

Agency Official 106 Effect Report

*Upgrade HVAC System in Chatham Buildings
Stafford County, Virginia*

**U.S. Department of the Interior
National Park Service
Fredericksburg and Spotsylvania County Battlefields Memorial National Military Park
120 Chatham Lane
Fredericksburg, Virginia 22405**

Purpose

Fredericksburg and Spotsylvania County Battlefields Memorial National Military Park was authorized by an act of Congress on February 14, 1927 (44 Stat. 1091). The purpose of the park, as stated in the act, is “to commemorate the Civil War battles of Fredericksburg, Spotsylvania Court House, Wilderness, and Chancellorsville, including Salem Church ... to survey, locate, and preserve the lines of the opposing armies in said battles, to open, construct, and repair such roads, highways, paths, and other approaches as may be necessary to make the historical points accessible to the public and to students of said battles ... and together also with such additional land as the Secretary of War may deem necessary for monuments, markers, tablets, roads, highways, paths, approaches, and to carry out the general purposes of this Act.” By Executive Order 6166 in 1933 the park was transferred to the Department of the Interior to be administered by the National Park Service.

In 1975, FRSP took possession of Chatham and opened the site to the public two years later. Since then, Chatham has remained open as a visitor contact site and has also operated as the park administrative headquarters. Historic buildings at Chatham serve as offices for park staff, while the main house is also open to the public with museum exhibits.

Need

The existing HVAC system was installed in 2010, having replaced a system originally installed in 1985. While the existing system has functioned, it essentially retained the 1985 design and has struggled with maintaining acceptable temperatures and humidity levels. There are currently seven standalone coil units in the attic of the main house. These coil units require water to function for air conditioning. The flow of water and the collection of condensation in the attic has led to overflows and leaking through the ceiling of the second floor. This has resulted in damage and loss over the years to portions of the plaster ceiling. The park has looked to newer equipment and design to solve the control issues and now proposes to replace some components of the existing system in order to achieve better results for the buildings, their occupants and the artifacts on display.

Property Description

A. Major Physical Components – Chatham sits on 85.01 acres in Stafford County, Va. The tract is a mixture of open fields and wood lots, bisected by a few ravines that feed rainwater runoff to the Rappahannock River. East of the house is a maintained walled garden. Most of the open fields are under cultivation. The house itself is open to the public seven days a week.

B. Historical Significance – The main house was constructed by William Fitzhugh, a prominent plantation owner in 18th century Virginia. Among his guests at Chatham were George

Washington and Thomas Jefferson. During the Civil War, the Union army occupied Chatham beginning in the spring of 1862. President Abraham Lincoln visited his generals at Chatham during that period. In December 1862, Union generals again made Chatham headquarters and both during and after the Battle of Fredericksburg the house and grounds became a hospital for wounded soldiers. Both Clara Barton and the poet Walt Whitman cared for the wounded at Chatham. In the post-Civil War years, the house went through a number of owners, many of whom made changes and additions to the buildings and property. In the 1920s, the Devore Family constructed numerous support structures and developed the walled garden, which represents the work of Ellen Biddle Shipman, an early twentieth-century New York landscape architect.

C. Architectural Significance - The three main structures at Chatham (Chatham Manor, Chatham Kitchen and Chatham Laundry) were constructed between 1768 and 1771 and served as a domestic site for over 200 years. All three structures are listed on the park's List of Classified Structures – LCIS #000422, #07872, and #07874. Additional structures were added in the first quarter of the 20th Century. The Chatham Carriage House and Stable was constructed in the early 1920s. It is also listed on the park's List of Classified Structures – LCIS #07877. All four buildings are recognized as contributing to the park's National Register eligibility.

Proposed Action

The park proposes to replace, upgrade and to a limited extent redesign the HVAC system for the four building. This will entail:

1. Removing seven (7) of the standalone fan coil units located in the attic space of the Chatham Manor and installing one (1) air handling (fan coil) unit serviced with a chilled water coil and electric heating element. The new unit will be placed over the tub in the second-floor bathroom. From the 1983 Historic Structure Report, we know that the bathroom on the second floor was completed by 1920. The installation of an air handling unit in this space, which is currently unoccupied and not used, will involve building a wood support structure over the existing bathtub. The air handler will sit on this platform. A hole will be cut in the space above the bathtub. The ceiling above the bathtub is plywood and appears to have been installed as part of remodeling for the bathtub space. The hole cut in the plywood ceiling will allow for the venting and ductwork to access the existing ductwork in the attic.
2. Installation of a new single chilled/hot water AHU (air handling/fan coil unit) in the Chatham Laundry basement, utilizing current floor registers for supply and return. The new unit will be placed on a stand in the basement area. Installation will include some additional ductwork in the basement area for proper operation, but will use existing vents and will not involve instruction upon existing or historic fabric.

3. New blown-in insulation will be placed over existing in the attic spaces of the Chatham Kitchen and Chatham Main to improve overall energy efficiency.

4. The heat pump system located at the Chatham Carriage House and Stable will be replaced with an in-kind unit. The old HVAC components will be replaced with new energy efficient components, utilizing the same locations and holes for line set, control wires, indoor coil and outdoor condensing unit.

Effect Analysis

While the installation of the air handling unit in the second-floor bathroom of the main house will require the cutting of fabric to vent the duct work into the attic, the fabric is plywood and not believed to be historic fabric. The single air handler in the bathroom will allow for the removal of the seven stand-alone units in the attic, which will remove the water use and collection currently in the attic. Elsewhere, the replacement of the HVAC systems for the Chatham Laundry, Chatham Kitchen and Chatham Carriage House and Stable will be simply replacement in-kind and will not call for any loss of structural or building fabric. It is park's opinion that the preferred alternative will have "no adverse effect" on the historic properties of Chatham.

Park Consultation

The proposal will be circulated to the park's Section-106 advisors for landscape architecture and historic architecture.

The proposal will go through a 30-day public comment and review period. During that time, the project will be placed on the NPS public PEPC website. The park will contact representatives of interested local organizations, such as the University of Mary Washington's Department of Historic Preservation, Stafford County, the Rappahannock Valley Civil War Round Table, the Central Virginia Battlefields Trust, the Friends of Chatham, and the Pamunkey Indian Tribe.

The project will go through a 30-day comment and review period with the Virginia SHPO.

Attached Supporting Documentation

- A. Park Map
- B. Photos

Conclusion

At important historic sites, the proposed undertaking would foster fulfillment of the park's General Management Plan directives to protect cultural resources. This project will have "no adverse effect" upon historic resources.

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