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National Register of Historic Places Registration Form

This form is for use in nominating or requesting determinations for individual properties and districts. See instructions in National Register Bulletin, *How to Complete the National Register of Historic Places Registration Form*. If any item does not apply to the property being documented, enter "N/A" for "not applicable." For functions, architectural classification, materials, and areas of significance, use the categories and subcategories from the instructions.

1. Name of Property

Historic name: Mingus Mill

Other names/site number: Mingus Creek Mill

Name of related multiple property listing:
Historic Resources of Great Smoky Mountains National Park

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

2. Location

Street & number: Newfound Gap Road, Great Smoky Mountains National Park (GRSM)

City or town: Cherokee State: NC County: Swain

Not For Publication: N/A Vicinity:

3. State/Federal Agency Certification

As the designated authority under the National Historic Preservation Act, as amended,

I hereby certify that this nomination request for determination of eligibility meets the documentation standards for registering properties in the National Register of Historic Places and meets the procedural and professional requirements set forth in 36 CFR Part 60.

In my opinion, the property meets does not meet the National Register Criteria. I recommend that this property be considered significant at the following level(s) of significance:

national statewide local

Applicable National Register Criteria:

A B C D

	<u>10/17/2016</u>
Signature of certifying official/Title:	Date
<u>NPS FPO</u>	
State or Federal agency/bureau or Tribal Government	

In my opinion, the property <input checked="" type="checkbox"/> meets <input type="checkbox"/> does not meet the National Register criteria.	
	<u>8/24/2016</u>
Signature of commenting official:	Date
Title: <u>Deputy Secretary, SHPO</u>	State or Federal agency/bureau or Tribal Government

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4. National Park Service Certification

I hereby certify that this property is:

- entered in the National Register
- determined eligible for the National Register
- determined not eligible for the National Register
- removed from the National Register
- other (explain:)


Signature of the Keeper

11-29-2016
Date of Action

5. Classification

Ownership of Property

(Check as many boxes as apply.)

- Private:
- Public – Local
- Public – State
- Public – Federal

Category of Property

(Check only **one** box.)

- Building(s)
- District
- Site
- Structure
- Object

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Number of Resources within Property

(Do not include previously listed resources in the count)

Contributing	Noncontributing	
<u>1</u>	<u> </u>	buildings
<u> </u>	<u> </u>	sites
<u>4</u>	<u> </u>	structures
<u> </u>	<u> </u>	objects
<u>5</u>	<u>0</u>	Total

Number of contributing resources previously listed in the National Register 0

6. Function or Use

Historic Functions

(Enter categories from instructions.)

AGRICULTURE/SUBSISTENCE/Processing

RECREATION AND CULTURE/Museum

Current Functions

(Enter categories from instructions.)

RECREATION AND CULTURE/Museum

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7. Description

Architectural Classification

(Enter categories from instructions.)

OTHER/Wood grist mill

Materials: (enter categories from instructions.)

Principal exterior materials of the property: WOOD/Weatherboard, shingle

Narrative Description

(Describe the historic and current physical appearance and condition of the property. Describe contributing and noncontributing resources if applicable. Begin with a **summary paragraph** that briefly describes the general characteristics of the property, such as its location, type, style, method of construction, setting, size, and significant features. Indicate whether the property has historic integrity.)

Summary Paragraph

The Mingus Mill (sometimes referred to as the Mingus Creek Mill) is a two-and-one-half story wood timber and frame gristmill built in 1886 as a “custom” mill to serve the farmers of the Oconaluftee River Valley region in Swain County, North Carolina. The mill property is located approximately 500 feet west of Newfound Gap Road within a wooded hollow of Mingus Creek. The mill is accompanied by a Dam, Mill Race, Flume, and Penstock that bring water from the creek to the mill and power a turbine and millstones that are still operational in the building. The building retains integrity as a property that embodies the distinctive architecture and engineering of small-scale water-powered grain mills and related milling technology in the Upland South and as an example of the National Park Service (NPS) outdoor field museum restored and preserved for the purpose of interpreting the agricultural and industrial history of the Great Smoky Mountains for park visitors.

Draft National Register documentation for the Mingus Mill was prepared in 1972 and in 1998 but never approved by the Keeper of the National Register.¹ This registration form nominates the property individually under the broader contexts defined in a 2016 Multiple Property Documentation Form (MPDF) prepared for the Historic Resources of Great Smoky Mountains National Park.²

¹ Robert W. Blythe, “National Register of Historic Places Registration Form”, draft dated June 5, 1998; Jon B. Montgomery, “National Register of Historic Places Inventory—Nomination Form: Mingus Mill”, Draft dated April 28, 1972. Both on file, Mingus Mill Folder, Great Smoky Mountains NP Archives.

² Stephen, Olausen, John Daly, and Laura Kline, *National Register Multiple Property Documentation Form: Historic Resources of Great Smoky Mountains National Park* (Prepared for National Park Service, Southeast Regional Office, Atlanta, GA, 2016 by The Public Archaeology Laboratory, Inc., Pawtucket, RI).

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Narrative Description³

Setting

The Mingus Mill is located in Great Smoky Mountains National Park, within the forested valley of Mingus Creek, approximately 2.75 miles north of Cherokee, North Carolina, and 0.5 miles north of the NPS Oconaluftee Visitor Center. Mingus Creek, which supplies the mill with power, runs roughly east-west through the Mingus Mill National Register property boundaries, then flows into the Oconaluftee River, which lies within a flat plain of the Oconaluftee Valley approximately 500 feet east of the mill site (outside the National Register boundary). The slopes of Fox Knob rise to the south of the mill and creek; and of Mount Stand Watie to the north. Access to the mill is via the 500-foot-long Mingus Mill Access Road that runs west from Newfound Gap Road (North Carolina Route 441) to a vehicle parking lot and comfort station about 300 feet northeast of the mill (outside the property boundary). The access road is parallel to and north of Mingus Creek, and an asphalt and dirt pedestrian trail runs southwest from the parking lot, across Mingus Creek via a pedestrian bridge to the mill site. The access road continues west-southwest (upstream) from the parking area as Mingus Creek Trail, an unpaved walking path that skirts the north edge of the Mingus Mill National Register Boundary.

The Mingus Mill faces southeast on its site in a gently sloping portion of the creek valley, with the creek flowing past the north end of the building adjacent to the building footings. A dirt and gravel driveway runs along the south side of the creek valley, entering the National Register boundary from the east and terminating at the mill in an un-landscaped former parking area and “dooryard”. Three mill stones are embedded in the gravel in this yard in front of the entry. Water from the creek is supplied to the mill via a Dam, Mill Race, Flume, and Penstock that extend southwest and west of the mill for a total distance of approximately 600 feet through forested portions of the valley to their intersection with the creek itself. A footpath follows the two structures and also terminates at the creek.

Resource Descriptions

The **Mingus Mill (LCS No. 005000, contributing building)** built in 1886 is a two-and-one-half-story, water-powered mill of late-nineteenth-century vernacular timber frame and wood construction. The two-bay-by-three-bay (approximately 36-by-26-foot), rectangular, end-gable building faces southwest toward the driveway on its sloping site so that its front wall meets grade while its rear wall rises above grade to accommodate the turbine, penstock, and shafting in the wheel pit below the building. The front of the building rests on dry-laid stacked split stone footings, while the rear rests on three robust hewn timber bents fastened with pegs and sitting on stone footings.

³ Portions of the resource descriptions in this registration form were adapted from *Draft Historic Structure Report: Mingus Mill, Swain County, North Carolina, Great Smoky Mountains National Park*, by Edward L. Trout (National Park Service, Great Smoky Mountains National Park, 1990); and *Great Smoky Mountains National Park Historic Resource Study*, by John Daly and Laura Kline, PAL (The Public Archaeology Lab, Inc.), Pawtucket, RI, 2015.

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The walls of the building are sheathed in unpainted clapboard (or weatherboard) with plank corner boards decorated with a simple rectangular wood strip capital at their tops. Two doorways, both with beaded plank surrounds, are set slightly off-center on the southwest (front) wall: the primary entry on the first floor and a freight door directly above it on the second floor. A wood plank stoop with an integral handicap ramp provides access to the entry, whose wood plank door has a two-panel Dutch configuration in a wide opening. The freight door is also of Dutch configuration, with a heavy wood sill. The six-over-six, single-hung wood windows are framed with narrow beaded plank surrounds and have wood sills. A stove pipe with a sheet metal plinth projects horizontally from the building wall east of the entry.

The mill's wood shingle roof has open gable rakes and soffits with exposed sheathing and rafter tails. Beaded plank fascia trim runs up the gable rakes. A panel at the peak of the front gable end is sawn with the letters "STE" (for millwright Sion Thomas Early, see discussion in Section 8).

The mill interior is unfinished, with exposed framing and little in the way of furnishings (aside from those related to grain processing). The first and second floors of the mill utilize post and stud perimeter framing, with intermediate posts and beams supporting the floor joists at mid-span of each floor. The intermediate posts are chamfered, with "lamb's tongue" stops. The third floor is enclosed with a common rafter gable structure reinforced with multiple rows of post bracing and sheathed in a plank deck. Floors on all three levels are plank laid directly on joists, and ceilings are the exposed underside of the flooring.

The first floor is furnished with a free-standing interpretive and sales desk near the east wall, closets enclosed in horizontal planks on the west and south walls, and a cast iron stove on a raised masonry platform in the southeast corner. A winding stair set in the southwest corner of the building provides circulation between all three floors. The stair is assembled from unfinished plank treads and risers, and square balusters and handrails.

The Mingus Mill retains a nearly complete system of water-powered grain milling infrastructure for wheat and corn, of which the corn grinding equipment is maintained in operational condition. The turbine drives a vertical main shaft and drive wheel within the wheel pit below the building. Historically, this main shaft drove two vertical shafts directly attached to the two pairs of grind stones on the first floor, as well as a third shaft (referred to as the auxiliary shaft for convenience in this document) for ancillary machinery on the second and third floors (described below). Currently, only the corn millstone is operational, driven by a rubber belt off the main shaft.

The first floor's primary milling equipment consists of the two pairs of mill stones on raised wood platform (aka husk) above the wheel pit. The platform knee wall is assembled with beaded planking, and the corn millstones are set just to the east of the platform center line, and the wheat mill stones just to the west. A chest for corn is set on the wall at the northeast corner of the platform. A large crane allows for maintenance of the mill stones, and a bucket belt conveyor (for bringing ground wheat to the bolter, see below) in a plank enclosure runs vertically between the two pairs of stones. A second bucket conveyor and bin (for bringing wheat to the wheat cleaner) are placed adjacent to the steps to the wheat mill stones. A third bucket belt conveyor

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and grain bin (for bringing whole wheat to storage on the third floor) are placed near the center of the first floor.

The second floor is dominated by a large bolter. Enclosed in a wood chest, this device sifted wheat flour into grades using cloth textile (now missing) on a pair of rotating reels; the various resulting grades of flour were returned to the first floor via wood chutes that are still present. A Eureka Wheat Cleaner (aka smut machine) is mounted in the northwest corner of the floor. The bolter and cleaner, neither of which are currently used, are powered off the vertical auxiliary shaft (located at the north end of the building) via two drive trains consisting of bevel gears and pulleys and belts. A simple plank railing (added by the NPS at an unknown date) surrounds the equipment.

The third floor was primarily used for grain storage. The auxiliary shaft powers the three bucket belt conveyors via pulleys and belting in this space. Short lengths of timber posts and beams are used for shaft bearing blocks and as the fulcrums for operating levers for the machinery on the second and third floors.

The **Dam, Mill Race, Flume, and Penstock (collectively assigned LCS No. 091818, four contributing structures)**, built in 1886 and subsequently rebuilt, are wood and earth structures that convey water from Mingus Creek to the Mingus Mill. The Dam functions as a weir, diverting water from Mingus Creek into the flume. The structure, which is currently buried under creek stones, crosses the channel on a roughly north-south axis and terminates at its south end in a low plank wingwall or headwall set at grade at the upstream end of the Mill Race. The dam is assembled from logs with planks leaned against them to form the upstream face of the structure.

The Mill Race is an approximately 4-ft wide and 2-ft deep trench following an easterly course (divergent from the creek) along the toe of Fox Knob. The approximately 400 ft-long watercourse begins at a lever-operated, wood plank, vertical lift gate at the headwall. The trench is cut into the slope and the excavation spoil is piled along its north (downslope) side to form a revetment berm that carries a walking path. The Mill Race walls are composed of a two layers of timber plank sheet pile (aka spiling) driven vertically and cut off at grade. The sheet pile is braced with buried longitudinal log stringers. Fragments of dry-stacked fieldstone retaining walls reinforce the revetment berm in some locations.

At its east end, the Mill Race empties directly into the approximately 200 ft-long Flume. The Flume is of the open box type, assembled from oak plank walls and flooring that are braced within sawn locust wood frames having mortise and tenon joints. The flume rises above grade on five unhewn locust log cribs joined with saddle notches and resting on stone footings. Log stringers run across the tops of the cribs to support the flume. A waste gate composed of a plank gate leaf connected to a timber gate lever set into the north side of the flume and operated from a cantilevered log platform accessed via a wood ladder. A debris rack (aka chunk rack or trash rack) set across the flume near the waste gate is assembled from wood tines set in a frame. The Flume terminates at the Penstock penstock, where a plank sluice gate is mounted across the

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flume and operated from a lever inside the mill. A sandbox for catching sand and other fine material that could damage the turbine is set below the Flume.

The Penstock is a vertical box structure having a 3-by-3-foot horizontal section and composed of stacked horizontal planking. It provides approximately 22 feet of head and terminates at its base at an 18-inch diameter, riveted sheet iron penstock pipe. The penstock passes horizontally under the building into the wheel pit, where it connects to a turbine in a spherical pressure case. The wheel pit is enclosed in a slat fence (added by the NPS) attached to the mill's substructure. The 13-inch diameter turbine, manufactured by James Leffel & Co., Springfield, Ohio, carries a maker's plate with the following data "Head: 21'; RPM: 412; Year: 1973 [of reconditioning]; HP: 11.9; Order No.: R11643".

Statement of Integrity

The Mingus Mill retains integrity of location, design, setting, materials, workmanship, feeling, and association. The building's interior and exterior appearance is virtually unchanged from the time of its construction, with repairs to the exterior made using in-kind materials. The building retains nearly all of its power generation and milling equipment, including its turbine, two pairs of mill stones, a grain cleaner, a bolter, and bucket belt conveyors, along with original drive shafting. A corn sheller is the only piece of historic period processing equipment that is now missing.

The repairs that have been made to the mill building have largely been in-kind or returned architectural fabric or machinery of the mill to its pre-NPS appearance or function. In 1937, the NPS completed repairs and a partial restoration of the mill building, which had been out of service for approximately 8 years. The roof was repaired and missing or damaged wall clapboards replaced. Wood bents at the building's north end were replicated in chestnut (as opposed to the original poplar and locust). Grain and meal chute and conveyor systems on the mill interior were rebuilt in their original configuration after a study of physical evidence.⁴ The 1936 timber bents beneath the north end of the mill were replaced again in 1983 and the roof replaced with new hand-split oak shingles in 1993. The only alterations that detract from the historic-period appearance of the mill are the addition of the front steps and wheel pit cage on the exterior (dates unknown), the addition of two closets and sales furniture on the first floor of the interior (in 1971), and the installation of a railing around the bolter on the second floor (date unknown). Grain chute and conveyor equipment was modified in 1971 to promote efficient production; these alterations were reversed and the mill machinery restored as closely as possibly

⁴ No single primary document from the 1930s comprehensively describes all restoration activities at the mill building. The Draft Mingus Mill HSR provides an incomplete record of the restoration, describing only the replacement of the bents and the shingles and stating that the interior of the building required only a cleaning. Photos on file in the Great Smoky Mountains NP Archives demonstrate the replacement of missing clapboard at the northeast corner of the building, while Charles S. Grossman's field notes note the changes made to the chutes and conveyors based on physical evidence. Charles S. Grossman, Field Notes: Book No. 3, Charles S. Grossman Collection, Great Smoky Mountains NP Archives; Mingus Mill Collection, Great Smoky Mountains NP Archives; Trout, *Draft Historic Structure Report: Mingus Mill, Swain County, North Carolina, Great Smoky Mountains National Park*, 10.

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to its early twentieth century (pre-NPS) configuration in 1975–1976 after extensive study. At this time a wood stove was installed in the historical location of this appliance. The handicapped ramp was added to the mill stoop in 2011.

The turbine, as a component that is subject to wear due to ordinary operations, has been repaired on several occasions. The main shaft of the turbine was replaced in 1937. In 1973, NPS hired James Leffel & Co. to recondition the corroded turbine gates and runner by adding new material (through brazing and welding) to the original components. Robert Johnson of Rossville Georgia fabricated a new turbine regulator gate in 1979, and the runner was replaced with a cast unit matching the original in 1985. The sheet iron Penstock pipe was lined with stainless steel in 2010.

The Dam, Mill Race, Flume, and Penstock are continuously wet due to their function and therefore require frequent maintenance in order to operate. These structures have been rebuilt several times (commencing in 1937 with repairs by the NPS) with accurate replacements such that the overall integrity of the resources has been preserved. Most recently, the Flume was replaced in 1984–1986 (with in-kind repairs occurring in 2015), the Penstock was rebuilt in 2010, and the Mill Race was repaired in 2015. While wood species employed have changed based on availability and subtle changes in workmanship have occurred, the location, design, feeling, association, and setting of the structures have been maintained. They therefore contribute to the significance of the historic property.⁵

In 1986, the NPS constructed the Mingus Creek Comfort Station (outside of the property boundary) at the Mingus Mill parking area to support the visiting public.

⁵ *National Register Bulletin 20: Nominating Historic Vessels and Shipwrecks to the National Register of Historic Places* recognizes that properties exposed to a marine environment rapidly degrade and that when changes “are in the form of renewal and replacement, either to continue operation historically or to perform a restoration, the structure will remain eligible if renewed features are replaced with materials, which in their composition, design, color, texture, and workmanship retain the historic character of the vessel”. The same principle applies in the case of the Dam, Mill Race, Flume, and Penstock. James P. Delgado, *National Register Bulletin 20: Nominating Historic Vessels and Shipwrecks to the National Register of Historic Places* (Washington, D.C.: U.S. Department of the Interior, National Park Service, Interagency Resources Division, 1987), 8.

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8. Statement of Significance

Applicable National Register Criteria

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

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

Criteria Considerations

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

- A. Owned by a religious institution or used for religious purposes
- B. Removed from its original location
- C. A birthplace or grave
- D. A cemetery
- E. A reconstructed building, object, or structure
- F. A commemorative property
- G. Less than 50 years old or achieving significance within the past 50 years

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Areas of Significance

(Enter categories from instructions.)

- Agriculture
- Architecture
- Industry
- Engineering
- Conservation
- Education
-
-

Period of Significance

1886-1966

Significant Dates

1886: Construction of Mingus Mill
1937: Restoration of Mingus Mill by NPS and CCC and opening of mill to public

Significant Person

(Complete only if Criterion B is marked above.)
N/A

Cultural Affiliation

N/A

Architect/Builder

Sion Thomas Early

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Statement of Significance Summary Paragraph (Provide a summary paragraph that includes level of significance, applicable criteria, justification for the period of significance, and any applicable criteria considerations.)

The Mingus Mill is eligible for listing in the National Register of Historic Places under Criteria A and C at the local level as an example of the Mill and the Outdoor Field Museum property types defined in the Historic Resources of Great Smoky Mountains National Park Multiple Property Submission (MPS). The Mingus Mill possesses significance under Criterion A in the areas of Agriculture and Industry within the MPDF context Settlement and Community Development in the Great Smoky Mountains, 1790–1933 for its role as a “custom mill” that supported the agricultural “farm and forest” economy of the Oconaluftee River Valley in the Smoky Mountains. It also possesses significance under Criterion A in the areas of Conservation and Education within the MPDF context Early National Park Service Preservation Philosophy, ca. 1930–1960 as an outdoor field museum that exemplifies NPS policies for managing cultural resources in national parks between 1926 and 1959 and as a reflection of national trends in interpreting the history of Southern Appalachia. The property is significant under Criterion C in the areas of Architecture and Engineering within the MPDF context Settlement and Community Development in the Great Smoky Mountains, 1790–1933 because it exemplifies the vernacular timber construction typically employed in water-powered mills of the late nineteenth century and retains its water power and grist milling infrastructure that demonstrates the specialized skills and equipment of the millwright and milling profession.

The period of significance for the Mingus Mill extends from 1886, when the property was completed and began grinding grain for Oconaluftee Valley residents, through 1966. 1959, which is the end of the initial historic preservation program at the park, marks the end of the property’s period of significance in the area of Conservation. However, the property’s significance as a museum in the area of Education is continual, but not exceptional. Therefore, the overall period of significance for the property terminates at 1966, the current 50-year cut-off date.

Narrative Statement of Significance (Provide at least **one** paragraph for each area of significance.)

CRITERION A – AGRICULTURE and INDUSTRY⁶

The Mingus Mill meets the registration requirements for local significance under Criterion A in the areas of Agriculture and Industry as defined in the Historic Resources of Great Smoky Mountains National Park MPDF (Section F) for the Grist Mill property type within the MPDF context Settlement and Community Development in the Great Smoky Mountains, 1790–1933.

⁶ The history of Mingus Mill is drawn from Trout, *Draft Historic Structure Report: Mingus Mill, Swain County, North Carolina, Great Smoky Mountains National Park* (Typescript, 1990. National Park Service, Great Smoky Mountains National Park, Gatlinburg, TN), with additional information where cited.

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The Mingus Mill was constructed 1886 by local residents Abraham Mingus and John Leandus Floyd to grind corn and wheat produced by local farmers into meal and flour for subsistence use and sale, thereby supporting the agricultural economy of the Oconaluftee River Valley area. The technologies employed in the mill allowed the facility to process large amounts of grain produced by the area's farmers in the late nineteenth century; thus, the property was a significant improvement over an earlier grist mill that served the valley, as well as the most advanced facility of its type in the Oconaluftee River Valley.

The **Mingus Mill (LCS No. 005000, contributing building)** is the second of two corn mills that supported the agricultural economy of the Oconaluftee Valley. The mill was built in 1886 for Abraham Mingus (known as Abe, d. 1903) and his nephew John Leandus Floyd ("Lon," 1857–1916). Abe and Lon were descendants of John Jacob Mingus⁷ and his wife Sarah, who were German immigrants and probably the first persons of European descent to settle in the Oconaluftee area. The Mingus family had arrived in the Oconaluftee River Valley in the early 1790s and had five children. The family acquired lands at the confluence of the Raven and West forks of the Oconaluftee River, just south of where Mingus Creek joins the river, and John Jacob Mingus is thought to have built a corn mill powered by a water wheel on Mingus Creek. Of the five children, four would settle in nearby parts of the Smokies or other states, while the fifth, Dr. John Mingus ("Dr. John," 1798–1888), would remain at the family residence in the river valley.⁸

Dr. Mingus inherited the family landholdings (and presumably the early corn mill as well) and later acquired through state grants several tracts on both sides of the west fork and up Mingus Creek.⁹ A prominent community leader, in 1877 he erected a new frame dwelling on the family holdings, where he and his wife, Mary or Polly Mingus (née Enlow), would reside until their deaths in 1888 and 1894, respectively.¹⁰ Dr. Mingus and Polly had three children—Abe, Hamilton, and Mary (nicknamed "Polly"). Abraham never married and is listed in late-nineteenth-century census records as a farmer residing with his parents.¹¹ Abe may have been inclined toward the mechanic's and builder's arts—he is reputed to have assisted with the

⁷ There is a difference of opinion as to whether Mingus' name was John Jacob Mingus or simply Jacob Mingus and whether he emigrated to Oconaluftee directly from Germany or via Pennsylvania. Alma Francis, written correspondence with Great Smoky Mountains National Park dated April 24, 1983 (on file, Mingus Family Collection, Great Smoky Mountains NP Archives).

⁸ Robert S. Lambert, "The Pioneer History of the Great Smoky Mountains National Park: A Report to the Superintendent Based Upon Documentary Sources" (Typewritten manuscript, Great Smoky Mountains National Park Archives, 1957), 24–25.

⁹ Lambert, "The Pioneer History of the Great Smoky Mountains National Park", 24–25.

¹⁰ Robert S. Lambert, "The Oconaluftee Valley, 1800–1860: A Study of The Sources for Mountain History" (*The North Carolina Historical Review* October 1958), 421; Hiram C. Wilburn, "Types of Architecture in the Great Smoky Mountains National Park. The More Pretentious Two-Story House" (Typewritten manuscript, n.d., on file, Mingus Family Collection, Great Smoky Mountains NP Archives).

¹¹ Lambert, "The Oconaluftee Valley, 1800–1860," 421; U.S. Bureau of the Census, *U.S. Census, Population Schedule, Jackson County, North Carolina* (1880; on file, Mingus Family Collection, Great Smoky Mountains NP Archives), 318; U.S. Bureau of the Census, *U.S. Census, Population Schedule, Haywood County, North Carolina* (1850; on file, Mingus Family Collection, Great Smoky Mountains NP Archives), 478; U.S. Bureau of the Census, *U.S. Census, Population Schedule, Jackson County, North Carolina* (1860; on file, Mingus Family Collection, Great Smoky Mountains NP Archives), 38; U.S. Bureau of the Census, *U.S. Census, Population Schedule, Jackson County, North Carolina* (1880; on file, Mingus Family Collection, Great Smoky Mountains NP Archives), 318.

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conversion of the early corn mill to a turbine and also helped to construct his parents' frame house.¹² His sister Polly married a local resident, Rufus Floyd, and gave birth to Lon, who was Dr. John's grandson and Abe's nephew.

In 1886, Dr. John deeded 10 acres of land on Mingus Creek to Abe and Lon on the condition that they build a mill "inside two years."¹³ The two contracted with millwright Sion Thomas Early to construct Mingus Mill for a fee of \$600.00, and the building, along with the **Dam, Mill Race, Flume, and Penstock (collectively assigned LCS No. 091818)**, was completed in 3 months during 1886. Early's crew, which included the first miller Aden Carver, also constructed the bolting machine, and Carver quarried and carved the corn mill stones.

A good portion of Abe and Lon's \$600 investment went to obtaining modern machinery that would maximize the capacity, efficiency, and quality of the mill's flour and meal production. A 13¼-inch diameter vertical turbine was furnished by turbine manufacturer James Leffel and Company in July 1886 and installed at the mill by millwrights W. J. Savage Company of Knoxville, Tennessee.¹⁴ The S. Howes Company of Silver Creek, New York, supplied the Eureka Smut Machine in July 1886. The buhr stones for the wheat mill were obtained in France and shipped to the mill via Charleston, South Carolina. A corn sheller (no longer present) was also installed in the building. These machines, which were used in conjunction with a system of chutes and conveyors in the building, represented a significant advancement in grain processing technology over the first corn mill installed on Mingus Creek.

The Mingus-Floyd family operated the Mingus Mill with the assistance of hired millers for approximately 45 years. The mill operated as a "custom" facility that ground corn and wheat for local farming families in exchange for a share of the grain (the "toll"). Thus, the property was intimately connected with the local economy of the Oconaluftee River Valley, where farming was a mainstay of life and corn (and to a lesser degree wheat) were a substantial portion of the local farm output. These farms created an ample supply of grain and market for the Mingus Mill, which was the only mill available in the Oconaluftee Valley, and justified the substantial investment that Abe and Lon made to build the mill. Late-nineteenth-century agricultural schedules show that farm sizes in the valley ranged from tens of acres to 500 acres. A 50-acre farm might produce 300 bushels of corn, 14 bushels of rye, and 6 bushels of wheat; while a 500-acre farm might produce 800 bushels of corn.¹⁵

¹² Wilburn, "Types of Architecture in the Great Smoky Mountains National Park."

¹³ As quoted in Trout, *Draft Historic Structure Report: Mingus Mill*, 2.

¹⁴ The company also provided a second identical turbine in September 1886, prompting a belief that the Mingus Mill may have been powered by two turbines. However, no physical evidence has ever been discovered to support this belief, and the second turbine is now believed to have been installed at another mill owned by Lon's father-in-law.

¹⁵ Demand for services of the Mingus Mill may have been further bolstered by the limited ability of residents to transport their grain out of the northern reaches of the valley to other mills. Before 1921, the only bridge across the river at Oconaluftee was a foot bridge, necessitating that the river be forded. Lambert, "The Oconaluftee Valley, 1800-1860," 421-423; H.C. Wilburn, Great Smoky Mountains National Park, Memorandum for the Superintendent dated March 22, 1939. On file, Mingus Mill Reconditioning Folder, Great Smoky Mountains NP Archives.

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The Mingus Mill's first miller was Aden Carver, followed by Thad Harris until 1918. Following Abe's death in 1903 and Lon's death in 1916, Lon's sons Ed and Fred acquired the mill and hired miller Asbury Cagle, who operated the mill from 1918 to circa 1928. After this date, milling activities lapsed, apparently in anticipation of the mill's acquisition by the NPS.

CRITERION A – CONSERVATION and EDUCATION

The Mingus Mill meets the registration requirements for local significance under Criterion A in the areas of Conservation and Education within the MPDF context Early National Park Service Preservation Philosophy, ca. 1930–1960 as defined in the Historic Resources of Great Smoky Mountains National Park MPDF (Section F) for the Outdoor Field Museum property type. The mill, constructed in 1886, was restored by the NPS and Civilian Conservation Corps (CCC) in 1937 for use as an interpretive resource to educate park visitors about the industrial and agricultural history of the Great Smoky Mountains. The mill's restoration occurred during the formative period in the NPS' planning for historic preservation and historical interpretation when the institution, working in conjunction with outside scholars and public interest groups, was in the process of recognizing and grappling with its historic preservation mission in the Great Smoky Mountains National Park. The NPS-CCC restoration of the building to working order was one of the two earliest such restorations and served as a model for the living history programs envisioned by early park planners at Great Smoky Mountains NP and other national parks developed in the 1940s and 1950s. The Mingus Mill remains one of the most popular historical attractions for visitors interested in the settlers and residents of the Smokies and their way of life.

Acquisition and Initial Operation of the Mill, 1931–1940

The Mingus Mill tract was one of seven tracts of land the NPS acquired from Ed and Fred Floyd in the Mingus Creek Valley. The land was surveyed in anticipation of NPS acquisition in 1927 and the NPS acquired the property in 1931.¹⁶ Early NPS records for the park record little in the way of first impressions for the Mingus Mill; however, the property's value as a record of nineteenth-century lifeways and, thus, for interpretive purposes was quickly recognized and the property became one of the earliest subjects of NPS preservation activities, even before a systematic survey of historic properties in the park had been completed.

At the time of the park's authorization in 1926, hundreds of small farmsteads dotted the lower river valleys and coves. NPS management had decided as early as 1932 to preserve only the "best" examples of pioneer log construction and remove all other buildings that were not needed for park operations. However, after the destruction of hundreds of buildings in the park, there was increasing pressure to make a more systematic study of historic resources in the Smokies. Popular support for the NPS to preserve mountain culture was increasing during the early 1930s, and North Carolina state representatives made an official request to the NPS for this work in

¹⁶ W.N. Sloan, "F. F. Floyd Tracts" and "Fred & Ed Floyd Tracts" (plat nos. 84, 88, 88a, 89, 91, 91a, 169; on file, Mingus Family Collection, Great Smoky Mountains NP Archives).

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1934. By the fall of 1934, local civic leaders and members of the Southern Mountain Handicraft Guild had formed a Museum Committee, which conceived of a number of “branch museums” throughout the park composed of clusters of historic buildings.

In the fall of 1934, NPS Great Smoky Mountains NP Superintendent J. R. Eakin responded to the burgeoning interest in the preservation of mountain culture by assigning two NPS liasons to work with the Museum Committee. These were Hiram C. Wilburn for the North Carolina portion of the park and Willis King for the Tennessee side of the park. King was quickly replaced in 1935 by Charles S. Grossman.¹⁷ While Wilburn and Grossman were technically employed by the CCC, they essentially became the park’s first cultural resource managers.¹⁸ Wilburn was a native of South Carolina and graduate of Clemson College who had previously worked for the North Carolina Park Commission and was an enthusiastic student of North Carolina history. Grossman was an architect. Together, they laid the foundations for preservation within the park by overseeing a systematic survey of historic buildings during the period from 1935 through 1937.¹⁹ Survey members drawn from the CCC ranks were dispatched to photograph and sketch all the log buildings in the park and prepare measured drawings and brief building histories for the best examples.²⁰

During the early stages of the historic building survey, Grossman and Wilburn identified grist mills as being among the most important resources in the park. A November 17, 1935, news article described Grossman as having plans for “museum groups” that would include homes and “all types of log structures to be found within the park,” including mills. Underscoring the importance of grain mills in the park’s preservation plans, he was quoted in the article as saying that “nearly all the early types of devices for grinding grain” can be found in the park, including “the Indian pestle and mortar, the Indian quern, pounding mill, tub mill, overshot mill, and the turbine mill [Mingus Mill]. I have never heard of any place where such a complete record exists of the development of the grinding of grain.”²¹

Beginning in 1936, the NPS and CCC undertook their first two building restorations in Great Smoky Mountains NP. Consistent with Grossman’s enthusiasm for grain mills, the first work occurred at the Cable Mill in Cades Cove, Tennessee, followed by the Mingus Mill. The goal was to bring the mills back to working order for use as historical exhibits.²² The superintendent’s monthly report for July 1936 noted that the Mingus Mill was one of “several buildings in immediate need of preservation if they are to be preserved.”²³ After a delay in proceeding with

¹⁷ Catton, *A Gift for All Time*, 253.

¹⁸ Wilburn’s official title was Truck Trail Foreman; Grossman’s was Senior Foreman. Theodore Catton, *A Gift for All Time: Great Smoky Mountains National Park Administrative History* (Atlanta: National Park Service, 2008), 253.

¹⁹ Theodore Catton, *A Gift for All Time: Great Smoky Mountains National Park Administrative History* (Atlanta: National Park Service, 2008), 253.

²⁰ Catton, *A Gift for All Time*, 253.

²¹ *Asheville Citizen-Times*, “Comprehensive Museum Program is Being Prepared for Smoky Park” (*Asheville Citizen-Times* November 17, 1935), 1.

²² Catton, *A Gift for All Time*, 256-257.

²³ J. R. Eakin, “Superintendent’s Monthly Report”, January 1936, 6.

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the work while the park waited for clearance from the NPS regional office, Grossman and Wilburn, using CCC labor, commenced the work in the summer of 1937. A survey of the property (in conjunction with HAER recordation of the property) and restoration of the Flume, Mill Race, and Dam proceeded in August of that year, then shifted to work on the building's roof in October.²⁴ The mill was officially reactivated on October 23, 1937.²⁵ Former Mingus Mill builder and miller Aden Carver (then aged 92) was also employed on the project under the auspices of the CCC.²⁶ A newspaper account of the work published that October (referring to the property as the "Sion T. Early flour mill") stated that "when work on the mill is completed, it will become a unit of the park's newly inaugurated project to restore several of the old domestic and industrial communities so that visitors may know something of the life of the pioneer."²⁷

At the time of the restoration, the Mingus Mill had been out of service for approximately 8 years. The mill building was in good condition, but the Dam, Mill Race, Flume, and Penstock had been left to decay in the elements. Thus, the project to bring the mill back was an extensive repair job. The Dam, or weir, was a line of horizontal logs across the creek bed with angled planks (sheet piling or spiling) on their upstream side. All of the planking was replaced on this structure. The Mill Race was almost fully rebuilt as large portions of the structure had eroded away. In its historic configuration, only the berm side of the race had been reinforced with timber—this consisted of locust logs laid longitudinally in the berm with hemlock sheet pile lining laid against the logs to form the channel wall. The berm had to be rebuilt with new logs and piling, and on the upslope (south) side of the race, a similar sidewall was constructed where none had previously existed to prevent the race from eroding the slope. The Flume cribbing originally consisted of a combination of round, split, and quartered logs. Deteriorated logs were replaced with new ones of the same shape and size. The Flume's box channel was entirely rebuilt to the same design as the original, as was the Penstock. The Mingus Mill needed only modest repairs. The roof was fixed, and missing and broken wall clapboards replaced. The wood substructure at the building's north end required new members. Here, two plates and eight posts were replaced in the timber bents. The original members were replicated in every detail, but using chestnut because the original poplar and locust could not be obtained. The main shaft of the turbine was replaced. The interior of the mill seems to have gone largely untouched, except to rebuild some chute and conveyor systems to undo earlier alterations and restore them to what was judged to be their original configuration. Regarding this, Grossman recorded in his field notes:

²⁴ J. R. Eakin, "Superintendent's Monthly Report", August 1937, 3, 5; J. R. Eakin, "Superintendent's Monthly Report", October 1937, 6.

²⁵ J. R. Eakin, "Superintendent's Monthly Report", November 1937, 5.

²⁶ *Asheville Citizen*, "A.A. Carver, Smokemont, Marks 100th Birthday" (*Asheville Citizen*, May 25, 1944), n.p.

²⁷ *The Knoxville Journal*, "Early Flour Mill is Being Rebuilt" (*The Knoxville Journal*, October 7, 1937; un-paginated newspaper clipping on file on file, Mingus Family Collection, Great Smoky Mountains NP Archives).

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The hodgepodge arrangement and cobbled work done when the mill was altered is unsightly. Believe sufficient evidence and information available to restore it as it was originally.²⁸

On completion of the repairs, the NPS leased the Mingus Mill to a miller named John Jones, who hired Carrie Nations and Major McGee to assist him. Jones continued the Mingus Mill's traditional operation as a custom mill, with corn ground for local residents on a one-eighth toll basis. The toll corn was ground and sold to shop owners in Cherokee and Gatlinburg and packaged for the tourist trade.²⁹ Both the Mingus Mill and the Cable Mill were immediate hits with visitors, who told NPS personnel that they hoped more buildings will be preserved.³⁰ Jones died in 1940, and mill operations ceased around the same time.³¹

Development Plans for Mingus Creek, 1937–1968

While the Mingus Mill reentered service under Jones, Grossman and Wilburn had continued their historic building survey and accompanying plans for building exhibits to preserve mountain culture. Grossman produced an interim report on the results of the historic buildings survey in July 1937, entitled "A Study for the Preservation of Mountain Culture in Field Museums of History," which outlined the field museum approach to preservation and interpretation. Milling retained its prominent place in these plans, with Grossman stating:

Industrial history has an important place in the community group. All methods of making meal, from the primitive pestle and mortar to the mill powered by the steel turbine [Mingus Mill], are to be found within the park or just outside its borders...examples of these mills and industries should be preserved in the field museums; they should be in operating condition and whenever possible they should be operated when visited by the tourist.³²

Acting on Grossman's report, Director Cammerer approved development of a "Mountain Culture Program" to guide preservation at Great Smoky Mountains on February 3, 1938. Two weeks later, on February 19, Wilburn sent a letter to Superintendent Eakin recommending the area around the Mingus Mill as suitable for development as an historical museum center, including mountain culture exhibits. The letter noted that the Mingus Creek area was "a center of much

²⁸ Park Superintendent J.R. Eakin's monthly report for August 1937 notes that "Surveys are being made of the interior of the Mingus Mill to permit careful study of all evidence before proceeding with its restoration." However, no documentation exists that records any "restoration" beyond that of the chute and conveyor systems noted in Grossman's field notes. As noted in a previous footnote, no single primary document from the 1930s comprehensively describes all restoration activities at the mill building. Grossman, Field Notes: Book No. 3, entry for June 17, 1937, Charles S. Grossman Collection, Great Smoky Mountains NP Archives; Mingus Mill Collection, Great Smoky Mountains NP Archives.

²⁹ It is unknown if the mill also ground wheat at this time.

³⁰ Catton, *A Gift for All Time*, 256–257.

³¹ John Wikle, "Grist Mill Grinds Again, This Time for Tourists" (*The Atlanta Journal and Constitution*, August 4, 1968):18-A.

³² Charles S. Grossman, "A Study for the Preservation of Mountain Culture in Field Museums of History" (Typescript, January 1937, Great Smoky Mountains National Park, Gatlinburg, TN), 4.

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historical interest,” the “Mingus Mill, now partially restored, lends color to this area, and marks it as suitable for exhibits intended to tell the story of MILLING [emphasis in the original] as it has existed and developed in the Smokies,” and “the topography and general lay-out of this area is suitable for development as an historical museum center, including mountain culture exhibits.”³³ Grossman, Wilburn, and park naturalist Arthur Stupka provided the plan for the Mountain Culture Program in their June 1938 “Report on the Proposed Mountain Culture Program for Great Smoky Mountains National Park” that included the installation of a museum at Mingus Mill.³⁴ The NPS’ 1939 Master Plan for the park included the recommended field museum at Mingus Creek (Oconaluftee).³⁵ However, implementation of these plans was delayed because of competing management priorities and World War II.

After the death of Jones in 1940, Wilburn continued to advocate for the development of a field museum along Mingus Creek, writing a lengthy memo to Eakin on the subject and soliciting the assistance of NPS regional staff.³⁶ Wilburn was ultimately successful in prompting further internal debate over the role of field museums at the park. On December 6, 1941, NPS lead historian Roy Appleman issued a comprehensive proposal to create a Mountain Culture Program at the park, including in it a plan to make the Mingus Mill the centerpiece of an open air, or field, museum that would focus on the roles of the mills in the economy of the Smokies.³⁷ Unfortunately, the day after Appleton issued his proposal, the Japanese attacked Pearl Harbor, drawing the United States into World War II. Funding for the National Park System dropped precipitously during the war, forcing most park development projects, including the Mingus Mill museum, to be put on hold.

In 1944, as the war seemed to be nearing a successful conclusion, park personnel attempted to restart the field museum effort. The *Asheville Citizen* reported in June 1944 that “field exhibits will be collected in two areas—on Mingus Creek in North Carolina and in Cades Cove in Tennessee ... A part of the North Carolina exhibit will be the old Mingus Creek Mill, for restoration of which \$1,500 has been requested.”³⁸ This funding was apparently granted, for the mill had been brought back to operational condition by 1950 but was still not running because of a staff shortage.

Meanwhile, NPS Chief Landscape Architect Thomas Vint and the park’s naturalist Arthur Stupka took over Wilburn’s role as chief proponent of the Mingus Mill field museum and attempted to reinvigorate Appleman’s 1941 plan.³⁹ With park visitation on the rise in the post-

³³ H.C. Wilburn, Waynesville, North Carolina, written correspondence to J. R. Eakin, Superintendent, Great Smoky Mountains NP, February 19, 1938, Hiram C. Wilburn Collection, Great Smoky Mountains NP Archives.

³⁴ Catton, *A Gift for All Time*, 258.

³⁵ 1939 Master Plan.

³⁶ Catton, *A Gift for All Time*, 259; H.C. Wilburn, Waynesville, North Carolina, to J. R. Eakin, Superintendent, Great Smoky Mountains NP, November 1, 1940, Hiram C. Wilburn Collection, Great Smoky Mountains NP Archives; H.K. Roberts, Acting Associate Regional Director, NPS, Memorandum to the Superintendent, Great Smoky Mountains National Park, dated November 8, 1940. Mingus Mill Folder, Great Smoky Mountains NP Archives.

³⁷ Catton, *A Gift for All Time*, 261, 265.

³⁸ Hilliard Henson, “Museum in Park Almost a Reality” (*Asheville Citizen* June 1944), 1, 5.

³⁹ Catton, *A Gift for All Time*, 267.

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war period, park personnel attempted to meet the public's desire for interpretive programming by opening a temporary Pioneer Museum exhibit at the Oconaluftee Ranger Station in the summer of 1948. Meanwhile, NPS engineers prepared surveys for a permanent field museum along Mingus Creek. A composite map prepared in April 1949 shows four distinct groupings of relocated buildings proposed for different "flats" along the creek, beginning at a spot directly opposite the Mingus Mill and including a reconstructed pounding mill.⁴⁰ After issuance of this map and additional detail plans of the various "flats," monthly Superintendent's Reports do not mention the project again until May 1952, when an "understaffed and overworked" organization returned to the mapping.⁴¹ It appears that during the interim, the proposal was scaled down to involve a single grouping of relocated buildings on a site closer to the ranger station/museum and the Oconaluftee River. The initial phase of what would become known as the Mountain Farm Museum was opened to the public in June 1953.

After 1959, NPS management of field museums changed in emphasis to focus on improved visitor amenities, and subsequent management of field museums consisted primarily of continued maintenance and stabilization, with no major alterations to the original compositions and landscapes.⁴² In 1961, the park made a final attempt to expand the field museum at the Mingus Mill, proposing "to restore the Mill site atmosphere" by relocating a "pioneer house and log shed" to the site to serve as a representation of the miller's homestead. The so-called *Parking Area and Development Plan* (Plan No. NP-GSM-3096) also included a parking area for up to 63 cars and a short interpretive loop trail. The space within the mill was to include interpretive exhibits. The plan, authored by the park superintendent, noted "We believe Mingus Mill offers an excellent opportunity. ... to present this significant phase of the park's pioneer history. We propose in addition to demonstration mill operations, that comprehensive exhibits on the operation of mills and the economic and social contributions of mills to the mountain pioneer be installed." The same proposal noted that the mill should be considered an integral part of the Pioneer Farmstead (now the Mountain Farm Museum), despite the fact that the two sites were separated by the Newfound Gap Road.⁴³ To overcome staffing and funding restrictions, the NPS proposed to appoint the Great Smoky Mountains Association (GSMA; formerly the Great Smoky Mountains Natural History Association, or NHA, founded 1953) as operators of the mill.⁴⁴

While the pioneer house and shed were never moved to the site, other aspects of the *Parking Area and Development Plan* were approved and completed in 1963. The mill's turbine was reconditioned, the Flume was rebuilt from the ground up, the Dam repaired, and the mill reroofed.⁴⁵ The proposed parking lot was also added.⁴⁶ The mill was formally reopened to the

⁴⁰ Drawing NP-GSM 2476, "Composite Plan - Pioneer Development," April 25, 1949.

⁴¹ Superintendent's Monthly Reports, January 1949, May 1952.

⁴² Catton, *A Gift for All Time*, 270-274.

⁴³ Fred C. Overly, Superintendent, Great Smoky Mountains NP, to Chief EODC, July 8, 1961, Mingus Mill Folder, Great Smoky Mountains NP Archives.

⁴⁴ GSMA, "About GSMA" (electronic document, <http://smokiesinformation.org/info/about-gsma>, 2014).

⁴⁵ George W. Fry, Superintendent, Great Smoky Mountains National Park, Memorandum to Regional Director, Southeast Region dated September 22, 1967. On file, Mingus Mill Reconditioning Folder, Great Smoky Mountains NP Archives. Trout, *Draft Historic Structure Report: Mingus Mill, Swain County, North Carolina, Great Smoky Mountains National Park*, 11.

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public on June 15, 1968, with living history interpreters dressed in period clothing demonstrating how the mill operated and providing information about the history of Southern Appalachian lifeways during the late nineteenth and early twentieth centuries.⁴⁷

CRITERION C – ARCHITECTURE and ENGINEERING

The Mingus Mill meets the registration requirements of the Historic Resources of Great Smoky Mountains National Park MPDF for local significance under Criterion C in the areas of Architecture and Engineering within the MPDF context Settlement and Community Development in the Great Smoky Mountains, 1790–1933 as a property that embodies the distinctive characteristics of small-scale water-powered grain mills and related milling technology in the Upland South during the mid- and late nineteenth century. The property qualifies as an example of the Mill property type, defined in the MPDF (Section F) as a specialized facility designed to utilize water-powered machinery for the processing of raw natural materials (corn and wheat), exemplifying through its design and physical integrity the particular attributes of water-powered mill construction during Settlement and Community Development in the Great Smoky Mountains from 1790 to 1933. The Mingus Mill was designed by a trained millwright with a robust frame and open-plan interior and still houses its original milling machinery. The property is accompanied by water-power infrastructure including a Dam, Mill Race, Flume, and Penstock, which provide water to a turbine under the mill that is still used to grind corn into meal.

The Mingus Mill follows typical conventions in its design as established by European antecedents and refined to accommodate the topography and natural materials of the Smokies as well as the experience of its residents. As an integrated complex designed to convert moving water to mechanical power for grain processing, it demonstrates a combination of vernacular and commercial technologies of water control, power generation and transmission, and structural engineering common to most water-powered mills in the eighteenth and nineteenth centuries. At the same time, the mill employs certain machinery imported from other regions of the country, demonstrating that Abraham Mingus and Lon Floyd, together with their millwright Sion Thomas Early, had the knowledge, professional connections, capital, and market connections to justify the use of capital-intensive and advanced (relative to the tub mills in use elsewhere in the communities that would be incorporated into the Great Smoky Mountains NP) milling technology.

The Mingus Mill is sited on a steep run of Mingus Creek where the elevation drops approximately 20 feet over the course of about 600 feet, affording sufficient head (elevation

⁴⁶ George W. Fry, Superintendent, Great Smoky Mountains National Park, Memorandum to Regional Director, Southeast Region dated September 22, 1967. On file, Mingus Mill Reconditioning Folder, Great Smoky Mountains NP Archives.

⁴⁷ Catton, *A Gift for All Time*, 270, 272. The GSMA and its hired millers have operated the mill seasonally (March–November) up until the current time, grinding and selling corn, and sometimes wheat, to the visiting public as a means to offset the operational and capital expenses for the mill.

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change) for the powering of the mill without requiring the construction of an unduly long mill race. The Dam, Mill Race, and Penstock carry water out of the creek bed to the mill and utilize simple earth and wood construction endemic to the Smokies. The low log and plank Dam functions as a diversion structure (termed a weir) that impounds little in the way of a permanent reservoir but simply re-routes water from the creek bed into the Mill Race. Such dams are easily constructed and found throughout the region on smaller streams used for milling.⁴⁸ The Mill Race and Flume bring water to the mill with minimal elevation loss, then deposit the water into the Penstock, which provides the head necessary to power the mill turbine. The mill's mechanical power is generated by a turbine, a technology that had largely replaced the water wheel by the time the mill was constructed in the 1880s due to its greater efficiency, lower maintenance requirements, and ease of installation and operation. The turbine, which was manufactured by James Leffel & Co. in Ohio and installed by W. J. Savage Company of Knoxville, demonstrates that Mingus and Floyd were knowledgeable about contemporary advancements in milling technology.⁴⁹

Inside the mill, mechanical power is conveyed from the turbine to the grind stones and ancillary devices through a system of shafting, belts, and gears mounted on heavy timber bearings attached to the building's frame. In keeping with the relatively late date of the mill, most of the power transmission infrastructure is metal, where in earlier mills the machinery would have been made from wood. The milling equipment employed is typical of smaller grain mills in the late nineteenth century and demonstrates the pattern of development in the industry of increasingly automated mill operation. Both corn and wheat mill stones are employed; the corn mill employs locally quarried stone, while the wheat mill uses French buhr stone. Buhr stone is a chert-like material highly valued by eighteenth- and nineteenth-century millers worldwide for its superior ability to cut grain that sifted more easily to produce flour. In the eighteenth and nineteenth centuries, French buhr millstone was quarried from sources primarily near Paris, France. In the nineteenth century, buhr millstones closely resembling the French material were quarried in the United States in Georgia and Ohio.⁵⁰ The Mingus Mill's buhr stone is documented to have been imported from France, again showing the owner's knowledge of and connections to purveyors of contemporaneous milling technology. The building's system of powered conveyors and gravity-operated chutes that moved grain and ground meal and flour through the milling process is derived from the inventions and principles of the significant American millwright and inventor Oliver Evans (1755–1819). Evans had pioneered the concept of automated grain and meal handling in an integrated system of mill machinery in his 1795 *The Young Mill-Wright and Miller's Guide*, and the concept gained wide acceptance in the second half of the nineteenth

⁴⁸ Trout, *Draft Historic Structure Report: Mingus Mill*, 9.

⁴⁹ McVarish, *American Industrial Archaeology*, 238–240.

⁵⁰ J. T. Hannibal, N. A. Reser, J. A. Yeakley, T. A. Kalka, and V. Fusco, "Determining Provenance of Local and Imported Chert Millstones Using Fossils (especially Charophyta, Fusulinina, and Brachiopoda): Examples from Ohio, U.S.A." (*PALAIOS* 28(11), 2013):739–754; Charles D. Hockensmith, *The Millstone Industry: A Summary of Research on Quarries and Producers in the United States, Europe and Elsewhere* (Jefferson: McFarland & Company, Inc., 2009); Hockensmith 2009)

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century.⁵¹ The mill utilizes a combination of hand-made and factory-made machinery and components as embodied by the bolting machine fabricated on site and the imported smut cleaner.

The Mingus Mill's architecture is typical of late nineteenth-century, small-scale mills in the Upland South. Assembled entirely from yellow poplar, the building utilizes a combination of timber frame and milled lumber that provides the load-bearing capacity and vibration resistance necessary to house heavy machinery but also afforded quick and efficient assembly using locally available tools and materials. Milled lumber began to replace log construction in the late nineteenth century in the Smokies, and the extensive use of stud and joist framing in the Mingus Mill is reflective of this trend. At the same time, certain details of the mill reflect the traditions of craftsmanship in the Smokies. These include the beaded moldings on the building exterior, the chamfered posts with "lamb's tongue" stops, and the initials of Sion Thomas Early carved into the gable peak.⁵²

Sion Thomas Early (1852–1937)

The career of builder and millwright Sion Thomas Early (1852–1937) is poorly documented.⁵³ Early was born in Wythe County, Virginia, and served an apprenticeship with an unknown millwright in the state until that person's death in the early 1870s. In 1872, Early moved to Sevier County, Tennessee, and entered into a carpentry business with his brothers Elbert Stephenson (1850–1917) and William. Together, the Early brothers built several mills in Tennessee. About 1875, Early seems to have left the partnership and Tennessee to build a mill adjacent to the Tuckasegee River in near Dillsboro, North Carolina, for a Captain Enlow of that town.⁵⁴ Early would later settle in Asheville, North Carolina, where he resided until his death in 1937. In 1915, he obtained a patent for a railway switch lock.⁵⁵ The Early brothers and Elbert Early are credited with the construction of several buildings and a bridge in Sevier County, some of which may have been built with Sion's assistance prior to his departure to North Carolina. These works include the National Register-listed Harrisburg Covered Bridge (1875), the Murphy-Allen House (ca. 1878), the Blowing Cave Mill (1880), the Nave-Dickey House (ca. 1885), and Murphy's Chapel United Methodist Church (1887).⁵⁶

⁵¹ Oliver Evans, *The Young Mill-Wright and Miller's Guide*. (Philadelphia: Lea & Blanchard, 1850 [13th edition]); Douglas C. McVarish, *American Industrial Archaeology: A Field Guide* (Walnut Creek: Left Coast Press, 2008), 238–240, 244.

⁵² McVarish, *American Industrial Archaeology*, 237.

⁵³ There is insufficient information to determine whether Sion Thomas Early is a "master" millwright.

⁵⁴ Charles S. Grossman, "0-67 Mingus Creek Mill, Mingus Creek, Smokemont, N.C." (undated typewritten manuscript, on file, Onconaluftee Structures Reports – Mingus Mill, Great Smoky Mountains NP Archives).

⁵⁵ Sion Thomas Early, "Patent No. 1,176,664: Railway Switch Lock" Filed June 11, 1915 (Washington, D.C.: United States Patent Office, 1916).

⁵⁶ Michael Carberry, "National Register of Historic Places, Harrisburg Covered Bridge" (Harrisburg, Sevier County, TN, NR # 75001777); Martha Carver, *Tennessee's Survey Report for Historic Highway Bridges: Pre-1946 Masonry Arch, Timber Truss, Metal Truss, Concrete Arch, Metal Arch, and Suspension Bridges* (Nashville: Tennessee Department of Transportation, 2008), 345; Robbie D. Jones, *The Historic Architecture of Sevier County, Tennessee* (Sevierville: The Smoky Mountain Historical Society, 1996), 248–251.

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Mingus Mill
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National Park Service Archives and Repositories

Denver Service Center, Denver CO

Technical Information Center (TIC)

Southeast Support Office, Atlanta, GA

Drawings on microfiche, Great Smoky Mountains National Park

Great Smoky Mountains National Park, Gatlinburg, TN

Geographic Information Systems (GIS) Office

Headquarters Building

Building Maintenance Files

Park Archives

Mingus Family Collection

Mingus Mill Collection

Mingus Family Collection

Wilburn, Hiram C. Collection

Grossman, Charles S., Collection

Superintendent's Annual Reports, 1932-1937

Superintendent's Monthly Reports, May 1931-October 1959

Park Library

Vertical Files

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Previous documentation on file (NPS):

- preliminary determination of individual listing (36 CFR 67) has been requested
- previously listed in the National Register
- previously determined eligible by the National Register
- designated a National Historic Landmark
- recorded by Historic American Buildings Survey # _____
- recorded by Historic American Engineering Record # TN-13
- recorded by Historic American Landscape Survey # _____

Primary location of additional data:

- State Historic Preservation Office
- Other State agency
- Federal agency
- Local government
- University
- Other
- Name of repository: NPS, Great Smoky Mountains National Park, Gatlinburg, TN

Historic Resources Survey Number (if assigned): _____

10. Geographical Data

Acreeage of Property 1.94

Use either the UTM system or latitude/longitude coordinates

Latitude/Longitude Coordinates

Datum if other than WGS84: _____

(enter coordinates to 6 decimal places)

- | | |
|------------------------|-----------------------|
| 1. Latitude: 35.519292 | Longitude: -83.311731 |
| 2. Latitude: 35.519993 | Longitude: -83.310136 |
| 3. Latitude: 35.520255 | Longitude: -83.307932 |
| 4. Latitude: 35.520146 | Longitude: -83.307887 |
| 5. Latitude: 35.519659 | Longitude: -83.309984 |

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Verbal Boundary Description (Describe the boundaries of the property.)

The 1.94-acre Mingus Mill property is bounded to the north by Mingus Creek, to the east by Newfound Gap Road, and to the south and southwest by a line of convenience placed 15 feet south of and paralleling the Mingus Mill driveway, Mill Race, and Dam, as shown on the attached sketch map.

Boundary Justification (Explain why the boundaries were selected.)

The boundaries encompass all known historic resources associated with the property as well as its historic setting and are delineated following readily available landmarks to exclude extraneous areas wherever possible.

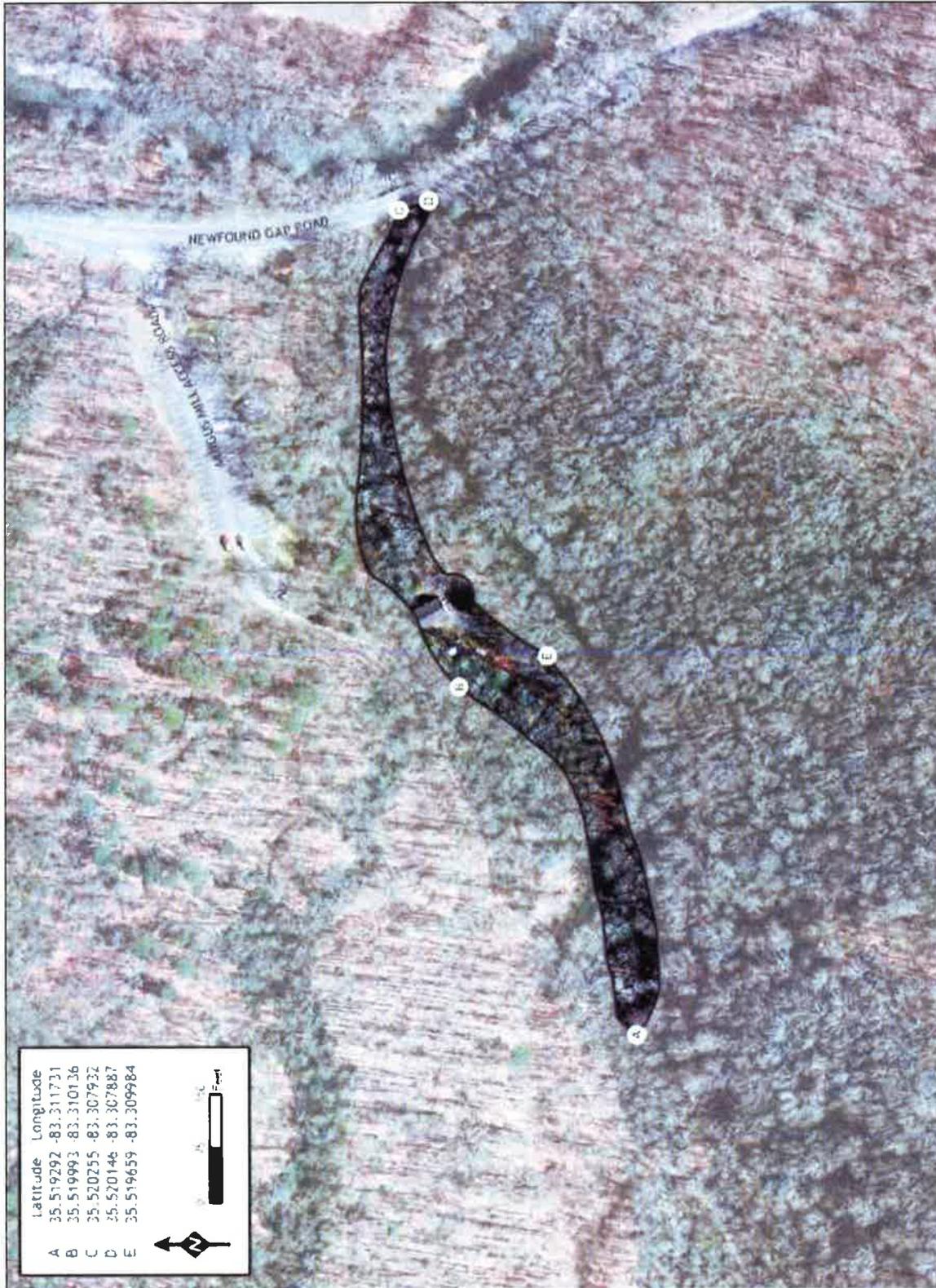
11. Form Prepared By

name/title: John J. Daly/Sr. Industrial Historian
organization: The Public Archaeology Laboratory, Inc. (PAL)
street & number: 26 Main Street
city or town: Pawtucket state: RI zip code: 02860
e-mail jdaly@palinc.com
telephone: 401-728-8780
date: April 2016

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Mingus Mill, Great Smoky Mountains National Park Coordinate Map





Great Smoky Mountains' Mingus Mill

Mingus Mill
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Additional Documentation

Submit the following items with the completed form:

- **Maps:** A **USGS map** or equivalent (7.5 or 15 minute series) indicating the property's location.
- **Sketch map** for historic districts and properties having large acreage or numerous resources. Key all photographs to this map.
- **Additional items:** (Check with the SHPO, TPO, or FPO for any additional items.)

Photographs

Submit clear and descriptive photographs. The size of each image must be 1600x1200 pixels (minimum), 3000x2000 preferred, at 300 ppi (pixels per inch) or larger. Key all photographs to the sketch map. Each photograph must be numbered and that number must correspond to the photograph number on the photo log. For simplicity, the name of the photographer, photo date, etc. may be listed once on the photograph log and doesn't need to be labeled on every photograph.

Photo Log

Name of Property: Mingus Mill

City or Vicinity: Cherokee

County: Swain

State: NC

Photographer: John Daly

Date Photographed: December 2, 2014

Description of Photograph(s) and number, include description of view indicating direction of camera:

- 1 of 12. Mingus Mill, west and south elevations, looking northeast.
- 2 of 12. Mingus Mill, north elevation and wheel pit, looking south.
- 3 of 12. Mingus Mill, south and east elevation, looking northwest.
- 4 of 12. Mingus Mill Dam (buried under stones) and intake gate at Mill Race, looking northwest.

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- 5 of 12. Mingus Mill Race, looking west (upstream) from east end.
- 6 of 12. Mingus Mill and Flume, looking east.
- 7 of 12. Mingus Mill site looking from mill parking lot at beginning of Mingus Creek Trail.
- 8 of 12. Mingus Mill site looking southwest from mill driveway.
- 9 of 12. Mingus Mill wheel pit with turbine and main shaft.
- 10 of 12. Interior, first floor of Mingus Mill looking toward the platform, or husk, and mill stones (disassembled for maintenance).
- 11 of 12. Interior, second floor of Mingus Mill with bolter and shafting.
- 12 of 12. Interior, third floor of Mingus Mill with shafting and bucket belt conveyors.

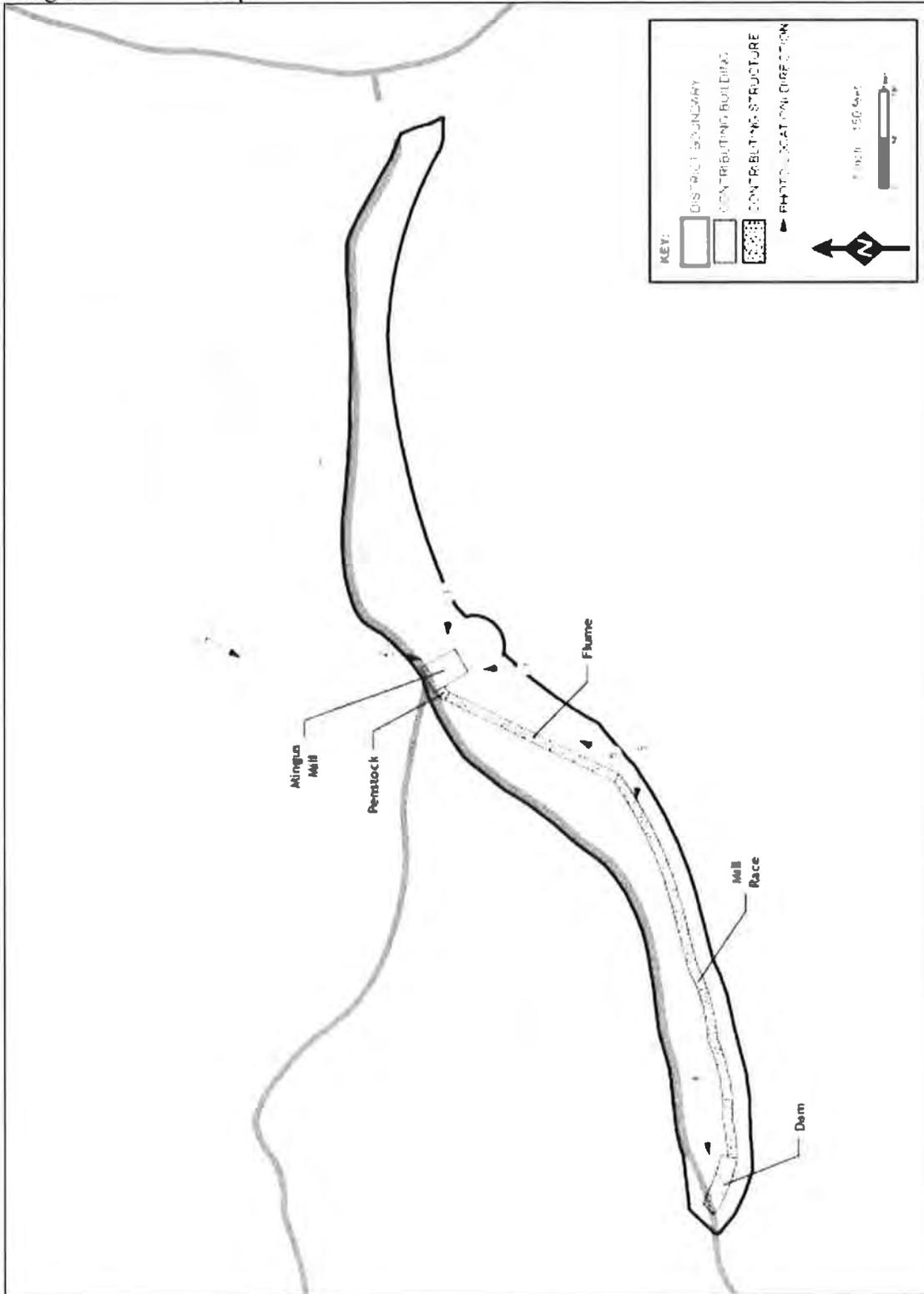
Paperwork Reduction Act Statement: This information is being collected for applications to the National Register of Historic Places to nominate properties for listing or determine eligibility for listing, to list properties, and to amend existing listings. Response to this request is required to obtain a benefit in accordance with the National Historic Preservation Act, as amended (16 U.S.C.460 et seq.).

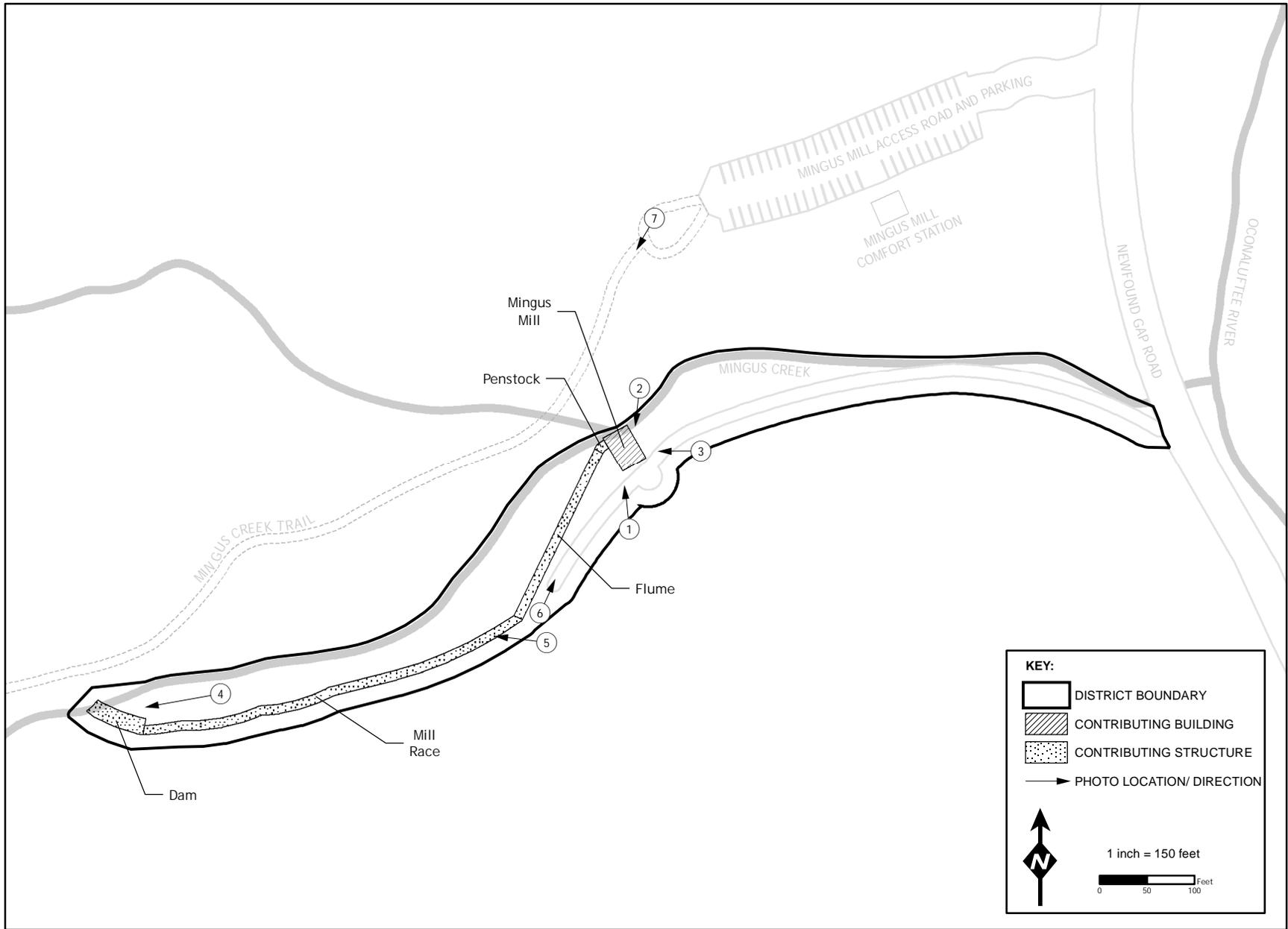
Estimated Burden Statement: Public reporting burden for this form is estimated to average 100 hours per response including time for reviewing instructions, gathering and maintaining data, and completing and reviewing the form. Direct comments regarding this burden estimate or any aspect of this form to the Office of Planning and Performance Management, U.S. Dept. of the Interior, 1849 C. Street, NW, Washington, DC.

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Mingus Mill Sketch Map.





Great Smoky Mountains' Mingus Mill

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Figure 1. Undated early twentieth century photograph of Mingus Mill, looking north (NPS File No. II-B-(5)-Mingus-184-84, no Neg. No).



Figure 2. 1935 photograph of first floor of Mingus Mill (NPS Neg. No. 3065).

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Figure 3. May 1937 photograph of Flume prior to repair, looking west (upstream) toward Mill Race (NPS Neg. No. 3087)



Figure 4. 1937 photograph of log and plank Dam prior to repair, looking south across Mingus Creek toward Mill Race intake (obscured) (NPS Neg. No. 3085).

Mingus Mill
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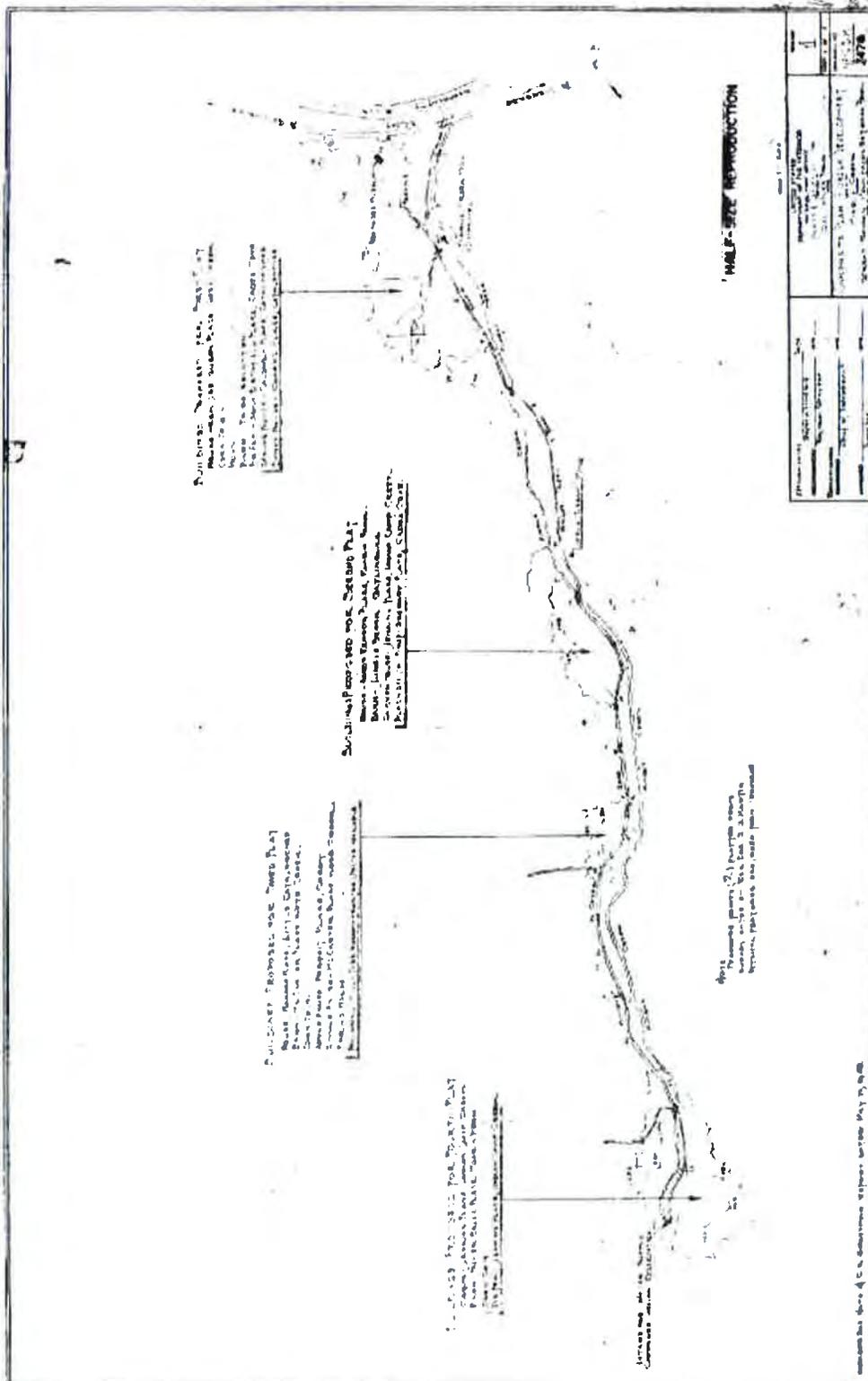


Figure 5. Composite Plan – Pioneer Development, Mingus Creek. Drawing No. NP-GSM2476, 1949 (Great Smoky Mountains NP, Gatlinburg, TN).

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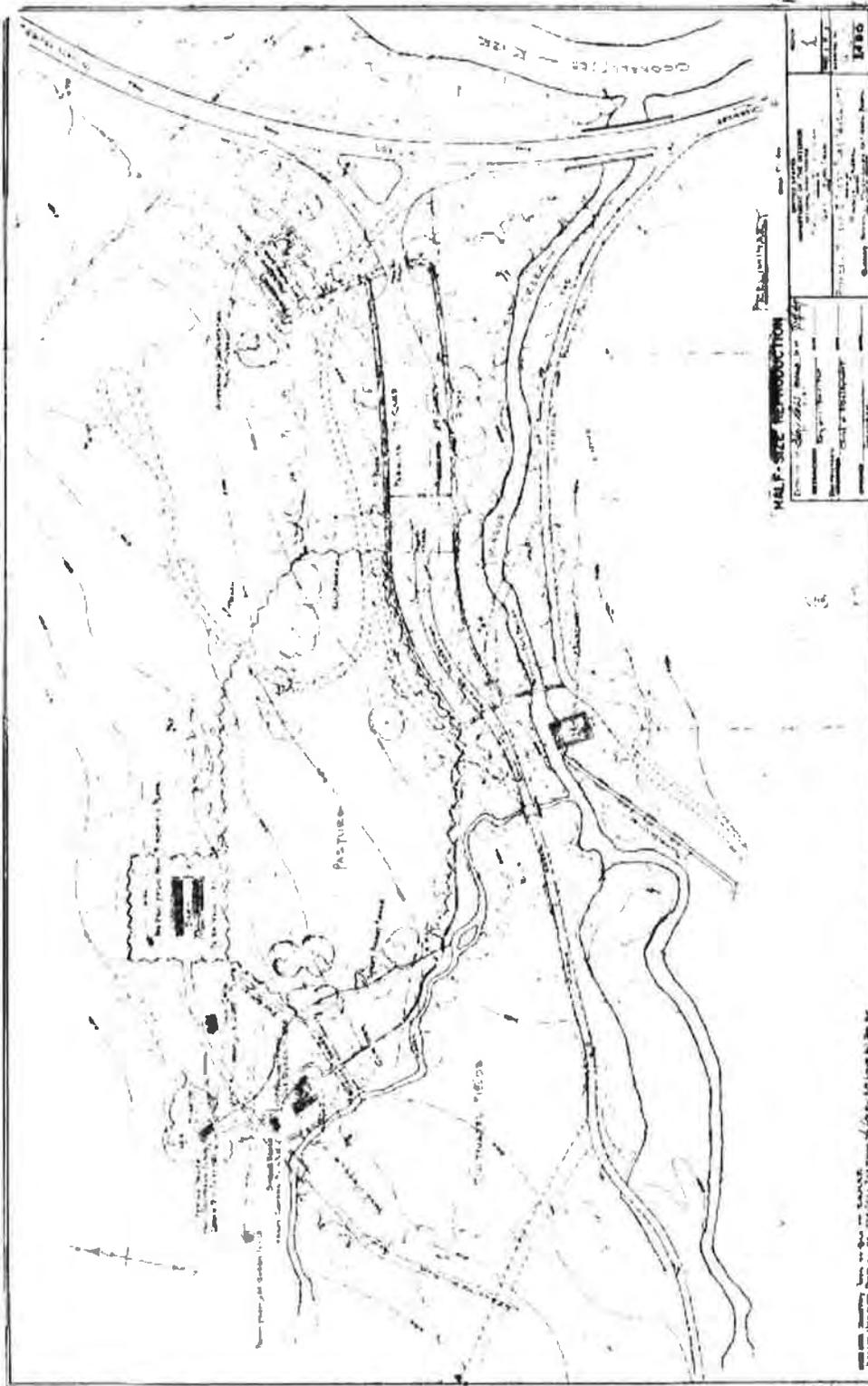


Figure 6. Pioneer Museum & First Flat Development, Mingus Creek. Drawing No. NP-GSM2430, 1949. (Great Smoky Mountains NP, Gatlinburg, TN).



Mingus Mill
Swain County, North Carolina
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Mingus Mill

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Mingus Mill
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