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HISTORIC STRUCTURES REPORT:
PHYSICAL FABRIC SECTION

THE CHARLES SWEENEY CABIN
APPOMATTOX COURT HOUSE
NATIONAL HISTORICAL PARK
APPOMATTOX, VIRGINIA

by
REED L. ENGLE
January, 1988

UNITED STATES DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE
MID-ATLANTIC REGION

Harold Sperry
Approved, Regional Director



United States Department of the Interior

NATIONAL PARK SERVICE

P.O. BOX 37127

WASHINGTON, D.C. 20013-7127

IN REPLY REFER TO:

H34(418)

DEC 4 1987

Memorandum

To: Regional Director, Mid-Atlantic Region

From: Associate Director, Cultural Resources

Subject: Review of Three Components of the Charles Sweeney House, Historic Structure Report, Appomattox Court House National Historical Park

Acting Regional Chief Historical Architect Reed Engle of your staff has forwarded draft copies of the subject report to my office for review and comment.

Assistant Chief Historical Architect Biallas and Chief Historian Bearss of my staff have read the report and find the Introduction, Fabric Analysis, and Discussion sections comprehensive and well researched, and more than meeting Service guidelines and standards. The absence of components focusing on the physical and documentary history of the Charles Sweeney House and an administrative component has been noted. When completed, draft copies of these components must be forwarded for review and comment.

The strategy outlined in the Discussion component for the preservation/restoration of the Sweeney House is appropriate, as is the recommendation for removal of the additions.

In the margins of the draft, herewith returned, we have identified a few editorial concerns.

Attachment

I. ADMINISTRATIVE DATA SECTION

A. VITAL STRUCTURAL DATA

Title: Charles Sweeney Cabin

L.C.S. Number: 80,016 7A3

Location: Appomattox Court House National Historical Park
Appomattox, Virginia

Treatment: Restoration/Interpretation

Period: c. 1840

Order of Significance: The structure is of national significance because it played a significant role in the surrender events. It is additionally of architectural significance as it represents a fine example of the vernacular one story and loft "hall" type cabin once common in rural Virginia, but becoming increasingly rare due to enlargement, "modernization," or abandonment. The high degree of integrity of the cabin's fabric adds to the architectural significance of the structure.

B. PROPOSED SCOPE OF WORK ON THE STRUCTURE

It is proposed that all decayed or deterioration original fabric be replaced in-kind. Furthermore, it is recommended that the missing original roofing, foundation piers, and miscellaneous millwork be restored. All modern fabric will be removed.

All work will be completed by the Williamsport Preservation Training Center under the supervision of the MARO Regional Historical Architect. Funding for the project will be from 1988 and 1989 cultural cyclic maintenance budgets.

C. PROVISION FOR OPERATING THE STRUCTURE

The building will be maintained by the park's maintenance staff as part of the regular cyclic maintenance program. Exterior interpretation will be part of regular park programs. Interior interpretation will await funding and the creation of exhibits; the building will not be furnished as a house museum.

D. ANNOTATION OF ALL RELATED DOCUMENTS

Cauble, Frank P., "Documented Report on the Appomattox Court House Building at Appomattox Court House National Historical Park," Appomattox Court House National Historical Park history files (Hereafter cited as A.C.H.N.H.P. Files), 1959.

Cauble, Frank P., "Historical Data on the Richmond-Lynchburg Stage Road in the Vicinity of the Village of Appomattox Court House, 1860-1865," A.C.H.N.H.P. Files, Typescripts 1962.

Fiero, Kathleen, "A Preliminary Report of 1977 Archeological Research, Appomattox Court House National Historical Park," A.C.H.N.H.P. Files, Typescript 1978. (Includes photographs of archeological investigations).

Fiero, Kathleen, "Final Report, Archeological Research-Historic Roads, Mariah Wright House Outbuildings," A.C.H.N.H.P. Files, April 1983. (Includes illustrations and maps).

Gurney, Hubert A., "A Brief History of Appomattox Court House National Historical Park," A.C.H.N.H.P. Files, Typescript 1953.

General Management Plan, Appomattox Court House National Historical Park, Virginia, September 1977.

Interpretative Prospectus, Appomattox Court House National Historical Park, approved November 6, 1973.

Land Protection Plan, Appomattox Court House National Historical Park, February, 1984.

Resource Management Plan, Appomattox Court House National Historical Park, June, 1984.

Seale, William, "Historic Furnishings Report and Plan, Appomattox Court House National Historical Park, Appomattox, Virginia: McLean House, Kitchen, and Slave Quarters; Clover Hill Tavern; Plunkett-Meeks Store; Kelly House." Prepared under contract with Harpers Ferry Center, National Park Service, 1984.

Statement for Management, Appomattox Court House National Historical Park, revised in 1984, approved, January, 1985.

Unrau, Harlan D. Historic Structure Report, Historical Data Section, The "Sweeney Prizery," A.C.H.N.H.P. Files, June, 1980.

Interpretative Prospectus, Appomattox Court House National Historical Park, February 28, 1986.

II. INTRODUCTION

The Charles Sweeney House and the 26.5 acres upon which it stands were purchased from J.A. Sweeney in 1980 and are owned by the government with a life tenancy restriction for Lelia Sweeney who lives in the small modern house adjacent to the Charles Sweeney building. The property was purchased by the government because "the ... cabin played a significant role in the surrender events and should ... be restored and utilized in the interpretive program (GMP, p. 119)." The Sweeney cabin was "moth-balled" in 1981, but the deterioration of the additions and visible movement in the sill plates of the original cabin required fabric investigation during the summer of 1987. The results of that research are included in this report.

The house is a one story and loft "hall" type cabin typical of vernacular settlement structures in rural Virginia. Although once common, the type is fast disappearing due to both abandonment and to extensive alteration and modernization. The Sweeney House, although badly decayed because of long neglect and insect damage, retains virtually all of its original fabric under 1940s additions. This alone makes the structure worthy of preservation. But its association with the surrender (Illustrations #1 and #2), ~~makes~~ the retention of the cabin mandatory.

APPOMATTOX COURT HOUSE

From Surveys
under the direction of Bvt. Brig. Gen. N. MICHLER, Maj. of Engineers
By Command of
Bvt. Maj. Gen. A. A. HUMPHREYS, Brig. Gen. & Chief of Engineers
1867.

Scale of 3 inches to 1 Mile.

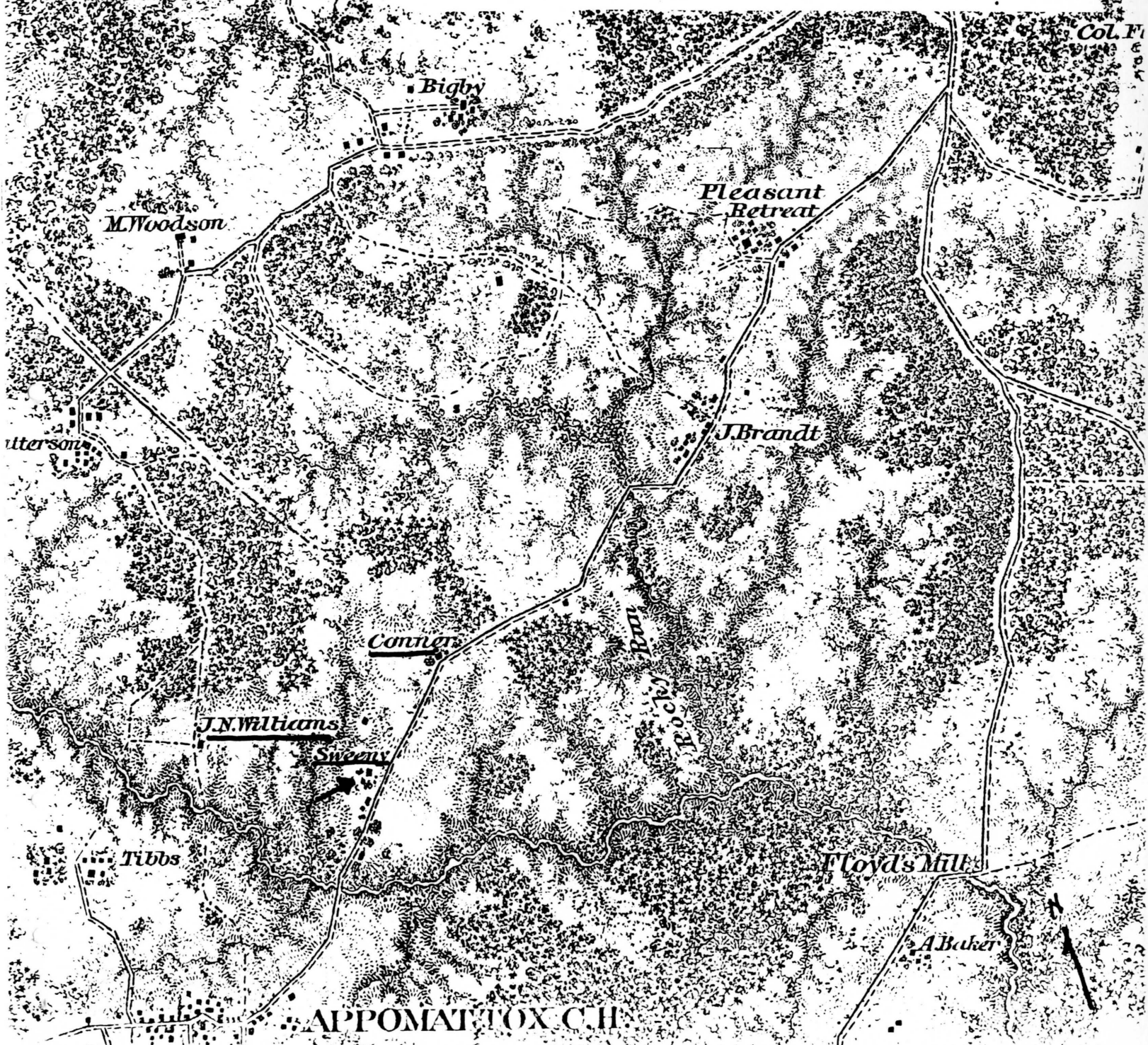


ILLUSTRATION #1 A Portion of the 1867 Humphreys' Map Of Appomattox Court House Showing the Location of the Charles Sweeney Cabin



ILLUSTRATION #2 : A Portion of the watercolor "Apple Tree of Appomattox" by George Frankenstein, ca. 1865. The Charles Sweeney cabin and another outbuilding are shown at the right.



PHOTOGRAPH 1
SOUTH ELEVATION OF
ORIGINAL CABIN AND
THE EAST WING.



PHOTOGRAPH 2
SOUTH AND WEST
ELEVATION OF THE
ORIGINAL CABIN AND
EAST WING.

III. FABRIC ANALYSIS

The Chimney

The west elevation chimney is 65" wide (north/south) and 51" deep at its base. The depth is reduced to 41"-42" upward from the top of the sill plates, i.e. 34" above grade on the south elevation, and 10" on the north elevation of the chimney. The west elevation sills, 9" by 11 1/2" deep, are set into 6" deep recesses in the chimney. The portion of the chimney (14'11" on the north elevation and 16'2" on the south due to the slope of the adjacent grade) is made of roughly squared and coursed field stone with long quoins at the corners. Above the level top of the stone masonry, six courses of brick corbel inward in 2" steps to reduce the width of the brick chimney above the corbelling to 37". Although the exterior (western) face of the stone and brick portions of the chimney remain flush for the full height of the chimney (excepting the drip edge at the top), the corbelling also reduces the depth of the chimney by 7"-8". The corbelling originates just above the original fireplace opening on the second floor, and the outward corbelled steps reduce the depth of the chimney above this point to 34" thereby provide a 3"-4" air-space (a firestop) between the remaining upper portion of the chimney and the siding on the west gable of the cabin.

The 7'3" upper chimney shaft is composed of 27 courses of brick. The upper 8 courses, those above the ridge of the cabin, are modern. The third and fourth courses down from the top project outward 1 1/2" to form a drip cap.

Exterior Siding

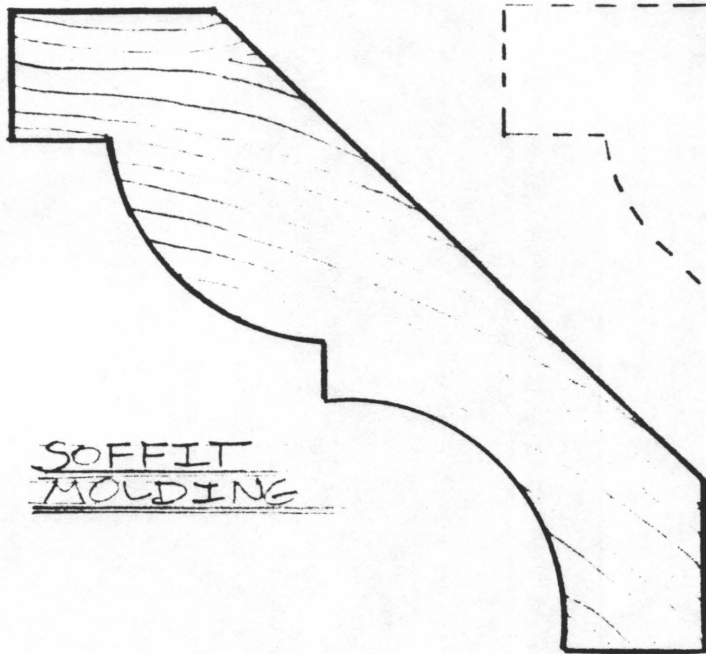
All of the siding on the original cabin is pine, 5/8" thick, non-tapered, and incorporating a 5/8" bead on its lower edge. The siding on the south elevation is 7 3/4" wide and has random exposures of between 4 1/2"--5 1/2". The siding on the west, north, and east elevations is narrower (6 1/2"--7"), and the exposure of 5"--5 1/2" is slightly more regular. All of the siding is held with cut nails.

The corners of the building are finished with nicely detailed corner boards. The siding on the gable ends is stopped by a simple 1" by 2 1/4" pine board. The north and south elevation siding, however, is trimmed with a 1" by 3" pine board that has a 5/8" three quarter round at the corner of its exterior faces. This corner board laps over the adjacent plainer board in every case (See Illustration 3).

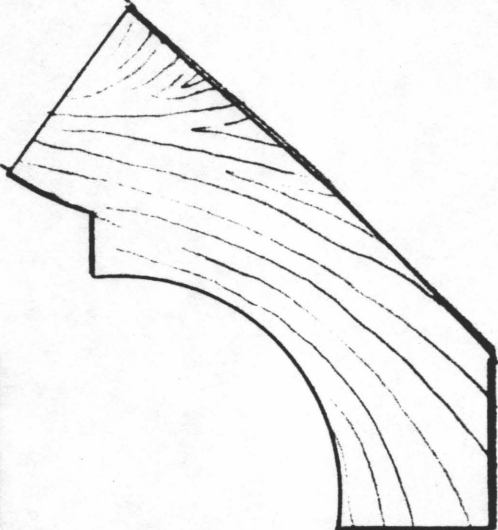
Box Cornice

The north and south elevations support box cornices that enclose the second floor joists and end girts, and the false plate on which the rafters bear. The soffit of the cornice is formed from a 1" by 9" pine board that stops short of the first floor studs by 1" to allow space for the insertion of the uppermost course of siding. The joint between the siding and soffit is covered with a large cavetto with fillet (See Illustrations 3 and 4).

The ends of the floor joists are covered by a 1" by 8 1/2" face board which extends 1/2" below the soffit and is bevelled inward and upward to form a drip. The gap between the roof sheathing and the fascia is



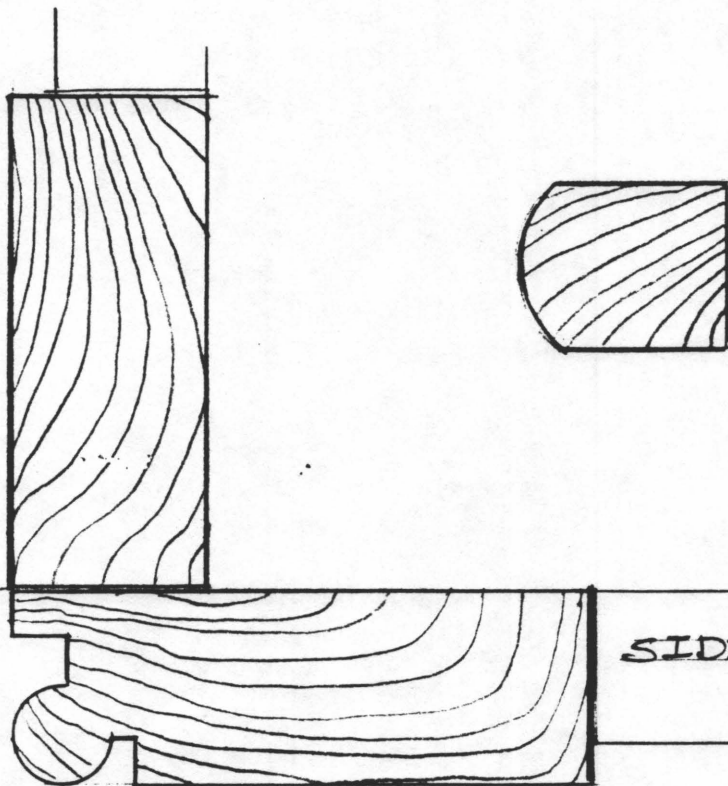
SOFFIT
MOLDING



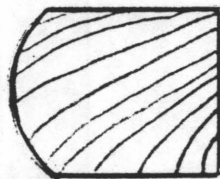
CORNICE
MOLDING



ORIGINAL
MUNTIN



CORNER BOARDS



STAIRCASE STRINGER
& NOSING TRIM

ALL MOLDINGS
SHOWN FULL SIZE

SIDING

ILLUSTRATION #3: MOLDING DETAILS

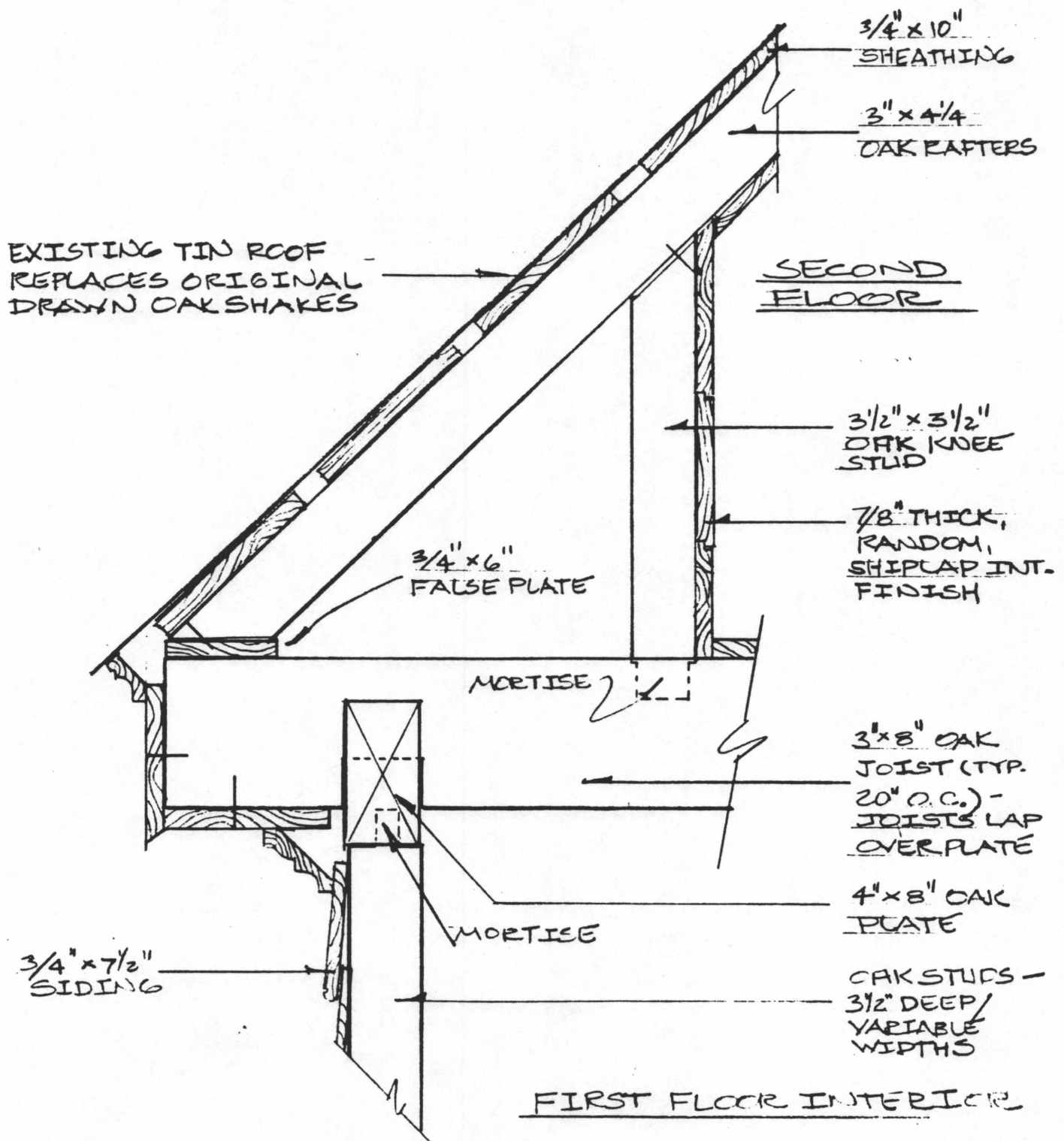


ILLUSTRATION # 4

SECTION-ORIGINAL CABIN CORNICE

SCALE: 1 1/2" = 1'0"



PHOTOGRAPH 3
WEST ELEVATION OF THE ORIGINAL
CABIN SOUTH OF THE CHIMNEY.



PHOTOGRAPH 4
SOUTH ELEVATION OF THE ORIGINAL
CABIN CHIMNEY.

covered with a crudely planed down cyma-reversa that may have been complete when the building was covered with the original 18" drawn oak shakes of 6 1/2" exposure. The ends of the box cornice are covered by the gable rake boards, scribed to match the profile of the cornice. The 1" thick rake tapers to approximately 5" in width at the ridge.

Frame

The cabin is a post and beam structure with principal and secondary studs and down-braced, "L"-shape corner posts.

Corner Posts

The corner posts are white oak. Hewn from members varying from 8 1/2"---9 1/2" square, the posts retain the exterior dimensions of the original square logs, but have interior legs of 4 1/2"---5 1/2". All have a depth of 4" (See Illustration 5). Both legs of the corner posts are let into the sills with pegged tenons and serve to hold the sills in place as the sills are not joined to each other. Both the rafter plates and the end girts are joined to each other and to the corner posts by lap mortises (girt to plate) and by pegged tenons from both legs of the corner posts.

The corner post at the southeast corner of the cabin is split from top to bottom on a diagonal from the interior to exterior corners. Although the tenons at girt and rafter plate have held the upper end in correct alignment, the lack of a sill plate joint has allowed the south elevation sill to move outward almost 6". The other corner posts are heavily damaged by powder post beetles and termites; the damage is so extensive that full replacement is required.

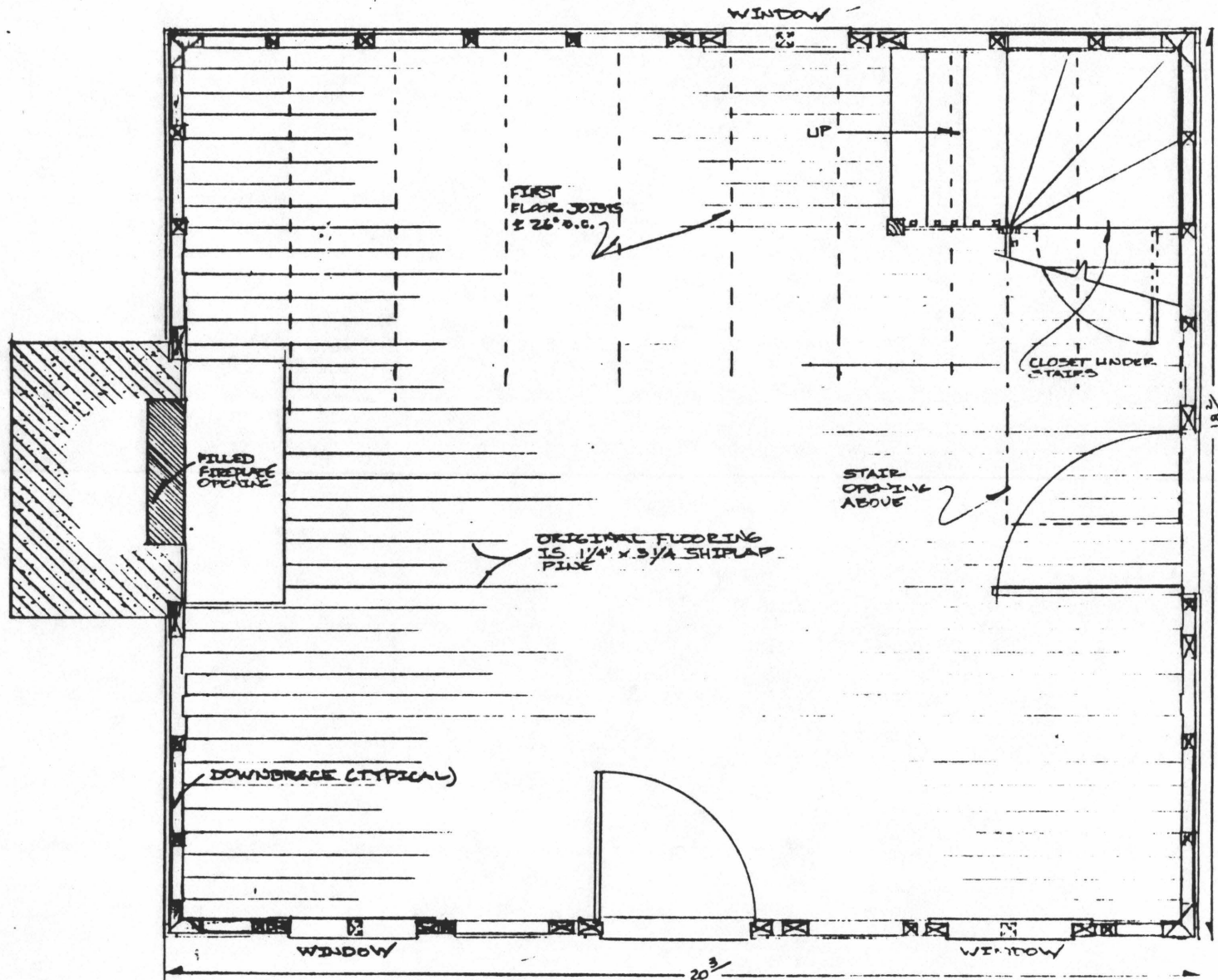


ILLUSTRATION #5: PLAN OF ORIGINAL CABIN FIRST FLOOR

Down-Braces

Each corner post leg is down-braced with a hewn oak member of a typical 6" wide by 4" deep dimension. All of the braces except the two parallel to, and on, the south elevation are tenoned into the corner posts 48" above the sill and extend down to a mortise in the sill 36"-37" outward from the corner post. The braces form an angle of approximately 45° with the sill and the post. Studs interrupted by the braces are toenailed to them. The down-braces are pegged to the sills and the corner posts.

The two down-braces on the south elevation are tenoned into the corner posts just 26" above the sill. Although in every other respect identical to the other braces, the shorter length of the braces prevents their interruption of the sills and jambs of the adjacent south elevation windows (See Illustration 6).

Studs

The first floor studs are of two types: a) -- hewn oak principal studs typically 5 3/4"--6" wide and 4" deep; and, b) -- common studs of vertically sawn pine averaging 3" wide and 4" deep.

There are two principal studs on each elevation: two flanking the doors on the south and east elevations; two flanking the window on the north; and, two larger ones (7 1/2" by 4") on either side of the chimney on the west. All of these but those on the west elevation are tenoned into their sills, rafter plates, and end girts respectively, and their tenons secured with pegs. The west elevation principals extend full height of the cabin from sill to rafter, and the end girts flanking the chimney are let into the studs.

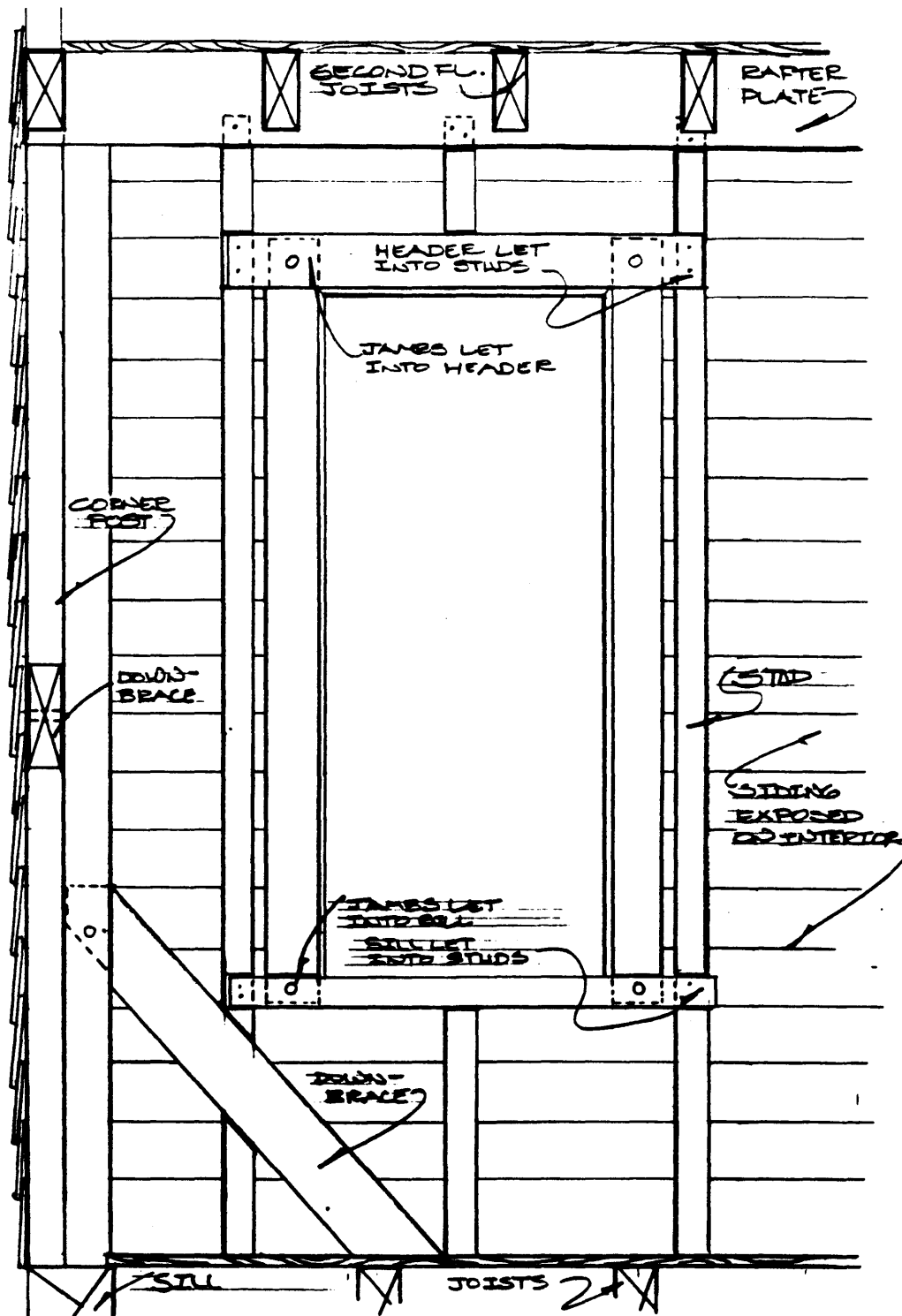


ILLUSTRATION #6: Interior Elevation, Southeast Corner,
Original Cabin



PHOTOGRAPH 5
DETAIL OF THE SILL PLATES
AND CORNER POST AT THE
SOUTHWEST CORNER OF THE
ORIGINAL CABIN.



PHOTOGRAPH 6
DETAIL OF THE SOUTHEAST
CORNER OF THE ORIGINAL
CABIN AT SILIPLATE LEVEL.



PHOTOGRAPH 7
 INTERIOR OF THE FRAME
 ON THE EAST ELEVATION
 OF THE ORIGINAL CABIN
 SOUTH OF THE DOOR TO
 THE EAST ADDITION
 AFTER REMOVAL OF SOME
 OF THE MODERN INTERIOR
 SHEATHING.



PHOTOGRAPH 8
 DETAIL OF THE SOUTHEAST
 CORNERPOST OF THE
 ORIGINAL CABIN.

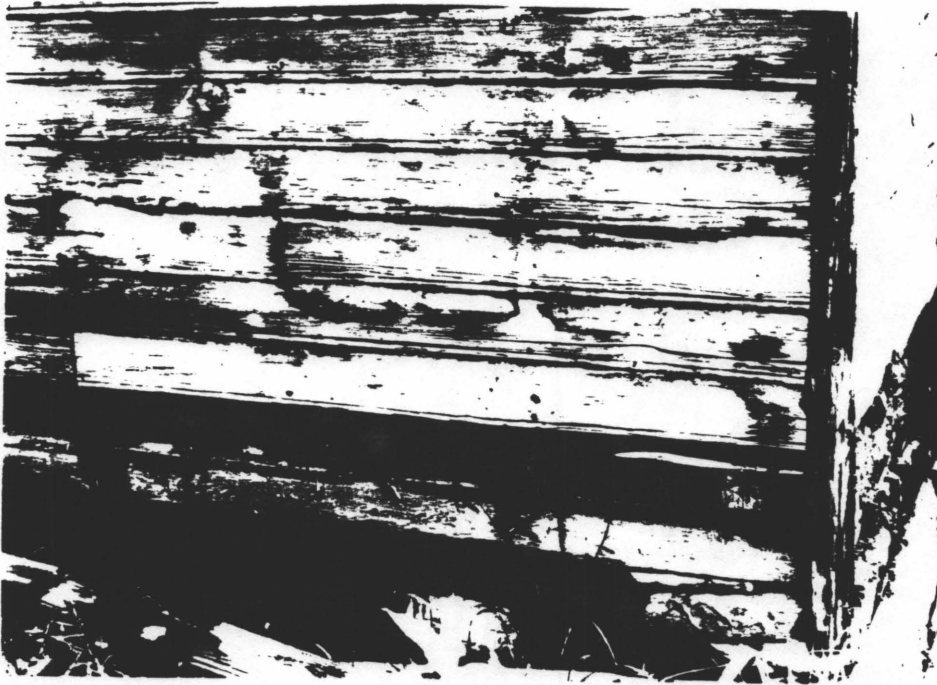
The intermittent common studs are also mortised into the sills, end girts, or rafter plates, but none are pegged and are secured only with cut nails.

Although mortises were cut into the rafter plate to accept tenons from studs to be located in the center of the space over each window, no studs were installed as the distance from the top of the window header to the underside of the plate is but 8". Studs are incorporated in the center of the span below the window sills, however, as the distance to the sill plate is approximately 24 1/2" and the weight of the jambs substantial. A stud is located in the center of the spans over the east and south elevation doors. Perhaps the fact that the stud is 28" long justified its installation. The stud is tenoned into the rafter plate and toe-nailed to the door header on the south elevation door. A similar stud exists over the east elevation door, but as that door frame and header have been altered the stud now hangs and is supported only by the nail holding its tenon into the mortise in the end girt.

Most of the studs have been infested with termites and powder post beetles. At a minimum, the lower 6"-12" of every study examined shows extensive damage, particularly to the structural tenons and pegs.

Sill Plates

The existing sill plates are variable in size and species due to at least two previous cycles of replacement. On the south elevation, only 99 1/2" on the western side of the building retain the original hewn oak 9" high and 10" deep sill. The remainder of the plate is a composite beam made up of 4 units of Southern Yellow Pine of 2 1/2" by 10 1/4" dimension.



PHOTOGRAPH 9
DETAIL OF THE
REPLACEMENT SILL
NORTHWEST CORNER OF
THE NORTH ELEVATION,
OF ORIGINAL CABIN.



PHOTOGRAPH 10
ORIGINAL CABIN,
WEST END OF THE
SOUTH ELEVATION
SILL. THE ORIGINAL
SILL (WEST OF THE
DOOR) IS UNDERPINNED
BY CONCRETE BLOCK
DATING TO THE 1940s.



PHOTOGRAPH 11
ORIGINAL CABIN,
WEST ELEVATION SILL
NORTH OF THE CHIMNEY.



PHOTOGRAPH 12
ORIGINAL CABIN,
WEST ELEVATION
SILL SOUTH OF THE
CHIMNEY.



PHOTOGRAPH 13
DETAIL OF DOWNBRACE AND SECONDARY
STUD SEEN IN PHOTOGRAPH 17 ABOVE.

Note the use of multiple X's (shown
with arrows) to mark the mortise
and tenon connections in lieu of
the traditional Roman Numerals.

This replacement must have occurred when the existing CMU footing was installed as the block under the replacement portion of the sill is turned on its face to allow for the greater depth of this beam; the blocks under the original sill are laid correctly.

On the west elevation, the two original sections of 9"-9 1/2" high by 11 1/2" deep, hewn oak remain in place. Both extend 6" into the chimney masonry and are supported by it. The southern portion of this plate has been consumed by powder post beetles and crumbled on contact; the northern portion is not much better.

The entire length of the original northern plate has been replaced by a 5 3/4" high by 7 3/4" wide, circular-sawn oak member. The studs are no longer jointed to the sill, but toe-nailed; their tenons were cut off when the new sill plate was installed. The new sill, as it is some 3 3/4" thinner than the original, has a similarly dimensioned gap with the west elevation sill plate.

The east elevation sill appears not to have been replaced and is of the same size oak as the original members on the west elevation.

The unusual and poor construction technique of not half-lapping or tenon and mortising the sills together is evident on both the SE and NW corners. Although the builders must have believed that the joints between halflap the first floor joists and the north and south elevation sills would force the joists to act in tension and thus hold the sills in alignment, they failed to realize that the smaller half flaps of the joists would fail much earlier when subjected to insect attack than would have the larger sill to sill joints.

First Floor Joists and Flooring

The first floor joists are hewn oak and average 4" by 8 1/2" and are approximately 27" on center. The joists are half-lapped onto the north and south elevation sills and appear to be pegged into position.

A hearth box adjacent to the chimney is constructed of two cleats (1 3/4" x 4"), the eastern one nailed to the western face of the first floor joist, the other to the interior faces of the western sill plates. The cleats support a hearth box floor of 1" thick shiplapped pine boards. The box originally held a sand and mortar bed below two courses of brick. The hearth must have been removed when the fireplace on the first floor was filled in, probably ca. 1940, when the interior was modernized with the addition of the first floor board sheathing, electricity, and the north addition.

Two finished floors exist on the first floor. The upper flooring is 3 1/4" wide, 3/4" thick, tongued and grooved pine and was installed at the same time as the beaded interior sheathing, electrical outlets, and other alterations. The modern flooring covers the original 1 1/4" by 5 1/4" tongued and grooved, face-nailed, pine boards. The rabbeted groove in the original boards is 7/16" wide and deep and not centered on the board's edge, but offset downward to provide 1/2" of wood above the groove.

The floor boards at the gable ends do not stop on an even line adjacent to the siding, but are ragged. As discussed later in relation to the window casings, the lack of finish of the flooring ends suggests that the original intent was that a baseboard and plaster would cover the area so no effort was expended to finish it.

Rafter Plates

The north and south elevation hewn oak rafter plates are approximately 4" wide and 8" high and are supported by the principal and common studs. The legs of the corner posts parallel to the rafter plate have pegged tenons into the rafter plate mortises. The 3" x 8" second floor joists (hewn oak) are lapped over the rafter plates and extend 10" beyond their exterior faces. The rafters, in turn, support 3/4" x 10" false plates onto which the 3" x 4 1/4" hewn oak rafters are nailed. The joists and the exterior of rafter plates are cased to form a well-trimmed box cornice (See Illustration 4).

End Girts

The east and west end girts are but larger second floor joists; both are approximately 4" by 7 3/4" and of hewn oak. Both are mortised to accept tenons from their parallel legs of the corner posts and, on the west elevation, from the principal studs flanking the chimney as that girt is broken by the chimney masonry.

The end girts are lapped over the rafter plates in the same manner as the second floor joists, supporting the east and west ends of the false plates and the box cornice. The studs supporting the gable ends of the second floor are let into the end girts and will be discussed below.

Windows

The three first floor window frames are constructed in the same manner and all appear to be original. The heads and sills support the units and are lapped onto the common studs flanking the windows; the jambs are supported by the heads and sills.



PHOTOGRAPH 14
NORTH ELEVATION
WINDOW OF THE
ORIGINAL CABIN.



PHOTOGRAPH 15
DETAIL OF THE
EASTERN SOUTH
ELEVATION WINDOW
OF THE ORIGINAL
CABIN AT SILL LEVEL.



PHOTOGRAPH 16
DETAIL OF THE INTERIOR
OF THE ORIGINAL CABIN
SOUTH ELEVATION EAST
WINDOW.

Note the principal stud
to the east (photo
left) of the window
frame.



PHOTOGRAPH 17
TYPICAL DETAIL OF THE
MANNER IN WHICH THE
WINDOW SILLS ARE LET
INTO THE PRINCIPAL
STUDS OF THE ORIGINAL
CABIN.

The sills are $2\frac{3}{4}$ "-3" thick and $6\frac{1}{2}$ "-7" wide; they are set at an angle and slope outward and downward $\frac{3}{4}$ ". Although the sills average only $37\frac{1}{2}$ " in length on the exterior, their interior length is approximately 48" allowing them to extend beyond the jambs and to be let into the adjacent studs (See Illustrations 6 and 7) in a similar fashion. The window heads do not extend beyond the outer edges of the jambs on the exterior, but are let into the stud interiors on either side.

The jambs average $4\frac{1}{2}$ " deep and 5" wide and are joined to both head and sill with tenons that extend into open mortises in the horizontal members. The jambs incorporate $\frac{3}{8}$ " wide integral exterior sash stops: the lower stop is 2" deep and forms a $1\frac{1}{8}$ " channel for the lower sash; the upper stop is $\frac{5}{8}$ " deep and forms a $1\frac{1}{8}$ " channel for the upper and stationary sash (See Illustration 7).

As the exterior faces of the head and jambs are flush with the exterior faces of the adjacent common or principal studs, the exterior siding extends outward from that plane and the siding edges at the jambs and head require trim. A pine board, $\frac{5}{8}$ " thick, $4\frac{1}{2}$ " wide and with a $\frac{1}{4}$ " bead on its interior edges was applied to the head and jambs, mitred at the corners. The trim board was set flush with the inward edge of jamb and formed a $\frac{1}{2}$ " wide, $\frac{3}{4}$ " deep reveal outward from the integral sash stop.

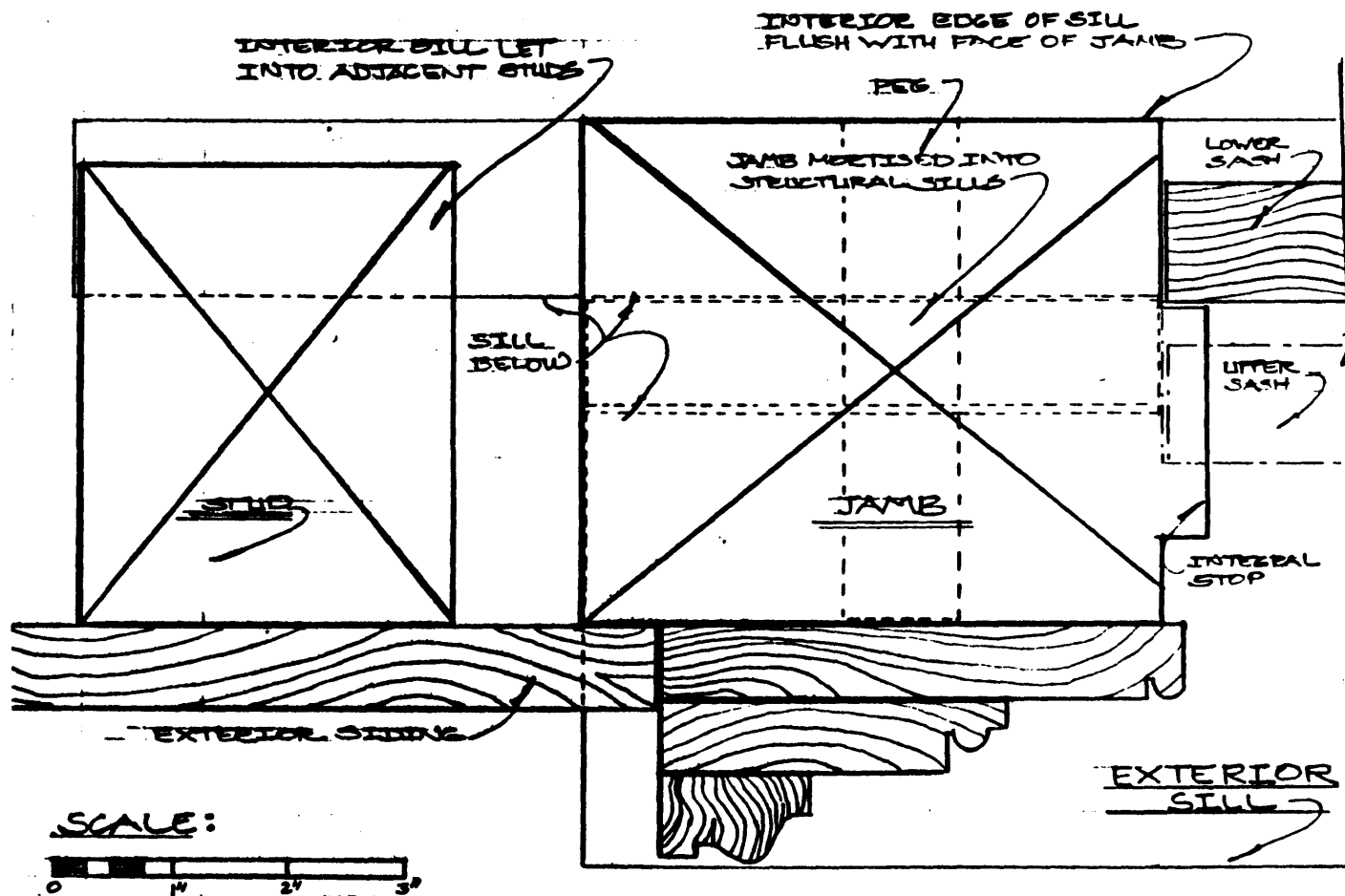


ILLUSTRATION # 7: Plan/Section Through Window of the Original Cabin

The sills project 1 1/2" beyond the face of the siding and do not extend beyond the outer edges of the jambs. A rabbet on the underside of the sill, typically 1/2" deep and 3/4" wide accepts the upper edge of the siding course below the sill.

The fact that the jambs, sill, and head are 1/2" deeper than the studs, and therefore extend into the room 1/2" more than the structural members, indicates that the window units were made and installed with the intent that the room would eventually be plastered and interior trim applied to the windows. Whitewash on the interior of the studs, corner posts, and siding and a complete lack of any evidence of plaster keys, lath, or lath nails indicate, however, that the interior was never finished until the existing beaded pine sheathing was installed ca. 1940.

The existing sash are single hung and the upper sash is stationary. Each sash has nine lights of 8" by 10" glass. The upper sash measure 34 1/2" in height by 29"; the lower 33 1/4" in height by 29". The stiles are typically 2 1/2" wide, the meeting rails 1 1/2" , the top rail 2 1/2" and the sill rail 2 3/4". The existing sash are 1 1/8" thick and made of pine.

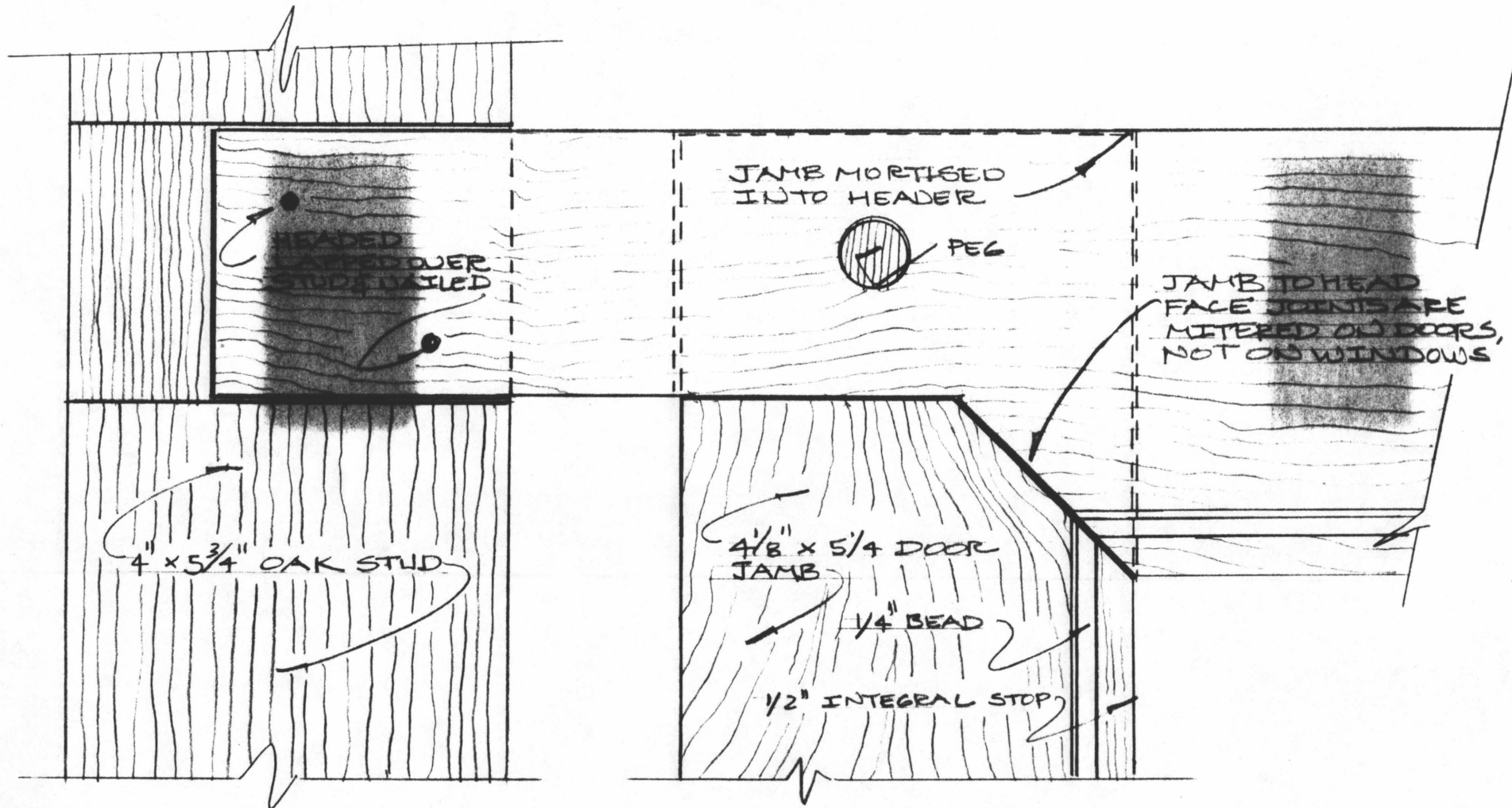
The existing sash are not original. A complete sill or head rail of a old and significantly weathered sash was recovered during research for this report. The length, 29", and muntin mortise spacing indicate that it, too, held 8" x 10" lights. Its simpler molding profile suggests that it was the original configuration of the sash; the existing, more modern, sash copied the dimensions of the original, but not the molding profile (See Illustration 3).

The Doors

The south door has 5 3/8" wide and 4 1/8" deep pine jambs that are tenoned into a 4 1/8" deep and 5" high header. The exterior of the header is only as wide as the outer edges of the jambs, but on the interior the header extends some 6"-7" to either side and is let into the adjacent principal studs with lap mortises. (See Illustration 8).

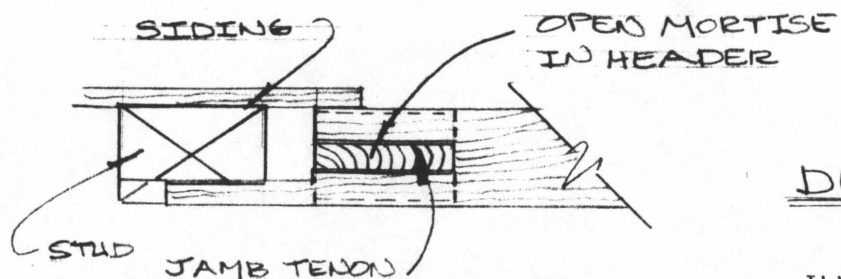
The interior edges of both the head and jambs have rabbets 1/2" wide and 1 1/2" deep; the full-thickness outer portions of these faces form stops for the door. Both exterior and interior inward edges of the jambs and head are finished with 1/4" beads.

The interiors of the jambs and head are faced with the moldings seen in Illustration 3. The exterior of the jambs and head are now covered with a modern 3 1/2" x 3/4" beaded board, but paint below the existing trim indicates that approximately 2" of the jamb was originally exposed and the unpainted outward 3 1/2" was originally covered with trim, now missing. The original door was 78" by 35"; the existing modern, plywood panelled door is 76" x 34 1/4".



DETAIL: DOOR HEAD AT JAMB (INTERIOR)

SCALE: HALF FULL SIZE



DETAIL: PLAN VIEW OF
HEADER AT JAMB

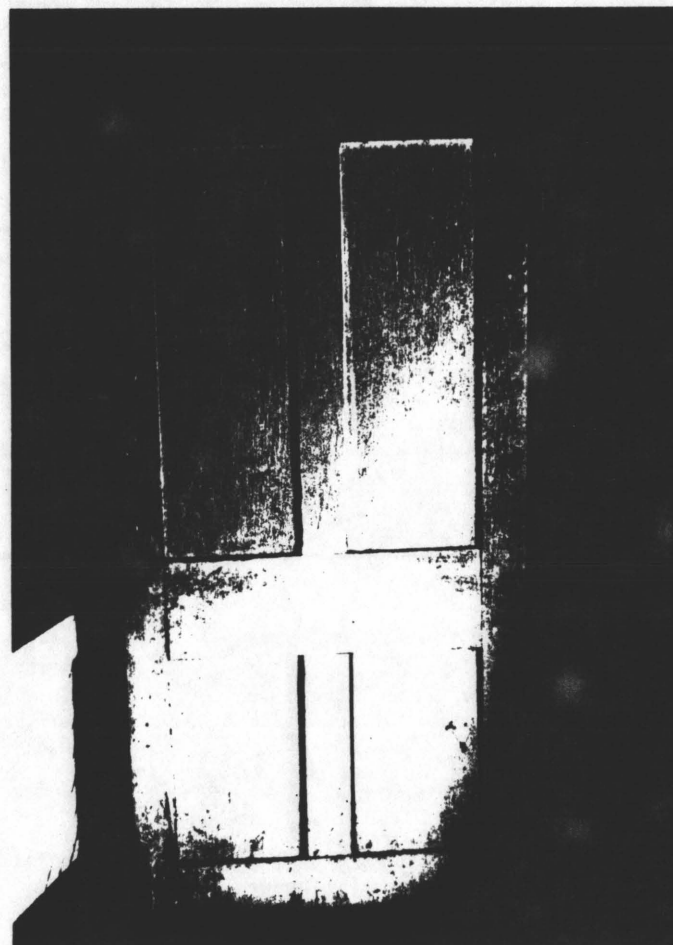
ILLUSTRATION #8

The existing door frame to the east wing is a replacement of the original. Although original lap mortises 3 3/4" high and 3/4" deep remain in the principal studs flanking the doorway and which form a 49" wide opening, a later 2 3/4" x 3 3/4" wide-sweep circular sawn pine stud has been inserted inward from the original southern stud to frame the existing door and support the machined-planed 3/4" door casing. Additionally, a 5" by 5/8" section of reused siding has been nailed into the original header lap mortises to support the later circular-sawn stud. The siding covers broken cut nails in each mortise--evidence of the removed original header. No support is provided for the 3" x 4" hewn oak stud above the door that was originally toe-nailed to the now-missing header.

The existing east door is an old one. It measures 35 3/8" by 72 3/8" and is 1 1/4" thick. The bottom rail is now 6" high and its 5 1/2" tenon into the stiles is open at the bottom, a poor structural detail that suggest that 2"-3" probably has been cut off the door to fit it into the present opening. The center rail is 9" high and has two 2 1/2" tenons into the stiles. The upper rail is 4" high and the 2 1/2" tenons are also pegged to the stiles. The two upper panels are 35 1/8" by 11 1/4"; the two lower panels 19 3/8" by 11 1/4". The 5/8" thick panels are not raised, nor do the rails or stiles have molded edges adjacent to the 7/16" deep panel reveals. The southern and center stiles are 4 1/8" wide; the northern is only 3 1/4"-3 3/8" and it appears to have been cut down crudely from its original dimension of 4 1/8". This would suggest that the door originally was made to fit an opening of approximately 36 1/4" by 75 3/8", that is, one slightly larger, but of the same height, as the original front door opening.



PHOTOGRAPH 18
EAST ELEVATION DOOR
OF ORIGINAL CABIN
LOOKING INTO THE
EAST ADDITION.



PHOTOGRAPH 19
INTERIOR FACE OF THE
EAST ELEVATION DOOR.



PHOTOGRAPH 20
DETAIL OF "SELF-CLOSING"
HINGE ON THE ORIGINAL
CABIN, EAST ELEVATION DOOR.

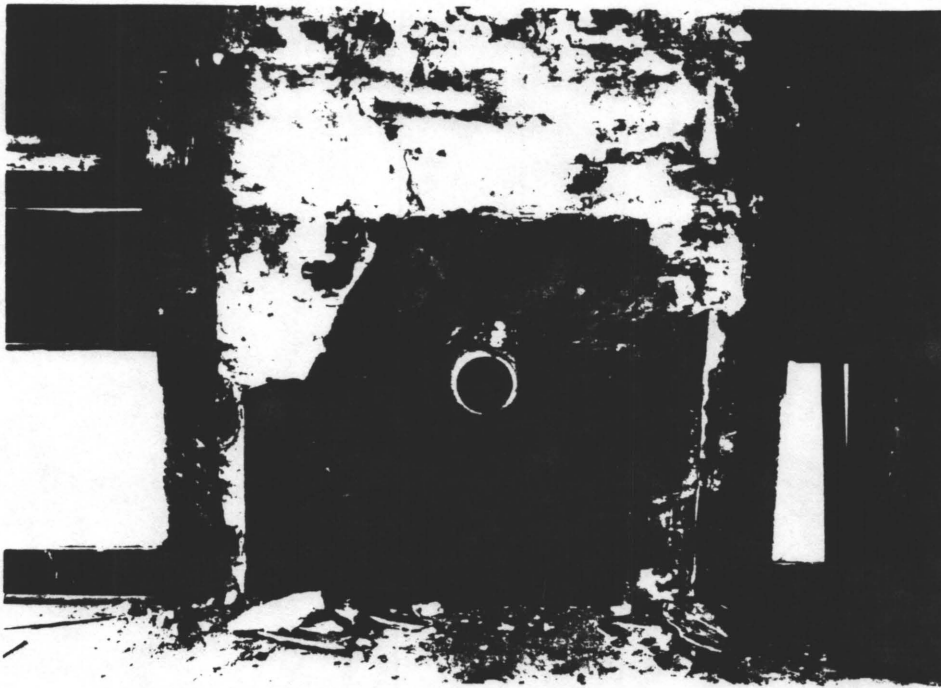


PHOTOGRAPH 21
LOWER RUN OF STEPS
IN THE ORIGINAL CABIN.
THE BALUSTERS, NEWEL
POST, AND MOLDINGS ARE
ORIGINAL.



PHOTOGRAPH 22
THE ORIGINAL STRINGER
FOR THE UPPER RUN OF
STAIRS IN THE ORIGINAL
CABIN AFTER REMOVAL OF
THE LATER INTERIOR
SHEATHING.

Note the traces of the
now-missing moldings
that remain in place
on the lower run.



PHOTOGRAPH 23
ORIGINAL CABIN, WEST
ELEVATION FIRST FLOOR
FIREPLACE.

Note that whitewashed
plaster extends fully to
closed opening indicating
that the mantel is not
original.



PHOTOGRAPH 24
ORIGINAL CABIN,
EXISTING STAIRCASE
IN NORTHEAST CORNER.

4. The four-panel door under the staircase, parallel to the north elevation and flush with the interior edge of the highest winder, retains the same red/brown stain or paint found on the original stringer and the window and door frames. The inward arcing quarter-circles on the raised panels form a decorative touch.

5. The three structural horses forming the carriage for the staircase are whitewashed behind the modern sheathing as are the undersides and backsides of the treads and risers.

The original staircase, though missing fifteen balusters, a section of rail, and the trim on the stringer parallel to the east wall, is in excellent condition.

Second Floor Joists

The second floor joists are constructed of hewn oak and average 2 7/8" by 7 3/4", although their dimensions vary from 2 3/4" to 3" and 7 5/8" to 8". Their spacing is erratic, averaging 23 1/2" on center, but ranging from 18 1/2" to 26 1/4". The joists span 17'3" between the rafter plates over which they are lapped and they continue an additional 10", supporting the false plate on which the rafters bear and providing the support for the box cornice. The end girts are large gable end floor joists (4"x7 3/4" and 5"x 7 3/4"). They are detailed in the same manner as the other joists.

The first joist inward from the eastern end girt is headed off with a 4"x 7 3/4" oak beam 8'6" from the south rafter plate to form the stair opening. The joist resumes as an outrigger at the north rafter plate, but because the typical joist-to-plate lap joint have provided no strength to the member, it was dove-tailed into the rafter plate.

Knee Wall Studs

The second floor joists supports short studs, 11 1/4" inward from the rafter plates. The vertically sawn pine studs vary from 3"x4" to 4"x4 1/4" and are toe-nailed to the rafters and tenoned to the joists. The studs support the 7/8" thick interior sheathing of random (6"-14") pine rough sawn (circular) boards that form a wall 24" high. Some of the joints between the boards are covered with riven oak battens 1 1/4" wide and 1/4"-1/3" thick. The boards are cut nailed, but the absence of existing or evidence of earlier flooring behind the knee wall indicates that the knee wall covering is original.

There is no knee wall or sheathing on the north wall within the staircase and the false plate and rafters are there exposed to view.

East Gable End Studs

Eight studs frame the east gable from the end girt to the end rafter above. Of vertically sawn pine, the studs average 3" wide and 3 3/4" deep but are variable (2 3/4"-4 1/4" by 3 1/2"-4"). The distance between studs in all but the center space averages 21"; the two center studs are 33 1/2" apart (See Illustration 9) to accommodate the east gable window. The studs are tenoned to the end girt and toe-nailed to the rafters.



ILLUSTRATION#9

EAST GABLE ELEVATION

SCALE : 1/2" = 1' 0"

Both central studs incorporate horizontal rabbets on their facing sides that held the original window sill and head; both pieces are now gone. The sill rabbet, beginning 17" above the floor, is 4 3/4" high and 1" deep; the head rabbet, 33" above the top of the sill, is 1 3/8" high and 1" deep. The north jamb casing remains in situ and is 7/8" thick and 4 1/2" wide. The finished opening for this casement sash was 31 1/2" wide and 32" high and probably held a sash composed of six 8" x 12" lights.

No interior board sheathing is applied to the inside of the east gable studs or ceiling. The thick whitewash on the studs and interior face of the weatherboards testifies that the frame was originally exposed. Probably after 1940, gypsum board was nailed over the studs and an old chair rail added as a finishing touch 15" above the floor and the full length of the gable.

West Gable Studs

The west gable has only six studs, three on each side of the chimney (Illustration #10). The four outer studs are similar in size to those on the east elevation; the two central studs are larger (7 1/2" x 4"), however, and are, in fact, the upward extension of the principal studs of the first floor frame and into which the western end girts are tenoned.

The spacing on the studs is skewed to accommodate the two casement windows that flank the chimney. The south and north central studs are 24 1/4" and 20 1/4" from their respective knee wall studs and 21 3/4" from the innermost principal studs.

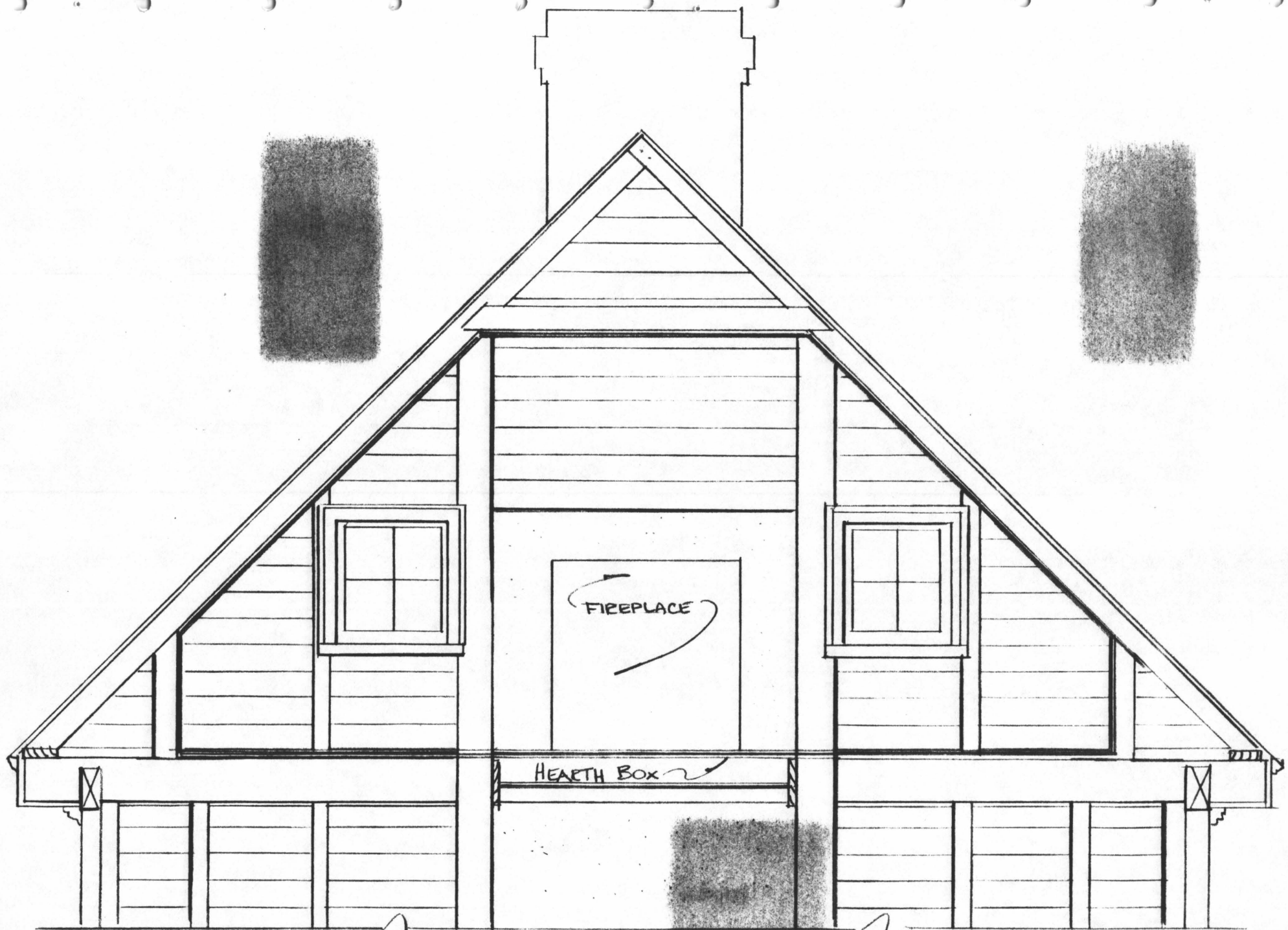


ILLUSTRATION # 10

ELEVATION (INT.) OF WEST GABLE
SCALE : 1/2" = 1'0"

As on the studs to the east, rabbets are found in the studs flanking the windows. The 4" high and 1" deep sill rabbets secure outward sloping 2 5/8" thick pine sills that extend to the outward edges of the studs on the interior (29") and extend 1 1/2" beyond the exterior face of the weather boards. The bottom of the sill is 18 1/4" above the floor. The window head, 24 7/8" above the top of the sill, is a 1 1/4" vertically sawn pine plank let into the adjacent studs. The studs and head are cased with 7/8" thick pine boards, 3 3/4" wide. The jambs and head have a 1/2" wide and 3/8" deep rabbet on their inward edges. The 3 1/2" wide interior trim on the jambs and head adds an additional 7/8" thickness that combined with that on the casing, forms a 1 1/4" reveal for the casement sash. The inward edge of the trim incorporates a 1/4" bead; the out edge supports an ovulo molding. The 24" high and 20" wide casement sash of four 8" x10" lights originally opened inward and away from the fireplace and were hung from leather hinges. The existing 2" butt hinges, face mounted, are modern.

Second Floor Stair Hall Partition

Eight studs separate the staircase and hall from the larger second floor room. Located 41 1/4" from the east gable studs, the circular sawn pine studs forming the hall partition are directly below a rafter pair and bear on a joist below; the studs are nailed to both the rafters and joist. The two most exterior studs are the 3" x4" studs that terminate the kneewall to the west.

The remaining five studs average 2" x4" but range from 1 3/4"-2 1/8" by 3 7/8" -5". The studs average 25 5/8" on center, a figure skewed by the 29 1/2" door opening between the third and fourth studs on the south and the 30" wide window between the third and fourth studs from the north (See Illustration #11).

The door is constructed of five random-width, 1" thick, boards (2 5/8"--6 3/8" wide) forming a combined width of 27". The door has a height of 73 3/4", but slopes down, parallel to the roof line, to 64" on its southern edge. The boards are secured by three 6 1/4" high and 24 1/4" wide battens with bevelled edges applied on the hall side. The battens are centered 14", 34 1/4", and 60 1/2" down from the top of the door. The door is now hung from 2" butt hinges, but a leather fragment (1/4" thick, 2 1/4" high, 3" wide, and secured with two rosehead nails) suggests the form of the original hinges. A 2" wide leather "pull" on the hall side of the door was the original "knob." The door casing consists of 3/4" by 4 3/4" jambs with 3/4" by 2" stops. There is no interior trim as the door is set flush with the sheathing in the larger second floor room.

The partition window opening was apparently constructed to "borrow" light and ventilation from the east elevation gable window. The opening is formed by a casing of 1" x4 1/4" pine boards nailed to the studs 28 1/4" above floor level. The resultant 34 1/4" high by 27 1/2" wide opening now houses a reused 6-light sash that is toe-nailed to the casing and therefore inoperable. The lack of evidence of hinges that would make, or have made, the window functional, and the lack of any stops on the casing suggest that the opening, if original, was not first glazed.

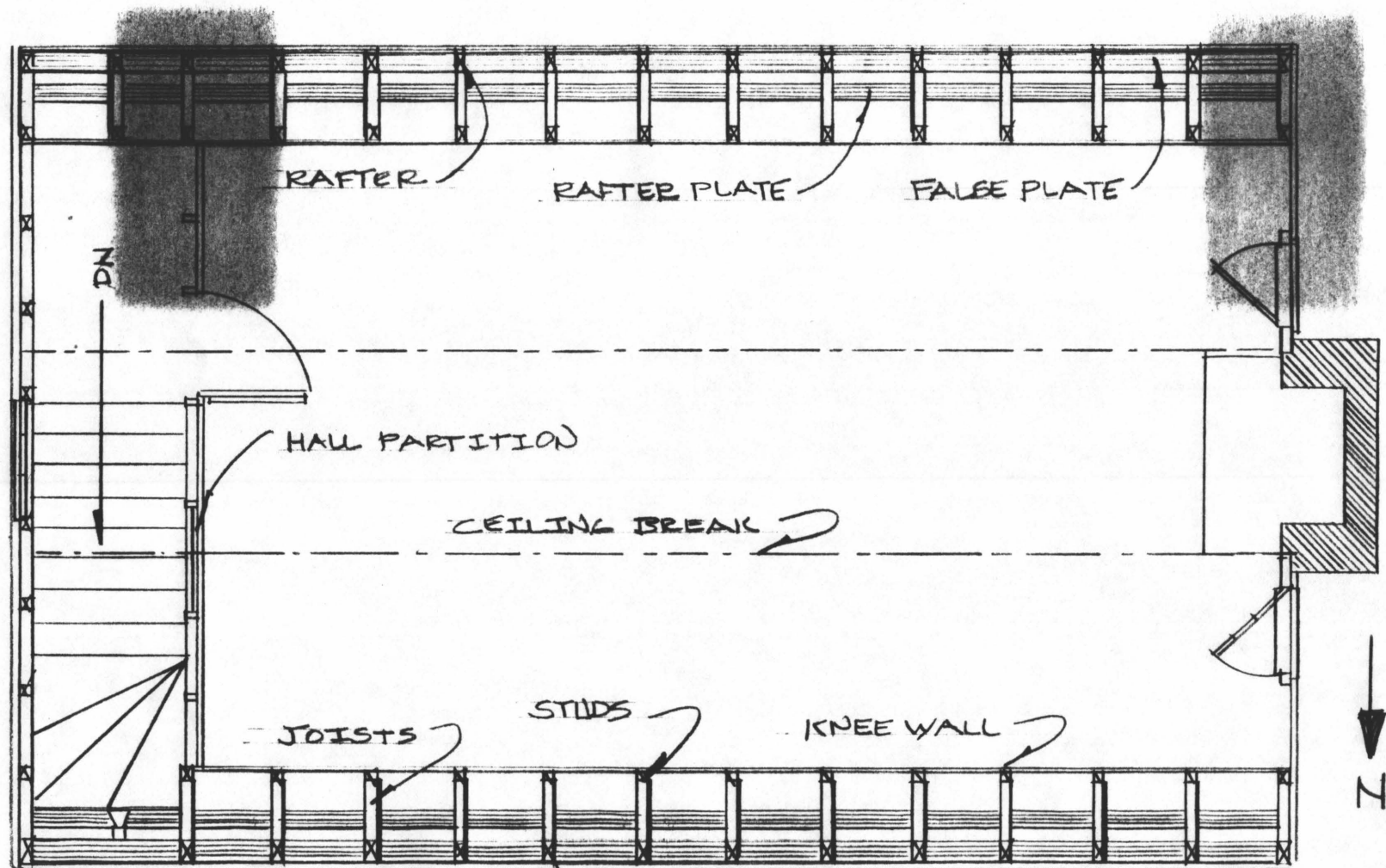


ILLUSTRATION # 11

PLAN : SECOND FLOOR / ORIGINAL CABIN

SCALE : 1/4" = 1'0"

This is also suggested by the fact that the whitewash on the casing continues, uninterrupted, behind the existing sash.

The west sides of the partition studs are sheathed with wide-sweep circular sawn pine boards 5/8"-3/4" thick and shiplapped. The boards are cut-nailed to the studs and have been whitewashed. The boards butt into the knee wall on the north and south ends of the partition, and stop at the board ceiling applied to the underside of the collar ties and rafters in the main second floor room.

The Rafters

The rafters average 3" wide and 4 1/4" thick. Of vertically sawn pine, they are joined with a pegged open-mortise and tenon joint at the ridge and are nailed to the false plate. Because the rafters are supported by the knee wall studs, their spacing is the same as the second floor joists to which those studs are joined.

Every rafter has a collar tie that is half-lapped and nailed into to the rafter pair it stiffens. The collars are typically 3 5/8" high by 3" wide sawn oak members and the pressure of random rabbets and mortises indicate that they are reused rafters from another earlier structure. The collars are typically 83" above the second floor.

The underside of the rafters and collars within the main second floor room is also sheathed with shiplapped boards, 5/8"-3/4" thick, rough sawn (circular), and secured with cut nails. Many of the joints are covered

with riven oak (1/4"-1/3" by 2") or planed pine (3/8"-5/8" by 2"-4") battens. Because this sheathing is a continuation of that on the knee wall behind which no flooring exists, it is considered original fabric.

Second Floor Flooring

The flooring on the second floor is pine, 1"-1 1/8" thick, and in random widths of 9"-10 1/4". The boards are butted, not tongued and grooved, and face nailed with cut nails.

Mantle

The 64" wide and 58" high pine mantle on the second floor surrounds a filled in fireplace opening of brick. The masonry is penetrated with a clay stove "thimble" that once served a stove. No hearth is evident, but the 24" by 59" wide and 5" deep hearth box frame within the second floor joists indicates that a hearth was original. The mantle retains the dark red brown paint stain also evident on the first floor trim and the raised panels below the mantle shelf echo those of the door to the closet beneath the stairs.

As on the first floor, however, the continuous plaster and whitewash on the chimney face behind the mantle indicate that no mantle was originally installed in the room.

The East Wing (The Kitchen)

According to local sources,* the east wing was constructed in the 1920s and fabric analysis has indicated that almost the entire addition was constructed from materials derived from the demolition of a well-finished, early nineteenth century house.

The addition in plan is a simple shed-leanto extending 10'2" east and recessed 2" north from the southeast corner of the original cabin. Its north/south length of 17'6" brings the north elevation wall flush with the north elevation of the cabin.

The addition is clad in several types of siding: the south elevation with pine weather boards having random exposures of between 5 1/2" and 13 1/2"; the east elevation with vertical boards of widths from 4 3/4" to 14 1/4"; and, the north elevation with clapboards with an average exposure of 5 1/2"-6". The south and east elevation boards are reused: some are tongue-and-grooved, some rough sawn with a wide-radius circular saw, and many show kerfs with broken nails indicative of the fact that they were first used as flooring.

* Claudine O'Brien of Appomattox Courthouse, a descendent of both the Sweeneys and the Conners, is the source of this statement.



PHOTOGRAPH 25
THE EAST ADDITION,
SOUTH ELEVATION.



PHOTOGRAPH 26
EAST ADDITION,
EAST ELEVATION.



PHOTOGRAPH 27
EAST ELEVATION, ORIGINAL
CABIN AND EAST AND NORTH
ADDITIONS.

The south elevation has a stationary sash, 35 1/4" wide and 26 1/2" high composed of six 10" x 12" lights, as well as a modern 4-light door. The east elevation has a single stationary sash identical to that on the south. The south elevation window has no exterior trim and a casing composed of 3/4" by 5 1/2" jambs, head, and sill. The east elevation window has a similar casing but an exterior trim composed of 5/8" by 3 1/2" boards. Neither sash was made for its existing frame as is demonstrated both by the paint traces that extend behind the existing casings and the fact that the sash do not fit within the rabbets formed by the stops and casings, but extend behind and beyond the casings.

The north elevation has a modern 23 1/2" wide door that serves as access to the ca. 1940 north addition. There is no evidence on the adjacent studs to indicate that this door is either original or that it replaced an earlier opening.

The eight rafters extend 5 1/2" beyond the siding on the east elevation. They have no fascia and support the 1" sheathing that is covered with 24" wide sheets of inverted V jointed tin roofing.

The addition is built on two sills parallel to the east elevation of the cabin and supported on stone piers. The sills are reused hewn, V-notched logs; the western one is 8" by 9", that to the east 5" x 8". Ten joists are toe-nailed onto the tops of the sills; the joists are barked logs with only the upper face finished, are 5"-8" in diameter, and set approximately 27" on center.

Studs

There are two types of studs incorporated in the frame of the east addition: a few relatively modern, rough sawn members (1 3/4" by 4", and 2" x 4") and much older, vertically sawn or hewn and planed, reused rafters and floor joists. All of the east and south wall studs and all but of few of those on the north elevation are of the later type.

Most of the studs on the south and east walls are hewn and planed pine averaging 3 1/2" by 5 3/4". All have 3/8" beads on both edges of one of the narrow faces and 1" diameter augered holes, approximately 48" on center on the opposite face. One or two of the studs have bevelled lap mortises cut into one side of one of their wider faces. There can be no question that these beaded studs were originally the exposed second floor joists of an earlier house.

The studs on the east elevation are 72" high, are nailed to the sill, and have a 1"x6" pine rafter plate nailed to the top edge. The studs are secured laterally by pairs of horizontal nailers that are toe-nailed to the sides of the studs, one directly below the rafter plate and one 35"-36" above the sill. The nailers are vertically sawn pine, typically 3"x4", and the evidence of lap mortises on their faces suggest that they originally served as rafters.



PHOTOGRAPH 28
EAST ELEVATION OF THE EAST ADDITION
FRAME. THE STUD RETAINS VESTIGAL
BIRD'S MOUTH MORTISES AND EDGE
BEADS SUGGESTING THAT IT WAS
ORIGINALLY A FLOOR JOIST. THE
HORIZONTAL NAILERS WERE ORIGINALLY
RAFTERS.



PHOTOGRAPH 29
DETAIL OF THE STUD SEEN IN
PHOTOGRAPH 31 LEFT.

The studs on the north and south elevations increase in height with the slope of the roof and reach a maximum of 110" adjacent to the original cabin. The studs on the north and south walls do not have nailers between them as both walls are covered with horizontal siding that provides the needed lateral stability. The north and south elevation studs are toe-nailed to, and directly under, their respective end rafters.

The Rafters

The rafters carry 1" thick pine sheathing, most of which appears to be reused flooring. The roofing is inverted V jointed tin. The eight pine rafters average 2 3/4" by 3 3/4", but vary from 2 5/8" to 3" by 3 1/2" to 4 1/4". At their upper ends they are nailed to a 2"x4" ledger nailed to the exterior of the original cabin and at their lower ends to the plate supported by the east elevation studs. All of the rafters have unused collar tie lap mortises, tie beam mortises, and broken lath nails indicating that they were originally rafters in a ridge roof.

Two 24"x24" sheets of tin fire-proofing exist just below the end rafter between the corner and second, and second and third studs on the north elevation. The more eastern metal sheet is punctured by a 6" diameter hole; the western one by a firebrick thimble that is incorporated in the 17"x17" brick chimney in the adjacent north addition. The thimble and earlier stovepipe hole establish the original location of the cooking stove in the room.



PHOTOGRAPH 30
NORTH ELEVATION OF
THE EAST ADDITION
LOOKING INTO THE
CMU NORTH ADDITION.



PHOTOGRAPH 31
DETAIL OF TWO OF
THE EAST ADDITION
RAFTERS SHOWING
VESTIGIAL HALF-LAP
MORTISES INDICATING
THAT THE RAFTERS ARE
REUSED FROM AN EARLIER
RIDGE ROOF.

The North Addition

The north addition is built against the north face of the east addition and laps 5' 3 1/4" over the eastern end of the original cabin's north elevation. The 7 1/2"x15 1/2"x8" concrete block addition measures 9'11" north/south and 15'4" east/west and projects 1 1/2" east of the earlier addition.

On the east and west elevations the wall is three units higher (23 3/4") at the south corners than at the north, stepping down in three masonry unit lifts. This change in coursing is covered by the 3/4" by 6" rake boards. The small triangular portion of the south elevation of the addition that is exposed above the roofline of the east addition is wood frame and covered with 5 1/2" exposure weatherboards.

Both east and west elevations have exterior doors. The opening on the east is 31 1/4" wide and 75 3/4" high; that on the west is 34 1/4" by 75 1/2". Both have 3/4" by 6 1/4" pine casings and exterior trim of simple 3/4" by 3 1/2" pine boards. Both 4-panel doors show evidence of reuse: the stiles are constructed with open mortises to accept the tenons from the rails and the joints are pegged; and, the slightly raised panels and molded adjacent stiles and rails show a considerable paint buildup and extensive weathering.

Perhaps these doors were salvaged from the same structure that provided the materials for the east addition.



PHOTOGRAPH 32
NORTH ADDITION,
EAST AND NORTH
ELEVATIONS.



PHOTOGRAPH 33
NORTH ADDITION,
NORTH ELEVATION.



PHOTOGRAPH 34
NORTH ADDITION,
WEST ELEVATION.

The north elevation has two six-light (10"x12") casements. They have crude sills, jambs, and a head of 2 1/4"x8" pine set flush with the exterior of the masonry and covered with plain 3/4" by 3 1/2" board trim. The finished window openings measure 31" high and 34" wide. The 2"x4" rafters extend 5" beyond the north elevation and have a simple 3/4" by 4 1/4" fascia.

Because the north addition was built into a bank the interior floor level at the northwest corner is 13" below exterior grade, and at the northeast corner, 3". Interior floor level adjacent to the original cabin is about 12" above grade, and approximately 20" above grade at the southeast corner.

The interior of the room is spartan. The concrete floor supports a raised C.M.U. square enclosure within which a water pump from the well is housed. The only other feature in the room is the 17"x17" brick chimney that once served the kitchen stove in the east addition.

IV. DISCUSSION

CONDITION — The Original Cabin

The Charles Sweeney house retains almost all of its original fabric; some of it has been covered by the alterations of ca. 1940, and a small amount removed entirely, but virtually no conjecture would be required to restore the structure to its 1865 appearance.

Unfortunately, although having great integrity, the house is structurally in an appalling condition and it is doubtful that it would be standing were it not for the bracing provided by the chimney mass on the west, and the additions on the north and east. It will not remain standing much longer. The west elevation sill plates are decayed completely; the principal and common studs and northern and southern legs of the western corner posts are now left unsupported, and hang from the end girt. The western portion of the south sill is similarly decayed and the replaced eastern unit was poorly designed and has caused the outward movement of the studs some 6", shearing the southeast corner post in the process. Powder post beetle and termite damage is extensive in all of the studs on this elevation, in some cases up to, and including, the rafter plate.

The east elevation sill and stud bottoms have long been subject to insect damage. The north sill has been replaced and the less-damaged framing members toe-nailed to the sill.

If this structure is to be retained, it is mandatory to replace virtually all of the first floor exterior envelope. The windows and casings, the staircase, some of the first floor joists, the chimney, some of the original flooring and siding, and a few of the studs may be retained. The balance of the fabric will require replacement-in-kind.

The second floor fabric is essentially sound; only the roof needs restoration to its original drawn oak shakes.

In summary, the building has been "moth-balled" by the National Park Service since 1983, but the years of benign neglect of the structure before acquisition by the Service and since its rehabilitation by the Sweeney Family ca. 1940 have brought it to a state of near collapse.

Treatment Alternatives

Further Benign Neglect

Further neglect of the structure will assure its collapse in the immediate future. But as the cabin stood at the time of the surrender and the house and land were purchased because of their importance to the primary theme of the park, the loss of this building is not an acceptable alternative. Furthermore, the General Management Plan calls for the cabin to be "restored, interpreted, and used to house exhibits relating to the Sweeney family and the invention of the 5-string banjo."

Stabilization

Because of the advanced deterioration of the structure, stabilization in situ is not a viable alternative. The immediate cost of needling and cribbing the sound fabric, i.e. the second floor, is not justified as the building will require disassembly later, in any case, if the building is to be restored.

Preservation

Preservation of the cabin would entail the replacement-in-kind of all of the existing decayed fabric. As replacement of the original structural members will necessitate the removal of all of the ca. 1940 interior sheathing, much of which is decayed due to powder post beetle infestation, a "pure" preservation alternative would require the replacement- in-kind of the later sheathing, visible electrical system, and the ca. 1940 staircase enclosure. Because none of the later fabric is unique or architecturally significant, as it is less than 50 years old and therefore not "historic," and particularly because it covers the fabric that was exposed during the period of the structure's historical significance, its replacement is not, herein, judged desirable. Therefore, strict preservation is not deemed the desirable alternative.

Preservation/Restoration

The recommended alternative combines the replacement-in-kind of all original fabric and the resultant restoration of the structure by default based on the deliberate decision not to replace non-original fabric, i.e. that dating to after the surrender.

Not only will this alternative save the cabin, but it will allow exposure of the entire whitewashed first floor structure and open staircase as Charles Sweeney saw it. This option not only allows for exhibits on the 5-string banjo, it would permit for the interpretation of the house as an example of a small-scale Virginia post and beam structure. This option is consistent with the General Management Plan and is the suggested course of action for the original cabin.

The Additions

If the recommended alternative for the original cabin is selected - i.e. to interpret the structure to its Civil War appearance -- the logical course of action dictates the removal of the east and north additions.

The north addition is structurally sound but visually inappropriate. It is not "historic" by definition and will have to be removed to allow for the replacement of the north and east sills and the adjacent studs.

The east addition presents a more difficult question. The reused materials in the shed are of architectural interest, but none are in situ. Although lean-to kitchens were common on the cabins around Appomattox Court House, this one is not original and appears to have replaced the out kitchen seen in the Frankenstein watercolor. It offers a usable interpretive space, but its retention would prevent restoration and accurate interpretation of the original cabin. It is therefore recommended that the kitchen addition be removed, but that selected portions of the historic, but reused, joists, flooring, and rafters be salvaged and entered into the park museum collections.