



North Carolina Department of Cultural Resources
State Historic Preservation Office

Peter B. Sandbeck, Administrator

Beverly Eaves Perdue, Governor
Linda A. Carlisle, Secretary
Jeffrey J. Crow, Deputy Secretary

Office of Archives and History
Division of Historical Resources
David Brook, Director

December 21, 2009

MEMORANDUM

To: Mary Pope Furr
Architectural Historian
NCDOT/PDEA/HEU

From: Peter Sandbeck *PSE for POS*

RE: Replace Bridge #97 on SR 1925 over Wolf Island Creek, B-4803, Rockingham County, ER08-2619

We are in receipt of the November 3, 2009, letter from Shelby Spillers, transmitting the Historic Architectural Survey Report for the above referenced undertaking.

While the report describes the exterior of the building and warming room and, from the oral report of a local historian, establishes that Worsham Mill (RK 1493) is the only remaining gristmill in its original location in Rockingham County, it does not make a solid case for the mill's being eligible for listing in the National Register of Historic Places. Given the lack of any interior photographs and information about the setting of the mill along the creek, there is not enough evidence on which to base an assumption of eligibility.

Mention is made of an abandoned millrace and of a former wooden dam, but there is no suggestion of where these may have been or how they related to the mill. Barring this type of information and additional documentation of an intact interior and mill equipment, we do not concur that the mill is eligible for listing. It may be that archaeological remains in the area or study of historic maps of the area could address this shortcoming.

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

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

cc: Shelby Spillers, NCDOT

bc: DOT Swallow County



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Peter B. Sandbeck, Administrator

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David Brook, Director

August 9, 2010

MEMORANDUM

To: Shelby L Spillers
Historic Architecture Group
NCDOT/PDEA/HEU

From: Peter Sandbeck *Refer Peter Sandbeck*

Re: Revised Historic Structures Survey Report, Replace Bridge #97 on SR 1925 over Wolf Island Creek, B-4803, Rockingham County, ER08-2619

Thank you for your letter of June 28, 2010, transmitting the above referenced, revised report. We have reviewed the report and can now concur that Worsham Mill is eligible for listing in the National Register of Historic Places under Criterion A for commerce and industry and under Criterion C for design. The additional photographs, showing the integrity of the remaining equipment and explaining it uses, were very helpful and addressed our concerns about the condition of the mill's interior and equipment.

We also concur with the new, proposed boundary for the mill. The addition of the dam abutments, remnants of the millrace and head-gates more clearly establishes an appropriate and historical setting for the mill and warming house.

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

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

cc: Mary Pope Furr, NCDOT
John M. Burton, Rockingham County Historical Society

bc: NCDOT
Brown/Swallow
County

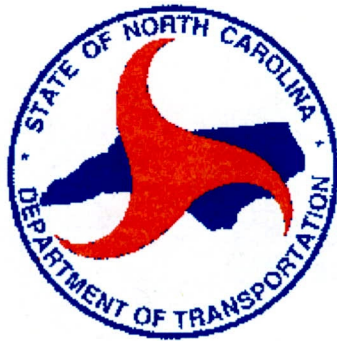
Historic Architectural Resources Survey Report

Replace Bridge No. 97 on SR 1925 over Wolf Island Creek

Rockingham County, North Carolina

TIP No. B-4803

WBS No. 38573



Shelby Lyn Spillers
Architectural Historian
North Carolina Department of Transportation

Revised June 2010

HISTORIC ARCHITECTURAL RESOURCES SURVEY REPORT

Replace Bridge No. 97 on SR 1925 over Wolf Island Creek
Rockingham County, North Carolina

TIP No. B-4803
WBS No. 38573



NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
REPORT PREPARED BY SHELBY LYN SPILLERS

REVISED JUNE 2010

Shelby Lynn Spillers

Principal Investigator
Historic Architecture Group
North Carolina Department of Transportation

6/28/2010

Date

Mary Pope Furr

Mary Pope Furr, Supervisor
Historic Architecture Group
North Carolina Department of Transportation

6-28-2010

Date

Management Summary

The North Carolina Department of Transportation (NCDOT) proposes to replace Bridge No. 97 on SR 1925 over Wolf Island Creek. This report represents documentation of historic properties located within the Area of Potential Effects (APE) for TIP No. B-4803. This project has state funding (WBS Project No.38573) and federal funding (Federal Aid No. BRZ-1925(2)) and is classified as a Categorical Exclusion (CE).

In response to a request for input on January 26, 2009, the North Carolina State Historic Preservation Office (NC HPO) asked that an architectural historian identify and evaluate any structures over fifty years of age within the project area. As a result, this report recommends Worsham Mill is eligible for listing in the National Register of Historic Places under Criteria A and C.

Introduction

NCDOT proposes to replace Bridge No. 97 on SR 1925 (Worsham Mill Road). Constructed in 1952, Bridge No. 97 was determined not eligible for National Register listing during the 2005 North Carolina Historic Bridge Survey. The steel stringer bridge built in 1952 by the state's bridge maintenance unit has no innovative or distinctive details. It is typical of the thousands of steel stringer bridges the unit placed on rural secondary roads after World War II. The purpose of the project is to replace the structurally deficient bridge with a new structure.

NCDOT conducted a survey and compiled this report in order to identify historic architectural resources located within the project's APE as part of the environmental studies performed by NCDOT and documented by a Categorical Exclusion (CE). This report is prepared as a technical appendix to the CE and as part of the documentation of compliance with the National Environmental Policy Act (NEPA) of 1969 and the National Historic Preservation Act of 1966, as amended. Section 106 of the NHPA requires federal agencies to take into account the effect of federally funded, licensed, or permitted projects on properties listed on or eligible for listing on the National Register of Historic Places, and to afford the Advisory Council on Historic Preservation a reasonable opportunity to comment. This report is on file at NCDOT and is available for review by the public.

Methodology


NCDOT conducted the survey and prepared this report in accordance with the provisions of

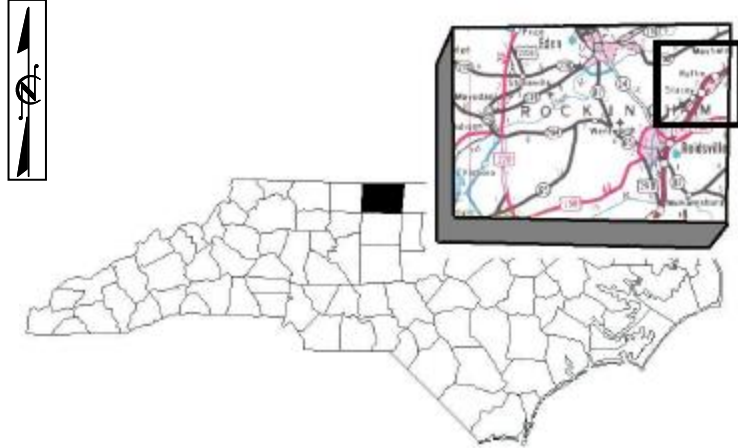
FHWA Technical Advisory T 6640.8A (Guidance for Preparing and Processing Environmental and Section 4(f) Documents); the Secretary of the Interior's Standards and Guidelines for Archaeological and Historic Preservation (48 CFR 44716); 36 CFR Part 800; 36 CFR Part 60; and Survey Procedures and Report Guidelines for Historic Architectural Resources by NCDOT. This survey and report meet NCDOT and the National Park Service guidelines.

NCDOT conducted a Final Identification and Evaluation survey with the following goals: 1) to determine the APE, defined as the geographic area or areas within which a project may cause changes in the character or use of historic properties, if any such properties exist; 2) to identify all significant resources within the APE; and 3) to evaluate these resources according to the National Register of Historic Places criteria. The APE boundary is shown on page four of this report.

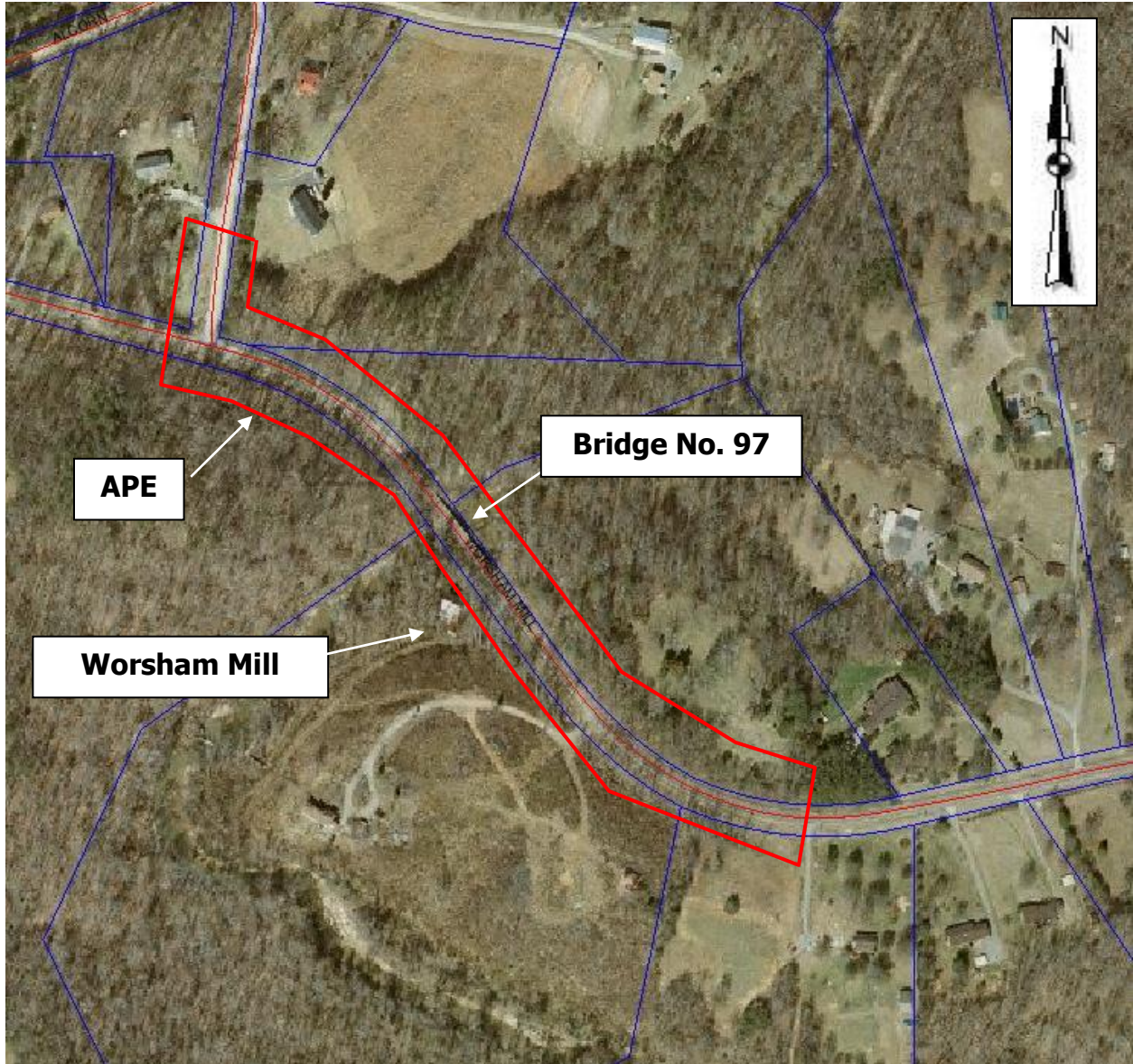
On July 17, 2009, NCDOT architectural historians surveyed the entire APE in a vehicle and on foot. Worsham Mill (RK 1493) and Bridge Number 97 are both over fifty years old and located in the APE. The bridge was determined not eligible for National Register listing during the 2005 North Carolina Historic Bridge Survey. On August 4, 2009, historians presented the survey results to the NC HPO representative who requested a survey report to study and evaluate one property: the Worsham Mill (RK 1493). A survey report was transmitted to NC HPO on November 3, 2009. In a December 21, 2009 letter, NC HPO requested additional information about the interior of the mill, location of the mill race and condition of the dam. This report addresses those additional questions.

Background research was conducted at the following archival repositories: the State Library of North Carolina and the North Carolina Office of Archives and History, Raleigh, North Carolina; the Rockingham County Register of Deeds, and the North Carolina Department of Cultural Resources Office of Archives and History Raleigh, North Carolina. Individuals who contributed guidance and helpful information include current property owner Kaye Nance, Robert W. Carter, Jr. of the Rockingham County Historical Society and Sarah Woodard David, who conducted the Rockingham County survey for NC HPO in 2003.

	NORTH CAROLINA DEPARTMENT OF TRANSPORTATION DIVISION OF HIGHWAYS PROJECT DEVELOPMENT & ENVIRONMENTAL ANALYSIS BRANCH
	ROCKINGHAM COUNTY REPLACE BRIDGE NO. 97 ON SR 1925 OVER WOLF ISLAND CREEK B-4803
Figure 1	



Aerial and APE



Resource Name:	Worsham Mill
Survey Site Number:	RK 1493
Location:	910 Worsham Mill Road
Parcel ID:	PIN 893800242980
Dates(s) of Construction:	1908; addition ca. 1915
Recommendation:	National Register Eligible

Setting

Worsham Mill is located on the south side of Worsham Mill Road 1.3 miles west of US 29 on Wolf Island Creek. Worsham Mill Road is a hilly, mostly rural road, dotted with individual houses dating from the early twentieth century to modern single-family residences. A few small farms remain in operation along the road between Ruffin and Oregon Hill.



Property Description

Exterior

The circa 1908 two-and-a-half story gable front mill of frame construction with a full-height basement follows the typical rectangular form for mills. The foundation wall adjacent to the wheel is constructed of formed concrete, while the remainder of the foundation is constructed of fieldstone and lime mortar. The roof of the main block is covered with v-crimp metal sheets while the exterior walls are clad in ship-lap siding. A shed roof porch stretches three-quarters of the way along the front elevation and is supported by square wood posts. The wood deck of the porch extends from the front entrance of the mill to meet the ground level, acting as a loading bay. The porch offers shelter for the mill's two entrances, one single paneled wood door and a set of double doors. Three two-over-two wood sash windows and one eight-pane divided light pierce the façade. A circa 1915 two-story side gable addition extends from the southeast corner of the main building. The roof of the addition is covered with standing seam metal and the exterior is clad with German siding. The addition features a distinctive oval-shaped window in the southwest elevation. The other windows of the addition have been covered with plywood. The waterwheel meets the mill on the northwest side of the main block. An abandoned millrace is located southwest of the wheel and extends approximately 2500 yards southwest along Wolf Creek where dam ruins are evident on both banks of the creek.

Interior

The interior of the mill is unfinished open space filled with an assortment of milling equipment which reveals eras of grist-milling from waterpower to diesel. Some of the mill equipment includes wood and galvanized metal hoppers, chutes, millstones, grinders, mixers, wheat roller, bran dusters, and a bolting reel.

The lower level houses the power generating equipment including the drive shaft and gears and the diesel generator. The first level has two millstones, one in the addition and one in the main block, chutes and hoppers, and an elevator leg which consists of a continuous belt with metal cup that carried the flour from the millstones to the bolting reel on the top level. The second level of the mill contains a galvanized metal hopper, a hammer mill (used for feed processing), chutes and a variety of other milling equipment. The second floor of the addition contains only a large grain bin. The top level of the mill is a half story which houses grain bins, chutes, a bran duster, and the bolting reel.

Outbuildings

A stone warming house is built against the embankment southeast of the mill. Insurance companies would not permit a fire in the mill, so the warming house served as shelter for the farmers waiting for their grain to be processed in colder weather. The small, one-room building of dry-stack stone construction has a shed roof covered with v-crimp metal sheets. The wooden door frame is near collapse. Attempts to stabilize the structure are evident by the presence of cement pointing on the west side of the door opening and a course of concrete blocks below the roof. An exterior dry stack stone chimney is located on the south elevation of the building. A small square opening on the northwest elevation serves as the structure's only window. The interior is characterized by the rough plaster on the walls, lack of flooring material and small firebox.

Photographs



Main block and side addition



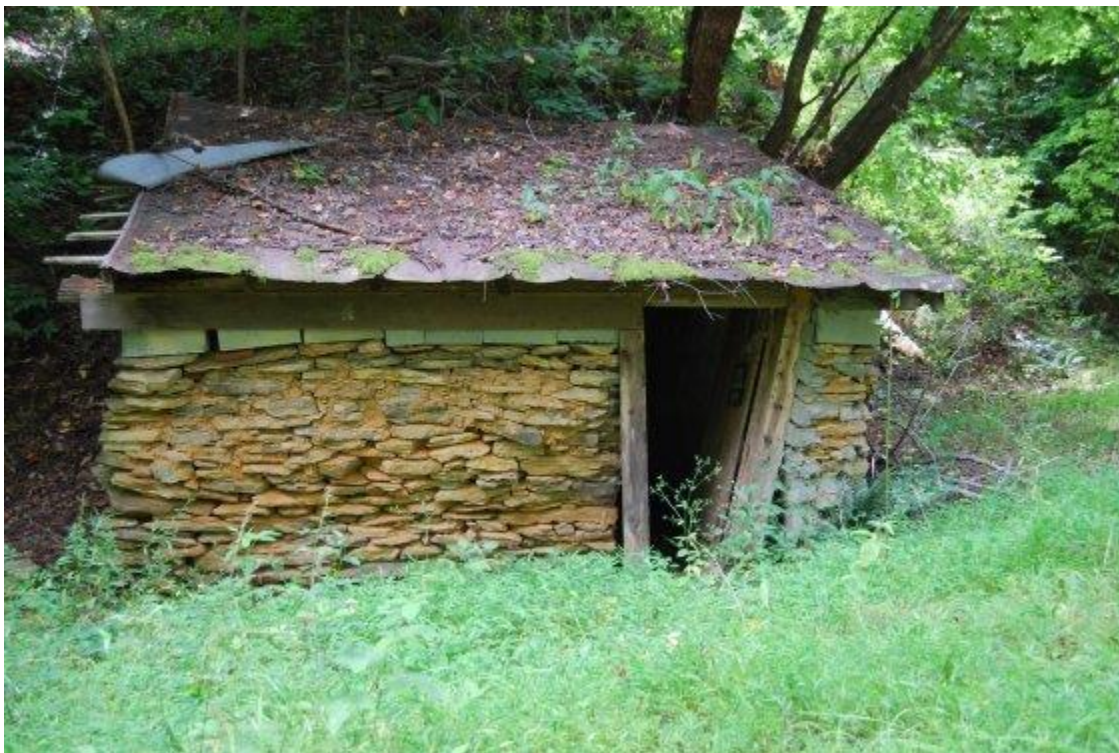
Main block and side addition



Southwest (side) elevation of addition



Barely visible water wheel attached to the northwest elevation



Stone Warming House



Worsham Mill southeast façade



Warming House in context with mill



South (side) elevation of addition



Detail of Foundation Materials



Porch of Main Block



$\frac{3}{4}$ View of Mill looking northeast



Millstone



First floor showing some alterations



Wood stove on first floor of addition



Hopper and millstone casing on first floor.



Swing arm hoist over grinding stone



Grain bin (upper level of addition)



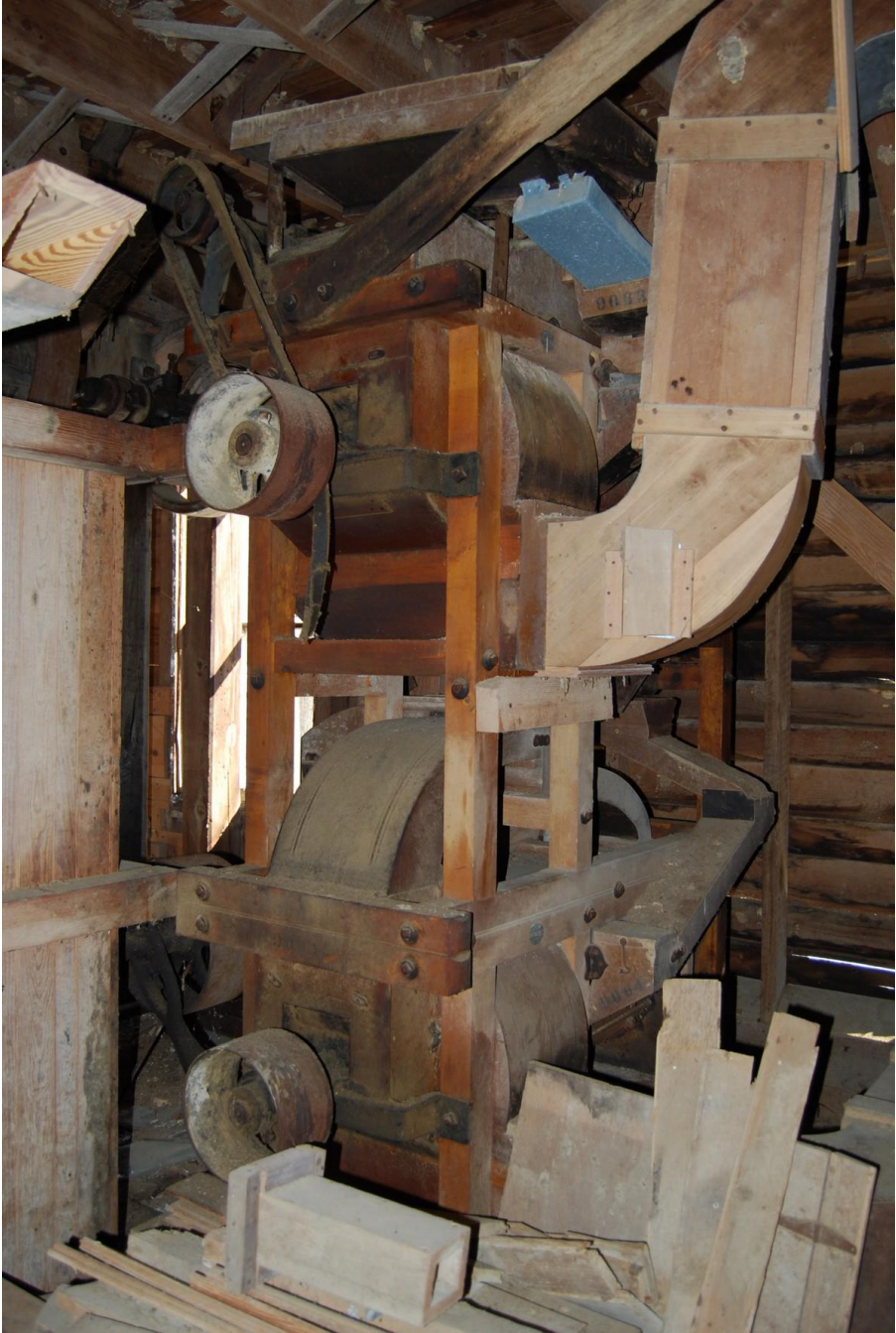
Wheat Roller Mill



Elevator Leg



Bolting Reel



Milling Equipment



Dust Separator



Bran Duster



Roof Structure



Dustless Receiving Elevator



Bolting Reel



Flour Bleacher



Mr. McDaniel demonstration how the hopper fits with the chute



Mr. McDaniel demonstration the operation of the belt drive



Wheel and gear wheel



Drive Shaft



Foundation Material detail



Timbers and Joists



Overshot Wheel



Headgate of millrace



Dam Abutment on south side of Wolf Creek



Dam Abutment on north side of Wolf Creek



Detail of dam construction

National Register Criteria Evaluation

For purposes of compliance with Section 106 of the National Historic Preservation Act (NHPA), Worsham Mill is recommended **eligible** for the National Register of Historic Places under Criteria A and C.

Integrity

Worsham Mill and its associated outbuilding retain a high degree of integrity. The mill stands in its original location and the setting continues to be that of an undeveloped rural community. The buildings retain integrity of design, materials and workmanship as shown by the high percentage of original materials including the exterior wall material, fieldstone foundation, windows and doors. The mill remains largely unaltered and has a full compliment of milling equipment throughout the two-and-a-half stories conveying both feeling and association.

Criterion A

Worsham Mill is **eligible** for the National Register under Criterion A (Event). *To be eligible under Criterion A the property must retain integrity and must be associated with a specific event marking an important moment in American pre-history or history or a pattern of events or historic trend that made a significant contribution to the development of a community, a state, or a nation. Furthermore, the property must have existed at the time and be documented to be associated with the events. Finally, the property's specific association must be important as well.*¹

Historically, the economy in Rockingham County was dominated by agricultural and textile mills. Most farmers cultivated subsistence farms while tobacco dominated as the main cash crop. The Haw and the Dan Rivers plus their many tributaries allowed the county to develop many water-powered industries. Textile mills, saw mills and grist mills flourished from the eighteen to the mid-twentieth century.

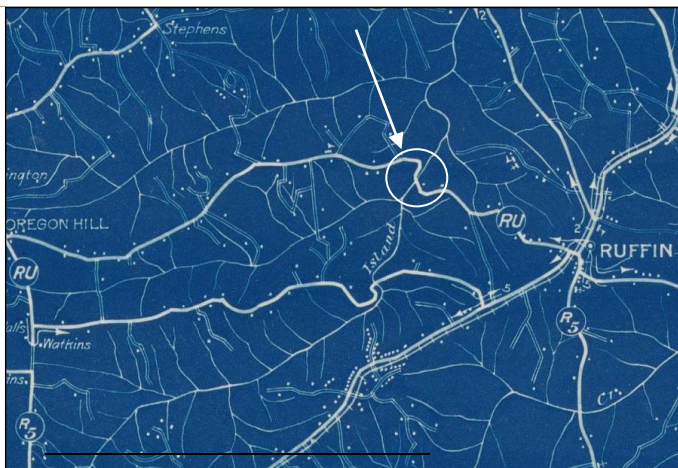
Farming families depended on the local mills to grind their grains into flour or cornmeal as well as livestock feed. Sites of the earliest mills were on Troublesome, Belews, and Hogan's Creeks. Mills on High Rock and Davis Creeks were operating by the 1750s. By 1800, twenty-three mills operated in Rockingham County. Most of these mills served their local community, however a few of these mills produced enough flour that it could be shipped and sold throughout the State. By 1840 more than fifty mills were operating in the county.²

¹ National Park Service, *National Register Bulletin* 15. (Washington, D.C.: Department of the Interior, 1991), p. 12.

² Woodard, Sarah A. *Historical and Architectural Resources of Rockingham County, 1799-1953*.

By the twentieth century many of the water powered mills ceased operation. Modern mills, which did not depend on water for operation, opened in towns. Advances in technology, particularly the invention of electricity that was harnessed to power the grinding process, led to the decline of water-powered rural mills. Steel rollers replaced millstones and produced a higher quality, finer flour which was more desirable to the consumer. In addition, farmers in Rockingham County converted their corn and wheat fields for use in growing the cash crop of tobacco. By 1983 only five water-powered mill buildings remained in Rockingham County. Of these, Worsham Mill is the only mill that remains intact at its original location in Rockingham County. Lower King's Mill and Ogburn's Mill have both been destroyed by fire. The Broadnax-Moir Mill in Eden has been converted for residential use. The Griffin-Smother Mill has been relocated from Pleasantville to Wentworth.³

The first mill to operate on Wolf Island Creek was constructed by Colonel Peter Perkins of Virginia by August 1778 near the site of the current Worsham Mill. According to Rockingham County Historian Robert Carter, the mill was destroyed by either fire or flood sometime between 1855 and 1863. In the 1867 the Rawleys' son Rufus was granted a 194 acre tract called "the millsite" in the division of David Rawley's estate. Rufus sold an interest of the land to his brother Taylor Rawley. They erected a new mill on the site and by 1877 The Rawley Brothers Flour and Corn Mill was listed in Branson's North Carolina Business Directory. The mill burned in February 1907. On August 22, 1908, William J. and James J. Worsham purchased the millsite from Taylor Rawley.⁴



³ Carter, Robert W. Jr. Personal Interview, 24 September 2009.

⁴ Ibid.

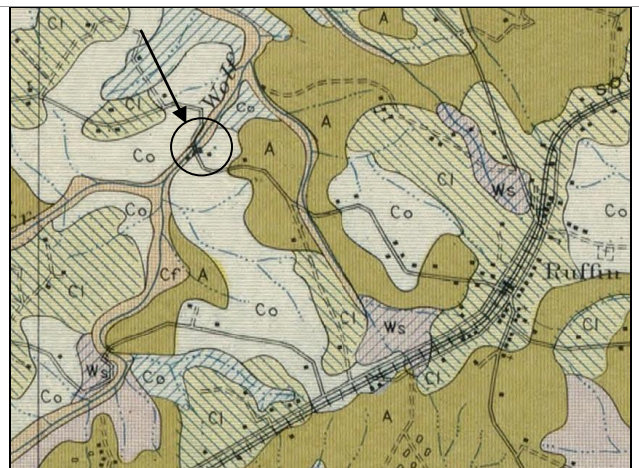


Figure 2: Soil Survey Map 1926

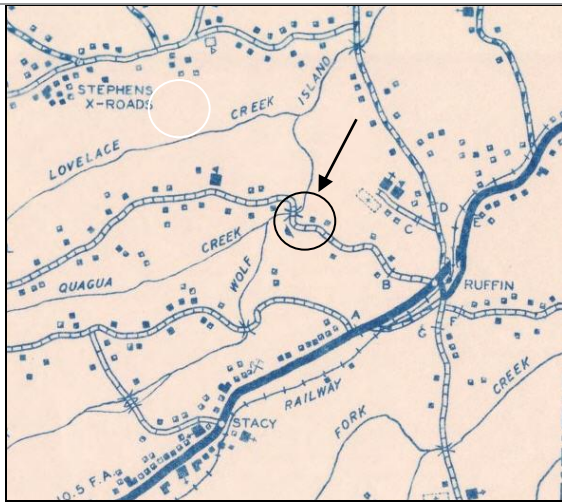


Figure 3: 1938 County Road Map

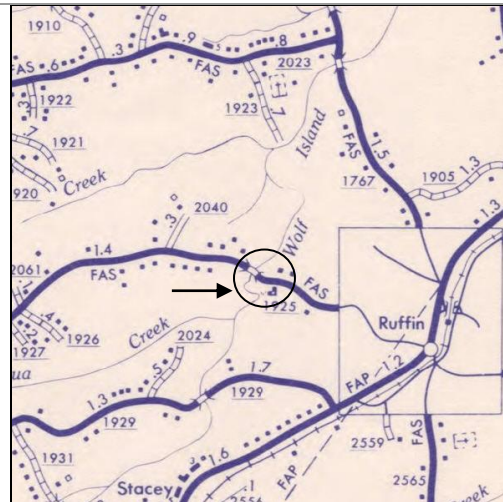


Figure 4: 1967 Highway Culture map

The Worsham Brothers were well established Rockingham County, owning large tracts of farm land, a general store and a mill which they operated in the former Methodist Church in Ruffin. They built a new mill on the old millsite on Wolf Island Creek. The 1910 Rural Delivery Map (Figure 1) does not have a structure located at the site of Worsham Mill, however a structure at the location of the mill appears on the 1926 Soil Survey Map (Figure 2) and a mill is identified on both the 1938 County Road Map (Figure 3) and the 1967 Highway Culture map (Figure 4).

The Worsham Mill ground wheat, corn and feed, and also operated a sawmill. William’s son Cecil continued to operate the mill after his father’s death in 1930. The mill produced White Perfection Flour and Old Mill Corn Meal. Around 1969 the wooden dam across Wolf Island Creek washed out and Worsham installed a diesel engine to power the mill. After that only corn was processed at the mill. When Cecil Worsham died in 1977, the land was sold at auction and Worsham Mill ceased operation.⁵

From the 18th to the mid-20th century grist mills were an integral part of the rural community and center for social and economic activity. With limited transportation routes, farming families depended on the local mills to grind their grains into flour or cornmeal as well as livestock feed. By the early 20th century many of the water-powered grist mills were replaced by steam and electric-powered roller mills. Not dependant on rivers or streams for their power source, roller mills could be located in towns. All but a three of the county’s once abundant water-powered grist mills have been destroyed. Worsham Mill, in operation from 1908 through the 1970s, exemplifies the industrial heritage in the piedmont region of North Carolina. Worsham Mill is the only remaining intact gristmill in Rockingham County in its original location and eligible for the National Register under Criterion A for commerce and industry.

Criterion B

⁵ Ibid.

Worsham Mill is **not eligible** for the National Register under Criterion B (Person). *For a property to be eligible for significance under Criterion B, it must retain integrity and 1) be associated with the lives of persons significant in our past, i.e., individuals whose activities are demonstrably important within a local, state, or national historic context; 2) be normally associated with a person's productive life, reflecting the time period when he/she achieved significance; and 3) should be compared to other associated properties to identify those that best represent the person's historic contributions. Furthermore, a property is not eligible if its only justification for significance is that it was owned or used by a person who is or was a member of an identifiable profession, class or social or ethnic group.*⁶

The Worsham Mill is not associated with any person significant to the history of the local community, state or nation. Therefore Worsham Mill is not recommended eligible for National Register listing under Criterion B.

Criterion C

Worsham Mill is **eligible** for the National Register under Criterion C (design/construction). *For a property to be eligible under this criterion, it must retain integrity and either 1) embody distinctive characteristics of a type, period, or method of construction; 2) represent the work of a master; 3) possess high artistic value; or 4) represent a significant and distinguishable entity whose components may lack individual distinction.*⁷

Worsham Mill stands as the sole intact example of a two-and-a-half-story gristmill in Rockingham County. The mill retains its distinctive and identifiable form of a massive front-gable, frame industrial building with a rectangular plan. The exterior ship-lap siding and German siding on the addition remain in fair condition considering the building is no longer in use. The waterwheel remains in place on the northwest side of the main block of the mill. The mill is complimented by the stone warming house, which is unique in the county. The only other mill to have had a warming house was the Iron Works Mill, which had a brick warming house. Iron Works Mill was destroyed by fire in 1968 and since then the bricks of warming house have been removed by vandals.⁸ Inside the mill, the existence of a wide variety of equipment reveal eras of milling from grist milling to feed grain processing including the transition from water power to diesel power. The Worsham Mill is recommended eligible for National Register listing under Criterion C for design.

Criterion D

⁶ National Park Service, *National Register Bulletin* 15. (Washington, D.C.: Department of the Interior, 1991), p. 15.

⁷ *Ibid.*, p. 17.

⁸ Cater, Robert Jr. Personal Interview.

Worsham Mill is **not eligible** for the National Register under Criterion D (potential to yield information). *For a property to be eligible under Criterion D, it must meet two requirements: 1) the property must have, or have had, information to contribute to our understanding of human history or prehistory, and 2) the information must be considered important.*⁹

The property is not likely to yield any new information pertaining to the history of building design or technology. Worsham Mill is not recommended eligible under Criterion D.

⁹ National Park Service, *National Register Bulletin* 15. (Washington, D.C.: Department of the Interior, 1991), p. 21.

Citations

Carter, Robert W. Jr., "History of Worsham Mill," Rockingham County Historical Society, November 20, 1979.

Carter, Robert W. Jr., Personal Interview. 24 September 2009.

Nance, Kaye. Personal Interview. 25 September 2009.

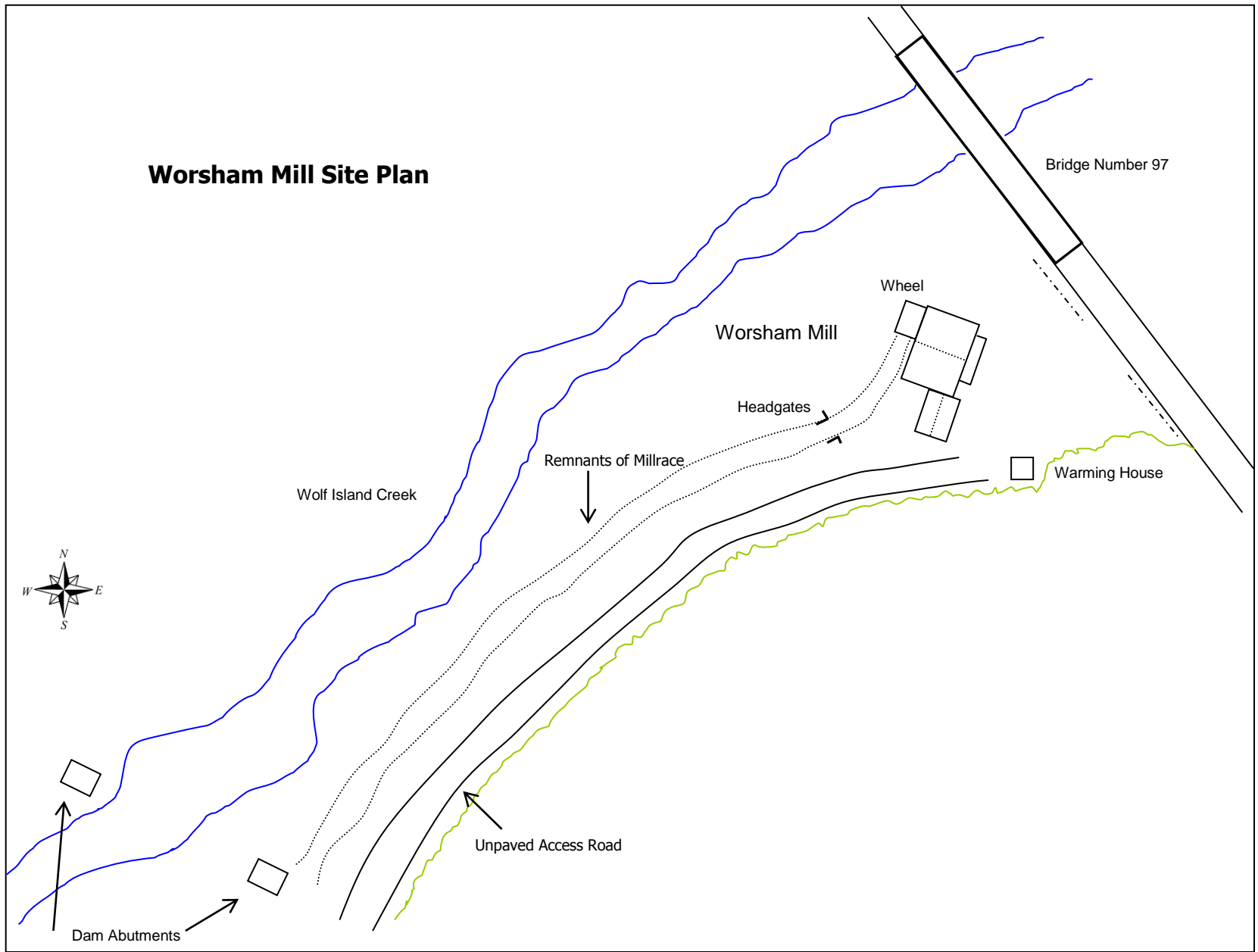
National Park Service, *National Register Bulletin 15*. Washington, D.C.: Department of the Interior, 1991.

Rockingham, North Carolina. Rockingham County Registrar of Deeds. Rockingham County Land Records.

Rodenbough, Charles D. ed. *The Heritage of Rockingham County, North Carolina*. Winston-Salem, N.C.: Hunter Publishing Company, 1983.

Woodard, Sarah A. *Historical and Architectural Resources of Rockingham County, ca 1799-1953*. Durham, N.C.: Edwards-Pitman Environmental, 2003.

Stokes, T.D. ed., *Rockingham County: Economic and Social*. Raleigh, N.C.: Edwards and Broughton Printing, 1918.



National Register Boundary Justification

The National Register boundary for Worsham Mill has been drawn according to the guidelines of National Register Bulletin 21, *Defining Boundaries for National Register Properties*. The boundary begins on the property line on the north side of Wolf Island Creek and follows the existing Right of Way (ROW) along SR 1925 (Worsham Mill Road) 300 feet south east to the drive that leads to the mill building then southwest to a point approximately 10 feet off the south east corner of the warming house then along the tree line for approximately 600 feet along the access road to the site of the dam abutment on the south side of Wolf Island Creek. The boundary continues across the creek to meet with the existing property line. The boundary is drawn to include the mill, the dam abutments, and the warming house, as well as the landscape elements that constitute the historic setting of the property. The boundary contains the approximately one acre of the 24-acre parcel that directly relates to Worsham Mill. The boundary excludes the remaining acreage and the modern house and other structures that are not associated with the mill. The legal property boundary is identified as Rockingham County Parcel ID # 893800242980.

