

CHAPTER 4

THE LOG BUILDING

Like taverns, "log cabins" have a considerable romance about them, summoning up images of hardy pioneers carving out homesteads from the wilderness. There is no doubt that building in logs was a very useful technology in early America. Anyone who has read "Little House on the Prairie" knows how these buildings could be put up by one family in a fairly short time (even if you ran the risk of breaking an ankle, as Ma did).

Scholarly research makes it clear that the people who introduced log building to America were the Scandinavians and the Germans. Settlers from the British Isles instead used stone or timber frames for their buildings. The area of northern Delaware where Tweed's Tavern is located lies near to places along the Delaware River settled by Swedes and Finns in the earlier 1600s, and to the intensive German settlement of the late 1600s in southeast Pennsylvania. By the time that Tweed's Tavern was built in the 1790s, however, log building had been adopted by everybody because it was easy, quick, and cheap. The placement of chimneys and the interior arrangements of rooms are a more reliable guide to the cultural and ethnic background of the builders than the use of logs.

The building itself was recorded in great detail (Plate 4.1). We wanted to know how and when it was built, what it originally looked like, how the interior was laid out, and how the log house was changed through time. Using the technology of dendrochronology (tree-ring dating) our colleagues from Columbia University were able to show that the logs from which the tavern was made were cut down in 1795-97: a date that matches perfectly with the documentary history.

We were able to learn a great deal about the original building, and discovered that it had been modified in the 19th century, probably in the 1830-1850 period. When first built the tavern had only one room on each of the first and second floors, heated by fireplaces in the south gable wall. The bar was probably located in the southeast corner of the first floor room. A lean-to, probably the "cookery", lay on the north side of the tavern. It may have been fitted with a stove right from the beginning. Inside, the walls were simply whitewashed. The outside walls were covered by stucco. The roof was in all probability covered by wooden shingles.

In the 19th century the building was changed, probably to convert most of it into a house, although one room may have remained as a bar for a while. The upper portion of the building was raised by several inches to provide more headroom on the first floor. The first floor room was divided into two by an east-west partition wall. Each of these new rooms now had an exterior door facing Limestone Road, which suggests that the two rooms had different purposes. We think that the southern room may have remained in use as the bar. The upstairs was made into several rooms and included built-in closets. The upstairs walls were now plastered and provided with baseboards, and the whole building probably began to look more homey, both inside and out.

Tweed's Tavern is interesting as a building because it is log, and was purpose-built as a tavern. We assembled information about log buildings and about tavern buildings both in Mill Creek Hundred and the surrounding region. What we discovered was that Tweed's is average in size for a log building, but really quite small for a tavern. Most surviving taverns are of stone or timber frame, and so we don't know how typical Tweed's might be as a log tavern, of which there were probably other examples. On the evidence that we have, however, the builders of the tavern used a very common technology for their new establishment, which was small in comparison to most taverns, but seems to have served its purpose.

A. LOG BUILDING IN DELAWARE: A SUMMARY

Although the origin of the log building has been much debated, it is clear that North American log construction techniques were spawned from a long-held and perfected tradition among the distinct Northern European groups that began to settle on the eastern seaboard in the early 17th century. A long-established practice of using logs for residences as well as dependencies (outbuildings, such as barns, etc.), especially in Scandinavia and Germany, was well-honed due in no small part to the availability of softwood timber that could be easily worked with simple hand tools. Each of these populations introduced their own unique, independent construction styles, although only a few would see widespread acceptance amongst the increasingly diverse and expanding cultural landscape (Noble 1984; Andrzejewski and Siders 1992).

Swedish settlers introduced log construction techniques into the Lower Delaware Valley in the second quarter of the 17th century, although no unaltered, authentic Swedish log buildings or structures survive today. The construction techniques of the Swedes were not widely adopted by later arriving ethnic populations, although some of their techniques may have been diffused and diluted by subsequent groups. Later immigrants from Germany have been identified as having particular influence over log building construction, especially since the English and Scotch-Irish, who had no tradition of building with logs,

quickly adopted the techniques transplanted from the Rhineland by German builders. Although clearly influenced in technique, the proportions of buildings constructed by British immigrants were more akin to those of buildings there than to that of their Germanic counterparts. German builders tended to mimic the more narrow, rectangular plans favored throughout Germany during this period (Herman 1987; Noble 1984).

Log building suited early settlers for reasons of economy and simplicity. Although originally intended as somewhat impermanent structures, such as temporary housing and outbuildings, the great abundance of logs meant that log structures provided a durable and efficient source of housing and storage, and they continued to be used for many generations. Delaware Orphan Court records confirm that log buildings were common throughout the state. The records also show that there was wide variation in materials, techniques and levels of finish used in all phases of construction from beginning to end (Herman 1987; Noble 1984; Andrzejewski and Siders 1992).

Compared with timber frame or masonry structures, log buildings were relatively easy to construct. The felling axe and the broad axe were used in the preparation of logs prior to their final shaping and assembly into their architectural form. Although a single worker could perform hewing, one person alone faced some problems in the construction phase, due chiefly to physical difficulty involved in lifting heavy logs.



Plate 4.1. Archaeologist Bill Bulger removing wall fabric to expose the log structure (Photographer: Dawn Turner, December 1999)[HRI Neg.# 98039/19:1]

Because of this, a single individual could only build single-story structures about six to eight logs high. With additional workers, it was possible to build several logs higher, and buildings two stories in height are not uncommon. To accomplish this, skids of two logs were placed against the wall at an angle to serve as an inclined plane. Forked sticks or ropes were then used to position the logs. It is important to note that many of these started out as single story constructs, and were later raised to a full second story height as need dictated (Herman 1987).

Throughout the region, including Delaware, most log cabins were distinguished by a single room, or "pen," a one-room enclosure formed by four log walls that could be finished, or hewn, in one of several ways (Figure 4.1). The most common of these used in typical log building construction was the *rough hewn* method, which involved hewing the inner and outer surfaces of the logs, while leaving the upper and lower portions 'in the round', or unfinished. A second method, termed *square hewn*, utilized logs that were squared on four sides, often referred to as 'planks', a relatively high level of finish. A third method, known as *unhewn*, was used chiefly in outbuilding construction, and employed nothing more than the raw logs stacked atop one another.

Walls were joined at their corners by one of three joinery methods: a v-notch, basically an alternating series of perpendicular logs joined at the ends by interlocking negative and positive 'v' shaped cutouts (Plate 4.2); a full dovetail, an inverse wedge-shaped series of complicated interlocking cuts on alternating logs that form flush ends; or a post and plank, which is basically a mortise and tenon system utilizing corner posts and a series of evenly lain, square hewn planks forming the walls. Along with these joining techniques, several other types were also used, although not in the great numbers that might have indicated an advance in the approach to joinery. The buildings were typically rectangular, with a single door and usually two windows with no glass, employing instead oiled paper

that allowed some diffused light to enter the interior. Although single pen buildings are the most common type, double-pen (two side-by-side pens) and Continental (three room partitions within a single pen) are also found (Herman 1987; Noble 1984; Andrzejewski and Siders 1992).

The placement of the hearth in log buildings throughout Delaware and the Lower Delaware Valley followed the traditions from which they arose. The most common location of the hearth throughout this region is at either gable end (or both ends, depending on the layout) of the building, within the confines of the structure (Figure 4.2). This style is common to most single and double pen buildings, and has been historically associated with the English influence on the construction of log buildings, akin to cottages found throughout the British Isles (Noble 1984).

The second story of this type of floor plan was often a single large space, used as living quarters. A second type appearing more infrequently throughout the region is the German-influenced *Continental plan*, consisting of a single pen of three rooms arranged around a centrally placed hearth "...marking the dividing wall between the kitchen (*kuche*) and the other two rooms, the 'great room' (*stube*)...and the smaller downstairs bedroom (*kammer*)"(Noble 1984). The hearth and chimney structures are generally supported by a relieving arch, usually located in the basement, within the confines of the foundation, although there are undoubtedly examples where the arch is located outside of the boundaries of the footprint of the building. Generally speaking, foundations of permanent buildings tend to be constructed of stone rubble, although the chimneys above could be constructed of either stone or brick masonry. Less permanent outbuildings typically possessed a stone pier or log foundation (Noble 1984).

As log buildings became more widely utilized as permanent residences, the need arose to make them as weather-tight as possible, requiring that the horizontal

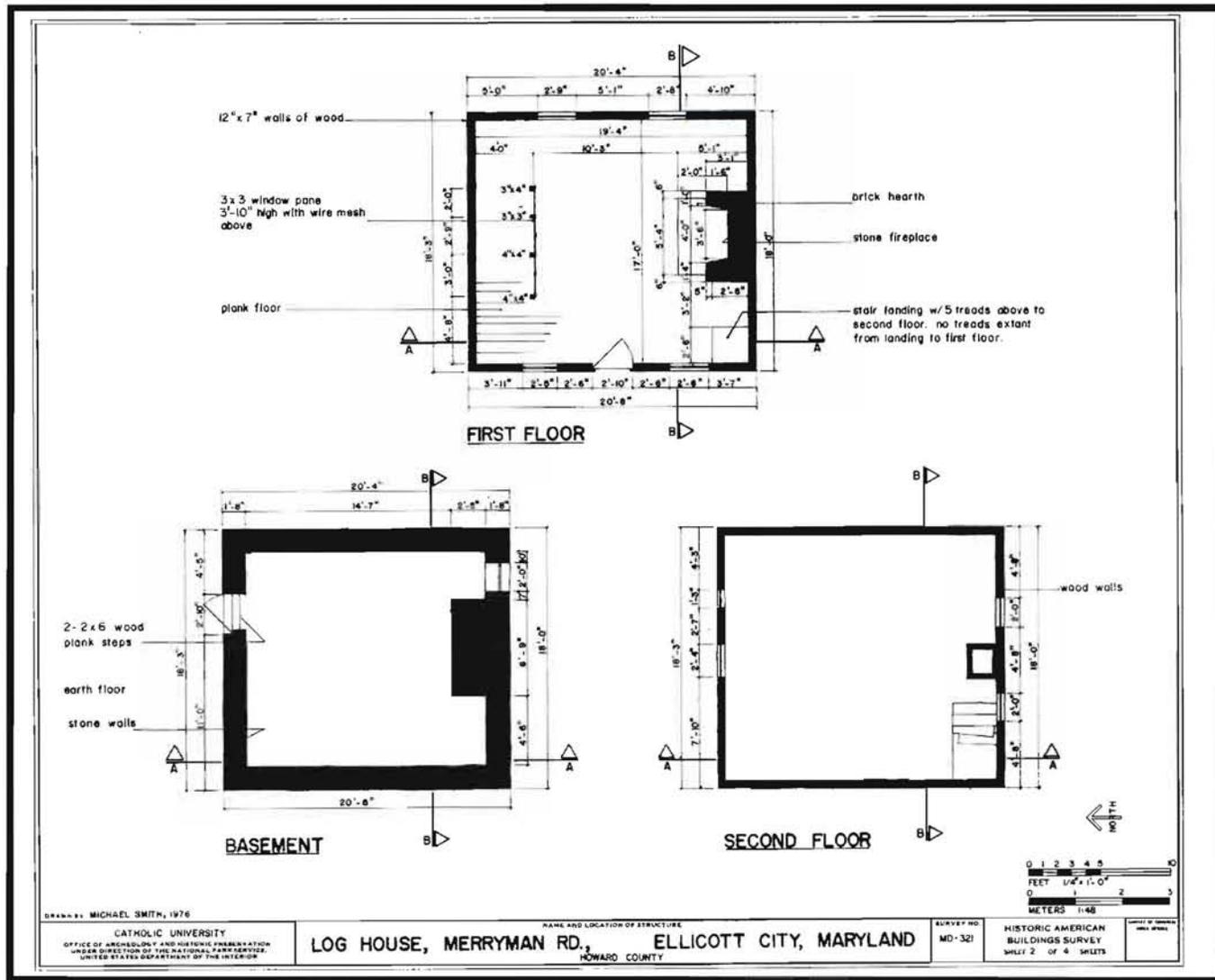


Figure 4.1. Drawing Depicting the Basement, First and Second Floor Plans of the Log House, Merryman RD, Ellicott City, Maryland. Many log buildings in this region were distinguished by a single room, or "pen," a one-room enclosure formed by four log walls (Source: Historic American Building Survey 1976).

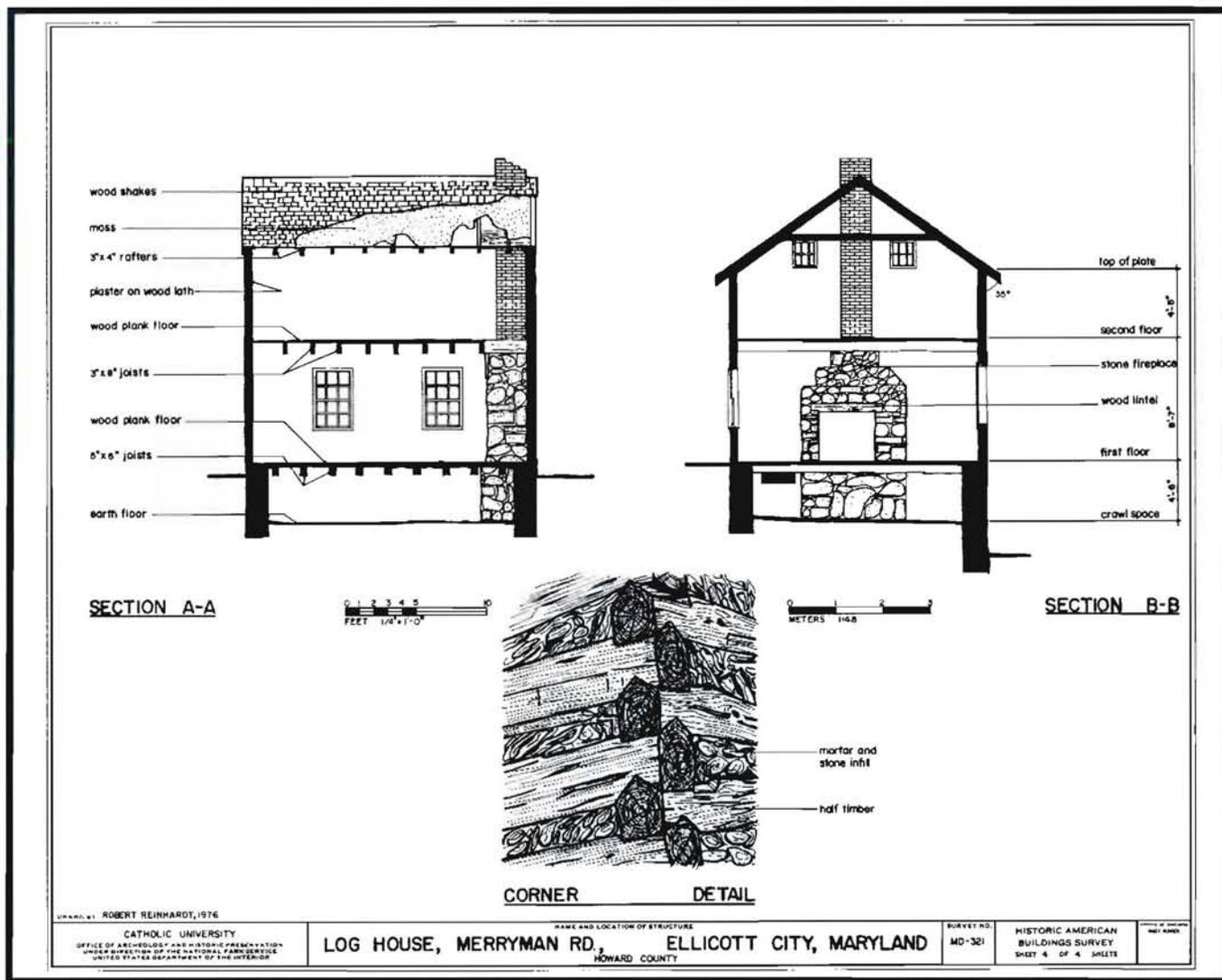


Figure 4.2. Section Views of the Log House, Merryman RD, Ellicott City, Maryland. This drawing depicts the centrally located interior hearth typical of many log buildings throughout the region. (Historic American Building Survey 1976).



Plate 4.2. View of the V-notch Joinery Method from the *Log Blacksmith Shop, Berks County, PA*. A similar method is used in Tweed's Tavern (Source: Historic American Building Survey, No date).

spaces between the stacked logs be filled. Known as *chinking*, practically any type of discarded or loose masonry, wood, or even moss and hair would be either mixed with a lime-based mortar, or placed into the interstices and covered with mortar to further seal the gaps (Plate 4.3). While this was an absolute necessity for the majority of the permanent, residential structures with hewn and rough-hewn walls, square hewn plank walls required relatively little in the way of infill, indicating a high level of finish that was both labor intensive and more resistant to the extremes of weather.

Interior walls in more rustic, lower-end buildings may have received a little finish work, such as whitewash or a coat of plaster, while well-refined, higher-end residences would receive plaster and lath wall treatment, akin to that found on their more expensive brick and stone counterparts. Exterior walls were also subject to the same chinking process but would commonly be sheathed, often in clapboard, plaster or stucco, or simply in a coat of whitewash. Log outbuildings were generally devoid of chinking or any type of interior or exterior treatment where ventilation of the interior was either necessary or merely a non-factor. Some buildings such as granaries, however, required a somewhat tighter seal to guard against vermin and weather (Andrzejewski and Siders 1992).

The decline of the log building, especially as a residential structure, began around 1820 in the northern counties of Delaware. The influence of the Agricultural Reform movement was instrumental in this change. This movement sought to reduce the burden on farmers and increase their productivity by improving overused and depleted soils, tools and implements, livestock through selective breeding; and the architecture of the farmstead. It was architecture that served, in a very public way, to elevate the status of the farmer. More elaborate farm residences and buildings were constructed, using frame or masonry, that were taller and provided more square footage for

living quarters. They also employed emerging architectural styles that reflected the new-found wealth and status of farmers.

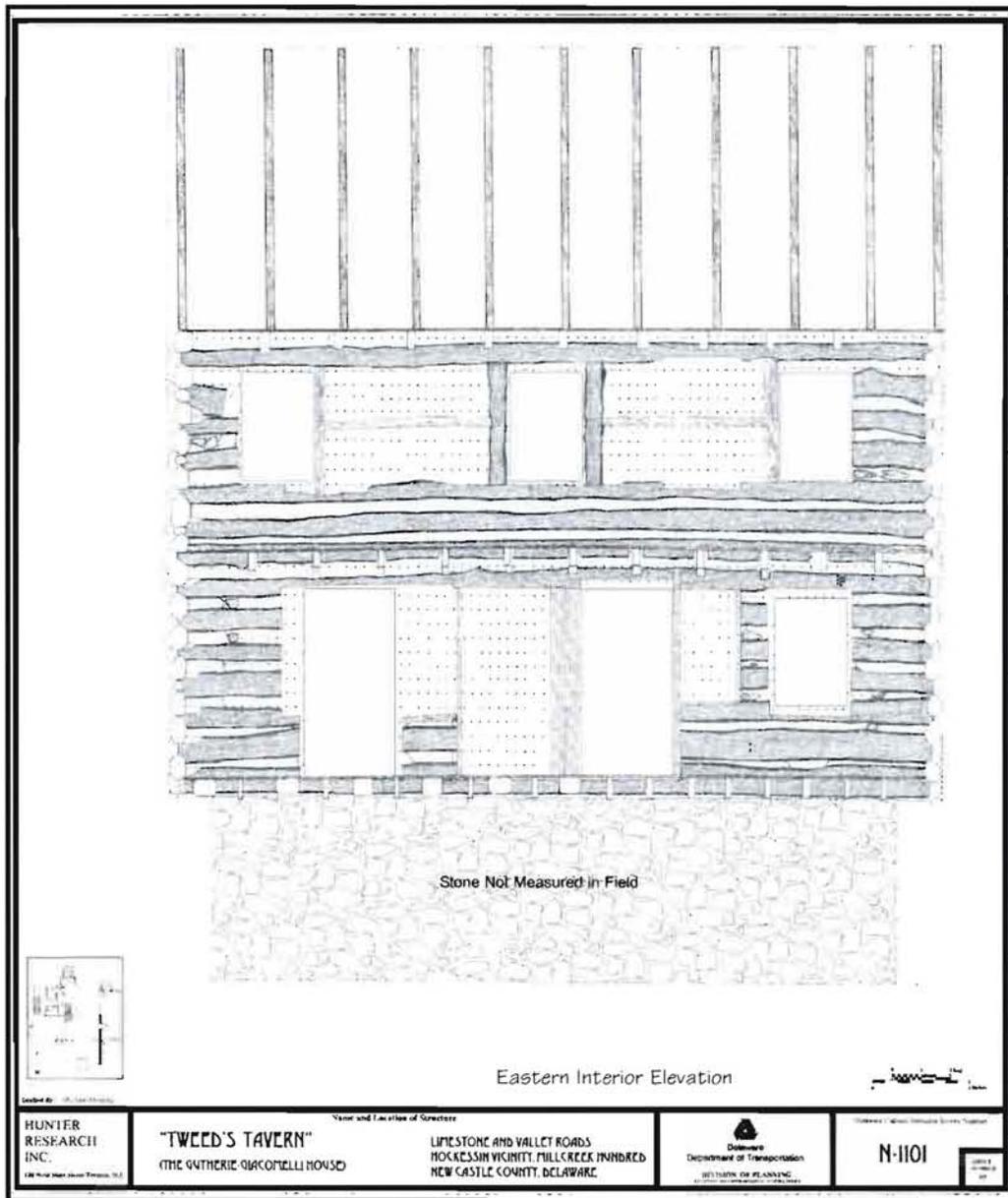
By 1860 log dwellings had virtually disappeared from the tax assessments, replaced largely by frame structures. It is reasonable to conclude that many of the log structures and buildings that appeared on tax assessments from the 1820s were remodeled and incorporated into the newer and larger frame constructs that appeared across the state in the following decades. Frequently these small log sections were integrated into kitchen wings or ells, or have been used as outbuildings to house tenants or laborers. Many probably still remain, hidden beneath modern siding and interior sheathing materials, as the Tweed's Tavern log building itself did (Noble 1984; Andrzejewski and Siders 1992).

B. DESCRIPTION OF THE BUILDING, ITS DATE AND ITS EVOLUTION

1. Overview

Tweed's Tavern (Figures 4.3-4.10) was observed to be a two story, end gabled building with a two-story northern addition (added in the early 1950s) and two story western addition (added in the 1980s). The building is fronted by a one story enclosed porch added at the same time as the western addition. The exterior walls of the building are covered in a unifying coat of stucco. The interior floor plan of the building was found to have been heavily reconfigured to accommodate later uses, first, as an expanded residence and then as an office building. The oldest surviving portion of the building appears to be an approximately 25' x 20' single pile core located on the building's southeastern corner.

Figure 4.3. Eastern Interior Elevation Showing Original Fabric.



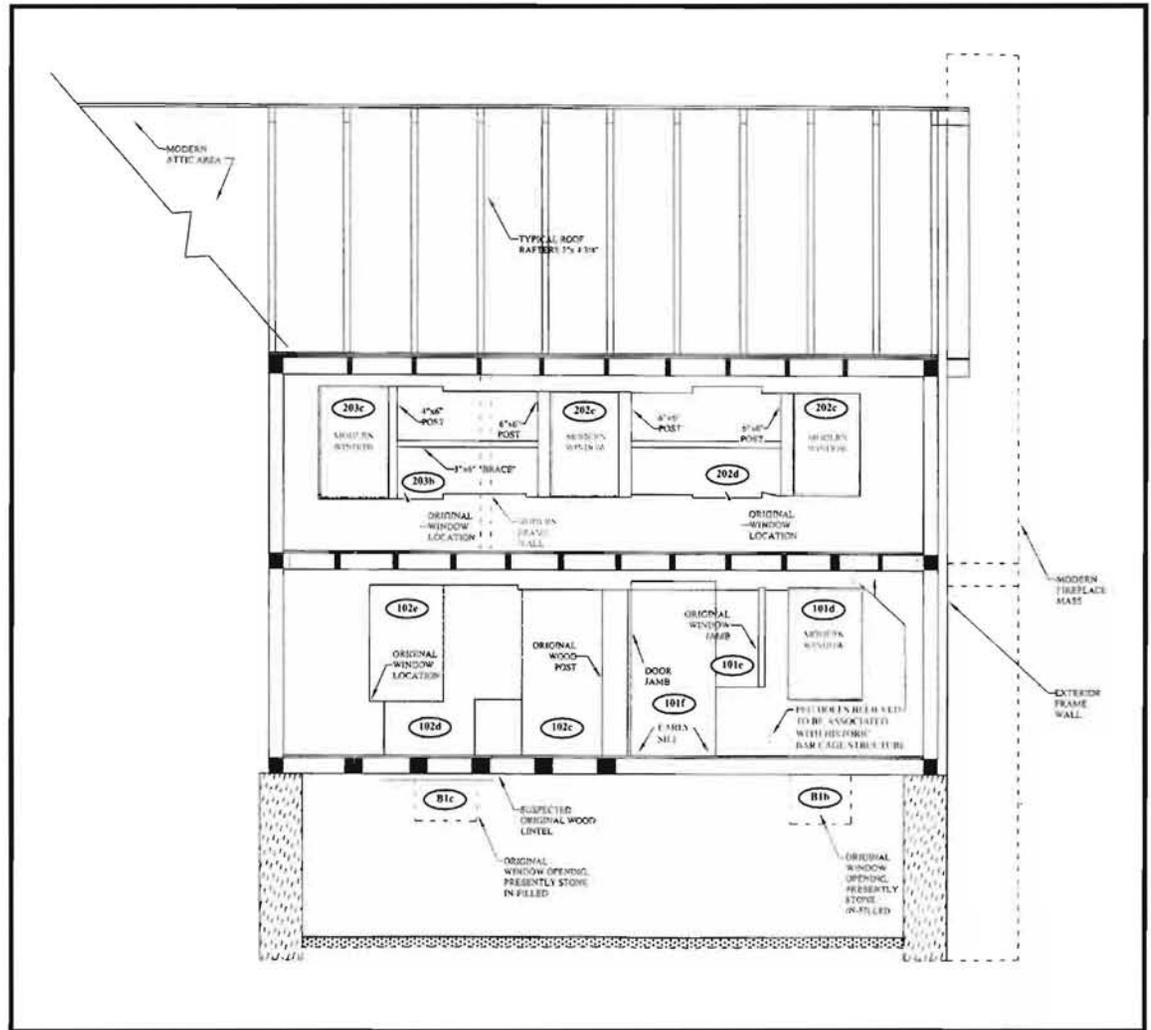
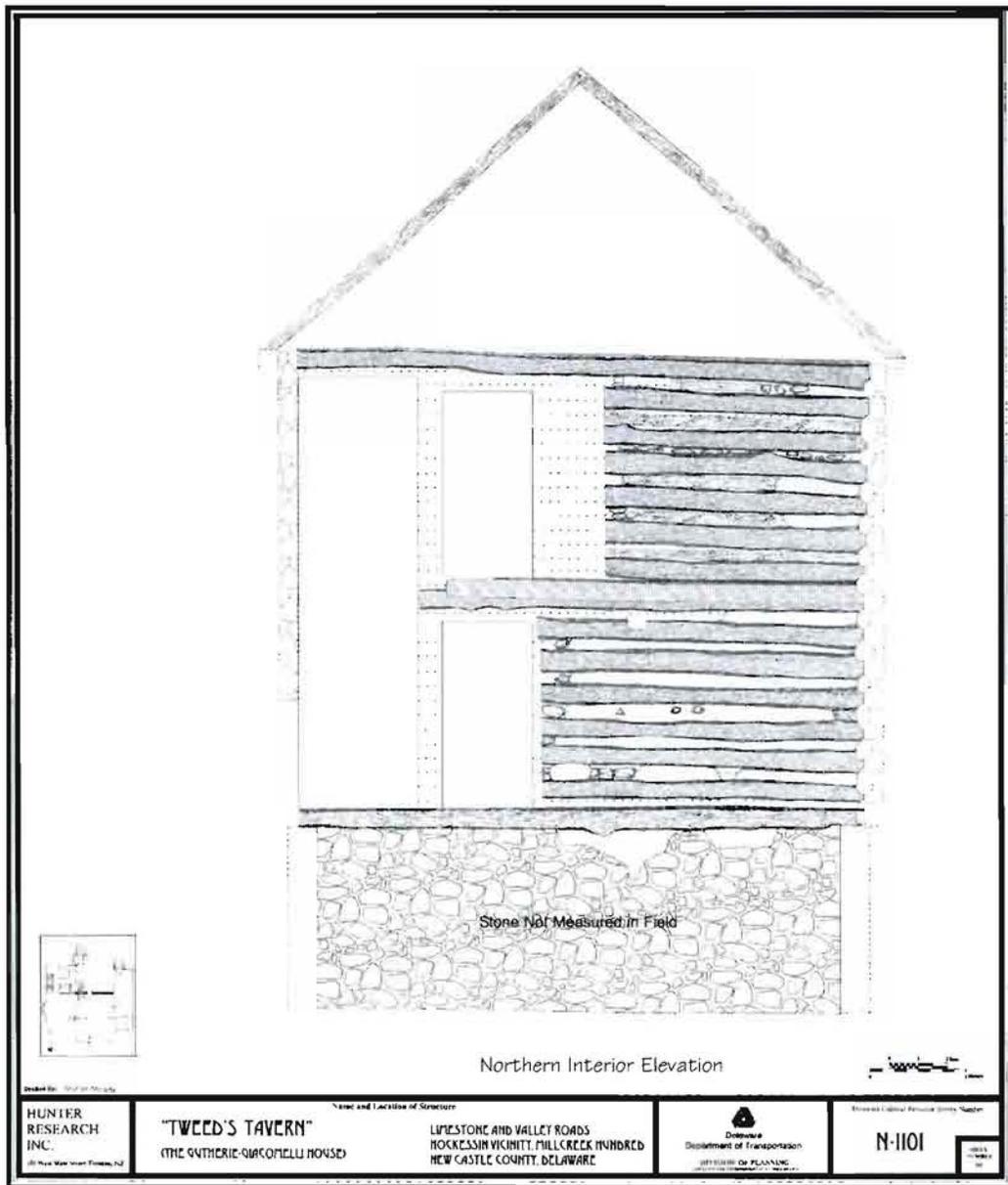


Figure 4.4. Eastern Elevation (Schematic), "Tweed's Tavern" (The Guthrie-Giacomelli House) (Source: John Milner Architects [with annotations by Hunter Research, Inc.]).

Figure 4.5 Northern Interior Elevation Showing Original Fabric.



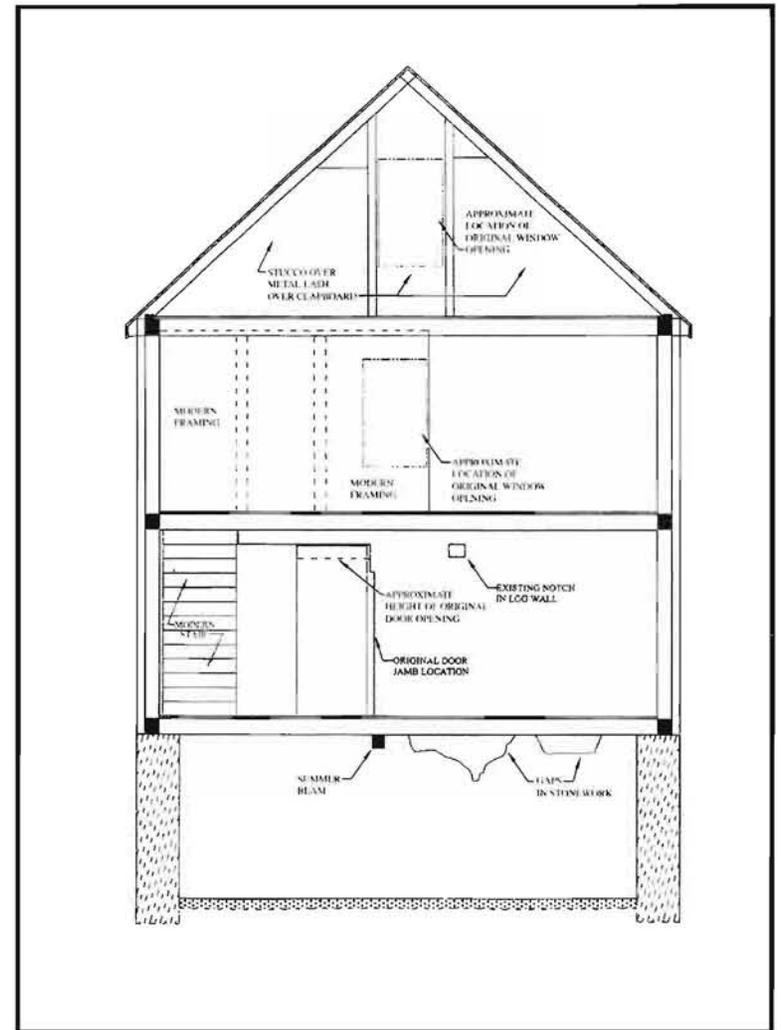
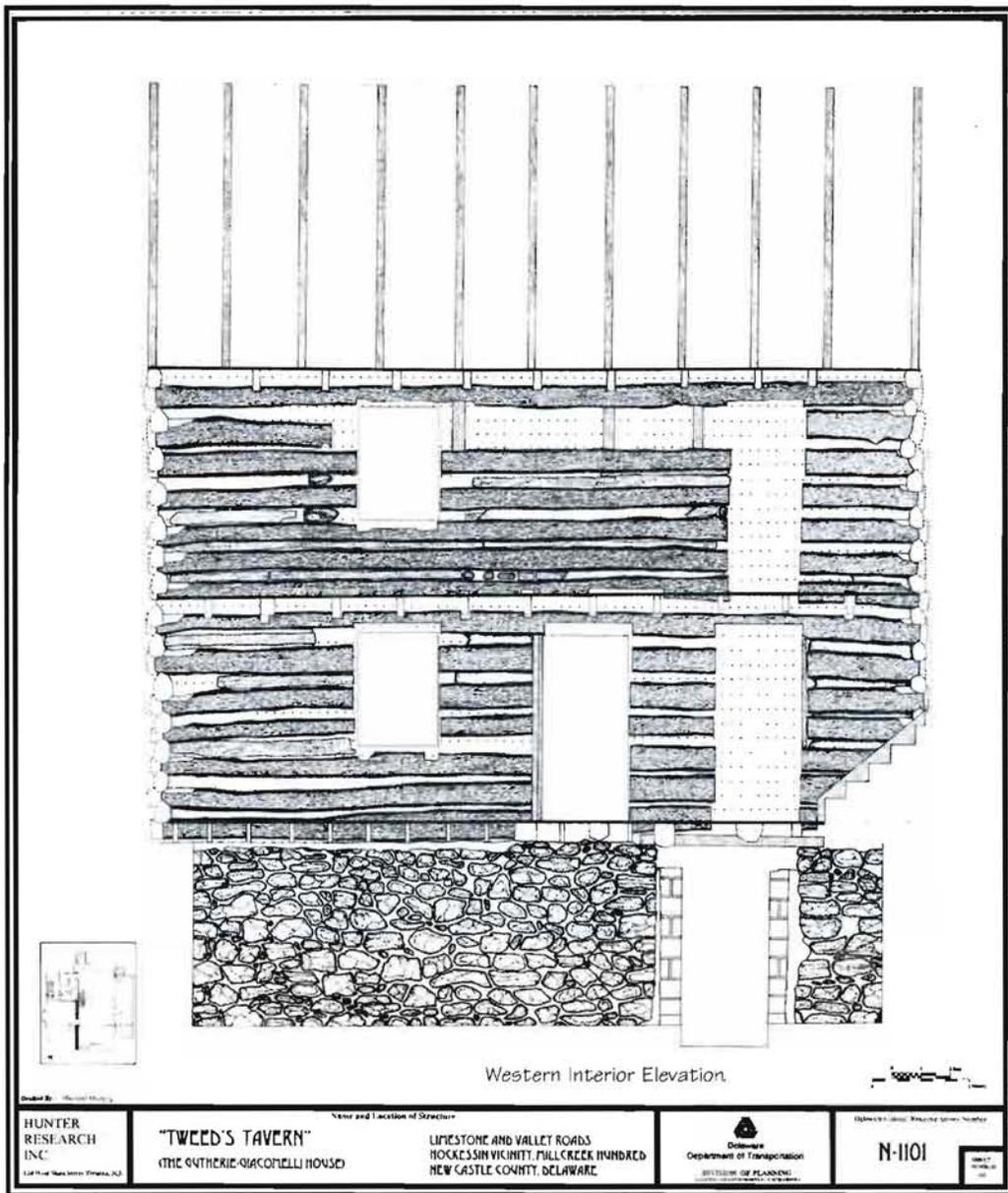


Figure 4.6. Northern Elevation (Schematic), "Tweed's Tavern" (Guthrie-Giacomelli House) (Source: John Milner Architects [with annotations by Hunter Research, Inc.]).

Figure 4.7. Western Interior Elevation Showing Original Fabric.



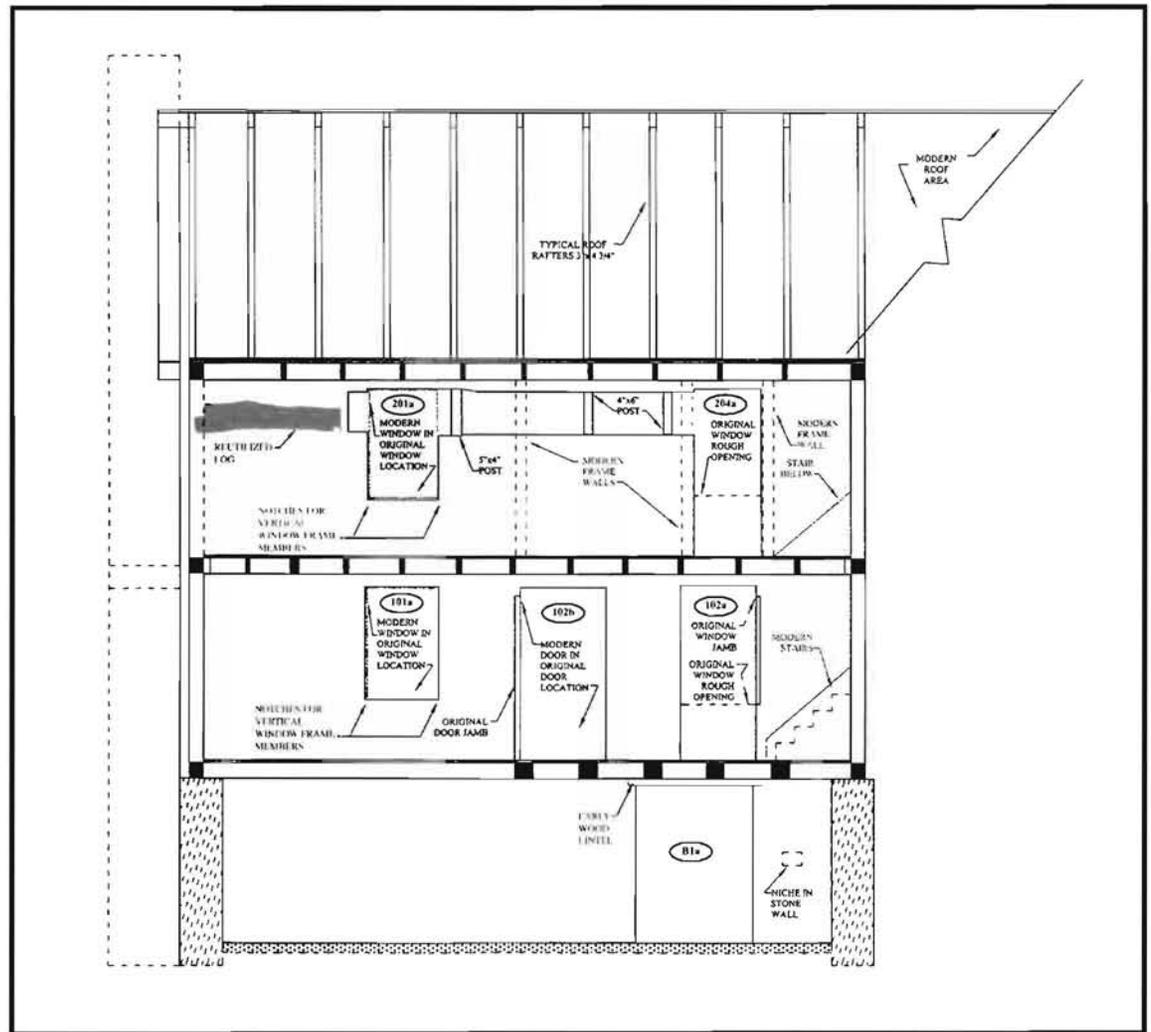
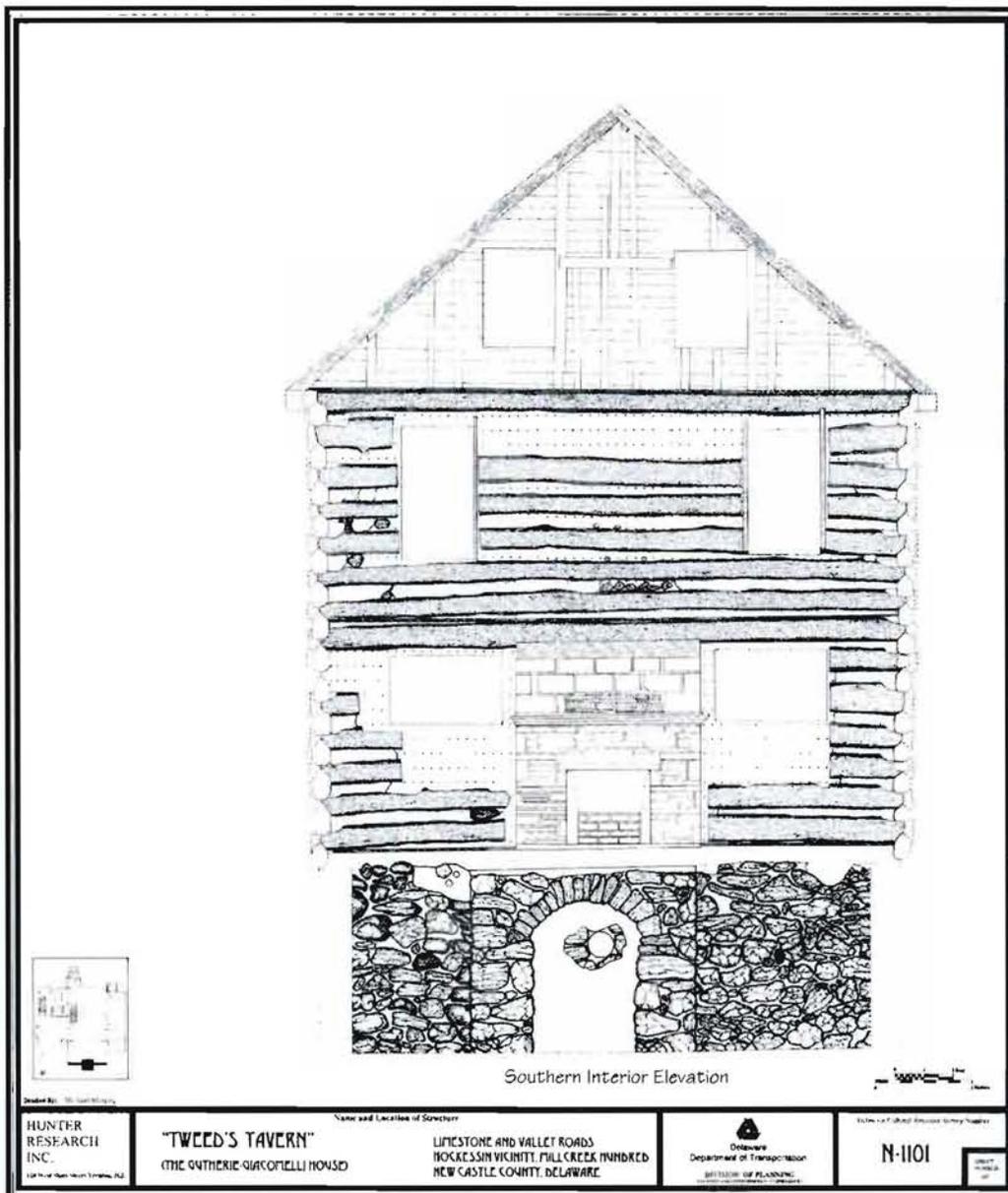


Figure 4.8. Western Elevation (Schematic), "Tweed's Tavern " (Gutherie-Giacomelli House) (Source: John Milner Architects [with annotations by Hunter Research, Inc.]).

Figure 4.9. Southern Interior Elevation Showing Original Fabric.



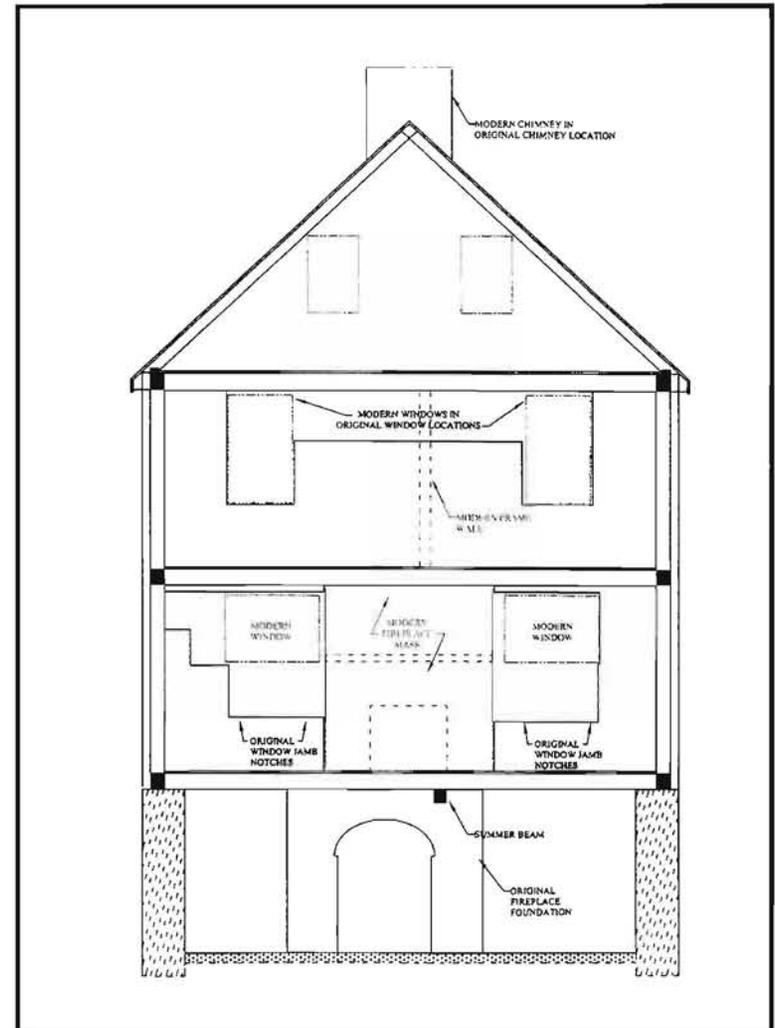


Figure 4.10. Southern Elevation (Schematic), "Tweed's Tavern" (Guthrie-Giacomelli House) (Source: John Milner Architects [with annotations by Hunter Research, Inc.]).

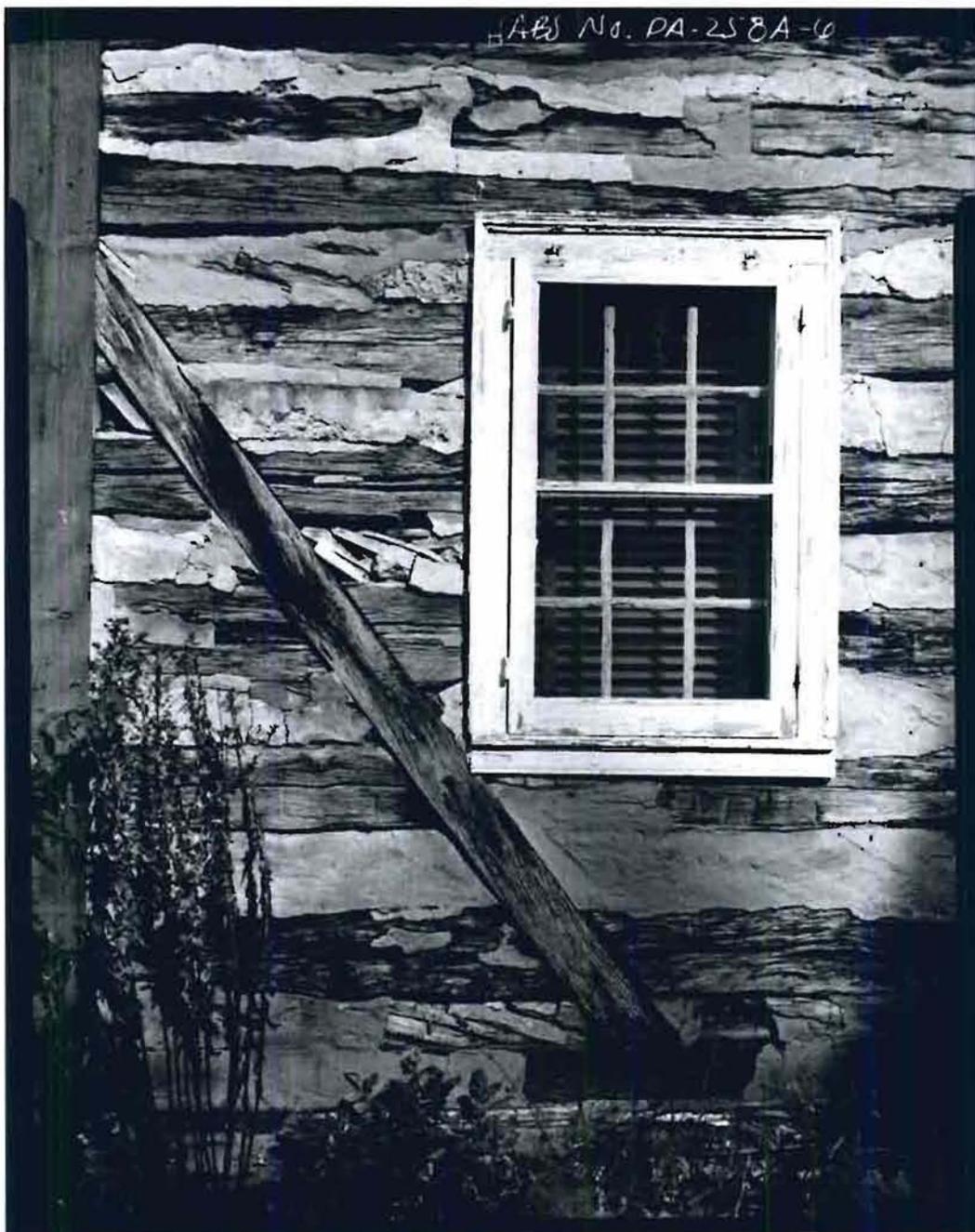


Plate 4.3. View of the, *Konig-Speicher Log House, Berks County PA*. This view depicts a typical style of mortar chinking that is placed into the interstices and covered with mortar to further seal the gaps (Source: Historic American Building Survey, No date).

The southern end of the house originally sat atop on a rubble stone basement (the building has since been removed to a new location). A large arched stone fireplace support was located slightly off-center on the basement's southern wall. Although a fireplace and exterior chimney running to the full height of the building were observed to be located above this feature, it was clear from close examination, and from information provided by Joan McVaugh, that an earlier brick chimney had been removed and a concrete block chimney and fireplace built south of and partially atop the truncated fireplace supports. A few surviving log first floor floor joists and a single hewn floor joist (running east/west) were observed. The remaining original first floor joists have been replaced by modern members. The joists were supported at the center of their span by a hewn summer beam (running north /south).

Contained within the body of the composite building are the exterior walls of a full two story log building of rough-hewn logs. Limited sections of log wall have been removed to facilitate the interconnection of the core building with later additions and the introduction of modern utilities. However, approximately 80 percent of the original exterior walls survive intact. Removal of interior wall surfaces during the latest phase of historic architectural investigations revealed the use of a V-notched method of log joinery in the building's construction. The logs used in this construction were hewn flat on their interior and exterior vertical faces. Rounded bark-covered sides remain intact on their upper and lower horizontal surfaces. The wide interstices between the logs were found to have been chinked with fieldstone and mortar. On the original interior wall surfaces, this chinking was coated with a smooth layer of stucco. The whole interior surface of the wall, both logs and chinking, was over painted with a coat of whitewash.

Evidence has also been identified to indicate that a coat of stucco applied over wooden lath historically covered most of the exterior surfaces of the log section of the building. This original layer of stucco has been removed but in many places the early lath survives beneath a coat of stucco over wire mesh, applied in the 1934-50 period. Following the removal of modern interior wall surfaces on the first floor, a chronology of changes to door and window placement was documented. This chronology seems to correspond to a historic era modification of the interior that involved a partitioning of an original single cell first floor plan into two rooms. This process involved the addition of a second doorway to the eastern elevation. All of the early window and door fixtures have been replaced or removed but sections of original windowsills; door jams and framing survive in a few locations. Due to the heavy reconfiguration of the interior, including the replacement of the original floor, the ceiling and second floor joists, it has not been possible to definitively determine the earliest configuration of the first floor but all evidence seems to suggest an open plan. On the second floor, several 19th-century interior partition walls survive but none appears to be contemporaneous with the date of original construction.

The potential raising of the house from a one and a half story to a full two story building was considered because of a horizontal row of disturbed log members that was documented in the second floor log wall matrix. These logs appeared to be *ex situ* and for the most part lacked the interstitial chinking which elsewhere survives. However, some areas of apparently intact wall matrix were observed at the same relative height as those that appeared disturbed and a dendrochronological examination of suspect members showed them to be of approximately the same date as the rest of the wall fabric.

Selected wood samples were obtained from the logs and submitted to the Center For Wood Anatomy Research of the United States Forest Products

Laboratory. The majority of the logs were identified as belonging to the "Red Oak group" (*Quercus rubra*) although at least one was identified as Tulip Poplar (*Liriodendron tulipifera*).

2. Catalog of Spaces, Documenting Historic Building Fabric

In this section, each of the spaces within the structure as it existed in 1999 is systematically described. This description should be read with close reference to the figures and plates.

a. Basement (Figures 4.11 and 4.12)

Room B-1

Room B-1 represents the cellar of the earliest portion of the house (Plate 4.4). The space measures approximately 23' x 18' and contained the building's modern furnace and fuel oil tanks. A large arched stone support for the original chimney stack and hearth survived along the southern wall (Plate 4.5).

Walls

The walls of Room B-1 were constructed of fieldstone and had been lightly parged although much of this finish was worn or spalled. The bottom logs of the original building's upper walls rested directly on the top course of the cellar walls. Stones had been removed from the top of the northern cellar wall near the northeast corner of the building. These later modifications (Plate 4.6) appear to have been made in order to provide access into Crawl Space B-2 and to provide a space for ductwork added during the construction of the northern addition. A small niche was visible in the western wall to the north of Door B1a. Niches such as this one are found relatively frequently in the basement walls of buildings of this age and it has been

hypothesized that they were used as shelves for lamps or candles. In spite of these suppositions, no consensus exists for their intended purpose. In this instance another possible interpretation of this feature is that it represents a vestigial pocket for a horizontal framing member associated with a winder or box stair.

Windows

Although currently a window-less space, two window openings (Windows B1b and B1c) that formerly provided light to room were observed near the top of the east wall. The southernmost of these, Window B1b appears in a historic photograph of Tweed's Tavern to the left of the concrete block porch deck in Plate 3.6. The photograph shows the opening prior to infilling with stone. These openings were centered on each side of original first floor door openings and topped by a wooden lintel. No evidence of the sash type was identified either through first hand inspection or from detailed examination of historic photographs. Window B1c, filled in and topped by a wood lintel appears in Plate 4.7. Windows B1b and B1c would likely have consisted of a simple casement fixture or, alternatively since these were basement windows, they may have barred with wood or iron and lacked a sash entirely.

Floors

A concrete floor, poured *circa* 1976, obscures the original dirt floor surface.

Doors

Original access to Room B-1 was achieved through an exterior "bulkhead" basement entry located on the building's western wall. This original opening was reused in the construction of the building's western addition to provide access between Rooms B-1 and B-3. Two steps led up from Room B-1 to Room B-3. Although the doorway had been widened to accommodate returns associated with the concrete block

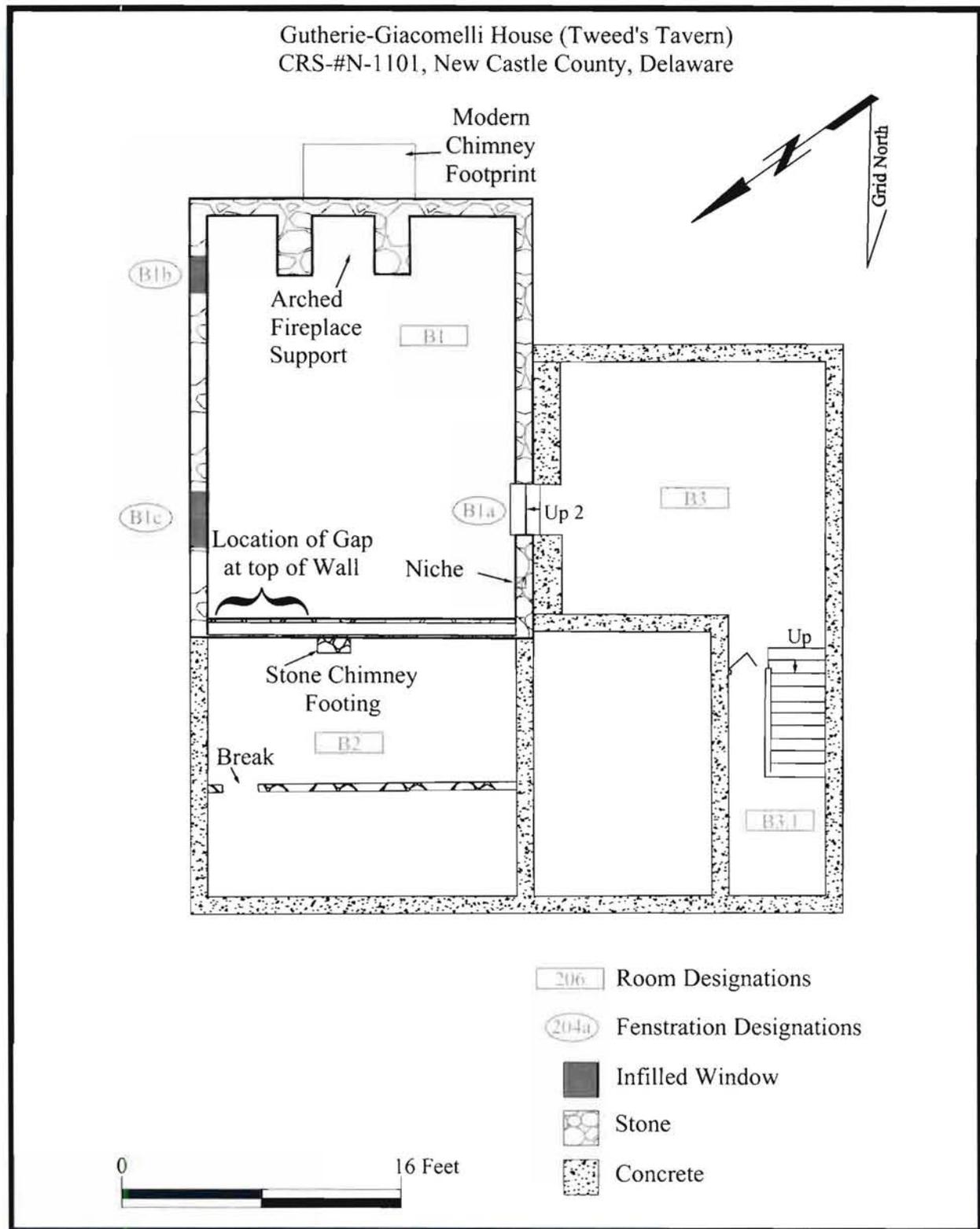


Figure 4.11. Basement Plan.

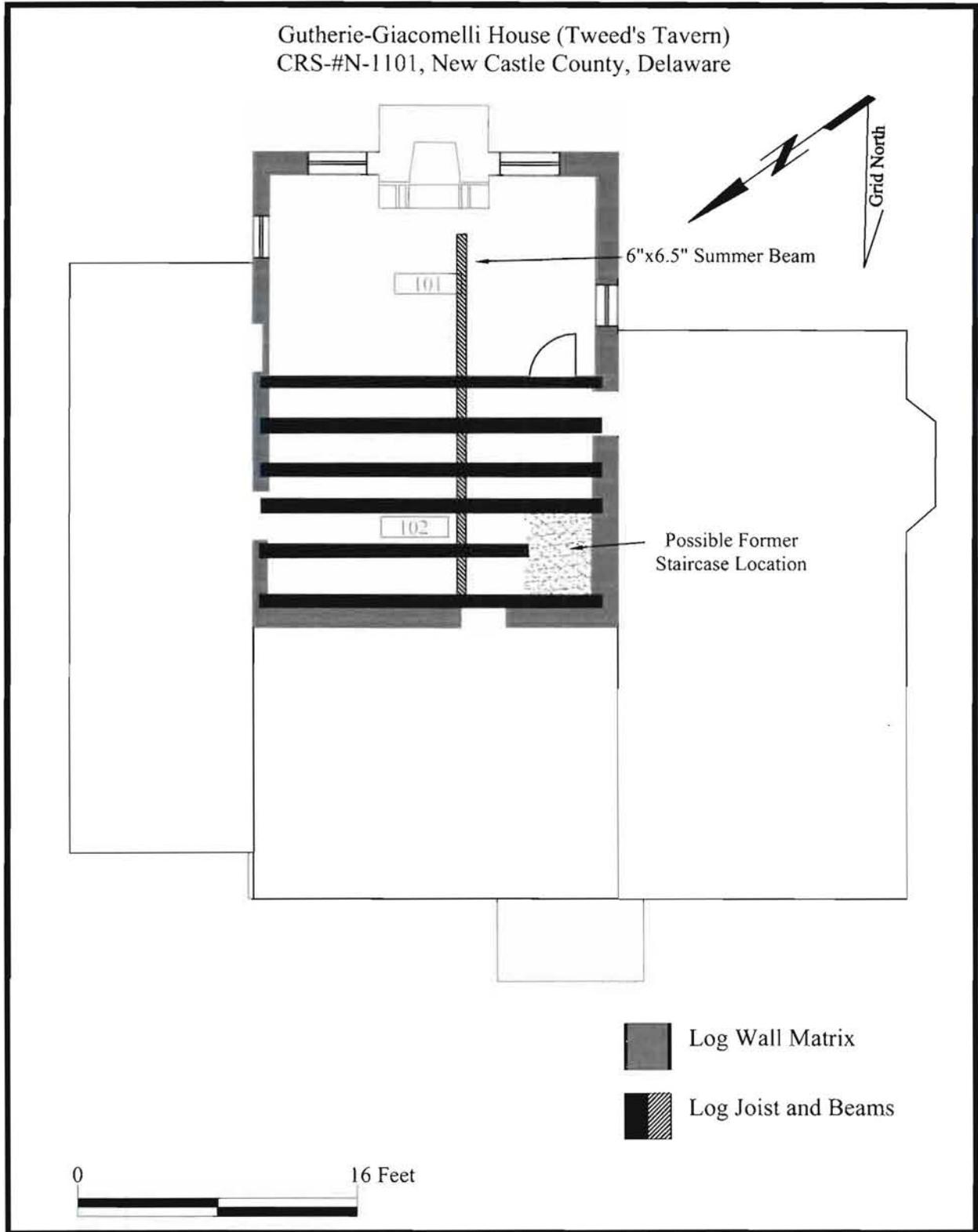


Figure 4.12. First Floor Joist Plan.

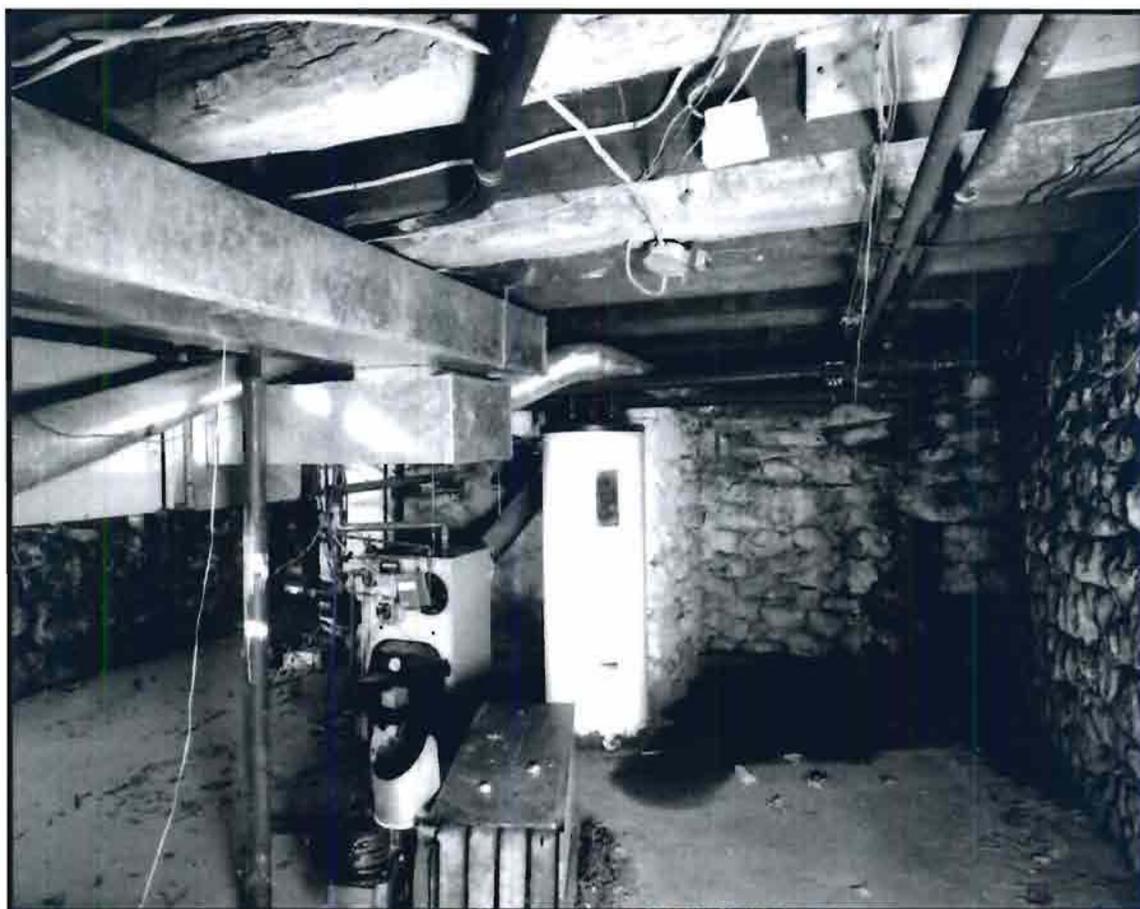


Plate 4.4. View of Room B-1, looking southeast with original chimney supports at center of view (Photographer: Dawn Turner, December 1999)[HRI Neg.# 99037/35:11].



Plate 4.5. View showing the stone rubble foundation, and the large arched stone fire-place support located at the center of the basement's south wall. The building has since been removed from its original foundation to a new location (Photographer: Dawn Turner, December 1999)[HRI Neg.# 99037/36:7].



Plate 4.6. View of first floor framing, Room B-1 looking northeast. Summer beam is visible at top center. Opening made in northern foundation wall to accommodate late ductwork appears at right (Photographer: Dawn Turner, December 1999)[HRI Neg.# 98039/1:18].



Plate 4.7. View of cellar wall in Room B-1 looking east-northeast. Filled in opening of Window B1c and wooden window lintel visible at center of image (Photographer: Dawn Turner, December 1999)[HRI Neg.# 98039/1:25].

walls of Room B-3, the southern edge of the opening appears to have been unaltered and represents the line of the original jamb. The historic exterior cellar bulkhead entry is visible in historic photographs of the house from the 1950s (Plates 3.3 and 3.7). A late 18th-century/early 19th-century padlock with brass escutcheon and cover (Plate 4.8) was recovered during the investigation of the western wall of Room 102. This lock was discovered resting in between the wall logs in close relationship to the location of the historic bulkhead door. The padlock may have been utilized as a way to secure the hatch/bulkhead door.

Ceiling

Joist framing for the first floor was exposed (Plate 4.9). A 20 foot long summer beam (6" x 6.5") rested atop the southwestern jamb of the fireplace support and extended the full length across the room resting atop the northern wall just west of center. Original joists had been removed from the southern half of the room and replaced by modern members carrying a plywood subfloor. Joists above the northern half of the room consisted of five irregularly-spaced fully round logs. These log joists rested atop the eastern and the western walls and are carried by the summer beam. The northernmost log joist has been cut off approximately 4 feet short of the western wall. This beam may have been left shorter than the others in order to accommodate the well hole of a winder staircase providing interior access to the basement.

Crawl Space B-2

This space ranged from twelve and twenty-four inches in height and consists of the foundation for the northern addition added in the early 1950s, possibly built on earlier foundations (see Chapter 5).

Floors

Earthen. A shallow stone footing was located by archaeological excavation just east of center adjacent to the southern wall (see Chapter 5). This footing probably represents the base of the brick chimney visible in Plate 3.1. Given the relatively limited dimensions of this stone footing in comparison to those which would be more typically associated with that of a cooking fireplace, it is likely that the chimney was constructed in conjunction with the installation of a cook stove rather than a full cooking fireplace.

Walls

The northern, eastern and western walls were constructed of concrete block. The southern wall of Crawl Space B-2 is the upper section of the northern wall of Room B-1. A low east-west stone wall divided crawlspace B-2 from B-2.1. This wall probably represents the northern foundation wall of a shed-roofed northern kitchen space that predated the current two-story concrete block structure. This addition is visible in historic photographs of the house (Plates 3.1, 3.5 and 3.6). A break in this division wall provides access between Crawl Space B-2 and B-2.1.

Doors/Windows

A single small rectangular opening approximately 18" in height existed in the northern wall to allow access and ventilation to the crawl space from the exterior of the building.

Room B-3

Room B-3 was the cellar of the western two story addition. No historic fabric is visible in this room.



Plate 4.8 Guthrie-Giacomelli House (Tweed's Tavern) CRS-#N-1101, and Tweed's Tavern Archaeological Site [7NC-A-18]. Artifacts recovered from between horizontal timbers sealed inside of the walls. The top row from left to right shows a pale aqua rectangular paneled bottle with a recessed label plate for a paper lable, now gone, a clear rectangular medicine bottle embossed "Dr J. SIMMS & SON UNEQUALED COUGH SYRUP FOR PULMONARY DISEASES WILMINGTON DEL" and iron heart-shaped padlock with a brass keyhole cover plate stamped "PATENT", "PATENT". The bottom row shows an iron two tine fork with a bone handle (Photographer: Michael Murphy, June 2003)[HRI Neg.# 02095/D1:23].



Plate 4.9. View of first floor replacement joists in Room B-1 looking south
(Photographer: Dawn Turner, December 1999)[HRI Neg.# 98039/1:24].

b. First Floor (Figures 4.13 and 4.14)

Room 101

Room 101 (Plates 4.10-4.14) is part of the original *circa* 1795 section of the house and is a component of the principal tavern space. It is believed to have contained both the tavern "bar cage" and the building's primary hearth. The historic firebox and its brick chimneystack were removed in the 1950s and replaced with the present exterior concrete block chimney and firebox. The earlier interior fireplace and chimneystack appear in a historic photograph of the interior of Room 101 (Plate 3.2).

Floors

Flooring consists of plywood over replacement joists. The removal of the historic flooring and joists has eliminated all evidence of the original hearth dimensions and materials of construction.

Walls

Eastern, western and southern walls of Room 101 consist of original log matrix with stone and mortar chinking. The northern wall of Room 101 consists of a late 20th-century partition. No evidence of earlier partition walls were observed although one was likely put in place at some point in the 19th century at the time that a second doorway was cut into the building's eastern wall. Pegs inserted into drilled or augered holes on the east wall of the building near the southeastern corner of this room were probably related either to the "bar cage" itself or shelving/cabinetry within the structure. A line on the western wall south of Window 101a may indicate the location of a built-in cabinet, closet or cupboard.

Windows

All present window fixtures are modern replacements although evidence of their predecessors and relict earlier window openings survive. For example the existing modern unit, Window 101a, has been installed in an earlier opening. The wall fabric surrounding the modern fixture displays notches in the logs immediately above and below the existing window unit that were cut to accommodate the butt ends of the vertical members which framed the historic window jams. Vertical recesses to the left and right of the existing window accommodated these members. Window headers and sills would have been pegged into the now missing vertical members and would not have left their own evidence on the surviving wall fabric.

Windows 101b and 101c are modern casement windows that flank the chimneystack. Both windows have been fitted into larger historic openings. These earlier windows with double hung sashes appear in Plate 3.1. The wall fabric above and below Windows 101b and 101c display the same notches observed with reference to Window 101a.

Window 101d is modern double hung sash of the same type as 101a. Like 101a this fixture has been set into a preexisting window opening but unlike Window 101a the wall fabric above and below this fixture shows no evidences of notching. The log member above the window opening displays empty vestigial peg holes cut with an auger bit. While these auger holes are clearly evidence of an earlier window fixture in this location the lack of notching such as seen as is associated with the other known original window locations suggests that the opening in which Window 101d currently sits represents a historic modification to the original door and window arrangement.

Evidence of an earlier window location survives to the north (left) of Window 101d. A partial relict window opening (Window 101e) is visible in the log wall fab-

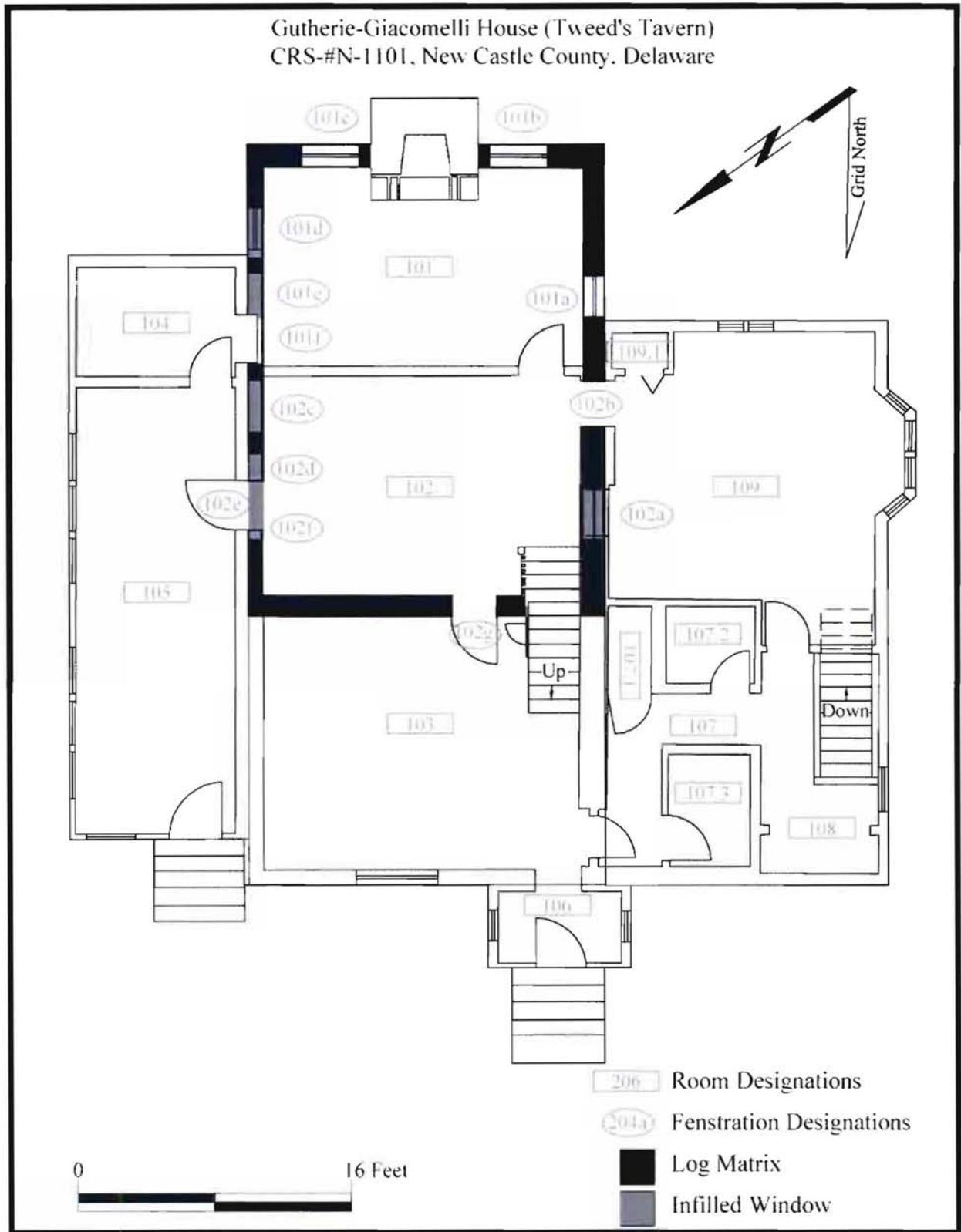


Figure 4.13. First Floor Plan.

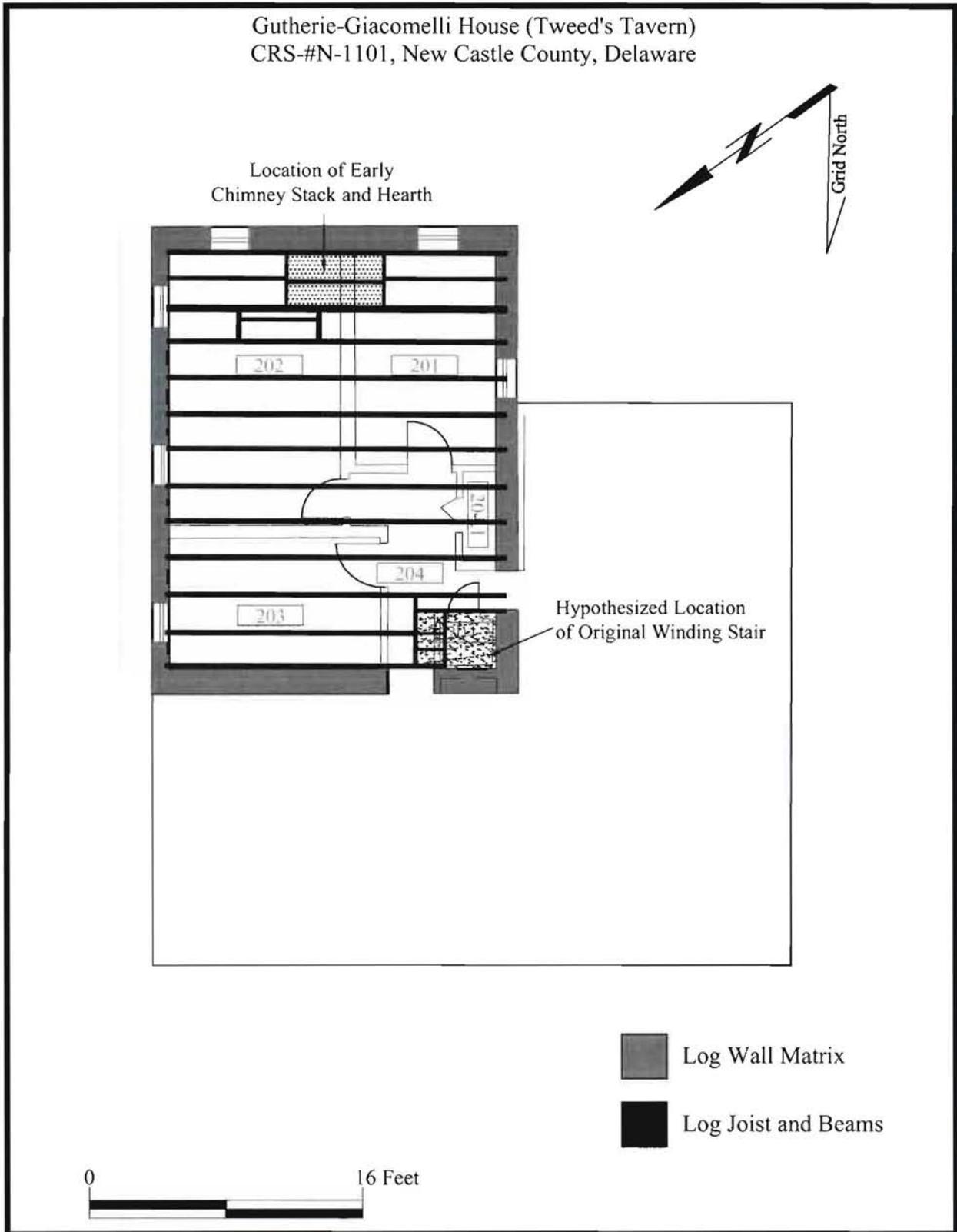


Figure 4.14 Second Floor Joist Plan.

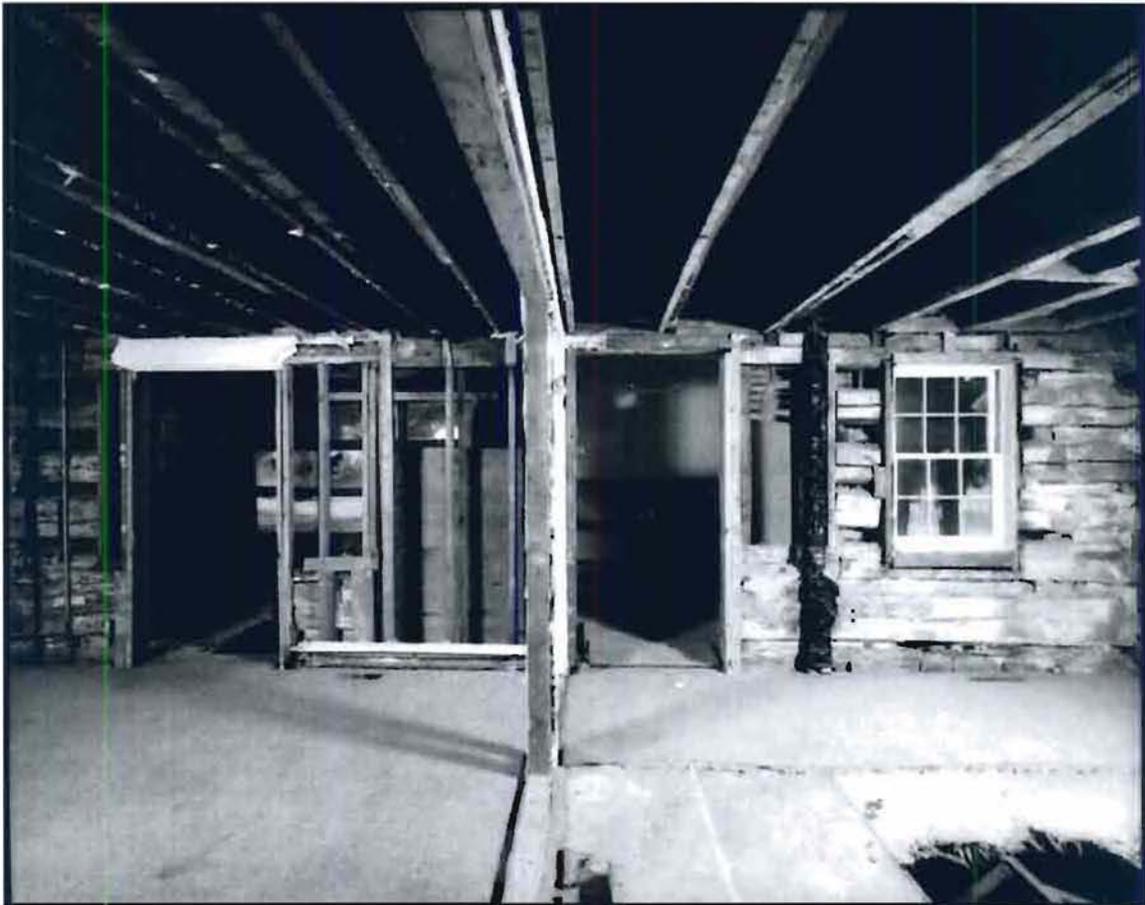


Plate 4.10. Interior view of east wall, Rooms 101 and 102. Room 102 at left. Twentieth century interior room partition at center of view (Photographer: Dawn Turner, December 1999)[HRI Neg.# 99037/31:1].