Canterbury Historic District Commission

P0 Box 500
Canterbury, New Hampshire 03224

Application for Certificate of Approval

Please see the Historic District ordinance for purpose, criteria and procedure. The HDC will render a decision on your application within ten days of the public hearing.

Property Address 288 SHAKER RD - MEETING HOUSE Map# 228 Lot# 7

Property Owner CANTERBURY SHAKER VILLAGE
Address 288 SHAKER RD
CANTERBURY NH 03224
Phone (603) 783-9511 x201

Applicant's Name ERIN HAMMERSTEDT
Address SAME
Phone (814) 571-2444

Type of Project

		Fees
____	New Construction	$100
____	Addition to existing Building	$100
____	Accessory Building	$100
✓	Repair to an existing affecting exterior features	$50
____	Demolition of an existing building	$50
____	Construction or removal of fences or stone walls	$50
____	Change in Natural Features	$50
____	Solar Panels rooftop or ground mount	$50
____	Work in proximity to a known archeological site	$50

Please provide a brief description of project:
(Use back of application if needed)
RESTORATION OF WINDOWS -- OFF SITE BY CONTRACTOR ARCH WEATHERS. SEE ATTACHED FOR DETAILS. REQUESTING WAIVER OF PUBLIC HEARING, PLEASE

Abutters *Include Owner/ Agent

Name	Address	Map&Lot	Fee $10per

Please write application fee payable to: Town of Canterbury
Applicants Signature _____ Date 7/6/25

ARCH WEATHERS
HISTORIC SASHWORKS
– Restoring the Past –

ARCH WEATHERS
603-748-5984
historicsashworks@gmail.com
HistoricSashworks.com

PROPOSAL

PROPOSAL SUBMITTED TO	DATE	EMAIL
CANTERBURY SHAKER VILLAGE	05/01/2025	tmuffoletto@shakers.org
ADDRESS, CITY, STATE	JOB LOCATION	
288 SHAKER ROAD CANTERBURY, NH	SHAKER MEETING HOUSE	

The following procedures and specifications for the restoration of the window sashes in the 1792 Canterbury Meeting House were compiled from notes taken October 9, 2024 during a walk-through with Todd Muffoletto, Senior Facilities Director, Dr. James Garvin, Historian and Preservation Consultant, and Kyle Sandler, Director of Interpretation and Education. I have also incorporated suggestions from Dr. Garvin's "Meeting House Windows: Conservation Specifications" paper attributing its significant status to its unaltered state of architectural integrity. Conserving the original features of the window sashes is critical as these features appear to be "unique to early Shaker design and function".

SCOPE OF WORK

There are a total of 33 windows of the following configurations: (11) 6/6 single hung, (6) 12/8 single hung, (16) 12/12 single hung. This proposal will incorporate and be guided by the *Standards for Historic Preservation of Buildings* as set forth by the Secretary of Interior (please refer to Jim Garvin's paper for a thorough description and explanation of the sash design variations from floor to floor). The Restorationist's challenge will be to understand the extent to which restoration techniques may be applied without harming the original features of the sashes, in particular the interior surfaces, and produce an aesthetically pleasing and structurally sound result.

RESTORATION/REPAIRS

EXTERIOR:

- worn and damaged glazing bars will be replaced with old growth EWP strips in situations where to leave the original would make glazing impossible.
- repair mortise/tenon joints where compromised. Remove all decayed wood, treat with consolidant, fill with Abatron epoxy, sand and paint.

- remove lites, label, clean and store
- remove old glazing, treat all surfaces with a wood preservative
- carefully remove any flaking paint; prep with minimal sanding then paint all bare surfaces with Old Village #1236 Exterior White Primer.
- bed and glaze lites with Sarco linseed-oil based glazing putty (note: use of glazing points may not be applicable due to the narrow glazing rabbets where present)
- Finish coat: We will use Old Village Pure White modified with Old Village Colonial White in a 31/1 mixture to mimic the original tint. The technique we will use for blending into the existing painted surfaces will be to apply as full a coat as possible on bare areas and less paint as brush strokes blend into old existing paint. Some areas may need one coat over the sealer; other areas may need two coats.

Texturing: Since the original paint has shrunk and alligatored over time (typical of lead-based paint), the surface texture would be hard to duplicate. Keeping the appearance of the touched up areas distinct from the old worn paint is perhaps the best option; however if brush application of the Old Village mixture is done in short strokes and/or using a 'daubing' technique some texture will result.

Dry rubbing: Before the final paint is dry but not fully cured, small amounts of stove black powder and buff titanium may be applied with soft brush to areas that have not fully blended with the old paint, especially where the old paint shows embedded dirt or yellowing.

INTERIOR:

Paint Formulations:

The goal is to achieve a suitable white paint, sheen and texture for the interior sides. Existing white paint is to be closely matched with materials that might have been available to the Shakers at the time the Meeting House was built. Gary Wood from the Enfield Shaker Museum has suggested the following formulations and offers the following notes:
1) Bin shellac based sealer, and 2) Tried and True Varnish Oil.

Primer: A small range of natural resins, including shellac, were possibly used by the Shakers for sealing purposes. Bin was chosen in this instance because of its shellac base and excellent sealing properties. Because of the high percentage of bright white pigment in the modern Shellac, it will be necessary to add a small amount of universal tinting color to lessen its intensity. The Tried and True Varnish oil was chosen for a topcoat over the shellac primer because it contains two ingredients that may have been used at the time when the Meetinghouse was built, specifically linseed oil and pine resin. Gum turpentine (English distilled) is added to the above mixture with a ratio of 3 parts Tried and True to 1 part turpentine to reduce viscosity. To this is added chalk whiting and titanium white powder in equal amounts.

Finish coat - same as exterior formulation

PROCEDURE:

- clean all surfaces with mild soap and water (Murphy's Oil Soap)
- gently wire brush muntin profiles to dislodge loose or flaking paint
- apply primer as detailed above
- apply finish coats as detailed above

We anticipate work commencing summer of 2025 and continuing uninterrupted until completion.

PRICING AND TERMS

Cost per window:

12/12	$2,190.00
12/8	$1,838.00
6/6	$1,352.00
TOTAL	$60,940.00

Note: cost for removal and install is not included; ongoing discussion as to best use of everyone's time still on-going.

Deposit: $30,470.00

Proposal terms and pricing authorized if signed and returned within 10 days of receipt. The signed proposal will constitute an enforceable contract; a deposit of 50% of total will be due with signed Proposal, balance due upon job completion. Any subsequent changes or modifications involving additional work not specified in this Proposal will be brought to the attention of Client and will require a Work Change order to be signed by both parties. *AWHSW will provide proof of insurance upon request.*

Workmanship and materials guaranteed

Acceptance of Proposal - The above prices, specifications and conditions are hereby accepted. You are authorized to do the work as specified. Payment will be made as outlined above.

Customer signature:_____DATE:_____

Arch Weathers for AWHSW - 05/01/2025

CANTERBURY SHAKER VILLAGE MEETING HOUSE WINDOWS: CONSERVATION SPECIFICATIONS

CANTERBURY
Shaker Village

These specifications address the conservation of the window sashes of the 1792 Meeting House at Canterbury Shaker Village, Canterbury, New Hampshire, the oldest Shaker meeting house to survive with full architectural integrity. Canterbury Shaker Village is a National Historic Landmark and work on its building exteriors is subject to museum standards and approval by the New Hampshire Division of Historical Resources (the State Historic Preservation Office).

Purpose

1. The purpose of this work is to conserve the window sashes of the Meeting House, which is the single most significant and little-altered structure at Canterbury Shaker Village. As described below, the existing window sashes of this building vary in style and character according to the various times when they were installed. As they stand today, these windows help to chronicle the evolution and changing uses of this iconic building.

   The level of work described in these specifications is focused more on examination and gentle conservation of the sashes than on robust restoration for daily use. The main focus will be on the treatment of the exterior surfaces of the sashes and the protection of the wood from weather and moisture. The interiors will be left largely as they are found.

   As shown on the following pages, the Meeting House windows exhibit features that appear to be unique to early Shaker design and function and that may not be duplicated in any other group of windows that have been identified and studied thus far. For this reason, the work described in these specifications will be partially exploratory in nature, with the purpose of identifying, understanding, preserving, and perhaps in some cases reproducing Shaker design features.

Painting

2. The main emphasis of this work is to protect the exterior surfaces of the sashes and glass against weather. The interior surfaces shall be left as found, except for light cleaning, to preserve all remaining evidence of the paint history.

3. The exterior surfaces of the sashes shall be dry-scraped with a sharp scraper to remove all loose paint and dirt. and lightly sanded while carefully protecting the wood from scoring or gouging. Following the removal of all old putty and re-puttying (described below), the exterior surfaces shall be fully painted with an oil-based exterior paint primer, carefully covering the new putty but leaving the sides of the stiles unpainted. The primer shall be followed by a coat of oil-based exterior house paint.

4. Care shall be taken to clean all old paint from the glass and to apply new paint so that it fully covers the putty and barely touches the glass to seal against water infiltration.

Treatment of the Sashes

5. The photographs and drawings on the following pages show the general condition of the sashes in four locations in the building. Window details differ from area to area. The differences must be preserved during treatment of the sashes.

6. The stiles of many of the upper (top) Meeting House sashes have added fillets along their outer edges, or are notched, to provide seats for springs that allow the top sashes to be partially lowered for ventilation. These features shall be carefully preserved without change and cleaned to facilitate their operation as originally intended.

7. The jambs adjacent to top sashes have what appear to be wooden springs to engage with the notches in the stiles of the sash. These features shall be carefully preserved and restored to their original operation to the degree possible.

8. Many lower sashes or their jambs have added window springs or spring bolts to hold the sashes in semi-opened positions. This hardware, and any other added hardware, shall be preserved in place, cleaned, and restored to its intended operation if possible.

9. The glass in all sashes is highly significant. Some is crown glass, which may have a convex curved surface, unequal thickness of glass from one area of the pane to another, and greater fragility than modern cylinder or float glass. These specifications emphasize the preservation of every pane of glass that can be preserved.

10. In removing old putty/glazing compound and paint, the contractor shall try to expose the face of the glass and the edge wood of the muntin and re-glaze each light of glass with as full and tight a bead of putty as possible. It should be expected that the tongue of the muntin will not project as high above the surface of the glass as in a more modern sash.

11. Because of the emphasis on saving all possible glass, the panes shall not be removed from the sash unless they are found to be loose in the rabbet [rebate]. In such cases, the contractor shall clean the rabbet to bare wood and apply linseed oil and bedding putty before replacing the glass in the sash.

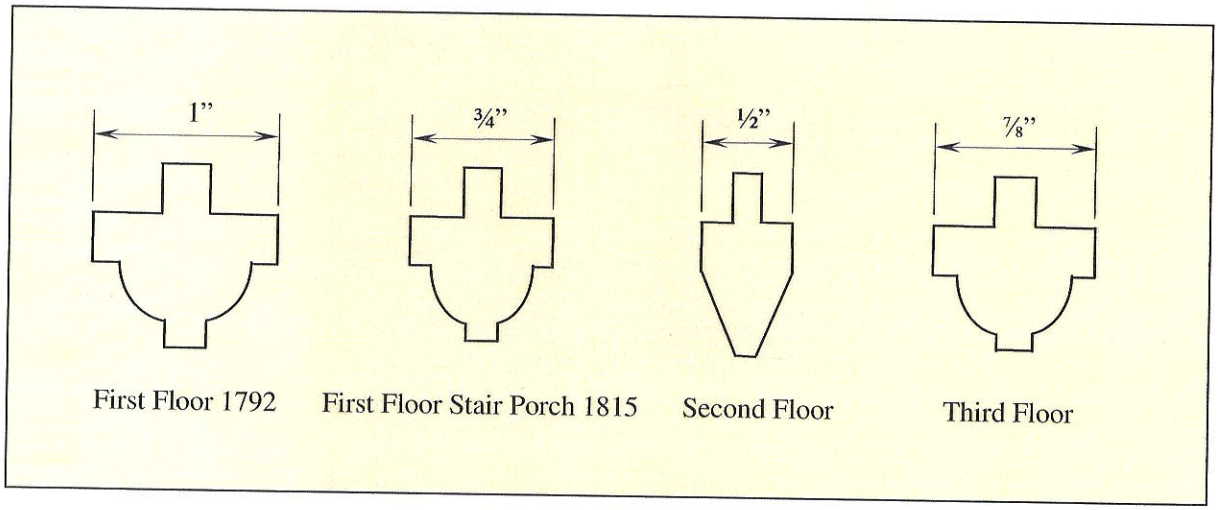
12. If the tongue of the muntin is high and strong enough, the contractor may use glazier's points to secure the glass in the rebate before glazing compound is applied.

13. Old putty/glazing compound shall be removed with care, using hand tools. The use of heat to soften the putty is discouraged. If used, the heating source shall be carefully controlled and the adjacent glass shall be protected from heat with a non-flammable, insulating, reflective cover.

References:

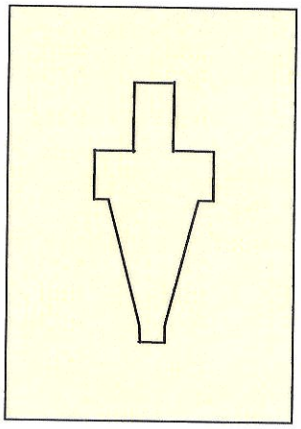
Jordan, Steve. *The Window Sash Bible* (Rochester, N.Y.: by the author, 2015).

Myers, John H. *Preservation Brief 9: The Repair of Historic Wooden Windows* (National Park Service, 1981).



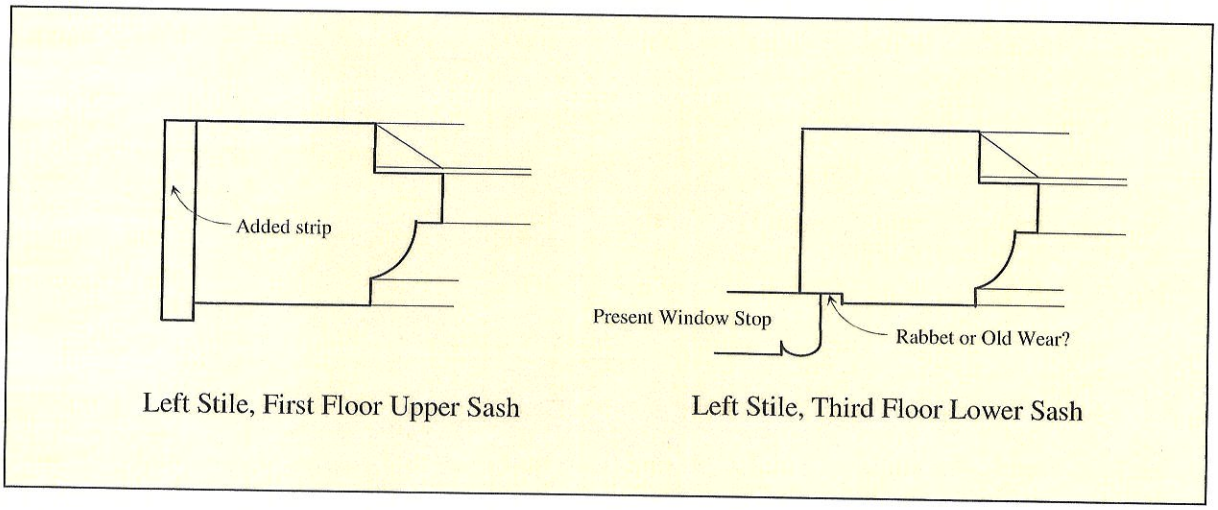
As seen above, the sash designs vary from floor to floor. On the first story, the window that lights the rear stairhall, added to the Meeting House in 1815, has a narrower muntin than those of the windows of the original building. This narrower width reflects the incoming style of the early 1800s, when the standard muntin profile was noticeably narrower than the profile of the 1700s.

The muntin profile seen on the second story is highly unusual and does not reflect any common profile of the nineteenth century. The profile is, however, reminiscent of (but much simpler than) one muntin style that is fairly common during the period from about 1835 to about 1860, as shown at the right.



It is presently unknown why and when the sashes on the second story were changed, and why such a simple and unusual muntin profile was chosen.

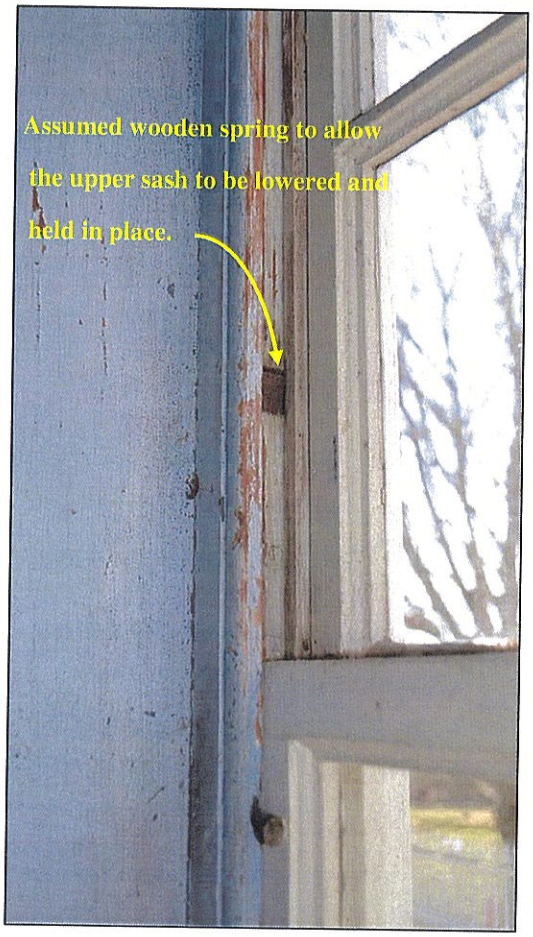
As shown on the following pages, the windows of the Canterbury Meeting House display several additional anomalies, which are not yet understood. This window conservation project is unusual in that it is partly investigatory in nature. Depending on conclusions reached during the investigation, some aspects of the specified work may need to be altered, or additional tasks may need to be added to replace missing window components.



Left Stile, First Floor Upper Sash

Left Stile, Third Floor Lower Sash

As seen above, certain unusual features of some windows are difficult to interpret before sashes are removed from their frames. Some of these features are shown in the photographs below.

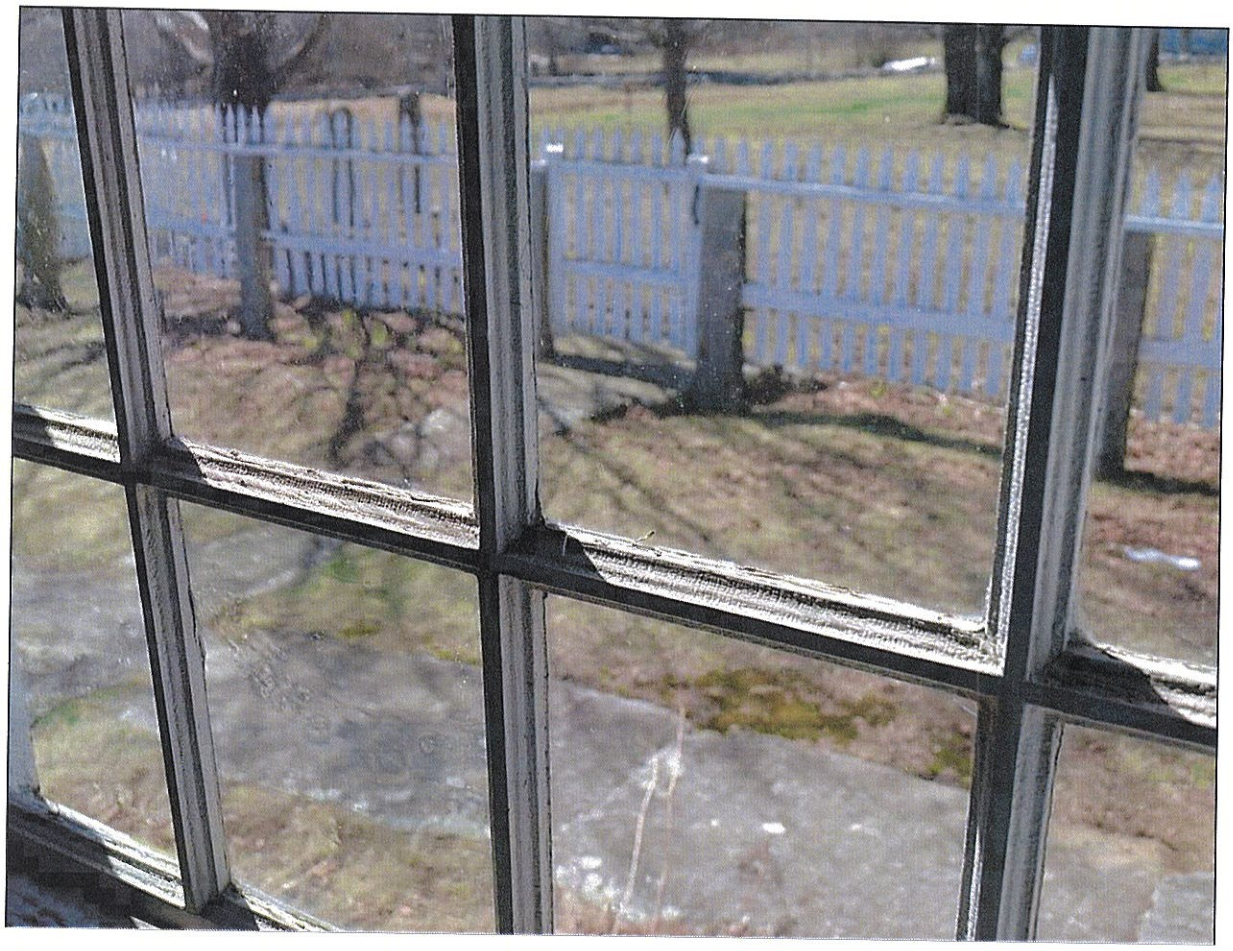


The photograph at the left shows the left sash stile of the upper sash in a typical window of the first floor of the Meeting House. The left-hand drawing above shows the same detail.

The function of what appears to be a strip added to the edge of the stile in presently unclear, but it is assumed that the strip engages with a wooden spring that allows the upper sash to be lowered and held in place.

The lower sash was later fitted with a window spring of a common mid-nineteenth-century type. Added hardware like this shall be left in place to document changing window technologies.

Detail of the meeting rail of a lower sash on the south end of the third floor, as seen in the right-hand drawing on the preceding page. The shallow rabbet in the stile does not match the width of the existing window stop. Other windows on this floor should be examined for further evidence of original window stops or of possible other explanations of the shallow rabbet.



Detail, first floor window sash. Because the paint color history of the Canterbury Meeting House represents a significant aspect of Shaker religious symbolism, it is important to preserve all surviving paint evidence on all sashes of the building.

As seen in the photograph on the previous page, the sashes on the third story have been heavily stripped of their interior paint. Despite the unsightly condition of these windows, the contractor shall leave the paint evidence intact as it survives.