branch Vehicular Bridge is to be constructed in 2017.
- Big Spring Pavilion (HS-425) is undergoing restoration.
- The Latrine (HS-423) has an upcoming project to repair the railings.

No other reasonably foreseeable future actions were identified in the vicinity of the project area that would potentially contribute to cumulative impacts.

Cultural Resources – Cultural Landscapes and Archeological Sites

Methodology

Potential effects on cultural resources were evaluated based on the presence and condition of existing aboveground and belowground features within the park units as described in "Chapter 3: Existing Condition and Landscape Analysis" Determination of impacts was based on the expected disturbance to cultural resources, professional judgment, and experience with previous projects.

No Action Alternative

Direct and Indirect Impacts of the Alternative. Under the no action alternative, park management practices would focus on maintaining contributing and noncontributing features that would require new ground disturbance. Because these actions have the potential to impact cultural resources, the no action alternative would have local short-term adverse impacts and long-term beneficial impacts on cultural resources.

Ground disturbances resulting from installation of utilities in a new underground corridor have the potential to directly impact buried but presently unknown cultural resources. Demolishing the existing electrical line, poles, and transformer could potentially have a direct impact on cultural resources if the line and associated features meet the NPS 50-year age criteria and if determined through consultation to be a historic property. Restoration of cultural landscape features and rehabilitation of the Dining Lodge (HS-422) and cabins, in keeping with the historic integrity of the structures, would have a beneficial impact on cultural resources due to the stabilization of the features themselves

and by maintaining and enhancing visitor experience by restoring the historical fabric of the structures. Naturalization of the landscape via demolition of aboveground utilities would result in beneficial visual impacts on the cultural landscape. Restoration of the Big Spring Pavilion (HS-425) and repair of the railings at the Latrine (HS-423) would also have direct beneficial impacts on contributing features of the BSHD. Although the existing Big Spring Branch Vehicular Bridge is not a contributing feature of the BSHD, replacement of the bridge would be compatible in design and materials with the other contributing features of the BSHD, resulting in a negligible effect on the BSHD.

Cumulative Impacts.
When considered cumulatively, all of the actions under the no action alternative would have short-term adverse impacts primarily from new ground disturbance (i.e. replacing failing and extant overhead utility lines in an underground corridor), and long-term beneficial impacts by restoring the cultural landscape (i.e. restoring and rehabilitating cultural landscape features and buildings).The no action alternative, when combined with past, present, and reasonably foreseeable future actions, such as the Road and Trails Master Plan (currently underway), would continue to have local long-term beneficial cumulative and short-term minimal adverse cumulative impacts on cultural resources.

Section 106 Mitigations.
The no action alternative would result in direct local adverse impacts on cultural resources from ground-disturbing actions unless measures are implemented to avoid or minimize effects on historic properties. To mitigate potential adverse impacts on cultural resources, survey, evaluative testing, geophysical work, or monitoring may be required to identify and evaluate the potential for unknown cultural resources in areas of ground disturbing activity. This work would require consultation under the NPS Service-wide Programmatic Agreement. For the purposes of satisfying the requirements of Section 106 of the National Historic Preservation Act (54 U.S.C. 306108) for the Big Spring Historic District, Ozark National Scenic Riverways CLR/EA, no determination of effect is being made at this time. NPS will utilize the Nationwide Programmatic Agreement of 2008 (PA) between the NPS, Advisory Council on Historic Preservation (ACHP) and the National Conference of State Historic Preservation Officers (NCSHPO) which provides established protocols for the individual consideration of an undertaking following either a streamlined or standard review pathway. Prior to implementation of any undertaking or recommendation that has an effect on historic properties presented within the Big Spring District CLR/EA, these undertakings will be added to the NPS Planning, Environment and Public Comment (PEPC) database and reviewed by the Regional CRM team. A determination will be made on the treatment of the undertakings according to the protocols of the PA. For the purposes of this CLR/EA, the Section 106 process as defined in 36 CFR 800 is satisfied by this process. Overall, the no action alternative would have long-term beneficial impacts on cultural resources as long as potential adverse impacts are mitigated.

Action Alternative

Direct and Indirect Impacts of the Alternative.
Under the action alternative, all improvements proposed under the no action alternative would be implemented, as well as additional actions to fully rehabilitate the historic setting of the park. Utilities would be updated and placed underground in a single corridor to minimize potential impacts on cultural resources; however,

ground disturbances from burying utilities could potentially adversely impact buried but presently unknown cultural resources. In addition to rehabilitation of the interior and exterior of the Dining Lodge (HS-422) and cabins and restoration/stabilization of structures such as stone retaining walls, wooden staircases, and steps, preservation measures would occur at other contributing buildings and structures within the park. Improvements to the landscape surrounding these buildings or structures would also occur to conform to the historic character of the landscape and to meet contemporary needs. Improvements would consist of clearing overgrown vegetation and/or reconstructing historic features that were removed in the past, but would contribute to the historic setting of the park. Other actions that could impact cultural resources include adding pedestrian routes, rehabilitating some buildings and areas within the BSHD to accommodate new uses and/or universal accessibility, repairing existing trail alignments and creek crossings, rerouting and clearing trail alignments and creek crossings, removing noncontributing features, and constructing a new restroom.

Many of the activities proposed under the action alternative, including rehabilitation and preservation of contributing buildings, structures, and features; removal of aboveground utility lines, noncontributing features, and invasive plant species; and replacement of modern materials with those more compatible with the historic character, would improve the setting and feeling of the cultural landscape and result in long-term beneficial impacts on the cultural landscape. Removal of aboveground utilities and restoration of the historic landscape surrounding contributing buildings, structures, and features also would have beneficial visual impacts on the cultural landscape. Removal of vegetation and shallow subsurface disturbance would occur during construction of missing or new features, which could adversely impact buried archeological sites. Rehabilitation of buildings, structures, new parking areas, and trails and features, if not conducted in a manner that preserves their historic integrity, could have a long-term direct adverse impact on cultural resources. Modifying structures and walkways to provide universal access would result in long-term direct adverse impacts from altering the historical feeling and design of the structures. Repairing and restoring contributing trail alignments, if not done in keeping with the historic integrity, could result in adverse impacts to the cultural landscape.

Cumulative Impacts.
The action alternative, when combined with past, present, and reasonably foreseeable future actions, such as the Road and Trails Master Plan (currently underway), would have the potential for both long-term beneficial and local short-term adverse cumulative effects on historic properties. The removal of noncontributing features, utility lines and poles, and nonnative vegetation would improve the setting and feeling of the cultural landscape. Rehabilitation of contributing buildings, structures, and features, if done in a way that preserves the historic integrity, would have long-term beneficial cumulative effects. Ground disturbances under the action alternative could adversely affect the integrity of unknown historic properties. Overall, when combined with past, present, and reasonably foreseeable future actions, the action alternative would have a long-term beneficial impact on cultural resources.

Section 106 Mitigations.
The action alternative would have local short-term and long-term adverse effects on cultural resources from changes to historic

structures that are not in keeping with their historic integrity. Alterations to historic structures to provide universal accessibility may constitute an adverse effect from changes to the historical feeling and design of the structures. Beneficial effects would occur from removal of noncontributing features and restoration of the setting and feeling of the cultural landscape by removing vegetation. Cumulative effects would be local, short-term and long-term, and adverse; and long-term and beneficial. Adverse effects from modifications to contributing buildings not in keeping with their historic character would require Historic American Building Survey (HABS) documentation. Methods should be employed to evaluate for the potential of unknown archeological resources prior to ground disturbing activity from vegetation removal or utility work.

Vegetation

Methodology

Potential impacts on vegetation were evaluated based on the existing vegetation and the natural or human-based processes sustaining them within the park as described in "Chapter 3: Existing Conditions and Landscape Analysis." Predictions about impacts were based on the expected disturbance to vegetation communities, professional judgment, and experience with previous projects. Short-term impacts are those in which the vegetation would recover in less than 1 year and long-term impacts are those that would take more than 1 year for the vegetation to recover.

No Action Alternative

Direct and Indirect Impacts of the Alternative. Under the no action alternative, the present level of use, management, and maintenance would continue, resulting in minimal impacts on vegetation. Mowing operations would continue, which would maintain the existing lawns and prevent encroachment of the native forest in these areas. Maintaining existing mown areas would be a slight adverse effect on vegetation by maintaining a more open setting in mown areas compared with the forested areas that would naturally occur, but would affect only a relatively small area within the park. Replacing failing utility lines to the Dining Lodge (HS-422) and cabins would result in short-term removal of vegetation. Vegetation would be restored with native species following construction. An overhead electric line in a forested area would be replaced with an underground utility line. Removal of the overhead electric line would allow vegetation communities to increase after the electric line alignment is revegetated, resulting in a benefit to vegetation over the long term. Restoring

landscapes of the Big Spring Historic District would benefit vegetation by repairing eroded landscaping and removing invasive plant species. Purple loosestrife and other invasive plant species may continue to spread in the park, resulting in adverse impacts on native plant communities. Ongoing park management practices to remove and control invasive plant species would reduce the potential for invasive plant species to spread in the project area. Overall, the no action alternative would have a slight adverse effect on vegetation over the long term.

Cumulative Impacts.
When considered cumulatively, all of the actions under the no action alternative (i.e., replacing failing overhead utility lines in an underground corridor, demolishing extant aboveground utility lines and placing these lines underground, and restoring and rehabilitating cultural landscape features and buildings) have had, and would continue to have, minor adverse impacts on vegetation. As previously described, direct and indirect impacts of the no action alternative on vegetation also would occur from mowing and continued control of invasive species. When added to the existing cumulative effects, the impacts of the no action alternative would have a minor adverse contribution, but would not substantially change the overall cumulative effects already occurring. Thus, when the effects of the no action alternative are combined with the effects of other past, present, and reasonably foreseeable future impacts, the total cumulative impacts on vegetation would continue to be minor and adverse.

Action Alternative

Direct and Indirect Impacts of the Alternative.
Under the action alternative, all improvements proposed under the no action alternative would be implemented, as well as additional actions to fully rehabilitate the historic setting of the park. Under the action alternative, changes to vegetation management in the project area would include clearing or thinning vegetation in select areas to restore or maintain the open nature of the landscape. Vegetation would be thinned within a 92-acre area encompassing the Entrance Building (HS-432), maintenance area, cabins, and Dining Lodge (HS-422), and the area around Big Spring. Of this 92-acre area, only about 30 acres would be thinned, because much of the area includes roads, buildings, existing parking areas, and play fields, which are not vegetated, or where vegetation management would not change. Upland vegetation would be maintained with a more open appearance compared with current maintenance. The thinned area would continue to be forested, but some clearing would occur to thin the understory and remove downed limbs to improve views. Impacts on vegetation would result primarily from removal of understory species. Mature trees would be preserved. Additional impacts on vegetation would include removing overgrown vegetation adjacent to the Dining Lodge and Latrine (HS-423), removing invasive plant species, and restoring some historic plantings in select locations. Restoring historic plantings would include planting species similar to species in the native forest in a pattern and density for aesthetic appeal. No invasive species would be planted.

About 10 acres of upland vegetation would be removed to restore the open playfield north

of Big Spring to its full historic extent. Of the vegetation removed from the playfield, about 0.5 acre would be an area dominated by trees and shrubs, and 9.5 acres would be grasses and forbs. Vegetation between the Big Spring parking area and Big Spring branch would be thinned as needed to maintain views to Big Spring.

About 0.5 to 1 acre of vegetation would be cleared at the CCC Camp Ruin to restore historic conditions and views and improve interpretation and educational opportunities at the camp. The impacted area at the camp is approximate because the extent of vegetation removal would depend on future archeological investigations to verify the extent of the camp. Impacts on vegetation would result from thinning the understory to increase the visibility of building foundations and walkways at the camp. Mature trees and shrubs would be preserved.

Less than 0.10 acre of vegetation would be impacted by clearing vegetation to construct a trail from Road Z-206 to the CCC Rock Quarry (HS-700) and maintaining the open nature of the quarry. The trail would follow an abandoned roadbed that has become overgrown with vegetation. Constructing the trail along the abandoned roadbed would require removing vegetation along a section of the road about 250 feet long and 10 feet wide. Vegetation would be removed as necessary to maintain the open nature of the quarry or if the vegetation would threaten or damage the cultural resource.

Vegetation would be cleared as necessary along portions of existing trails throughout the park to restore the trails to historic conditions. Vegetation also would be cleared for small parking and pull-off areas for trail access, as well as at the Chilton Loop overlook to provide enhanced views for visitors. Overall, vegetation would change less than 2% of the 5,580 acre project area.

Overall, vegetation management would change on about 41 acres, about 1% of the 5,580 acre project area. This change in management would alter the vegetation communities in a portion of the project area. Removal of invasive species would improve vegetation communities. Clearing and thinning would be confined to the smallest area necessary to improve views and restore the cultural landscape. Infestation and spread of invasive exotic plants is possible as invasive plant species frequently invade disturbed ground where they are easily established and outcompete native species if left unchecked. Controlling invasive plant species would minimize the potential for long-term impacts. Overall, the action alternative would have a beneficial effect on vegetation from removing invasive species and thinning vegetation in overgrown areas . This would be a slight impact because the impacted vegetation types are common in the project area and only 1% of the project area would be affected.

Cumulative Impacts.
The impacts of past, present, and reasonably foreseeable future actions on vegetation would result from replacing failing utility lines at the Dining Lodge (HS-422) and cabins, restoring landscapes at the BSHD, and controlling the spread of invasive nonnative plants. As described above for the no action alternative, these actions have had, and would continue to have, minor adverse impacts on vegetation. As previously described, the action alternative would have beneficial impacts on about 41 acres of vegetation within the project area. Continuing control of invasive plant species would also contribute a beneficial effect. When added to the existing

cumulative effects, the impacts of the action alternative would contribute to, but would not change, the overall cumulative effects already occurring. Thus, when the effects of the action alternative are combined with these other past, present, and reasonably foreseeable future impacts, the total cumulative impacts on vegetation would continue to be minor and adverse within the project area.

Visitor Use and Experience

Methodology

Potential impacts on visitor use and experience were assessed based on changes to the existing opportunities and quality for visitors to enjoy park resources, values, and amenities. For this analysis, visitor use and experience includes visitor understanding of the cultural landscape within the Big Spring Historic District, satisfaction, and safety, as well as availability of visitor options. Short-term impacts on visitor use and experience would last only during project construction activities, while long-term impacts would extend beyond construction activities.

No Action Alternative

Direct and Indirect Impacts of the Alternative. Under the no action alternative, the present level of use, management, and maintenance would continue and would include actions identified in the GMP and actions already identified/in progress. Overall, effects on visitor use from the no action alternative would be minimal. However, several ongoing or planned projects would result in beneficial effects on visitor use and experience. Because the Dining Lodge (HS-422) and cabins have experienced numerous electrical outages and other system failures, replacing failing utility lines to these facilities would provide reliable service for visitors and staff, resulting in a better experience for visitors to the Dining Lodge and cabins. In addition, because the utility infrastructure of exposed piping and overhead lines would be buried underground, the result would be a more natural character and an improved visitor experience. Rehabilitation of the Dining Lodge and 15 cabins would provide much needed upgrades to meet current codes including universal access, provide fully functioning facilities for the concessioner,

and provide a better visitor experience. Restoring the cultural landscapes within the Big Spring Historic District would result in improved visitor safety and experience by addressing deteriorating walls, steps, staircases, trails, and plantings. Improved trail conditions and replacement of wayside exhibits would result in enhancements to the interpretive and educational experience for visitors. Local short-term adverse effects may occur on visitor use and experience during construction and improvement activities. Under the no action alternative, access to the park units would remain the same, other than the reopening of the Dining Lodge, with the Museum (HS-420), Latrine (HS-423), and Fire Tower / Lookout Tower (HS-1404) remaining closed to the public.

Cumulative Impacts.
When considered cumulatively, all of the actions under the no action alternative (i.e., replacing failing overhead utility lines in an underground corridor and restoring and rehabilitating cultural landscape features and buildings) would have a local long-term beneficial impact on visitor use and experience. Reasonably foreseeable future actions, such as the Roads and Trails Master Plan, and other park improvement projects, such as restoration of the Big Spring Pavilion (HS-425) and replacement of the Big Spring Branch Vehicular Bridge, would have beneficial effects on visitor use and experience from improved infrastructure throughout the Big Spring Historic District. Those effects, combined with the long-term beneficial effects of the no action alternative, would result in beneficial cumulative effects.

Action Alternative

Direct and Indirect Impacts of the Alternative.
Under the action alternative, all improvements proposed under the no action alternative would be implemented as well as additional actions to fully rehabilitate the historic setting of the park. Visitor use and experience would be enhanced from the action alternative in numerous ways: opening visitor access to the Museum (HS-420), Fire Tower / Lookout Tower (HS-1404) (guided access only), and Latrine (HS-423_ (as a visitor contact area); preserving and repairing the historic setting throughout the core development area by rehabilitating stone walls, trails/walkways, and historic vegetation, and removing noncontributing features; rehabilitating trails, providing trailhead pull-outs and parking, and enhancing views at the Chilton Loop overlook within the historic district; improving the interpretation of the Big Spring Historic District and cultural landscape through additional wayfinding and new or replaced interpretive signs; and clearing vegetation to allow for historic views to the river and structures. Visitor use and experience may be temporarily impacted by implementation of these measures and temporary facility and trail closures. The impacts on visitor use and experience during rehabilitation work would be local, short-term, and adverse. Overall, the action alternative would result in parkwide long-term beneficial effects on visitor use and experience.

Cumulative Impacts.
The past, present, and reasonably foreseeable future actions and their impacts would be the same as those for the no action alternative. Past, present, and reasonably foreseeable future actions would have local long-term beneficial effects and local short-term minor adverse cumulative impacts on visitor use and experience. Those impacts, combined with the local long-term beneficial effects of the action alternative, would result in parkwide short-term minor adverse cumulative impacts and long-term beneficial cumulative effects.

Visual Resources

Methodology

Potential impacts on visual resources were evaluated based on changes to the visual landscape from the visitor's perspective. Visual resources include the views from the Dining Lodge (HS-422), cabins, pavilions, playfields, trails, and other visitor contact areas or amenities; views of the Current River and Big Spring; and overall views of elements that contribute to the Big Spring Historic District. The geographic project area for evaluating impacts on visual resources includes the overall BSHD and cultural landscape within the core development area and Big Spring area. The cultural landscape within the park is discussed in more detail in the "Cultural Resources" section. Short-term impacts on visual resources would last less than three years, while long-term impacts would last more than three years.

No Action Alternative

Direct and Indirect Impacts of the Alternative.
Under the no action alternative, the present level of use, management, and maintenance would continue and would include actions identified in the GMP and actions already identified/in progress. Overall, effects on visual resources from the no action alternative would be minimal. However, several ongoing or planned projects would result in beneficial effects on the visual resources within the Big Spring Historic District. Because the utility infrastructure of exposed piping and overhead lines would be buried underground, the visual character would improve around the Dining Lodge (HS-422) and cabins. Rehabilitation of the Dining Lodge, cabins, and Big Spring Pavilion (HS-425) would improve the visual condition and character of the structures. Restoring the cultural landscapes within the Big Spring Historic District would result in improvements to the visual character within the Big Spring Historic District by repairing deteriorating walls, steps, staircases, the Boat Dock, trails, and eroded plantings. Local short-term adverse effects on visual resources may result during construction and improvement activities and for a period following improvements as revegetation occurs.

Cumulative Impacts.
When considered cumulatively, all of the actions under the no action alternative (i.e., replacing failing overhead utility lines in an underground corridor and restoring and rehabilitating cultural landscape features and buildings) would have a local long-term beneficial impact on visual resources and a local short-term adverse impact on visual resources during and following construction.

Reasonably foreseeable future actions including park improvement projects, such as restoration of the Big Spring Pavilion (HS-425) and replacement of the Big Spring Branch Vehicular Bridge, would have beneficial effects on visual resources from improved infrastructure throughout the Big Spring Historic District. Those effects, combined with the long-term beneficial effects of the no action alternative, would result in beneficial cumulative effects on the visual character of the Big Spring Historic District.

Action Alternative

Direct and Indirect Impacts of the Alternative.
Under the action alternative, all improvements proposed under the no action alternative would be implemented as well as additional actions to fully rehabilitate the historic setting of the park. Visual resources

within the Big Spring Historic District would be enhanced from the action alternative by preserving and repairing the historic setting throughout the core development area by rehabilitating stone walls, trails/walkways, and historic vegetation. The removal of noncontributing features, such as the pedestrian lights and interpretive panels from the Dining Lodge (HS-422) as well as redesigning other noncontributing features to be compatible with the historic setting, would result in improved visual resources within the Big Spring Historic District. Clearing vegetation to allow for historic views to the river and structures would benefit the visual character. In addition, clearing vegetation on select trails within the historic district as well as the Chilton Loop overlook would provide enhanced views of historic trails and features. Visual resources may be temporarily impacted by implementation of these measures from construction activities and rehabilitation of vegetation. The impacts on visual resources during rehabilitation work would be local, short-term, and adverse. Overall, the action alternative would result in parkwide long-term beneficial effects on the visual character within the Big Spring Historic District.

Cumulative Impacts.
The past, present, and reasonably foreseeable future actions and their impacts would be the same as those for the no action alternative. Past, present, and reasonably foreseeable future actions would have local long-term beneficial effects and local short-term minor adverse cumulative impacts on the visual character within the Big Spring Historic District. Combined with the local long-term beneficial effects of the action alternative, cumulative effects would be parkwide, short-term, minor, and adverse and long-term and beneficial.

Wilderness

Methodology

Analysis of impacts on wilderness areas requires a determination of what qualities of wilderness character, if any, would be affected by the proposed project. As described in the *Wilderness Affected Environment* section, these qualities are (1) untrammeled, (2) undeveloped, (3) natural, (4) offers outstanding opportunities for solitude or primitive and unconfined recreation, and (5) other features of scientific, educational, scenic, or historical value. Although the wilderness areas have not been officially designated as wilderness by Congress, the recommendation of these areas as wilderness by the NPS warrants impacts analysis. A discussion of impacts on these qualities from the alternative actions follows.

No Action Alternative

Direct and Indirect Impacts of the Alternative.
Under the no action alternative, the present level of use, management, and maintenance would continue and would include actions identified in the GMP and actions already identified/in progress. Ongoing or planned projects include burying utilities, rehabilitating the Dining Lodge and cabins, and restoring the cultural landscape of the Big Spring Historic District. These actions would not take place within, but are located next to, proposed wilderness areas. These actions have the potential to affect proposed wilderness areas—specifically the historical value of these areas—within the Big Spring Historic District.

Cumulative Impacts.
When considered cumulatively, all of the actions under the no action alternative (i.e., replacing failing overhead utility lines in an underground corridor and restoring and

rehabilitating cultural landscape features and buildings) would have a local long-term beneficial impact on wilderness resources and a local short-term adverse impact on wilderness resources during and following construction.

Action Alternative

As part of the wilderness study, which includes the Big Spring Historic District, the GMP states,

- Wilderness designation today would represent a continuum connecting federal policies of the past with a modern interpretation of wilderness in the present concerning recreation in the environment, environmental protection, and the experience of wilderness character. The Big Spring Historic District and CCC-era camp are enhancing qualities in the Big Spring project area, affording the opportunity to embrace the historic values of the project area rather than simply tolerate them. The Wilderness Act, when describing a wilderness area, includes the passage: *may also contain ecological, geological, or other features of scientific, educational, scenic, or historical value.* In the case of the Big Spring project area, these historic features are recognized as part of the wilderness character to be managed and preserved.

Under the action alternative, rehabilitation of historic structures and the cultural landscape would be consistent with recommendations outlined in the GMP, as follows:

- The Fire Tower / Lookout Tower (HS-1404), incinerator, barn, and CCC-era camp would be retained.
- Motorized vehicle use of the access roads to the Fire Tower / Lookout Tower (HS-1404), storage area, and Chilton Creek Barn would be prohibited. The roads would be evaluated to determine the feasibility of restoring them to a CCC-era condition, allowing them to return to a natural state, or eliminating them altogether.

Minimum Requirement/Minimum Tool Analysis

Section 4(c) of the *Wilderness Act* prohibits certain activities, including commercial enterprises and permanent roads, in any designated wilderness area, except as necessary to meet minimum requirements for the administration of the area. NPS policy dictates that all management decisions affecting wilderness must be consistent with the "minimum requirement" concept by completing a minimum requirement analysis (MRA) on potential actions in wilderness. The MRA enables managers to examine and document whether a proposed management action is appropriate in wilderness and, if it is, what is the least intrusive equipment, regulation, or practice (minimum tool) that will achieve wilderness management objectives. The completion of this process assists managers in making informed and appropriate decisions concerning actions conducted in wilderness.[4.1]

Direct and Indirect Impacts of the Alternative. Under the action alternative, implementation actions occurring in wilderness would require a MRA. Such actions include the rehabilitation of structures and features such as the Fire Tower / Lookout Tower (HS-1404), stone walls, and other construction-

4.1 NPS Wilderness Management Policy, 2006.

related activities; rehabilitation of trails and stream crossings and addition of pull-outs and parking areas near trailheads; and the rehabilitation and maintenance of the cultural landscape. Because the methods used to implement treatments under the action alternative are not specified at this time (i.e., heavy equipment or hand tools), completion of a MRA would ensure that these activities occurring within or near proposed wilderness would have the least amount of impact necessary to achieve rehabilitation of the resource. It is anticipated that adverse effects on wilderness character would be local and minimal in the short term and long term and beneficial.

Cumulative Impacts.
The past, present, and reasonably foreseeable future actions and their impacts would be the same as those for the no action alternative. Past, present, and reasonably foreseeable future actions would have local long-term beneficial effects and local short-term minor adverse cumulative impacts on the wilderness character within the Big Spring Historic District. Following completion of a MRA, it is anticipated that effects of the action alternative on wilderness resources combined with the long-term beneficial effects of the action alternative, would be local, short-term, and adverse and long-term and beneficial.

Chapter 6. Treatment Plan and Implementation

Overview

This CLR is the principal treatment document for the cultural landscape of Big Spring Historic District. This section presents treatment recommendations for the repair, protection and stewardship of the cultural landscape its contributing features. Treatment recommendations are intended to guide the overall aesthetic and future appearance of the cultural landscape, and are founded on review of historical documentation, assessment of existing condition, and application of the Secretary of Interior's standards and guidelines as they apply to the treatment of historic landscapes.[6.1] At the end of this chapter, implementation guidance is provided for undertaking these recommendations and organizes them into distinct tasks in order to identify future projects.

Treatment Approach

Rehabilitation is the selected treatment approach for the cultural landscape. Rehabilitation is well-suited for Big Spring Historic District as the cultural landscape has a long period of significance with contributing features from multiple periods. Rehabilitation will include new construction and adaptive reuse for contemporary and compatible uses.

Treatment Terminology

In recognition of the Big Spring Historic District's listing in the NRHP, all future work planned for the cultural landscape will be guided by *The Secretary of the Interior's Standards for the Treatment of Historic Properties – Historic Landscapes.* The following terminology is used in this CLR to describe recommended actions.[6.2]

Consider is to routinely evaluate if a treatment action can be undertaken. Budget restraints and long-term maintenance may result in delayed treatment action. As circumstances change, the treatment action should be re-evaluated and eventually completed.

Design intent refers to the creative objectives that were applied to the development of a historic property.

Introduce is the addition of a new, non-historic feature that is compatible with the cultural landscape. This may also include the replacement of a missing historic feature.

In-kind refers to the replacement of feature that is extensively deteriorated or missing parts of features using materials that match the historic detail, configuration, and appearance as closely as possible.

Maintain refers to measures that sustain the form, integrity and materials of contributing features, either on a regular basis or as a non-recurring event.

Preserve refers to those measures necessary to sustain the existing form, integrity, and materials of contributing features. It includes initial stabilization work, where necessary, as well as ongoing preservation maintenance and repair of historic materials and features.

Protect refers to actions to safeguard a historic feature by defending or guarding it against further deterioration or loss. Such

6.1 Birnbaum, Charles A. and Christine Capella Peters. The Secretary of the Interior's Standards for the Treatment of Historic Properties with Guidelines for the Treatment of Cultural Landscapes. Washington, DC: U.S. Department of the Interior, National Park Service, 1996.

6.2 Adapted from The Secretary of Interior the Interior Standards for the Treatment of Historic Properties as amended and annotated, 1995 and http://www.nps.gov/dscw/definitions.htm.

action is generally of temporary nature and anticipates future preservation treatment.

Reconstruct refers to the act or process of depicting, by means of new work, the form, features, and detailing of a non-surviving historic structure or any part thereof, for the purpose of replicating its appearance at a specific time in its original location.

Rehabilitate refers to the act or process of allowing a compatible use through repair, alteration, or additions as long as those features that convey the historical, cultural, or architectural values are preserved.

Repair refers to those measures that are necessary to correct deteriorated, damaged, or faulty materials of features. These measures are more extensive than regular maintenance and undertake work necessary to bring a contributing feature or area to good condition.

Restore refers to those measures necessary to accurately depict the form, features, and character of a property as it appeared during a particular period of time by means of the removal of features from other periods in history and reconstruction of missing features from the restoration period.

Retain are those actions that are necessary to allow a feature (contributing or non-contributing) to remain in place in its current configuration and condition.

Stabilize refers to those measures that require more work than standard maintenance practices, and that are necessary to prevent the further deterioration, failure, or loss of contributing features.

Study Area Treatment Recommendations

The treatment recommendations for the Big Spring Historic District guide the preservation and rehabilitation of the cultural landscape. These recommendations offer guidance for the park holistically, with measures for preserving extant features and qualities, and methods for rehabilitating contributing features associated with the study area as a whole.

The overall vision for the cultural landscape is to enhance visitor experience and understanding of the work completed by the CCC and WPA. The history of landscape development will be revealed to visitors, who will experience an overnight stay in a CCC-built cabin, follow historic trails, dine in the rehabilitated Dining Lodge (HS-422), and explore the natural wonders of Big Spring and the Current River. The Wilderness Area will be a primitive backcountry experience and cultural resources will be rehabilitated as possible.

The treatment recommendations identify locations where the cultural landscape needs rehabilitation in order to reveal historic features, retain character, and maintain its integrity. Where features are damaged or non-contributing features diminish the historic setting, they will be replaced with materials and design that reflects the historic character of the district. Vegetation patterns will be repaired to match the historic condition, with areas of open fields in contrast to shaded woodlands. Clearings around buildings will allow views to adjacent natural features (the river, hills and streams) and provide opportunities for naturalistic yet deliberate plantings that utilize native species.

Natural Systems and Features

1. Preserve and protect the Current River, Big Spring, Big Spring branch, Chubb Creek, and other natural drainages as contributing features to the cultural landscape.

2. Preserve and protect natural rock outcroppings where they occur.

3. Continue to provide river access and egress where these functions occur. Do not expand these uses into new areas, instead focus river use to specific locations in order to maintain a healthy riparian edge.

Wilderness Area and Cultural Resources

1. Preserve and maintain all cultural resources that contribute to the cultural landscape located within the proposed Wilderness Area.

    - Do not remove existing cultural resources that are contributing features including roads, trails, structures, and other features.

    - Minimizing the development of new features in these locations is appropriate.

    - Potential impacts to the Wilderness Area will require additional evaluation for compliance, which would include proposed work at the CCC camp, Chilton Creek Barn, and trail work (see Circulation recommendations).

Spatial/Topography/Views

1. Preserve contributing spatial organization, topography, and views.

2. Preserve the scale and form of the cultural landscape as a contributing feature, with the naturalistic landscape design, use of native materials, and Rustic architecture.

3. Preserve the established pattern of open versus enclosed spaces.

4. Repair contributing views by thinning vegetation to Big Spring branch, Big Spring, and the river.

5. Site utilities outside of major views and place utilities to have a minimal impact upon the landscape.

Archeological Sites

1. Preserve and protect archeological sites. Stabilize features as needed, including the Dump Incinerator (HS-432B), and CCC building foundations. Minimize visitor access in areas of known, sensitive archeological resources.

2. Consider opening the CCC Camp Ruin to visitors and interpreting the site to educate visitors about the CCC.

    - Additional archeological investigations are needed to verify the extents of the three former CCC camps.

3. Provide visitor access to the CCC Rock Quarry (HS-700) by adding a trail from Co. Road Z-206 to the CCC Rock Quarry and CCC Powder Magazine (HS-701).

    - Maintain the open character of the CCC Rock Quarry by removing large vegetation if it damages or threatens the cultural resource.

Defining Principles of CCC/WPA Rustic and Naturalistic Design at Big Spring

The history of Naturalistic Design has its roots in the landscape gardening traditions of England as further developed by landscape designers in America such as the Olmsted brothers. These styles fused idealistic visions of quaint villages that were nestled into their environment, creating views to natural features, and emphasizing hand-craftsmanship. Naturalistic designs often showcase work that was labor intensive and honored the experience of the craftsman. Marks of the craftsman using hand-tools are visible in worked stone and timbers. It is characterized by these defining principles:

1. Hand craftsmanship
- Hand-peeled/hand-hewn logs
- Irregular sized, chiseled stone
- Avoidance of rigid, straight lines

2. Use of native materials
- Native stone
- Oak timbers
- Locally-sourced crushed rock

3. Native plants arranged in informal groupings
- Unsymmetrical, not obviously balanced
- Seamless edges, plantings are not marked by visible boundaries between man-made and wild.

4. Form follows topography and is human-scaled
- Trails, retaining walls follow topography
- Built features are small scale

5. Minimal ornamentation
- If used, reflects local Ozark culture

6. Framed views to natural and built features

Circulation

1. Preserve contributing roads. Do not widen existing roads or modify road alignments.

2. Preserve contributing trails. Do not alter the alignment of historic trails or widen. Maintain trails throughout the study area as pedestrian routes only. Do not allow horseback riding or mountain biking on historic trails within the Big Spring Historic District.

3. Maintain trails with natural surfacing and natural, native materials for water breaks and steps.

    - Care for trails by maintaining a clear width, at 36" minimum along trails. Protect from erosion as necessary.

    - Replace dimensional lumber used on historic trails with a style that more closely resembles that which would have been used historically, such as round, unpeeled lumber, or stone.

    - Repair paths adjacent to footbridges to mitigate tripping hazards.

4. Allow bicycles on vehicular routes only throughout the Big Spring Historic District.

5. Maintain the width of the historic CCC road along the Fire Tower Trail, but close the route to vehicular traffic. Allow pedestrian use.

6. Preserve Rocky Ridge Trail as a contributing feature. Repair stone steps at the base of the trail. Consider adding an overlook at the trail summit to provide a view to Big Spring branch and the surrounding hills.

7. Close Ebb and Flow Road (Spring Loop), and allow the route to be reclaimed as part of the proposed Wilderness Area.

8. Within the Wilderness Area monitor contributing trails and trail features (culverts, retaining walls) for damage and decay. The intent for trails in the Wilderness Area is to provide a primitive Wilderness experience, and trail work within the Wilderness should be as minimal as possible. As resources become available, Wilderness trails should be restored, prioritized in the order presented below.

    - Repair Long Bay Loop Trail.

        - Repair trail where it is eroded in the lower elevations. Resurface the route to match material of trails elsewhere in the historic district.

        - Clarify the north trailhead by providing a safe pull-out and small parking area off of Highway Z.

        - Provide visitor parking at Partney House to access the south end of Long Bay Loop Trail.

        - Repair water bars, and replace damaged trail signs.

    - Repair Chilton Trail and Kinnard Loop. Rehabilitate these trails to connect with Fire Tower Trail.

        - Clear trails by clearing vegetation from the routes to reveal the historic trail width and road corridor (approximately 15 to 20 feet wide).

        - Repair stone creek crossings (at least three) and stone culverts along the trails. New crossings are required in



Treatment Notes

1. Rehabilitate footbridges to blend with the historic character
2. Repair paths adjacent bridges to mitigate tripping hazards

Figure 6-1. Rehabilitate footbridges to more closely resemble the historic aesthetic by replacing dimensional lumber with irregular, hand-peeled timbers.

several locations where the creek has shifted position and/or the historic crossing has been completely washed out.

- Resurface the trails to match the native stone material of trails elsewhere in the historic district.

º Repair Chilton Loop as a contributing part of the circulation system. This route provides an opportunity for visitors to experience upland vegetation and views.

- Clear grasses and vegetation from trail including fallen timber.

- Re-align lower portions of the trail in the hollows, where the trail has been washed away.

- Resurface the trail to match the native stone material of trails elsewhere in the historic district.

- Repair contributing features of this trail including stone retaining walls, stone culverts, drainage ditches, and overlook.

- Clear vegetation at the overlook to repair the view to the surrounding hills.

º Repair Tatum Trail and associated features (stone culverts and stone retaining walls).

- This route creates a loop but enters private land. The southern end of the route would need to be realigned to be entirely on NPS land.

- Clear vegetation, including trees and fallen timber.

- Restore the lower elevations of the trail where they have been eroded and washed away.

- Resurface the trail to match the native stone material of trails elsewhere in the historic district.

º Consider restoring McSpadden Trail and Water Hollow Trail. Further research is needed to verify the original route of these trails.

<u>Buildings and Structures</u>

1. Preserve and protect contributing buildings and structures.

2. Allow specific additions or alterations to buildings and structures that are compatible with the historic character of the landscape and meet contemporary needs.

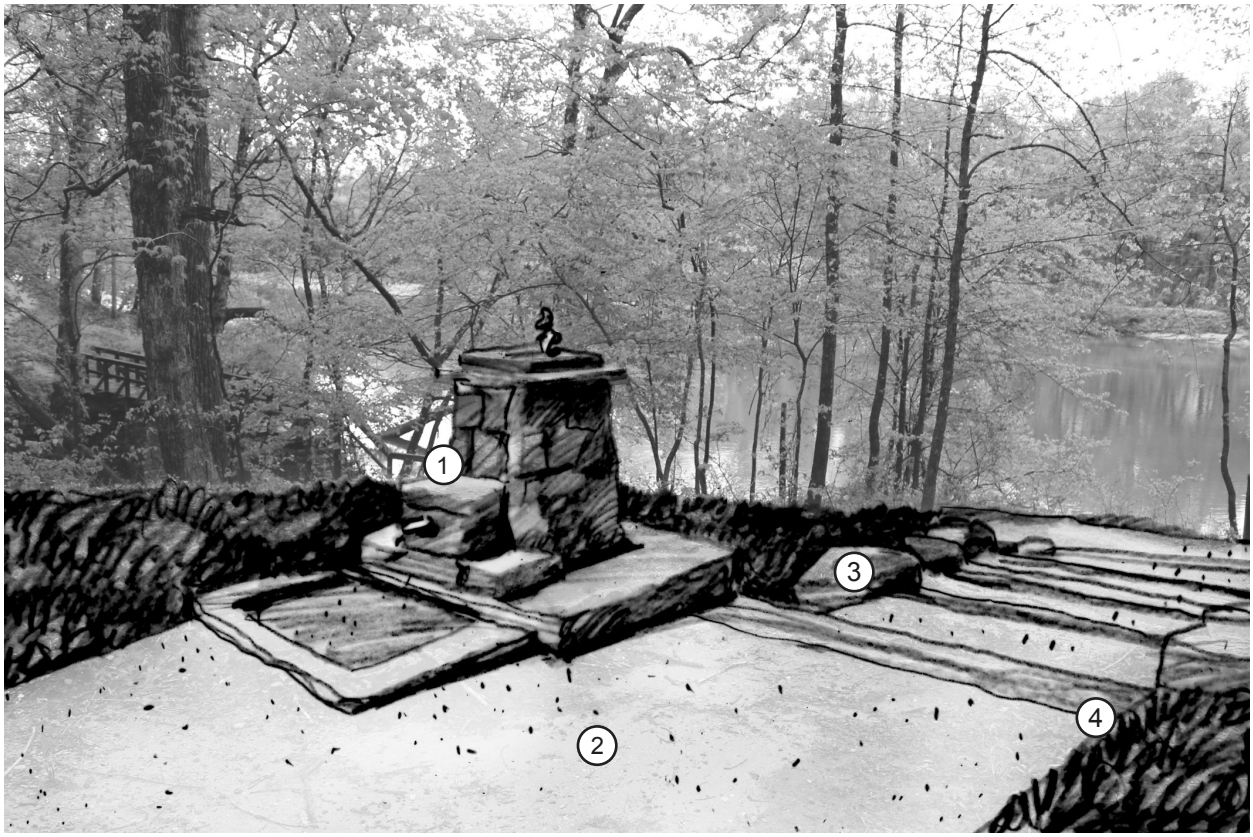
3. Preserve Peavine Pavilion (HS-428) and its park-like setting with mown lawn and shade trees.

   º Provide universally accessible access to the structure by modifying the walk from the parking area to the pavilion, meeting width, surface, and slope requirements.

   º Maintain existing Peavine Latrine adjacent the Peavine Pavilion; consider modifying the appearance of the latrine to be compatible with the historic setting.

4. Preserve the Fire Tower/Lookout Tower (HS-1404), and allow NPS staff and guided visitor access only.

5. Maintain existing footbridges throughout the study area.



Treatment Notes

1. Repair Fountains (HS-712) to working order and repair adjacent step and access from trail
2. Repair trail with locally sourced material that matches native bedrock
3. Repair trail edge by clarifying edge, consider boulders where used historically
4. Repair steps by removing dimensional lumber and replace with stone or rounded timbers

Figure 6-2. Repair contributing Fountains (HS-712) throughout the study area. Trails should be maintained with natural surfacing and native, hand-crafted materials used for water breaks and steps.

- Rehabilitate the footbridges to reflect the historic character of the district. Replace dimensional lumber with hand-peeled timbers that reflect the historic aesthetic of hand-craftsmanship and style that reflects a Rustic appearance.

6. Preserve the Chilton Creek Barn (HS-467) as a contributing structure.

   - Repair the barn as needed, and maintain the open setting around the structure.

   - Allow visitor access from the adjacent Chilton Trail.

7. Preserve the May/Winters Quarters (HS-444), May/Winters Quarters Garage Foundation (HS-444A), and contributing features.

   - Repair the setting of the residence by reestablishing foundation plantings, maintaining the lawn and trees around the home, and resetting the fence enclosing the domestic yard.

Small Scale Features

1. Repair contributing water Fountains (HS-712) throughout the study area, replacing materials as necessary.

   - Repair water connections and restore the Fountains to working condition.

2. Allow new, contemporary signs, however minimize the use of signs in the cultural landscape as this may detract from the historic setting.

   - For new signs, utilize a style and material that does not mimic the historic CCC/WPA aesthetic, but rather is contemporary in nature.

   - Provide a new sign at the intersection of Peavine Road/State Highway 103 and State Highway Z, to clearly guide visitors to either the Dining Lodge (HS-422) and Cabins, or to Big Spring.

   - Minimize the use of interpretive waysides and provide this information within the museum or other methods (digital, brochures, etc).

Vegetation

1. Maintain areas around buildings and structures with a more park-like appearance than currently. Remove downed timber and forest debris, re-establish native shrubs and groundcovers to create a more cared-for/maintained appearance. Preserve other areas that are away from the building clusters as natural forested areas.

2. Manage future Wilderness areas as Wilderness, until status is officially declared.

3. No spraying of exotic species should occur. Allow controlled burns where possible (excluding potential Wilderness Zones) per OZAR Prescribed Fire Plan.[6.3]

Recommendations for Further Research

1. An update to the CLI is needed, in order to include all resources that were planned and implemented by the CCC/WPA. This includes trail resources south of the current CLI boundary.

2. Update the Dining Lodge HSR in order identify contributing features of the building and acceptable modifications.

6.3 Ozark National Scenic Riverways, Prescribed Fire Plan, Big Spring Cabins. National Park Service, U.S. Department of the Interior, 2013.

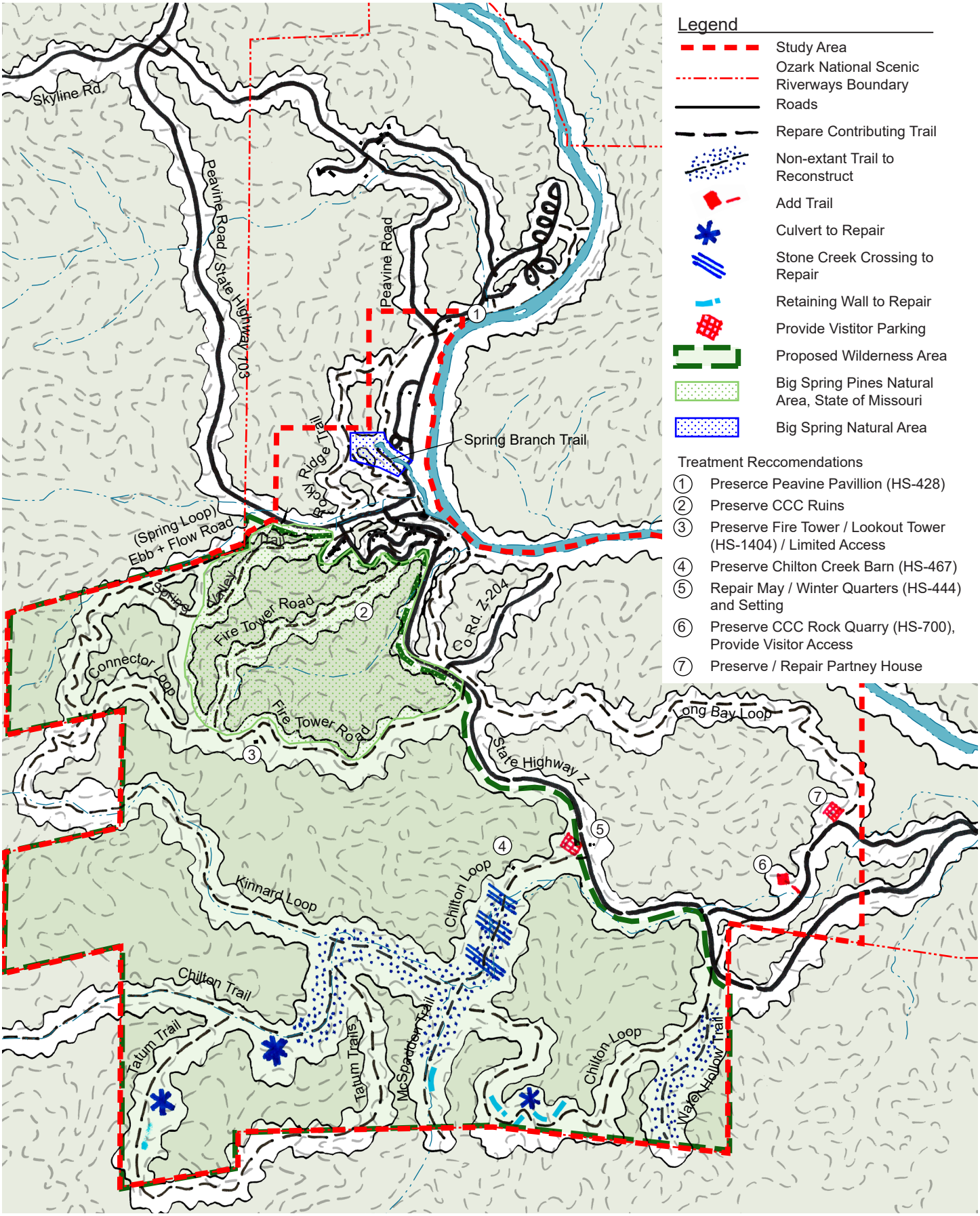


Figure 6-3. Treatment recommendations for the study area identify opportunities to repair the setting and overall character of the CCC/WPA designed landscape. Recommendations include preserving contributing buildings and structures, and rehabilitating historic spatial qualities by managing vegetation, repairing small scale features and trails. (Mundus Bishop 2015).

3. Historic Structure Reports (or similar) are needed for the Entrance Building (HS-432), Maintenance buildings, Museum (HS-420), cabins, and Latrine (HS-423). These buildings warrant further investigation regarding contributing features.

4. A Furnishing Study should be included as part of building rehabilitation work, in order to inform appropriate interiors that respect the historic design.

5. Archeological resources need further documentation, in order to record the extent of archeological scatter and resources. This may include archeological surveys and testing.

    - An archeological inventory for historic resources (CCC/WPA-era) is needed.

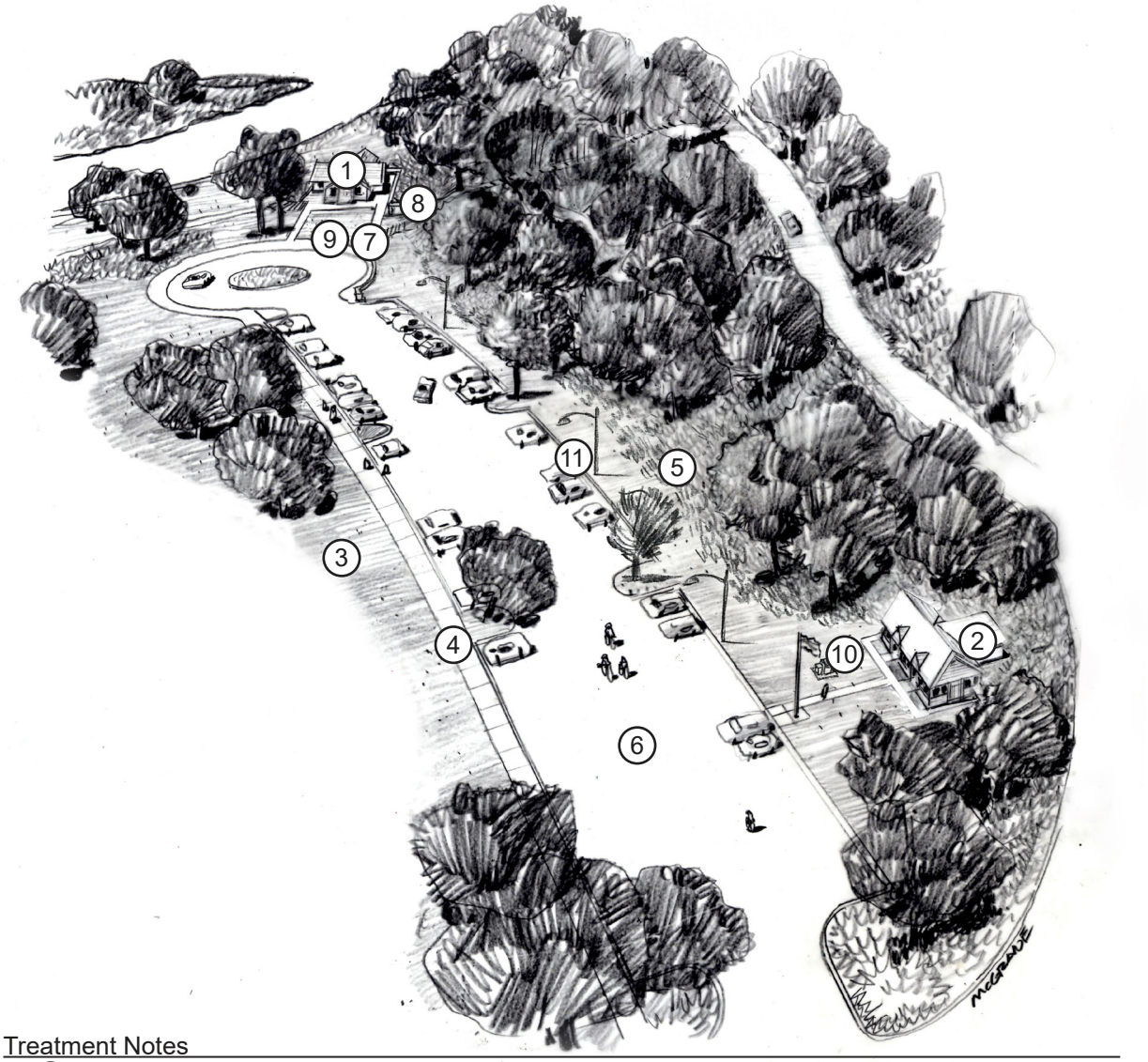
Accessibility

1. Provide universal accessibility to key locations throughout the study area, particularly buildings that provide essential visitor functions. Due to topography, access is not possible for all buildings and structures. The intent is to provide routes to key feature and provide similar experiences for everyone. (Refer to specific areas for further guidance.)

2. Establish accessible routes along historic patterns, where possible.

3. Accessible routes will need to be accommodated by modifications to buildings, including modifying door widths and thresholds, as necessary.

4. Routes must ensure appropriate slope, width, and surfacing to meet code requirements.



Treatment Notes

1. Rehabilitate Dining Lodge (HS-422) and Open for Visitor Use / Concessions
2. Rehabilitate Museum (HS-420) and Open for Visitor Use – Flexible Use Space (Museum or Concessions)
3. Maintain Open Play Field
4. Provide Accessible Pedestrian Route at North Edge of Main Parking Area (HS-714) to Connect Dining Hall (HS-422) and Museum (HS-420)
5. Reestablish Historic Character Plantings and Open Setting with Park-Like Character
6. Repair Main Parking Area (HS-714), Reveal Concrete Curb, Remove Non-Contributing Features (Waysides)
7. Establish Accessible Route and Entrance along Historic Patterns at Dining Lodge (HS-422)
8. Repair Dining Lodge Retaining Wall and Fountain (HS-422A) to Full Extent
9. Reestablish Historic Character of Plantings (ornamental Vegetation)
10. Repair Fountain #2 (HS-712)
11. Lighting Compatible with Setting and Dark Sky Requirements

Figure 6-4. The vision for the core development area is to create a series of experiences that greet, welcome, and accommodate visitors.

Core Development Area

Treatment recommendations for the core development area reestablish the historic setting of the Entrance Building (HS-432), Dining Lodge (HS-422), Museum (HS-420), cabins, Chubb Hollow, and Maintenance Area. The recommendations are grouped by area and offer guidance for preserving contributing features and qualities, and methods for rehabilitating the historic character of the landscape.

The vision for the core development area is to create a series of experiences that greet, welcome, and accommodate visitors. The entrance corridor will be rehabilitated to create a sense of arrival. Spatial qualities created by vegetation will be rehabilitated, and views and small scale features will be repaired.

At the Dining Lodge (HS-422) and Museum (HS-420), the buildings will be opened to the public, the existing Main Parking Area (HS-714) will be repaired to fully reveal the historic concrete curb, shade will be provided along the edge of the parking area and integrated with new lighting. The open playfield to the north and the forested edge to the south will remain and will be maintained as a clean, park-like space, with views between the buildings and river.

Accessible paths will accommodate visitors into the Dining Lodge (HS-422), Museum (HS-420), and cabins. The cabin setting will be enhanced by repairing retaining walls, steps, and adjacent vegetation to reflect the naturalistic setting envisioned by the CCC and WPA.

<u>Entrance Building (HS-432)</u>

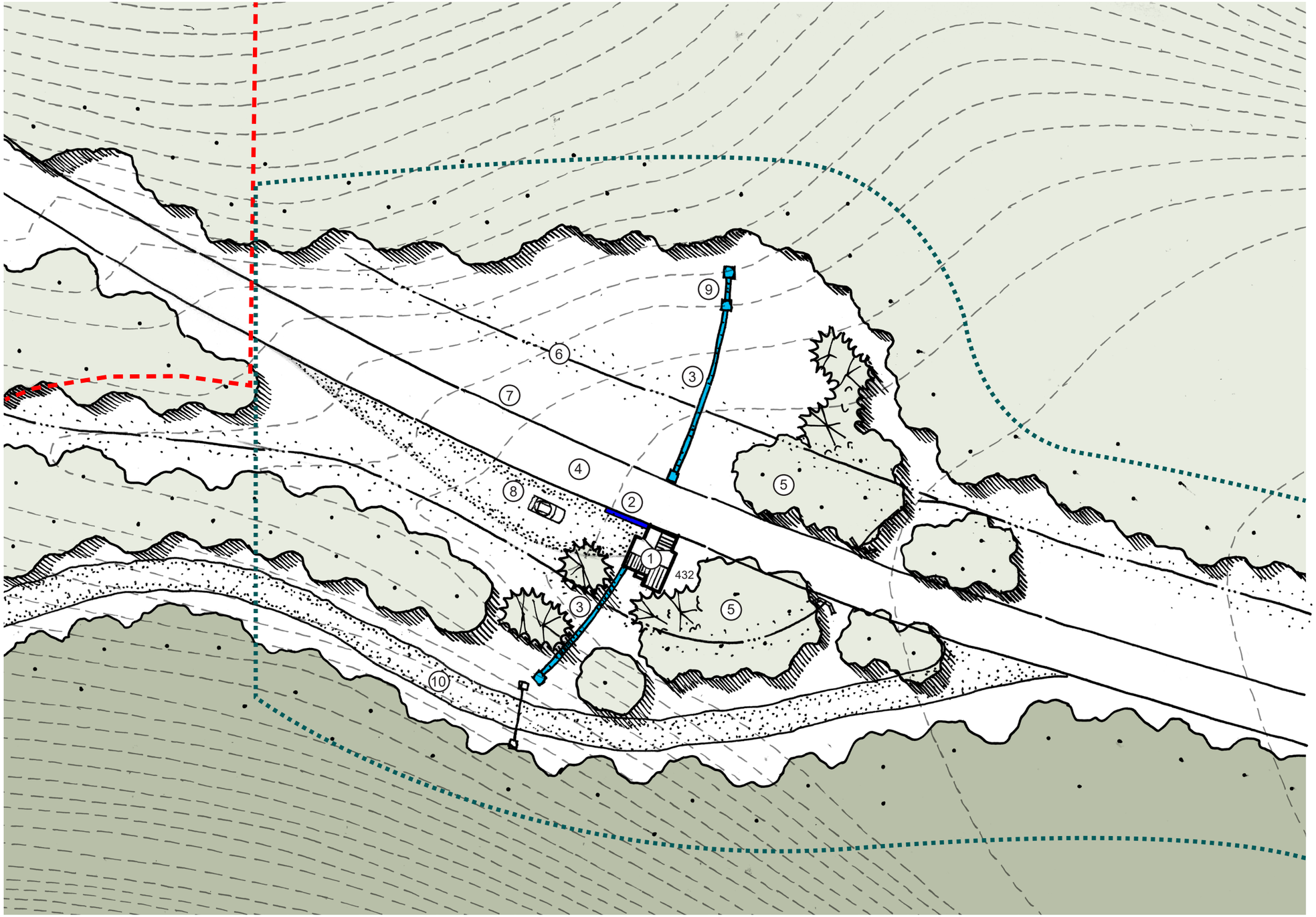
1. Preserve the gateway and entrance experience created by the stone walls, Entrance Building, and trees that frame the view into the park.
2. Rehabilitate the setting of the entrance, creating a welcoming area by adding visitor contact and wayfinding within the Entrance Building.
    - The building could be open temporarily, staffed with a seasonal employee and/or open for special events. The interior of the building could be opened for visitors with park orientation, maps, and wayfinding.
    - If there is a need, the Entrance Building could become a Ranger's Office.
3. Provide a gravel or soft-paved pull-out at the south edge of the road for visitors to stop for information, etc.
4. Preserve the drainage ditches and culvert, and maintain these ditches to provide drainage away from the road and Entrance Building.
    - Regrade the swales to ensure drainage flows through the Entrance Portal Wall (HS-432A) and does not back up against the wall(s).
    - Maintain drainage swales free of woody vegetation.
5. Restore missing features including the wooden fence that once occurred adjacent the building.
6. Repair the gate at the north end of the northern Entrance Portal Wall, and the secondary path that once lead through the gate.
7. Rehabilitate the vegetation at the entrance to enhance the feeling of arrival.
    - Remove vegetation that encroaches into the view towards the entrance.



Treatment Notes

1. Repair Entrance Building (HS-432)
2. Replace missing wood fence
3. Repair Entrance Portal Walls (HS-432A)
4. Maintain open view to entrance
5. Repair deciduous tree backdrop
6. Repair drainage swales, maintain free of woody vegetation
7. Repair lawn to edge of road
8. Provide visitor soft surface pull-out

Figure 6-5. Rehabilitate the gateway and entrance experience created by the stone walls and Entrance Building by opening the building to visitors and repairing the woodland setting around the structure.



Legend

- Study Area
- Feature to Repair
- Missing Feature to Replace
- Swale to Repair
- Big Spring Pines Natural Area
- Extent of 'Maintained' Area

Treatment Notes

1. Repair Entrance Building (HS-432)
2. Replace missing wood fence
3. Repair Entrance Portal Walls (HS-432A)
4. Maintain open view to entrance
5. Repair deciduous tree backdrop
6. Repair drainage swales, maintain free of woody vegetation
7. Repair lawn to edge of road
8. Provide visitor soft surface pull-out
9. Repair gate and secondary path
10. Maintain as secured road

Buildings and Structures

432 Entrance Building

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1" = 50'-0"

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UNITED STATES
DEPARTMENT OF THE INTERIOR

BIG SPRING
HISTORIC DISTRICT

DWG # 614 132281

TITLE OF PROJECT
CULTURAL LANDSCAPE REPORT
AND ENVIRONMENTAL ASSESSMENT

TITLE OF DRAWING
TREATMENT - ENTRANCE

NAME OF PARK
BIG SPRING HISTORIC DISTRICT

Illustration 6-1.

REGION MIDWEST | COUNTY CARTER | STATE MISSOURI

- Maintain a backdrop for the walls and building by planting trees along the road east of the Entrance Building.

- Repair the grass at the edge of the road, extending to the full road edge.

Dining Lodge (HS-422)

1. Preserve the Dining Lodge as a contributing feature of the cultural landscape.

    - An update is needed to the existing Historic Structure Report (HSR) for the Dining Lodge. An update would provide accurate information on the existing condition of the building and make recommendations for repair of contributing features and acceptable level of adaptive reuse.

    - Surface drainage has caused flooding of the building in the past, and future work is needed to correct drainage issues. In tandem with this work, the landscape setting will need to be repaired following recommendations in this section.

2. Rehabilitate the setting of the Dining Lodge by repairing the character of vegetation, walks, and removing non-contributing features.

3. Preserve the Main Parking Area (HS-714) between the Museum and Dining Lodge, maintaining the existing width and length of the area.

    - Reset stone curbing where it has become damaged. Remove trees that are uprooting the curb and pavement of the Main Parking Area.

    - Add an accessible pedestrian route at the north edge of the Main Parking Area to connect the Museum and Dining Lodge.

        - Consider maintaining this route as a soft-surface route, to provide continued access to utilities.

    - Remove the non-contributing interpretive signs at the west end of the Main Parking Area, and re-vegetate this area with grass and trees to blend with the remainder of the playfield.

4. Maintain the existing double walk to the Dining Lodge. Resurface these walks to match in width, material, and edge condition.

5. Create a universally accessible entrance to the Dining Lodge at the historic south entrance.

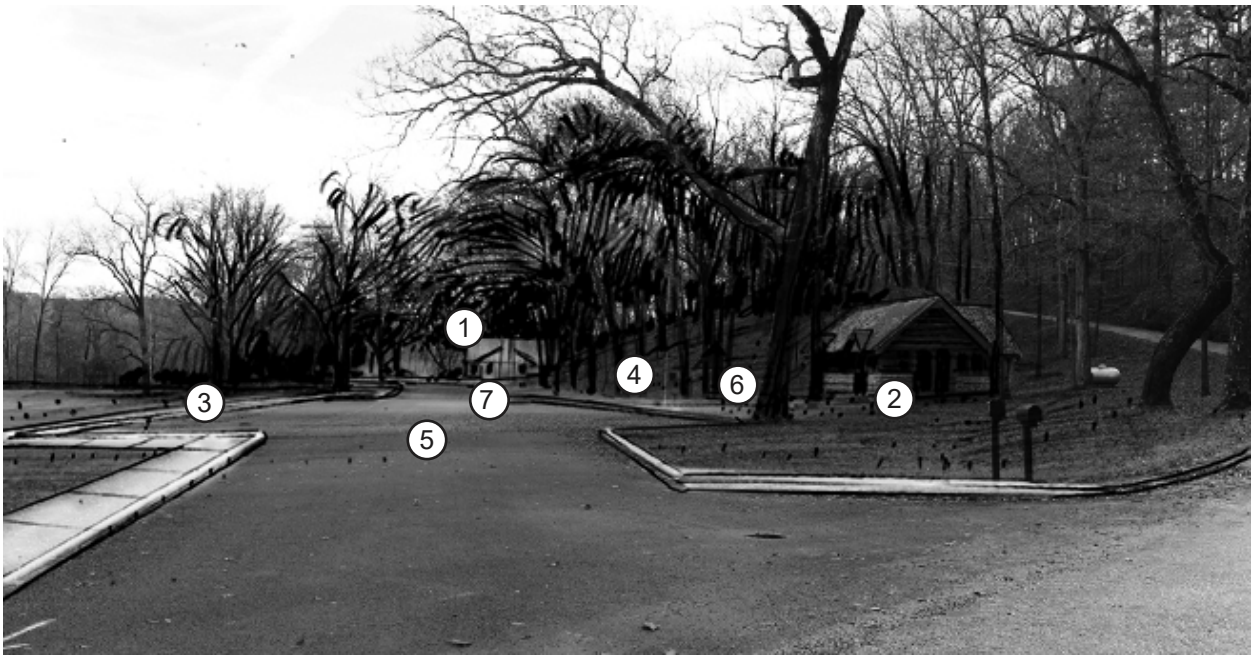
    - Re-surface the route from the Main Parking Area to the Dining Lodge to meet accessibility requirements. This route and the path to the north should match in design and materials.

6. Repair steps and trail from Dining Lodge to cabins, by removing non-contributing concrete ramp and replacing with compatible materials.

7. Provide a pedestrian route from the base of the stairs below the Dining Lodge to the Boat Dock.

8. Stabilize the Dining Lodge Retaining Wall and Fountain (HS-422A). Replace the concrete portion of the wall with stone, to match the historic.

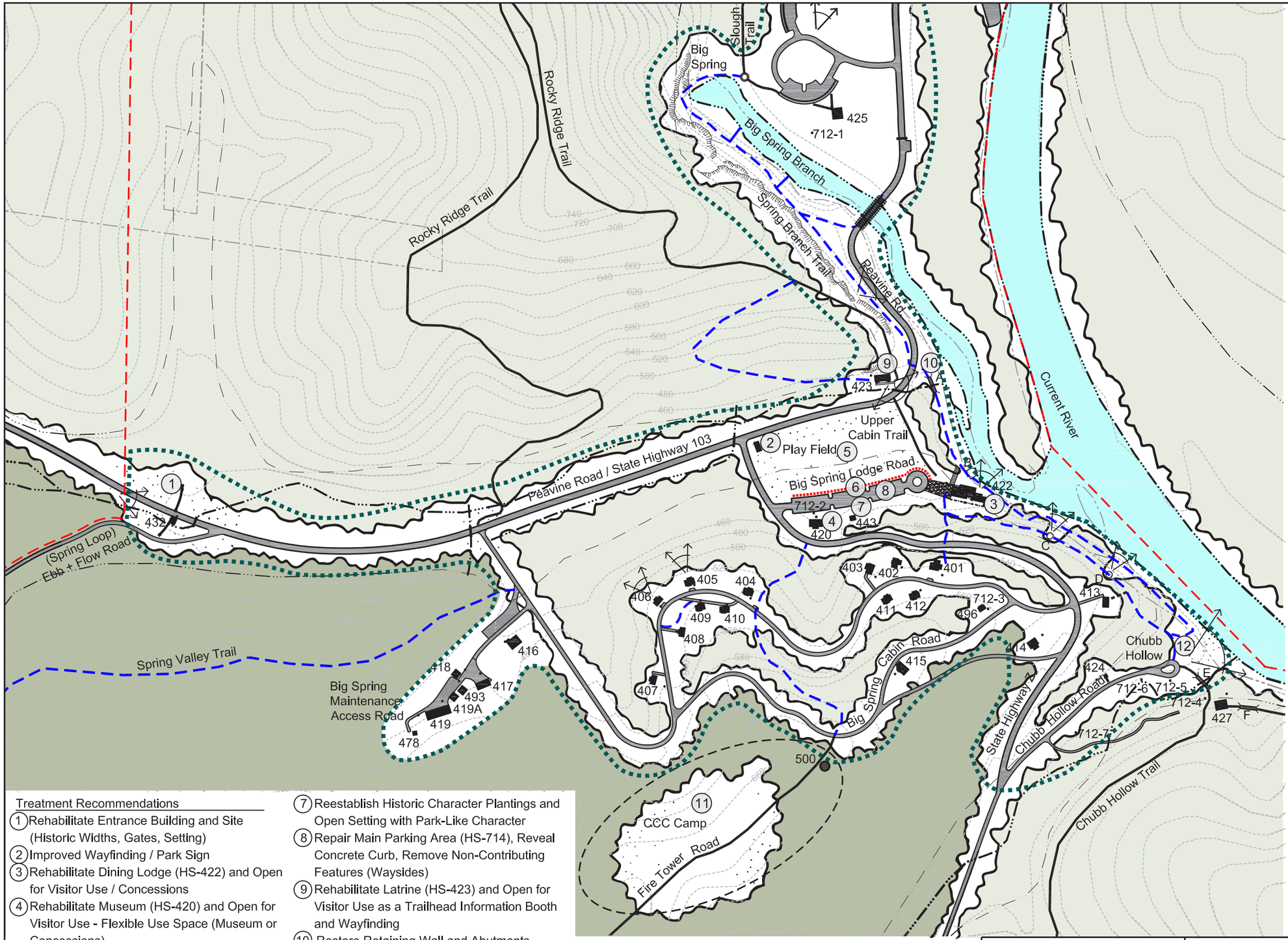
    - Restore the Dining Lodge Fountain to working condition.



Treatment Notes

1. Rehabilitate Dining Lodge (HS-422) and Open for Visitor Use / Concessions
2. Rehabilitate Museum (HS-420) and Open for Visitor Use – Flexible Use Space (Museum or Concessions)
3. Provide Accessible Pedestrian Route at North Edge of Main Parking Area (HS-714) to Connect Dining Hall (HS-422) and Museum (HS-420)
4. Reestablish Historic Character Plantings and Open Setting with Park-Like Character
5. Repair Main Parking Area (HS-714), Reveal Concrete Curb, Remove Non-Contributing Features (Waysides)
6. Repair Fountain #2 (HS-712)
7. Maintain View to Dining Lodge

Figure 6-6. Rehabilitate the setting of the Dining Lodge (HS-422) and Museum (HS-420) by repairing the character of vegetation, walks, and removing non-contributing features.



Legend

- Study Area
- Trail to Preserve
- Repair Contributing Trail
- New Walkway / Trail
- Building
- Cliff to Preserve
- Reestablish Historic Views
- Big Spring Pines Natural Area
- Extent of 'Maintained' Area

Buildings and Structures

401	Cabin #401
402	Cabin #402
403	Cabin #403
404	Cabin #404
405	Cabin #405
406	Cabin #406
407	Cabin #407
408	Cabin #408
409	Cabin #409
410	Cabin #410
411	Cabin #411
412	Cabin #412
413	Cabin #413
414	Cabin #414
415	Cabin #415
416	Lower Current District Maintenance Office / Cabin #416
417	Maintenance Shop
418	Maintenance Storage Building
419	Maintenance Garage
419A	Garage-Maintenence Storage
420	State Park Museum Building
422	Dining Lodge and Help's Quarters
423	Latrine
424	Chubb Hollow Latrine
425	Big Spring Shelter
427	Chubb Hollow Open Shelter House
432	Entrance Building
443	Pump House
493	Paint & Storage Shed
478	Water System Building
496	Picnic Shelter
500	Water Tower
712	Fountain

A	Lodge Footbridge
B	Boat Dock
C	Overlook
D	Overlook
E	Chubb Hollow North Footbridge
F	Chubb Hollow South Footbridge

Treatment Recommendations

1. Rehabilitate Entrance Building and Site (Historic Widths, Gates, Setting)
2. Improved Wayfinding / Park Sign
3. Rehabilitate Dining Lodge (HS-422) and Open for Visitor Use / Concessions
4. Rehabilitate Museum (HS-420) and Open for Visitor Use - Flexible Use Space (Museum or Concessions)
5. Maintain Open Play Field
6. Provide Accessible Pedestrian Route at North Edge of Main Parking Area (HS-714) to Connect Dining Hall (HS-422) and Museum (HS-420)
7. Reestablish Historic Character Plantings and Open Setting with Park-Like Character
8. Repair Main Parking Area (HS-714), Reveal Concrete Curb, Remove Non-Contributing Features (Waysides)
9. Rehabilitate Latrine (HS-423) and Open for Visitor Use as a Trailhead Information Booth and Wayfinding
10. Restore Retaining Wall and Abutments (HS-423A) (Full Extents)
11. Reestablish Spatial Qualities of CCC Camp and Mark Building Outlines
12. Thin Vegetation to Provide River Views From Chubb Hollow

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1" = 400'-0"

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BIG SPRING
HISTORIC DISTRICT

DWG # 614 132281

TITLE OF PROJECT
CULTURAL LANDSCAPE REPORT
AND ENVIRONMENTAL ASSESSMENT

TITLE OF DRAWING
TREATMENT - CORE DEVELOPMENT AREA

NAME OF PARK
BIG SPRING HISTORIC DISTRICT

Illustration 6-2.

REGION MIDWEST | COUNTY CARTER | STATE MISSOURI

9. Preserve stone terrace and wall at the north side of the Dining Lodge.

10. Repair the non-contributing stone staircase from the Dining Lodge to the Boat Dock.

    - Reset stone steps as necessary to create uniform rise and tread.

    - Replace handrail at the stairs with a new railing that is more sensitive to the setting.

11. Repair the Boat Dock to provide safe access on and off watercraft. Although a non-contributing feature, the Boat Dock provides visitor access to the Dining Lodge.

    - Consider redesigning the Boat Dock to be compatible with the historic setting, utilizing materials and craftsmanship that reflect CCC/WPA naturalistic design principles.

    - Replace dimensional lumber with hand-peeled timbers that reflect the historic aesthetic of hand-craftsmanship and style that reflects a Rustic appearance.

12. Rehabilitate the setting by removing non-contributing small scale features.

    - Remove non-contributing features including the pedestrian lights, parking lights, and interpretive panels.

    - Screen existing propane tanks and above-ground utilities with vegetation that is planted in naturalistic groupings, to blend with the surroundings.

13. Allow new small scale features that are sensitive to the historic setting.

    - Add new pedestrian lighting that harmonizes with the naturalistic setting and meets dark sky requirements.

14. Repair the vegetation at the Dining Lodge to frame views and create a maintained yet naturalistic appearance.

    - Repair eroded and damaged plant material that includes unhealthy undergrowth and invasive plant species, specifically on the slope above and below the Dining Lodge.

    - Remove downed limbs and fallen timber from the vicinity. Maintain this area free of large timber, as possible.

    - Repair plantings in planting area in front of the Dining Lodge, to include ornamental trees and groundcovers in naturalistic groupings.

15. Maintain view to Dining Lodge from the Main Parking Area (HS-714) and from the river below by thinning vegetation. Thin the forest cover to open views to the river and between the Dining Lodge, Museum, and cabins.

    - Maintain the slope between the Dining Lodge and the river with low-growing vegetation that allows for views to the river.

16. Preserve the open playfield north of the Dining Lodge and Museum.

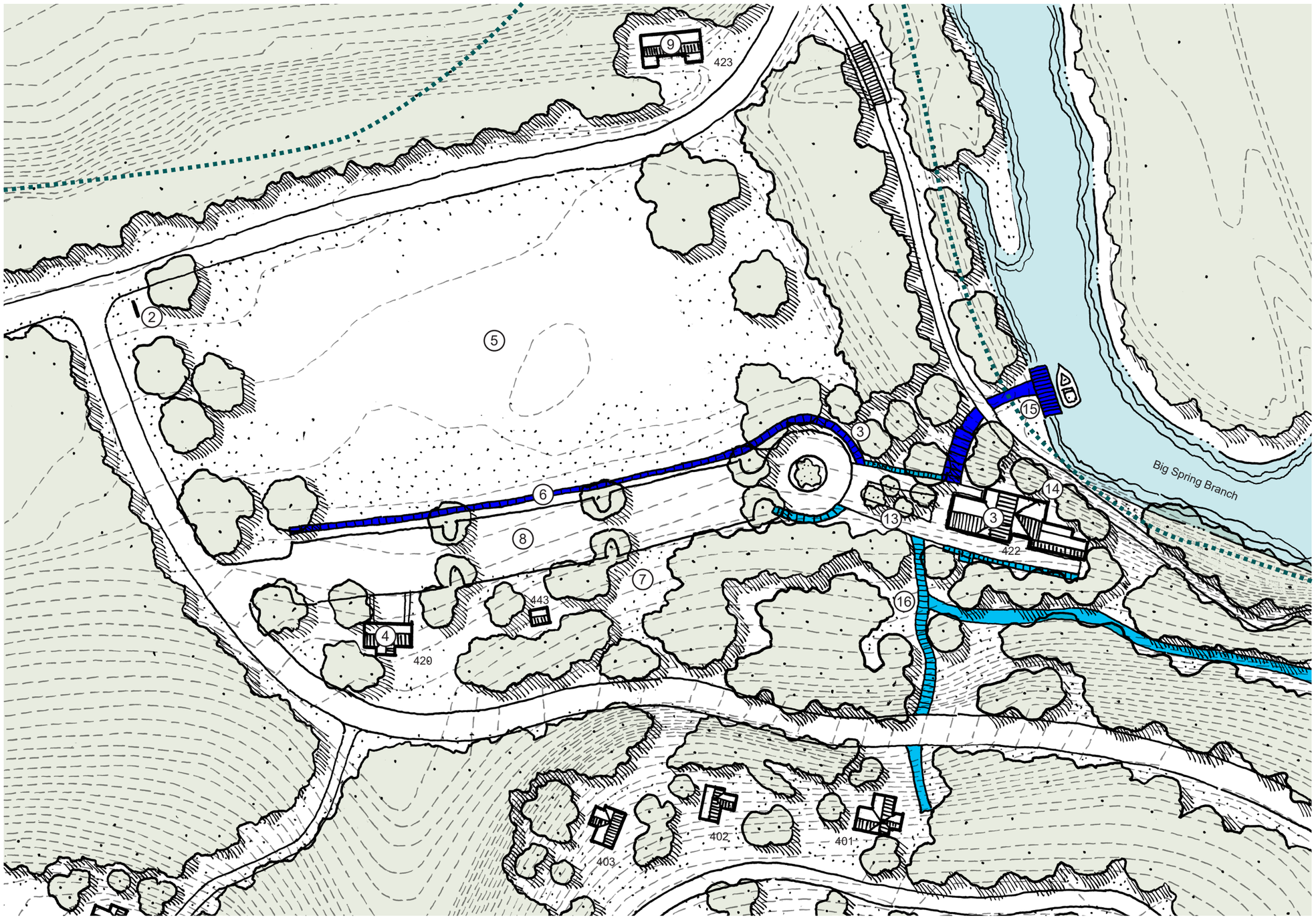
    - Maintain edge of trees at the perimeter of the playfield, but do not plant additional trees within the open space.



Treatment Notes

1. Thin Vegetation to Provide Views to River
2. Replace Boat Dock and Staircase with Compatible Design / Material
3. Maintain Staircase, Replace Handrail with Slim, Secure Railing
4. Clarify Trails at Base of Hill and Provide Route from Base of Stair to Boat Ramp

Figure 6-7. Rehabilitate the setting of the Dining Lodge (HS-422) by repairing the relationship between the building and the river. Repair the vegetation to frame views and maintain the slope between the Dining Lodge and the river with low-growing vegetation.



Legend

- Lawn
- Historic Feature to Repair
- New Feature with Compatible Design
- Extent of 'Maintained' Area

Treatment Notes

1. RE: Treatment - Core Development Area
2. Improved Wayfinding / Park Sign
3. Rehabilitate Dining Lodge (HS-422) and Open for Visitor Use / Concessions
4. Rehabilitate Museum (HS-420) and Open for Visitor Use – Flexible Use Space (Museum or Concessions)
5. Maintain Open Play Field
6. Provide Accessible Pedestrian Route at North Edge of Main Parking Area (HS-714) to Connect Dining Hall (HS-422) and Museum (HS-420)
7. Reestablish Historic Character Plantings and Open Setting with Park-Like Character
8. Repair Main Parking Area (HS-714), Reveal Concrete Curb, Remove Non-Contributing Features (Waysides)
9. Rehabilitate Latrine (HS-423) and Open for Visitor Use as a Trailhead Information Booth and Wayfinding
10. RE: Treatment - Core Development Area
11. RE: Treatment - Core Development Area
12. RE: Treatment - Core Development Area
13. Establish Accessible Route and Entrance along Historic Patterns at Dining Lodge (HS-422)
14. Thin Vegetation to Provide Views to River
15. Replace Boat Dock and Staircase with Compatible Design / Material
16. Repair Path and Stone Steps to Cabins

Buildings and Structures

401	Cabin #401
402	Cabin #402
403	Cabin #403
420	State Park Museum Building
422	Dining Lodge and Help's Quarters
423	Latrine
443	Pump House

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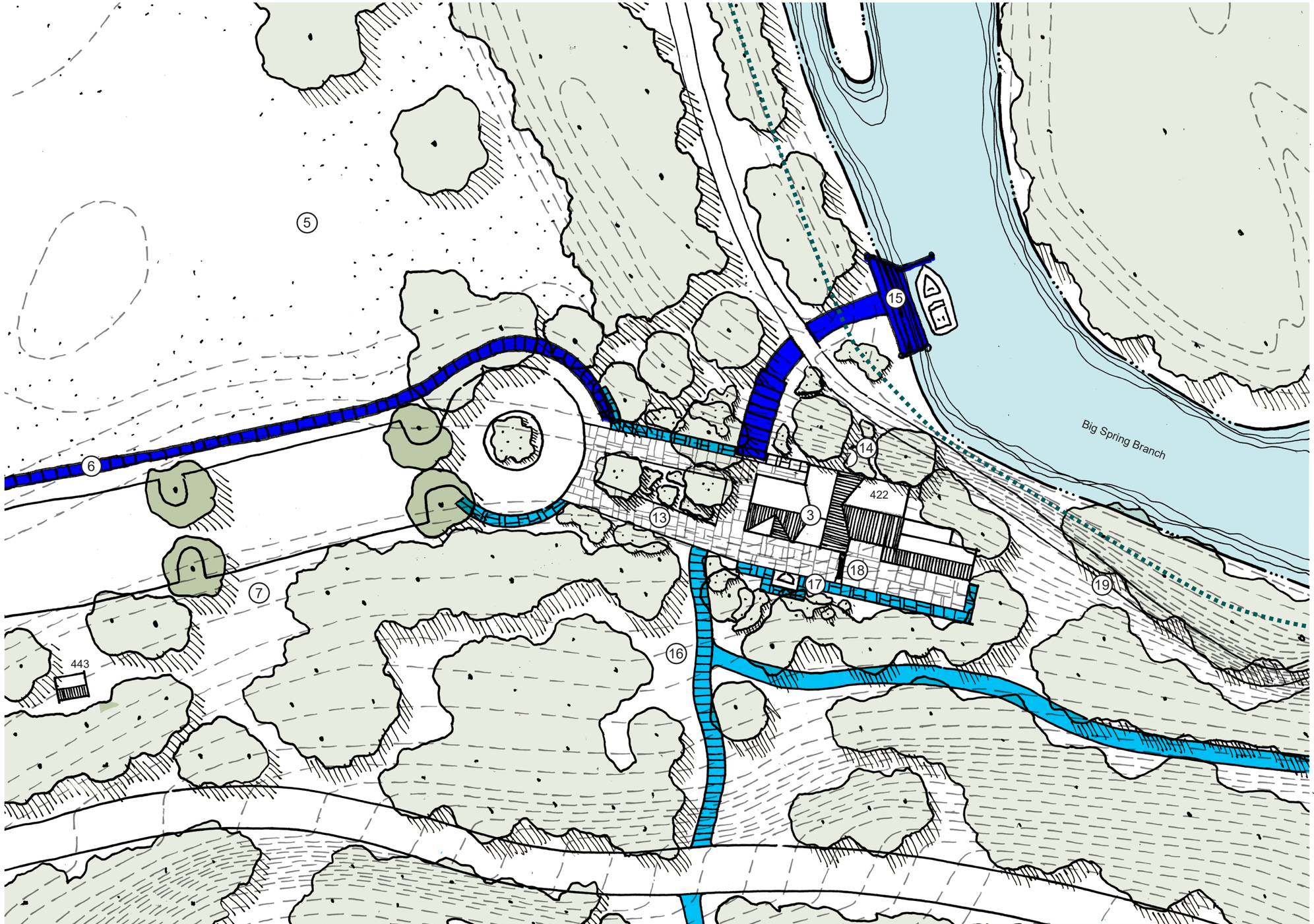
TITLE OF PROJECT
CULTURAL LANDSCAPE REPORT
AND ENVIRONMENTAL ASSESSMENT

TITLE OF DRAWING
TREATMENT - MUSEUM AND DINING LODGE

NAME OF PARK
BIG SPRING HISTORIC DISTRICT

Illustration 6-3.

REGION MIDWEST | COUNTY CARTER | STATE MISSOURI



Legend

- Low Shrubs / Groundcover
- New Tree, Historic Location
- Lawn
- Historic Wall to Repair
- Historic Feature to Repair
- New Feature with Compatible Design
- Extent of 'Maintained' Area

Treatment Notes

1. RE: Treatment - Core Development Area
2. RE: Treatment - Core Development Area
3. Rehabilitate Dining Lodge (HS-422) and Open for Visitor Use / Concessions
4. RE: Treatment - Core Development Area
5. Maintain Open Play Field
6. Provide Accessible Pedestrian Route at North Edge of Main Parking Area (HS-714) to Connect Dining Hall (HS-422) and Museum (HS-420)
7. Reestablish Historic Character Plantings and Open Setting with Park-Like Character
8. Repair Main Parking Area (HS-714), Reveal Concrete Curb, Remove Non-Contributing Features (Waysides)
9. RE: Treatment - Core Development Area
10. RE: Treatment - Core Development Area
11. RE: Treatment - Core Development Area
12. RE: Treatment - Core Development Area
13. Establish Accessible Route and Entrance along Historic Patterns at Dining Lodge (HS-422)
14. Thin Vegetation to Provide Views to River
15. Replace Boat Dock and Staircase with Compatible Design / Material
16. Repair Path and Stone Steps to Cabins
17. Repair Dining Lodge Retaining Wall and Fountain (HS-422A) to Full Extent
18. Gate to Enclose Service Area
19. Reestablish Historic Character of Plantings (ornamental Vegetation)

Buildings and Structures

422	Dining Lodge and Help's Quarters
443	Pump House

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1" = 60'-0"

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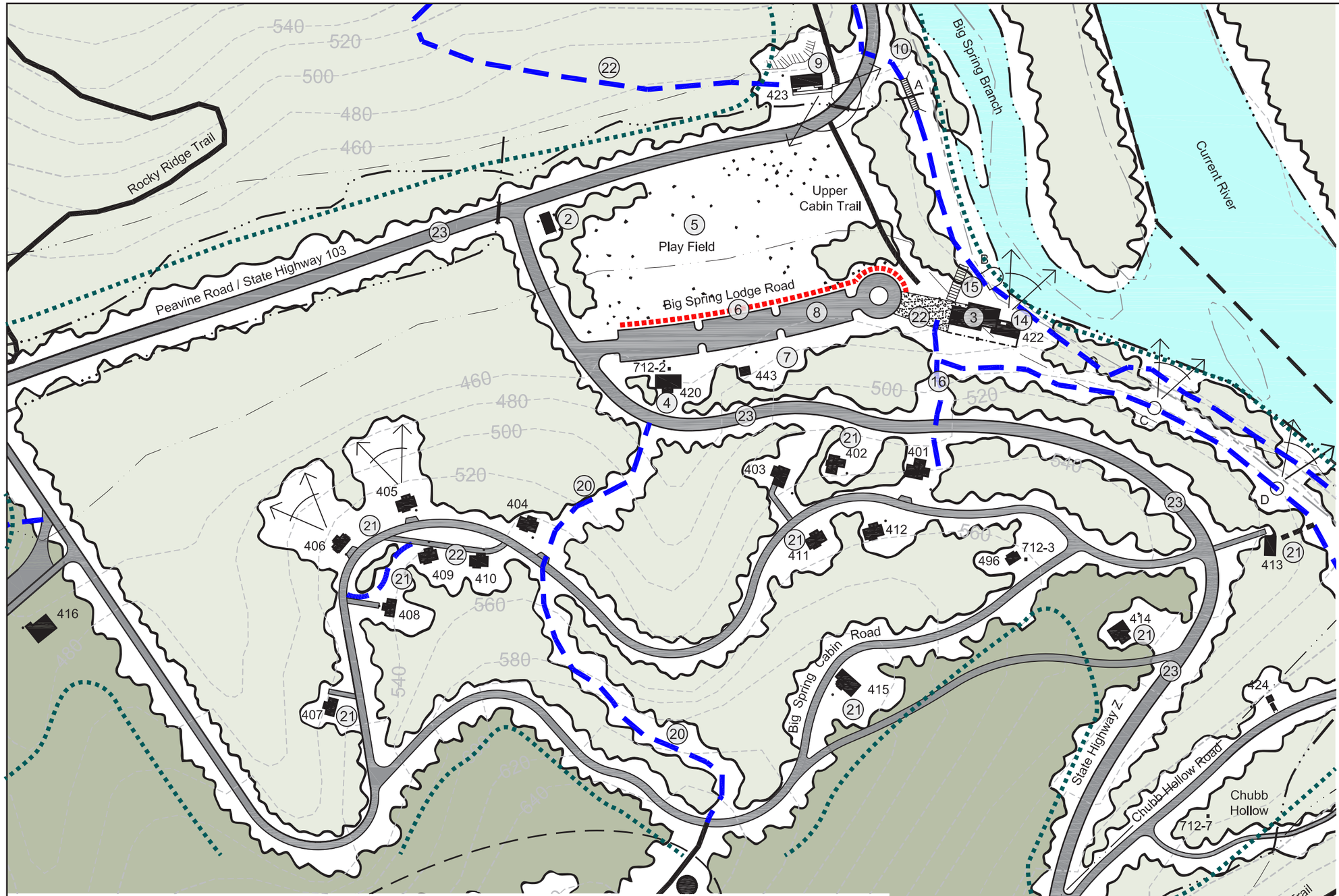
BIG SPRING
HISTORIC DISTRICT

DWG # 614 132281

TITLE OF PROJECT
CULTURAL LANDSCAPE REPORT
AND ENVIRONMENTAL ASSESSMENT
TITLE OF DRAWING
TREATMENT - DINING LODGE
NAME OF PARK
BIG SPRING HISTORIC DISTRICT

Illustration 6-4.

REGION MIDWEST | COUNTY CARTER | STATE MISSOURI



Legend

- Study Area
- Trail to Preserve
- Repair Contributing Trail
- New Walkway / Trail
- Building to Rehabilitate
- Cliff to Preserve
- Reestablish Historic Views
- Big Spring Pines Natural Area
- Extent of 'Maintained' Area

Treatment Recommendations

1. RE: Treatment - Core Development Area
2. Improved Wayfinding / Park Sign
3. Rehabilitate Dining Lodge (HS-422) and Open for Visitor Use / Concessions
4. Rehabilitate Museum (HS-420) and Open for Visitor Use - Flexible Use Space (Museum or Concessions)
5. Maintain Open Play Field
6. Provide Accessible Pedestrian Route at North Edge of Main Parking Area (HS-714) to Connect Dining Hall (HS-422) and Museum (HS-420)
7. Reestablish Historic Character Plantings and Open Setting with Park-Like Character
8. Repair Main Parking Area (HS-714), Reveal Concrete Curb, Remove Non-Contributing Features (Waysides)
9. Rehabilitate Latrine (HS-423) and Open for Visitor Use as a Trailhead Information Booth and Wayfinding
10. Restore Retaining Wall and Abutments (HS-423A) (Full Extents)
11. RE: Treatment - Core Development Area
12. RE: Treatment - Core Development Area
13. RE: Treatment - Core Development Area
14. Thin Vegetation to Provide Views to River
15. Replace Boat Dock and Staircase with Compatible Design / Material
16. Repair Path and Stone Steps to Cabins
17. RE: Treatment - Core Development Area
18. RE: Treatment - Core Development Area
19. RE: Treatment - Core Development Area
20. Repair Contributing Trails with Compatible Design / Material
21. Rehabilitate Cabins and Repair Cabins Contributing Walls and Walks; Replace Non-Contributing with New Feature Compatible In Design / Materials
22. Establish Accessible Routes along Historic Patterns
23. Preserve Contributing Features and Patterns

Buildings and Structures

401	Cabin #401	410	Cabin #410 - Provide ADA Access	424	Chubb Hollow Latrine
402	Cabin #402	411	Cabin #411	443	Pump House
403	Cabin #403	412	Cabin #412	496	Picnic Shelter
404	Cabin #404	413	Cabin #413 - Provide ADA Access	712	Fountain
405	Cabin #405	414	Cabin #414		
406	Cabin #406	415	Cabin #415	A	Lodge Footbridge
407	Cabin #407	416	Lower Current District Maintenance	B	Boat Dock
408	Cabin #408		Office / Cabin #416	C	Overlook
409	Cabin #409 - Provide ADA Access	422	Dining Lodge and Help's Quarters	D	Overlook

N W E S

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1" = 200'-0"

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BIG SPRING
HISTORIC DISTRICT

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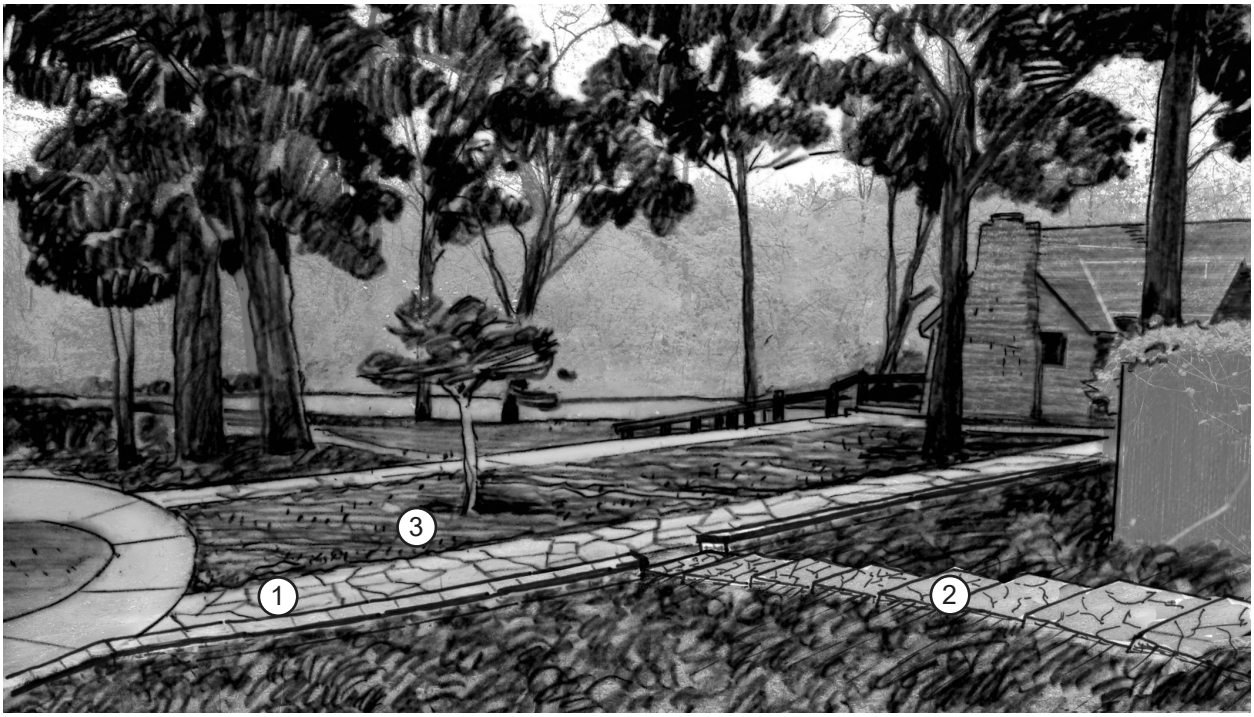
TITLE OF PROJECT
CULTURAL LANDSCAPE REPORT
AND ENVIRONMENTAL ASSESSMENT

TITLE OF DRAWING
TREATMENT - MUSEUM, DINING LODGE AND CABIN

NAME OF PARK
BIG SPRING HISTORIC DISTRICT

Illustration 6-5.

REGION MIDWEST | COUNTY CARTER | STATE MISSOURI



Treatment Notes

1. Establish Accessible Route and Entrance along Historic Patterns at Dining Lodge (HS-422). North and South Routes to Match in Appearance, Width, and Texture

2. Repair Path and Stone Steps to Cabins, Replacing Existing Steps With Compatible (Stone) Material

3. Reestablish Historic Character of Plantings (Ornamental Vegetation) Repair Plantings to a More Manicured Appearance to Include Ornamental Trees and Groundcovers in Naturalistic Groupings

Figure 6-8. Rehabilitate the Dining Lodge (HS-422) by opening the building to visitors and improving accessibility to and from the building. Activate the setting by improving vehicular and pedestrian routes as well as water routes to the boat dock. Care for the area by adding new plantings, lighting, and removing non-contributing features.



Treatment Notes

1. Reestablish Outdoor Spaces to be Compatible with Historic Design to Blend with Setting, Defined by a Level, Soft, and Well-Drained Surface with Sheltering Vegetation and Enhanced View
2. Thin Vegetation to Match Historic Pattern and Provide Views, Rehabilitate Plantings in Naturalistic Groupings, Repair (Thin, Prune, New Plantings) Vegetation to More Park-Like Appearance, And Naturalistic Groupings, Clearings for Views, With Removal Of Fallen Timbers
3. Repair Contributing Stone Wall and Steps With In-Kind Materials
4. New Retaining Wall to be Compatible with Historic

Figure 6-9. Rehabilitate the setting of each cabin by repairing vegetation using additional new native shrubs and groundcovers; replacing non-contributing retaining walls with new materials that match historic; and utilizing small scale features compatible with the historic setting.

Museum (HS-420)

1. Preserve the Museum, Pump House (HS-443), and setting including shade trees, walks, flagpole, and Fountain #2 (HS-712) as contributing features of the cultural landscape.

2. Rehabilitate the setting of the Museum by repairing the character of vegetation and repairing small scale features.

3. Rehabilitate the Museum by allowing for adaptive re-use of the building.

    - Consider rehabilitating the Museum with exhibits and information on Big Spring and the work completed by the CCC/WPA. Alternatively, the building could be adapted for use by concessions, a front office, check-in, gift shop, or similar.

    - Consider building modifications to provide water and sewer, to provide a visitor restroom.

4. Provide an accessible route into the Museum, connecting to the Main Parking Area (HS-714).

5. Rehabilitate the setting by repairing contributing small scale features.

    - Repair Fountain #2 (HS-712) and flagpole to working condition.

6. Repair the vegetation at the Museum to frame views and create a maintained yet naturalistic appearance.

    - Maintain lawn adjacent the building. Remove any downed trees and limbs, and thin vegetation as needed to maintain views to the building from the Main Parking Area (HS-714).

    - Do not add foundation plantings at the Museum, as none occurred historically.

Latrine (HS-423)

1. Preserve and repair the Latrine as a contributing feature of the cultural landscape.

2. Rehabilitate the Latrine by allowing for adaptive re-use of the building.

    - Consider re-use as a visitor contact area, where visitors may gather information on trails and wayfinding.

    - Due to frequent flooding of the building, future uses must be flexible and storage of materials inside the building is not recommended.

3. Rehabilitate the setting of the Latrine by clearing overgrown vegetation that encroaches around the building.

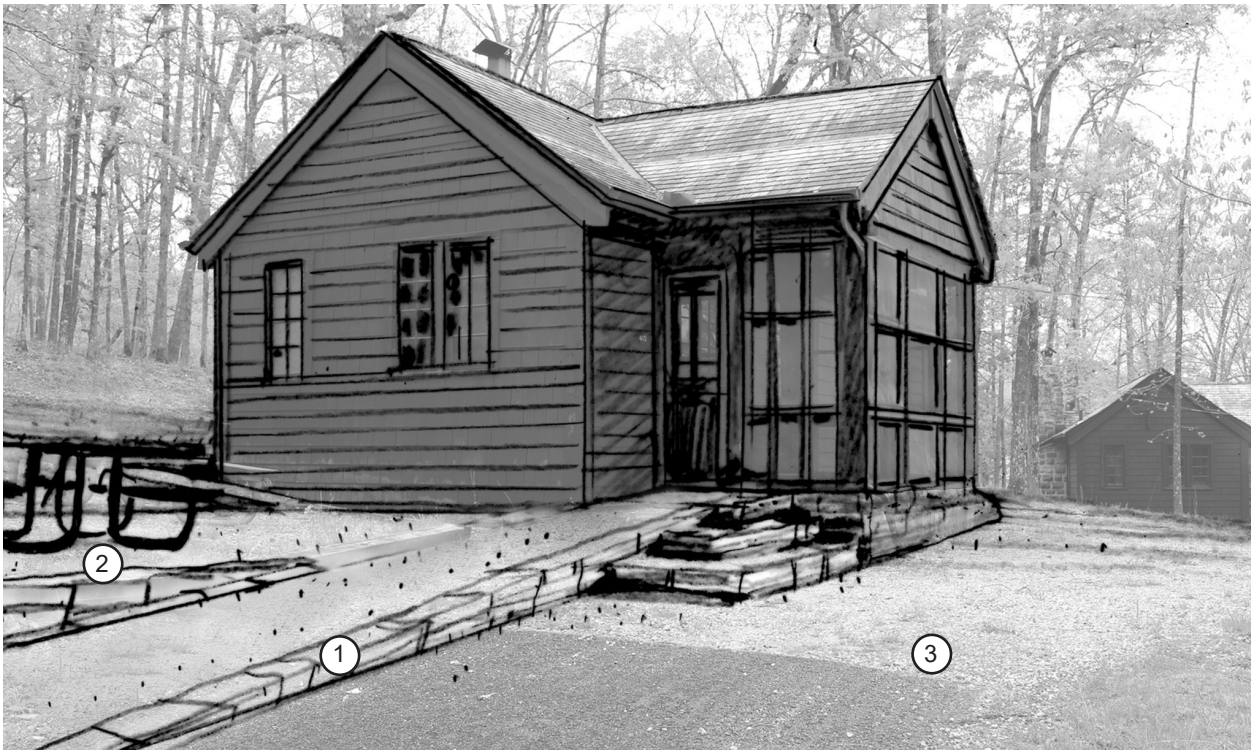
    - Provide a view to the Latrine from the open playfield north of the Dining Lodge (HS-422) and Museum (HS-420).

Cabins

1. Preserve the cabins and the setting of each cabin as contributing features of the cultural landscape.

    - Complete HSR for Cabins. Ensure cabin renovations include adaptive re-use and update mechanical systems to allow extended seasonal use.

2. Preserve spatial relationships and arrangement between cabins by maintaining the historic road, vegetation that separates cabin spaces, and removing social paths between cabins.



Treatment Notes

1. Establish Accessible Routes along Historic Patterns. Provide Universal Access to Cabins as Possible, Incorporate with Building Rehabilitation.
2. Modify and Replace Picnic Area as Needed to Accommodate Accessible Route
3. Modify Parking to Accommodate Larger Vehicles with Clearances for Loading and Unloading

Figure 6-10. Conceptual treatment for a universally accessible cabin. Accessible access to the cabins requires additional study and buildings would require interior modifications as well.

- Preserve stone steps and retaining walls, and relationship of cabins to the road and parking areas.

3. Rehabilitate the setting of each cabin by repairing the character of vegetation, replacing non-contributing retaining walls, and utilizing small scale features that are compatible with the historic setting.

4. Preserve each cabin by following annual and seasonal maintenance activities (leaf removal, roof cleaning, mitigating for pests, etc), and maintaining positive drainage around each structure.

5. Preserve the Cabin Road System (HS-401B) and the Cabin Path System and Stairs (HS-713) through the cabins.

   - Maintain existing width of the roadway; do not widen. Maintain existing gravel pull-outs in front of each cabin.

6. Provide universally accessible access to Cabins #409 (HS-409), #410 (HS-410), and #413 (HS-413).

   - Accessible access to these buildings could be accommodated by modifying the vehicular routes to the building entrances. This would include accommodation of larger vehicles with clearances for loading/unloading, and modifications to the existing grades.

   - Further study is needed to identify modifications needed to the interior of the buildings. These buildings would need modifications at the threshold and to door widths, and interior spaces would likely need to be greatly altered to be made accessible.

7. Repair the Picnic Shelter (HS-496) and improve access by adding a trail to the Picnic Shelter from the cabins.

   - Rehabilitate the setting of the picnic shelter by clearing overgrown vegetation and creating select views to the river from the shelter.

8. Rehabilitate the setting of each cabin by repairing contributing small scale features.

   - Repair retaining walls to be compatible with the historic setting.

     — Where dimensional lumber has been used as a replacement for the original stonework, consider replacing lumber with native stone or hand-peeled timbers.

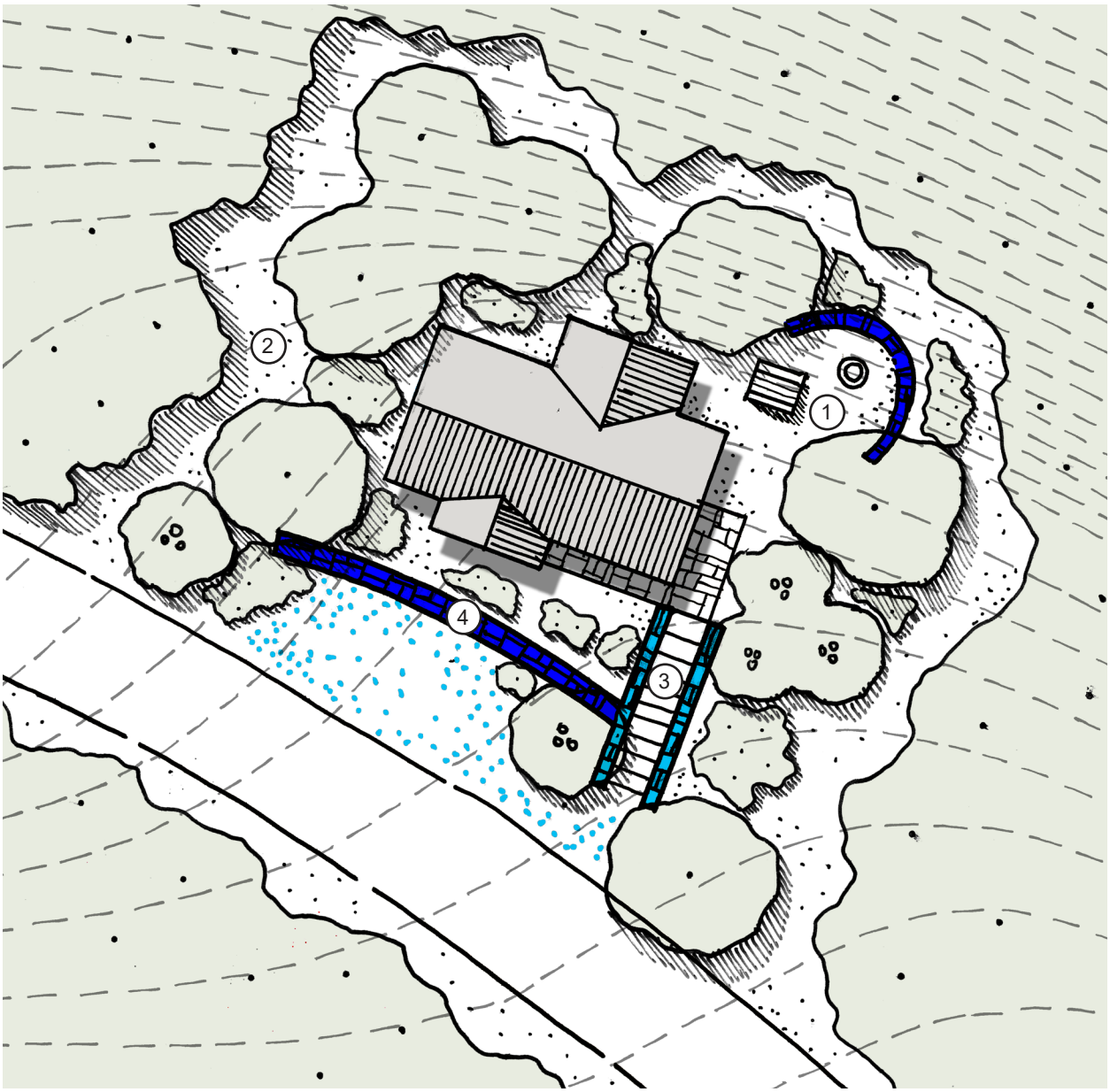
   - Repair steps as needed. Remove overlay of concrete and/or mortar that has obscured some steps. Reset steps to minimize the use and appearance of mortar.

   - Replace wood handrails with a style less-visually intrusive.

9. Rehabilitate the setting by removing non-contributing small scale features.

   - Remove the non-contributing timbers that frame the level picnic areas and replace with materials and design that reflects the historic setting. Modify the picnic areas to a more naturalistic appearance in material and dimensions, so they blend with the natural topography.

   - Remove non-contributing trash receptacles from the road in front of each parking area, and



Legend

- Maintain Gravel Pullout
- Repair Wall
- New Feature Compatible with Historic

Treatment Notes

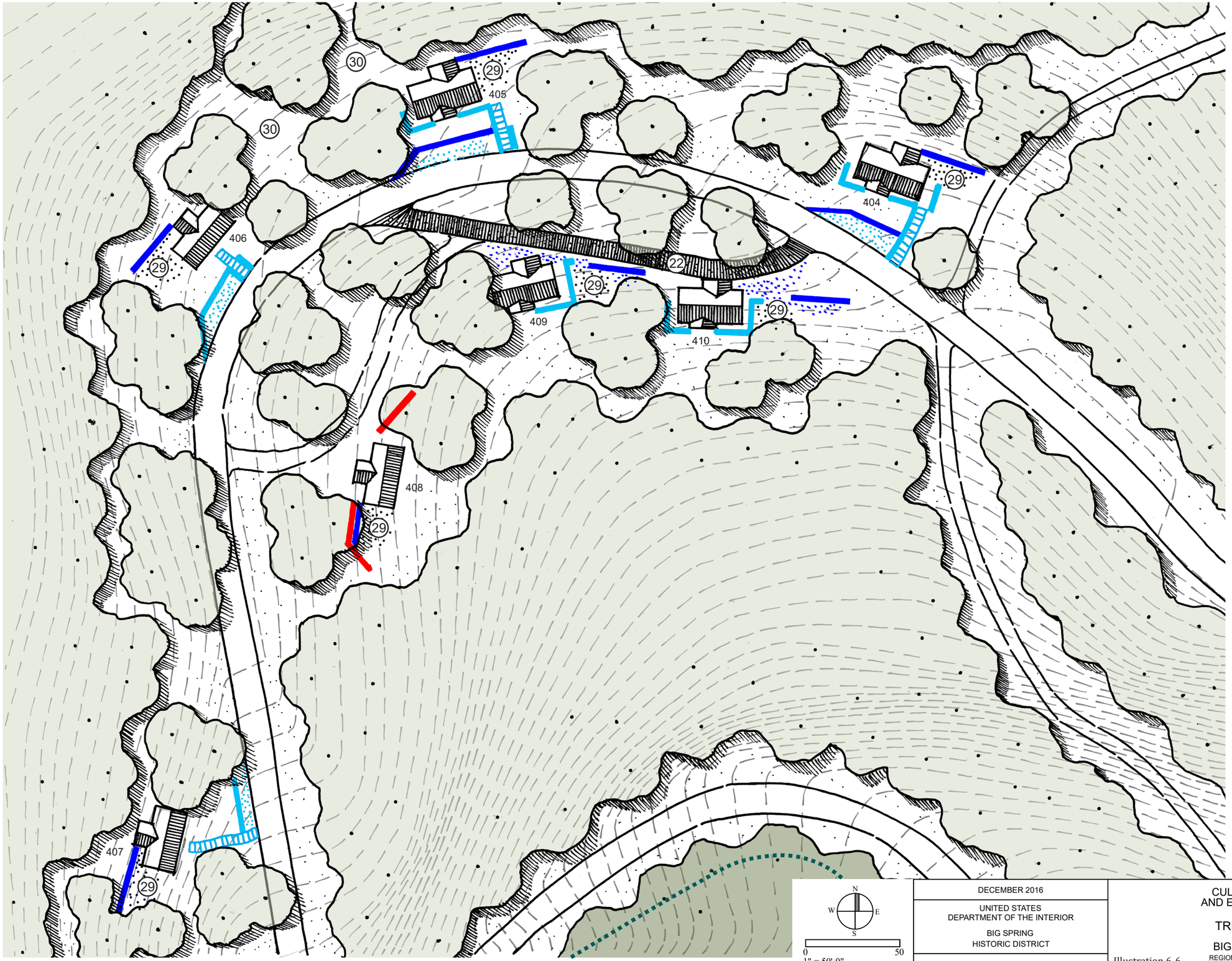
1. Reestablish Outdoor Spaces to be Compatible with Historic Design to Blend with Setting, Defined by a Level, Soft, and Well-Drained Surface with Sheltering Vegetation and Enhanced View
2. Thin Vegetation to Match Historic Pattern and Provide Views, Rehabilitate Plantings in Naturalistic Groupings, Repair (Thin, Prune, New Plantings) Vegetation to More Park-Like Appearance, And Naturalistic Groupings, Clearings for Views, With Removal Of Fallen Timbers
3. Repair Contributing Stone Wall and Steps With In-Kind Materials
4. New Retaining Wall to be Compatible with Historic

Figure 6-11. Treatment for a typical cabin. Repair the vegetation at each cabin to create a maintained yet naturalistic appearance that frames each structure.

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1''=20'-0''



Legend

- New Asphalt Road
- Repair Historic Wall
- New Wall to be Compatible with Historic
- Non-Contributing Wall to Remove
- Repair Stone Steps
- Accessible Route
- Outdoor Space
- Maintain Gravel Pullout
- Big Spring Pines Natural Area
- Extent of 'Maintained' Area

Treatment Notes

1. Establish Accessible Routes along Historic Patterns. Provide accessible access to Cabin #410 (HS-410) and Cabin #409 (HS-409)
2. Reestablish Outdoor Spaces to be Compatible with Historic Design
3. Thin Vegetation to Match Historic Pattern and Provide Views

Buildings and Structures

404	Cabin #404
405	Cabin #405
406	Cabin #406
407	Cabin #407
408	Cabin #408
409	Cabin #409
410	Cabin #410

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1" = 50'-0"

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UNITED STATES
DEPARTMENT OF THE INTERIOR

BIG SPRING
HISTORIC DISTRICT

DWG # 614 132281

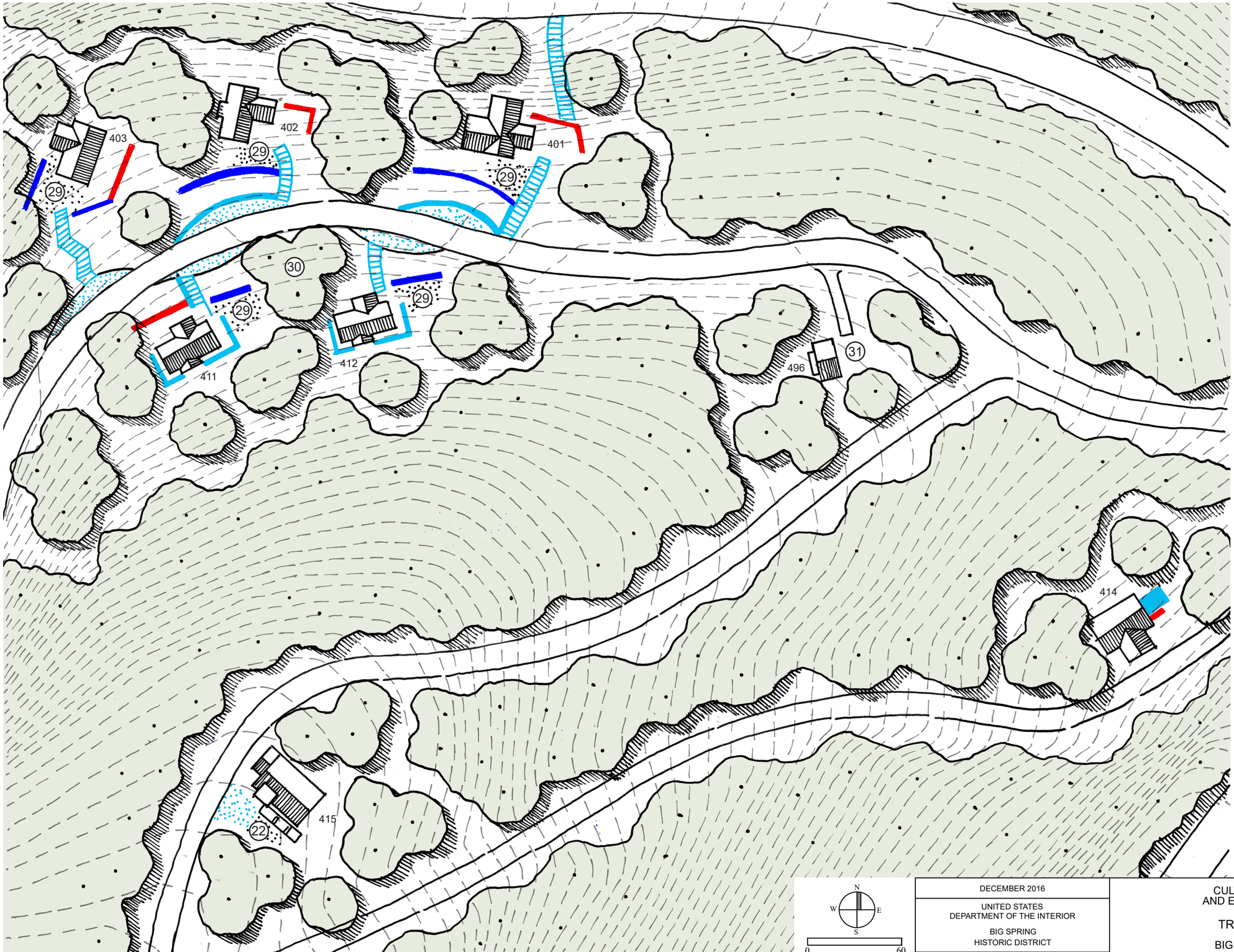
TITLE OF PROJECT
CULTURAL LANDSCAPE REPORT
AND ENVIRONMENTAL ASSESSMENT

TITLE OF DRAWING
TREATMENT - CABINS WEST

NAME OF PARK
BIG SPRING HISTORIC DISTRICT

Illustration 6-6.

REGION MIDWEST | COUNTY CARTER | STATE MISSOURI



Legend

- New Asphalt Road
- Repair Historic Wall
- New Wall to be Compatible with Historic
- Non-Contributing Wall to Remove
- Repair Stone Steps
- Outdoor Space
- Maintain Gravel Pullout
- Remove Non-contributing Feature

Treatment Notes

1. Establish Accessible Routes along Historic Patterns. Provide accessible access to Cabin #415 (HS-415)
2. Reestablish Outdoor Spaces to be Compatible with Historic Design
3. Thin Vegetation to Match Historic Pattern and Provide Views
4. Rehabilitate Picnic Shelter (HS-496) (Repair Shelter, Plantings, Fountain #3 (HS-712), and Add Trail)

Buildings and Structures

401	Cabin #401
402	Cabin #402
403	Cabin #403
411	Cabin #411
412	Cabin #412
414	Cabin #414
415	Cabin #415
496	Picnic Shelter

N W E S

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1" = 60'-0"

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BIG SPRING
HISTORIC DISTRICT

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TITLE OF PROJECT
CULTURAL LANDSCAPE REPORT
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TITLE OF DRAWING
TREATMENT - CABINS EAST

NAME OF PARK
BIG SPRING HISTORIC DISTRICT

Illustration 6-7.

REGION MIDWEST | COUNTY CARTER | STATE MISSOURI

consolidate trash collection within the Maintenance Area, in order to maintain views to the cabins from the road and the natural setting.

- Screen above-ground utilities with vegetation that is planted in naturalistic groupings, to blend with the surroundings.

10. Repair the vegetation at the cabins to create a maintained yet naturalistic appearance that frames each cabin.

    - Thin trees and undergrowth to create views to adjacent hills, river, and the Dining Lodge (HS-422).

    - Remove downed limbs and fallen timber from the vicinity. Maintain the area around each cabin free of large timber, as possible.

    - Repair plantings around each cabin to include native, ornamental trees, shrubs and groundcovers in naturalistic groupings.

    - Provide undergrowth plantings of native species to frame views to the cabins from the road and to provide privacy between cabins.

Chubb Hollow

1. Preserve Chubb Hollow and its setting as a contributing feature of the historic district, set within the valley of Chubb Creek and enclosed by woodland vegetation.

2. Preserve the Chubb Hollow Open Shelter House (HS-427) and its setting.

    - Rehabilitate Chubb Hollow Open Shelter House by repairing or replacing in-kind wood members as needed, and by following annual and seasonal maintenance activities (leaf removal, roof cleaning, mitigating for pests, etc), and maintaining positive drainage away from the structure.

    - Rehabilitate the setting of Chubb Hollow Open Shelter House by repairing the character of vegetation and repairing small scale features.

3. Preserve Chubb Hollow Road and dirt road to Chubb Hollow Open Shelter House.

    - Maintain existing width and surface of the roadway; do not widen. Maintain existing circular turn-around at the end of the road with boulder edge, and continue to provide parallel parking at the edge of the road.

    - Preserve culvert at Chubb Creek, as a contributing feature. Repair culvert as needed rather than replacing.

    - Preserve the dirt road in-situ, but do not re-grade or widen due to sensitive resources. Maintain the road for maintenance to gain access to the Chubb Hollow Open Shelter House, but do not allow private vehicles on this portion of the road.

4. Preserve the trail system through Chubb Hollow, including footbridges, steps, and other trail elements.

5. Maintain the footbridges in Chubb Hollow, preserving the historic stone abutments.

    - When repair is needed, replace timbers with materials and craftsmanship that reflect the historic footbridges designed by the CCC/ WPA.

6. Preserve and maintain the group campground in Chubb Hollow, as this activity occurred historically in this location.

    - Maintain the campground setting with its canopy of shade trees and lawn grasses below. Re-seed grasses as needed to maintain a healthy cover. Thin adjacent undergrowth to maintain the open space at the campsite, but do not enlarge the space.

7. Allow upgrades to non-contributing features that meet visitor needs.

    - Remove the non-contributing Chubb Hollow Latrine (424). Allow a new restroom with showers to serve the group campground, in a location similar to the existing latrine.

        – The new latrine should be sensitive to the historic setting while being a contemporary product of its own time. Materials should be locally-sourced, and the design should incorporate elements reflective of Ozark culture.

    - As part of the planned utility upgrade to the water system, provide water to the new restroom and historic Fountains #4, #5, #6, and #7 (HS-712).

8. Repair the vegetation at Chubb Hollow to a maintained yet naturalistic appearance.

    - Maintain shade trees and grass areas to create a park-like aesthetic.

    - Provide a view to the river from the end of Chubb Hollow Road by thinning vegetation.

    - Maintain the clearing around the Chubb Hollow Open Shelter House, with grasses at the edge of the structure and in the clearing, surrounded by forest vegetation.

<u>Maintenance Area</u>

1. Preserve the contributing buildings including the Maintenance Shop (HS-417), Maintenance Garage (HS-419), Cabin #416 (HS-416), Maintenance Storage Building (HS-418), setting and features the maintenance area.

2. Preserve the setting of the Maintenance Area as a distinct zone, separated from other park uses and visitor areas.

    - Rehabilitate the setting of the Maintenance Area by repairing the roadway and removing non-contributing features.

3. Allow additions and upgrades within the Maintenance Area. Ensure the integrity of contributing buildings and the linear spatial organization is not damaged by additions.

4. The Maintenance Area is not currently meeting needs, due to lack of space. Should the opportunity arise to relocate, move the maintenance activities out of the Big Spring Historic District.

    - Consider utilizing the Maintenance Area for park operations or for the concessionaire to utilize this space.

5. Preserve the historic circulation system, including the central road into the area, parking areas, and stone driveway adjacent Cabin #416.

    - Do not widen or expand the existing road, boneyard or parking areas.

- Rehabilitate the road by removing portions of the road that have become widened over time, creating secondary routes.
  - This includes routes adjacent the Maintenance Shop (HS-417), where new routes have emerged in front of the building that did not occur historically.
  - Maintain existing employee parking area (outside of gate). Although it is a non-contributing feature it is needed for park operations.

6. Rehabilitate the setting by removing non-contributing small scale features that diminish the setting of the historic buildings.
   - Remove the non-contributing shed in front of the Maintenance Shop (HS-417) as its placement diminishes the presence of the historic structure.
7. Allow new small scale features that are sensitive to the historic setting.
   - Upgrades and new features are allowed, so long as they do not disrupt the linear spatial organization of the Maintenance Area or diminish the presence of historic features including the road and buildings. New features may be incorporated at the edges of the road, and it is acceptable to extend the road beyond the Maintenance Garage (HS-419) to the west, in order to accommodate additional storage or simple structures needed for maintenance.
8. Maintain contributing small scale features that are associated with Cabin #416 (HS-416).
   - Preserve stone walls and steps, patio, and stone driveway.
9. Maintain the vegetation at the Maintenance Area so it serves as a screen for maintenance activities from the rest of the park.
   - Maintain existing trees and undergrowth that surrounds the maintenance area. Preserve existing trees between Cabin #416 (HS-416) and the Maintenance Shop (HS-417), replanting these trees should they reach the end of their natural life.
   - Maintain lawn and shade trees adjacent Cabin #416.



Treatment Notes

1. Preserve and protect Big Spring
2. Modify Wall
3. Repair Walk for Accessible Access
4. Repair Stone Steps
5. Maintain Native Vegetation, Thin for Views

Figure 6-12. Rehabilitate the trail and non-contributing retaining wall adjacent Big Spring. Redesign the stone wall to allow visitors in wheelchairs and children the ability to see over the wall. The route from the parking area to Big Spring should be repaved to meet universal accessibility standards for slope and surface.

Big Spring

The vision for Big Spring landscape character area is to rehabilitate the setting of the park and adjacent trails, to reflect the design intent of the CCC/WPA. Envisioned as a park-like space adjacent a natural wonder, trails were developed that followed the Spring Branch and edge of the bluff, opposite a picnic pavilion and play area. These design elements will be repaired, including repairs to the Spring Branch Trail, improvements to accessibility to the spring and Big Spring Pavilion (HS-425), as well as rehabilitation of the vegetation patterns that have become overgrown.

Big Spring Branch and Big Spring

1. Preserve the natural features associated with Big Spring and Big Spring branch. (Refer to Overall Treatment Recommendations)

2. Rehabilitate the historic setting of Big Spring and the Big Spring branch by repairing the character of vegetation, walks, and modifying non-contributing features.

3. Maintain views to Big Spring from the parking area, path to the spring, and Spring Branch Trail.

4. Maintain walk from parking area to Big Spring.

    - This route is in a historic location, although the materials are not original.

    - Repair the walk to provide universal access. This may require modification to surface texture, slope and width of the route. Repave the walk with compatible materials, which may include native flagstone as currently, or a stabilized soft-surface, such as a locally-sourced crushed stone with stabilizer to create an even walking surface.

    - Provide a small pedestrian turnaround and overlook at the source of Big Spring.

    - Connect this route to Spring Branch Trail, repairing the stone walk as needed, with local materials, to provide a safe walkway.

5. Modify non-contributing retaining wall adjacent Big Spring.

    - Resign the stone wall to a lower height to allow visitors in wheelchairs and children the ability to see over the wall. This wall should preferably step down as it nears the parking area, and be higher adjacent Big Spring.

6. Rehabilitate Spring Branch Trail and stone steps.

    - Clear encroaching vegetation from the trail as needed, creating a clear path and to reveal the adjacent stonework.

        — Maintain the full historic width of the trail, approximately 5 feet.

    - Repair the stone surface of the trail as necessary, utilizing matching materials.

    - Reset stone steps as needed, ensuring a level stepping surface.

    - Repair the stone steps to the small spring and gauging station, resetting the stone and ensuring equal rise between steps.

- Remove social paths where they occur along the trail, in order to protect natural resources. Obstruct social paths with rock or downed timber.

7. Repair stone revetment at Big Spring branch.

   - Reveal the full extent of the constructed stone features where they have become obscured by vegetation.

   - Reconstruct as needed, to match the historic condition as dry-laid stone walls.

8. Repair the vegetation at Big Spring and Big Spring branch to create a maintained, park-like appearance.

   - Remove downed trees and limbs, while maintaining native trees and undergrowth at the edge of the water.

9. Provide narrow views to the Big Spring branch from the Spring Branch Trail, by thinning select undergrowth between the trail and water.

10. Manage vegetation on the upper slope of Big Spring as part of the Big Spring Pines Natural Area, State of Missouri, allowing this portion of the landscape to appear less manicured and more wild.

<u>Big Spring Pavilion (HS-425) and Playground</u>

1. Preserve Big Spring Pavilion, playground, and the setting as contributing features of the cultural landscape.

2. Rehabilitate the setting of the Big Spring Pavilion and playground by repairing the character of vegetation, walks, and small scale features.

3. Maintain walks at the Big Spring parking area and modify as necessary in order to provide accessibility to Big Spring and Big Spring Pavilion.

   - Maintain circular, boulder-lined parking area. The parking area is in a different configuration from the historic and is a non-contributing feature but it meets current needs and is located where parking occurred historically.

4. Create a universally accessible entrance to the Big Spring Pavilion from the parking area. Rehabilitate the pavilion for access, including modification to the entrance threshold as necessary.

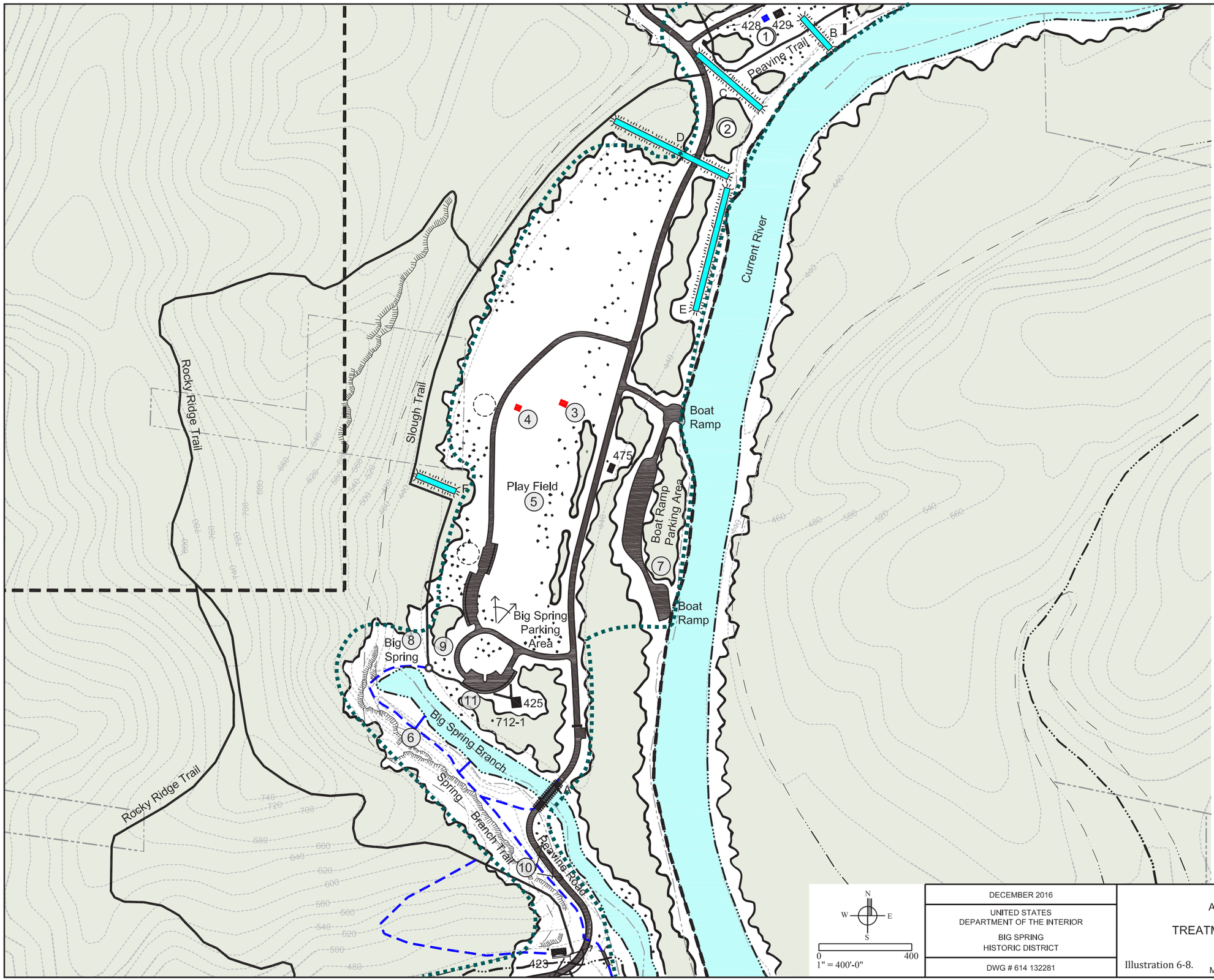
5. Maintain the playground, upgrading equipment and replacing in-kind. Currently, the playground is a liability due to equipment that does not meet safety standards.

   - Replace playground equipment and surfacing with new materials that meet safety standards, or remove the playground as a use.

6. Maintain non-contributing features that provide visitor amenities.

   - Maintain kiosks, benches, picnic tables, etc. that meet specific visitor needs. Should these elements need repair or replacement, utilize styles and materials that are compatible with the historic setting. Appropriate replacements should reflect Ozark culture and design including hand-crafted elements made from local materials, with simple forms. Modern additions should not replicate the historic or provide a false sense of history.

7. Rehabilitate the setting by preserving contributing small scale features.



Legend

- Study Area
- Trail to Preserve
- Repair Contributing Trail
- Building to Preserve
- Building to Repair
- Relocate Non-Contributing Building
- Cliff to Preserve
- Reestablish Historic Views
- Dike System to Repair
- Extent of 'Maintained' Area
- Option for Relocated Latrine

Buildings and Structures

423	Latrine
425	Big Spring Pavilion
428	Peavine Pavilion
475	Boat Ramp Restroom
712	Fountain

A	Big Spring Branch Vehicular Bridge
B	Big Spring Stone Dike #1
C	Big Spring Stone Dike #2
D	Big Spring Stone Dike #3
E	Big Spring Stone Dike #4
F	Big Spring Stone Dike #5

Treatment Recommendations

1. Repair Peavine Pavilion (HS-425) and Provide Universal Access
2. Repair / Stabilize 5 Dikes
3. Relocate Big Spring Craft Cabin (HS-458)
4. Relocate Big Spring Latrine (476)
5. Reestablish Playfield to Historic Extents
6. Stabilize / Repair Spring Branch Trail
7. Remove Vegetation, Re-construct Stone Walls / Abutments
8. Maintain Boat Ramp and Associated Facilities
9. Modify Non-contributing Wall
10. Preserve Non-contributing Walks Add Overlook
11. Replace In-kind Playground Equipment

N W E S

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1" = 400'-0"

DECEMBER 2016

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BIG SPRING
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TITLE OF PROJECT
CULTURAL LANDSCAPE REPORT
AND ENVIRONMENTAL ASSESSMENT

TITLE OF DRAWING
TREATMENT - BIG SPRING CHARACTER AREA

NAME OF PARK
BIG SPRING HISTORIC DISTRICT

Illustration 6-8.

REGION	COUNTY	STATE
MIDWEST	CARTER	MISSOURI

- Preserve the Cotton Plaque (HS-472), and Stone Interpretive Pedestal.

- Rehabilitate drinking Fountain #1 (HS-712) to working order.

8. Repair the vegetation at Big Spring to create a maintained, park-like appearance.

    - Maintain large shade trees and mown lawn surrounding the playground and Big Spring Pavilion.

9. Rehabilitate vegetation and views to Big Spring and the Big Spring branch from Big Spring Pavilion, as existed historically, by thinning vegetation.

    - Thin select trees and undergrowth between the open park space and the Spring Branch, in order to create a view to the water.

        – South of the pavilion this may require removal of smaller trees as well as undergrowth. It is not necessary to remove all undergrowth, but the intent is to provide the a view and visual connection to the water.

Big Spring Loop Drive and Playfield

1. Maintain the Big Spring Loop Drive.

    - Although the Big Spring Loop Drive is a non-contributing feature it provides needed visitor parking and access.

    - Maintain existing parking areas and boulder edge along the Big Spring Loop Drive.

2. Rehabilitate the setting by removing non-contributing structures.

    - Remove Big Spring Craft Cabin (458) from the play field and relocate outside of the historic district.

    - Relocate the Big Spring Latrine (476) from the field. The Big Spring Latrine may be located to the Big Spring Picnic Shelter/playground area if located outside of the historic view. Alternatively a new restroom could be added that is more in keeping with the historic scene.

3. Repair the vegetation at the Big Spring Loop Drive and Playfield to match the historic appearance.

    - Preserve the open playfield with mown grasses, as this area was historically maintained as a field.

    - Repair the open playfield to its full historic extent by removing woody vegetation north of the Big Spring Loop Drive. Establish this area with grasses and forbs, and maintain this as a tall-grass field, to receive a high cut a few times per season.

    - Preserve the row of maple trees along Peavine Road at the east edge of the playfield.

Boat Ramp

1. Preserve the boat ramps and parking area adjacent to the Current River. Continue to allow river access and egress. Do not enlarge the boat ramps or parking area.

2. Preserve riparian vegetation along the Current River, removing invasive exotic plant species as possible.

Big Spring Stone Dikes (HS-711)

1. Preserve historic Big Spring Stone Dikes as contributing features to the CCC-designed landscape. Remove large vegetation if it threatens the integrity of the Big Spring Stone Dikes.



Figure 6-13. Rehabilitate views between the Spring Branch Trail and the Spring Branch by thinning understory vegetation. Maintain the full historic width of the trail, approximately 5 feet, and repair the stone surface as necessary utilizing matching materials.

Implementation

This section provides guidance for implementing the treatment recommendations. The recommendations are organized into distinct tasks, with subtasks identified. These tasks will guide preparation of Project Management Information System (PMIS) project statements.

The tasks are presented by area and in table form. Each task has been assigned a phase, or priority, that indicates when implementation should occur. These phases include: Phase 1 (1 to 5 years); Phase 2 (5 to 10 years); and Phase 3 (10 to 15 years).

Matrix 6-13. Implementation Guidance for Treatment Recommendations.
Tasks are organized with 'One, Two, or Three Phase Priority' that indicates implementation timing.

CLR Treatment Recommendation / FMSS Work Order	CLR Task Component/ FMSS Task Component	Phase / Priority Phase 1 (1 to 5 years) Phase 2 (5 to 10 years) Phase 3 (10 to 15 years)
Study Area		
Task 1. Thin vegetation for views, clear for park-like look	1.1 Remove overgrown vegetation and downed timber from around buildings 1.2 Thin vegetation to create views around Cabins, Dining Lodge (HS-422) 1.3 Thin vegetation to create view of Big Spring from Spring Branch Trail	Phase 1
Task 2. Clear vegetation at CCC Camp Ruins and provide visitor access	2.1 Verify extents of CCC Camp Ruins 2.2 Remove vegetation from CCC Camp building remnants and spaces 2.3 Provide trail along old roadbed to CCC Camp Ruins	Phase 3
Task 3. Provide trail to the CCC Rock Quarry (HS-700)	3.1 Create trail along old road to CCC Rock Quarry 3.2 Remove vegetation at the CCC Rock Quarry if it threatens the resource	Phase 2
Task 4. Repair Trails	4.1. Remove vegetation and large debris that covers contributing trails 4.2 Resurface trails as needed 4.3 Replace steps and water bars with materials that match historic 4.4 Repair stone steps at Rocky Ridge Trail and provide overlook	Phase 1
Task 5. Repair Trails in Wilderness Area	Monitor and repair trails in proposed Wilderness area as possible, prioritized as follows: 5.1 Long Bay Loop 5.2 Chilton Trail, and parking area 5.3 Kinnard Loop 5.4 Chilton Loop and overlook 5.5 Tatum Trail 5.6 McSpadden Trail 5.7 Water Hollow Trail	Phase 3

CLR Treatment Recommendation / FMSS Work Order	CLR Task Component/ FMSS Task Component	Phase / Priority Phase 1 (1 to 5 years) Phase 2 (5 to 10 years) Phase 3 (10 to 15 years)
Study Area		
Task 6. Repair/replace footbridges	6.1 When replacement of footbridges is needed, replace materials with historically appropriate	Phase 2
Task 7. Provide Accessible Access to Peavine Pavilion (HS-428) and Big Spring Pavilion (HS-425)	7.1 Provide universally accessible access to Big Spring Pavilion (HS-428) 7.2 Provide universally accessible access to Peavine Pavilion (HS-425)	Phase 1
Task 8. Repair setting at May/ Winters Quarters (HS-444)	8.1 Replant missing foundation plantings 8.2 Re-seed lawn 8.3 Reset wildlife fencing around yard	Phase 3
Task 9. Repair stone drinking Fountains (HS-712)	9.1 Reset and replace stone as needed, repair metal fittings to working condition	Phase 1
Task 10. Conduct additional research	10.1 Complete update to HSR for Dining Lodge (HS-422) 10.2 Complete HSR for Cabins 10.3 Conduct additional archeological research, including documenting the extents of the CCC Camps.	Phase 1 to 3
Task 11. Install new entrance sign	11.1 Design new sign to be compatible with setting and to improve wayfinding at intersection of State Highway Z and Peavine Road	Phase 1

CLR Treatment Recommendation / FMSS Work Order	CLR Task Component/ FMSS Task Component	Phase / Priority Phase 1 (1 to 5 years) Phase 2 (5 to 10 years) Phase 3 (10 to 15 years)
Core Development Area		
Task 1. Repair Entrance	1.1 Replant vegetation backdrop 1.2 Repair northern gate 1.3 Regrade swales for drainage 1.4 Repair grass at road edge 1.5 Provide gravel pull-out at Entrance Building (HS-432) 1.6 Replace missing wood gate at Entrance Building	Phase 2
Task 2. Provide Accessible Access to Dining Lodge (HS-422)	2.1 Design drawings for a compatible ramp into the building and building study for entrance door/threshold 2.2 Repave both walkways to the Dining Lodge in matching material	Phase 1
Task 3. Repair Dining Lodge (HS-422) Setting	3.1 Remove overgrown vegetation on slope above and below Dining Lodge (HS-422), to provide view to river 3.2 Replant vegetation in front of Dining Lodge (groundcovers) 3.3 Remove wood handrail at staircase and replace 3.4 Remove non contributing waysides and pedestrian lights 3.5 Repair steps and trail to Cabins, remove concrete 3.6 Replace boat launch with compatible design	Phase 1
Task 4. Repair Main Parking Area (HS-714) and Setting	4.1. Remove trees at parking area damaging curb 4.2 Add walkway at north edge of parking area, connecting Museum (HS-420) and Dining Lodge (HS-422) 4.3 Remove non contributing parking lights and replace with compatible 4.4 Remove non contributing waysides, markers, benches, and concrete paving	Phase 2

CLR Treatment Recommendation / FMSS Work Order	CLR Task Component/ FMSS Task Component	Phase / Priority Phase 1 (1 to 5 years) Phase 2 (5 to 10 years) Phase 3 (10 to 15 years)
Core Development Area		
Task 5. Provide Accessible Access to Museum (HS-420)	5.1 Design drawings for a compatible ramp into the building and building study for entrance door/threshold	Phase 1
Task 6. Provide Accessible Access to Cabins #409 (HS-409), #410 (HS-410), and #413 (HS-413).	6.1 Building studies for threshold and door width requirements, and interior access needs. 6.2 Design drawings for a compatible ramp/access to the building and design of accessible parking space(s).	Phase 1
Task 7. Repair Cabin Setting	7.1 Thin vegetation to provide views 7.2 Establish vegetation around Cabins in naturalistic groupings 7.3 Repair stone steps 7.4 Remove non contributing retaining walls and replace with compatible material 7.5 Regrade picnic areas to blend with setting	Phase 1 to 2

CLR Treatment Recommendation / FMSS Work Order	CLR Task Component/ FMSS Task Component	Phase / Priority Phase 1 (1 to 5 years) Phase 2 (5 to 10 years) Phase 3 (10 to 15 years)
Big Spring Area		
Task 1. Repair Spring Branch Trail	1.1 Reset stone steps 1.2 Thin veg to provide view of spring from trail 1.3 Replace wall at spring 1.4 Reset/repair stone abutments	Phase 1
Task 2. Replace Playground Equipment	2.1 Replace equipment in-kind	Phase 1
Task 3. Relocate Buildings from Playfield	3.1 Relocate Big Spring Latrine (476) 3.2 Relocate Big Spring Craft Cabin (458)	Phase 2
Task 4. Repair Vegetation	4.1. Remove woody vegetation from north field and restore grasses 4.2 Provide view of Big Spring branch from picnic area and playground	Phase 2
Task 5. Protect Big Spring Stone Dikes (HS-711)	5.1 Remove woody vegetation from the Big Spring Stone Dikes that is damaging the resource	Phase 3

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Appendix B: Cost Estimate

United States Department of the Interior
National Park Service
Class C Construction Cost Estimate

BASIS OF ESTIMATE

PROJECT INFORMATION

Project:	NPS - Big Spring Historic District - CLR
Park:	Big Spring Historic District
Park Alpha:	OZAR
PMIS Number:	216961
Estimate Date:	7/8/2016 - V1.0
Prepared By:	Stan Pszczolkowski
Company:	ACC Cost Consultants, LLC
Address:	8060 SW Pfaffle St., Suite 110
City, State Zip:	Tigard, Oregon 97223
Phone:	503-718-0075

BACKGROUND SUPPORTING MATERIAL (Scope of Work):

This Cultural Landscape Report (CLR) identifies characteristics and features that convey the historic significance and character of Big Spring Historic District and provides a plan for the long-term preservation and stewardship of the landscape. The report provides park management with a comprehensive understanding of the physical evolution of the park's buildings, structures, roads, trails, and vegetation, and provides managers with guidance for care of these features. Treatment recommendations include repair of vegetation and views, improvements to trails and trailheads, provision of accessibility to key buildings and structures, and repair of small scale landscape features.

SOURCE OF COST DATA:

Source of cost data is based on ACC's work history along with ACC's database of past and current projects. The Means City Cost Index adjusts for location factor and pricing. Future phase's pricing will involve contacting local suppliers and vendors for price checks. This estimate is formulated on the estimator's professional judgment and experience. This estimate makes no warranty, expressed or implied, that the quantities, bids or the negotiated cost of the work will not vary from the estimator's opinion of probable construction cost.

ESTIMATE ASSUMPTIONS:

The cost estimate is based on the 95% CLR/EA dated July 2016 and the recommended treatments within the CLR/EA. For planning purposes, the estimate assumes the mid-point of construction as 24 months from the date of this report. Escalation is assumed at a rate of 3% per year.

MAJOR CHANGES FROM PREVIOUS ESTIMATE:

N/A

United States Department of the Interior
National Park Service
Class C Construction Cost Estimate

BASIS OF ESTIMATE

PROJECT INFORMATION

Project: NPS - Big Spring Historic District - CLR

Park: Big Spring Historic District
Park Alpha: OZAR
PMIS Number: 216961
Estimate Date: 7/8/2016 - V1.0

DESCRIPTION OF MARK-UP & ADD-ONS:

Location Factor:	-5.70%	per RS Means, closest city index is Poplar Bluff. Index is 94.3. Location factor = - 5.7
Remoteness Factor:	5.00%	Site is 50 miles from published commercial center. Assume 1%/ 10 miles
Wage Rate Factor:	0.00%	Based on the RS Means Location Factor, labor is based on Union Wages. Since the % factor accounts for the Labor component no adjustment to be made.
State & Local Taxes:	2.86%	Per Tax Rate Schedule (State 4.225% + County 1.5% = 5.725%) - Assume for estimating purpose Sales Tax on Materials only. Materials = 50% of cost, thus 5.725% x .5 = 2.8625% (Verify
Design Contingency:	25.00%	Per NPS Handbook, typical range is 15 to 30%. This is Pre-Design level estimate allow 25%
Standard. General Conditions:	20.00%	Per NPS Handbook, typical range is 4 to 20%. This is Pre-Design level estimate allow 20%
Government General Conditions:	7.50%	Per NPS Handbook, typical range is 5 to 10%. This is Pre-Design level estimate allow 7.5%
Historic Preservation Factor:	10.00%	Per NPS Handbook, typical range is 0 to 10%. This is Pre-Design level estimate allow 10%
Contractor Overhead:	15.00%	Per NPS Handbook, typical range is 10 to 25%. This is Pre-Design level estimate allow 15%
Contractor Profit:	10.00%	Per NPS Handbook, typical range is 10 to 25%. This is Pre-Design level estimate allow 10%
Bonds and Permits:	2.50%	Per NPS Handbook, typical range is 1 to 3%. This is Pre-Design level estimate allow 2.5%
Contracting Method Adjustment:	5.00%	Allowance, very procurement method
Annual Inflation Escalation Factor:	3.00%	Projected annual inflation rate.
Time Until Project Midpoint (Months)	24	Number of months from estimate (or data) date until the projects midpoint of construction.

OTHER COMMENTS:

This estimate is for direct construction cost only. It does not include furnishings & equipment, architect and engineer design fees, consultant fees, inspection and testing fees, plan check fees, hazardous material testing and removal, financing costs, nor any other normally associated development costs. This estimate assumes a sole-source general contractor. This is a probable cost estimate based on in-progress documentation provided by the architect. The actual bid documents will vary from this estimate due to document completion, detailing, specification, addendum, etc. The estimator has no control over

United States Department of the Interior
National Park Service
Class C Construction Cost Estimate

BASIS OF ESTIMATE

PROJECT INFORMATION

Project: NPS - Big Spring Historic District - CLR

Park: Big Spring Historic District
Park Alpha: OZAR
PMIS Number: 216961
Estimate Date: 7/8/2016 - V1.0

the cost or availability of labor, equipment, materials, over market conditions or contractor's method of pricing, contractor's construction logistics and scheduling.

United States Department of the Interior
National Park Service
Class C Construction Cost Estimate

PROJECT COST SUMMARY

Project: NPS - Big Spring Historic District - CLR
Park: Big Spring Historic District
Alpha: OZAR
PMIS: 216961

Estimate By: Stan Pszczolkowski
Date: 7/8/2016 - V1.0

Reviewed By: SJP
Date: 07/08/16

Item No.	Description	Quantity	Unit	Cost/Unit	Total
1	Asset / Project Element 1	1	VALUE	$1,589,508	$1,589,508
2	Asset / Project Element 2	-	Unit	#DIV/0!	$0
3	Asset / Project Element 3	-	Unit	#DIV/0!	$0
4	Asset / Project Element 4	-	Unit	#DIV/0!	$0
5	Asset / Project Element 5	-	Unit	#DIV/0!	$0
6	Asset / Project Element 6	-	Unit	#DIV/0!	$0
7	Asset / Project Element 7	-	Unit	#DIV/0!	$0
8	Asset / Project Element 8	-	Unit	#DIV/0!	$0
9	Asset / Project Element 9	-	Unit	#DIV/0!	$0
10	Asset / Project Element 10	-	Unit	#DIV/0!	$0
11	Asset / Project Element 11	-	Unit	#DIV/0!	$0
12	Asset / Project Element 12	-	Unit	#DIV/0!	$0
13	Not Used	-	Unit	#DIV/0!	$0
14	Not Used	-	Unit	#DIV/0!	$0
15	Not Used	-	Unit	#DIV/0!	$0
16	Not Used	-	Unit	#DIV/0!	$0
17	Not Used	-	Unit	#DIV/0!	$0
18	Not Used	-	Unit	#DIV/0!	$0
	Subtotal Direct Construction Costs				**$1,589,508**
	Value of Government Furnished Property (GFP) Included in Direct Cost (see footnote)*				**$0**
				Direct Cost Subtotal without GFP	**$1,589,508**
	Published Location Factor	-5.70%			-$90,602
	Remoteness Factor	5.00%			$79,475
	Federal Wage Rate Factor	0.00%			$0
	State & Local Taxes	2.86%			$45,500
	Design Contingency	25.00%			$397,377
	Total Direct Construction Costs				**$2,021,258**
	Standard General Conditions	20.00%			$404,252
	Government General Conditions	7.50%			$151,594
	Historic Preservation Factor	10.00%			$202,126
	Subtotal NET Construction Cost				**$2,779,230**
	Overhead	15.00%			$416,884
	Profit	10.00%			$277,923
	Estimated NET Construction Cost				**$3,474,037**
	Bonds & Permits	2.50%			**$86,851**
	Contracting Method Adjustment	5.00%			$173,702
	Inflation Escalation	24	Months	3.00%	$227,437
	Total Estimated NET Cost of Construction				**$3,962,026**

* GFP costs are only used when the Government pre-purchases items, or provides other materials out of Government inventory, to be installed by contractor. Adjustments and Markup on GFP only include Inflation Escalation; No other adjustment factors or O&P markup have been applied.

United States Department of the Interior
National Park Service
Class C Construction Cost Estimate

LINE ITEM COST SUMMARY

Project:	**NPS - Big Spring Historic District - CLR**	**Estimate By:**	Stan Pszczolkowski
Park:	**Big Spring Historic District**	**Date:**	7/8/2016 - V1.0
Park Alpha:	**OZAR**	**Reviewed By:**	SJP
PMIS Number:	**216961**	**Date:**	07/08/16
Summary Item 1	**Asset / Project Element 1**	**Total Cost:**	$1,589,508

Uniformat II WBS Code	Description	Quantity	Unit	Cost/Unit	Total Cost	Remarks
G50-A	**Vegetation Thinning and Removal**					
Level 3 Code	Clear forest to reveal CCC Camp, establish grasses	0.5	Acre	$ 5,000.00	$2,500	
Level 3 Code	Clear forest to meadow, north of Big Spring	0.5	Acre	$ 5,000.00	$2,500	
Level 3 Code	Remove vegetation from dikes	1	Acre	$ 4,000.00	$4,000	
Level 3 Code	Clear vegetation at Rocky Ridge Trail to provide overlook	1500	Sf	$ 1.50	$2,250	thin underbrush
Level 3 Code	Dining Lodge Vegetation to Remove					
Level 3 Code	Remove trees at parking area	2	Ea	$ 500.00	$1,000	
Level 3 Code	Thin vegetation at slope to provide view of river	5000	Sf	$ 0.55	$2,750	tree thinning/limbing and
Level 3 Code	Thin vegetation at Latrine	5000	Sf	$ 0.55	$2,750	tree thinning/limbing and
Level 3 Code	Cabins Vegetation to Remove					
Level 3 Code	Thin vegetation to provide views	2	Acre	$ 5,000.00	$10,000	tree thinning/limbing and
Level 3 Code	Big Spring Trail Vegetation to Thin/Remove	0.5	Acre	$ 5,000.00	$2,500	tree limbing and shrub
Level 3 Code	Mobilization / Erosion Control / Layout / Misc.	1	Ls	$ 4,537.50	$4,538	
Level 3 Code	Description	0	Unit	$ -	$0	
	SUBTOTAL	**1**	**VALUE**	**$ 34,787.50**	**$34,788**	

Uniformat II WBS Code	Description	Quantity	Unit	Cost/Unit	Total Cost	Remarks
G50-B	**Site Accessibility**					
Level 3 Code	Provide Accessible access to Peavine Pavilion	45	Lf	$ 61.75	$2,779	5' concrete walk from parking to pavilion
Level 3 Code	Provide Accessible access to Big Spring Pavilion	60	Lf	$ 61.75	$3,705	5' concrete walk from parking to pavilion
Level 3 Code	Provide Accessible access to Dining Lodge	270	Lf	$ 458.00	$123,660	requires repaving walk with stone material (10 wide) and regrading to building threshold
Level 3 Code	Provide Accessible access to Museum	35	Lf	$ 49.40	$1,729	4' concrete walk from parking

United States Department of the Interior
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Summary Item 1	**Asset / Project Element 1**				**Total Cost:**	$1,589,508
Level 3 Code	Provide Accessible access to Cabin 409					
Level 3 Code	Ramp to Cabin 409	20	Lf	$ 405.00	$8,100	assumes 20' conc. ramp into building at 1:20; 1 accessible parking space
Level 3 Code	Accessible Parking, Cabin 409	400	Sf	$ 5.88	$2,350	
Level 3 Code	Provide Accessible access to Cabin 410					
Level 3 Code	Ramp to Cabin 410	30	Lf	$ 405.00	$12,150	assumes 30' conc. ramp into building at 1:20; 1 accessible parking space
Level 3 Code	Accessible Parking, Cabin 410	400	Sf	$ 5.88	$2,350	
Level 3 Code	Provide Accessible access to Cabin 413					
Level 3 Code	Ramp to Cabin 413	50	Lf	$ 405.00	$20,250	assumes 40' conc. ramp into building at 1:20; 1 accessible parking space
Level 3 Code	Accessible Parking, Cabin 413	500	Sf	$ 5.65	$2,825	
Level 3 Code	Mobilization / Erosion Control / Layout / Misc.	1	Ls	$ 22,487.22	$22,487	
Level 3 Code	Description	0	Unit	$ -	$0	
	SUBTOTAL	**1**	**VALUE**	**$ 202,384.97**	**$202,385**	

Uniformat II WBS Code	Description	Quantity	Unit	Cost/Unit	Total Cost	Remarks
G50-C	**Trail Work**					
` Level 3 Code	Maintain trails. Re-surface	116160	LF	$ 2.25	$261,360	assume 3' wide surface, crushed stone
Level 3 Code	Repair trails. Re-place water bars with stone block	1000	Lf	$ 60.00	$60,000	stone 12"x6"
Level 3 Code	New trail to Quarry	250	Lf	$ 12.75	$3,188	assume 3' wide surface, crushed stone
Level 3 Code	Repair (reset) stone steps at Rocky Ridge Trail	30	Lf	$ 100.00	$3,000	Reset of ex stone, 24"x12" typ
Level 3 Code	Repair steps to cabins					
Level 3 Code	Remove concrete steps and walk	100	Sf	$ 6.00	$600	20' x 5' conc walk; 8 conc
Level 3 Code	Replace steps with stone	8	Ea	$ 300.00	$2,400	36"x 6" typ wide stone

United States Department of the Interior
National Park Service
Class C Construction Cost Estimate

LINE ITEM COST SUMMARY

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Park:	**Big Spring Historic District**	**Date:**	7/8/2016 - V1.0
Park Alpha:	**OZAR**	**Reviewed By:**	SJP
PMIS Number:	**216961**	**Date:**	07/08/16

Summary Item 1	**Asset / Project Element 1**				**Total Cost:**	$1,589,508
Level 3 Code	Repair Spring Branch Trail					
Level 3 Code	Replace wall at Big Spring	40	Lf	$ 125.00	$5,000	new stone wall; 12"Wx18" Ht.
Level 3 Code	Repair stone trail and steps	100	Lf	$ 80.00	$8,000	reset stones, 24" wide typ.
Level 3 Code	Repair stone abutments	250	Lf	$ 110.00	$27,500	reset stone as drylaid wall, 24" Ht. typ
Level 3 Code	Mobilization / Erosion Control / Layout / Misc.	1	Ls	$ 37,104.75	$37,105	
Level 3 Code	Description	0	Unit	$ -	$0	
	SUBTOTAL	**1**	**VALUE**	**$ 408,152.25**	**$408,152**	

Uniformat II WBS Code	Description	Quantity	Unit	Cost/Unit	Total Cost	Remarks
G50-D	**Road & Walk Improvements**					
Level 3 Code	Gravel pull-out at Entrance	800	Sf	$ 4.50	$3,600	
Level 3 Code	New walkway, north side of parking area	650	Lf	$ 24.00	$15,600	crushed fines, 6' wide
Level 3 Code	Mobilization / Erosion Control / Layout / Misc.	1	Ls	$ 2,880.00	$2,880	
Level 3 Code	Description	0	Unit	$ -	$0	
	SUBTOTAL	**1**	**VALUE**	**$ 22,080.00**	**$22,080**	

Uniformat II WBS Code	Description	Quantity	Unit	Cost/Unit	Total Cost	Remarks
G50-E	**Structures**					
Level 3 Code	Relocate NPS Restroom	1	Ls	$ 10,000.00	$10,000	Prefab RR north of Big Spring, move to Campground
Level 3 Code	Relocate Craft Cabin	1000	Sf	$ 20.00	$20,000	Single-story, 1000sf. North of Big Spring, move to Admin (2 miles)
	foundations	1	Ls	$ 5,000.00	$5,000	
	utilities / connections	1	Ls	$ 5,000.00	$5,000	
	site repair / walks / access	1	Ls	$ 6,000.00	$6,000	
Level 3 Code	Replace footbridges, 4' x 30'	3	Ea	$ 30,000.00	$90,000	hand-turned wood timbers

United States Department of the Interior
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Class C Construction Cost Estimate

LINE ITEM COST SUMMARY

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Summary Item 1 **Asset / Project Element 1** **Total Cost:** $1,589,508

Level 3 Code	Repair boat launch	1	Ls	$ 67,500.00	$67,500	wood and stone dock/pier to accommodate single motorcraft, appx. 1500sf
Level 3 Code	Regrade drainage swales at entrance	2500	Sf	$ 3.50	$8,750	remove excess soil, re-seed
Level 3 Code	Mobilization / Erosion Control / Layout / Misc.	1	Ls	$ 26,531.25	$26,531	
Level 3 Code	Description	0	Unit	$ -	$0	
	SUBTOTAL	**1**	**VALUE**	**$ 238,781.25**	**$238,781**	

Uniformat II WBS Code	Description	Quantity	Unit	Cost/Unit	Total Cost	Remarks
G50-F	**Small Scale Features**					
Level 3 Code	Repair stone drinking fountains	7	Ea	$ 2,000.00	$14,000	reset and replace missing stone; repair metal fittings
Level 3 Code	Install new entrance sign	1	Ea	$ 5,000.00	$5,000	wood and metal, 60"x48"
Level 3 Code	Repair Small Scale Features at Entrance					
Level 3 Code	Replace missing fence	1	Ea	$ 700.00	$700	8' wood fence, 3 rail
Level 3 Code	Repair north gate	1	Ea	$ 500.00	$500	8' wood gate, 3 rail
Level 3 Code	Repair setting at Cabins					
Level 3 Code	Re-grade picnic areas	5000	Sf	$ 5.00	$25,000	
Level 3 Code	Remove n/c retaining walls	290	Lf	$ 15.00	$4,350	6x10 wood
Level 3 Code	Install new retaining walls - stone	510	Lf	$ 220.00	$112,200	cut stone masonry walls, 12" wide, 3' Ht typ
Level 3 Code	Repair stone steps	300	Lf	$ 100.00	$30,000	Reset, replace stones as needed; 36" wide steps typ.
Level 3 Code	Replace handrails	300	Lf	$ 115.00	$34,500	Remove ex. wood handrails, replace w/ metal
Level 3 Code	Repair setting at Dining Lodge and Museum					
Level 3 Code	Remove n/c wayside exhibits	1	Ls	$ 3,500.00	$3,500	6 metal interpretive stantions (36x48"); 2 benches; 500 sf conc paving; 4 wood posts (12x12, 6'Ht)

United States Department of the Interior
National Park Service
Class C Construction Cost Estimate

LINE ITEM COST SUMMARY

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PMIS Number:	**216961**	**Date:**	07/08/16

Summary Item 1 **Asset / Project Element 1** **Total Cost:** $1,589,508

Level 3 Code	Remove parking lot lighting	1	Ls	$ 2,900.00	$2,900	5 metal pedestrian lights 12"Ht; and 4 parking lights, 15' Ht
Level 3 Code	Install new outdoor lighting, base, pole, circuit, led light	1	Ls	$ 4,000.00	$4,000	5 parking lights
Level 3 Code	Replace playground equipment					
Level 3 Code	Swingset (4 seat)	1	Ls	$ 5,000.00	$5,000	
Level 3 Code	Slide	1	Ls	$ 8,500.00	$8,500	
Level 3 Code	Spring riders	3	Ls	$ 1,700.00	$5,100	
Level 3 Code	Mobilization / Erosion Control / Layout / Misc.	1	Ls	$ 38,287.50	$38,288	
Level 3 Code	Description	0	Unit	$ -	$0	
	SUBTOTAL	**1**	**VALUE**	**$ 293,537.50**	**$293,538**	

Uniformat II WBS Code	Description	Quantity	Unit	Cost/Unit	Total Cost	Remarks
G50-G	**New Vegetation**					
Level 3 Code	Vegetation backdrop at Entrance					
Level 3 Code	Plant additional trees, east side entrance station	10	ea	$ 325.00	$3,250	
Level 3 Code	Replant grass at road edge	800	sf	$ 2.00	$1,600	
Level 3 Code	Vegetation at Dining Lodge					
Level 3 Code	New plantings in front of Lodge and in traffic circle	3600	sf	$ 10.00	$36,000	shrubs and groundcovers
Level 3 Code	New vegetation at Cabins	1.5	acre	$ 196,000.00	$294,000	ornamental trees, shrubs, and groundcovers
Level 3 Code	Restore Landscape Features at Keepers Quarters					
Level 3 Code	Install foundation plantings	1500	sf	$ 3.75	$5,625	perennials, small shrubs
Level 3 Code	Restore lawn	3000	sf	$ 2.00	$6,000	
Level 3 Code	Mobilization / Erosion Control / Layout / Misc.	1	Ls	$ 43,309.38	$43,309	
Level 3 Code	Description	0	Unit	$ -	$0	
	SUBTOTAL	**1**	**VALUE**	**$ 389,784.38**	**$389,784**	

United States Department of the Interior
National Park Service
Class C Construction Cost Estimate

LINE ITEM COST SUMMARY

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Park:	**Big Spring Historic District**	**Date:**	7/8/2016 - V1.0
Park Alpha:	**OZAR**	**Reviewed By:**	SJP
PMIS Number:	**216961**	**Date:**	07/08/16

Summary Item 1 **Asset / Project Element 1** **Total Cost:** $1,589,508

Uniformat II WBS Code	Description	Quantity	Unit	Cost/Unit	Total Cost	Remarks
TOTAL COST - Asset / Project Element 1		**1**	**VALUE**	**###########**	**$1,589,508**	

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Appendix C: FMSS

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Cultural Landscape Feature to FMSS Data Crosswalk

	Cultural Landscape Inventory		Other CR Inventories		FMSS Data (existing & proposed)										
Landscape Characteristic	CLR Feature Name	Feature Contribution*	IDLCS Number / LCS Structure Number	LCS Name	In FMSS?	Asset	Description	Asset Code	Facility Type	Classification	Legacy WBS/Sub	Spec Template Description		QTY	UM
Natural Systems															
	Big Spring	Contributing			N										
	Big Spring branch	Contributing			N										
	Chubb Hollow	Contributing			N										
Spatial Organization / Topography / Views															
	Views to river and natural areas	Contributing	N/A	N/A	N										
	Clustered development	Contributing	N/A	N/A	N										
Archeological Sites															
	Chubb Hollow Archeological Site	Contributing			N			7200 - Maintained Archeological Sites							
	Spring Valley Dalton Site	Contributing			N			7200 - Maintained Archeological Sites							
	Quartzite Site	Contributing			N			7200 - Maintained Archeological Sites							
	Peavine Road Site	Contributing			N			7200 - Maintained Archeological Sites							
	Gnat Alley Site	Contributing			N			7200 - Maintained Archeological Sites							
	Cherty Branch Site	Contributing			N			7200 - Maintained Archeological Sites							
	Camp Haines	Contributing			N			7200 - Maintained Archeological Sites							
	CCC Camp Ruin	Contributing	HS-702 through HS-710		N			7200 - Maintained Archeological Sites							
	CCC Dump and Incinerator	Contributing	HS-432B		N			7200 - Maintained Archeological Sites							
	CCC Rock Quarry	Contributing	HS-700		N			7200 - Maintained Archeological Sites							
	CCC Powder Magazine	Contributing	HS-701		N			7200 - Maintained Archeological Sites							
	Fire Tower Rock Quarry	Contributing	HS-1404E		N			7200 - Maintained Archeological Sites							
	Fire Tower Privy Sites #1 and #2	Contributing	HS-1404C; HS-1404D		N			7200 - Maintained Archeological Sites							
	Fire Tower Radio Shed Site	Contributing	HS-1404G		N			7200 - Maintained Archeological Sites							
Circulation															
	Vehicular														
	Peavine Road / State Highway 103	Contributing			Y	78578	4-22 Peavine Rd RT 0010	1100	1110						
	Boat Ramp Road	Non-Contributing			Y	78590	4-132 Big Spring Boat Launch Rd RT 0115	1100	1110						
	Boat Ramp Parking	Non-Contributing			Y	78749	4-132 Big Spring Boat Launch Rd Parking RT 0913	1300	1310						
	Boat Ramp				Y	102095	Big Spring Boat Launch #1 RT 0803	1300	1310						
	Boat Ramp				Y	102096	Big Spring Boat Launch #2 RT 0804	1300	1310						

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Landscape Characteristic	CLR Feature Name	Feature Contribution*	IDLCS Number / LCS Structure Number	LCS Name	In FMSS?	Asset	Description	Asset Code	Facility Type	Classification	Legacy WBS/Sub	Spec Template Description		QTY	UM
	Big Spring Picnic Area Loop Drive	Non-Contributing			Y	78589	4-131 Big Spring Picnic Area Loops Rd RT 0114	1100	1110						
	Big Spring Picnic Area Loop Drive Parking	Non-Contributing			Y	102107	Big Spring Picnic Area Loop Rd Parking B RT 0912B								
					Y	102108	Big Spring Picnic Area Loop Rd Parking C RT 0912C								
					Y	102109	Big Spring Picnic Area Loop Rd Parking D RT 0912D								
					Y	102110	Big Spring Picnic Area Loop Rd Parking E RT 0912E								
	Chubb Hollow Road	Contributing			Y	78591	4-134 Chubb Hollow Rd RT 0111	1100	1110						
	Campground Drive	Contributing			Y	78594	4-217 Big Spring Group Camp Rd RT 0116	1100	1110						
					Y	78603	4-444 Big Spring Fire Cache Rd RT 0405	1100	1130						
					Y	78804	4-444 Big Spring Fire Cache Rd Parking RT 0975	1300	1320						
	Maintenance Area Drive	Contributing			Y	78604	4-450 Big Spring Maintenance Access Rd RT 0402	1100	1110						
	Maintenance Area Parking	Non-Contributing			Y	78805	4-450 Big Spring Maint Access Rd Parking RT 0976	1300	1320						
	Parking Area at Museum and Dining Lodge				Y	78746	4-133 Big Spring Lodge Rd Parking RT 910	1300	1310						
	Campground Drive?				Y	78936	4-134 Chubb Hollow Rd (unpaved portion) RT 0703	1100	1120						
					Y	80583	4-134 Chubb Hollow Parking A RT 0959	1300	1310						
					Y	78783	4-134 Chubb Hollow Parking B RT 0987	1300	1320						
	Fire Tower Road				Y	78994	4-447 Big Spring Lookout Tower Rd RT 0447	1100	1120						
	Cabin Road	Contributing	HS-401B		Y	79063	4-218 Big Spring Cabin Rd RT 0112	1100	1110						
	Cabin Road Parking	Contributing			Y	79064	4-218 Big Spring Cabin Rd Parking	1300	1320						
	May/Winters Driveway	Contributing			N										
	State Highway Z	Contributing			N										
	Ebb and Flow Road	Contributing			N										
	County Road Z-206	Contributing			N										
	County Road Z-204	Contributing			N										
	Service Road at Entrance	Contributing			N										
	Pedestrian														
	Spring Branch Trail	Contributing				78324	LC BS Big Spring Trail System HS-425A	2100	2130						
	Rocky Ridge Trail	Contributing				78324	LC BS Big Spring Trail System HS-425A	2100	2130						
	Spring Valley Trail	Contributing				78324	LC BS Big Spring Trail System HS-425A	2100	2130						
	Chubb Hollow Trail	Contributing			Y	78336	LC BS Big Spring Chubb Hollow Trail	2100	2130						
	Upper Chubb Hollow Trail	Contributing				78336	LC BS Big Spring Chubb Hollow Trail	2100	2130						
	Lower Chubb Hollow Trail	Contributing				78336	LC BS Big Spring Chubb Hollow Trail	2100	2130						
	Footbridge					340617	Walkable Structure, Footbridge, 40 LF, 4 FT	2100	2130	STRCTURE / Walkable Structu		G2030	G203099	320	SF
	Footbridge					340619	Walkable Structure, Footbridge, 8 LF, 4 FT, 2 EA.	2100	2130	STRCTURE / Walkable Structu		G2030	G203099	64	SF
	Footbridge					340623	Walkable Structure, Footbridge, 34 LF, 4 FT	2100	2130	STRCTURE / Walkable Structu		G2030	G203099	136	SF
	Footbridge					340625	Walkable Structure, Footbridge, 19 LF, 4 FT	2100	2130	STRCTURE / Walkable Structu		G2030	G203099	76	SF
	Footbridge					340636	Walkable Structure, Footbridge, 20 LF, 4 FT, 1 EA.	2100	2130	STRCTURE / Walkable Structu		G2030	G203099	80	SF
	Footbridge					340637	Walkable Structure, Footbridge, 7 LF, 4 FT, 1 EA.	2100	2130	STRCTURE / Walkable Structu		G2030	G203099	28	SF
	Chubb Hollow Footbridge	Contributing (Foundation only)	HS-456			409092	Walkable Structure, Footbridge, 60 LF, 4 FT, 1 EA.	2100	2130	STRCTURE / Walkable Structu		G2030	G203099	240	SF
	Footbridge					409110	Walkable Structure, Footbridge, 34 LF, 4 FT, 1 EA.	2100	2130	STRCTURE / Walkable Structu		G2030	G203099	136	SF
						340635	WALKS, STEPS, TERRACES, FOOTBRIDGES PARENT	2100	2130						
						78340	LC BS Big Spring East Loop Ozark Trail	2100	2130						
						336938	Walkable Structure, Footbridge, 5 LF, 4 FT	2100	2130	STRCTURE / Walkable Structu		G2030	G203099	20	SF
						336947	Walkable Structure, Stairs, .5 LF, 4 FT	2100	2130	STRCTURE / Walkable Structu		G2030	G203099	14	SF

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						336957	Walkable Structure, Stairs, .5 LF, 4 FT	2100	2130	STRCTURE / W	alkable Structu	G2030	G203099	20	SF
						336896	TRAIL SURFACE PARENT	2100	2130						
	Cabin Path System and Stairs	Contributing				336933	WALKS, STEPS, TERRACES & FOOTBRIDGES PARENT	2100	2130						
	Stone Walk at Dining Lodge	Contributing													
Constructed Water Features															
	Big Spring Stone Dike #3	Contributing													
	Big Spring Stone Dike #5	Contributing													
	Stone Abutments	Contributing													
	Entrance Drainage Ditches	Contributing													
Vegetation															
					Y	79174	LC BS Big Spring Area Landscape	3100	3110						
					Y	1482788	Land Surface	3100	3110	SURFACE / LA	Land Surface			3,267,000	SF
					Y	341282	Wall, Retaining, 200.0 FT, 4.5 FT	3100	3110	STRCTURE / W	Wall			900	SF
Buildings and Structures															
	Cabin #401	Contributing	HS-401			70883	LC BS Big Spring Rental Cabin HS-401	4100	4129						
	Cabin #402	Contributing	HS-402			70884	LC BS Big Spring Rental Cabin HS-402	4100	4129						
	Cabin #403	Contributing	HS-403			70885	LC BS Big Spring Rental Cabin HS-403	4100	4129						
	Cabin #404	Contributing	HS-404			70886	LC BS Big Spring Rental Cabin HS-404	4100	4129						
	Cabin #405	Contributing	HS-405			70887	LC BS Big Spring Rental Cabin HS-405	4100	4129						
	Cabin #406	Contributing	HS-406			70888	LC BS Big Spring Rental Cabin HS-406	4100	4129						
	Cabin #407	Contributing	HS-407			70889	LC BS Big Spring Rental Cabin HS-407	4100	4129						
	Cabin #408	Contributing	HS-408			70890	LC BS Big Spring Rental Cabin HS-408	4100	4129						
	Cabin #409	Contributing	HS-409			70891	LC BS Big Spring Rental Cabin HS-409	4100	4129						
	Cabin #410	Contributing	HS-410			70892	LC BS Big Spring Rental Cabin HS-410	4100	4129						
	Cabin #411	Contributing	HS-411			70893	LC BS Big Spring Rental Cabin HS-411	4100	4129						
	Cabin #412	Contributing	HS-412			70895	LC BS Big Spring Rental Cabin HS-412	4100	4129						
	Cabin #413	Contributing	HS-413			70896	LC BS Big Spring Rental Cabin HS-413	4100	4129						
	Cabin #414	Contributing	HS-414			70897	LC BS Big Spring Rental Cabin HS-414	4100	4129						
	Cabin #415	Contributing	HS-415			70898	LC BS Big Spring Rental Cabin HS-415	4100	4129						
	Cabin #416 / Lower Current District Maintenance Office	Contributing	HS-416			70899	LC BS Lower Current District Ranger Office HS-416	4100	4110						
	Maintenance Shop	Contributing	HS-417			70900	LC BS Big Spring Maintenance Shop HS-417	4100	4160						
	Maintenance Storage Building	Contributing	HS-418			70902	LC BS Big Spring Electrician Shop HS-418	4100	4160						
	Maintenance Garage	Contributing	HS-419			70903	LC BS Big Spring Carpenter Shop HS-419	4100	4160						
	Museum Building	Contributing	HS-420			70905	LC BS Big Spring Interpretation Office HS-420	4100	4110						
	Dining Lodge and Help's Quarters	Contributing	HS-422			70910	LC BS Big Spring Dining Lodge HS-422	4100	4129						
	Dining Lodge Retaining Wall and Fountain	Contributing	HS-422A												

Cultural Landscape Feature to FMSS Data Crosswalk

	Cultural Landscape Inventory		Other CR Inventories		FMSS Data (existing & **proposed**)											
Landscape Characteristic	**CLR Feature Name**	**Feature Contribution***	**IDLCS Number / LCS Structure Number**	**LCS Name**	**In FMSS?**	**Asset**	**Description**	**Asset Code**	**Facility Type**	**Classification**	**Legacy WBS/Sub**	**Spec Template Description**		**QTY**	**UM**
	Latrine	Contributing	HS-423			70911	LC BS Big Spring Research Lab HS-423	4100	4174						
	Chubb Hollow Latrine	Non-Contributing	HS-424			70913	LC BS Chubb Hollow Vault Toilet 424	4100	4124						
	Big Spring Pavilion	Contributing	HS-425			70914	LC BS Big Spring Shelter House HS-425	4100	4141						
	Chubb Hollow Open Shelter House	Contributing	HS-427			70918	LC BS Chubb Hollow Shelter House HS-427	4100	4141						
	Peavine Pavilion	Contributing	HS-428			70920	LC BS Peavine Shelter House HS-428	4100	4141						
						70922	LC BS Peavine Bath House 429	4100	4124						
	Entrance Building	Contributing	HS-432			70929	LC BS Big Spring Entrance Station HS-432	4100	4129						
	Entrance Portal Walls	Contributing	HS-432		N										
	Pump House	Contributing	HS-443												
	May/Winters Quarters	Contributing	HS-444			70935	Q-00000444 LC BS Big Spring May/Winters Qtrs 444	4100	4130						
	May/Winters Quarters Garage Foundation	Contributing	HS-444A			70937	LC BS Big Spring May/Winters Pumphouse 444A	4100	4150						
	Big Spring Craft Cabin	Non-Contributing	HS-458			76492	LC BS Big Spring Quilting Cabin 458	4100	4180						
	Boat Dock	Non-Contributing				76508	LC BS Big Spring Marina (Boat Dock) 465	6300	6310						
	Boat Ramp Latrine	Non-Contributing	HS-475			76646	LC BS Big Spring Boat Ramp Restroom #475	4100	4124						
	Big Spring Latrine	Non-Contributing	HS-476			76650	LC BS Big Spring Heated Restroom #476	4100	4124						
	Paint and Storage Shed	Non-Contributing	HS-493			76724	LC BS Big Spring Paint & Storage Shed 493	4100	4150						
	Maintenance Storage Building	Non-Contributing	HS-495			76732	LC BS Big Spring Storage #495	4100	4141						
	Picnic Shelter	Contributing	HS-496			76735	LC BS Big Spring Picnic Shelter HS-496	4100	4141						
	Metal awning?	Non-Contributing				76963	LC BS Big Spring Garage/Maintenance Storage 419A	4100	4141						
	Fire Tower / Lookout Tower	Contributing	HS-1404			87867	LC BS BS Big Spring CCC Fire Tower HS-1404	7400	7420						
	Chilton Creek Barn	Contributing	HS-467												
Small Scale Features															
	CCC Fountains (6)	Contributing													
	CCC Stone Curbs and Markers	Contributing													
	CCC Stone Retaining Walls	Contributing													
	Fire Tower Stone Retaining Wall	Contributing	HS-1404F												
	Wildlife Fencing	Contributing													
	Museum Flagpole	Contributing													
	Chubb Hollow Stone Culvert	Contributing	HS-427A												

Cultural Landscape Feature to FMSS Data Crosswalk - Treatment Summary

CLR Treatment Project Component Task / FMSS Work Order	Priority	*CLR Treatment Task Component / FMSS Task	FMSS Asset Type (ASSET CODE)	FMSS Location (Parent Locations)	FMSS Asset (Asset Number)	**FMSS Work Type / Sub-Type
Study Area						
Task 1. Thin vegetation for views, clear for park-like look	1	Task 1.1 Remove overgrown vegetation and fallen timber from around buildings	3100-Maintained Landscapes		LC BS Big Spring Area Landscape (79174)	
		Task 1.2 Thin vegetation to create views around Cabins, Dining Lodge (HS-422)				
		Task 1.3 Thin vegetation to create view of Big Spring from Spring Branch Trail				
Task 2. Provide visitor access to CCC Camp Ruins	3	Task 2.1 Verify extents of CCC Camp	7200-Maintained Archeological Sites			
		Task 2.3 Provide trail along old roadbed to CCC Camp				
Task 3. Provide trail to the CCC Quarry	2	3.1 Create trail along old road to CCC	7200-Maintained Archeological Sites			
		3.2 Remove vegetation at the CCC Rock Quarry if it threatens the resource				
Task 4. Repair Trails	1	4.1. Remove vegetation and large debris that covers contributing trails	2100-Trails		LC BS Big Spring Trail System HS-425A (78324)	
		4.2 Resurface trails as needed				
		4.3 Replace steps and water bars with materials that match historic				
		4.4 Repair stone steps at Rocky Ridge Trail and provide overlook				

Cultural Landscape Feature to FMSS Data Crosswalk - Treatment Summary

CLR Treatment Project Component Task / FMSS Work Order	Priority	*CLR Treatment Task Component / FMSS Task	FMSS Asset Type (ASSET CODE)	FMSS Location (Parent Locations)	FMSS Asset (Asset Number)	**FMSS Work Type / Sub-Type
Task 5. Repair Trails in Poor Condition	2	5.0 Monitor and repair trails that are in poor condition, prioritized as follows:	2100-Trails		LC BS Big Spring Trail System HS-425A (78324)	
	3	5.1 Long Bay Loop				
	3	5.2 Chilton Trail, and parking area				
	3	5.3 Kinnard Loop				
	3	5.4 Chilton Loop and overlook				
	3	5.5 Tatum Trail				
	3	5.6 McSpadden Trail				
	3	5.7 Water Hollow Trail				
Task 6. Repair/replace footbridges	2	6.1 When replacement of footbridges is needed, replace materials with historically appropriate	2100-Trails			
Task 7. Provide Accessible Access to Peavine and Big Spring Pavilions	1	7.1 Provide universally accessible access to Big Spring Pavilion (HS-428)	4100-Buildings		LC BS Big Spring Shelter House HS-425 (70914)	
		7.2 Provide universally accessible access to Peavine Pavilion (HS-425)			LC BS Peavine Shelter House HS-428 (70920)	
Task 8. Repair setting at May/ Winters Quarters (HS-444)	3	8.1 Replant missing foundation plantings	3100-Maintained Landscapes			
		8.2 Re-seed lawn				
		8.3 Reset wildlife fencing around				

Cultural Landscape Feature to FMSS Data Crosswalk - Treatment Summary

CLR Treatment Project Component Task / FMSS Work Order	Priority	*CLR Treatment Task Component / FMSS Task	FMSS Asset Type (ASSET CODE)	FMSS Location (Parent Locations)	FMSS Asset (Asset Number)	**FMSS Work Type / Sub-Type
Task 9. Repair stone drinking fountains	1	9.1 Reset and replace stone as needed, repair metal fittings to working condition				
Task 10. Conduct additional research	1 to 3	10.1 Complete update to HSR for Dining Lodge (HS-422)				
		10.2 Complete HSR for Cabins				
		10.3 Conduct additional archeological research, including documenting the extents of the CCC Camps.				
Task 11. Install new entrance sign	1	11.1 Design new sign to be compatible with setting and to improve wayfinding at intersection of State Highway Z and Peavine Road				
Core Development Area						
Task 1. Repair Entrance	2	1.1 Replant vegetation backdrop	3100-Maintained Landscapes			
		1.2 Repair northern gate				
		1.3 Regrade swales for drainage				
		1.4 Repair grass at road edge				
		1.5 Provide gravel pull-out at Entrance Building (HS-432)				
		1.6 Replace missing wood gate at Entrance Building				

Cultural Landscape Feature to FMSS Data Crosswalk - Treatment Summary

CLR Treatment Project Component Task / FMSS Work Order	Priority	*CLR Treatment Task Component / FMSS Task	FMSS Asset Type (ASSET CODE)	FMSS Location (Parent Locations)	FMSS Asset (Asset Number)	**FMSS Work Type / Sub-Type
Task 2. Provide Accessible Access to Dining Lodge (HS-422)	1	2.1 Design drawings for a compatible ramp into the building and building study for entrance door/threshold			LC BS Big Spring Dining Lodge HS-422 (70910)	
		2.2 Repave both walkways to the Dining Lodge in matching material				
Task 3. Repair Dining Lodge Setting	1	3.1 Remove overgrown vegetation on slope above and below Dining Lodge (HS-422), to provide view to river	3100-Maintained Landscapes			
		3.2 Replant vegetation in front of Dining Lodge (groundcovers)				
		3.3 Remove wood handrail at staircase and replace				
		3.4 Remove non contributing waysides and pedestrian lights				
		3.5 Repair steps and trail to Cabins, remove concrete				
		3.6 Replace boat launch with compatible design				
Task 4. Repair Parking Area and Setting	2	4.1. Remove trees at parking area damaging curb				
		4.2 Add walkway at north edge of parking area, connecting Museum (HS-420) and Dining Lodge (HS-422)				
		4.3 Remove non contributing parking lights and replace with compatible				
		4.4 Remove non contributing waysides, markers, benches, and concrete paving				

Cultural Landscape Feature to FMSS Data Crosswalk - Treatment Summary

CLR Treatment Project Component Task / FMSS Work Order	Priority	*CLR Treatment Task Component / FMSS Task	FMSS Asset Type (ASSET CODE)	FMSS Location (Parent Locations)	FMSS Asset (Asset Number)	**FMSS Work Type / Sub-Type
Task 5. Provide Accessible Access to Museum (HS-420)	1	5.1 Design drawings for a compatible ramp into the building and building study for entrance door/threshold			LC BS Big Spring Interpretation Office HS-420 (70905)	
Task 6. Provide Accessible Access to Cabins #409 (HS-409), #410 (HS-410), and #413 (HS-413).	1	6.1 Building studies for threshold and door width requirements, and interior access needs.			LC BS Big Spring Rental Cabin HS-409 (70891); LC BS Big Spring Rental Cabin HS-410 (70892); LC BS Big Spring Rental Cabin HS-413 (70896)	
		6.2 Design drawings for a compatible ramp/access to the building and design of accessible parking space(s).			LC BS Big Spring Rental Cabin HS-409 (70891); LC BS Big Spring Rental Cabin HS-410 (70892); LC BS Big Spring Rental Cabin HS-413 (70896)	
Task 7. Repair Cabin Setting	1 to 2	7.1 Thin vegetation to provide views	3100-Maintained Landscapes			
		7.2 Establish vegetation around Cabins in naturalistic groupings				
		7.3 Repair stone steps				
		7.4 Remove non contributing retaining walls and replace with compatible material				
		7.5 Regrade picnic areas to blend with setting				
Big Spring Character Area						
Task 1. Repair Spring Branch Trail	1	1.1 Reset stone steps	2100-Trails		LC BS Big Spring Trail System HS-425A (78324)	
		1.2 Thin veg to provide view of spring from trail				

Cultural Landscape Feature to FMSS Data Crosswalk - Treatment Summary

CLR Treatment Project Component Task / FMSS Work Order	Priority	*CLR Treatment Task Component / FMSS Task	FMSS Asset Type (ASSET CODE)	FMSS Location (Parent Locations)	FMSS Asset (Asset Number)	**FMSS Work Type / Sub-Type
Task 2. Replace Playground Equipment	1	2.1 Replace equipment in-kind				
Task 3. Relocate Buildings from Playfield	2	3.1 Relocate Big Spring Latrine (476)	4100-Buildings		LC BS Big Spring Heated Restroom #476 (76650)	
		3.2 Relocate Big Spring Craft Cabin (458)			LC BS Big Spring Quilting Cabin 458 (76492)	
Task 4. Repair Vegetation	2	4.1. Remove woody vegetation from north field and restore grasses	3100-Maintained Landscapes			
		4.2 Provide view of Big Spring branch from picnic area and playground				
Task 5. Protect Dikes	3	5.1 Remove woody vegetation from the Big Spring Stone Dikes that is damaging the resource				

** FM - facility maintenance
DM - deferred maintenance. Work that is overdue or needs to be performed immediately due to deficiences or problems (stabilization needs, deterioration, etc.)
PM - preventative maintenance to be developed by park staff based on recurring maintenance required. Regularly scheduled minor maintenance (weeding, mowing, etc.)
Asset record to be assigned by park staff
RM (maintenance between 1 and 10 year cycles such as tree pruning) may be identified in all three CL documents, but most detail is in a PMP.

Appendix D: Memo for CLI Update

Introduction

The following summarizes features investigated as part of the CLR/EA that were not previously documented in the 2016 CLI. This memorandum summarizes trails and trail features investigated during field investigations October 2016, and can serve as a tool to update the 2016 CLI. A narrative description, location data (where available) and photographs are provided.

Feature:	**Chilton Trail**
Narrative Description:	Chilton Trail reads as an old road. It is a narrow one-lane dirt track overgrown with tall grasses and forbs. The trail is approximately 12 to 15' wide. The cleared tree corridor along the trail varies between 24 to 30' wide. West of the Chilton Creek Barn there are several water crossings where the trail is washed out. Trail is visible and followed visually due to cleared trees from the road corridor. Trail Features • Raised stone creek crossings - 3 of these are extant, in part. 2 are heavily eroded/washed out. Crossing furthest east is best in-tact, stones laid across stream crossing approximately 20' across. Blocks range from 12 x 24" to 18 x 30" and are fitted together. Most stones have shifted away from roadbed due to flooding.
Condition;	Varies, trail is in poor to fair condition. Constructed creek crossings are in poor condition.
Contributing?	Yes
LCS Historic Structure Name/ Number	Big Spring Nature Trail System, HS-425A
Location Data:	



Figure D-1. Chilton Trail was originally a county road, and was converted into a trail around the 1950s. The old road bed and cleared corridor is still evident. (Mundus Bishop, 2016)

Feature:	**McSpadden Trail**
Narrative Description:	Trailhead is missing, washed out by recurring floods. Trail is evident in places but not easily followed, and appears to end at small spring and pool. This trail reads as trail and is 5' clear at the widest, most legible point. Trail Features • Stone work along the former creek bed. Dry stacked uncut stone wall 2 to 2.5' height and 12" wide. Additional stone work is upstream and opposite side, mostly washed out. The creek has since moved from this location to opposite side of the narrow valley.
Condition:	Trail is in poor condition. Stone work is in poor condition.
Contributing?	Yes
LCS Historic Structure Name/ Number	Big Spring Nature Trail System, HS-425A
Location Data:	



Figure D-2. McSpadden Trail can be seen as a faint trace, at left. It follows a small creek, and is washed out in several places. (Mundus Bishop, 2016)

Feature:	**Water Hollow Trail**
Narrative Description:	Trailhead and trail are missing, and the team was unable to find a definite route although it is visible as a trace in certain places.
Condition:	Trail is in very poor condition/ non-extant.
Contributing?	Yes
LCS Historic Structure Name/ Number	Big Spring Nature Trail System, HS-425A
Location Data:	

Feature:	**Chilton Loop Trail**
Narrative Description:	Chilton Loop Trail reads as an old road, with ditches on both sides that vary from 6 to 10" in depth, with a slight crown to the road. The trail is 14 to 16' wide with a cleared corridor of 20 to 30'. The trail ascends and descends the hillside quickly with no switchbacks, and makes loop, from Chilton Trail/Chilton Barn to State Highway Z. Trail Features • Retaining wall, downhill side of road, in valley/creek crossing at top of the hill. Stones are rough and dry stacked. Wall has battered edge, 12" difference between top and bottom. Varies in width, 12 to 18"and length is 35'. The wall height varies with slope but is 24 to 30" maximum. The bottom of the wall is obscured by leaves. Fair condition. • 2 small retaining walls/slope stabilization, 20" height x 12" wide, 10' long. Uncut, dry stacked stone. • Pullout/ overlook. The trail (road) widens at the summit for a pullout that measures 12' wide. From the pullout is a view to the east and distant hills, although the view is overgrown and obscured by vegetation. The downhill edge of the pullout has a stone wall, dry stacked with no battered edge. It is 2' in height and 25' in length. Fair condition. • Retaining Wall. 55' long, stone, not stacked and does not match style of other walls. Appears to be a more recent addition to stabilize the road. • Creek crossing with stone edge. Located at the downhill side of the road is stone revetment work, 36 to 48" in height, 20' in length. It is washed out next to the creek. Fair to poor condition. • Posts and Gate hinges at trailhead. Twin wood posts, 6' in height, flank the end of the road, remnant wood gate rail with metal hinges. Poor condition, weathered and rotting. • Trailhead sign. Brown NPS hiker trailhead marker at roadway. The portion of the route where this sign is located is no longer accessible due to a creek which rerouted onto the trail.
Condition:	Chilton Loop is in poor to fair condition. The trailheads are washed out and difficult to find and follow. The upland portion of the trail is in fair condition with some fallen timber across the trail, covered with grasses and forbs
Contributing?	Yes
LCS Historic Structure Name/ Number	Big Spring Nature Trail System, HS-425A
Location Data:	



Figure D-3. Chilton Loop Trail ascends steeply up a hill from its intersection with the Chilton Trail. The lower portion of the trail is washed out by flooding but the upper portions are in good condition and offer views to surrounding hills. (Mundus Bishop, 2016)



Figure D-4. Stacked stone retaining wall along Chilton Loop Trail. (Mundus Bishop, 2016)



Figure D-5. An overlook was constructed at the summit of Chilton Loop Trail. The trail, at far left, widens at the overlook which is supported by a stone retaining wall. (Mundus Bishop, 2016)



Figure D-6. A second stone retaining wall at Chilton Loop Trail. This wall lacks the construction technique and details of other walls in the historic district, and appears to be a later addition. (Mundus Bishop, 2016)

Feature:	**Long Bay Loop Trail**
Narrative Description:	Long Bay Loop Trail begins at the Partney house. This route appears to be an old narrow road, 8 to 10' dirt, rutted/eroded by water throughout. Fairly easy to follow, has been maintained by NPS in not too distant past, as evidenced by brown wayfinding signs. Portions are washed out in lower sections. Upper end of trail is across Highway Z and downhill from Fire Tower Road. The upper end of the trail has been recently used for organized hunts (hunting blind and signage is extant). Trail Features • Wayfinding signs: Trailhead sign – Brown NPS hiker trailhead marker at Partney house. Trail sign - NPS Wood panel with yellow lettering, 24 x 36" • Water bars - dimensional lumber
Condition:	Long Bay Loop Trail is in fair condition.
Contributing?	Yes
LCS Historic Structure Name/ Number	Big Spring Nature Trail System, HS-425A
Location Data:	



Figure D-7. Long Bay Loop Trail is a narrow dirt trail and is in fair condition. (Mundus Bishop, 2016)

Feature:	**Kinnard Trail**
Narrative Description:	Kinnard Trail connects to Chilton Trail and Connector Loop Trail. It reads as an old road and is narrow, approximately 15' wide, set within a larger cleared corridor that makes the route easy to follow. Trail is dirt, mostly covered with grasses and non-woody vegetation. Swales occur intermittently on both sides of the trail. Trail Features • Stone culvert. Cut stacked stone funnels creek water under roadbed. Stones are wide at 24" and approximately 6" in height. The downstream portion is damaged and washed out. Fair to poor condition.
Condition:	Kinnard Trail is in fair condition.
Contributing?	Yes
LCS Historic Structure Name/ Number	Big Spring Nature Trail System, HS-425A
Location Data:	



Figure D-8. Kinnard Trail is a level, mostly clear route. (Mundus Bishop, 2016)

Feature:	**Tatum Trail**
Narrative Description:	The trailhead for Tatum Trail is difficult to locate, since it has been washed out by flooding and the valley is heavily overgrown with woody vegetation. Team did not locate one end of the Tatum Loop. Lower portion of the loop reads as a trail and is narrow at 5 to 8' wide. The upper portion of the trail is a variety of widths, in places it is narrow at 8' and others it is wide at 15' and feels more like an old road. The upper portion of the trail has a noticeable crest and deep swales on either side, approximately 12" deep. The trail ends at private property at the south. Trail Features • Stone culvert. This culvert is similar construction to the one on Kinnard Trail, with cut stones, 12 x 24" laid over trail and creek water funneled through narrow (12") opening. Fair to poor condition. • Retaining wall. Matches the construction of the one on Chilton Loop, but is in better condition. Located on downhill side of road, stones are rough and dry stacked. Wall has battered edge, varies in width, 12"typical, and length is 42'. The wall height varies with slope but is 30 to 36" at the tallest point. Fair condition. • Stone culverts: 3 are located along the upper portion of Tatum Trail. These are simple stacked stone of just a few blocks. Fair to poor condition. • Old road grade. At the base of Tatum Trail. It may be an old logging road. Very narrow, 8' wide with stones at edges. Very worn and overgrown with older trees.
Condition:	Tatum Trail is in fair condition in the upper elevations and poor condition in the lower elevations.
Contributing?	Yes
LCS Historic Structure Name/ Number	Big Spring Nature Trail System, HS-425A
Location Data:	



Figure D-9. A stacked stone creek crossing/culvert along the lower portion of Tatum Trail still directs water underneath the trail surface. (Mundus Bishop, 2016)



Figure D-10. Stone retaining wall at Tatum Trail. This wall matches the style and construction of the walls at Chilton Loop Trail. The upper portion of Tatum Trail, top of photo, is wide and in fair condition. (Mundus Bishop, 2016)

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Appendix E: Consultation Documents

STATE OF MISSOURI

Eric R. Greitens, Governor • Carol S. Comer, Acting Director

DEPARTMENT OF NATURAL RESOURCES

dnr.mo.gov

January 25, 2017

Lawrence E. Johnson – LJ 2/2/17
Superintendent
Ozark National Scenic Riverways
P.O. box 490
Van Buren, Missouri 63965

Re: Big Spring State Park Historic District Cultural Landscape Report & Environmental Assessment (NPS) Carter County, Missouri

Dear Mr. Johnson:

Thank you for submitting information on the above referenced project for our review pursuant to Section 106 of the National Historic Preservation Act (P.L. 89-665, as amended) and the Advisory Council on Historic Preservation's regulation 36 CFR Part 800, which requires identification and evaluation of cultural resources.

We have reviewed the December 13, 2016 draft document entitled *Big Spring Historic District, Ozark National Scenic Riverways, Cultural Landscape Report and Environmental Assessment.* Based on this review we are in support of the goals and recommended overall treatment plans. We look forward to ongoing consultation as the plans are implemented.

Please be advised that, should project plans change, information documenting the revisions should be submitted to this office for further review. In the event that cultural materials are encountered during project activities, all construction should be halted, and this office notified as soon as possible in order to determine the appropriate course of action.

If you have any questions, please write Judith Deel at State Historic Preservation Office, P.O. Box 176, Jefferson City, Missouri 65102 or call 573/751-7862. Please be sure to include the SHPO Log Number **(059-MLT-16)** on all future correspondence or inquiries relating to this project.

Sincerely,

STATE HISTORIC PRESERVATION OFFICE

Toni M. Prawl

Toni M. Prawl, Ph.D.
Director and Deputy State
Historic Preservation Officer

TMP:jd

c Roberta Young, NPS/Omaha

Crabill, Trisha <trisha_crabill@fws.gov>

Big Spring State Park Historic District

1 message

Crabill, Trisha <trisha_crabill@fws.gov> Thu, Jan 12, 2017 at 2:21 PM
To: Eric Daniels <eric_daniels@nps.gov>
Cc: "Herrington, Karen" <karen_herrington@fws.gov>

Dear Mr. Daniels,

The U.S. Fish and Wildlife Service (Service) has reviewed the information provided in your December 12, 2016 letter regarding development of a Cultural Landscape Report and Environmental Assessment (CLR/EA) to guide management and stewardship of Big Spring State Park Historic District in Carter County, Missouri.

Federally listed, proposed, or candidate species identified through the Service's Information for Planning and Conservation (IPaC) website as potentially present in Carter County include: the gray bat (*Myotis grisescens*), Indiana bat (*Myotis sodalis*), northern long-eared bat (*Myotis septentrionalis*), Ozark Hellbender (*Cryptobranchus alleganiensis bishopi*), eastern prairie fringed orchid (*Platanthera leucophaea*), western prairie fringed orchid (*Platanthera praeclara*), and running buffalo clover (*Trifolium stoloniferum*).

We confirm that the species listed above could be present within the project area and should be included in the CLR/EA.

As always, we appreciate your continued efforts to conserve threatened and endangered species.

Sincerely,

Trisha Crabill
U.S. Fish and Wildlife Service
Ecological Services
101 Park DeVille Drive, Suite A
Columbia, MO 65203
Office: 573-234-2132 x 121
Fax: 573-234-2181

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