

**Fredericksburg and Spotsylvania National Military Park  
Installation of Magnetic Interior Storm Windows at Chatham Manor Complex**



*Chatham Manor*



*Chatham Manor Laundry Building*



*Chatham Manor Kitchen Building*



*Interior Window at Chatham Manor*



*Detail of Interior Window*

# Statement of Work

## INTRODUCTION

The work is to be performed within the Fredericksburg and Spotsylvania National Military Park, in the City of Fredericksburg, Virginia. All work will be performed at the Chatham Manor Complex located at 120 Chatham Lane, Fredericksburg, Virginia, 22405. Interior storm windows will be installed at Chatham Manor with an option for the Kitchen and Laundry buildings. Chatham Manor is a historic house built in the 1700's and is listed on the National Register of Historic Places. The Kitchen and Laundry Buildings were built in 1771 and currently serve as the park's administrative offices. The entire complex serves as a visitor center and park headquarters.

The Contractor shall note the historical significance of these structures at which the work will be performed. Because of the buildings historic nature, certain aspects of the work shall not be carried out with the materials and/or methods commonplace in the modern construction industry.

1. It is incumbent upon the Contractor to furnish mechanics who can and will execute first-class workmanship in the materials and methods specified, and who will take the necessary precautions to protect the elements of this historic structure not scheduled to receive Work under this Contract.
2. Due to the historical significance of the structure the Contractor shall take precautions to ensure that existing and historic materials are not damaged or destroyed during the course of the work.

## SCOPE

See Table on page 4 for quantities, dimension, locations, style, and glass type.

### Base Bid: Chatham Manor

Contractor shall provide fifty (50) operable, interior mounted, aluminum framed removable storm single-light and sash panels; magnetically secured and sealed at jambs, sill and head in aluminum or steel channels in Low-E Glass, and gray tinted laminated glass. Units shall be the full height of the existing window opening, removable units in two different styles and glass types:

1. Single/picture type glass panel and,
2. Stacked/two-light panels; top panel fixed; bottom panel operable in sash frame.
3. Storm windows shall be installed on the first and second floors of Chatham Manor.

### Option 1: Kitchen and Laundry Buildings

#### Kitchen Building

Contractor shall provide eleven (11) operable, interior mounted, aluminum framed removable storm single-light panels; magnetically secured and sealed at jambs, sill and head in aluminum or steel channels, in Low-E Glass. Units shall be the full height of the existing window opening. Storm windows will be installed on the first and second floors of the Kitchen building. Single-light/picture type glass panel.

#### Laundry Building

Contractor shall provide six (6) operable, interior mounted, aluminum framed removable storm single-light panels; magnetically secured and sealed at jambs, sill and head in aluminum or steel channels, in Low-E Glass. Units shall be the full height of the existing window opening. Storm windows will be installed on the first floor of the Laundry building. Single-light /picture type glass panel.

### **Painting, Patching, and Hardware**

Contractor shall remove all existing draft guards and loose debris. The contractor will fill holes, and apply a fresh coat of matching paint, which will be approved by the Contracting Officer Representative (COR). Work includes the window pulls which might need to be removed for proper interior storm installation and any additional window modifications to ensure the storm windows are properly installed. All window pulls shall be bagged and turned into the COR for storage.

Windows are of varying sizes and styles. Sizes noted are approximate and the Contractor must verify all dimensions and window count before placing a bid and fabricating. The contractor shall measure all openings prior to fabricating units.

### **Materials**

Composites: Aluminum shall be of commercial quality and free from defects impairing strength and durability. All straight extruded sections shall be of 6063-T5 alloy and tempered and shall have a minimum ultimate tensile strength of 22,000 PSI and yield of 16,000 PSI.

Window members: All sash members shall be of extruded aluminum with 3/8" x 1" dimension. All extrusions shall be of sufficient strength to perform as designed. All corner keys shall be of extruded aluminum. High energy form backed magnetic tape shall be applied to jamb rails of removal panels/assembly.

Fasteners: All screws and other fastening devices shall be zinc or cadmium plated or other non-corrosive metals compatible with aluminum.

Glass: Glass shall be Double Strength B Grade (1/8" minimum). Where required by applicable codes, thicker or tempered glass shall be used.

1. Type I Glass: Glass shall be Low E-Glass. Coating shall reduce UV light by a minimum of 40%, visible light by 80%, reflectance light 10% and provide the highest visible light and UV protection. Base bid 30 windows, Option 17 windows
2. Type II Glass: Glass shall be gray tinted laminated glass used in all six (6) exhibit rooms; Owner's Room, Foyer, Civil War Room, Corridor, Morning Room, and Auditorium located at Chatham Manor, for a total of 20 windows.

Weather Stripping: All units shall be weather stripped. Bottom rail of panel/assembly shall incorporate flexible "sill-seal" weather-stripping.

Hardware/Magnetic Seal: Head receptor to be extruded aluminum-channel with 1/2" x 5/8" with nominal wall thickness of not less than .046. The magnetic seal will be completed by using jamb stop alternatives, 1. Form-backed steel tape applied to the U-channel, 2. Foam-backed steel tape applied directly to prime window frame system, 3. Form-backed steel tape applied to aluminum angel, 4. Steel angel or channel.

All storm windows shall be furnished with all necessary hardware, fasteners, and miscellaneous equipment and meet the following requirements:

- All units shall be fabricated and installed in a manner that does not impede egress as required by applicable codes.
- Units operable to provide ventilation.
- Storm windows shall be custom manufactured to fit each window and painted the color of the existing window frames and approved by the COR.
- Ensure all exposed storm window members are clean and free from surface blemishes prior to installation.
- Ensure all window latches are easily accessible to lock, unlock, and open.

- Sash (s) shall be removal and equipped with a full bottom rail lift handle

**Execution**

Contractor shall provide all labor, equipment, materials and services as necessary to install new storm sash as required to meet the requirements herein, as recommended by the manufacturer and as required to meet applicable codes and standards and address existing conditions at the job site. Contract is responsible for making any necessary modifications to the existing windows. All changes must be approved by the COR before the execution of work.

1. Remove and salvage existing window treatment and hardware and prepare surfaces for storm window installation.
2. Prior to installation, all holes and existing blemishes shall be repaired and the entire interior trim shall be painted in the existing window frame color. The hardware and window treatment shall be collected, organized, and returned to COR.
3. Contractor shall thoroughly clean all existing and new windows prior to installation and all new windows prior to final acceptance.
4. Windows shall be securely fastened in place to a straight, plumb, and level condition without distortion of the windows.
5. Make final adjustments for proper operation in accordance with manufacturer's instruction. Contractor will prepare surfaces using the methods recommended by the manufacturer for achieving the best result for the substrate under the project conditions.

## Chatham Windows

### Base Bid: Chatham Manor, first floor, 32 Magnetic Interior Storm Windows, Custom Color, Total of 50 windows

Window Style	Window Size (Approximately)	Interior Storm Window Style and Glass type	Location	Quantity
Double Hung	44x74	<ul style="list-style-type: none"> <li>Single-light/picture style</li> <li>Low-E glass</li> </ul>	First floor	12
Double Hung	44x74	<ul style="list-style-type: none"> <li>Single-light/picture style</li> <li>Gray tinted laminated glass.</li> <li>Exhibits rooms only.</li> </ul>	First floor Floor/Exhibit Rooms <ul style="list-style-type: none"> <li>Owners Room</li> <li>Foyer</li> <li>Civil War Room</li> <li>Corridor</li> <li>Morning Room</li> <li>Auditorium</li> </ul>	20

### Base Bid: Chatham Manor, second floor, 18 Magnetic Interior Storm Windows, Custom Color

Window Style	Window Size (Approximately)	Interior Storm Window Style and Glass type	Location	Quantity
Double Hung	42x63	<ul style="list-style-type: none"> <li>Single-light/stacked removal lower sash</li> <li>Low-E glass</li> </ul>	Second floor	4
	45x74	<ul style="list-style-type: none"> <li>Single-light/stacked removal lower sash</li> <li>Low-E glass</li> </ul>	Second floor	14

### Option 1: Chatham Kitchen, first and second floors, 11 Magnetic Interior Storm Windows, Custom Color

Window Style	Window Size (Approximately)	Interior Storm Window Style and Glass type	Location	Quantity
Double Hung	32x54	<ul style="list-style-type: none"> <li>Single-light/picture style</li> <li>Low-E Glass</li> </ul>	Second floor	3
	32 x 72	<ul style="list-style-type: none"> <li>Single-light/picture style</li> <li>Low-E Glass</li> </ul>	First floor	4
Casement	18x18	Single-light/picture style Low-E Glass	Second floor	4

### Option 1: Chatham Laundry, first floor, 6 Magnetic Interior Storm Windows, Custom Color

Window Style	Window Size (Approximately)	Interior Storm Window Style and Glass type	Location	Quantity
Double Hung	36 x 75	<ul style="list-style-type: none"> <li>Single-light/picture style</li> <li>Low-E Glass</li> </ul>	First floor	4
	36 x 80	<ul style="list-style-type: none"> <li>Single-light/picture style</li> <li>Low-E Glass</li> </ul>	First floor	1
	32 x 38	<ul style="list-style-type: none"> <li>Single-light/picture style</li> </ul>	First floor	1

\*Total Window Count for base and option= 67 windows

## **SUBMITTALS**

Submit manufacturer's product literature illustrating all components, listing all materials, and demonstrating compliance with applicable standards.

If products to be supplied are not the standard products of a manufacturer and/or are custom fabricated, the Contractor shall provide shop-drawings illustrating the following:

1. Scale as necessary to clearly convey all information.
2. Illustrate sizes, dimensions, profiles, and materials.

Submit samples of paint/finish colors to demonstrate a match with existing. Contractor shall submit as many samples as necessary to match existing. The COR will make the final determination as to match.

Submittals shall be provided in a timely manner in order for the Government to review and approve them prior to commencing work.

## **FIELD VERIFICATION**

Contractor must field verify all quantities, dimensions, and hazards affecting the work of this contract before placing a bid.

## **CONTRACTOR'S USE OF PREMISES**

1. Work Hours: 9am-4pm, Monday-Friday, except holidays.
2. No on-site work shall be performed on weekends and federal holidays unless otherwise directed by the COR.
3. Noise at the work site shall be kept to the minimum necessary to accomplish the work. Radios and/or music are not allowed.
4. Smoking is not allowed in government buildings and within 25 feet from door or window opening.
5. Contractor shall at all times conduct operations to ensure the least inconvenience to the public.
6. Establishment of a construction camp within the park shall not be permitted.
7. Contractor shall confine storage of equipment and supplies to areas designated by the COR.
8. Contractor shall confine all operations to work limits of the project in order to prevent damage to architectural features and natural surroundings. If damage does occur, Contractor shall restore damaged areas to original condition at no additional expense to the Government.

## **HAULING**

Contractor shall comply with all legal load restrictions in the hauling of debris materials. Load restrictions on park roads are identical to the state load restrictions with such additional regulations as may be imposed by the Park Superintendent

## **PERMITS**

Any and all permits required to do the described work shall be obtained by the Contractor.

## **DELIVERY, STORAGE, AND HANDLING**

Deliver, store, and handle materials as required to prevent damage and as recommended by manufacturer.

## **MEETINGS**

***Pre-Work Conference*** – Before the start of the above described work, the Contracting Officer will arrange an on-site meeting with the Contractor and the COR. The meeting agenda will include the following as a minimum:

1. Correspondence procedures
2. Designation of responsible personnel
3. Labor standards provisions
4. Contract changes
5. Payments to Contractor
6. Role of subcontractors
7. National Park Service regulations
8. Accident prevention (including designation of responsible supervisor)
9. Accident reporting procedures
10. Documents required under the contract
11. Weekend, holiday, and night work
12. Tentative work schedule
13. Project close-out requirements

***Progress Meetings*** – Subcontractors will not be allowed to work until they have attended a meeting. Additional meetings will be held as needed or for new subcontractors.

### **ACCIDENT PREVENTION**

The Contractor is expected to ensure a safe environment for all personnel and visitors, and shall comply with all applicable sections of the Occupational Safety and Health Act (OSHA). In case of conflicts between federal, state, and local safety and health requirements, the most stringent shall apply. Equipment or tools not meeting OSHA requirements will not be allowed on the project sites.

Contractor must meet the requirements of The National Institute for Occupational Safety and Health (NIOSH) and Mine Safety and Health Administration (MSHA) for personal protective equipment.

Contractor must have a first-aid kit available at the work site.

The Contractor shall report all accidents to the COR as soon as possible and assist the COR and other officials, as required, in the investigation of the accident.

### **QUALITY ASSURANCE**

The Contractor shall inspect work to ensure compliance with contract requirements until completion of work. A daily work log shall be kept on site at all times.

The Contractor shall stop work on any item or feature where potential damage to a facility or cultural resource are noted by the Contractor or the COR, until such deficiencies have been corrected to the satisfaction of the COR.

## **WARRANTY AND-ADJUSTMENT FOR INADEQUATE PERFORMANCE**

Contractor shall provide a 1 year warranty against faulty materials, paint, and workmanship.

It is mutually agreed that failure to satisfactorily accomplish work in accordance with the specifications and provisions stated herein when due to the fault of the contractor, shall constitute a deficiency under this contract. All work will be regularly inspected by the COR and any deficiencies will be reported in writing to the contractor. Corrective action by the contractor shall be taken promptly and the work satisfactorily completed. If deficiencies are not corrected satisfactorily in a timely manner, the work will not be accepted for payment and/or a monetary deduction will be made.

## **HOUSEKEEPING**

The Contractor shall:

- Keep the project neat, orderly, and in a safe condition at all times.
- Provide enough containers for collecting debris and locate as directed by the COR.

## **DISPOSAL**

The Contractor shall:

- Immediately remove rubbish from the project site daily.
- Not burn or bury refuse inside the park.

Unless otherwise specified, all removed material becomes the property of the Contractor and shall be disposed of outside the park.

## **AIR AND WATER POLLUTION CONTROL**

The Contractor shall:

- Take all necessary reasonable measures to reduce air and water pollution by any material or equipment used in the performance of his duties.
- Not dispose of volatile wastes or oils in storm or sanitary drains.

## **PROJECT CLOSEOUT**

The Contractor shall request in writing a final inspection. The COR will make an inspection within 10 days of receipt of request. Before requesting the final inspection, the Contractor shall remove all tools, equipment, and rubbish, and restore to original condition surfaces or structures that are damaged due to work of this contract. At the time of final inspection, the project shall be complete.

When work is determined to be substantially complete, the COR will prepare a list of deficiencies to be corrected before final acceptance and issue a Letter of Substantial Completion. The Contractor shall complete the work described on the list of deficiencies within 60 calendar days, weather permitting. If the Contractor fails to complete the work within this time frame, the Contracting Officer may replace, repair, or remedy the work with an appropriate reduction in the contract price.

If work is not determined to be substantially complete, Contracting Officer will notify Contractor in writing. After completing work, Contractor shall resubmit certification and request a new final inspection.

After all deficiencies have been corrected, a Letter of Acceptance will be issued.