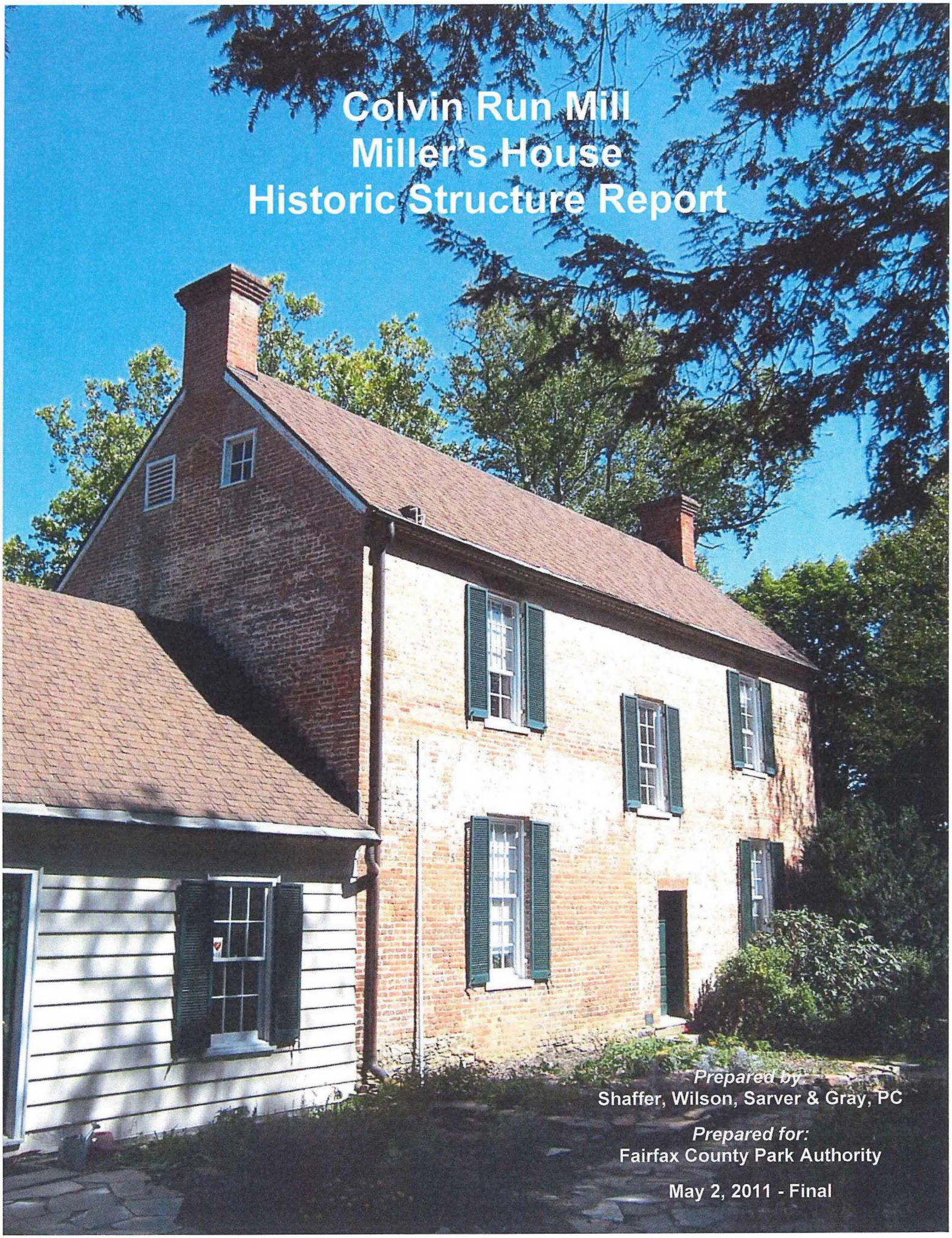
# Colvin Run Mill
# Miller's House
# Historic Structure Report



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May 2, 2011 - Final

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SWSG PN 10-064

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# EXECUTIVE SUMMARY

The Colvin Run Miller's house is significant due to its federal-period architecture and its association with broad patterns of our history, such as industrial development and early commerce. The Period of Significance is ca. 1806 - 1934. The period begins with the design and construction of the dwelling and extends through the time periods when the house was the residence of a miller. The house retains its historical integrity and exhibits several character-defining features of federal-period design as well as fine woodworking craftsmanship.

The treatment plan for the house is rehabilitation, which allows for office and museum use while emphasizing repairs. A historical finish analysis was conducted that determined the original and late 19th-century paint colors on the woodwork. Lack of paint on the walls suggests that the house may have always been wallpapered. An environmental evaluation of the house determined that lead-based paint is present, as well as asbestos found in the joint compound used throughout the addition.

During the investigation of the house, a structural analysis was performed that revealed that the exhibit room, hall, and the upstairs spaces do not meet code-required loading. Since the live load capacities of both floors are less than code requirements (significantly so for both floors), SWSG has recommended to the Fairfax County Park Authority that these spaces cannot be used until temporary or permanent structural repairs are made such that the floors can meet current codes.

Work performed on the house should follow the Secretary of the Interior's Standards for the Treatment of Historic Properties for a rehabilitation project. These standards are currently available online on the National Park Service website. In addition, the National Park Service has Preservation Briefs online that provide technical guidance for various repairs to historical materials.

# CHAPTER 1. INTRODUCTION

## PURPOSE OF REPORT

The primary purposes of the report are as follows:

1. to document the historical associations and significance,
2. to record the floor plans, elevations, and key millwork profiles in drawings and photographs,
3. to evaluate changes to the house over time,
4. to evaluate the structural capacity of the rooms and prescribe appropriate uses,
5. to develop a treatment plan to be used as a guide for repairs for use of the house as office space, if feasible.

Important components of this study entail documenting the existing floor plans and assessing the structure's condition. A thorough analysis of the physical evidence was desired to develop theories pertaining to the principle phases of construction.

## PRESERVATION OBJECTIVES

Colvin Run Mill (029-0008) was listed on the National Register of Historic Places on August 16, 1977 and the Virginia Landmarks Register on September 21, 1976. The miller's house was only mentioned in the nomination. However, the Colvin Run Miller's House was placed individually on the Fairfax County Inventory of Historic Sites. The house is classified as a historic property within the Fairfax County Colvin Run Mill historic overlay district adopted by the Board of Supervisors in 1972.

The Fairfax County Park Authority utilizes the Colvin Run Miller's House as office and museum space and was previously rehabilitated for these new uses. Therefore, the most appropriate preservation treatment for the interior spaces is rehabilitation with an emphasis on repair.

Rehabilitation is defined by the Secretary of the Interior as the act or process of making possible a compatible use for a property through repair, alterations, and additions while preserving those portions or features that convey its historical, cultural, or architectural values.

With a rehabilitation treatment, the historic character of the property shall be maintained, including distinctive materials, features, finishes, and construction techniques. Repair is the appropriate action when features are deteriorated. Replacement is appropriate only when the level of deterioration precludes repair.

## RELATIONSHIPS TO OTHER PLANNING DOCUMENTS

The revised master plan for Colvin Run Mill Historic Site, approved in 2008, provides a long-range vision for the site. Due to its significant historic and cultural resources, the park is classified as a resource-based park. The Colvin Run Miller's House is situated within the Core Interpretive Zone. The purpose of the park, as stated in the revised master plan, is to

> *Maintain and interpret the historic buildings and collections at the site for the enrichment of Fairfax County residents and visitors as they relate to the themes of technology and community in 19th – early 20th century rural Northern Virginia.*
>
> *Preserve, protect, and interpret natural and cultural resources, to the extent that it does not conflict with management of either resource type onsite and to; Provide a natural setting for passive recreational activities, which includes trail use, enjoyment of nature and history.*

Any exterior changes to the Colvin Run Miller's House are governed by the Colvin Run Mill Historic Overlay District guidelines established by the County of Fairfax. Exterior changes are subject to review by the Fairfax County Architectural Review Board.

A Cultural Landscape Report for Colvin Run Mill Historic Site is currently being prepared by John Milner Associates, Inc.

## METHODS OF EVALUATION

### Historical Research

Research was conducted to identify historical associations relative to the Colvin Run Miller's House.

Research undertaken in the course of this study included:

- A search of Fairfax County and Loudoun County deed and will records.
- A search of the Loudoun County mill index.
- A search of Virginia land grants and patents.
- A search and review of Fairfax County Chancery Cases
- A search of the Fairfax County Public Library (FCPL) historical newspaper index and the subsequent review of newspaper articles on microfilm.
- A search of the *Washington Post* historical newspaper database.
- A search of the Geneologybank newspaper database.
- Review of historical photographs obtained from the Fairfax County Public Library.
- Scrutinizing the 1937 aerial photo.
- Researching federal census records.
- Conducting a map survey.

All of the above referenced documents were examined for historical references to activities associated with the Colvin Run Miller's House, and are listed chronologically in a chain of key events.

### Existing Conditions Survey

The primary method used to evaluate the structure was through visual inspection of the design and materials. Identification of original components and the dating of subsequent introduced elements combined for a comparative analysis that developed a theory of building evolution. Piece-by-piece scrutiny of visible structural and architectural elements provided a condition assessment.

Photographic documentation was taken of the house.

### Engineering Assessments

Visual examination of the structure was performed to identify areas of structural concern. Data was collected on the size of structural members and the material composition of the house so that the load bearing capacity in each room could be determined. Minimal intrusions into the building fabric were necessary. The evaluation was used to make recommendations on the use of each room and to make recommendations for structural repair.

Mechanical and electrical systems were evaluated to determine anticipated equipment life span, capacity to serve a new use, and compliance with building codes.

## Measured Drawings

Field measurements of the existing floor plans and elevations were taken to create measured drawings. Photographs supplemented field measurements during preparation of the elevations.

### LOCATION OF PROPERTY

The miller's house is located within the Colvin Run Mill Historic Site situated between Leesburg Pike (Route 7) and Colvin Run Road.

The house is situated on a 67-acre historic site located at 10017 Colvin Run Road, Great Falls Virginia, 22066 in the Dranesville District of the County of Fairfax. The Fairfax County tax map number for the parcel is 0182 01 0024. The USGS quadrangle is Vienna.

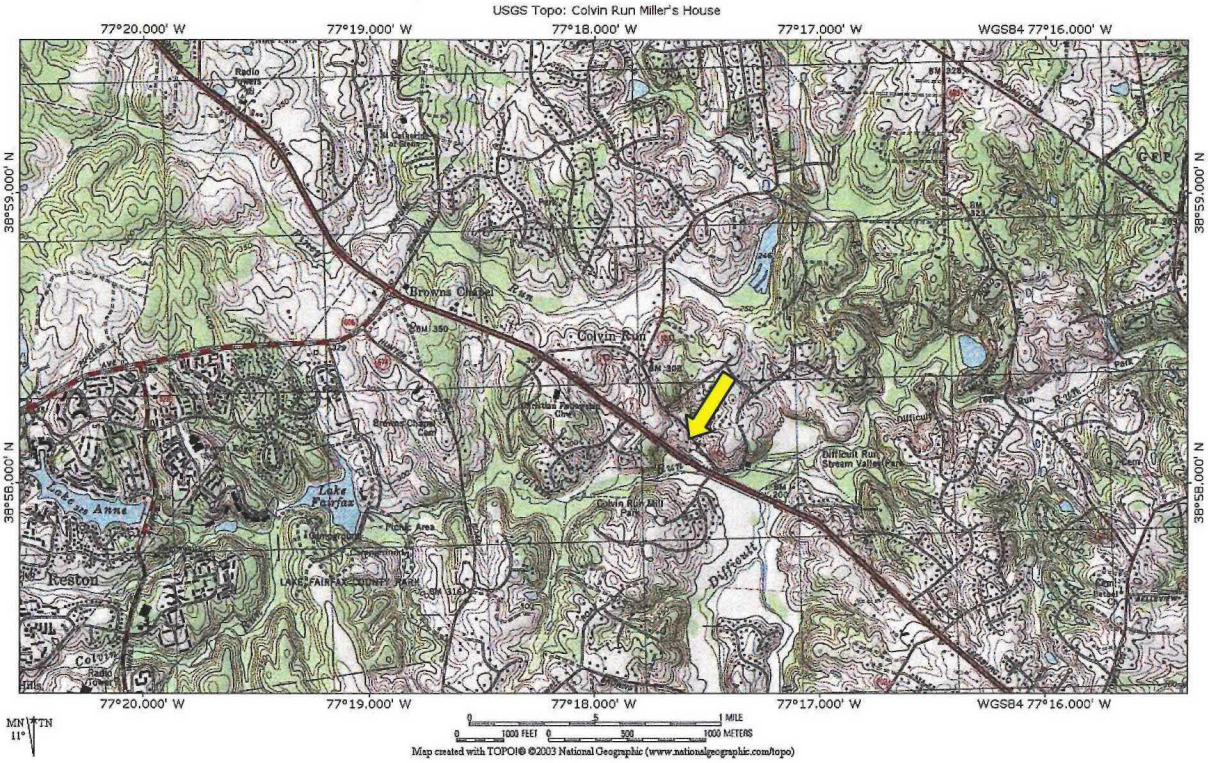



*Image 1.1: Portion of Vienna USGS Quadrangle Map, Arrow Points to the Colvin Run Miller's House*

## RECOMMENDATIONS FOR FURTHER STUDY

Prior to any masonry construction, samples or original mortar should be sent to a lab for analysis of the mortar composition, including a description of the aggregate, color, and percentage of components. The lab should recommend a mortar formula that closely matches the original mortar.

Additional information about the history of the house may be found in court cases of adjacent property owners. Early Fairfax County chancery cases are now available online on the Library of Virginia website. Information about court cases for debt that did not result in a chancery case is available for at least one of the owners of the house (Powell) at the Fairfax County Circuit Court archives in Term Papers.

The design of the house suggests that a kitchen outbuilding may have been located within the eastern yard beyond the exterior door in the exhibit room. Grade-disturbing activities should not be performed prior to the performance of archaeological investigations in this area.

# CHAPTER 2. DEVELOPMENTAL HISTORY

## HISTORICAL BACKGROUND AND CONTEXT

The scope of work for the historical research portion of this report is to supplement the site history provided in the Colvin Run Mill Cultural Landscape Report as it pertains to the miller's house. Specific research targeted construction phases of the house over time and on the occupants who resided therein. Additional primary source research that uncovered previously unpublished information is also included to provide a framework and for general knowledge purposes.

### Early European Settlement, Ca. 1730s-1800

The land of the future site of Colvin Run Mill was known by early settlers and northwest-bound travelers for the simple reason that the main road passed through the parcel. The road took advantage of a nearby ford at Difficult Run.

Originally, the land was surveyed for William Norris; however, it does not appear that he obtained a grant from the Fairfax proprietors. This land was part of the 5,568 acres granted to Col. John Colvill and sold by him to William Fairfax on 22/23 Jan 1740, which Fairfax called Towlston Grange. [1] The will of William Fairfax devised the land to his son, Bryon Fairfax.[2]

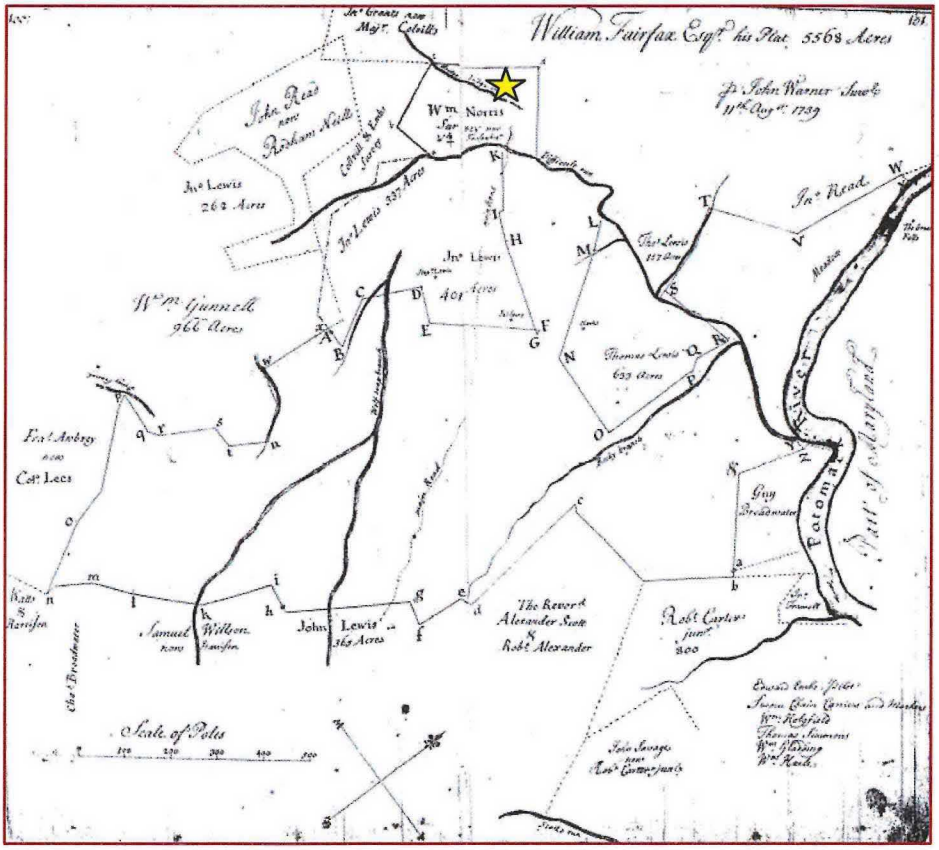



*Image 2.1: John Warner Survey for William Fairfax of 5,568 Acres, 11 Aug 1739, Image Courtesy Library of Virginia, Northern Neck Grant Book E:100. Yellow star indicates approximate future location of Colvin Run Mill.*

The Main Road was the route often used by George Washington while traveling to his land near present-day Charlestown, WV. He began acquiring land in this area in the early 1750s.

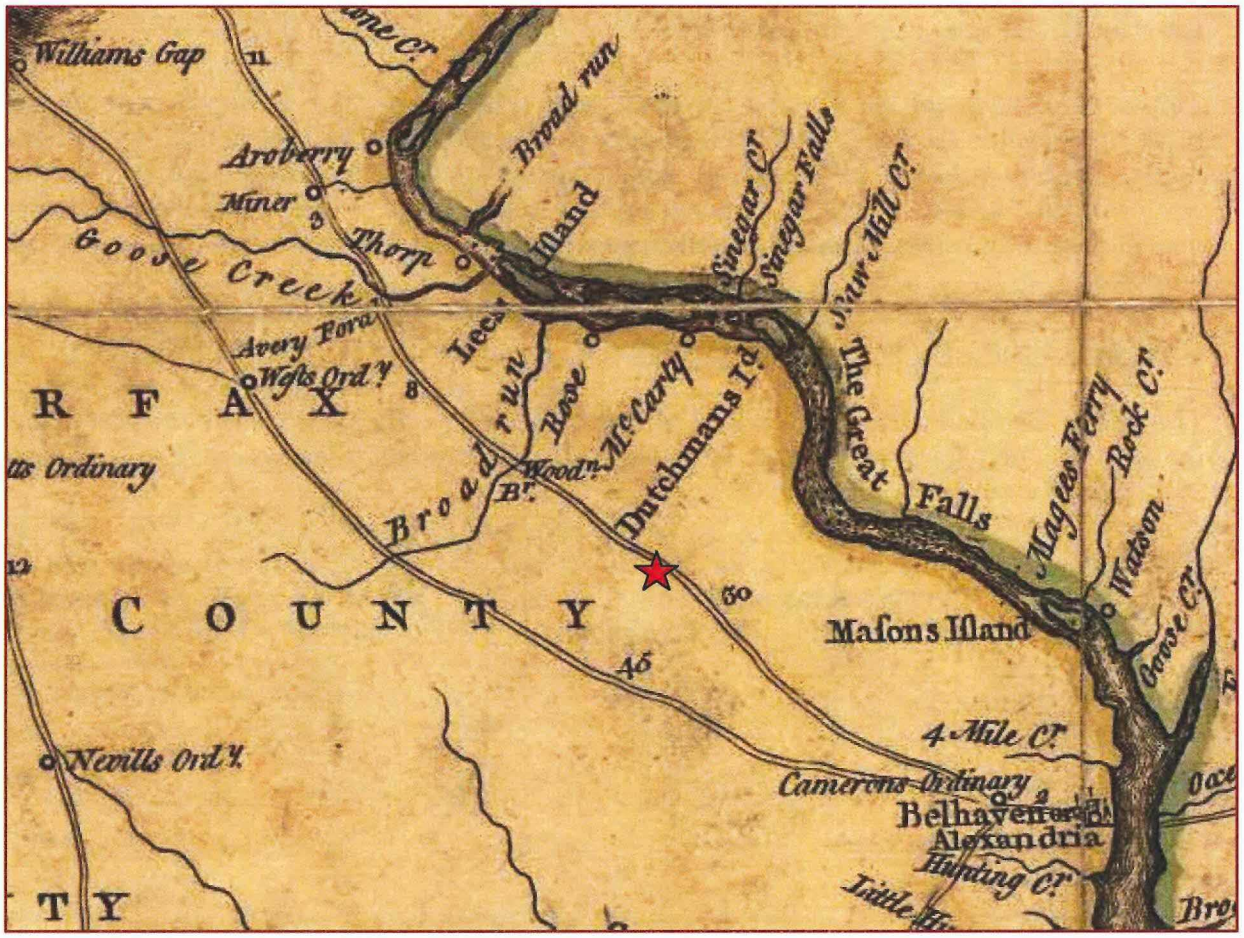



*Image 2.2: Portion of the Joshua Fry and Peter Jefferson Map of 1751 titled A map of the most inhabited part of Virginia containing the whole province of Maryland with part of Pennsylvania, New Jersey and North Carolina. Image Courtesy Library of Congress, Red star depicts future site of Colvin Run Mill.*

This road was also used by troops during the French and Indian War (1754-1763), notably by Braddock's soldiers under Washington on their way to their defeat at the Monongahela. Following the war, George Washington returned to his efforts to develop his western lands. Shortly after the signing of the Treaty of Paris (1763), which formalized the ending of the French and Indian War, Washington persuaded Bryan Fairfax to sell him 275 acres on the Main Road for use as a stage stop for his wagons on the trip to his western land.[3] The deed was dated April 12, 1763.[4] Washington surveyed this land and prepared a plat.

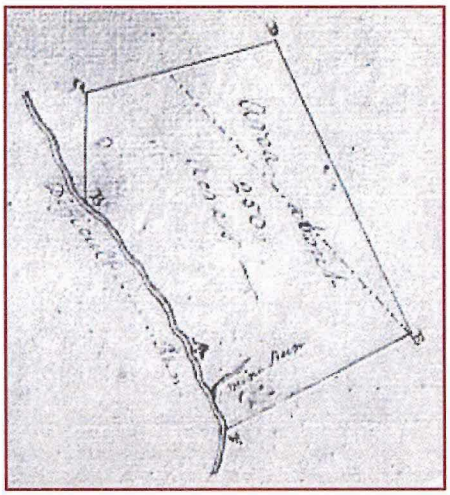


*Image 2.3: Plat of Difficult Run Tract by George Washington. From missing quadrangle of the surveys titled A plan of Mr. Clifton's neck land, Courtesy Mount Vernon Ladies Association.*

That same year, Washington, along with other investors, formed the Mississippi Land Company, which requested a grant of over 2.5 million acres on both sides of the Ohio river. Washington's purchase of the Difficult Run tract may have been associated with anticipating this venture. The request, however, was denied. Then in October 1763, King George III issued the Royal Proclamation of 1763, which made the region from the Great Lakes to the Gulf of Mexico, and from the Mississippi to the western slope of the Appalachian mountains, an Indian reservation.[5]

In 1784, Washington advertised the Difficult Run tract for lease, stating that the property had a very valuable mill seat situated very close to the road. The land was offered with a term of three lives, whereby the lease continues for the life of a husband, wife, and son, or for 21 years.[6] In 1793, Washington wrote to Robert Lewis, Esqr. that he would only be induced to sell the parcel if he could obtain a very high price on account of the mill seat and proximity to Great Falls where there was a town being established. A mill seat is a location that is ideally situated for a future mill. At the time, Washington had agreed to lease the land to a Dutchman for an annual rent of 60 pounds.[7]

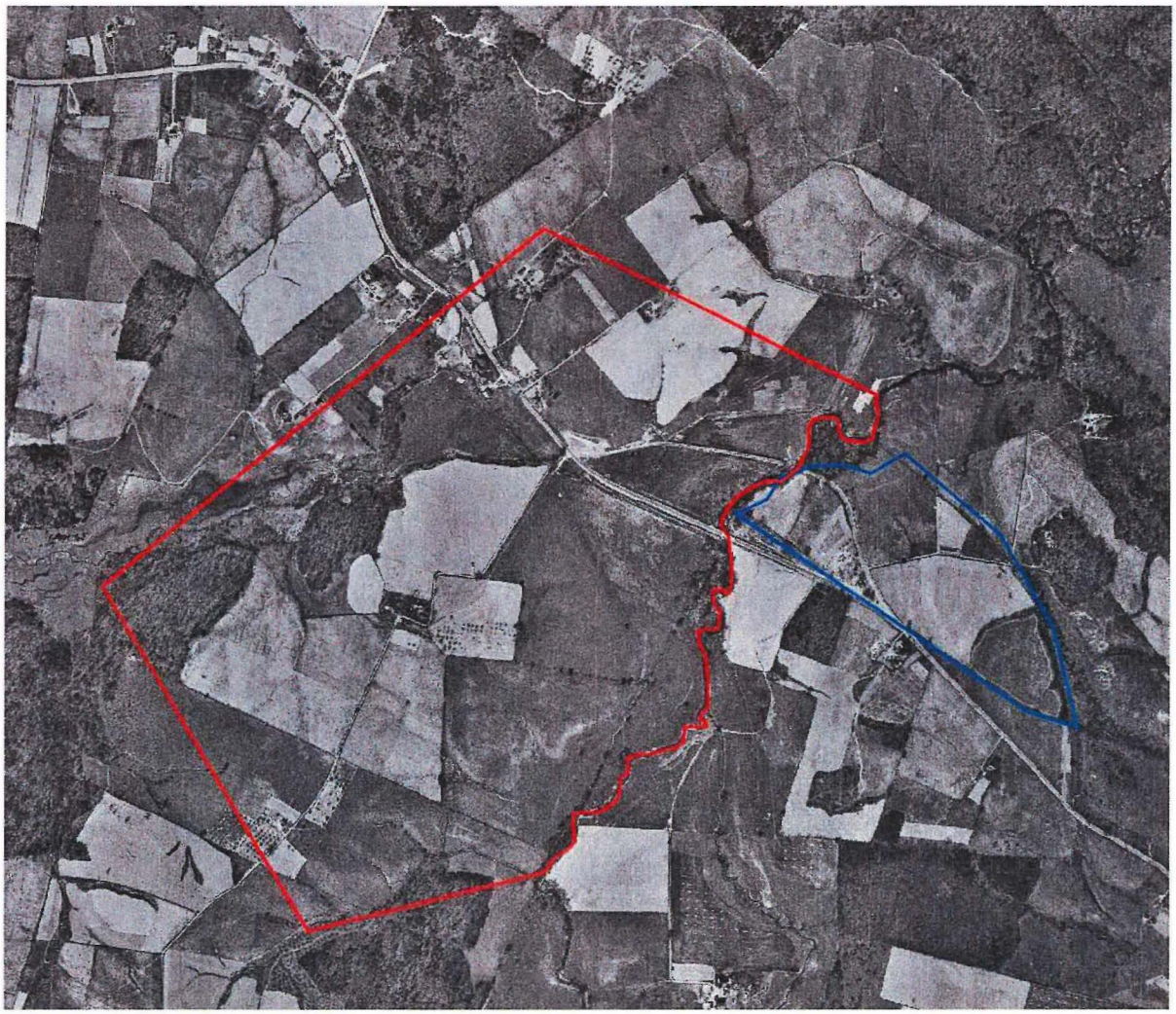


*Image 2.4: George Washington's land depicted in red and William Sheppard's land depicted in blue over a USDA aerial photo from 1937. North faces up. Sheppard owned additional land nearby, though the location is unknown. The boundary of Washington's land has been corrected based on actual land ownership. Background Image Courtesy FCPA.*

Washington was concerned that the value of his property would decrease if a mill could not be constructed on the land. A neighbor, William Sheppard, was interested in establishing his own mill on Difficult Run that would result in condemning a portion of Washington's land for a mill pond. Washington received legal advice that if Sheppard petitioned the Loudoun County courts for a condemnation before Washington, then Sheppard would likely be allowed to construct a mill and not Washington.[8]

For many years, Washington was steadfast in his desire to rent the land rather than sell. He frequently wrote that nothing but a high price would induce him to sell due to the valuable mill seat. He changed his views in 1795 when he was negotiating a lease with John Gill, who the previous year had purchased nearby land from Elisha Dick, Washington's physician. [9] Washington was concerned that Gill was only interested in leasing the property to take the wood, thus decreasing the value of the land. Charcoal made from wood was in high demand at the Iron Works at nearby Great Falls.[10] In the end, Gill rented the land, though his rent was soon in arrears.[11] By October 1799, just before Washington's death, Gill had made no improvements on the land.[12]

Washington surveyed his land in mid-November 1799 during a rainstorm and became ill. He died a month later. In his will, Martha Washington retained possession of almost all of Washington's property, including the right to receive the rents on his properties. Washington valued his Difficult Run tract at $6,666 on a schedule of property appended to his will.[13] After Martha Washington died in May of 1802, the executors of George Washington's estate advertised the sale of the Difficult Run tract.[14] In January 1803, William Sheppard became the purchaser for the price of 2,000 pounds Virginia currency.[15]

## William Sheppard Ownership, 1803-1811

Based on the letter from George Washington to John Gill in October 1799 that stated that Gill had made no improvements on the land, it is reasonable to speculate that early improvements made on the parcel were the result of the efforts of William Sheppard. Sheppard may have made improvements, such as a mill, soon after he purchased the land. The tax rate on his land increased from 9 pounds per acre to 10 pounds per acre in 1804.[16]

William Sheppard operated a tavern on the east side of Difficult Run near the Difficult Run bridge. When Sheppard was constructing and managing the mill, the main road crossed Difficult Run at a bridge located north of the present bridge.[17]

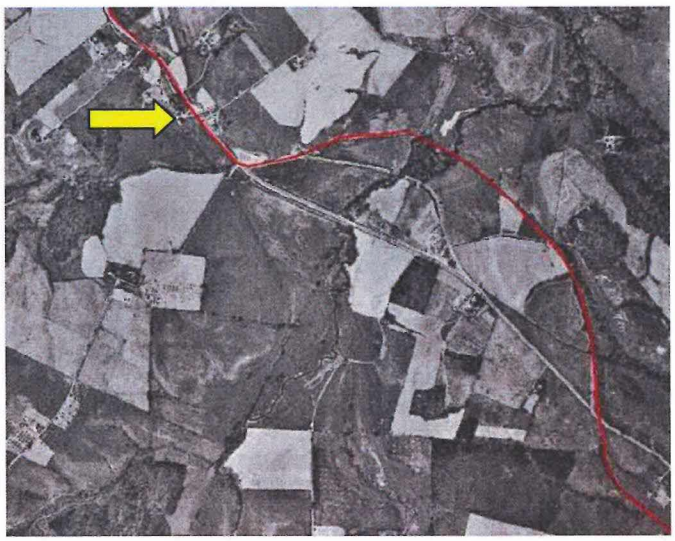


*Image 2.5: Path of Main Road ca. 1803. Arrow points to mill. Depicted over 1937 USDA Aerial Photo. North faces up. Background image courtesy FCPA.*

Prior to Sheppard's purchase of land from the George Washington estate, he obtained 49 ½ adjoining acres of vacant land by applying for a land grant in June 1800. The land was surveyed in March 1801 and granted in May 1802.[18]

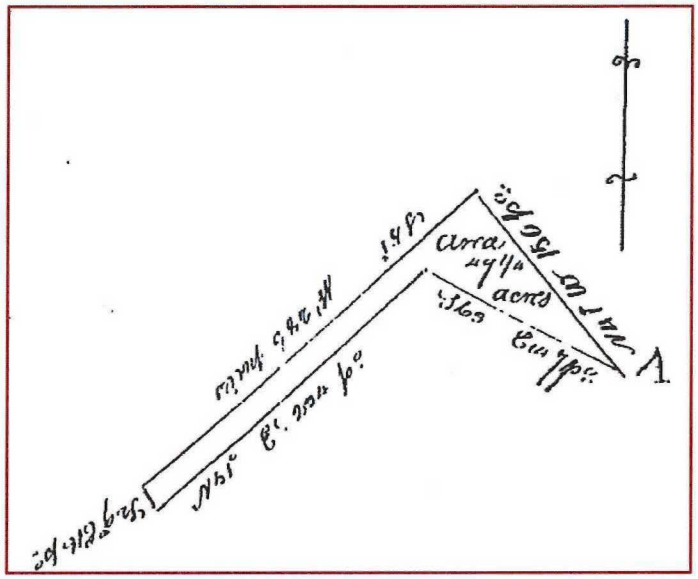


*Image 2.6: Survey of Land Office Grant, March 24, 1801, Image Courtesy Library of Virginia*

The land may have encompassed an area that Washington could have considered his property; however, Washington's survey was inaccurate.

*Image 2.7: Green lines depict Sheppard's 1802 grant, red lines depict Washington's actual land as corrected, yellow lines indicate the bounds of Washington's survey, blue lines depict Sheppard's land. Depicted over 1937 USDA Aerial Photo. North faces up. Background Image Courtesy FCPA.*

It is possible that Sheppard first attempted to construct a mill in the Colvin Run stream valley near the road. A mill race, at various times also called a ditch or a canal, was constructed in this area. This mill race was mentioned in Sheppard's 1811 deed to Philip Carper.[19] A later deed from George Hunter to Alfred Leigh for the sale of adjacent land also provided the location of the mill race.[20]

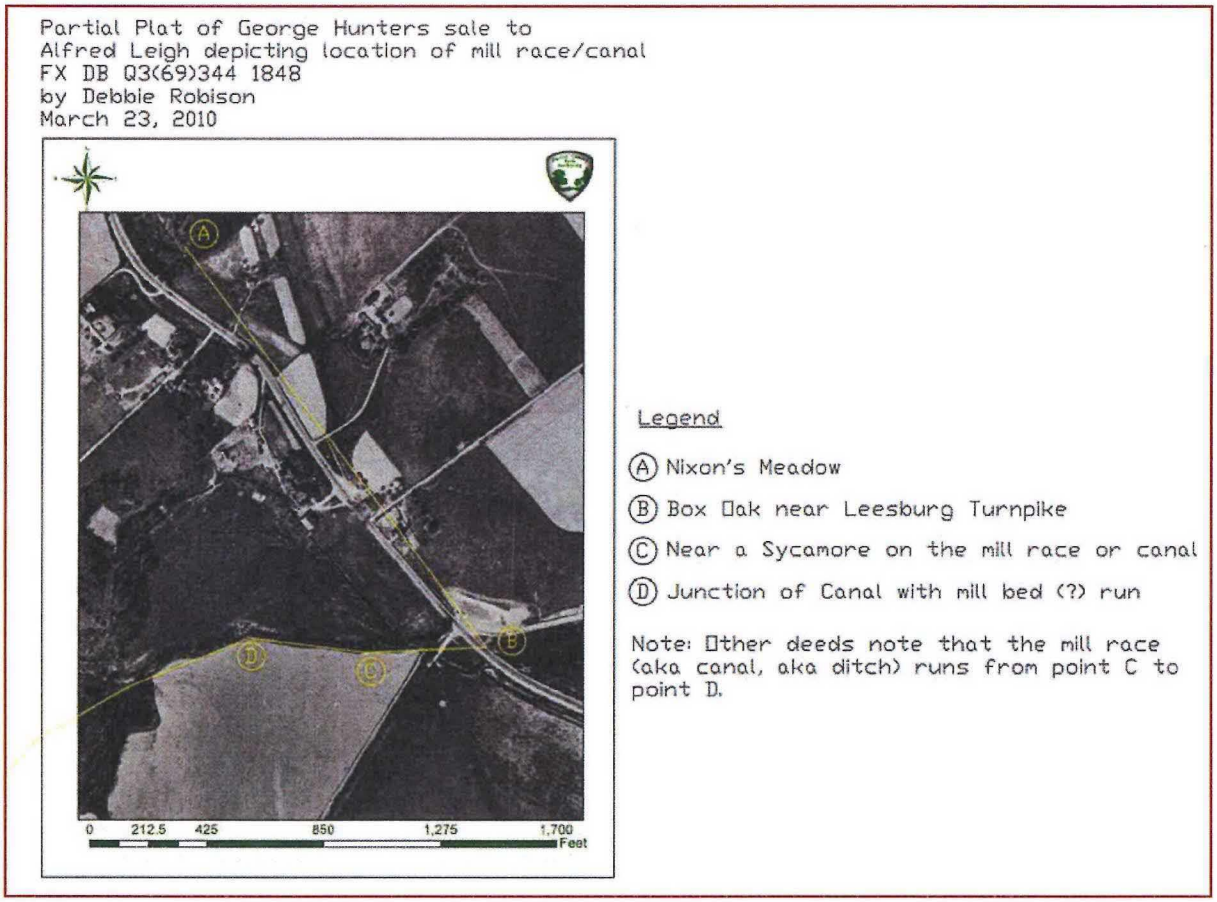
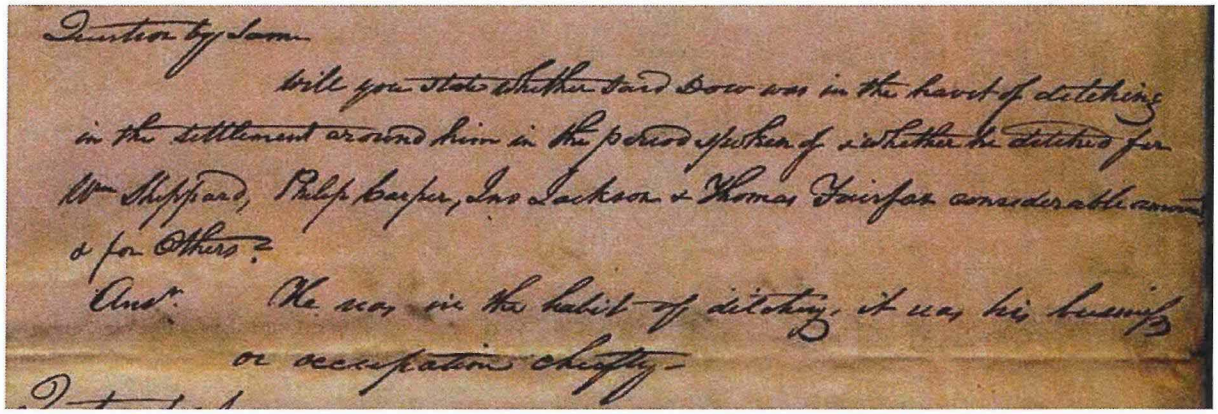



*Image 2.8: Partial Plat of George Hunter's sale to Alfred Leigh depicts location of earlier mill race. Yellow boundary drawn over 1937 USDA aerial image. North faces up. Background image courtesy FCPA.*

Long lengths of ditches were constructed throughout the property for the purpose of mill races. Alexander Dow, a near neighbor, most likely worked for both William Sheppard and Phillip Carper in *ditching,* which was his main occupation. He also had a boy named Isaac, likely a slave, who may have assisted him. Ephraim Beedle was asked in a court deposition about Dow's occupation. Dow died soon after the war in 1815.[21]



Question by Same

Will you state whether said Dow was in the habit of ditching in the settlement around him in the period spoken of & whether he ditched for Wm Sheppard, Philip Barber, Jno Jackson & Thomas Fairfax considerable amount & for Others?

Ans: He was in the habit of ditching, it was his business or occupation chiefly –

*Image 2.9: Deposition of Ephraim Beedle in Leigh vs Hunter, Fairfax County Circuit Court Archives, Image Courtesy Library of Virginia Chancery Database*

Sheppard constructed a small mill dam on the northwest boundary of his property approximately 2,000 feet away from the mill race located in the stream valley. The mill pond flooded his neighbor's property. Sheppard would have had to petition the court in order to determine the compensation due his neighbor. The Fairfax County court order books for this period are missing. Sheppard constructed another dam located about 1,900 feet from the brick mill. Because the new mill pond flooded Sheppard's own land, he would not have had to obtain a court order for condemnation of land. The mill race that extends from Colvin Run to the brick mill begins at the second mill dam. Perhaps Sheppard had the second dam constructed when he built the brick mill.

Sheppard struggled to make a success of the milling business. It is possible that Sheppard's success was impeded by the loss of a mill down in the stream valley, thus necessitating him to construct a new mill. Sheppard managed to make a partial payment on his mortgage in July 1804, but made no further payments.[22]

In addition to constructing the mill, Sheppard was likely the person responsible for construction of a cooper's shop. Barrels for the storage and transportation of flour were likely made in the shop for use in the milling business. [23]

Based on the size of the brick mill, which is known today as Colvin Run Mill, it is evident that it was Sheppard's intention to operate a merchant mill whereby farmers would sell grain to his milling company. The miller would then grind the grain into flour and sell the product at local and international markets.

Sheppard's timing in entering the merchant milling business was unfortunate. War between Britain and France escalated after 1803. Britain began trade restrictions that required American ships to first enter British ports. Anger towards the British was high after American seamen were impressed by the British, particularly after impressments in 1807. In an effort to stave off war, President Thomas Jefferson requested a bill to restrict trade. The Embargo Act of 1807 prevented American ships from undertaking voyages to foreign ports. This effectively destroyed any chance Sheppard had in operating a successful merchant mill since his foreign markets were

closed. The Embargo Act resulted in an American economic depression from 1807-1809. An uneven economic recovery occurred from 1810-1814.[24]

It is reasonable to presume that construction of the existing brick mill most likely occurred prior to the embargo; therefore, it is logical to suggest that the brick mill was constructed sometime between 1804 and 1806. In 1809, Sheppard advertised the mill for rent.

> *I wish to RENT for one or more years, A VALUABLE MILL, which is in good order for manufacturing wheat into flour, and also well calculated for country work, in Fairfax county, on the direct road leading from Leesburg to Alexandria; with two water wheels, one 21 feet high one 20 feet high, with one pair of five feet burr stones and one pair of four and half feet country stones, and a place for another pair of burr stones which can be in order in short time if required - it has every machinery necessary. For the particulars apply to the subscriber living in Fairfax County, Virginia. William Sheppard*[25]

In 1811 when Sheppard advertised a mill for sale or rent, he described the materials and dimensions of the existing brick mill. The similarity of the two advertisements suggests that the 1809 advertisement referred to today's mill.

> Mill for Sale. *I will sell or I will let, for a Term of years, a grist and merchant Mill & 70 acres of good fertile land...and 10 miles from any other merchant mill, and in a good neighborhood for wheat, corn, rye, &c. and it being so immediately on the road where all kinds of horse food will sell to great advantage. The Mill House is built with brick; it is 41 feet by 50 feet and 3 stories high, and on a never failing stream, with 2 water wheels, one pair of good country stones, and one pair of five feet French Burrs of good quality, and a conveniency for another pair, part of the works already framed, and seasoned timber sufficient to finish them; it has every conveniency and necessary machinery for the manufacturing flour and country work. The works are almost new and in complete order, with a good dwelling-house, kitchen, cooper's shop & other buildings necessary, and a good peach orchard. there is about 2 acres of improved meadow, and 6 or 8 more may be added; the balance is well timbered... William Sheppard.*[26]

The advertisement noted that part of the works was incomplete, but that the works were already framed and there was seasoned timber available to finish the construction. Perhaps Sheppard stopped construction as a result of the embargo. It seems unlikely that he would be making improvements during the depression.

William Sheppard operated a tavern on the eastern side of Difficult Run. It is likely that he lived at or near the tavern. He may have hired a miller who lived in the dwelling house (and used the kitchen) mentioned in the 1811 advertisement.

The date of construction of the miller's house is unknown. It is not certain that the dwelling house mentioned in the 1811 advertisement is the same as the house that exists today. However, the color scheme originally used to paint the interior of the house is indicative of earlier

construction. By 1815, the color scheme was out of fashion, and the years leading up to 1815 saw the use of this scheme only being preferred by an older generation of people. As with the mill, construction of the dwelling house may have occurred between 1804 and 1806. A ca. 1806 date was selected for the estimated date of original construction of the miller's house since the Embargo Act precipitated an economic depression beginning in 1807.

Sheppard's efforts to sell the mill and a portion of the land must not have been successful. In May 1811, County Commissioners advertised the land for sale in order to pay off the delinquent mortgage. The advertisement stated that the land would be laid off in convenient lots for purchase, and that the mill and mill lot would be sold separate from the rest of the tract. The Commissioners were only selling the amount of land needed to pay off the mortgage plus accrued interest.[27]

The sale resulted in the purchase of the mill by Philip Carper. Because Carper was only purchasing 90 of the approximately 300 acres, the Commissioners directed that the land be sold to William Sheppard and Lawrence Lewis for $5,230.[28] On the same day, Sheppard raised the funds by selling 90 acres to Philip Carper for $5,500.[29]

Lawrence Lewis submitted $4,791 to pay off the balance of the mortgage. Following is a reconciliation of the purchase amount, payments, interest, and loan payoff.

Based on a known 1797 exchange rate between pounds (Virginia currency) and dollars, Sheppard's purchase price equaled the value of $6,666 that Washington assessed on the property. Sheppard put one-third of the purchase price down, or $2,222.22, and entered into a trust agreement with the heirs of George Washington for the balance to be paid the first day of September in 1804 and 1805 with six percent interest.[30] Sheppard made one payment of $1,360 on July 20, 1804, but then defaulted on the note.[31] In 1811, County Commissioners foreclosed on the mortgage and advertised the land for sale. Lawrence Lewis applied $4,791 to pay the remaining balance of the mortgage.[32]

Calculations made in an attempt to reconcile these figures suggest that the remaining balance was accurately determined.

| | |
|---|---|
| $6,666.66 | Purchase price |
| 2,222.22 | Down payment |
| $4,444.44 | Remaining Balance |
| 422.22 | Interest for 19 months at 6% per annum |
| $4,866.66 | Balance |
| 1,360.00 | Partial payment made on July 20, 1804 |
| $3,506.66 | Balance |
| 1,283.44 | Interest for 6.1 years at 6% per annum |
| $4,790.10 | Balance at time of sale |

## Philip Carper Ownership 1811-1841

Prior to moving to Fairfax County, Virginia, Philip Carper lived in Frederick County, Maryland, where he owned and operated a mill on Catoctin Creek. Family history reports that Carper learned the milling trade from his father-in-law, Jacob Drill. Carper married Catherine Drill in 1797.[33] The 1810 census indicates that Carper likely had two sons and a daughter and owned two slaves. He also had a white male between the ages of 16 and 25 living in his household.[34]

Family history also reports that Carper moved from Frederick County after his mill was destroyed in a flood in 1810. [35] This may be the same flood that destroyed Chain Bridge in November 1810 when an estimated two thousand cords of driftwood lodged against the bridge.[36]

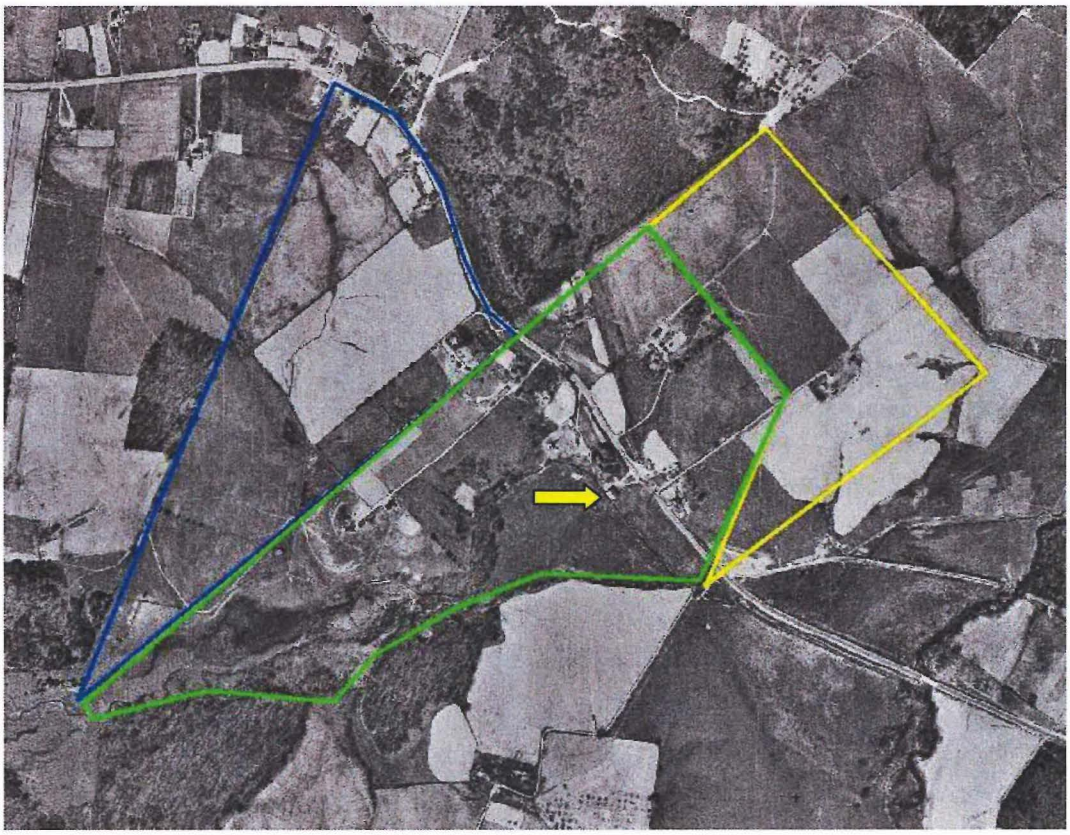


*Image 2.10: Carper Land Purchases Surrounding the Mill. The 90 acres purchased in 1811 is depicted in green, the 37 1/2 acres purchased in 1813 is depicted in yellow, and the 38 acres purchased in 1839 is depicted in blue. The boundary of the land purchased from Fairfax shown in blue has been adjusted to reflect the likely area of land purchased. Arrow points to mill. Boundaries are depicted over the 1937 USDA aerial photo, North faces up. Background image courtesy FCPA.*

Carper purchased the property with the intention of increasing the size of the dam. In the deed from Sheppard, Carper is given the right to raise the height of the dam without additional compensation to Sheppard for the overflow onto Sheppard's land. It is presumed that the dam

being raised is the one closer to the brick mill since raising the small dam located on the property boundary would not have flooded Sheppard's land.[37]

Carper initially purchased 90 acres in 1811, then increased his holdings by purchasing an adjoining 37 ½ acres from Sheppard in 1813.[38] Years later, in 1839, Carper purchased an adjoining 38 acres from Orlando Fairfax.[39] The actual area of the land purchased from Orlando Fairfax was likely much greater. Carper also purchased farmland on Sugarland Run in 1814.[40]

Carper was successful in operating the merchant mill. The value of the milling operation for the years 1813 to 1815 is known because the Virginia government taxed mills, based on an annual rental value, in order to fund the War of 1812. In 1813, the mill was valued at an annual rental of $500. The annual value decreased to $400 in 1814 and 1815. Fairfax County had 46 mills in 1813; nine of which were merchant mills, sixteen were country grist mills, and eleven were saw mills. Carper's mill was likely the third most valuable merchant mill in Fairfax County in 1813.[41]

The mill ground wheat, rye, corn, and plaster. Local farmers delivered their grains to the mill. For example, Samuel Coleman sent a man named George, probably a slave, to Carper's mill with an ox cart loaded with corn to be ground.[42]

In 1815, Carper owned a house (or houses) valued at $2,000. This was a high value for the time. His family was still at a young age; he was the only white male over the age of 16 years living in his household. He had four slaves over the age of 12 years. Presumably some of them worked at the mill. Carper likely purchased these slaves once he moved to Virginia, since Virginia law did not allow the importation of slaves at the time. Carper had two mahogany chest of drawers and a mahogany table. He owned 2 horses (or colts, asses, mules, or mares) and 9 head of cattle. [43] Carper likely owned two houses in Fairfax County during the 1815 assessment, one of which was likely located on the Sugarland Run farm. It is probable that this parcel had a house since it was assessed a value in 1820. Therefore, it cannot be positively stated that Carper was living in the miller's house with his mahogany furniture in 1815, though it is likely.

In 1820, the first year that all building improvements were assessed, Carper's buildings were valued at $9,500.[44] The value decreased to $7,000 in 1822, possibly as an adjustment due to the 1819-1822 economic panic and depression.[45] The building value then remained constant until the 1840 general tax reassessment.[46]

Carper and his wife Catherine raised their family in the miller's house. Their son Frederick was about eleven years old, daughter Elizabeth about six years old, and son John an infant when they moved to Fairfax. Son Thomas was born about 1818. They likely had additional children born in the house.

In 1830 the Carper household consisted of Philip and Catherine Carper, a male between the ages of 20 and 29, two males between the ages of 10 and 14, a female between the ages of 20 and 29, and two girls between the ages of 5 and 9. Some of the younger children were possibly grandchildren. Their son Frederick had already established his own household at this time. Carper also owned 10 slaves. [47] Philip Carper outlived his wife. In 1840 Carper was about 67 years old. He had a male in his 40s and a male in his 20s living in his household.[48]

In 1840 there was a general reassessment of the value of buildings. The value of Carper's improvements dropped from $7,000 to $4,080.[49] The following year Carper sold the mill to John Powell and moved in with his daughter, Elizabeth, and son-in-law, John Coleman.[50]

## John Powell Ownership, 1841-1883

Although John Powell purchased the mill and miller's house, he and his wife Nancy continued to sporadically reside in Alexandria, Virginia, where Powell worked as a lawyer handling land bounty claims for military service, deeds, bills of sale, etc.[51]

He represented Fairfax County in the Virginia House of Delegates during the 1839/40 and 1842/43 terms as a Republican. His political affiliation probably influenced his renaming Carper's Mill to Republican Mills. In 1842, Powell wrote from Republican Mills as a candidate for the state legislature providing his views on the pending Distribution Bill. Powell felt that the bill unfairly distributed the proceeds from the sale of public lands to the states, but stated that he would vote for the bill on the condition that the funds would be used to pay down the government debt. Powell felt that politicians under the Van Buren administration extravagantly spent taxpayer money.[52] Powell also worked to pass legislation relative to fisheries on the Potomac River.[53]

In 1845 a road was proposed from Hunter's Mill Road to Mateer's Tavern on the Middle Turnpike. Powell's mill, the miller's house, and a structure across the road are depicted. The purpose of the structure is unknown.

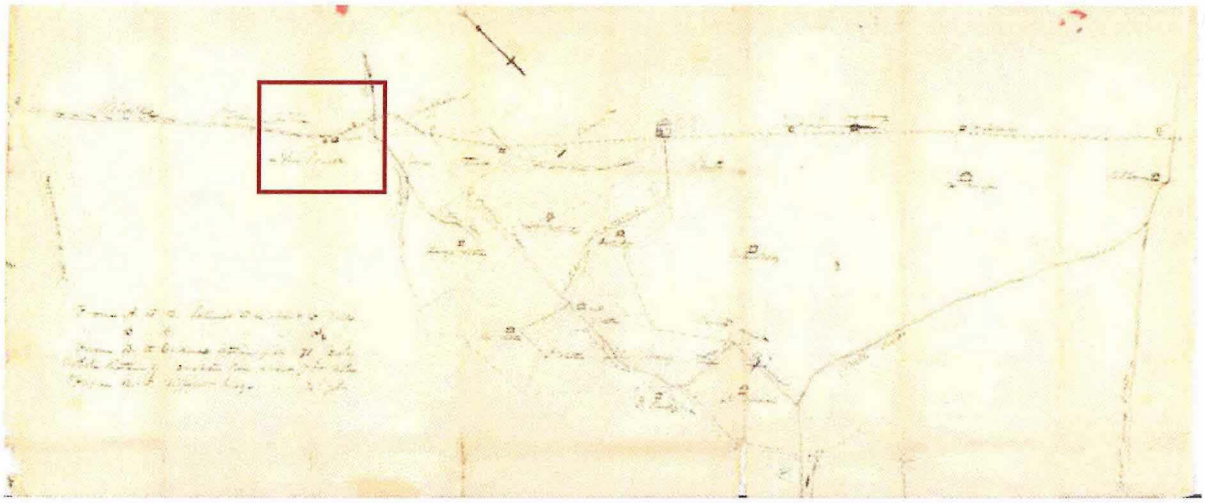
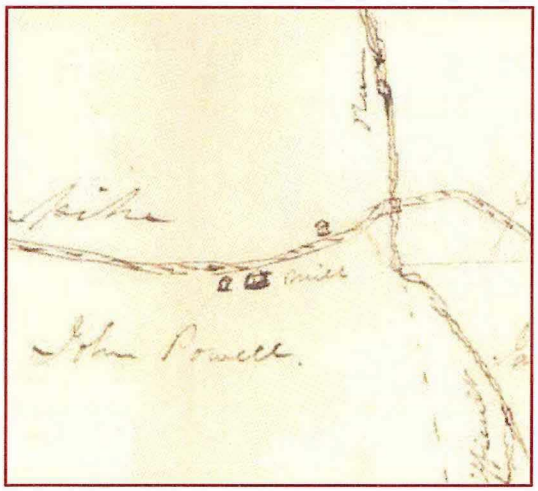


*Image 2.11: Survey of Proposed Road from Hunter Mill Road to Mateer's Tavern, 1845, Image Courtesy Fairfax County Circuit Court Archives (Inset at right.)*



In 1849 a post office was established at Republican Mills (Powell's). Alfred Leigh was the first postmaster.[54] John Powell became postmaster in June 1856 and continued until the office closed in 1860.[55]

Based on the 1850 federal census, it appears that Powell was living in Alexandria that year. It is possible that Edward Bond and his family were living in the miller's house that year. Bond's name appears in the census with other families who resided near the mill. Bond's occupation was listed as a miller. His household consisted of his wife Sarah, their four children, and a 14-year-old girl.[56] In 1851, the assessed value of buildings decreased to $3,000.

In 1860, Powell was living in Fairfax and working as a farmer. He was 56 years old, had real estate valued at $12,000 and a personal estate valued at $4,250. His wife, Nancy, was 49 years old. They had four children living at home: Margaret Powell, age 22, seamstress; Harmonia E. Powell, age 19; Drucilla Powell, age 16; and William J. Powell, age 11.[57]

During the Civil War, John Powell was a captain in the Confederate army. There were several Captain John Powells, so it is difficult to be certain that references pertain to John Powell of Republican Mills. However, it may be that he was the captain of the Washington Home Guard who in May 1861 seized 169 head of mutton three miles above Chain Bridge. The mutton was intended for delivery to Georgetown butchers who supplied meat to the Union army.[58] Powell's son, Dr. John S. Powell, was alleged a rebel spy and put on trial. He was charged with acting as a guide to rebel forces to Dumfries during an attack on that post while living within Union lines as a private citizen.[59] He was acquitted.

A map prepared in 1862 for General McDowell depicts the location of Powell's mill and the miller's house. In addition, it identifies R. Thompson as living in a house across the street from the miller's house.

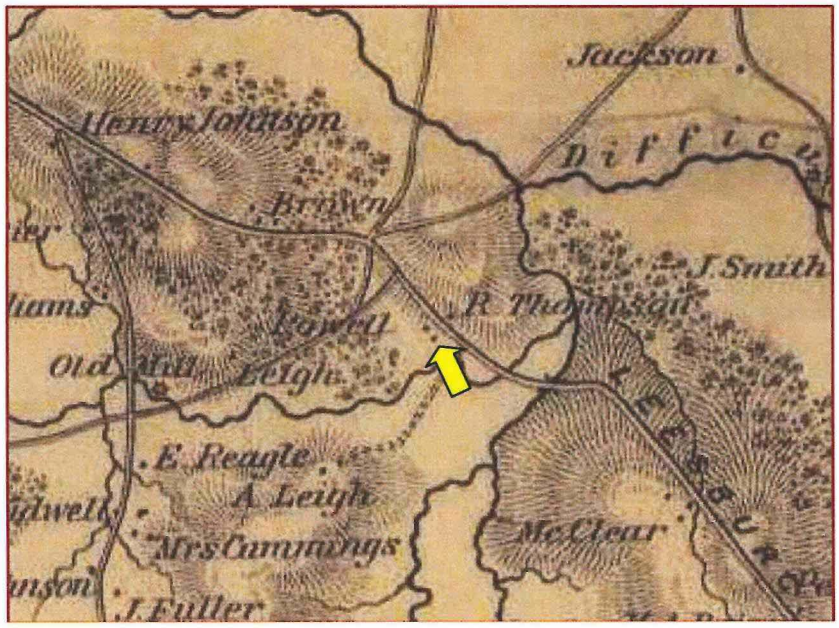



*Image 2.12: Map of N. Eastern Virginia, McDowell, 1862, Courtesy Library of Congress*

After the war, Powell entered into an agreement with Dr. Paul Gregory to drill a well for oil and salt on Powell's property in Fairfax County. It is unknown exactly where the well was drilled, though there was a newspaper account that described the well.

> *Petroleum Oil - We have been shown us a specimen of the crude oil obtained from the well now in progress of excavation on the land of Captain John Powell, near Republican Mills, in Fairfax county. The depth of the well at present is one hundred and sixteen feet, and its diameter is four inches and a half. The first sand rock bored through was thirty-eight feet thick, the second seventeen feet six inches, and the third four feet. Bituminous shell constitutes the remaining depth.*[60]

The value of the mill and other improvements continued to decrease under the ownership of John Powell. In 1868, Powell managed to have $1,000 of value abated from his assessment, thus reducing the assessed value to $2,000. An economic postwar recession may have contributed to the decline in value.[61] Buildings that were damaged or destroyed during the war were reported on the 1866 census; however, there was no indication that Powell's buildings were damaged during the war.[62] The value dropped to $1,500 in 1876, then to $1,000 in 1880. When he sold the land in 1883, the value was only $850.[63]

In 1870 Powell was operating the mill as a country grist mill grinding grain into meal. He took 1/8th of the grain as a toll. One male age over 16, probably his son William, worked at the mill. Two years later, Powell filed for bankruptcy protection. He lists his creditors, including his son William J. Powell for his services as miller. William was owed $50 for services performed in the past six months.[64]

The 1878 G. M. Hopkins map depicts four structures on Powell's property. On the south side of the turnpike are the *Old Mill* and the miller's house. On the north side of the turnpike are two residences, one of which may have been the residence of R. Thompson during the Civil War (as shown on the McDowell map). The other structure is likely a log house known as Trickett's that oral history purports to be the original miller's house. [65] The Hopkins map indicates that the buildings were the residence of C. Powell rather than John Powell.

*Image 2.13: Portion of G. M. Hopkins 1878 Atlas of Fifteen Miles Around Washington, Image Courtesy JScholarship*

The Trickett log house was located about 900 feet uphill from the mill on the other side of the road. That is a significant distance away. It is more likely that a log house constructed for a miller would be located close to the mill. Log houses were still being constructed in Fairfax County after the Civil War. Perhaps the Trickett house was constructed at that time.

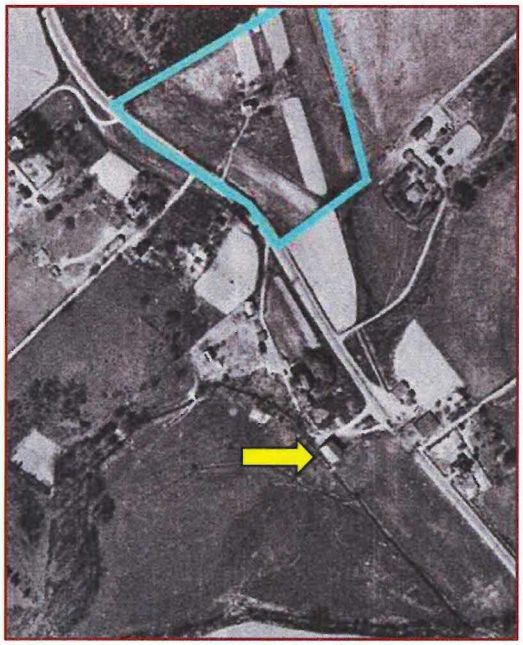


*Image 2.14: Trickett property delineated with a blue line. Yellow arrow points to mill. Boundary depicted over 1937 USDA aerial photo. North faces up. Background image courtesy FCPA.*

In 1883 the assignees in the bankruptcy of John Powell began to sell his land. Henry W. Cockerille purchased 80 acres north of the Alexandria Pike.[66]

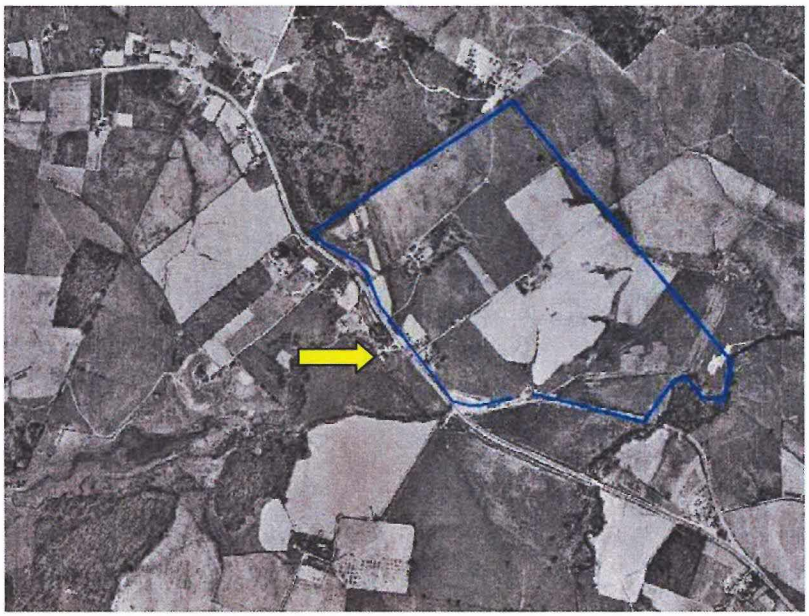


*Image 2.15: Henry W. Cockerille's purchase from John Powell's bankruptcy assignees, Yellow arrow points to mill. Depicted over a 1937 USDA aerial photo. North faces up. Background Image Courtesy FCPA.*

## Joseph S. House Ownership, April 1883

Joseph S. House briefly enters the historical record on the miller's house, all during the month of April 1883, by entering into three transactions: purchasing the property, making arrangements to build a dam, and then selling the property.

House purchased 90 acres from the bankruptcy assignees, which included the mill and miller's house, in April 1883.[67] House and E. C. Cartzendorforer entered into an agreement with Alfred Leigh, who owned the property to the south, to pay Leigh $100 damages due to building a dam.[68] House and Cartzendorforer were both millers who lived in Frederick County Maryland at the time of the 1880 census.[69] They turned around and sold 32 acres, including the mill and miller's house, to Addison B. Millard.[70]

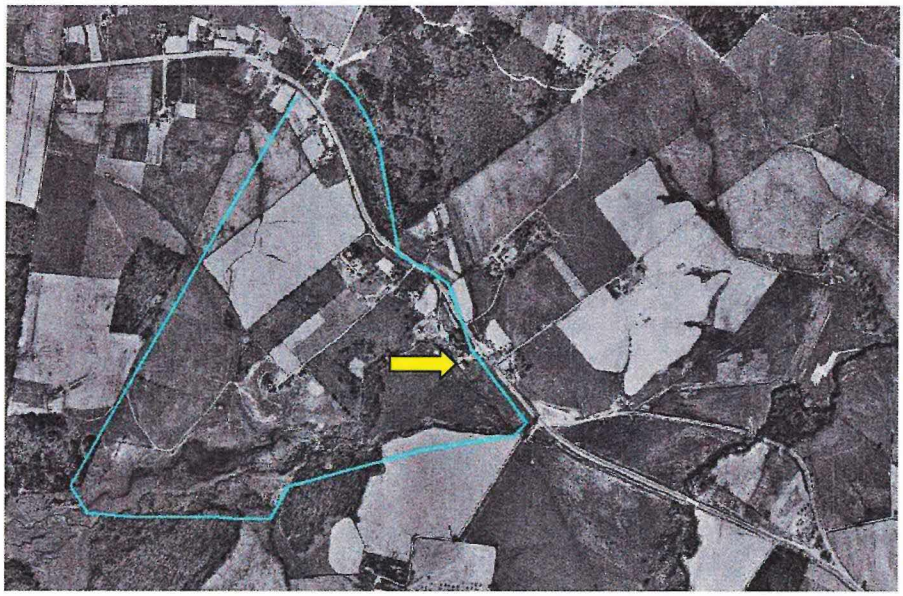


*Image 2.16: Joseph House's purchase of 90 acres from bankruptcy assignees. Yellow arrow points to mill. Image depicted over 1937 USDA aerial photo. North faces up. Background image courtesy FCPA.*

## Millard Family Ownership, 1883-1934

Addison B. Millard was a miller who learned the trade from his father, Samuel Millard, at their family's Urbanna, Maryland mill. Here, in 1880, his 13-year-old twin sons worked as mill hands. At the age of 40, Millard purchased the mill and miller's house from Joseph House and moved his wife, Emma, and their nine children to Fairfax County. In time, Emma Millard would give birth to 20 children.[71]

Millard immediately set about making improvements. In 1885 the value of improvements on the property increased from $850 to $2,000, a substantial increase.[72] He likely got the mill in working order and made improvements, perhaps constructing an addition to the house to

accommodate all of his children. In 1891 the value increased to $2,500, though no reason for the increase was provided.[73]

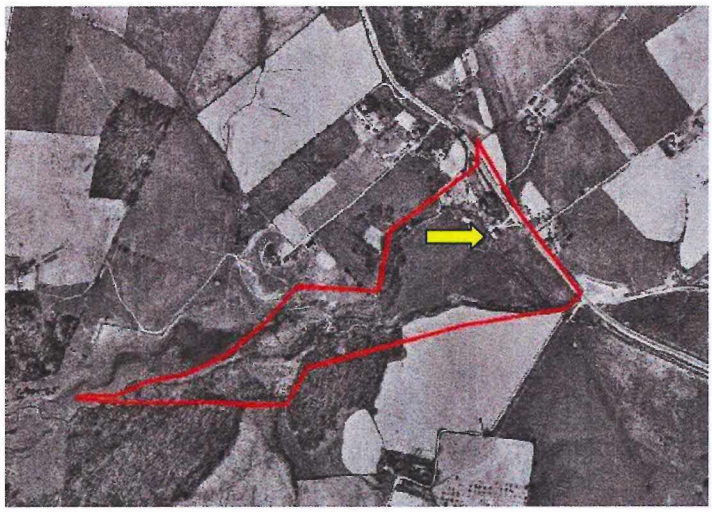
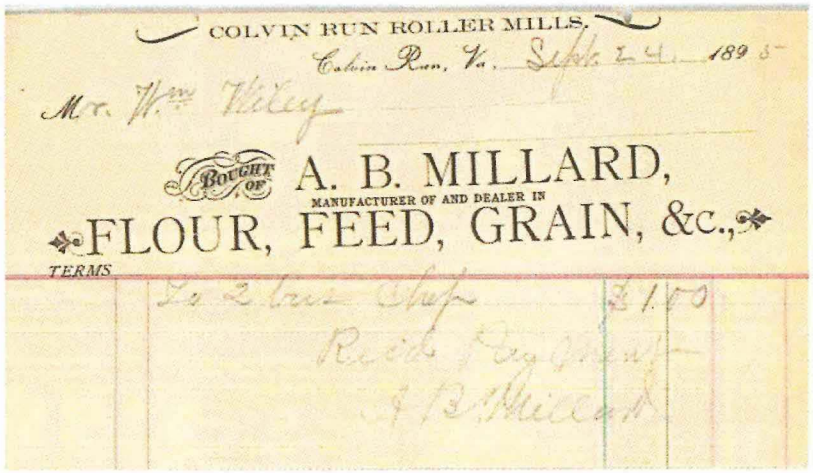


*Image 2.17: Addison Millard purchase of 32 acres from Joseph House. Yellow arrow points to mill. Depicted over a 1937 USDA aerial photo. North faces up. Background image courtesy FCPA.*

At some point Addison B. Millard converted his stone ground mill into a roller mill as evidenced by the following bill of sale.



COLVIN RUN ROLLER MILLS.

Colvin Run, Va. Sept. 24 189 5

Mr. Wm Wiley

BOUGHT OF A. B. MILLARD,

MANUFACTURER OF AND DEALER IN

FLOUR, FEED, GRAIN, &c.,

TERMS

*Image 2.18: Bill of Sale to William Wiley from A. B. Millard, Colvin Run Roller Mills, Image Courtesy Fairfax County Public Library, Virginia Room*

Addison Millard died in 1898 and bequeathed all his personal and real effects to his wife, Emma, during her natural life. After her death, the estate would be equally divided among his children. He appointed his son, Samuel, as his widow's agent to conduct any and all business for her.[74] At his death, Millard had $1,052 in cash, part of which was on hand for the disposal of the grain and

part in a bank account. He had notes and accounts that were deemed good totaling $1,819.36 and notes and accounts that were deemed uncollectable totaling $608.36.[75]

The estate records indicate that the Millard's carried insurance on their property with Franklin Sherman and the Independent Fire Insurance Company.[76] In addition, the mill was rented for about $1,000 per year, probably to one or more of the sons who may have operated the mill.[77]

In 1903, Emma Millard and Samuel Millard took Joseph Berry to court over the construction of a culvert across the turnpike that would discharge water onto their meadow lot. In the court case, a despondent stated that Mrs. Millard's garden was one acre in size and it adjoined her dwelling. Another despondent stated that the garden was about 100 yards up the road.[78]

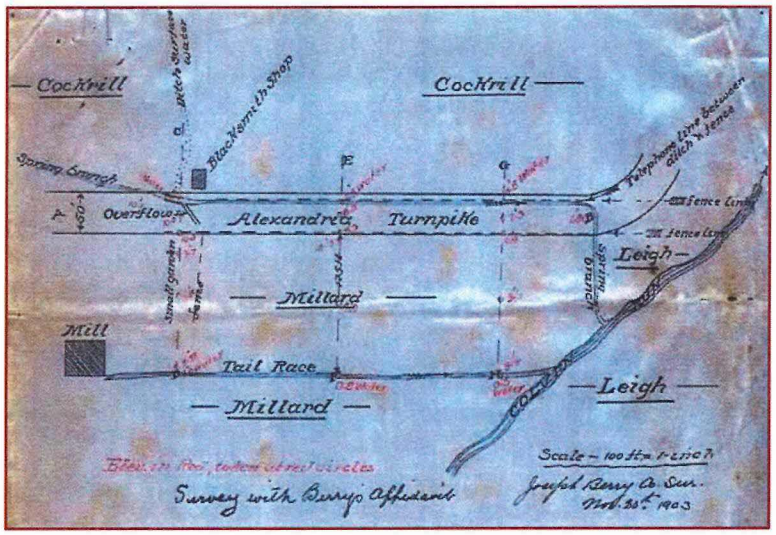



*Image 2.19: Survey by Joseph Berry Submitted with Affidavit in Millard vs. Joseph Berry et.al., Fairfax County Circuit Court Archives, Image Courtesy Library of Virginia Chancery Database*

Samuel Millard did not live with his mother after 1897, when he purchased 5 acres, though he did continue to administer Addison Millard's estate.[79] In 1910, Samuel and Alfred Millard are shown on the federal census as having an occupation of merchant mill. Alfred Millard lived in the same house as his mother. Samuel Millard lived with his wife, Olive, and their two daughters.[80]

Emma Millard died about 1920, resulting in the estate needing to be equally divided among the heirs.[81] Samuel and Alfred Millard bought out the interests of the other heirs. Samuel purchased a two-thirds interest and his younger brother Alfred purchased the remaining one-third interest.[82]

The following years were economically prosperous for the country until the market crash in 1929 and subsequent depression. Samuel and Alfred Millard operated the merchant mill under the name of Millard Bros. They advertised water ground flour and meal in 1929 and health flour and meal in 1930.[83] The Millard family continued to operate the mill until July 1934 when illness forced Mr. Millard to sell. This information is based on a newspaper article that did not specify which Mr. Millard became ill.[84]

## Bernard Bailey Ownership, 1934-1965

Bernard Bailey purchased the mill in 1934.[85] Bailey must have continued to operate the mill. In 1935, an itinerary for hikers included a visit to Colvin Run Village where a grist mill was still in operation.[86] An article in 1938 noted that many Washingtonians got their water-ground corn at Bailey's mill and that numerous tourists stop by to purchase cornmeal.[87]

During the time of Bailey's ownership, the mill contained three pairs of French burr-stones. Water flowed to a 20' diameter overshot wheel via a mill race. The race wound around the foot of a steep hill for approximately 1,500 feet. The lower side of the race formed a steep bank that sloped towards the meadow land. The hill was wooded and never ploughed since that would cause sediment to fill the race. Winds and heavy rains would blow leaves, debris, and some sediment into the race. During periods of dry weather, when the water in the race was low, the race needed to be cleared of debris. This was performed by raking the leaves and brush up onto the bank of the race and shoveling out the mud. During heavy rains, care was needed to remove debris that was carried into the race by swollen stream water so that the debris didn't wash out the sides of the race.[88]

On October 15, 1941, the Virginia State Highway Department seized a portion of Bailey's land in order construct a state highway (Route 7) through his property. Bailey sued the State Highway Commissioner for damages. He described how his land lost value in an affidavit as follows:

> *From October 15, 1941, until on or about September 15, 1942, the petitioner with steam shovels and other equipment, fleets of trucks and numerous gangs of convicts, excavated thousands of yards of dirt from said hill land adjacent to the mill race and carried the dirt to the meadow land and there constructed a fill for a state highway. The excavations in the hill land were made to a depth of approximately 400 feet and in a width of approximately 150 feet leaving a ghastly and extremely dangerous chasm for a distance of approximately 400 feet through the hill, the like of which it is said by highway officials is not to be found in the Commonwealth of Virginia outside of the mountains. The fill constructed for the highway runs through the meadow land, which formed the grounds aforesaid, for a distance of approximately 1000 feet and rises to a maximum height of between 20 and 30 feet and has a width of approximately 125 feet at the base. The fill forms an enormous wall of dirt and rocks which runs through the spacious grounds parallel to the colonial dwelling and within 150 feet of the dwelling, and completely wipes out the immediate grounds which formed the setting for the colonial estate and constitutes a barrier isolating the dwelling and obstructing the expansive view therefrom. Deposits of dirt, muck and mud, washed from the banks of the fill, have spread out over the sod land close to the dwelling...Said highway has been constructed over the mill race through which flowed the water from a stream to an over-shot mill wheel twenty feet in diameter which was used to operate the mill. Pipes have been placed in the mill race under the highway for a distance of approximately 100 feet in a bend in the race. The pipes do not afford the proper opening for cleaning the race of dirt and obstructions which accumulate in the pipes and obstruct the flow of water to the mill and prevent the operation of the mill. To clear said pips of mud and other obstructions that accumulate therein from the hillside and from the loose earth that washes down from the slopes of the chasm in the hill, a force of from ten to fifteen men is required, and in order to work in said pipes it is necessary for workmen to crouch down in a cramped and squatting position and laboriously shovel a little mud at a*

> *time from one workman to another until the mud is thrown out at the end of the pipe.*[89]

Bailey also complained that an inadequate opening was made under the highway to carry off the water after it leaves the tail race and that mud from the highway fill was collecting in the tail race. This caused water to back up, which blocked and prevented the operation of the water wheel.[90]

In 1946, after Route 7 bisected the mill's head race, Bailey requested a zoning change to permit him to reopen and operate the mill.[91]

**Fairfax County Park Authority Ownership, 1965-Present**

The mill and miller's house were acquired by the Fairfax County Park Authority in 1965.[92] In 1967, architect William Haussmann prepared plans for the restoration of the Miller's house and for construction of an addition.

## Endnotes

[1] Prince William County Deed Book (PW DB) E:203, 22/23 Jan 1741. Deed from John Colville to William Fairfax.
[2] Fairfax County Will Book (FX WB) B1(651)171, February 20, 1759. Will of William Fairfax.
[3] Letter from George Washington to Bryan Fairfax, 26 Nov 1799, George Washington Papers at the Library of Congress.
[4] Loudoun County Deed Book (LN DB) C:458, April 12, 1763.
[5] Joseph J. Ellis, *His Excellency: George Washington,* Alfred A. Knopf, New York, 2004, pp. 55-56.
[6] *To Be Rented,* Virginia Journal and Alexandria Advertiser, September 23, 1784, p. 3.
[7] Letter from George Washington to Robert Lewis, Esqr., August 26, 1793, George Washington Papers at the Library of Congress.
[8] Letter from Levin Powell to George Washington, June 15, 1793, George Washington Papers at the Library of Congress.
[9] Fairfax County Deed Book (FX DB) X1(24)372, September 9, 1794.
[10] Letter from George Washington to John Gill, May 4, 1795, George Washington Papers at the Library of Congress.
[11] Eugene Ernst Prussing, *The Estate of George Washington, Deceased,* Little, Brown, and Company, New York, 1927, p. 385.
[12] Letter from George Washington to John Gill, October 13, 1799, George Washington Papers at the Library of Congress.
[13] FX WB H1(657)1, January 20, 1800. Will of George Washington.
[14] *Alexandria Advertiser,* November 1, 1802.
[15] FX DB E2(31)150, January 21, 1803.
[16] Fairfax County Land Tax of 1803 and 1804.
[17] FX DB K1(11):308, May 13, 1773. Location of road specified in lease from Bryan Fairfax to John Shepperd in 1773. The road was likely at this location in 1803.
[18] Northern Neck Land Grant Z:173. Survey no. 5, p. 415, May 3, 1802.
[19] FX DB L2(38)193, August 22, 1811. William Sheppard to Philip Carper.
[20] FX DB Q3(69)344, May 23, 1848. George W. Hunter to Alfred Leigh.
[21] Fairfax County Chancery Case # 059_1846_015, Leigh vs. Hunter, Deposition of Ephraim Beedle.
[22] Eugene Ernst Prussing, *The Estate of George Washington, Deceased,* Little, Brown, and Company, New York, 1927.
[23] *Alexandria Gazette,* April 23, 1811, p1.

[24] United States Department of Agriculture, *A History of American Agriculture: Economic Cycles*, as viewed at http://www.agclassroom.org/gan/timeline/economic_cycles.htm
[25] *Alexandria Gazette,* July 25, 1809.
[26] *Alexandria Gazette,* April 23, 1811, p. 1.
[27] *Alexandria Gazette*, May 30, 1811, p. 1.
[28] FX DB L2(38)190, August 22, 1811. Deed from Commissioners to William Sheppard and Lawrence Lewis.
[29] FX DB L2(38)193, August 22, 1811. Deed from William Sheppard to Philip Carper.
[30] Fairfax County Deed Book D2:439 (missing), copy in Drawer X, Fairfax County Circuit Court archives, January 21, 1803.
[31] Eugene Ernst Prussing, *The Estate of George Washington, Deceased,* Little, Brown, and Company, New York, 1927.
[32] Eugene Ernst Prussing, *The Estate of George Washington, Deceased,* Little, Brown, and Company, New York, 1927.
[33] Cordelia Grantham Sansone, *Journey to Bloomfield,* AlphaGraphics Printshops of the Future, Fairfax, Virginia, 2004, pp. 14-15.
[34] Federal Census 1810, HeritageQuest.
[35] Cordelia Grantham Sansone, *Journey to Bloomfield,* AlphaGraphics Printshops of the Future, Fairfax, Virginia, 2004, pp. 14-15.
[36] *Virginia Patriot,* November 16, 1810, p. 3.
[37] FX DB L2(38)193, August 22, 1811.
[38] FX DB M2(39)405, October 18, 1813. Philip Carper purchase of 37 ½ acres from William Sheppard.
[39] FX DB F3(58)13, August 28, 1839. Philip Carper purchase of 38 acres from Orlando Fairfax.
[40] FX DB O2(41)71, October 18, 1813. Philip Carper purchase of 44 acres and 218 acres from Nicholas Harper's heirs.
[41] Fairfax County Personal Property Tax Ledgers, 1813-1815, Microfilm, Fairfax County Public Library, Virginia Room.
[42] Cordelia Grantham Sansone, *Journey to Bloomfield,* AlphaGraphics Printshops of the Future, Fairfax, Virginia, 2004, p. 21; Also, See deposition in Gunnell vs. Colemann 059_1843_014.
[43] Fairfax County Personal Property Tax Ledgers, 1813-1815, Microfilm, Fairfax County Public Library, Virginia Room.
[44] Fairfax County Land Tax Ledger, 1820, Microfilm, Fairfax County Public Library, Virginia Room.
[45] United States Department of Agriculture, *A History of American Agriculture: Economic Cycles*, as viewed at http://www.agclassroom.org/gan/timeline/economic_cycles.htm
[46] Fairfax County Land Tax Ledger, 1840, Microfilm, Fairfax County Public Library, Virginia Room.
[47] Federal Census 1830, HeritageQuest.
[48] Federal Census 1840, HeritageQuest.
[49] Fairfax County Land Tax Ledgers for 1840 and 1841.
[50] FX DB G3(59)157, September 1841. John Powell purchases three adjoining tracts from Philip Carper.
[51] *Alexandria Gazette*, September 2, 1848, p. 3.
[52] *Alexandria Gazette*, March 29, 1842, p. 2.
[53] *Alexandria Gazette*, March 28, 1842, p. 3.
[54] *Alexandria Gazette*, July 9, 1849, p. 3.
[55] U.S. Postal Records, microfilm, Fairfax County Public Library, Virginia Room.
[56] Federal Census 1850, HeritageQuest.
[57] Federal Census 1860, HeritageQuest.
[58] *Daily National Intelligencer*, May 27, 1861, p. 3.
[59] *Daily National Intelligencer*, February 20, 1863, p. 3.
[60] "Petroleum Oil," *Daily National Intelligencer*, March 22, 1867, p. 3.
[61] Fairfax County Land Tax Ledger 1868.
[62] Fairfax County Land Tax Ledger 1866.
[63] Fairfax County Land Tax Ledgers.
[64] Federal Industry Census 1870, microfilm, Fairfax County Public Library, Virginia Room.
[65] Ross D. Netherton, *Colvin Run Mill,* County of Fairfax, Virginia, 1976, p. 12.
[66] FX DB C5(107)349, March 26 1883. Henry W. Cockerille purchase of 80 acres from bankruptcy assignees.
[67] FX DB C5(107)190, April 23, 1883. Joseph House purchased 90 acres from bankruptcy assignees.

[68] FX DB C5(107)264, April 11, 1883. Joseph S. House and E. C. Cartzendorforer paid Alfred Leigh for dam damages.
[69] Federal Census 1880, HeritageQuest.
[70] FX DB C5(170)223, April 27, 1883. Purchase of 32 acres by Addison B. Millard.
[71] Federal Census 1900, HeritageQuest
[72] Fairfax County Land Tax Ledgers, 1883, 1884, 1885.
[73] Fairfax County Land Tax Ledger, 1891.
[74] Fairfax County Will Book H2(683)8. Addison B. Millard will.
[75] Fairfax County Will Book H2(683)29. Addison B. Millard inventory.
[76] Fairfax County Will Book 3:217 and 4:649. Addison B. Millard accounts
[77] Fairfax County Will Book 4:648. Addison B. Millard account.
[78] Fairfax County Chancery Case Millard vs. Barry, #059_1904_025. Image courtesy Library of Virginia Chancery Database.
[79] FX DB Z5(130)311, August 2, 1897.
[80] Federal census 1910
[81] FX WB 9:419. Emma Millard estate account.
[82] FX DB T8:500, January 12, 1921. Samuel and Alfred Millard buy interests in the mill and miller's house.
[83] *Fairfax Independent*, April 11, 1929, p. 3; Also, *Fairfax Independent*, July 30, 1931, p. 16.
[84] "140-Year-Old Mill to Be Start Of Wanderbirds' Sunday Hike," *Washington Post*, November 29, 1935, p. 26.
[85] FX DB O11:229, July 31, 1929. Bernard Bailey purchase of mill and miller's house.
[86] "Itinerary of Hikers Includes Visit to Colvin Run Village," *Washington Post*, February 22, 1935, p. 18.
[87] "Old Mill is Historic," *Washington Post*, September 4, 1938, p. 8.
[88] FX Chancery #5762, Bernard B. Bailey vs. J. A. Anderson, State Highway Commissioner, Department of Highways, Commonwealth of Virginia, Fairfax County Circuit Court Archives, October 21, 1941.
[89] FX Chancery #5762, Bernard B. Bailey vs. J. A. Anderson, State Highway Commissioner, Department of Highways, Commonwealth of Virginia, Fairfax County Circuit Court Archives, October 21, 1941.
[90] FX Chancery #5762, Bernard B. Bailey vs. J. A. Anderson, State Highway Commissioner, Department of Highways, Commonwealth of Virginia, Fairfax County Circuit Court Archives, October 21, 1941.
[91] *Fairfax Herald*, October 11, 1946, p. 4.
[92] FX DB 2569:224, January 29, 1965, Memorandum of Lis Pendens. Also, FX DB 2640:413, July 21, 1965.

## ARCHITECTURAL EVOLUTION

### Principal Phases of Construction

The miller's house has been enlarged, repaired, and restored over the years. Several major periods of construction have been identified and are described in the following phases of construction. Architectural investigation and examination of the existing structure and historical photos revealed five periods of major construction and alteration.

The following phases of construction are scenarios of possible construction activities developed based on key physical evidence uncovered during the investigation. Rarely is there concrete proof of when changes were made to the structure or if changes were made in conjunction with others. Throughout its history, the building has regularly undergone repairs and alterations, thus the potential exists that the scenarios, which neatly package the alterations into phases, are too confining. To compensate for this and varying degrees of assurance, the logic behind the scenarios is outlined in the Key Physical Indicators portion of this report. Please refer to the Appendices for scaled conceptual plans and elevations of each phase of construction.

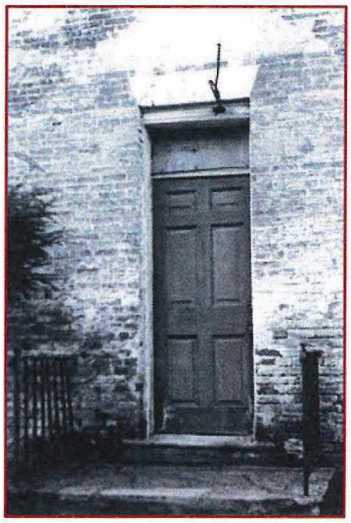
Phase I: Original Construction (ca. 1806)

The original portion of the brick house is a two-story Federal-period style side-gabled structure measuring roughly 44'x20'. The original structure has a stone foundation, perimeter walls of brick masonry, and heavy wood timber framing with mortise and tenon joints. The roof likely had wood shingles. Character-defining features include the symmetrical, five-bay design, wood-panel surrounds at the exterior doors that were geometrically carved to match the six-panel doors, a rectangular transom window above the front entry door, and paired interior end chimneys. The front door may not have had a covered porch or a pediment.

All of the original exterior doors had steps leading down to grade. The original steps at the side (D101) and rear door (D102) remain. The front steps at door D100 were likely stone. All of these doors have stone thresholds. The front steps may have been close to the house since the grade drops as it extends away from the house. The steps may have been similar to the steps that were existing in 1967, though made of stone.

*Image 2.20: At left: Front Entry, 1967, Photo by Ross Netherton, Courtesy Fairfax County Public Library*

*Image 2.21: At right: Front Entry, 1967, Photo by William Haussmann, Courtesy Fairfax County Park Authority*



### *Cellar*

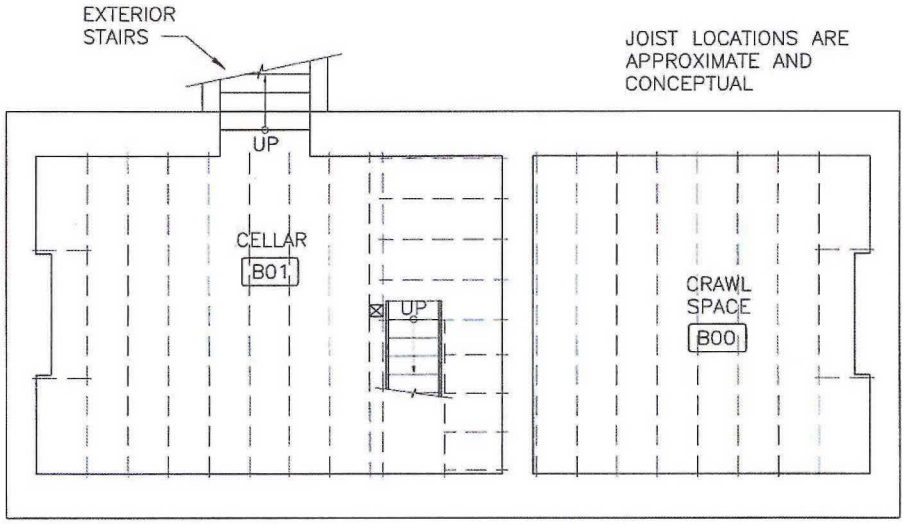



*Image 2.22: Phase I Conceptual Cellar Plan*

The cellar was constructed with two spaces, one of which was unexcavated. The masonry wall separating the two spaces continues up to the second floor in order to carry the load of the second floor joists. At some time, access was created through this wall to the unexcavated space.

Exterior cellar stairs may have provided access to the exterior through a cellar access hatch.

### *First Floor*

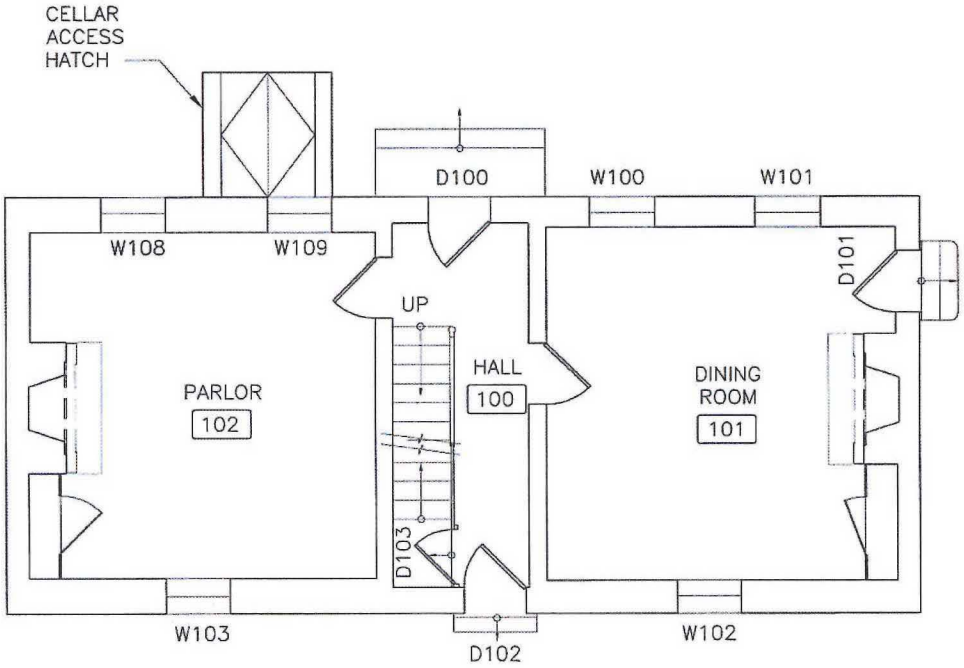



*Image 2.23: Phase I Conceptual First Floor Plan*

The first floor center hall was flanked by two living spaces: a parlor and a dining room. These rooms were very similar; each had a fireplace, bowfat cabinet in the inglenook, and exterior doors. The flooring in both rooms was originally 1"-thick (actual) wood tongue and groove boards. Originally all of the floors on the first floor were at the same elevation, including between the parlor and the hall where there exists a small step today.

As was typical for center-passage, single-pile houses of the period, one wall of the corridor is a masonry load bearing wall and the other wall, located along the stair, is a stud wall.

The fireplace hearths were likely originally brick laid in a modified running bond pattern with wood trim. The running bond pattern existed for most of the hearth, but the last brick on both sides was rotated 90 degrees around a half brick. The hearths were supported by wood planks below. The existing brick hearths are not original.

*Image 2.24: Room 102 Hearth in 1967 Before Renovation, Photo by William M. Haussmann, Courtesy Fairfax County Park Authority*

Interior doors were located at each doorway opening. The door swings shown on the conceptual plan are based on evidence of the location of the hinge hardware where the mortise for the hinge remains visible. All of the doors were likely six-panel doors. Only two original six-panel doors remain (D103 and D200).

The wall along the stairway separating the parlor from the hall has been replaced. The original wall likely had a half-rail similar to the half-rail at Marshalton Inn in Pennsylvania. (See photo in first-floor hall description section of this report.) Historic Sully, owned by the Fairfax County Park Authority, also has a half-rail.

***Second Floor***

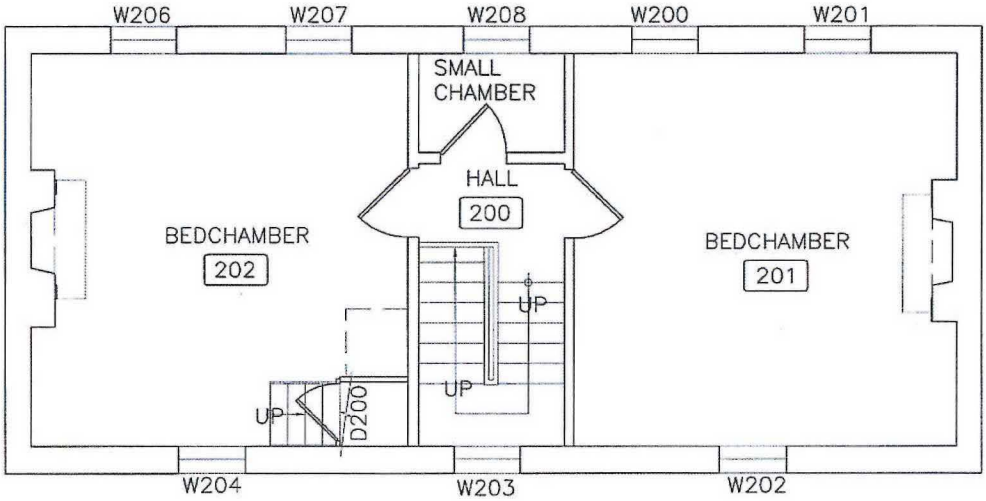



*Image2.25: Phase I Conceptual Second Floor Plan*

The second floor plan is similar to the first floor, with two rooms flanking each side of the center hall. There were no closets originally. A small chamber may have existed in the front portion of the hall.

### *Attic*

Access to the attic has always been via an enclosed stair in room 202. The door to the enclosed stair (D200) is original. A hook was used to secure the door closed.

The attic originally had four windows in the gable ends symmetrically placed on each side of the chimneys.

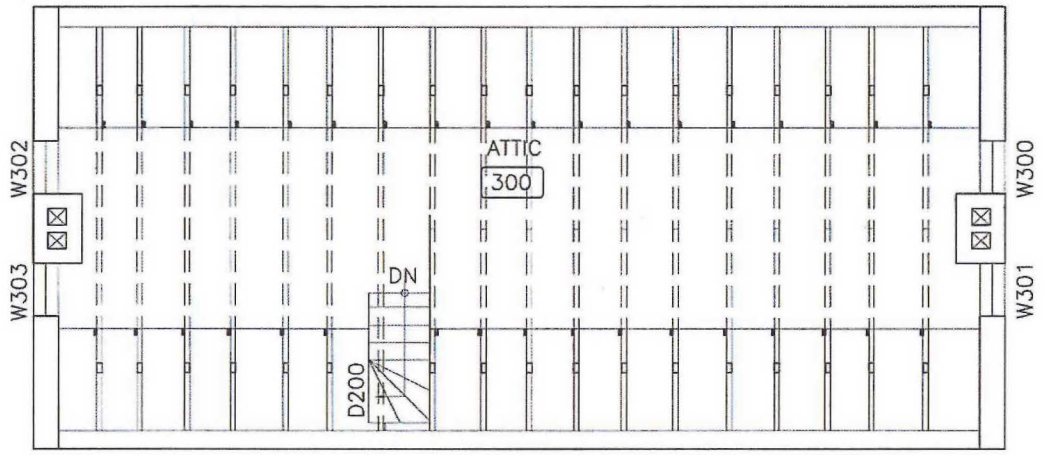



*Image 2.26: Phase I Conceptual Attic Plan*

Refer to Appendix D for additional Phase I conceptual plans.

Phase II: One-story Addition, ca. Mid-19th Century

Sometime in the middle of the 19th century, after the time of original construction and before the Millard family constructed a two-story addition ca. 1885, a one-story addition was constructed on the house.

Little is known about the addition, though some clues suggest a general shape. The height of the addition is based on roof flashing ghost marks visible on the brick masonry in 1967 photos. The length of the addition is unknown.

A penetration was made through the exterior wall for a door to connect the addition to the parlor. The first door at this location may have been the seven-panel door seen in the following photo.

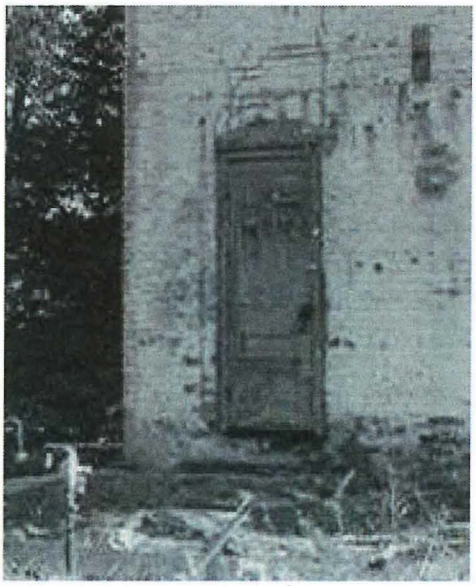


*Image 2.27: Seven-Panel Door, 1967, Photographer Ross Netherton, Courtesy Fairfax County Public Library*

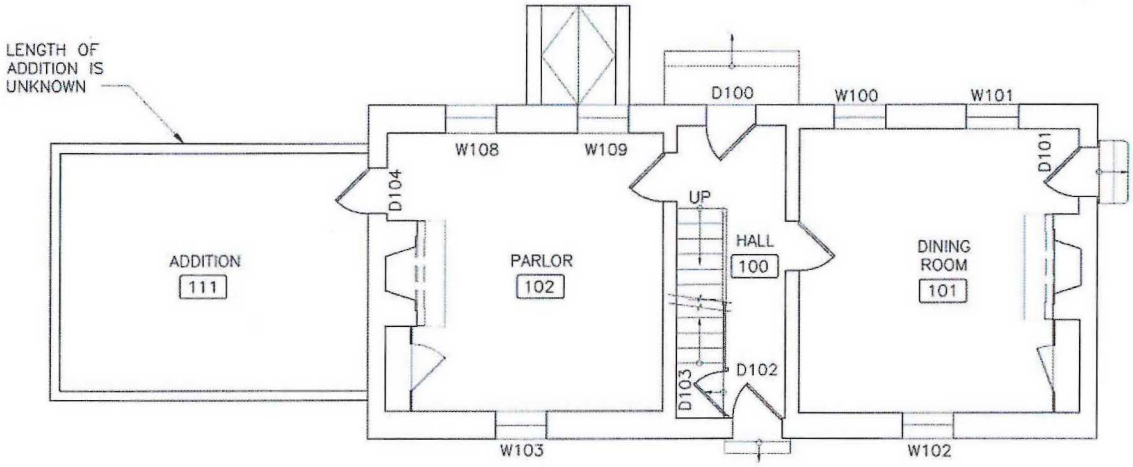



*Image 2.28: Phase II Conceptual First Floor Plan*

Windows and doorways are not shown in the conceptual floor plans since there are no clues to suggest their location.

Following is a conceptual elevation of the addition. The addition may have been narrower than the original building.

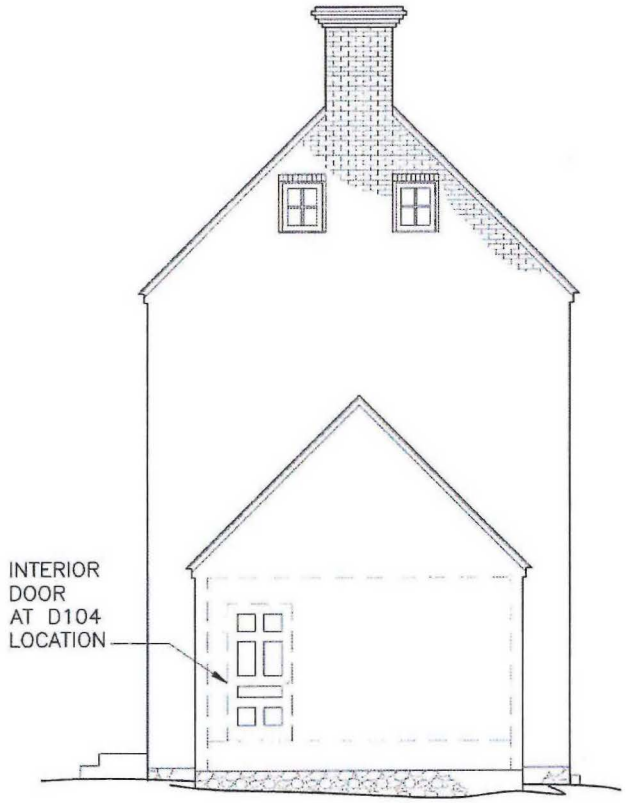



*Image 2.29: Phase II Conceptual Elevation*

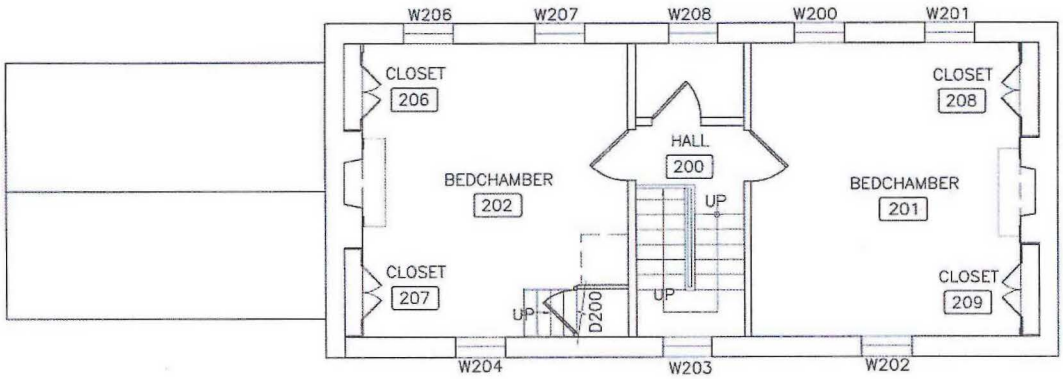



*Image 2.30: Phase II Conceptual Second Floor Plan*

The addition probably didn't have a chimney. Instead a flue penetration was made into the adjoining chimney from the original house.

Other alterations during the mid-19th century include the replacement of original six-panel doors with seven-panel doors at the rear door (D102), side door (D101), and interior doors.

Closets in the second floor bedchambers were also installed during this time frame.

Refer to Appendix D for additional Phase II conceptual plans.

Phase III: Two-story Addition and Front Porch

When the Millard family purchased the house and mill, they soon after began making improvements. It was likely the Millards who demolished the one-story addition and constructed a two-story addition in the same location.

They also likely added a front porch to the house. At some point, a cellar window was added to provide light into the cellar. Because the window conflicted with the location of the new porch foundation, the window was infilled with brick.

The cellar access stairs were infilled with stone and a smaller penetration was installed in the cellar wall, probably as a coal shoot. The installation of the coal window probably coincided with the closing of the cellar access stairs. The stairs were closed prior to the installation of a bathroom on the second floor. Coal may have been used for heating the house in cast-iron stoves. Transfer grilles were installed in at least one bedroom so that the heat from a first floor stove would rise into the bedroom.

They replaced all of the windows with 6/6 double-hung windows. All of the shutters were removed, and the exterior of the original house was painted to look like new brick and mortar.

The conceptual plans for Phase III are based on the ca. 1920s photo of the Millard family on the front porch and the 1930s HABS photos.

*Image 2.31: Phase III Conceptual Front Elevation*

Refer to Appendix D for additional Phase III conceptual plans.

Phase IV: Miscellaneous Additions, ca 1930

The HABS photos reveal that several other additions were made to the house.

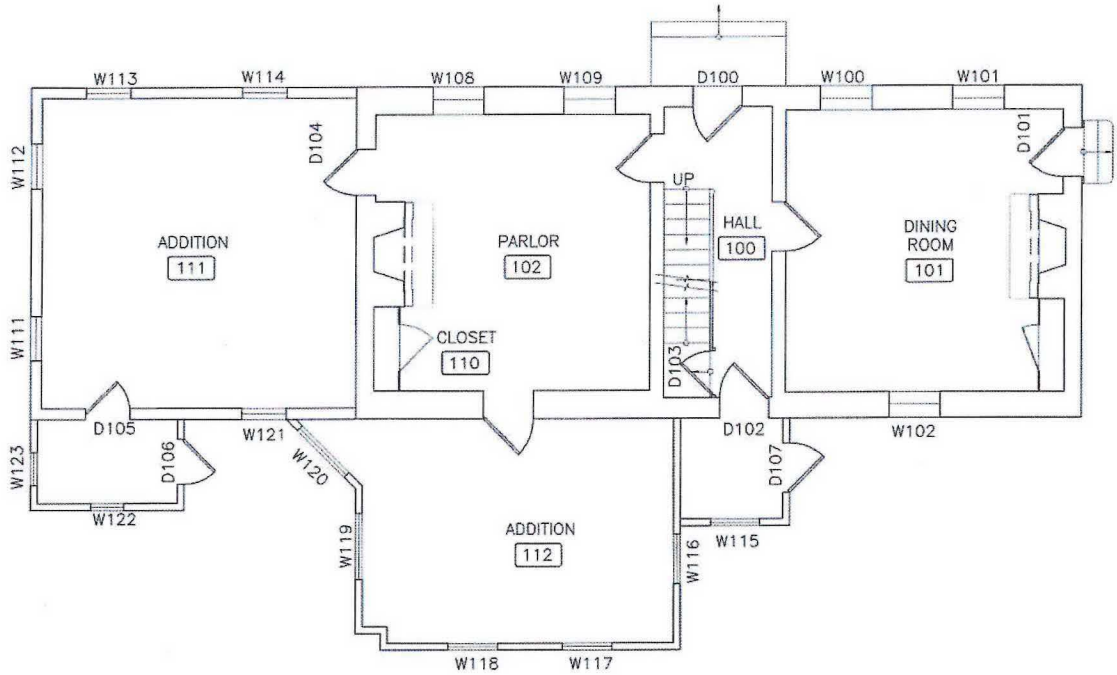



*Image 2.32: Phase IV Conceptual Plan of Miscellaneous Additions*

*Image 2.33: Colvin Run Miller's House, HABS, ca. 1935,*
*Courtesy Fairfax County Public Library*

A large addition was constructed on the rear of the house. A window in the parlor was converted to a doorway.

The front porch was removed and replaced with a small stoop, possibly covered with a slate veneer. The stoop had metal handrails.

Plumbing was added to the house. The sanitary sewer line extended to the front of the house. The drain field may have been located at the bottom of the hill near the road.

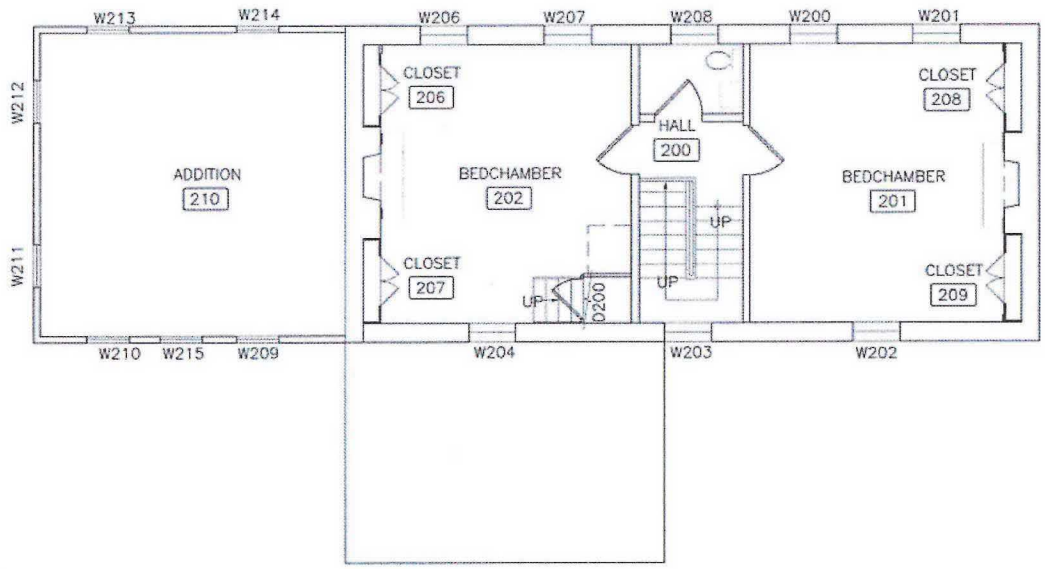



*Image 2.34: Phase IV Conceptual Second Floor Plan*

Refer to Appendix D for additional Phase IV conceptual plans.

Haussmann Restoration, 1967

After the Fairfax County Park Authority purchased the property, the Colvin Run Miller's House was restored by William Haussmann. In 1967, the two-story addition had already been demolished along with the other smaller additions.

Haussmann prepared construction documents that outline all of the changes that were made at that time. See the appendix for a copy of the plans. One of the changes that Haussmann made was to replace all of the 6/6 windows with double-hung windows that had the original glazing configuration. The first floor windows were changed back to 9/9 windows and the second floor windows were changed back to 9/6 windows. The evidence he used to determine the window configuration was the location of the original stops for the fixed upper sashes. Haussmann also had the bathroom removed.

Repairs were made to the structure. Additional support was added in the cellar to carry the weight of the floor joists above. Many of the brick jack arches above the windows and doors were repaired.

The most significant change made by Haussmann was the reconstruction of the one-story addition. This space was planned for tenant occupancy; therefore, the space included a kitchen, bathroom, living room, and a bedroom in the upper level loft.

## Key Indicators of Construction Phases

During the architectural investigation, evidence was revealed that indicated various alterations made to the structure and what specific construction techniques and materials were employed at particular times in history.

Phase I: Original Construction (ca. 1806)

### *Exterior*

The exterior doors were likely six panel doors.

1. The wood-panel surrounds at the exterior doors were geometrically carved and most likely were patterned after six-panel doors.

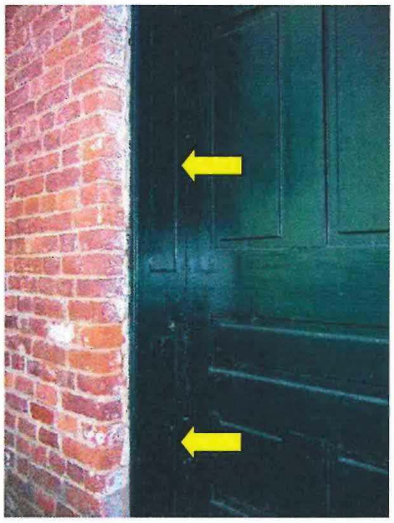


*Image 2.35: Carved Pattern in Door Surround at Door D100*

The front door may not have had a covered porch or a pediment.

2. The front door surround and transom window were set back within the brick masonry opening. To a certain extent, this kept rainwater from dripping onto the wood. Had there been a pediment above the door, you would expect that feature to have tied into the door surround.

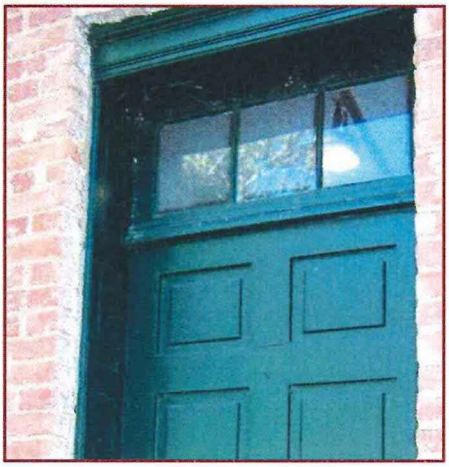


*Image 2.36: Door Surround Set Back in Masonry*

The original exterior door locations were at the front and rear doors (D100 and D102) and the side door at the exhibit room (D101). There wasn't an exterior door from the parlor at D104.

3. All of the original door penetrations were consistently constructed. They each have brick jack arches, stone thresholds, and geometrically carved door surrounds.

*Image 2.37: Typical Stone Threshold*

4. The doorway at the parlor door D104 does not have a brick jack arch, stone threshold, or early carved door surround.
5. The door location (D104) is not symmetrical with the exterior door on the other side of the house (D101). The parlor door is located too close to the mantelpiece to be considered part of the original design.

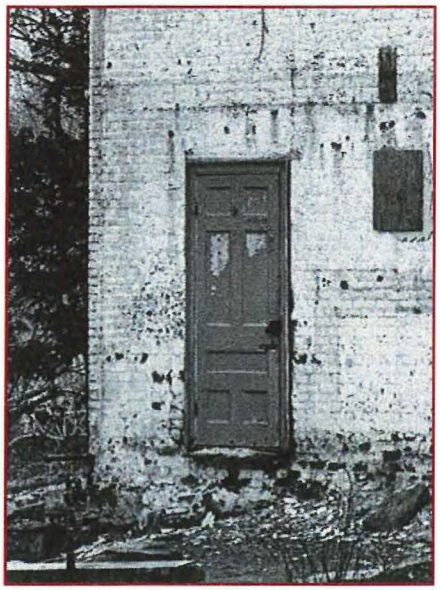


*Image 2.38: Parlor Door (D104), by Eddie Printz, 1965/6, Image Courtesy Fairfax County Public Library*

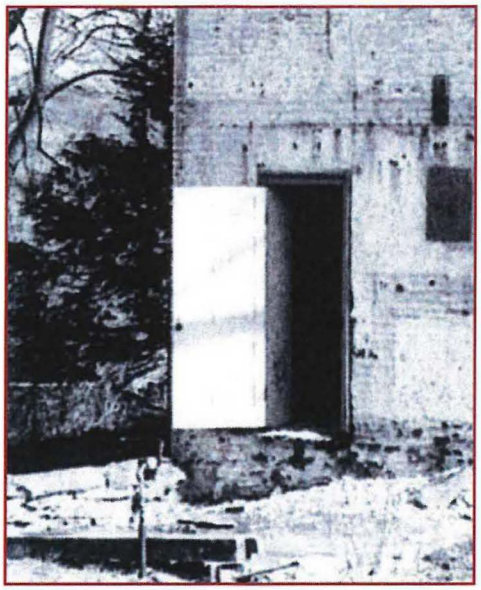


*Image 2.39: Parlor Door (D104), by William Haussmann, 1967, Image Courtesy Fairfax County Park Authority*

***Cellar***

The central core of the full-height cellar (Room B01) appears to be original to the structure.

6. The stone foundation exterior walls support brick walls, which run continuous to the upper floors.

Many of the first floor joists visible in the basement appear to be original.

7. Saw marks visible on some of the joists suggest that the joists were cut at a water-powered saw mill. The marks are not circular; however, they are more consistent than what you would see on pit sawn lumber cut by hand.
8. The joists are hand hewn on the top and bottom surfaces of the joists. The ends were

*Image 2.40: Hewn Joist*

shaped so that they would sit on top of a sill plate that was located on top of the perimeter foundation walls.

9. Early mortise and tenon joinery was used to attached joists to headers.

*Image 2.41: Mortise and Tenon Joinery at Cellar Stairs*

There likely were stairs that extended from the exterior down to the cellar.

10. The stone wall was infilled at this location.
11. The opening appears to be original since many of the stones on both side of the infilled area were dressed, i.e. they were cut square. Had this opening been made after the time of original construction, you would more likely see stones that were irregularly cut or stones that were removed and the spaces filled with brick.

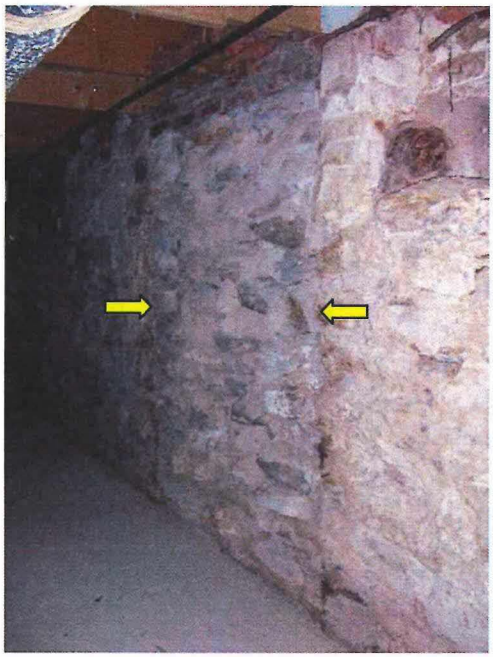


*Image 2.42: Cellar Stair Stone Infill*

12. The wood lintel that extended across the cellar stair opening remains, though it is hidden behind the brick courses at the top of the stone infill.

*Image 2.43: Cellar Stair Wood Lintel*

### *First Floor*

Original floor boards were likely 1" thick tongue and groove boards.

13. Early floor boards, which have been covered by newer flooring in the parlor, are visible from the cellar.

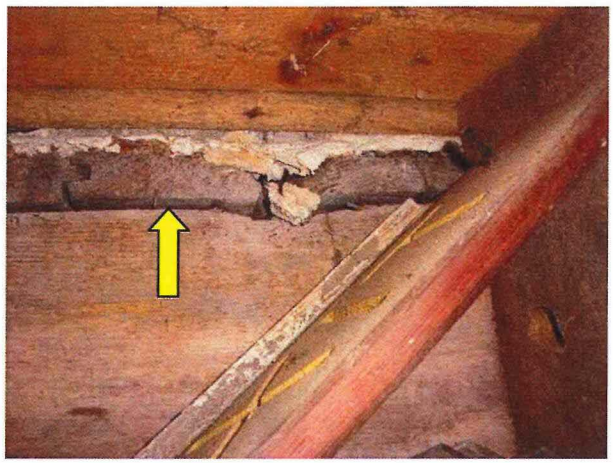


*Image 2.44: Original Wood Tongue and Groove Floor Boards*

14. Early machine cut nails extend through the original boards.

*Image 2.45: Early Machine Cut Nails*

The brick hearths have been modified.

15. The existing brick bond pattern is different than the brick bond pattern shown in the 1976 Haussmann photos.

*Image 2.46: Parlor Brick Hearth (Existing)*

*Image 2.47: Parlor Brick Hearth (1967), Photo by William Haussmann, Courtesy FCPA*

Door swings shown on the conceptual plan are based on the location of extant hinge mortises.

16. Hinge mortises are visible in the trim around the doorway from the hall into the exhibit room.
17. Doors are shown in the 1967 Haussmann photos.

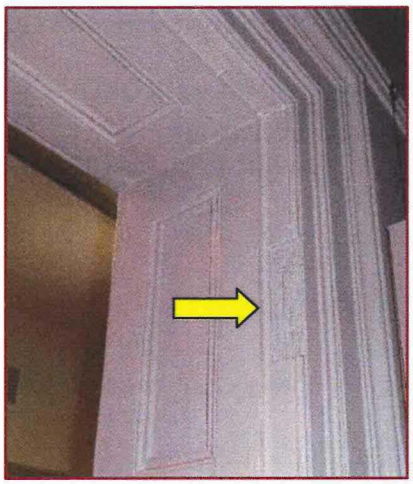


*Image 2.48: Hinge Mortise at Exhibit Room Door*

18. Hinge mortises are visible on the parlor side of the wood trim surrounding the doorway from the hall into the parlor.

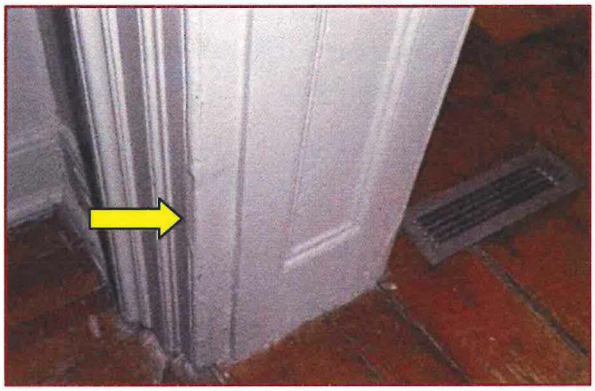


*Image 2.49: Hinge Mortise at Parlor Door to Hall*

The floor elevation on the first floor was constant. Originally, there wasn't a small step up from the parlor into the hall. Currently there is a 1 ¼" step up into the hall, despite that fact that an additional layer of wood flooring was added on top of the original flooring in the parlor.

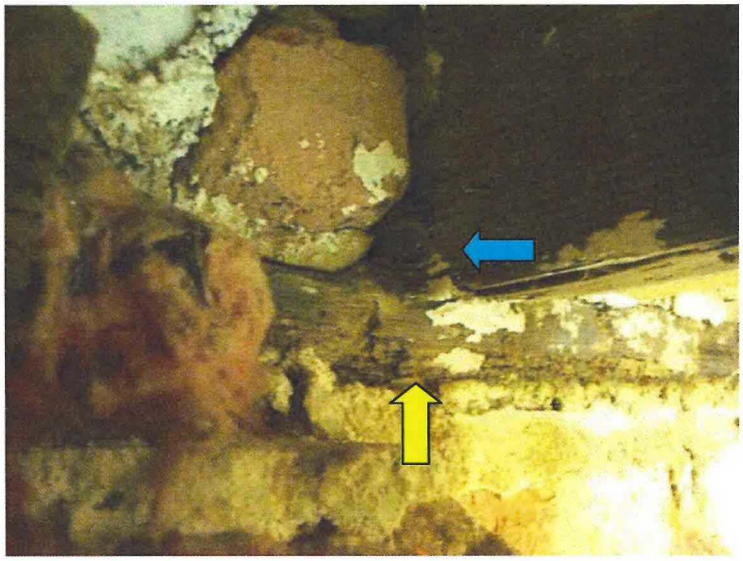


*Image 2.50: Wood Sill and Joist Deterioration. Yellow arrow points to deteriorated sill plate. Blue arrow points to deteriorated joist.*

The first floor joists were constructed to bear on a wood sill plate that was placed on top of the stone foundation walls. This wood sill plate and the ends of the floor joists slowly deteriorated due to wood rot.

19. The sill plate deteriorated and is not as thick as it was originally. The ends of the joists deteriorated, which caused the joists to lower over time. The wood grain at the joist ends shows that the wood took this new shape and lower position.

Over time, the hall floor began to slope towards the parlor.

20. The hall floor was made level by raising the ends of the floor joists on the parlor side by adding wood blocking.

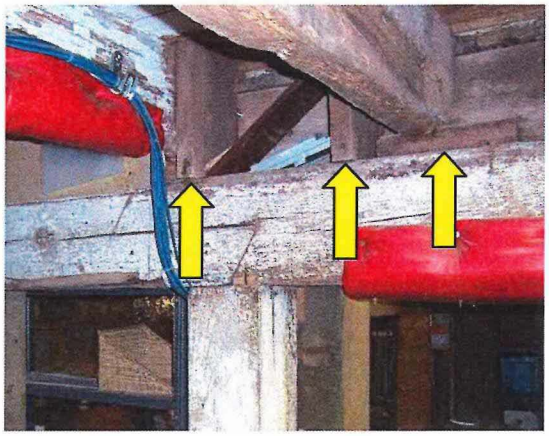


*Image 2.51: Wood Blocking Used to Level Hall Floor*

The stairway within the center hall likely had a half-rail set within the plaster wall. This wall has been replaced.

21. Half-rails were common at this period.
22. The plaster used to constructed the replacement wall is not the original lime plaster. The existing plaster is cementitous.
23. It is possible that this wall needed to be replaced as a result of the damage that occurred due to the deterioration of the sill plates and floor joists in the parlor and hall. The wall bears on a summer beam visible in the cellar. This beam has been replaced with one that was circular sawn. The wood blocking used in the repair was installed using modern wire nails that came into general use for this purpose in the 1880s.

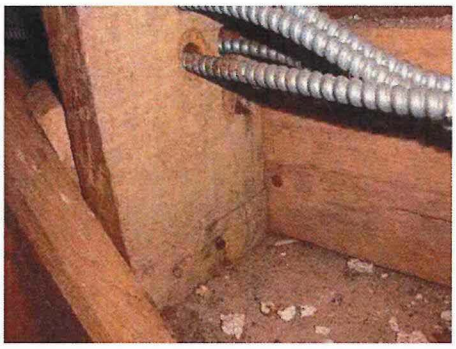


*Image 2.52: Modern Wire Nails Used to Install Wood Blocking*

### *Second Floor*

Originally, there were no closets on the second floor.

24. The first paint colors on the closet doors are from a later period.
25. There is chair rail in the closets. If the closets had been original, you would not have the chair rail in the closet.

*Image 2.53: Chair Rail in Second Floor Closet*

There may have been a small chamber within the second floor hall.

26. Having a small chamber within the hall space was a common design of the period. The space may have been used for dressing.
27. When William Haussmann prepared his restoration plans, he directed that walls in this location be demolished. It is unknown if the walls that existed in 1967 were original or later walls constructed to enclose a bathroom. The conceptual design bases the wall and door location on the Haussmann plans.
28. The chair rail in this area has been replaced.

*Image 2.54: Replaced Chair Rail Attached with Wire Nails*

Door swings shown on the conceptual plan are based on the location of extant hinge mortises.

29. Hinge mortises are visible in the trim around the doorways.

***Attic***

The enclosed stair leading from Bedchamber 202 to the attic is original.

30. The door is original. The hinges have screws that have hand-applied slots.

A hook was used to secure the door to the attic closed.

31. The wood on the door jamb is worn in a circular pattern.

*Image 2.55: Door Jamb at D200 Showing Circular Wear Pattern*

Phase II: One-story Addition, ca. Mid-19th Century

***Exterior***

The addition was not part of the original construction as evidenced by the fact that the door penetration is not original

32. The doorway construction at D104 does not match the construction of the three original doors. This door does not have a brick jack arch, a stone threshold, or a wood surround.

There are two indications that the addition did not extend the full width of the original house.

33. Paint ghost marks on the right side of the building in the following photo suggest that the addition walls were approximately two feet from the corner of the house.

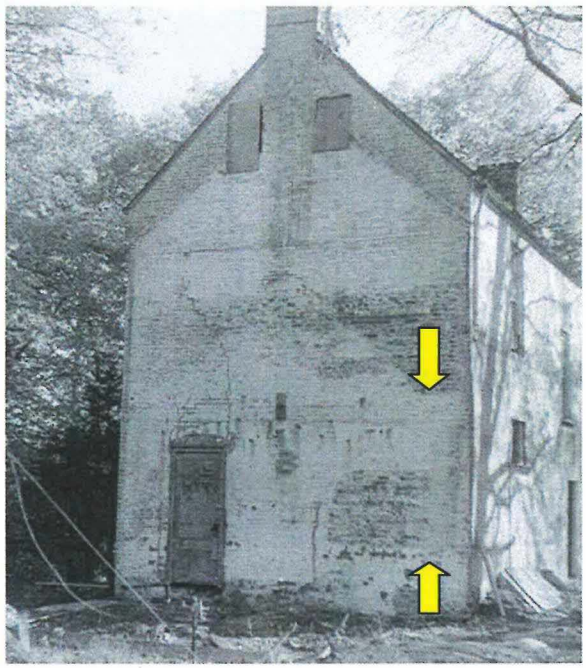


*Image 2.56: Ghost Marks Suggest Smaller Addition, 1967, Photographer Ross Netherton, Courtesy Fairfax County Public Library*

34. The door penetration was made far from the corner of the building and very close to the mantelpiece in the parlor. If the addition were wider, then the door could have been installed further away from the mantelpiece.

*Image 2.57: Door Located Very Close to Mantelpiece and Chimney*

There probably wasn't a chimney in the addition.

35. Photos from 1967 indicate that there was a flue penetration into the adjoining chimney of the main house.

A wood stove may have been connected to the flue.

36. A mantelpiece may have been in front of the stove, as there are paint ghost marks in this shape beneath the flue penetration.

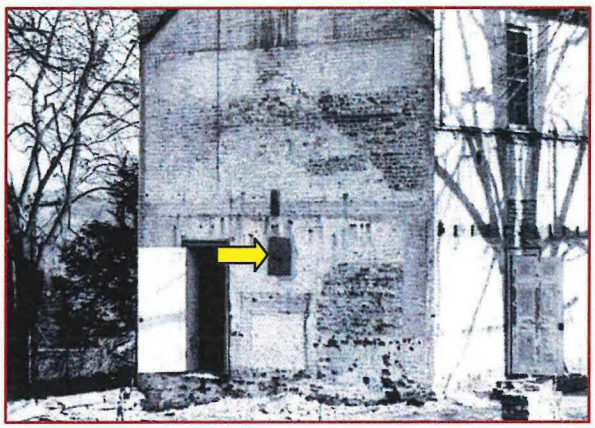


*Image 2.58: Wood Covering Flue Penetration, Photo by William Haussmann, 1967, Image Courtesy Fairfax County Park Authority*

***First and Second Floors***

Original six-panel doors were replaced with seven-panel doors. In addition, closets in the second floor bedchambers were installed.

37. Paint analysis suggests that the seven-panel doors were installed at the same time as the closet doors in the bedchambers since they have the same paint layers.

Phase III: Two-story Addition and Front Porch

The one-story addition was demolished and a two-story addition was constructed in the same location.

38. The two story addition appears in HABS photos.

A front porch was added to the house.

39. The porch appears in a ca. 1890s photo of the Millard family.
40. A remnant of the concrete porch footing can be seen on the exterior wall near the current stoop at the grade.

At some point, a cellar window was added to provide light into the cellar. Because the window conflicted with the location of the new porch foundation, the window was infilled with brick.

41. The window was partially infilled with brick, as can be observed in the cellar.

*Image 2.59: Infilled Cellar Window*

The exterior cellar stairs were closed prior to the installation of a toilet on the second floor.

42. The sanitary sewer line for the toilet room extended outside in the same area where the cellar stairs were located; therefore, the stairs must have been closed by that time or there would have been a conflict.

Transfer grilles were installed in at least one bedroom so that the heat from a first floor stove would rise into the bedroom.

43. The Haussman restoration plans note that the grille in bedchamber 201 is to be removed.
44. Flue penetrations were made above the fire boxes for stove flues.

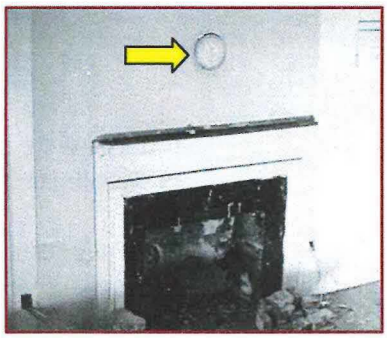


*Image 2.60: Flue Penetration, Photo by William Haussmann, 1967, Image Courtesy Fairfax County Park Authority*

All of the windows were replaced with 6/6 double-hung windows and all of the shutters were removed.

45. The 6/6 double-hung windows were observed in the 1967 photos.

*Image 2.61: Six-over-six Double-hung Windows, 1967, Photographer Duke Breitenback, Courtesy Fairfax County Public Library*

The exterior of the original house was painted to look like new brick and mortar.

46. Remains of this paint were observed during the historical paint analysis investigation. Refer to the paint analysis report in the appendix for more information.

Phase IV: Miscellaneous Additions, ca 1930

When a large addition was constructed on the rear of the house, a window in the parlor was converted to a doorway.

47. The upper portion of the window was infilled with brick. This is evident in 1967 photos.

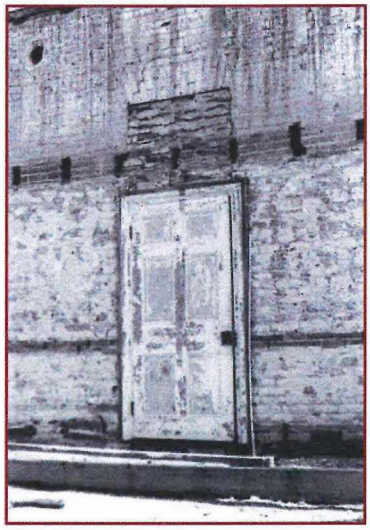


*Image 2.62: Window Infilled to Create Doorway, 1967, Photographer William Haussmann, Courtesy Fairfax County Park Authority*

The front porch was removed and replaced with a small stoop, possibly covered with a slate veneer. The stoop had metal handrails.

48. the stoop and handrails are evident in 1967 photos.

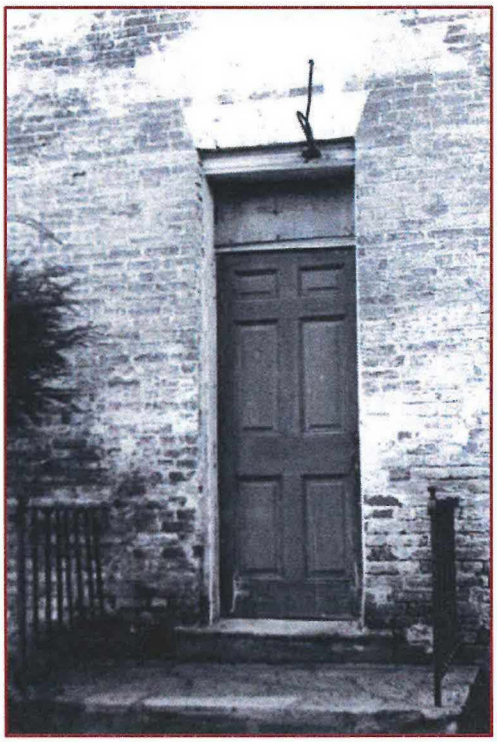


*Image 2.63: Front Stoop and Handrails, 1967, Photographer William Haussmann, Courtesy Fairfax County Park Authority*

Plumbing was added to the house. The sanitary sewer line extended to the front of the house. The drain field may have been located at the bottom of the hill near the road.

49. The bathroom is shown for demolition in the 1967 Haussmann restoration plans.

## EVALUATION OF SIGNIFICANCE

### Areas of Significance

The Colvin Run Miller's House is historically significant due to its architecture and association with broad patterns of our history, such as industrial development and early commerce.

#### Architecture

The miller's house is a 2-story brick dwelling constructed ca. 1806 in the Federal style. Features of the house that define the dwelling as being a Federal-style building include the following:

- Simple rectangular plan with doors and windows arranged symmetrically. Windows are five-ranked across the façade and were double-hung. Originally the first-floor windows had nine lites in the upper sash and nine lites in the lower sash. The original second-floor windows had nine lites in the upper sash and six lites in the lower sash. While federal-period homes usually had fewer, but larger, panes of glass, some federal-period dwellings, such as the Colvin Run Miller's House, were still being constructed with the smaller panes. None of the original window sash remains, therefore, the muntin profile could not be used as a diagnostic tool.

*Image 2.64: Symmetrical Façade*

- Decorative dogtooth cornice.

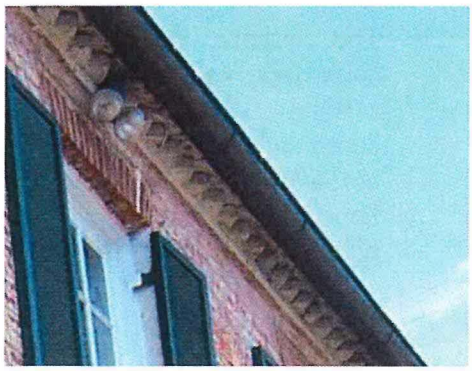


*Image 2.65: Dogtooth Cornice*

- Few elaborate decorative elements on the façade. It is possible that the front entry originally had a portico, since the construction of the front door within the masonry suggests that there wasn't a door surround. However, the portico shown in a ca. 1890s photo was constructed at a later period. It has features from later styles, such as the turned columns, and a remnant of the stone foundation has Portland cement used in the mortar.

*Image 2.66: Victorian Portico, Millard Family Photo, Photo copy made by Ross Netherton (1970), Courtesy Fairfax County Public Library*

- Window shutters.

*Image 2.67: Some Early Shutter Hardware Remains*

- The interior ornamentation on the mantelpieces, cupboards, and moldings is simple and distinct. The carving of the mantelpieces and the bowfat cabinets is coordinated and complementary, hence the design does not overwhelm the room. The arched design of the bowfat cabinet in the parolor with its fluted and reeded pilasters reflects federal-period styles.

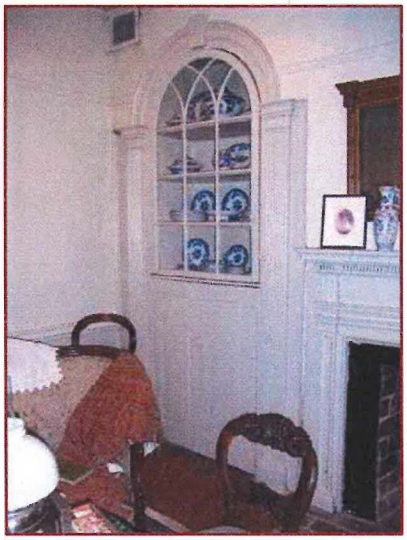


*Image 2.68: Delicate Federal-Period Ornamentation*

Commerce

Colvin Run Mill, the miller's house, and accessory structures, such as a non-extant cooper's shop, were associated with historically-significant federal-period commerce. During this time period, entrepreneurs such as William Sheppard and Phillip Carper engaged in the business of merchant milling. While many area millers ground neighborhood grain for local consumption, Sheppard, and later Carper, purchased grain from farmers, manufactured flour, and sold the product to international markets.

William Sheppard was particularly affected by federal-period commercial politics after President Thomas Jefferson requested a bill to restrict international trade. The Embargo Act of 1807 prevented American ships from entering foreign ports. Sheppard's commercial enterprise could not recover from the resulting American economic depression that lasted from 1807 to 1809.

Phillip Carper, an experienced miller, purchased the mill and miller's house in 1811 during an uneven economic recovery period that lasted until 1814. During this period, various federal acts were enacted to allow foreign trade to certain countries, including France, during the War of 1812. Some men with commercial milling interests in foreign markets disregarded the trade restrictions. As a result, the Embargo Act of 1813 authorized severe penalties for trading with Great Britain.

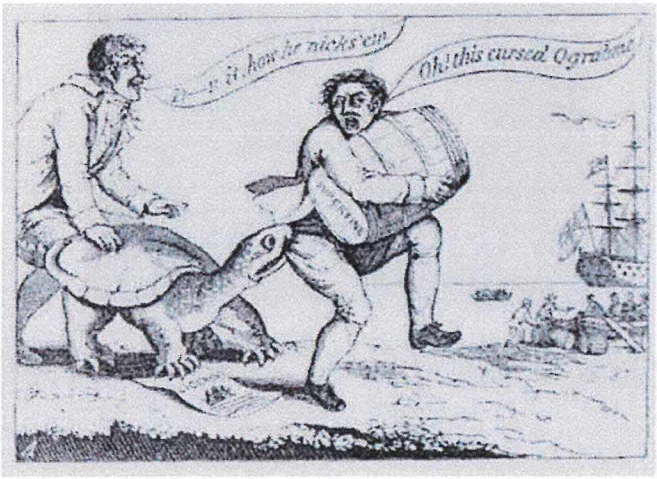



*Image 2.69: Early political cartoon of a merchant or merchant miller illegally attempting to load superfine flour onto a British ship in violation of the Embargo Act. The Embargo Act was not popular among men of commerce and became known as the Ograbme Act. Ograbme is embargo spelled backwards. In the cartoon, the man carrying the flour states "Oh! this cursed Ograbme." Image from Harpers Popular Cyclopedia, 1876, Courtesy Google Books*

Industry

When viewed within the entire cultural landscape of the mill site, the miller's house is associated with federal-period industry through the installation and use of Oliver Evans' milling system, and is later associated with the industrial revolution through replacement of the grind stone with mechanized roller mill machinery.

Oliver Evans developed the mechanics of a system that automatically moved grain and flour through the mill. This improved productivity by lessening the work effort. Phillip Carper owned Evans' book *The Young Millwright and Miller's Guide.*

Sometime in the late-19th century, Addison Millard converted his stone ground mill into a roller mill, which used cylindrical rollers to crush the grain. The movement to convert the traditional grind stone method of milling to roller mill technology mechanized the milling industry.

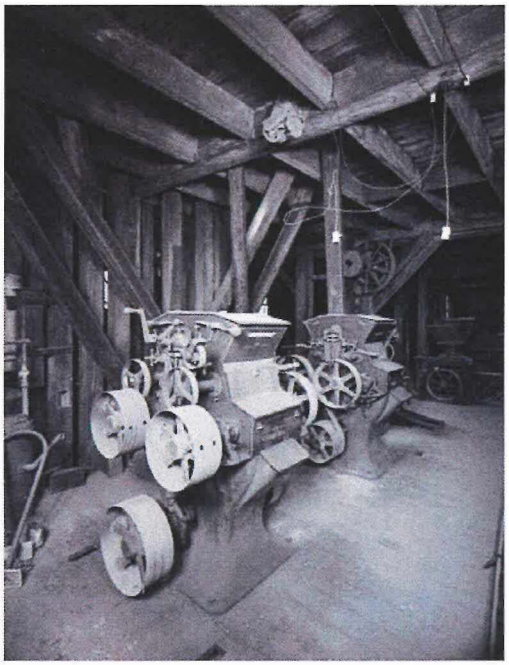


*Image 2.70: Example of Roller Mill Machinery, Easton Roller Mill, Monongalia, WV, HABS Photo by William E. Barrett, Image Courtesy Library of Congress*

**Period of Significance**

The Period of significance for the Colvin Run Miller's House is ca. 1806 - 1934, ranging from the approximate date of construction of the house, through the time periods when the house was the residence of a miller.

**Integrity Analysis**

Location (Retains integrity): The miller's house, constructed ca. 1806, is located on its original site.

Design (Retains integrity): The miller's house retains its original design elements, including proportion, scale, technology, ornamentation, and materials.

Setting (Retains integrity): The character of the site around the miller's house reflects its historical role as the dwelling of a miller who operated the nearby extant mill. The relationship between the mill and the miller's house is maintained, particularly through the site's topography and historic roadways.

Materials (Retains integrity): The miller's house retains its key exterior building materials of brick and stone. Interior character-defining features, such as the mantelpieces, bowfat cabinets, and the stairway handrail remain. Historic paint finishes were retained on many of the finished surfaces.

Workmanship (Retains integrity): Interior features, such as the bowfat cabinets, mantelpieces, chair rails, door jambs, and the stairway's balustrade and newel posts exhibit evidence of federal-period craftsmanship through hand-carving of decorative elements and turning of newel posts. Most of the wood structural members remain and exhibit historic joinery methods.

Feeling (Retains integrity): The miller's house retains a rural feeling, despite the location of Route 7 nearby which is, for the most part, shielded from the house by trees. The continued grinding of corn at the mill for interpretive purposes enhances the feeling of the role of the house as the miller's dwelling.

Association (Retains integrity): The miller's house retains its historical association with broad patterns of industrial and commercial history as the residence of millers whose on-site business pursuits were greatly affected by industrial improvements and commercial restrictions.

# CHAPTER 3. PROPERTY DESCRIPTION

## SYNOPSIS

The two-story miller's house, built ca. 1806, was constructed in the Federal style on a high point of land facing the Alexandria Turnpike. The topography of the site allowed the house to have a commanding situation on the hill yet still be near the mill, which needed a lower elevation for the conveyance of water to an overshot wheel.

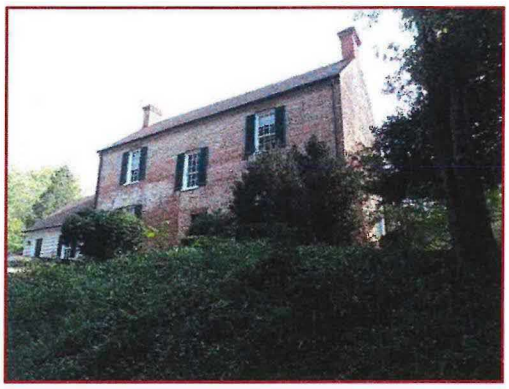


*Image 3.1: Rear Elevation Above Mill*

The original section of the house was constructed of three-course American-bond brick over a rough-cut un-coursed fieldstone foundation. The house is five bays wide with a modern 1 ½ story addition. The façade has symmetrically placed double-hung windows with brick jack arches. The fenestrations reflect the Federal style for larger-size windows. The first-floor window sash has 9 lites over 9 lites (9/9) and the second-floor window sash has 9 lites over 6 lites (9/6). The upper sashes are fixed. The gable-end roof, currently clad with asphalt shingles, tops a dog tooth cornice. The roof is penetrated with two interior-end chimneys with corbelled tops.

The front, rear, and side entry doors have been replaced, but were likely raised six-panel doors, based on the existing wood panel jambs that have geometric details that would have aligned with the panels in the doors. The front entry was very simple. The door had a transom above, but lacked an ornamental surround. All of the original entry doors have existing stone steps built into the brick and stonework.

The original section of the house has a center-passage single-pile layout, i.e. one room deep, also termed an I-plan layout. A cellar exists beneath the parlor and crawl spaces exist beneath the exhibit room and addition.

The interior style reflects Federal-period design philosophies. The ornamentation on the mantelpieces, cupboards, and moldings are simple, distinct, and do not compete for attention or overwhelm the composition of the design. The cupboards in both of the original first floor rooms match the adjacent mantelpieces, though the designs in each room are different. The ornamentation in the parlor is more elaborately carved with fluting. The two second-floor mantelpieces are similar and of a plain and simple style.

The original interior paint reflects paint colors and paint schemes popular in the Federal period up until about 1815. The trim was originally blue and brown.

## SPACE FUNCTION

Hypotheses on the original use of rooms can be developed based on room locations, ornamentation, and door locations. This is because the original builder had room uses in mind when he designed the house. Subsequent uses are more difficult to determine and less reliable without supporting written or oral history, especially if finishes such as wallpaper have been removed, which is likely the case at the miller's house.

The current use of the rooms is listed in the chart below along with hypotheses on what the original room uses may have been ca. 1811.

*Table 1: Space Function*

| *Room No.* | *Current Use* | *Conceptual Original Use* |
|---|---|---|
| ***B00*** | Crawl Space | Crawl Space |
| ***B01*** | Cellar | Cellar |
| ***B02*** | Crawl Space | Crawl Space |
| ***B03*** | Crawl Space | Crawl Space |
| ***100*** | Hall | Hall |
| ***101*** | Exhibit Room | Dining Room |
| ***102*** | Parlor | Parlor |
| ***103*** | Office | Living Room |
| ***104*** | Bathroom | Bathroom |
| ***105*** | Kitchen | Kitchen |
| ***106*** | Stairway | Stairway |
| ***107*** | Closet | Addition Closet |
| ***108*** | Closet | Addition Closet |
| ***109*** | Closet | Addition Closet |
| ***200*** | Hall | Hall with small chamber |
| ***201*** | Office | Bedchamber |
| ***202*** | Office | Bedchamber |
| ***203*** | Office | Bedroom |
| ***300*** | Attic, HVAC | Storage |

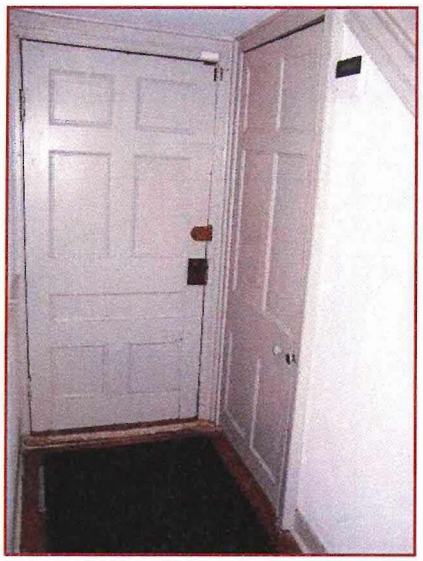
At the time of the original construction, the two first-floor rooms would have been used as a dining room and a parlor. The original parlor was likely in the room where the interpretive parlor is today. In the early 19th century, the parlor was generally more elaborate, while the dining room was more accessible. At the miller's house, the mantelpiece and cupboard in the parlor have a more stylish ornamentation than the mantelpiece and cupboard behind interpretive wall in the exhibit room. In addition, it is believed that of the two first-floor rooms, only the room currently used for exhibits originally had an exterior door. (Refer to Architectural Evolution portion of this report for more information). The exterior door may have been used to convey food from a kitchen outbuilding to the dining room.

Refer to Appendix C for room locations, names, and numbers.

## ORIGINAL CONSTRUCTION MATERIALS

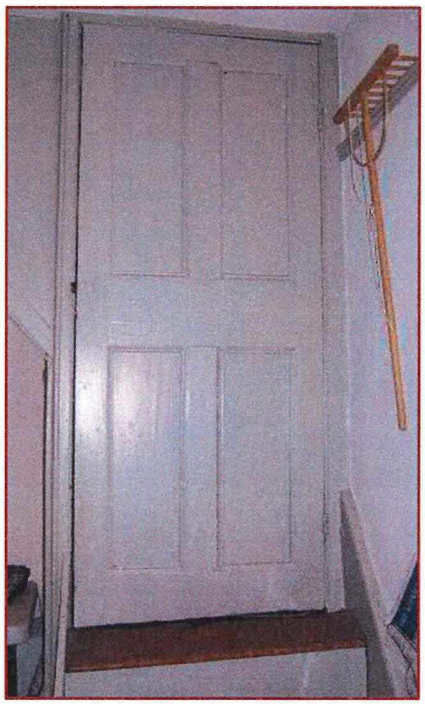
The house has undergone numerous subtle changes since the original house was built in 1806. The following materials and features are deemed to be original.

Of all of the doors in the house, only two are original: the cellar door (D103) and the door to the original attic (D200).



The cellar door is a six panel door, which is the original style that was used in the house. The rails were joined to the stiles using through tenons with wedges. The tenons may be observed on the hinge edge of the door. The door was grained on the cellar side to mimic the graining present at a period of time after the original finishes.

*Image 3.2: Original Cellar Door (D103) to the Right of the Rear Door (D102).*



The door to the original attic (D200) is a four-panel door, also with through tenons. Interestingly, the flat-panel side is toward the room and the raised-panel side is toward the attic. The hinge hardware is original. Note that the slots in the screws were struck off center.

*Image 3.3: Original Hinge at Door D200*

*Image 3.4: Original Door to Attic (D200).*

The rear door (D102) is early but not original. The wood panel jambs at the front, rear, and side exterior doors, which have geometric details that would have aligned with the panels in the doors, are original.

Much of the pine tongue & groove (T&G) flooring throughout the hall (Room 100) is original. The boards are 1 1/8" thick, have a variable width (4 ¼" - 6 ½"), and are attached directly to the top of the floor joists. The floor in the parlor (Room 102) consists of the original 1 1/8" thick flooring beneath more modern floorboards. The flooring in the exhibit room is not original. It is only 1" thick and it is not constructed of tongue & groove boards. Most of the floor joists are original, though many have been reinforced by sistering on new joists. The first-floor joists observed within the cellar exhibit vertical saw marks, likely from a water-powered sawmill. The bottom of the joists exhibit carpenter's adz marks.

The stairway is original, including the newel post and balustrade. The form of the handrail is similar to a handrail design in Asher Benjamin's *Country Builder's Assistant* written in 1805. Later designs have less pronounced curves on the sides.

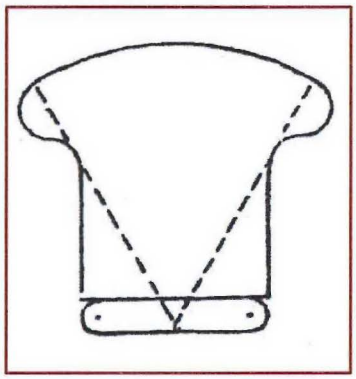


*Image 3.5: Handrail from The Country Builder's Assistant by Benjamin Asher, 1805, Image Courtesy Google Books*

Some of the original plaster and wall base is original. Identification of the location of original plaster and wall base is noted in the interior property description section of this chapter.

All of the fireplace mantelpieces are original. The architrave around the windows and doors is, for the most part, original. The architrave at the cupboard in the parlor is original. It could not be determined if the glass door is original since all of the paint has been removed. The lower doors of the cabinet are not original. They are the same design as the closet doors on the second floor that are also not original; a fact which is proved by observing that the closet doors do not have the original paint colors.

*Image 3.6: Balustrade*

The chair rail is original, though some sections have been replaced. The picture moulding is recent.

All of the window sash in the original portion of the house has been replaced.

## DESCRIPTION OF EXISTING CONDITIONS

### Site

The miller's house, situated on a knoll, is oriented towards Colvin Run Mill Road. This road was a primary turnpike to the west; however, in the 1940s the road was realigned and now bisects the property to the south.

The house is shaded by deciduous trees. Planting areas exist around the house except in the area of the ADA ramp, which is located along half of the front of the house. The foundation of an addition that was located on the rear of the house, and was removed in the 1960s, is used as a planting area. A narrow front lawn extends to a wooded hillside with a steep grade down to the road. There is a small open lawn area on the southeastern side of the house. A walkway connects the stone steps in front of the rear door of the house to a driveway that runs north-south connecting the various buildings on the site.

### Exterior

The original section of the house is a 2-story solid-brick masonry structure. A rough cut rubble foundation was constructed without laying the stone in courses. A later 1 ½-story addition, located on the northwest end of the house, is a wood framed structure enclosed with weatherboard siding. The addition was constructed over an earlier stone foundation. All of the windows, except the attic windows of the original house, have shutters.

The original brick size is (8 ¼" x 2 ¼" x 4 ½") laid in American bond coursing with every fourth course as a header row. The original mortar is lime based.

#### Northeastern Elevation (Front)

The fenestrations on the façade are symmetrically placed. Five second-floor windows align above the first-floor windows and central door. Each window has double-hung sash with the upper sash fixed in place. The first floor sash has 9/9 glass panes and the second floor has 9/6 glass panes. All of the windows and doors are capped with flat brick arches. The front door has a wood threshold on top of a stone step that extends into the interior of the house.

*Image 3.7: Northeastern Elevation*

An early pintle, aka hook, remains driven into a window jamb. It was one-half of a hook and hinge used for suspending shutters.

*Image 3.8: Early Pintle*

The existing front door has seven raised panels, one of which is horizontally placed below the door hardware. A 3-lite transom window above the entry door provides light into the hall. There are painted molded wood panels on both masonry jamb walls of the entry door. The wood panels are not as wide as the masonry jamb widths. A ghost mark above the front door indicates the location of an earlier porch.

A crawl space vent exists at the base of the brick masonry wall to supply air to the crawl space below the exhibit room. An opening in the basement masonry wall beneath a parlor window has an exhaust fan. This opening exhibits wear marks that suggest the opening was created to convey something, possibly coal, into the basement.

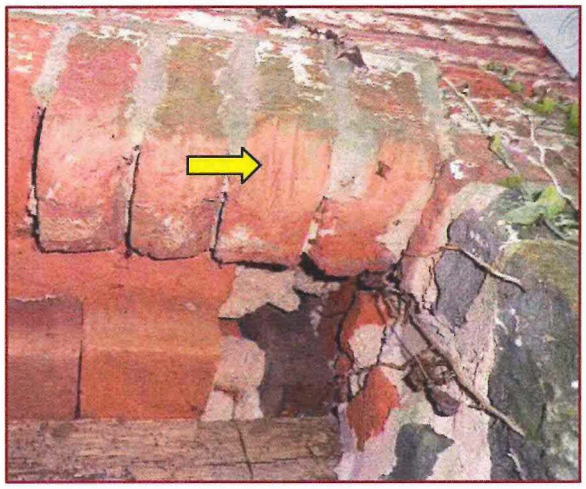


*Image 3.9: Wear Marks At Cellar Penetration*

A brick dog-tooth course with a running bond course below and above it form a corbel out of the face of wall to support the roof rafter sill plates. The roof is covered by asphalt shingles on continuous sheathing attached to original skip boards. These boards are attached to the roof rafters.

*Image 3.10:: Dog-tooth Cornice*

There is a half-round metal gutter at the roof line connected to round metal gutters, one at each end of the building, which allow stormwater to spill over the grade.

There is a single run concrete ADA ramp with a metal railing and a brick masonry wall below the concrete curb and ramp.

Northwestern Elevation

The gable-end of the original brick house has an interior-end chimney projecting above the roof line. Two small penetrations into the gable end provide light and air into the attic. One penetration has a louver and the other a four-lite casement window hinged on the side.

Half of the northwestern elevation of the original house is concealed by a 1967 addition that has a 6-lite center casement window in the gabled area and a double-hung 6/6 window off-center at first floor.

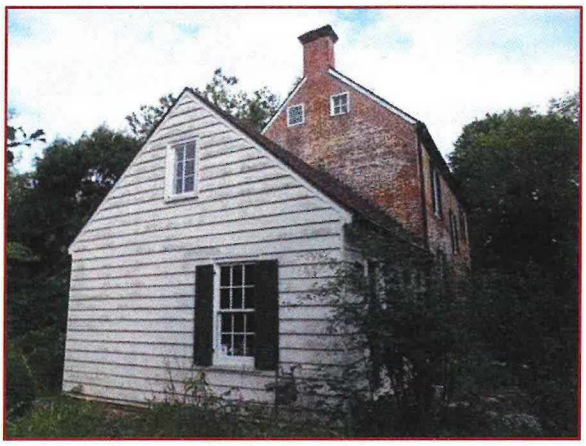


*Image 3.11: Northwestern Gable Ends*

A ghost marking of the roof line of an earlier two-story addition is evident high on the northwestern masonry gable-end wall of the original building.

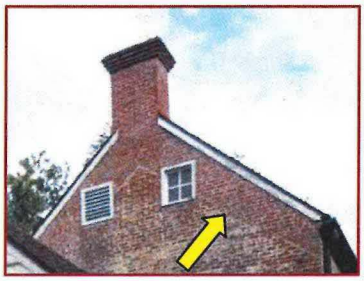


*Image 3.12: Ghost Line of Earlier Roof*

Southwestern Elevation (Rear)

The rear elevation differs from the front elevation in several respects. First, there are fewer windows. Each of the four primary rooms in the original portion of the house has two windows on the front side of the house but only one window on the rear side of the house.

Due to the presence of the center-passage hall stairway, the rear door does not align with the window above. In addition, the rear door does not have a transom window since the stair landing occupies this space. There is a molded wood panel on the masonry jamb on each side of the rear door, similar to front door. An original stone stair with two risers exists at the rear door.

*Image 3.13: Southwestern Elevation*

A wood threshold sits on top of the uppermost stone step, which extends into hall.

The eave line detail and roofing are similar to the northeastern elevation of the house except for some condensation piping that penetrates through the shingle roofing and spills into the rear gutter.

The southwestern wall of the addition to the house has a single double-hung window and an entry door.

Southeastern Elevation

A brick interior-end fireplace chimney is centered on the gable roof of the original section of the brick house. The chimney is the focal point of the southeastern elevation.

A doorway provides access into a small area enclosed as a result of the construction of an exhibit wall. A stone three-riser stair leads up to the doorway. The uppermost step is built into the brick masonry of the wall.

There are no window openings at the first floor or second floor on this elevation; however, there are two small 4-lite casement windows symmetrically located flanking the chimney at the attic level.

Mortar repointing is more evident on the southeastern elevation than elsewhere due to the use of a thicker cementitious mortar joint.

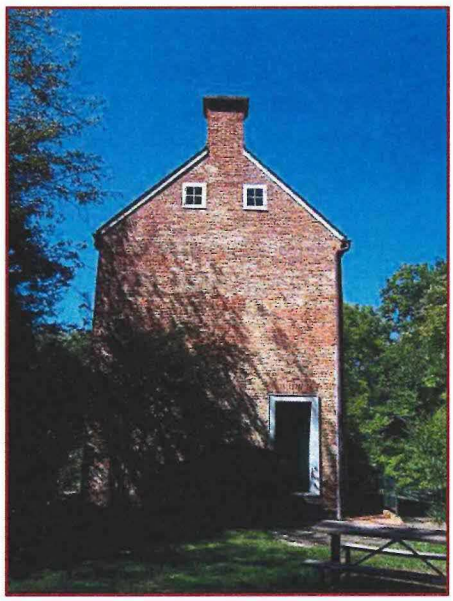


*Image 3.14: Southeastern Elevation*

The woodwork around the door opening includes the finished trim at the jambs and the head that appear to be a modern interpretation of the original jamb trim. An original wood lintel is supported by the masonry jamb walls; however, there is a decorative brick flat arch with one course of running bond below. This brickwork does not match the original flat arches and is purely decorative since the arch provides no structural purpose above a row of running bond.

*Image 3.15: Decorative Flat Arch Above Door D101*

## Interior

### Foundation and Cellar

The original house foundation walls were constructed using rough cut rubble stone. The stones were not laid in courses.

There is a crawl space beneath the exhibit room on the southeast side of the house. The distance between the cellar concrete slab and the bottom of the first-floor joists is approximately 74". The crawl space grade is covered with roll roofing, and the distance between it and the bottom of the floor joists is approximately 10". The space between floor joists is filled with batt insulation that is supported with chicken wire attached to the underside of the wood joists. A remnant of an exhibit remains beneath the floor.

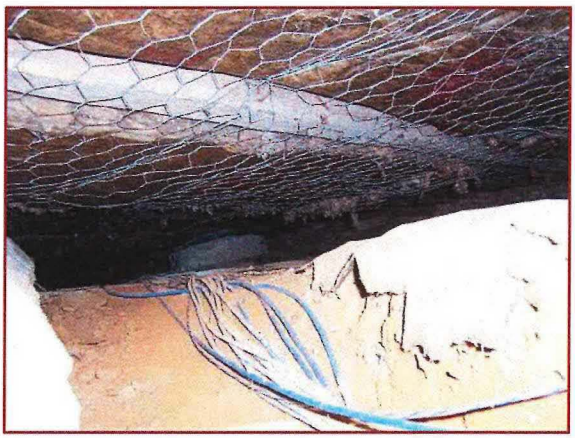


*Image 3.16: Crawlspace Beneath Exhibit Room*

A cellar exists beneath the hall and the parlor. The interior surfaces of the rubble stone cellar walls that back against the exterior grade have developed a layer of calcification on them due to seepage of water from the exterior for an extended period of time. The cellar wall adjacent to the exhibit room crawlspace was finished with plaster at one time; however, a lot of it has deteriorated and crumbled off the wall surface. The underside of the first-floor wood flooring, which is exposed in the cellar, is mostly still covered with white paint, though nearly all of the wood joists have lost this finish.

*Image 3.17: Cellar*

An exhaust fan is set within a small penetration in the cellar wall at the front of the house and an original cellar window has been infilled with brick. A remnant of a cast iron sanitary pipe penetrates through this brick infill at an angle. It appears that the sanitary pipe may have been installed in a way to avoid the porch shown in a ca. 1895 photo of the Millard family. The introduction of indoor plumbing became a common practice in the early to mid-20th century.

*Image 3.18: Abandoned Sanitary Pipe in Window Infill*

All of the first-floor original wood joists and wood sill plates in the cellar area had been deteriorating due to termites and moisture penetrating through the exterior walls and likely through the cellar floor before it was covered with a concrete slab on grade. The amount of wood floor joist deterioration in the crawl space does not seem to be as extensive as it is in the cellar area based on visual observation of all the floor joists in cellar and limited observation of a few floor joists in the crawl space. All of the floor joists in the cellar area have been sistered with additional floor joists (2x12 nominal) and most of the floor joists in the crawl space, as far as it can be seen or detected, have received sistered joists (2x9 nominal).

There is a 4-foot wide section of rubble stone infill that closed an earlier penetration. There is hardly any calcification built-up on the surface of this infill wall. The infill wall section continues from the floor to the underside of existing doubled 2x8s, which acted as a lintel. The opening was likely originally used for cellar access. If archaeology is conducted here, it may reveal that a rubble stone-walled stair well with stair treads still exists.

The addition has CMU foundation walls surrounding a crawl space. The first-floor joists in the addition are 2x wood members that are exposed in the crawl space. There is a penetration in the original house cellar wall that provides access into the crawl space.

*Image 3.19: Rubble Infill of Earlier Penetration for Cellar Access*

Framing

*First-Floor Framing*

In the cellar, a support beam made of three 2x12 wood members bolted together and supported by three 8x8 wood columns supports the first-floor joists at mid-span.

The original first-floor joists are bearing on 2x8 (actual) wood sill plates bearing directly on approximately 28"-thick rubble stone basement walls.

The first-floor exterior walls, which are approximately 18" thick solid brick masonry, start from the top of the wood sill plates on the rubble stone walls and continue up to the

*Image 3.20: Hewn First-Floor Joists*

underside of the second-floor joists. The exterior walls continue to the bottom of the second floor ceiling joists as 14"-thick solid brick walls. The 4" difference in the wall widths at the second floor provides a ledger for the ends of the second-floor joists.

The interior walls are wood frame, except for a masonry bracing wall. On the first floor, the wall between the stairway and the parlor and the wall below the stairway are constructed of wood members, whereas the wall between the hall and the exhibit room is constructed of brick. This 8"-thick brick wall starts at the top of the foundation wall and continues to the second floor. This wall provides structural bracing for the two long exterior masonry walls of the house. The second-floor interior walls are of frame construction.

The wall separating the stairway and the parlor is made of double 2x4 wood studs placed end-to-end in order to form a wider framed wall. By application of plaster over wood lath attached to these wood studs, this wall matches the thickness of the wall between the hall and exhibit room, which has a plaster finish applied to the brick masonry.

The first-floor joists are roughly 3x11 (actual size) sawn lumber spaced at approximately 24" OC (on center). The wood was likely sawn at a water-powered sawmill that used a reciprocating saw blade that made vertical marks. The joists run from the front to the back of the house, except in the area under the stairs where they run from side to side. These joists are connected to an older, but not original, beam that extends along the stairway. The joist and beam connection is mortise and tenon.

*Image 3.21: Hall Joist Tenon Visible in Beam Mortise*

The beam was circular sawn, indicating that it is not original since circular saws were not in wide use until about 1820, and then only for smaller work.

New 2x10 (1 ½" x 9 ¼" actual size) floor joists were attached to existing deteriorated floor joists beneath the exhibit room. New 2 x 12 (1 ½" x 11 ¼" actual size) floor joists were attached to existing deteriorated floor joists beneath the parlor.

*Second-Floor Framing*

The second-floor framing is made of (+/-) 3x9 wood joists at 28" OC, most likely supported by a wood sill plate similar to the sills at the first floor. The joists run from the front to the back of the house. Observation of the second-floor joist was limited to what could be viewed from a hole in the floor of the closet. The exterior masonry brick walls provide end bracing at the bearing points.

*Roof Framing*

*Image 3.22: Attic Framing*

The original roof framing is made of wood rafters (2 ¾" x 4 ¼") bearing on, and in line with, the second-floor ceiling joists (2 ¾" x 9"). The ceiling joists are supported on wood sill plates on top of the solid masonry brick walls.

As part of the modern retrofit, intermediate supports made of dimensional lumber (2 x 4 nominal) extend from the second-floor ceiling joists to roughly the mid-point of the rafters.

The second-floor ceiling joists extend in the same direction as the second-floor floor joists. There were 2 x 4 (nominal size) collar ties attached to each pair of roof rafters in the same axis.

The rafters of the sloped roofs are sheathed with skip boards that still have some of the cut nails penetrating through the wood at approximately 3" apart. This suggests that the original roofing material was wood shingles. Newer wood sheathing was installed within the gaps between the original skip boards. The newer boards are lighter in color.

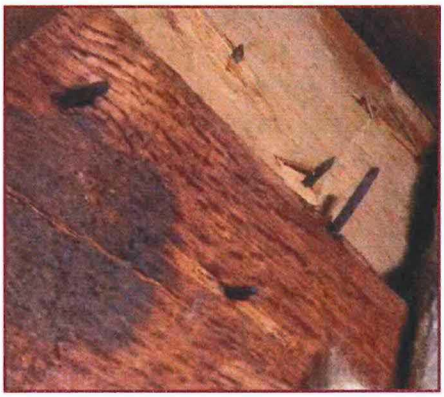


*Image 3.23: Cut Nails in Roof Skip Boards*

The existing roofing system has asphalt roof shingles over asphalt felt paper, which was installed on the sheathing.

The roof has a moderately pitched slope providing a large and usable attic space. The top of the second-floor joists are covered with plywood sheathing. Since the attic access stair was part of the original construction of the house, it is conceivable that the attic space was utilized for storage. The roof of the addition, which is almost as steep as the original house roof, allowed enough space for a finished bedroom loft.

*Fasteners*

The fasteners are cut nails in the original house and wire nails in the addition. Cut nails were used to attach wood flooring to floor joists. Smaller cut nails were used to attach wood lath.

## Doors and Door Hardware

The rear door (D102) is old but not original. It is a 19th-century door, possibly as old as the 1830s when that style came into fashion. The door has raised panels set within stiles and rails. The rails were joined to the stiles using through tenons with wedges. This earlier technique lasted through the 1890s. The paint layers include wood graining.

*Image 3.24: Through Tenon and Wedge at Door D102*

The hardware on the rear door consists of an upright rim lock with a glazed, variegated mineral doorknob. The variegated pattern was obtained by stirring different colors of clay together prior to firing. Production of mineral doorknobs increased in the late 1860s following the invention of pressing and molding machines. The mineral knob was patented by John Pepper in 1851. He formed the Mineral Knob Company with the assistance of Cornelius Erwin, president of Russell & Erwin.

*Image 3.25: Glazed Variegated Mineral Doorknob*

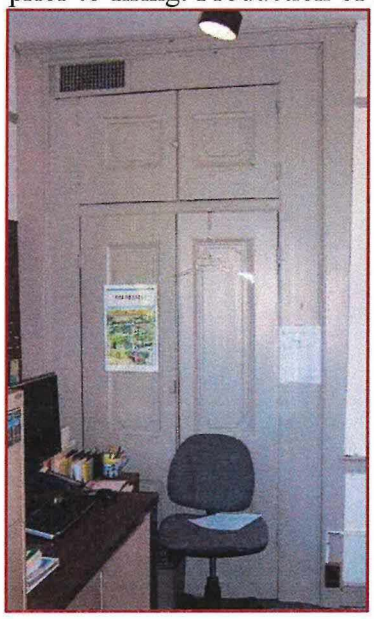


*Image 3.26: Closet Doors (208) in Bedchamber 201*

The side door (D101) is similar to the rear door, and also has a variegated mineral knob.

The cabinet doors in the bowfats and the second-floor closet doors are also early but not original. The closet doors do not have the original paint layers; however, they do have the graining and are constructed using through tenon construction.

Due to the similarity in style to the bowfat cabinet doors, it is presumed that these doors were installed at the same time.

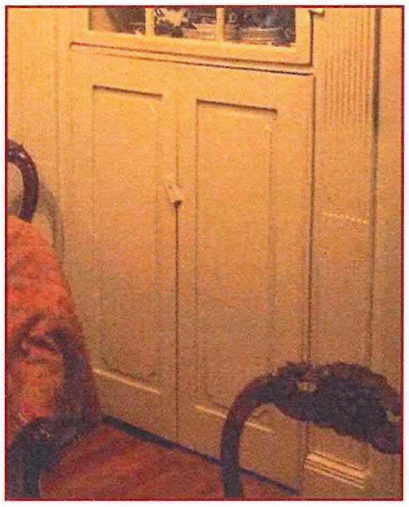


*Image 3.27: Bowfat Cabinet Doors in Parlor*

Though not necessarily original, the glass upper door of the bowfat cabinet in the parlor has old hinge hardware and old screws. Note that the screw slots, which were man-made rather than machine made, are off center.

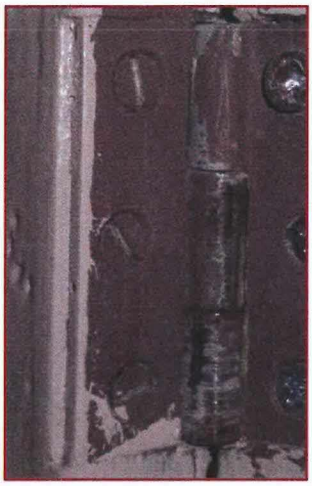


*Image 3.28: Hinge at Bowfat Cabinet in Parlor*

The door to the attic shows evidence of a hook closure. Note that the wear marks are in a circular pattern.

*Image 3.29: Hook Location at Door D200 in Bedchamber 202*

## Interior Spaces

First Floor

*Exhibit Room (101)*

An exhibit space exists within what may have originally been the dining room. A partition used for displaying exhibits extends in front of the fireplace, bowfat cabinet, and exterior door. The partition is constructed of gypsum board on the room side attached to modern studs. The wall studs were notched at the mantelpiece so that the partition could be as close to the exterior wall as possible. Another partition was constructed next to the doorway for exhibits.

*Image 3.30: Partition in Exhibit Room*

Access to the space behind the partition is from the outside through the exterior door (D101). The space retains earlier, though still fairly recent, finishes.

*Image 3.31: Space Behind Partition at Door D101*

A portion of the mantelpiece can also be observed in this space, though the bowfat cabinet cannot. The mantelpiece exhibits federal-period-style reeding on the architrave. This style was popular from the late-18th century to the mid-19th century. The pilasters are simply decorated with a rectangular trim.

Previous photographs of the room prior to installation of the partition show that the bowfat cabinet matches the mantelpiece in decorative style, otherwise the cabinet is similar in construction to the one in the parlor.

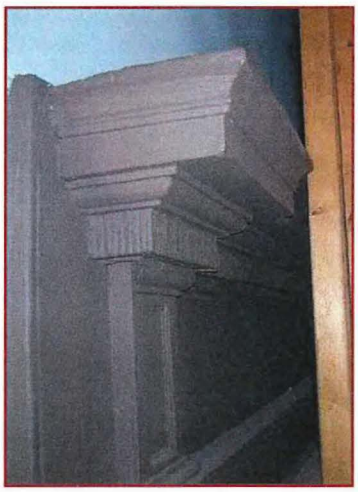


*Image 3.32: Portion of Mantelpiece Behind Partition in Exhibit Room*

The pilasters of the bowfat also have simple rectangular trim.

The door from the hall to exhibit room is missing but the door frame, including the wood paneling and trim around the doorway, remain in place. Sections of the wood trim and paneling are modern replacements of the original components.

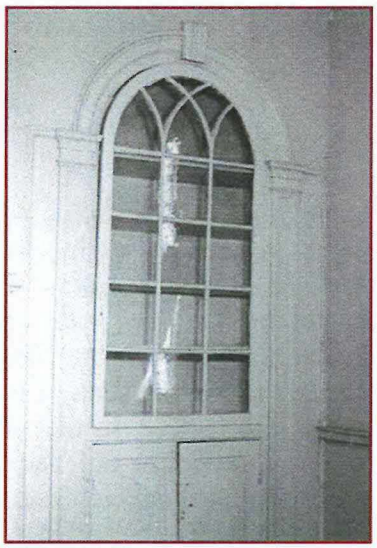
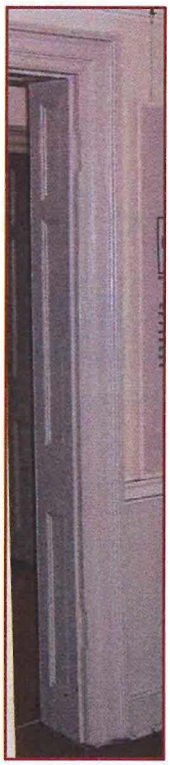


*Image 3.33: Bowfat in Hidden Behind Wall Panel in Exhibit Room, Ross Netherton, Photographer, Image Courtesy Fairfax County Public Library*



The design of the wood paneling around the doorway suggests that the original primary interior doors of the house were six-panel doors that matched the trim.

*Image 3.34: Doorway Paneling at Doorway into Exhibit Room*

There is a continuous horizontal wood picture rail high on the wall and a chair rail that extends around the perimeter and is in line with the window sill trim. Most of the wood chair rail and base board in this room are original, though portions have been replaced. The architrave around the windows and the wood window stool may be modern replacements.

A single layer of wood board flooring runs perpendicular to, and is supported on, the original floor joists which have been sistered. There is no subfloor. There are a number of round penetrations in the wood flooring. Looking down through these penetrations one can observe the floor joists as well as the top of the batt insulation that is about 6" to 8" below the wood flooring.

| | |
|---|---|
| Floor: | 4 ½ - 6 ½" variable width pine flooring |
| Wall Base: | 5 ½" high Original and Modern wood baseboard with paint finish |
| Walls: | All walls are plaster on masonry except for Gypsum wall board on single faced finished partition |
| Ceiling: | Gypsum wall board @ 9'-11" A.F.F. (Above finish floor) |

*First-Floor Hall (100)*

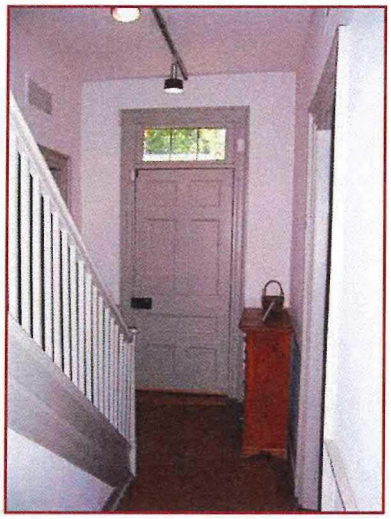


*Image 3.35: Hall (100) View of Front Door*

The hall is the center-passage of the original house. The front entry door opens into the hall with the hinge on the exhibit room side.

The hall has 1 1/8" thick original T&G wood flooring supported on the original wood floor joists. These joists run perpendicular to the direction of the adjacent room floor joists. They are supported on one end by the rubble stone retaining wall and on the other end by a wood beam that supports the wall separating the hall from the parlor. A strip of original wood flooring in front of the main entry door was replaced.

The wall separating the stair from dining room is made of double rows of wood studs with cementitious plaster on lath on both sides of the wall.

Most of the wood chair rail and base board in this room are original, though portions have been replaced.

The stairway has wood treads and risers that start close to the door frame of the parlor and continue up to an intermediate landing. The open side of the stair is protected with wood pickets continuing to the second floor. The wall between the stairway and the parlor has been rebuilt. The original half-rail that was likely on this wall was removed.

| | |
|---|---|
| Floor: | 4 ¼" -6 ½" variable width tongue-and-groove pine flooring |
| Wall Base: | 5 ½" high Original and Modern wood baseboard with paint finish |
| Walls: | Plaster over wood lath on stair wall and plaster over masonry walls on other locations |
| Ceiling: | Gypsum wall board on second-floor hall floor joists @ 9'-11" A.F.F. |

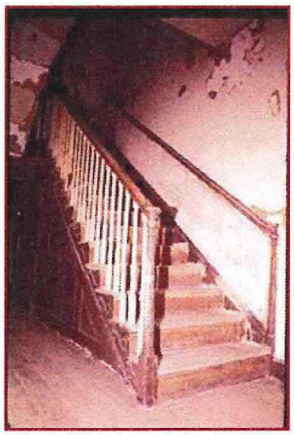


*Image 3.36: Similar Stairway at Marshalton Inn, PA with Half-Rail. Image Courtesy Frank Welsh*

*Image 3.37: Colvin Run Miller's House Stairway*

*Parlor (202)*

The parlor is characterized by a decorative mantelpiece and bowfat cabinet.

The architrave of the mantelpiece is embellished with dentils, small rectangular blocks placed side-by-side and extending across the architrave. Dentil mouldings were popular from the mid-18th century to the early-19th century. The frieze has fluted trim, while the pilasters more closely match the simple rectangular design of the mantelpiece in the exhibit room.

*Image 3.38: Mantelpiece in Parlor*

The chair rail and base molding are mixture of modern replacement and original.

There is a continuous horizontal wood picture rail high on the wall and a chair rail that extends around the perimeter and is in line with the window sill trim.

The bowfat (also known as a buffet) in the parlor is more decorative than the bowfat in the exhibit room. The lower portion of the pilasters are reeded, but then change to fluted mid-way.

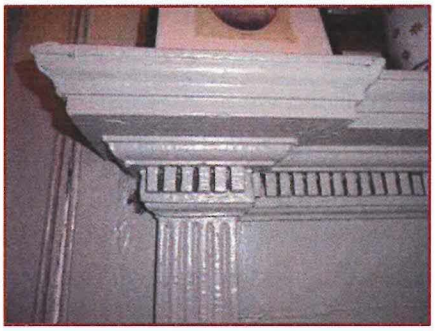


*Image 3.39: Detail of Mantelpiece Entablature*

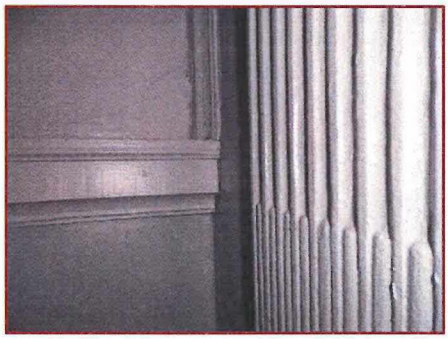


*Image 3.40: Bowfat Pilaster Where the Decoration Changes from Reeding to Fluting.*

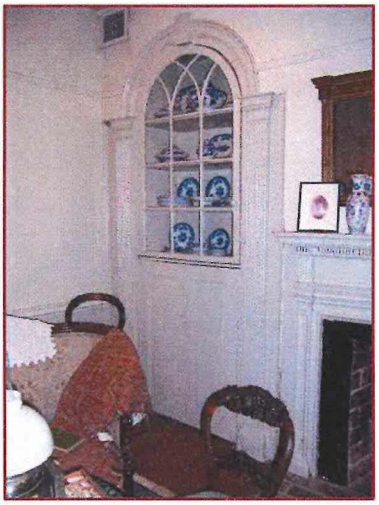


*Image 3.41: Bowfat Cabinet in Parlor*

The wood flooring is made of ¾" thick by 3 ¼" wide T&G attached to the top of the original wood flooring, which is 1/8" thick T&G wood boards with varying widths of 2 ½" to 5 ½". The flooring is attached to original and retrofit joists running from front to rear of the house. There is no subfloor. Because of the deterioration of the wood floor structure due to wood rot and termite damage, the finish floor elevation in this room is lower than the finish floor elevation of the adjacent hall.

*Image 3.42: Parlor (102)*

| | |
|---|---|
| Floor: | 3 ¼" wide tongue-and-groove pine flooring (top layer) |
| | 2 ½" – 5 ½" variable width tongue-and-groove pine flooring (bottom layer) |
| Wall Base: | 5 ½" high Original and Modern wood baseboard with paint finish |
| Walls: | Cementitious plaster over wood lath on stair hall wall and lime-based plaster over masonry walls at other locations. Applied brick veneer on walls near door D104. |
| Ceiling: | Gypsum wall board on 2nd floor wood joists @ 9'-11" A.F.F. |

Second Floor

*Second Floor Hall (200)*

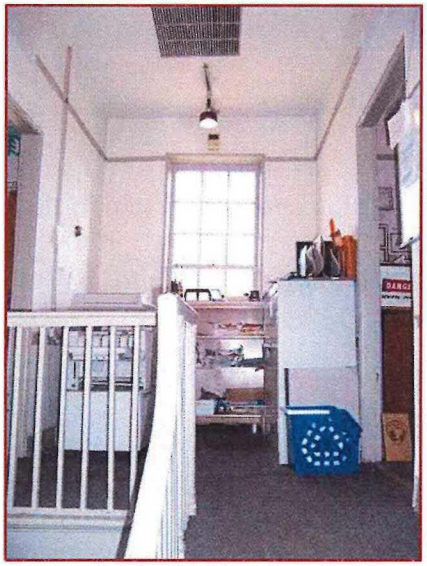


*Image 3.43: Second Floor Hall 200*

The walls of the second floor hall have had additional plaster applied over the walls, yet the walls are still not as thick as the walls at the first floor hall. This is especially evident at the half rail at the stairway. Here the plaster covers most of the half rail.

The flooring is made of T&G wood boards supported on floor joists. The floor in the hall and the stair treads are painted brown, though they are currently covered with carpet.

A window at the stair landing provides light in the hall. The window at the front of the house likely provided light into a small chamber whose partitions were likely removed.

Floor: Carpet finish over 4 ¼"- 6 ½" wide tongue-and-groove pine flooring
Wall Base: 4 ½" high Original and Modern wood baseboard with paint finish
Walls: Plaster over wood lath at room separating walls and

| | |
|---|---|
| | plaster over masonry at exterior walls |
| Ceiling: | Gypsum wall board on 2nd floor wood joists @ 9'-3" A.F.F. |

*Bedchamber (201)*

*Image 3.44: Bedchamber 201*

The second floor rooms were originally used as bedrooms, now as office space, and are relatively identical in design and size. They each have a brick fireplace on the center of the exterior wall flanked by closets using the inglenook between chimney breast and exterior walls. The closets have upper and lower sections with raised panel doors.

There are two windows in east front wall of the house and a single window on rear wall.

The wall separating this room from the hall is plaster on lath attached to wood studs. All other three exterior walls of this room is plaster over masonry. The original flooring is T&G wood boards attached to the second floor wood joists. The wood floor is covered with carpet. The ceiling is plaster on wood lath attached to the underside of second floor ceiling wood joists. Like most other rooms in this house, most of the original wood chair rail and base boards are still existing though some have been replaced.

| | |
|---|---|
| Floor: | Carpet finish over 4 ¼"- 6 ½" wide tongue-and-groove pine flooring |
| Wall Base: | 4 ½" high Original and Modern wood baseboard with paint finish |
| Walls: | Plaster over wood lath at room separating wall and plaster over masonry at exterior walls |
| Ceiling: | Plaster on second-floor wood ceiling joists @ 9'-3" A.F.F. |

*Bedchamber (202)*

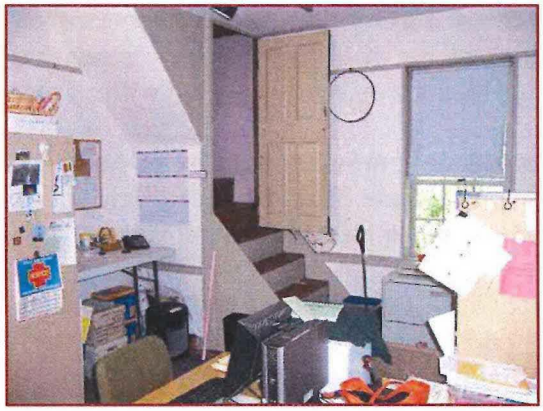


*Image 3.45: Bedchamber 202*

The access stair to the attic space is located in this room. The door to the stairway is at the top of the fourth stair. A winding stair continues up to the attic.

The walls and floor are similar to the other bedchamber; however, the ceiling in this room is gypsum wallboard attached to the underside of the second floor ceiling wood joists. Most of the original wood chair rail and base boards are still existing and some have been replaced with modern ones.

| | |
|---|---|
| Floor: | Carpet finish over variable 4 ¼"- 6 ½" tongue-and-groove pine flooring |
| Wall Base: | 4 ½" high Original and Modern wood baseboard with paint finish |
| Walls: | Plaster over wood lath at room separating wall and plaster over masonry at exterior walls |
| Ceiling: | Gypsum wallboard on 2nd floor wood ceiling joists @ 9'-3" A.F.F. |

Attic

The existing roofing system for the brick portion of the house is shingle over continuous sheathing attached to the existing skip boards, which are nailed to the roof rafters. The skip boards were attached horizontally to the top of the rafters. The original skip boards were attached horizontally to top of roof rafters. They measure 1 ¼" x 5 with a 4" space in between boards. This space was later filled with wood boards. The original skip boards still bear some of the existing cut nails located approximately 3 inches apart.

*Image 3.46: Attic*

Collar ties are at every rafter location and are made of 2x4 (1 ½" x 3 ½") wood lumber. These do not appear to be part of the original construction of the house.

The attic has a plywood deck attached to the top of the existing ceiling joists. It extends between the vertical rafter knee bracings. The roof rafters (2 ¾" x 4 ¼") are in line with the second floor joists (2 ¾" x 9"), which are spaced at roughly 26" to 28" O.C. There is no ridge board.

The Addition

*Foundation and Framing*

The 1 ½-story addition that was built in the late 1960s replaced an earlier two-story addition that was likely built in late 1800s. The 1 ½-story addition was intended to replicate an even earlier smaller addition.

The current addition is a wood framed modern structure that has CMU (concrete masonry unit) foundation walls. The first-floor joists are 2x dimensional lumber at 16" O.C. supported on the perimeter foundation walls and an intermediate CMU foundation wall. The flooring system at the first floor has a plywood deck supported on the wood floor joists over the crawl space.

The garret floor is made of 2 x 6 (1 ½" x 5 ½" actual) dimensional lumber at 16" O.C. supporting a plywood floor deck. The roof structure is made of 2 x 6 (1 ½" x 5 ½ actual) dimensional lumber rafters at 16" O.C. The eaves are enclosed with wood studs and gypsum

wallboard on the garret side to form attic spaces that are used for mechanical equipment and storage.

The roof of the addition is made of continuous plywood sheathing attached on top of the roof rafters. The asphalt shingles roofing material is over construction paper attached to the plywood roof sheathing. The addition roof has its exposed gable end on northwest side and the gutters at the eaves along the front and rear of the house.

The exterior walls are made of 2 x 4 (1 ½" x 5 ½" actual) wood studs at 16" O.C. with painted gypsum wallboard on the interior side and plywood sheathing on the exterior that is covered with beaded wood lapped siding over construction paper. There is a double-hung window in the gable at the garret level in addition to another window on the gable end at the first floor.

*Addition Office (103)*

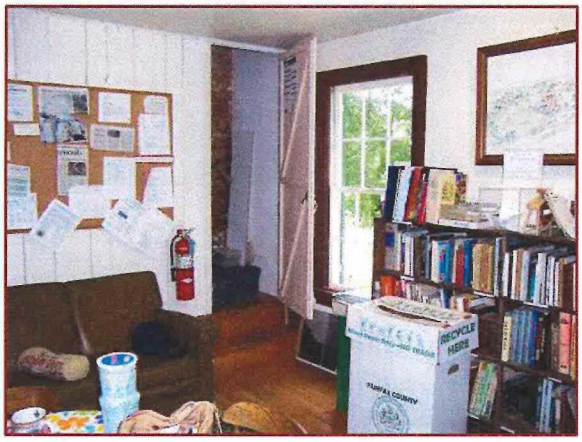


*Image 3.47: Office 103*

The Addition Office has an exterior door (D108). Access to the original interior portion of the house is through door D104, which opens into the parlor. Door D107, which opens into the office, provides access to the upstairs garret via an enclosed winding stair. The door is a replica brace-frame door. Rooms that adjoin the office are the kitchen, bathroom, and three separate closets.

The office walls and ceiling are gypsum wallboard, except for the wood board wall that encloses the stairway. All of the windows in the addition are double hung.

| | |
|---|---|
| Floor: | 2 ¼" wide tongue-and-groove oak wood flooring |
| Wall Base: | 4 ¾" high painted wood base with molding at top |
| Walls: | Painted gypsum wallboard on wood studs |
| Ceiling: | Painted gypsum wallboard on Addition Garrett floor wood ceiling joists @ 8'-0" A.F.F. |

*Kitchen (105)*

The kitchen is located in the northern corner of the addition and can be accessed from the office by a sliding pocket door. The kitchen is equipped with a counter and sink on one side and an electric range/oven and refrigerator on the other opposite side. The kitchen has base and wall cabinets. There is a double hung window on east wall.

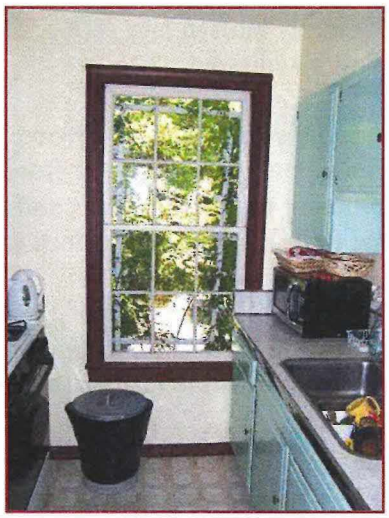


*Image 3.48: Kitchen 105*

| | |
|---|---|
| Floor: | 2 ¼" wide tongue-and-groove oak wood flooring covered with sheet vinyl |
| Wall Base: | 4 ¾" high painted wood base with molding at top |
| Walls: | Painted gypsum wallboard on wood studs |
| Ceiling: | Painted gypsum wallboard on wood ceiling joists @ 8'-0" A.F.F. |

*Bathroom (104)*

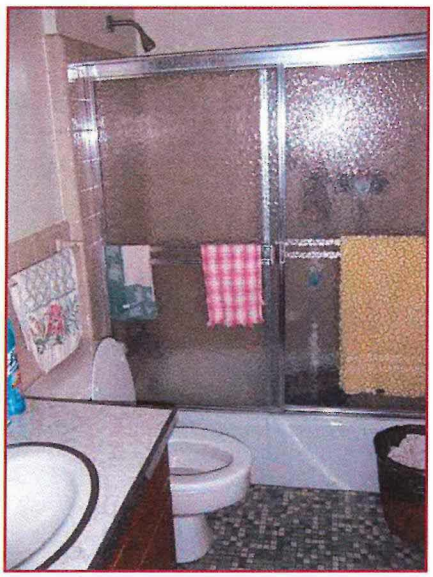


*Image 3.49: Bathroom*

The bathroom shares a common wall with the kitchen and can be accessed from a small hallway serving the door to parlor of the original house. The bathroom is equipped with a bathtub, water closet, and vanity sink set on a cabinet base. There is a window on the east wall. There are 1x1 mosaic type ceramic tiles on the floor. Larger ceramic wall tiles, which are about ¾" thick, are used as a wainscot. This was the common type of ceramic tile that was being manufactured prior to the now standard ¼" thick tile for walls.

| | |
|---|---|
| Floor: | 1" x 1" mosaic floor tile |
| Wall Base: | 4 ¼" high ceramic tile |
| Walls: | 4 ¼" x 4 ¼" ceramic wainscot and painted gypsum wallboard |
| Ceiling: | Painted gypsum wallboard |

*Addition First-Floor Closets (107, 108, and 109)*

There are two closets located along side the bathroom. The third closet is located under the wood stair to the garret. The walls are made of painted gypsum wallboard attached to wood stud framing. Each one serves a different function ranging from a coat closet under the stair, a linen-type closet next to the door of the bathroom, and a larger closet that houses the hot water heater.

| | |
|---|---|
| Floor: | 2 ¼" wide tongue-and-groove oak wood flooring |
| Wall Base: | 4 ¾" high painted wood base with molding at top |
| Walls: | Painted gypsum wallboard on wood studs |
| Ceiling: | Painted gypsum wallboard on Addition Garrett floor wood ceiling joists @ 8'-0" A.F.F. |

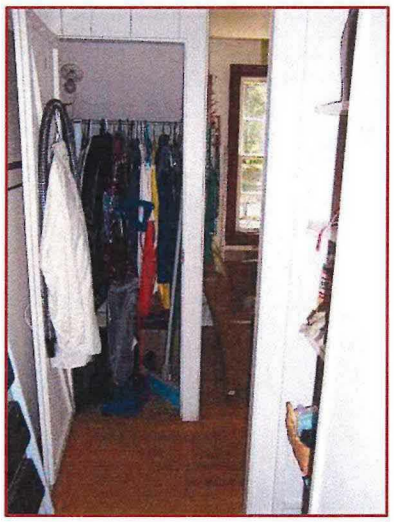


*Image 3.50: Closet 109*

*Addition Garret (203)*

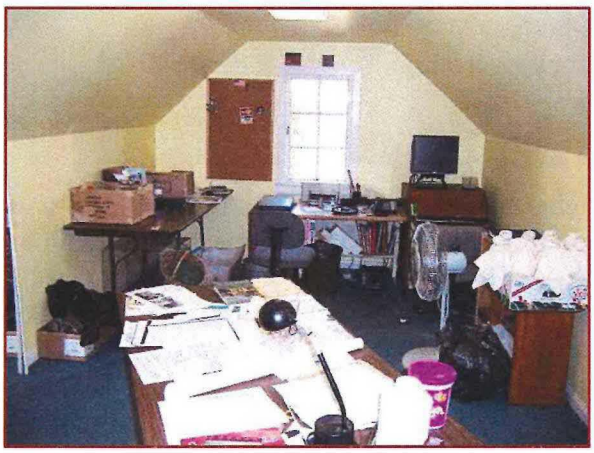


*Image 3.51: Additional Garret*

The garret is accessed from the first floor office by a wooden stair with a door located two risers above the first floor.

The cathedral ceiling and walls of the garret are made of gypsum wallboard attached to roof rafters, collar ties, and knee studs. The floor has a carpet finish over a plywood deck attached to the top of 2 x 6 (1 ½" x 5 ½" actual) floor wood joists. The brick of the original house is left exposed and unfinished at the garret and its access stair.

| | |
|---|---|
| Floor: | Carpet over wood floor deck |
| Wall Base: | 4" high painted wood base with molding at top at masonry wall and 3" high at gypsum wallboard |
| Walls: | Painted gypsum wallboard on wood framing |
| Ceiling: | Painted gypsum wallboard on wood framing @ 6'-9" A.F.F. at high flat clg. area |

*Addition Attic (204 and 205)*

The addition roofing is made of asphalt shingle over plywood sheathing attached to wood rafters at 2'-0" O.C.

## ARCHITECTURAL CODE ANALYSIS

### Code Requirements

| | |
|---|---|
| Applicable Codes: | International Existing Building Code (IEBC 2006), IEMC 2006, IEPC 2006, NEC 2005, and referenced code of International Building Code (IBC 2006), ADA accessibility guidelines and other applicable local, state, and federal laws, codes and ordinances. |
| Building Use Group: | Existing main occupancy of the building is determined to be Business Group B occupancy (office) with assembly use of rooms less than 750 square feet shall be classified as Group B occupancy (IBC 2006, section ) |
| Proposed Use Group: | Existing to remain same occupancy |
| Construction Type: | Type IIIB, (IBC 2006, Table 601) |
| Maximum Allowable Height and Building Area based on Use Group B and Construction Type IIIB: | 19,000 SF, 4 stories and 55 feet high (IBC 2006, Table 503) |
| Existing Building Number of Stories: | Two stories and a partial basement<br><br>Note: The attic space cannot be used as an occupied level of the building, such as office or storage occupancy. It can be utilized for mechanical equipment room. |
| Existing Building Floor Area: | Gross floor area at first floor 1,295 SF |
| Existing Building Height: | 26 feet from exterior grade to mid-point of sloped roof |
| Dead End Corridor: | Dead-end corridors not to exceed 35 feet (IEBC 2006 Section 605.6) |
| 2nd Floor Occupancy Loads: | Business (B) 605 SF/100 SF Floor Area per person = 7 persons (IBC 2006 Table 1004.1.2) |
| 1st Floor Occupancy Loads: | Business (B) 355 SF/100 SF Floor Area per person = 4 persons (IBC 2006 Table 1004.1.2)<br>Assembly (A) 493 SF/20 SF floor area per person =25 |

| | |
|---|---|
| Basement Occupancy Loads: | Accessory to Business (B) 362 SF/300 SF Floor Area per person = 2 persons (IBC 2006 Table 1004.1.1) |
| Total Building Occupancy Load: | 38 persons |
| Building with Single Exit: | Based on two story building with one level below grade and 30 occupants per floor, Exit Access Travel Distance not exceeding 75 feet. (IEBC 2003 Table 1019.2) |
| Stairway Enclosure: | In all occupancies, other than Group H and I occupancies, a stairway is not required to be enclosed when the stairway serves an occupant load of less than 10 and the stairway is open to not more than one story above or one story below the story at the level of exit discharge, (IBC 2006 Section 1020.1 Exception 1) |
| Existing Stairway Railings: | Existing stairways handrails and guards at all stairs shall be permitted to remain, provided they are not structurally dangerous. (IEBC 2006 Section 1103.9) |
| Existing Vertical Opening: | In Group B occupancies not exceeding three stories and not exceeding 3,000 square feet per floor, the enclosure of vertical openings other than stairway shall not be required (IEBC 2003 Section 703.2.1 Exception 5) |
| Fire Suppression: | Not required. |
| Fire Alarm Systems: | A fire alarm system is not required for the Group B occupancy having an occupant load less than 500 persons, or occupant load of less than 100 persons above or below the lowest the level of exit discharge. (IBC 2006 section 907.2.2) |
| Interior Finishes: | The existing finishes of walls and ceilings shall be accepted when it is demonstrated that they are the historic finishes. (IEBC 2006 Table 1103.5) |

Plumbing Fixture Requirements based on 2006 International Plumbing Code Table 403.1
Business (B) occupancy, 38 occupants (based on 19 male and 19 female):

| | |
|---|---|
| Men's Toilet: | One (1) water closet, one (1) lavatory |
| Women's Toilet: | One (1) water closet, one (1) lavatory |

| | |
|---|---|
| Drinking Fountain: | One (1) fixture type (Both high and low fixtures) |
| Service Sink: | One (1) fixture |
| Toilet Facilities Travel: | The current location of toilet facilities meets the distance requirements. |
| Distance: | (The required toilet facilities in Business use occupancy shall be located that the path of travel to such facilities shall not exceed a distance of 500 feet). (IPC 2006 Section 403.4.1) |

**Accessibility Issues**

| | |
|---|---|
| Accessible Route: | Accessible routes within the site shall be provided from public transportation stops; accessible parking; accessible passenger loading zones; and public streets or sidewalks to the accessible building entrance served. |
| Accessible Route at Multilevel Building: | At least one accessible route shall connect each accessible level, including mezzanines, in multilevel buildings and facilities. An accessible route is not required to stories and mezzanines above and below accessible levels that have an aggregate area of not more than 3,000 square feet. (IBC 2006 Section 1104.4, Exception 1) |
| Accessible Parking Spaces: | One (1) accessible parking space to be provided for 25 parking spaces required. (IBC 2006 Table 1106.1) |
| Accessible Van Spaces: | One (1) van-accessible parking space per 6 accessible parking spaces required. (IBC 2006 section 1106.5) |
| Accessibility: | Existing buildings or portions thereof that undergo a change of group or occupancy classification shall have all of the following accessible features (IEBC 2006 section 912.8): |

1. At least one accessible building entrance.
2. At least one accessible route from an accessible building entrance to primary function areas.
3. Signage complying with Section 1110 of IBC Building Code.
4. Accessible parking, where parking is provided.
5. At least one accessible passenger loading zone, where loading zones are provided.
6. At least one accessible route connecting accessible parking and accessible passenger loading zones to an accessible entrance.

| | |
|---|---|
| Alterations to Primary Function Area: | The costs of providing the accessible route are not required to exceed 20 percent of the cost of the alterations affecting the area of primary functions.<br>(IEBC 2006 Section 605.2, Exception 1) |
| Accessibility for Historic Buildings: | Where compliance with the requirements for accessible routes, ramps, entrances or toilet facilities would threaten or destroy the historic significance of the building or facility, as determined by the authority having jurisdiction, the following alternative requirements for that element shall be permitted:<br><br>a. Site arrival points. At least one accessible route from a site arrival point to an accessible entrance shall be provided.<br>b. Multilevel buildings and facilities. An accessible route from an accessible entrance to public spaces on the level of the accessible entrance shall be provided.<br>c. Entrances. At least one main entrance shall be accessible.<br>d. Toilet and bathing facilities. Where toilet rooms are provided, at least one accessible unisex toilet and bathing room shall be provided.<br>(IEBC 2006 Section 1104) |
| Interpretations of Building Codes: | Our interpretation of the building codes with respect to accessibilities are as follow: The primary function area in this building is considered to be the Assembly use (display spaces) at the first floor. The Business use (B) at second floor is considered a secondary function. The addition spaces at first floor and the loft area are considered to be support spaces to the second floor Business use and are not supposed to be used by the public. Therefore the spaces in the addition would not need to be accessible. |
| Toilet Facilities: | At least one of each type of fixture or element in each accessible toilet room shall be accessible.<br>(IBC 2006 section 1109.2) |
| Drinking Fountains: | One drinking fountain per floor to be accessible.<br>(IBC 2006 section 1109.5) |

## Variances for New Use

After studying the structural capacity of the building, it is not recommended to change the use of the building, though additional structural members are required so that the current uses may continue.

### BUILDING SYSTEMS

## HVAC

The house is conditioned by a single 5 ton split system consisting of an electric air conditioner located outside at grade and a gas-fired furnace with cooling coil located in the attic. The Carrier furnace is installed horizontally on the floor of the attic and has a heating output capacity of 110,000 BTU/hr. The flue piping for the furnace is connected to the adjacent masonry chimney.

A condensate pump is installed that pumps condensate up through the roof to discharge into the gutter system. There is an emergency drain pan under the furnace with an overflow switch to shut the unit down if there is a leak. The mechanical thermostat for the HVAC system is located on the second floor in the stairwell area. There is a duct smoke detector in the supply ductwork at the outlet of the unit.

*Image 3.52: Furnace in Attic*

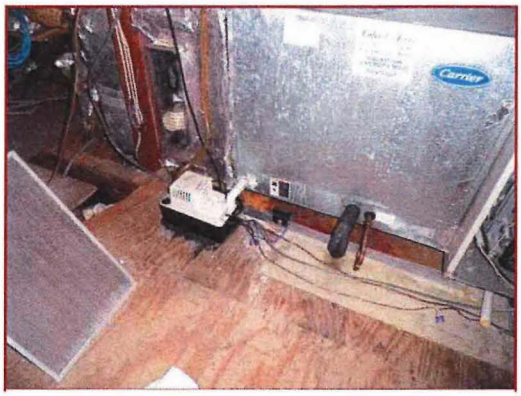



*Image 3.53: Smoke Detector and Condensate Pump with Overflow Switch*

*Image 3.54: Humidifier*

*Image 3.55: Condensate Drain Through Roof*

There is a bypass-type humidifier installed on the return ductwork that is controlled by a duct-mounted humidistat and an electronic air cleaner.
The 13 SEER air conditioner is manufactured by Goodman and appears to be relatively new. It is installed on a plastic pad. Refrigerant piping is routed into the basement and up to the cooling coil on the furnace.

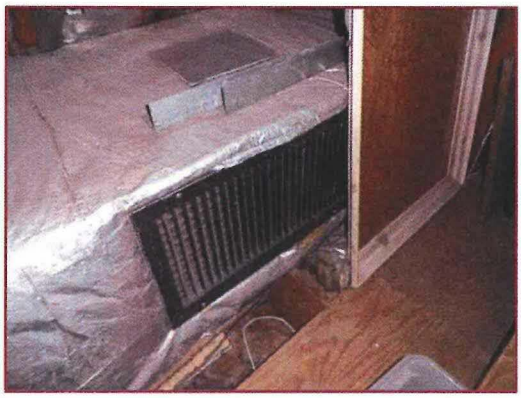


*Image 3.56: Return Grille in Attic*

Supply and return air is ducted through galvanized sheet metal ductwork. Outside air is ducted to the return ductwork from an open louver in the wall next to the chimney. There is a large return grill in the return ductwork in the attic.

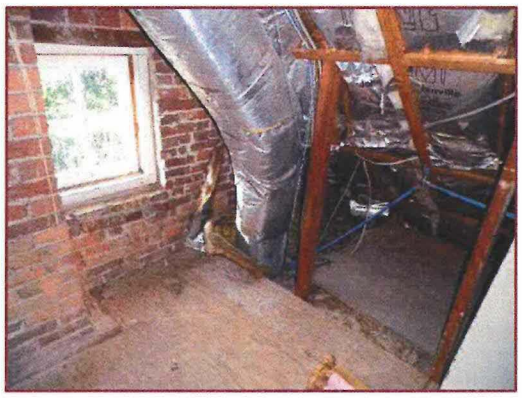


*Image 3.57: Supply Ductwork Down in Corner of Attic*

The supply ductwork in the attic connects to a vertical supply duct located in each of the four corners of the original house. Sidewall supply grilles on the first and second floors connect to these vertical supply ducts. The main return grille is located in the second floor ceiling in the stairwell area. Transfer grilles above each room on the first and second floor allow air to transfer into the stairwell area. There are three floor mounted supply grilles on the first floor in the stairwell area that are supplied by ductwork in the basement.

*Image 3.58: Transfer Grille Above Door*

*Image 3.59: Floor Supply Grilles*

There is an exhaust fan in the exterior wall of the basement that is controlled by a wall mounted manual switch. The exhaust fan has a backdraft damper and air is exhausted into an areaway dug into the ground.

There is one supply grille serving the first floor and one supply grille serving the second floor of the addition from the central HVAC system. There is no return/transfer grille from the addition to the original house. There is an electric wall heater and an exhaust fan in the bathroom. The first floor open office area of the addition has electric baseboard heat installed along the two perimeter exterior walls. The kitchen has a ceiling exhaust fan and a gas stove with no range hood.

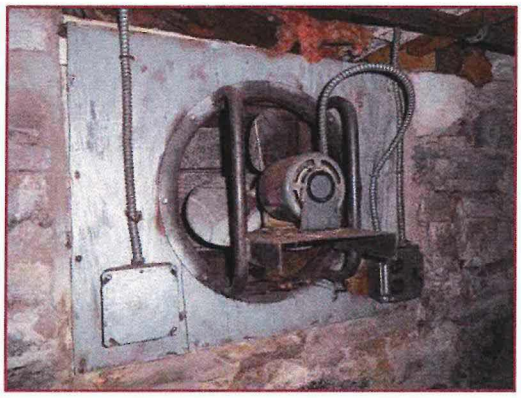


*Image 3.60: Exhaust Fan in Basement*

*Image 3.61: Exhaust Fan Areaway and Air Conditioner*

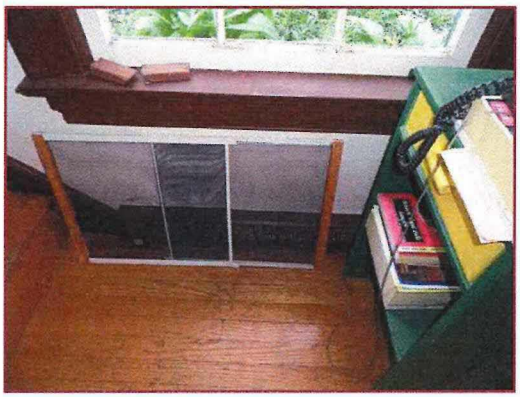


*Image 3.62: Electric Baseboard Heat*

*Image 3.63: Gas Range*

## Plumbing

All of the plumbing is in the addition. There is a bathroom on the first floor with a vanity-mounted lavatory, flush tank floor mounted toilet, and combination bathtub/shower. There is a small kitchen with a counter-mounted sink. The 30 gallon electric water heater is located in the

closet where the telephone/IT equipment is installed. The domestic water entrance and sanitary sewer location is unknown, but most likely from under the crawl space. There is a hose bibb in the exterior wall outside the kitchen.

The gas meter is located outside the addition on the corner near the entrance door. Gas piping is routed through the crawl space into the basement. Gas piping is installed in the first floor fireplace but is capped off. The gas piping serves the range and the furnace.

*Image 3.64: Plumbing Fixtures*

*Image 3.65: Bathtub/shower*

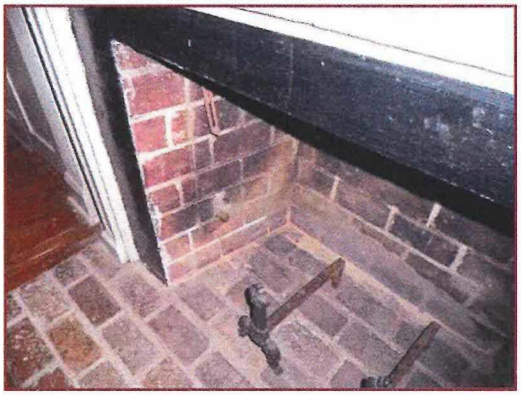


*Image 3.66: Gas Piping Stubbed into Fireplace*

## Electrical

### Electrical and Special Systems Overview

The following description of the facility electrical and special systems is based on field observations performed on August 24, 2010 by SWSG Engineers. All code references are based on 2008 National Electrical Code (NEC).

### Electrical Service Entrance

The miller's house, barn and mill are served from a common 400A, 120/240 volts, single phase, 3-wire distribution panel located in the barn. A 200A circuit breaker in the distribution panel supplies an underground feeder which enters the south west corner of the basement of the miller's house. The feeder enters a wireway above the electrical equipment where it is divided to serve two 200A, 260V disconnect switches which in turn supply two 200A, 120/240V, single phase, 3-wire panelboards. The arrangement of the panelboards violates the NEC requirements for clear access into the panels and mounting height requirements.

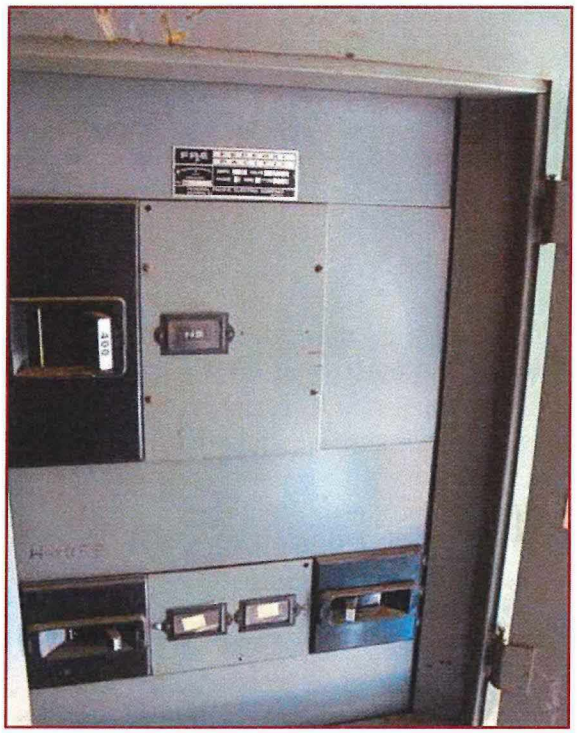


*Image 3.67: Distribution Panel in Barn*

The service is adequate for the house supplying ~19 watts/square foot of power to the occupied areas of the building.

Armored cables run from the panelboards to receptacles, light fixtures, mechanical equipment and other electrical devices located throughout the building. The distribution is largely correct although some of the armored cables are not properly supported.

The original telephone service board is located adjacent to the panelboards. The building LAN system is mounted on temporary wall to the right of the telephone boards.

A #4 ground wire was observed exiting the basement. No exterior ground rod was found, but is presumed to be located underground. Ground

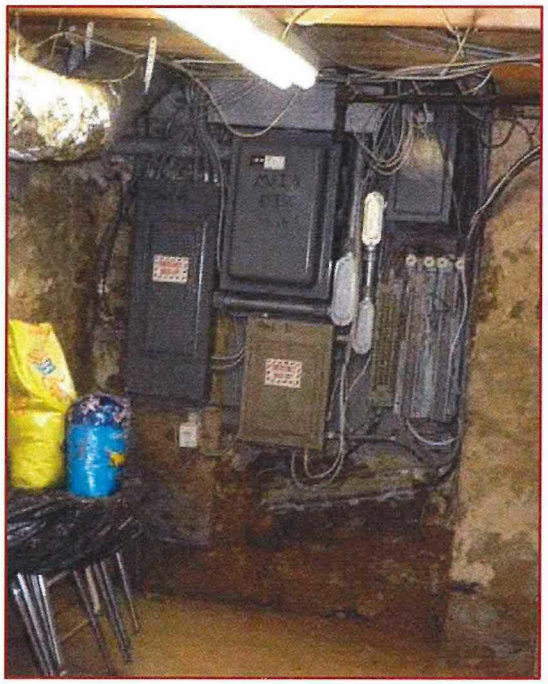


*Image 3.68: Basement Panelboards*

resistance should be tested to verify the ground rod is still in place and adequate for the service. No ground wire was found at the domestic water pipe entrance and the panelboard providing buildings ground.

Receptacles and Branch Circuiting

In the original house, some receptacles have been installed in the first floor baseboard. These receptacles are supplied from the basement or crawl space below the receptacle. On the second floor receptacles are surface mounted and electrical power is distributed in surface mounted conduit.

Receptacles in the addition are flush mounted and fairly typical for a residential house. The NEC requires dedicated receptacles for a residential kitchen and the were not found, however, they are not required for non residential use.

A few receptacles were found in the mechanical space in the attic and in the basement.

Receptacles in the laundry and bath rooms were provided with GFIC receptacles.

*Image 3.69: Baseboard Outlet*

Lighting

The house contains a mixture of light fixtures. The original house has been fitted with museum type track lights which appear to be in good working order. Fluorescent fixtures were found in the addition, basement and attic space.

Floods lights are surface mounted at the on the exterior eave of the house with wall mounted entrance fixture by the doors.

The lighting is adequate for residential or light commercial use.

Lightning Protection

There is currently no lightning protection. Per the need evaluation per NFPA 760, Appendix H yielded a score of 4.3. A score of 4-7 indicates a "Moderate to Severe" hazard and a lightning protection system is recommended.

# CHAPTER 4. PROPERY ASSESSMENT AND RECOMMENDATIONS

## ARCHITECTURAL

### Introduction

The treatment plan for the house involves maintaining the current occupancy of office use at second floor and partial assembly or exhibit use at the first floor. Any necessary work shall follow standards and guidelines for a preservation treatment, including upgrading different aspects of the existing building to comply with the applicable current building code requirements.

A major scope of work item involves upgrading the existing floor structural capacity to meet the current building code requirements.

Before beginning any work, contractors should be familiar with results of the lead paint and asbestos investigation provided in the appendix of this report. Appropriate safety measures shall be taken.

### Exterior

*Issue:* Throughout the history of the house, there have been a number of times that repairs have been made to the exterior walls by replacing brick units and repointing mortar joints. There are several areas where deteriorated mortar joints need to be repointed. These areas are mostly on the front wall where an earlier repointing used a cementicious-type mortar that was not deep enough. Moisture got behind the mortar causing it to freeze and crack the repointing mortar.

*Image 4.1: Deteriorated Mortar Joints*

*Recommendations:* Carefully remove all areas of loose mortar whether original lime-based mortar or repointed cementicious-based mortar to a depth of ½" from the face of the bricks. Repoint all such joints with lime-based mortar matching the existing color and composition. Submit mortar samples to a lab to obtain the original lime-based mortar components and their description. Use similar sand and aggregate to achieve the color match rather than using a pigment. Bricks that have significantly spalled should be replaced with bricks that match in color, size, and density.

*Issue:* Some of existing crawl space vents may not be providing the required clear opening area due to their louvers being partially or completely closed or blocked off with dirt and debris.

*Recommendations:* Clean all crawl space vents. Open the louvers and leave them in open position if they cannot be made operable for seasonal adjustments.

**Interior**

*Issue:* Access ways to crawl spaces under the addition and the original section of the house are deteriorated and uncontrolled.

*Recommendations:* Repair both crawl space access ways in the masonry walls and install a new hatch at both locations in order to environmentally separate these areas from the cellar.

*Image 4.2: Access From Cellar To Crawl Space*

*Issue:* The existing wall surface paint and plaster behind it is bubbling, flaking, and crumbling on the interior face of the wall in the hall and exhibit room at the first floor. This is a common problem with plaster-finished solid brick masonry walls where the moisture can seep through the old brick masonry and lime-based mortar joints from the exterior to interior side. When the salts within the brick masonry become wet, they migrate to the plaster and cause blistering or efflorescence. Typically this happens on the wall areas below chair rails.

*Recommendations:* The source of the water infiltration should be removed prior to repairing the plaster or the blistering and crumbling will continue. In this case, the source of the water infiltration is likely caused by the location of a concrete ADA ramp adjacent to the building that permits stormwater to splash back onto the masonry wall. In addition, snow may accumulate on the ramp and dampen the wall. Consider constructing alternate ADA access to the house. As an ongoing measure, particular diligence should be made in removing snow from the ADA ramp adjacent to these walls as soon as possible.

*Image 4.3: Deteriorated Plaster Due to Moisture Infiltration*

Options were evaluated for providing ADA access to the house. One option is to construct a concrete ramp with masonry support walls similar to the existing ramp but situated away from the house. Potential locations for the ramp are at door D100, the current ADA access door, or door D101 into the Exhibit Room. Door D101 is wide enough to accommodate the required minimum 32" clear width for ADA accessible doorways; however, the required 18" wide pull-side clearance is only 12" wide due to the projection of the corner of the fireplace. Therefore, installation of an electric door opener would be needed to provide ADA accessibility at this location.

Another option, after demolition of the existing ramp, is to install an ADA accessible lift at door D100 adjacent to a new entrance stoop.

Whenever feasible, the plaster should be repaired rather than replaced. In places where the plaster cannot be repaired, the deteriorated plaster should be carefully pried loose and replaced with a three coat plaster system. If only the finish coat of plaster is damaged, carefully remove loose material. Apply a liquid plaster-bonding agent onto the base coat. Apply a new lime finish coat. Finish to match adjacent surfaces.

*Issue:* Water leakage from the HVAC unit in the attic caused plaster deterioration at the top of the wall in Room 202.

*Recommendations:* This problem was remediated by installing condensate drain pipe that discharges into the roof gutter. Condensate drain pipes should be inspected and cleaned annually. Follow the same procedure given above for the plaster deterioration in the exhibit room and hall.

*Image 4.4: Damaged Plaster Due to Condensate Drain Pan Overflow*

*Issue:* There are hairline cracks in the plaster above door openings in the hall on the first and second floors. These cracks start at the top corners of the door openings and continue up diagonally away from the vertical line of the door jambs. These cracks occur both in walls made of wood stud frame and in walls made of masonry and finished with plaster.

*Recommendations:* Plaster cracks in this pattern above doors and windows are caused by cyclical changes in moisture content of the wood lintels. As moisture content increases, the wood expands resulting in plaster cracking. Since the movement is cyclic, repair of plaster cracks becomes a maintenance item. To reduce the need for plaster crack repairs, maintain a constant humidity level in the house. Activities in the house that add moisture include cooking and showering.

Since these are cyclical cracks, they should be filled as follows. Widen the crack slightly with a sharp pointed tool such as a crack widener or triangular can opener. Fill the crack with a "high gauge" lime putty (50% lime; 50% gauging plaster). Do not use patching plaster or plaster of Paris. Clean the area with a damp sponge, then refinish to match the existing adjacent surfaces.

For persistent cracks, press a fiberglass mesh tape into a quick setting joint compound. After this dries, apply a second coat to cover the tape, feathering at the edges. Apply a third coat for light sanding. Clean the area with a damp sponge, then refinish to match the existing adjacent surfaces.

*Issue:* There is a crack in the plaster wall of the second floor hall at the intermediate landing. This crack is in plaster that has been keyed into wood lath attached to a stud wall.

*Recommendations:* This crack is likely a settlement crack and therefore would not be cyclical. Fill the crack with a "high gauge" lime putty (50% lime; 50% gauging plaster). Do not use patching plaster or plaster of Paris. Clean the area with a damp sponge, then refinish to match the existing adjacent surfaces. Monitor the area to determine if the crack reappears. If so, repairs may be needed to the structural system beneath this wall, possibly to the sill plate bearing on the stone foundation wall at the front of the house.

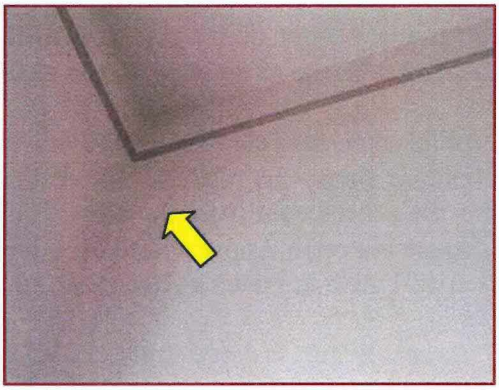


*Image 4.5: Diagonal Crack in Hall*

*Issue: W*ood trim is missing from the top of the parlor fireplace mantelpiece where it intersects the wall surface above. Two recessed fastening screws attaching the fireplace mantelpiece to the wall are exposed to view.

*Recommendations:* Install new wood trim to match existing at the top of the fireplace mantelpiece where it intersects the wall surface. Finish to existing. Plug the top of the existing recessed anchoring screws with wood plugs and paint to match existing mantelpiece color.

*Issue:* There are pieces of wood molding missing from the wood work around the cupboard glass enclosure next to the fireplace in the parlor. These pieces may be on site and should be reinstalled. The original fastening, i.e. cut nails, are left in place in these locations.

*Recommendations:* Furnish and install the missing wood molding at their respective locations at the cupboard glass enclosure. Paint to match existing wood work finish.

*Issue:* The existing floor carpet throughout the second floor is old, worn and buckling at different locations.

*Recommendations:* The existing floor carpet throughout the second floor and the stair should be replaced with new carpet.

*Issue:* The overall interior finish of this building is in need of new paint, especially after all the repairs to the damaged and deteriorated areas of the interior plaster surfaces are complete.

*Recommendations:* All the interior surfaces of the building should receive a new paint finish after completion of all the interior repair work. Consider using paint colors identified in the paint analysis report for the late-19$^{th}$-century. The paint report is available in the appendix of this report.

*Issue:* The lower and upper sections of the existing wood stair of the Attic access has shifted away from the exterior wall and developed a large gap between the bottom section and the stringer attached to the wall. The upper section has developed a gap between the stair and the plaster on the exterior masonry wall. One possible reason could be the deflection in the structure of the second floor causing the whole attic stair assembly to tilt away from the exterior wall.

*Recommendations:* Repair the attic access, concurrent with the structural repair that requires installing additional second floor joists, by realigning the attic stair to its original position.

*Issue:* The latching hardware on the attic door is missing.

*Recommendations:* Install new latching hardware at attic door replicating the original hook-style of that period.

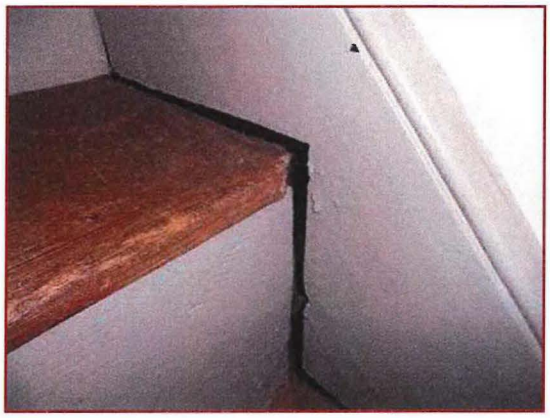


*Image 4.6: Original Attic Access Stairs*

*Issue:* Decaying of the wood structure due to moisture is evident at the cellar exterior masonry walls. The brick walls wrap around the ends of the first-floor wood joists at the bearing locations. Most of the moisture that enters the brick masonry walls migrates to the first-floor wood joist bearing locations.

The wood sill and joist bearing locations have decayed over time, which caused the parlor floor to settle throughout the history of the house. The batt insulation installed between the first floor wood joists aggravates the condition by not allowing the moisture to evaporate faster.

Batt insulation installed beneath the exhibit room floor has lost its volume and therefore no longer retains its insulation value.

*Recommendations:* The first floor should be insulated from the cellar and crawl spaces below. This could done by installing semi-rigid insulation boards attached to the underside of wood floor boards between floor joists with impaling pins. The impaling pins attach to the underside of the floor boards with adhesive and are therefore able to be removed in the future.

The existing batt insulation at basement walls of the cellar should be removed completely and all joints and cracks between first-floor deck and surrounding masonry walls should be filled with sealants.

New continuous pressure-treated wood sill plates should be installed under the original and sistered wood joists. These could be installed on top of stone masonry wall in front of the original decaying wood sills. Any area where it is not feasible to install a new sill plate could be repaired by installing a new pressure-treated ledger board attached to the interior face of the stone masonry walls. Supplemental floor joists would bear on the ledger board.

The Park Authority should consider cutting all of the original existing wood joists in line with the back of the new sill plate in order to provide a minimum of ½" gap. This would stop moisture from migrating from the exterior walls through the original joists and causing continued deterioration.

## STRUCTURAL

The purpose for this Condition Assessment is to determine whether the existing framing is capable of supporting the loading determined by each room's current use. In order to properly complete the purpose, a structural analysis of each room in the house was performed to determine each room's allowable live load capacity in pounds per square foot (PSF). As well, an analysis for each room was completed to determine the corresponding usage and their subsequent minimum live load capacities.

All areas of the house are currently being classified under "Office" usage with the exception of the Exhibit Room 101 and the Parlor 102 which are considered "Public Access" rooms. The building code requires a floor strength for live loads of 50 PSF for all areas under "Office" use and 100 PSF for all areas under "Public Access" use. When an area of the house does not meet the code-required loading, the forthcoming recommendations section of the report provides additional support recommendations to permit the proper use of the room.

In the table below, the rooms have been grouped based on similarity and given descriptions. Their pertinent structural information (joist size, spacing, species, span length, etc.) is provided as well as each of the live load ratings. Any rooms with live loads ratings below the capacity allowed for its appropriate use have been highlighted in red. Recommendations for repairs are provided in the following section.

| First Floor Framing | | | | | | |
|---|---|---|---|---|---|---|
| No. | Location | Description | Max Span | Span Direction | Live Load Rating | Notes |
| 1 | Exhibit Room 101 | Size: 2.00"x9.00"<br>Spacing: 24" on center | 16'-9" | SW to NE | 24 PSF | 1,3 |
| 2 | Hall 100 | Size: 2.75"x10.50"<br>Spacing: 24" on center | 6'-11" | SE to NW | 372 PSF | 1 |
| 3 | Parlor 102 | Size: 1.50"x11.25"<br>Spacing: 24" on center | 8'-2" | SW to NE | 193 PSF | 1 |
| 4 | Parlor 102 – Beam | Size: (3) 1.50"x11.25"<br>Spacing: N/A for a beam | 7'-6" | SE to NW | 132 PSF | 1 |
| 5 | Addition Office 103<br>Bathroom 104<br>Kitchen 105 | Size: 1.50"x5.50"<br>Spacing: 16" on center | 9'-7" | SW to NE | 55 PSF | 1 |

*1 – Measured in field, all dimensions are plus/minus*
*2 – Member direction, size and spacing estimated.*
*3 – Member must be reinforced per recommendations in the next section*

*Table 4.1: First Floor Allowable Live Load Rating by Room*

| Second Floor Framing | | | | | | |
|---|---|---|---|---|---|---|
| No. | Location | Description | Max Span | Span Direction | Live Load Rating | Notes |
| 1 | Addition Garrett 203<br>Addition Attic 204 & 205 | Size: 1.50"x5.50"<br>Spacing: 16" on center | 7'-2" | SW to NE | 78 PSF | 1 |
| 2 | Hall 200<br>Bedchamber 201<br>Bedchamber 202 | Size: 3.00"x9.00"<br>Spacing: 28" on center | 17'-9" | SW to NE | 32 PSF | 2,3 |

*1 – Measured in field, all dimensions are plus/minus*
*2 – Member direction, size and spacing estimated.*
*3 – Member must be reinforced per recommendations in the next section*

*Table 4.2:Second Floor Allowable Live Load Rating by Room*

## Recommendations - Loading

*Issue:* The building code requires a floor strength for live loads of 50 PSF for all areas under "Office" use and 100 PSF for all areas under "Public Access" use. Currently the Exhibit Room 101 does not meet "Public Access" use; Hall 200, Bedchamber 201, and Bedchamber 202 do not meet "Office" use.

*Recommendations:* Repairs need to be made to the floor framing to increase live load capacity; see below for recommendations. Once the specified recommendations and repairs to the Exhibit Room 101, Hall 200, Bedchamber 201, and Bedchamber 202 have been made, those rooms may also be occupied with their designated usage.

## Recommendations - 1st Floor Joists below Exhibit Room

*Issue:* The joists under Exhibit Room 101 are undersized for code-required loads for public access use.

*Recommendations:* Existing joists are to remain. Install one (1) new 1.75x11.88 Laminated Veneer Lumber (LVL) 6" from the center point of each existing joist. This will result in the new joists being spaced 18" apart. Due to crawlspace height limitations, it is acceptable for the existing hardwood flooring in Room 101 to be temporarily removed. This will allow for easier installation new floor joists as these existing floor boards were previously removed and reinstalled.

The new live load capacity for the floor framing is calculated to be 100 PSF, an acceptable capacity to meet the building code requirements for "Public Access" use. This is an increase from the existing 24 PSF.

**Recommendations - 2nd Floor Joists below Upstairs Hall and Bedrooms**

*Issue:* The joists under Hall 200, Bedchamber 201, and Bedchamber 202 are undersized for code-required loads for Office use and excessive deflection and vibration in the floors is evident.

*Recommendations:* Install two (2) new 2x10 LVL joists between all existing joists. The new joists will be 9" on center. It is acceptable for the existing first-floor ceilings to be removed. This will allow for easier installation of new floor joists and is acceptable since the existing gypsum wall board (gwb) ceiling is not original to the house.

The new live load capacity for the floor framing is calculated to be 68 PSF, an acceptable capacity to meet the building code requirements for "Office" use; this is an increase from the existing 32 PSF.

## MECHANICAL

### HVAC

The attic space is currently setup as though it can be conditioned space. Insulation has been installed in the roof rafters and there does not appear to be ventilation. However, there is a louver in the exterior wall that is open to the attic. The outside air ductwork for the furnace is ducted over to the louver and stops just short of the louver. There is a large intake grille in the return ductwork in the attic that is essentially drawing in outside air since the louver is not sealed and there are no supply grilles in the attic. There are two options to consider. The first option is to fully convert the attic into conditioned space by sealing the louver and any other ventilation, adding a supply grille, and reducing the size of the existing return grille. The second option is to convert the attic back to a traditional attic by opening it ventilating it naturally or mechanically. The second option exposes the attic to freezing temperatures which would preclude the use of the humidifier since the water would freeze. The first option is recommended.

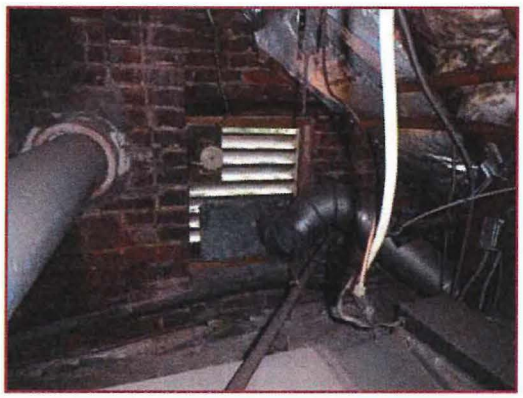


*Image 4.7: Outside air ductwork and louver*

It is recommended to replace the mechanical thermostat with an electric programmable thermostat. The furnace may be compatible with a thermidistat which is a combination thermostat and humidistat offered by Carrier that will control the furnace, air conditioner, and humidifier as well as a dehumidification control scheme. If the temperature is satisfied but the indoor relative humidity is above the setpoint, the thermidistat will start the air conditioner and run the fan at a slow speed for 15 minutes, then turn off for 15 minutes, then run again for 15 minutes. This allows the unit to dehumidify without overcooling the space.

*Image 4.8: Damaged/missing ductwork insulation*

There was a little standing water in the emergency drain pan below the cooling coil (not enough to trigger the condensate switch). The electronic air cleaner was turned off and did not seem to operate when turned on. The humidifier was not tested. It is recommended to have the furnace, electronic air cleaner, and humidifier tested and inspected and to repair any problems.

The ductwork insulation in the attic and the basement was damaged in a few locations and should be repaired. It is also recommended to have the interior of the ductwork and all of the grilles cleaned.

The basement access holes to the two crawl spaces should be sealed. It is recommended to install a dehumidifier in the basement.

The addition does not seem to receive adequate air conditioning from the central HVAC system since there in only one supply grille per floor and no return. It is recommended to provide a means for air to return back to the central HVAC system and to install a supplemental HVAC system for the addition. A ductless split HVAC system is recommended for ease of installation and minimal disturbance to the building. A wall mounted fan coil unit would be installed on each floor of the addition and both units could be connected to a single exterior condensing unit.

The gas range in the kitchen requires an exhaust hood. The type of hood depends on the type and use of the appliance. The gas range appears to be a residential model. A residential type hood can be used as long as the range is listed residential appliance and typical household cooking is performed. If the range is a commercial appliance or is used for commercial purposes such as preparation of food for revenue generation or if grease laden vapor is produced, then a Type I or Type II hood will be required. Commercial hoods are much more expensive to install, own, and operate.

**Plumbing**

The plumbing fixture requirements are shown in the Code Analysis section. The existing bathroom is not ADA compliant. The existing toilet facilities on the property are proposed for meeting this requirement. Refer to the architectural report for further discussion.

A mop basin is required. One could argue that the bathtub could serve the purpose as a mop basin since it is not used for bathing. Therefore, a new mop basin is not recommended.

An ADA bi-level drinking fountain is required to be installed.

## ELECTRICAL

### Electrical Service Entrance

The building is supplied with electrical service from two 200A, 260V disconnect switches which in turn supply two 200A, 120/240V, single phase, 3-wire panelboards. The arrangement of the panelboards violates the National Electric Code (NEC) requirements for clear access into the panels and mounting height requirements. The older panelboard should be replaced. The existing branch circuits shall be intercepted at the original panels location and extend to the replacement panelboards location. Unused telephone wiring shall also be removed to allow the required NEC clearance and access.

*Image 4.9: Basement Electrical Panels*

The armored cables are generally installed per NEC requirements. Selected branch circuits require additional support and should be identified.

A new building ground system shall be connected to the existing building disconnect switches. A #4 grounding electrode conductor shall be installed to a ground rod at the exterior of the building and to the domestic water pipe at the building entrance.

### Receptacles and Branch Circuiting

In general the receptacles are adequate fort the building use. Multiple extension cords were found on the second floor of the original house. If these spaces will continue to be used as office space additional receptacles are recommended. Their installation cost will be reduced if installed during the structural renovation.

Electrical support shall be required for the HVAC and exhaust fan recommendation made under the mechanical section of this report.

### Lighting

No modifications to the building lighting are recommended.

### Lightning Protection

A "Lightning Risk Assessment" indicated that a lightning protection system should be installed. Air terminals shall be provided at the ends of the house and at 20' intervals along the roof ridge. The main conductor shall connect the air terminals and be provided with two down conductors on each side of the house. The system shall be installed by a UL certified contractor.

## ARCHITECTURAL COST ESTIMATE

| Total Budget Estimate | | SWSG Estimated Job Costs | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Item | | Exterior masonry wall repointing | Exterior painting of addition* | Repair of crawl space vents in exterior walls | Repair crawl space accesses from Cellar | Plaster and other interior surface repairs | Building interior new finish | Replace 2nd floor carpet | Fireplace & adjacent cabinet repair work in Parlor | New attic access door hardware | Replace first floor gypsum ceiling surfaces | Construct new ADA ramp on east side and elect. Door opener** | Seal cracks and install new semi-rigid insul. At cellar clg. |
| Division 1 - General Requirements | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Division 2 - Site Work | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1,000 | 0 |
| Division 3 - Concrete | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2,500 | 0 |
| Division 4 - Masonry | | 15,000 | 0 | 300 | 500 | 0 | 0 | 0 | 0 | 0 | 0 | 5,000 | 0 |
| Division 5 - Metals | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2,000 | 0 |
| Division 6 - Carpentry | | 0 | 0 | 0 | 200 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Division 7 - Thermal & Moisture Protection | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 10,000 |
| Division 8 - Doors & Windows | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 150 | 0 | 2,000 | 0 |
| Division 9 - Building Finishes | | 0 | 1,000 | 0 | 0 | 1,500 | 4,000 | 2,000 | 1,000 | 0 | 1,200 | 0 | 0 |
| Division 10 - Specialties | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Division 11 - Equipment | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Division 12 - Furnishings | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Division 13 - Special Construction | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Division 14 - Conveying Systems | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Division 15 - Mechanical | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Division 16 - Electrical | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | | | | | | | | | | | | |
| Subcontracted Construction Cost | | 15,000 | 1,000 | 300 | 700 | 1,500 | 4,000 | 2,000 | 1,000 | 150 | 1,200 | 12,500 | 10,000 |
| GC Overhead | 10% | 1,500 | 100 | 30 | 70 | 150 | 400 | 200 | 100 | 15 | 120 | 1,250 | 1,000 |
| GC Profit | 5% | 825 | 55 | 17 | 39 | 83 | 220 | 110 | 55 | 8 | 66 | 688 | 550 |
| Construction Contingency | 0% | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Administrative Contingency | 0% | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Plan Review Fees and Engr. Tests | 1% | 173 | 12 | 3 | 8 | 17 | 46 | 23 | 12 | 2 | 14 | 144 | 116 |
| **Estimated Project Cost** | | **$17,498** | **$1,167** | **$350** | **$817** | **$1,750** | **$4,666** | **$2,333** | **$1,167** | **$175** | **$1,400** | **$14,582** | **$11,666** |

Design and construction administration fees are not included.
* If not performed recently
** Work includes demolition of existing concrete ramp and landing, constructing a new porch at entry door. Alternate to new ADA ramp construction would be the installation of a new wheel chair lift in conjunction with new porch at entry door for the cost of $16,500.

## STRUCTURAL COST ESTIMATE

| Total Budget Estimate | | SWSG Estimated Job Costs |
|---|---|---|
| Item | | Floor Framing |
| Division 1 - General Requirements | | 4,000 |
| Division 2 - Site Work | | 0 |
| Division 3 - Concrete | | 0 |
| Division 4 - Masonry | | 0 |
| Division 5 - Metals | | 0 |
| Division 6 - Carpentry | | 40,000 |
| Division 7 - Thermal & Moisture Protection | | 0 |
| Division 8 - Doors & Windows | | 0 |
| Division 9 - Building Finishes | | 1,800 |
| Division 10 - Specialties | | 0 |
| Division 11 - Equipment | | 0 |
| Division 12 - Furnishings | | 0 |
| Division 13 - Special Construction | | 0 |
| Division 14 - Conveying Systems | | 0 |
| Division 15 - Mechanical | | 0 |
| Division 16 - Electrical | | 0 |
| | | |
| Subcontracted Construction Cost | | 45,800 |
| GC Overhead | 10% | 4,580 |
| GC Profit | 5% | 2,519 |
| Construction Contingency | 0% | 0 |
| Administrative Contingency | 0% | 0 |
| Plan Review Fees and Engr. Tests | 1% | 529 |
| **Estimated Project Cost** | | **$53,428** |

Design and construction administration fees are not included.

## MECHANICAL COST ESTIMATE

| Total Budget Estimate | | SWSG Estimated Job Costs | | | |
|---|---|---|---|---|---|
| Item | | HVAC Repairs: Condition Attic, replace thermostat, inspect HVAC equipment, repair insulation, and clean ductwork | HVAC for Addition | Range Hood | Drinking |
| Division 1 - General Requirements | | 407 | 836 | 78 | 92 |
| Division 2 - Site Work | | 0 | 0 | 0 | 0 |
| Division 3 - Concrete | | 0 | 0 | 0 | 0 |
| Division 4 - Masonry | | 0 | 0 | 0 | 0 |
| Division 5 - Metals | | 0 | 0 | 0 | 0 |
| Division 6 - Carpentry | | 0 | 0 | 200 | 200 |
| Division 7 - Thermal & Moisture Protection | | 0 | 250 | 100 | 0 |
| Division 8 - Doors & Windows | | 0 | 0 | 0 | 0 |
| Division 9 - Building Finishes | | 0 | 250 | 100 | 100 |
| Division 10 - Specialties | | 0 | 0 | 0 | 0 |
| Division 11 - Equipment | | 0 | 0 | 0 | 0 |
| Division 12 - Furnishings | | 0 | 0 | 0 | 0 |
| Division 13 - Special Construction | | 0 | 0 | 0 | 0 |
| Division 14 - Conveying Systems | | 0 | 0 | 0 | 0 |
| Division 15 - Mechanical | | 4,600 | 9,400 | 950 | 2,000 |
| Division 16 - Electrical | | 2,600 | 3,350 | 450 | 450 |
| | | | | | |
| Subcontracted Construction Cost | | 7,607 | 14,086 | 1,878 | 2,842 |
| GC Overhead | 10% | 761 | 1,409 | 188 | 284 |
| GC Profit | 5% | 418 | 775 | 103 | 156 |
| Construction Contingency | 0% | 0 | 0 | 0 | 0 |
| Administrative Contingency | 0% | 0 | 0 | 0 | 0 |
| Plan Review Fees and Engr. Tests | 1% | 88 | 163 | 22 | 33 |
| **Estimated Project Cost** | | **$8,873** | **$16,432** | **$2,190** | **$3,315** |

Design and construction administration fees are not included.

## Colvin Run Miller's House Historic Structure Report

### ELECTRICAL COST ESTIMATE

| Total Budget Estimate | | SWSG Estimated Job Costs | | | |
|---|---|---|---|---|---|
| Item | | Electric Panel Replacement | Grounding | Lightning Protection | Miscellaneous Receptacles |
| Division 1 - General Requirements | | 269 | 218 | 217 | 59 |
| Division 2 - Site Work | | 0 | 0 | 0 | 0 |
| Division 3 - Concrete | | 0 | 0 | 0 | 0 |
| Division 4 - Masonry | | 0 | 0 | 0 | 0 |
| Division 5 - Metals | | 0 | 0 | 0 | 0 |
| Division 6 - Carpentry | | 0 | 0 | 0 | 0 |
| Division 7 - Thermal & Moisture Protection | | 100 | 100 | 0 | 0 |
| Division 8 - Doors & Windows | | 0 | 0 | 0 | 0 |
| Division 9 - Building Finishes | | 150 | 100 | 100 | 100 |
| Division 10 - Specialties | | 0 | 0 | 0 | 0 |
| Division 11 - Equipment | | 0 | 0 | 0 | 0 |
| Division 12 - Furnishings | | 0 | 0 | 0 | 0 |
| Division 13 - Special Construction | | 0 | 0 | 0 | 0 |
| Division 14 - Conveying Systems | | 0 | 0 | 0 | 0 |
| Division 15 - Mechanical | | 0 | 0 | 0 | 0 |
| Division 16 - Electrical | | 6,800 | 2,975 | 4,550 | 4,800 |
| | | | | | |
| Subcontracted Construction Cost | | 7,319 | 3,393 | 4,867 | 4,959 |
| GC Overhead | 10% | 732 | 339 | 487 | 496 |
| GC Profit | 5% | 403 | 187 | 268 | 273 |
| Construction Contingency | 0% | 0 | 0 | 0 | 0 |
| Administrative Contingency | 0% | 0 | 0 | 0 | 0 |
| Plan Review Fees and Engr. Tests | 1% | 85 | 39 | 56 | 57 |
| **Estimated Project Cost** | | **$8,538** | **$3,958** | **$5,677** | **$5,785** |

Design and construction administration fees are not included.

# CHAPTER 5. PROGRAM CONSIDERATIONS

## SPACE USE

The original portion of the Colvin Run Miller's House is currently used as public assembly space on the first floor and for offices on the second floor. The addition is used as office space.

The structural capacity of the floor dictates allowable uses. Once the recommended improvements noted in the structural treatment section of this report are made, the house will meet the floor loading requirements for the current use. The improvements do not increase the capacity enough to allow for public assembly use on the second floor. This can only be achieved by adding a beam in the first-floor spaces that bears on a load-bearing wall. Since installing beams would negatively impact the historic integrity of the spaces, it is recommended that public assembly not be considered for the second floor.

The addition has sufficient floor loading capacity to allow for office use in these spaces, but not public access assembly use.

Light storage requires a floor strength of 125 PSF. Only the first-floor hall, parlor, and cellar have the capacity for light storage. Since the first-floor hall and parlor are interpretive spaces, these should not be used for storage. The addition may not be used for storage.

Code, as well as Park Authority policy, does not permit the attic space to be used as an occupied level of the building, such as for office space or storage. However, the code allows this space to be used as a mechanical equipment room.

In conclusion, once structural repairs are made, the recommended use for each space is for the use to remain as it is today, i.e. office use in the addition, interpretive and museum space on the first floor of the original house, and office space on the second floor of the original house.

## ACCESSIBILITY

An accessible route is currently provided from the parking lot to the front door of the house via a paved trail and concrete ramp. ADA accessible toilets are along this route and comply with proximity distance requirements.

The accessible route continues in the house through the hall and into the exhibit room. There is a 1 ½" difference in floor elevation between the hall and the parlor. In order for the accessible route to continue into the parlor, a small ramp would need to be constructed. The ramp would need to extend into the room approximately 30".

Since the second floor is used for office space, all of the rooms in the addition are considered support spaces to the second-floor office space; therefore, the addition does not need to be accessible.

Since the miller's house is a historic building, the code allows that only one entrance needs to be accessible, and that only the public spaces are required to be on the accessible route.

The parking lot is required to have one accessible parking space for every 25 spaces and one van-accessible parking space per six accessible parking spaces.

Due to moisture damage to the plaster in the exhibit room that is likely caused by stormwater backsplash and snow buildup on the concrete ADA ramp, the Park Authority may wish to consider constructing a new ADA ramp further from the building.

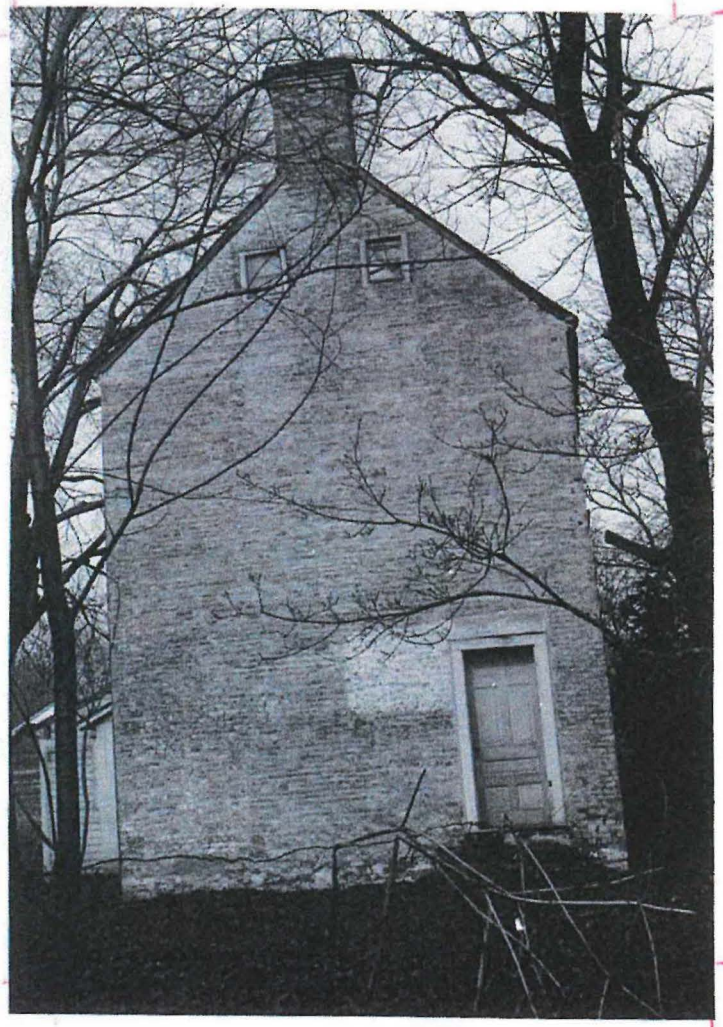
As stated in the treatment portion of this report, options were evaluated for providing ADA access to the house. One option is to construct a concrete ramp with masonry support walls similar to the existing ramp but situated away from the house. Potential locations for the ramp are at door D100, the current ADA access door, or door D101 into the Exhibit Room. Door D101 is wide enough to accommodate the required minimum 32" clear width for ADA accessible doorways; however, the required 18" wide pull-side clearance is only 12" wide due to the projection of the corner of the fireplace. Therefore, installation of an electric door opener would be needed to provide ADA accessibility at this location. Another option, after demolition of the existing ramp, is to install an ADA accessible lift at door D100 adjacent to a new entrance stoop.

**Historic Photo A1: Colvin Run Miller's House Millard Family, ca. 1895**
**Ross Netherton, Photographer of Picture, 1970**
**Courtesy Fairfax County Public Library**

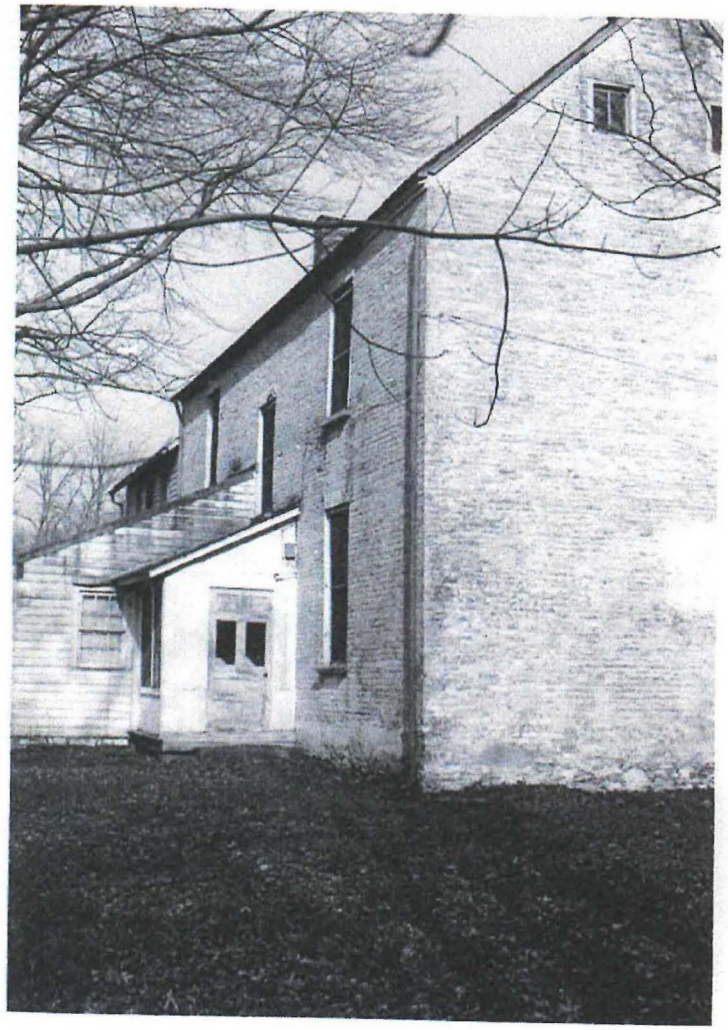
**Historic Photo A2: Colvin Run Miller's House, ca. 1935**
**Historic American Building Survey**
**Courtesy Fairfax County Public Library**

**Historic Photo A3: Colvin Run Miller's House-Rear View From West, ca. 1935**
**Historic American Building Survey**
**Courtesy Fairfax County Public Library**

**Historic Photo A4: Colvin Run Miller's House-Aerial View, ca. 1937**
**United States Department of Agriculture**
**Courtesy Fairfax County Park Authority**



**Historic Photo A5: Colvin Run Miller's House-View From East, ca. 1966**
**Mayo Stuntz, Photographer**
**Courtesy Fairfax County Public Library**



**Historic Photo A6: Colvin Run Miller's House-View From South, ca. 1966**
**Mayo Stuntz, Photographer**
**Courtesy Fairfax County Public Library**

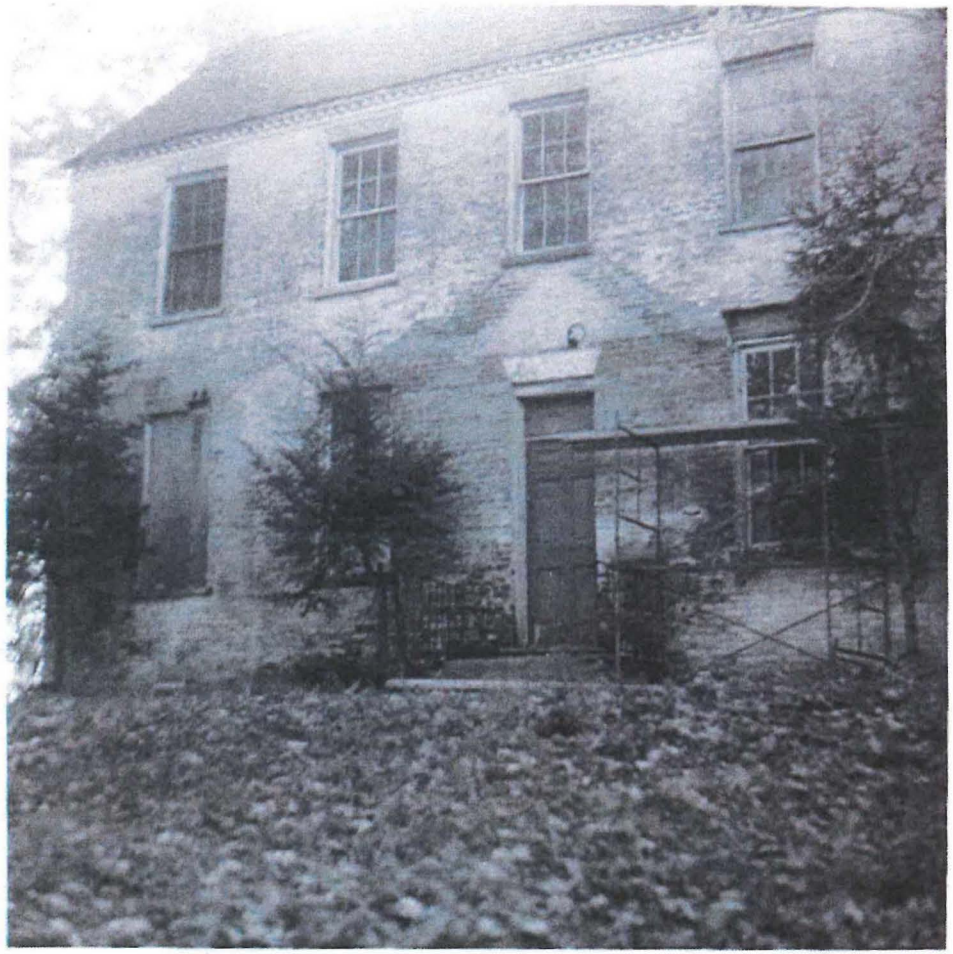
**Historic Photo A7: Colvin Run Miller's House-Front, ca. 1967**
**Duke Breitenback, Photographer**
**Courtesy Fairfax County Public Library**

**Historic Photo A8: Colvin Run Miller's House-Rear View From Southwest, ca. 1966**
**Eddie Printz, Photographer**
**Courtesy Fairfax County Public Library**

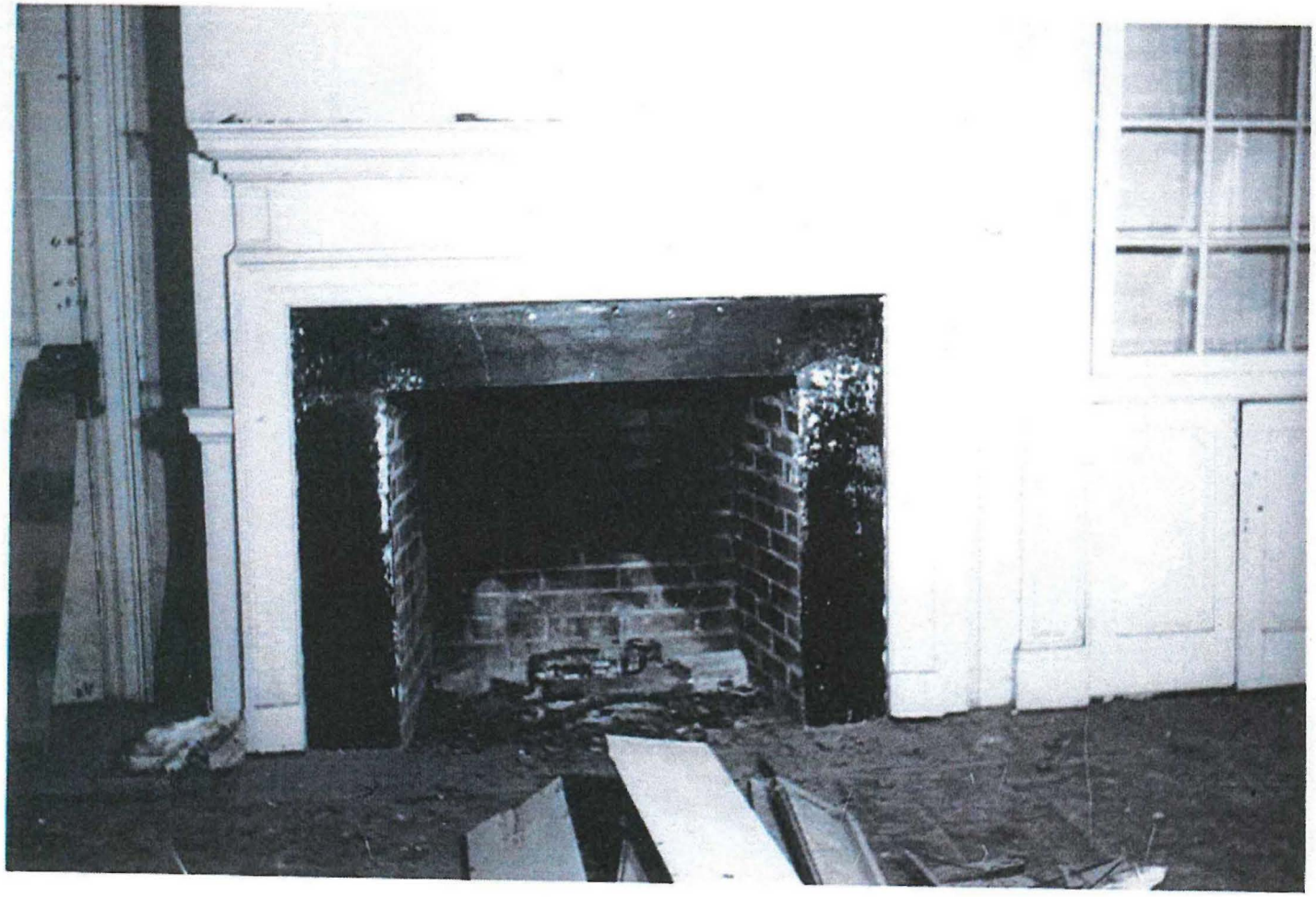
**Historic Photo A9: Colvin Run Miller's House-Front View, ca. 1966**
**Eddie Printz, Photographer**
**Courtesy Fairfax County Public Library**

**Historic Photo A10: Colvin Run Miller's House-Rear View, ca. 1967**
**Ross Netherton, Photographer**
**Courtesy Fairfax County Public Library**

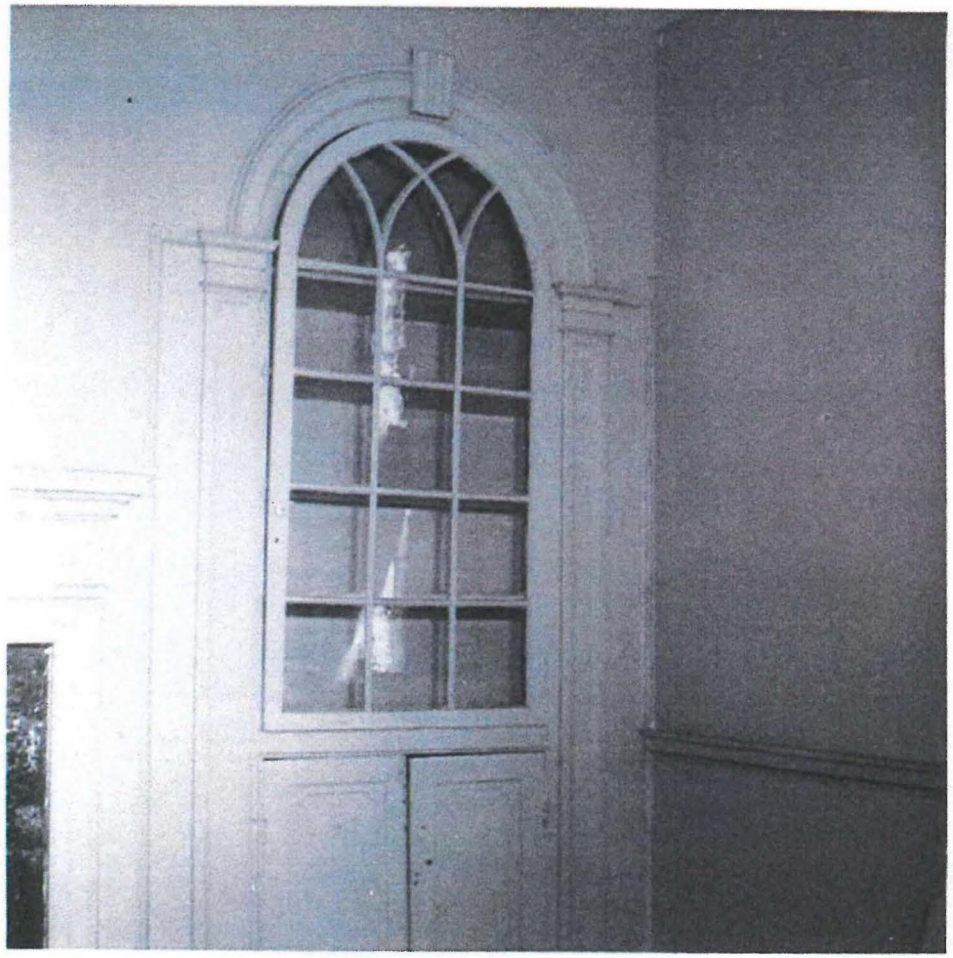
**Historic Photo A11: Colvin Run Miller's House-Rear View, ca. 1967**
**Ross Netherton, Photographer**
**Courtesy Fairfax County Public Library**



**Historic Photo A12: Colvin Run Miller's House-Front View, ca. 1967**
**Ross Netherton, Photographer**
**Courtesy Fairfax County Public Library**

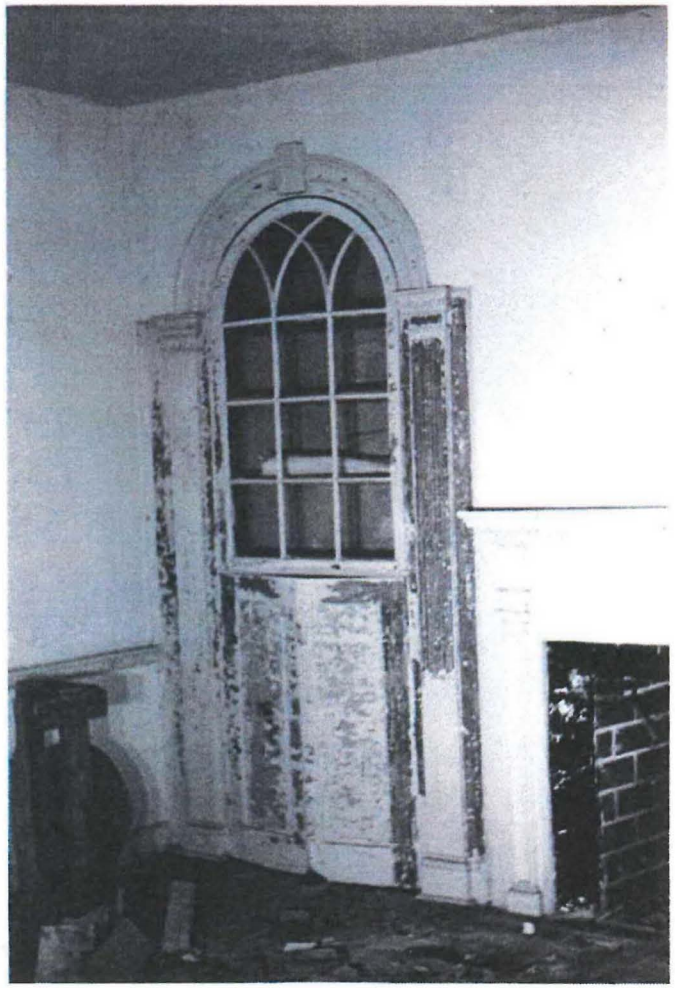


**Historic Photo A13: Colvin Run Miller's House- Room 101 Interior Fireplace, ca. 1967**
**Ross Netherton, Photographer**
**Courtesy Fairfax County Public Library**



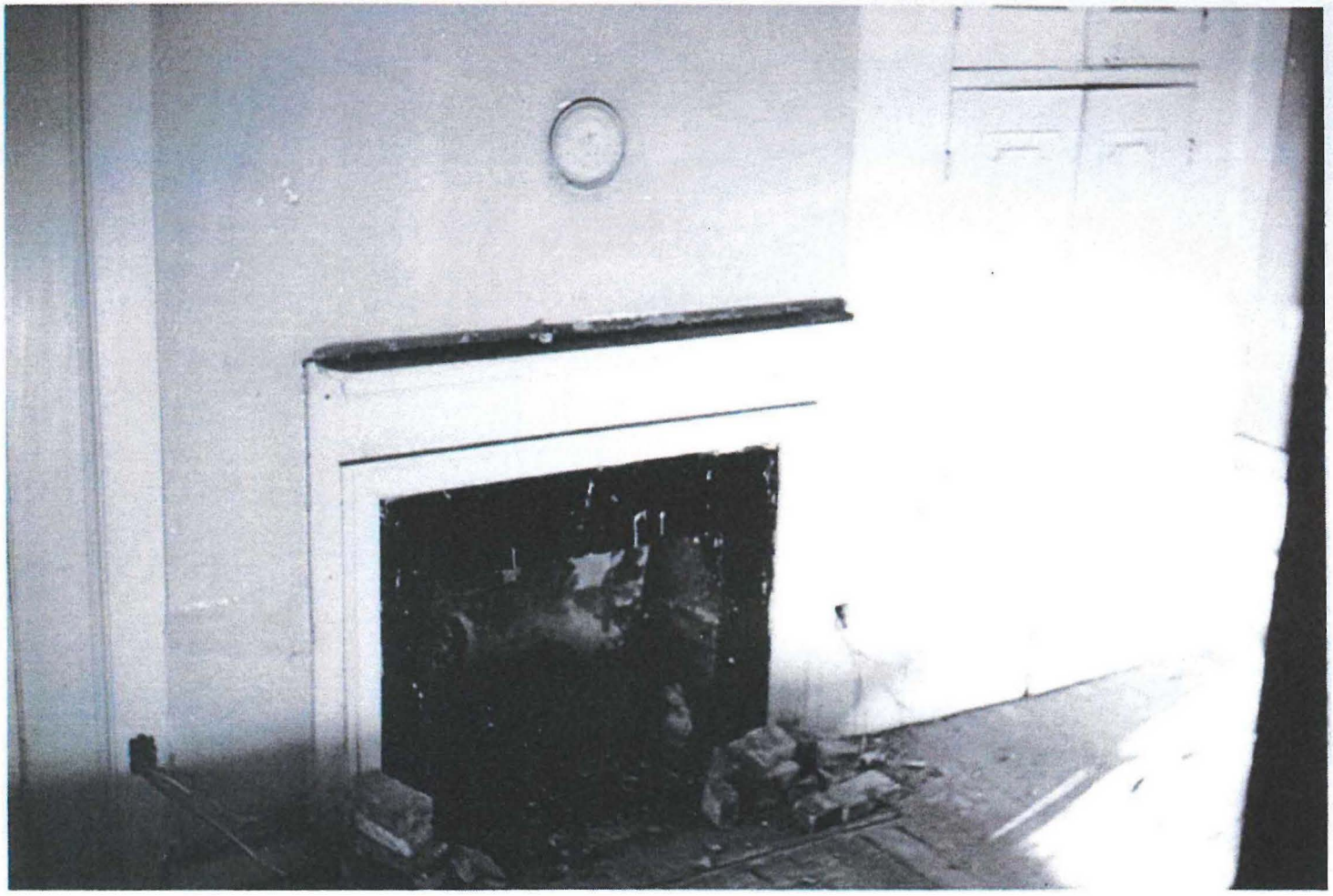
**Historic Photo A14: Colvin Run Miller's House- Room 101 Built-in Cupboard, ca. 1967**
**Ross Netherton, Photographer**
**Courtesy Fairfax County Public Library**

**Historic Photo A15: Colvin Run Miller's House- Room 102 Fireplace, ca. 1967**
**Ross Netherton, Photographer**
**Courtesy Fairfax County Public Library**

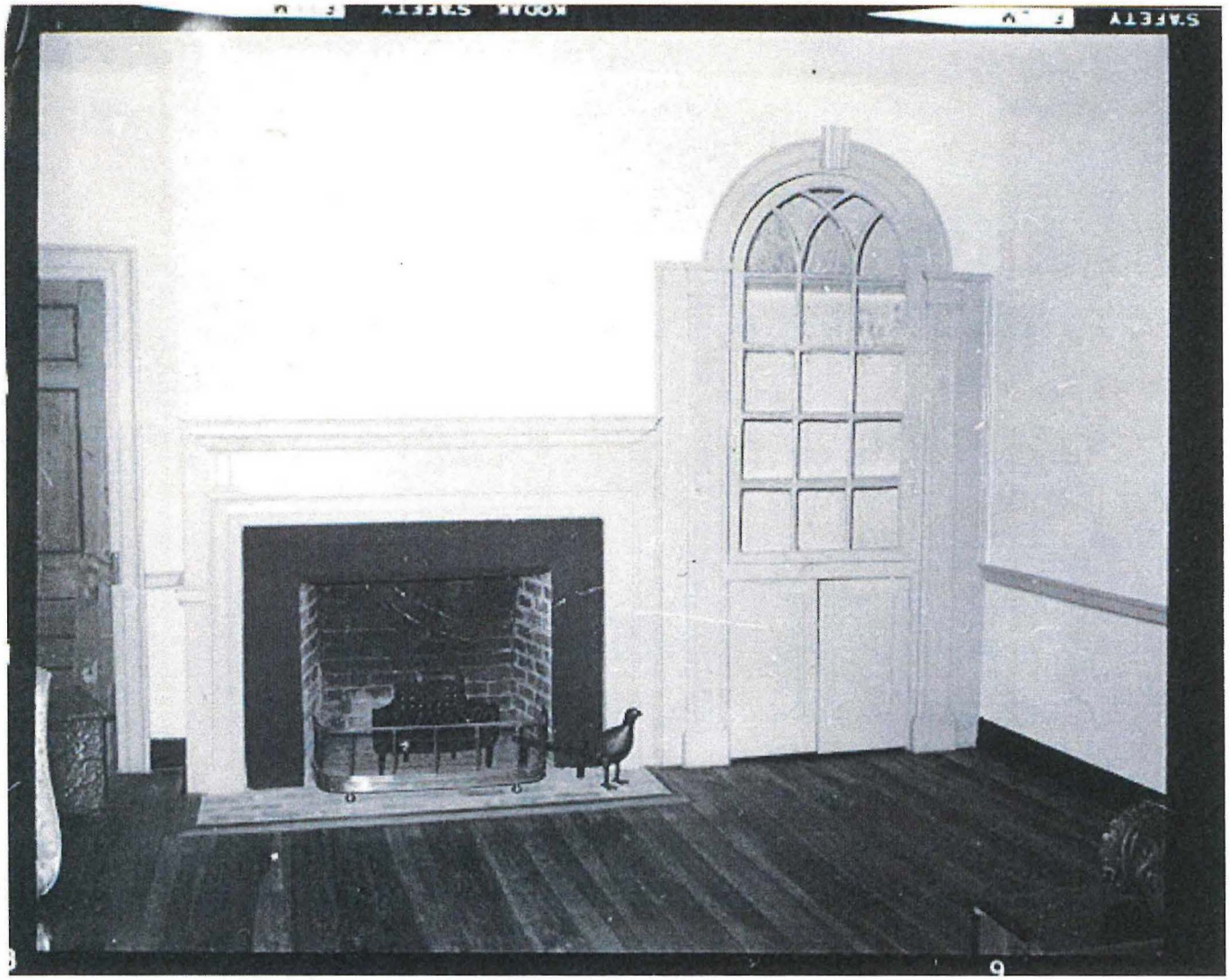


**Historic Photo A16: Colvin Run Miller's House- Room 102 Built-in Cupboard, ca. 1967**
**Ross Netherton, Photographer**
**Courtesy Fairfax County Public Library**

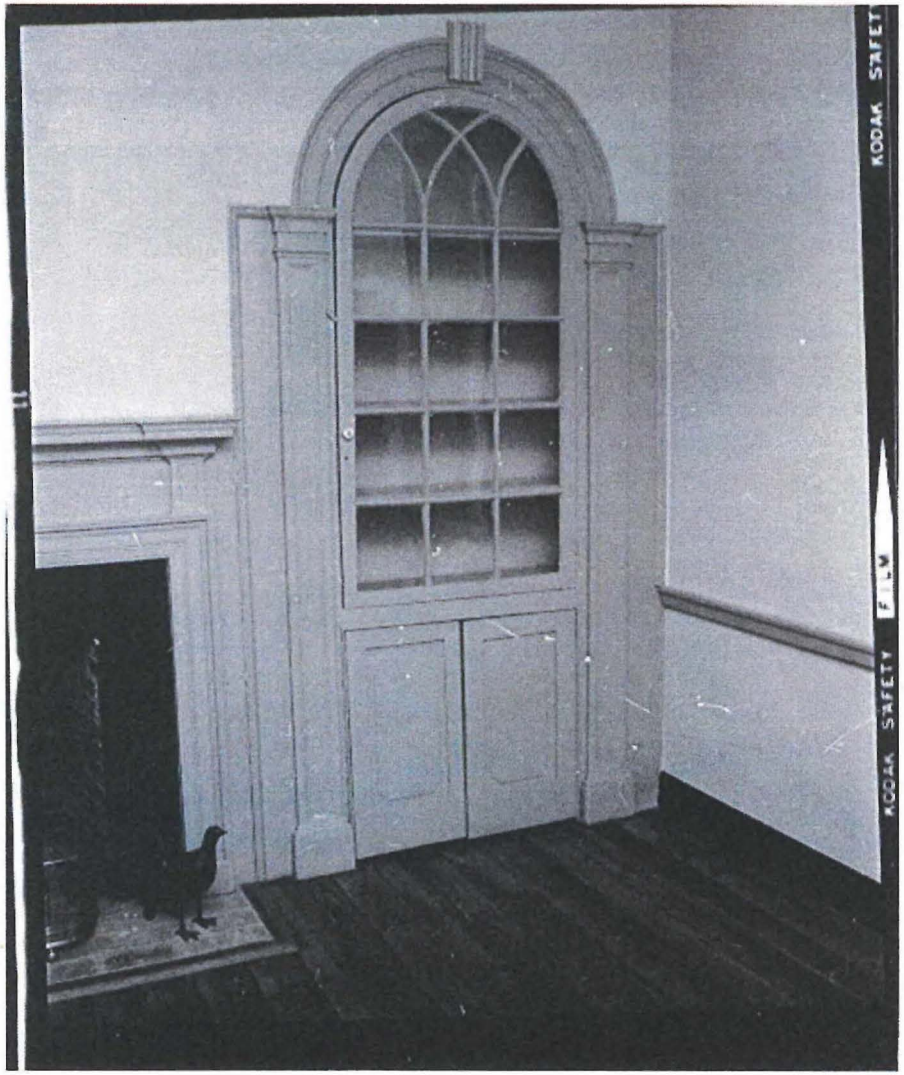
**Historic Photo A17: Colvin Run Miller's House- Hall 100 Stairs and Balustrade, ca. 1967**
**Ross Netherton, Photographer**
**Courtesy Fairfax County Public Library**



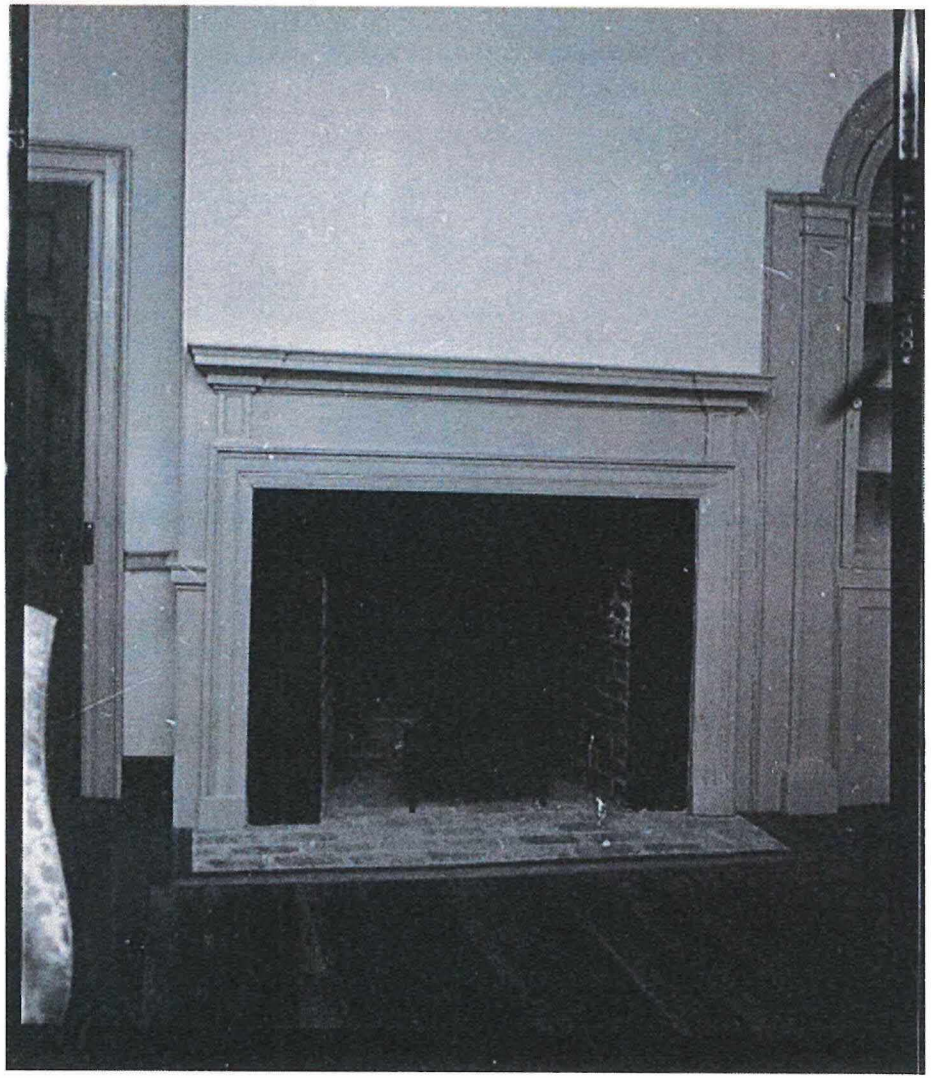
**Historic Photo A18: Colvin Run Miller's House- Fireplace, ca. 1967**
**Ross Netherton, Photographer**
**Courtesy Fairfax County Public Library**



**Historic Photo A19: Colvin Run Miller's House- Room 101 Fireplace and Built-in Cupboard, December 1968**
**Lt Stuart and C Scwartz, Photographers**
**Courtesy Fairfax County Public Library**

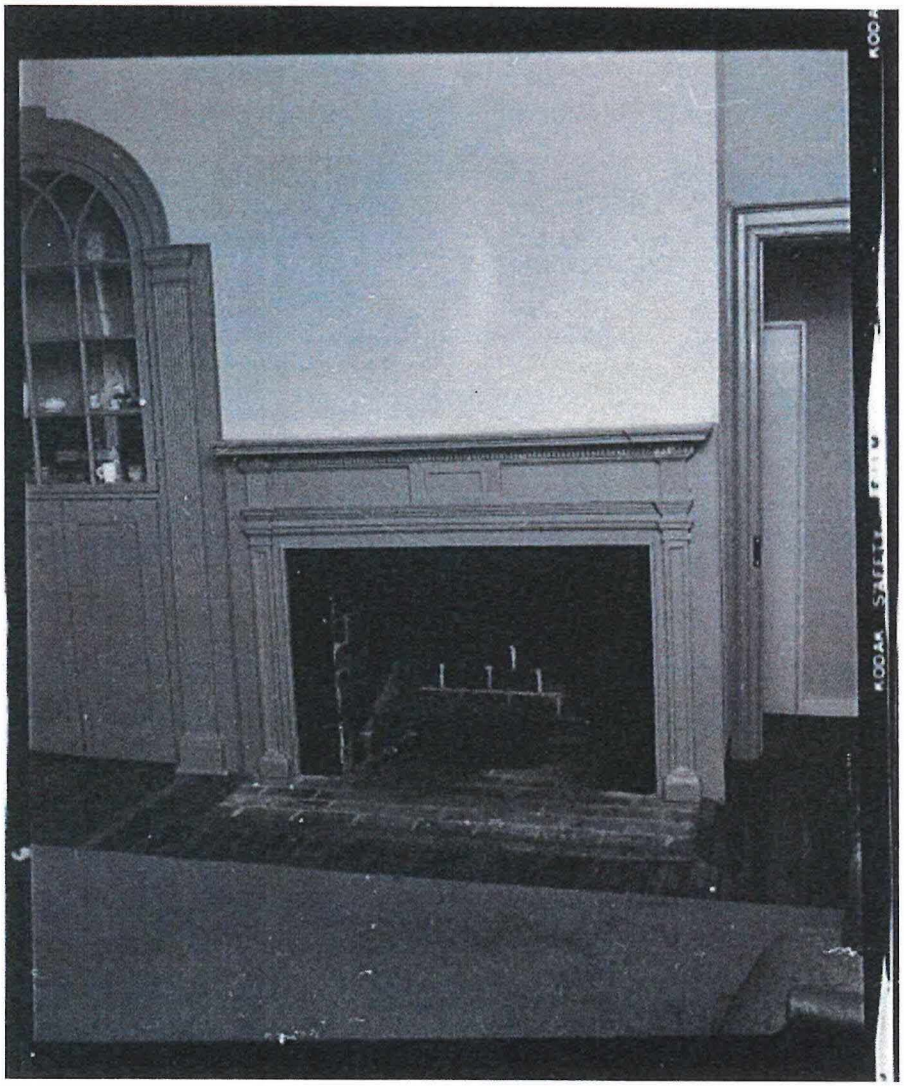



**Historic Photo A20: Colvin Run Miller's House- Room 101 Built-in Cupboard, December 1968**
**Lt Stuart and C Scwartz, Photographers**
**Courtesy Fairfax County Public Library**

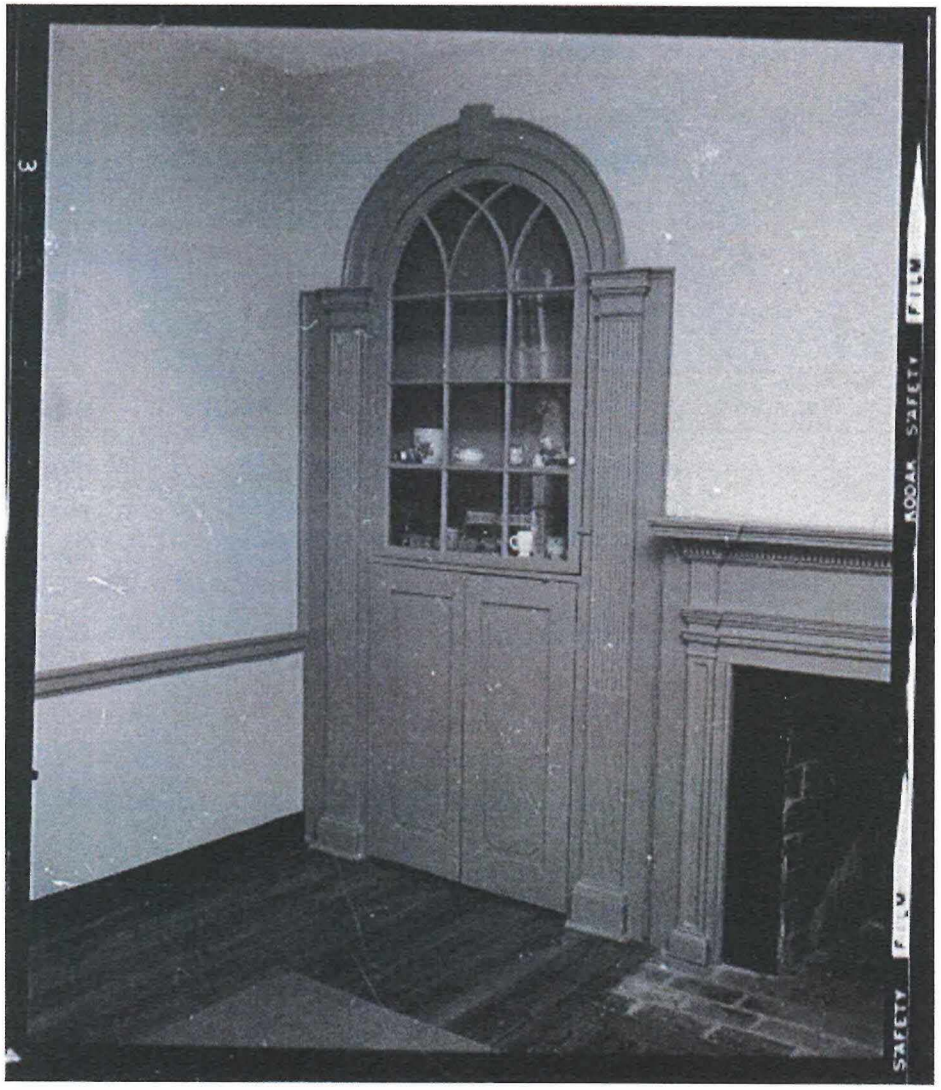


**Historic Photo A21: Colvin Run Miller's House- Room 101 Fireplace, December 1968**
**Lt Stuart and C Scwartz, Photographers**
**Courtesy Fairfax County Public Library**

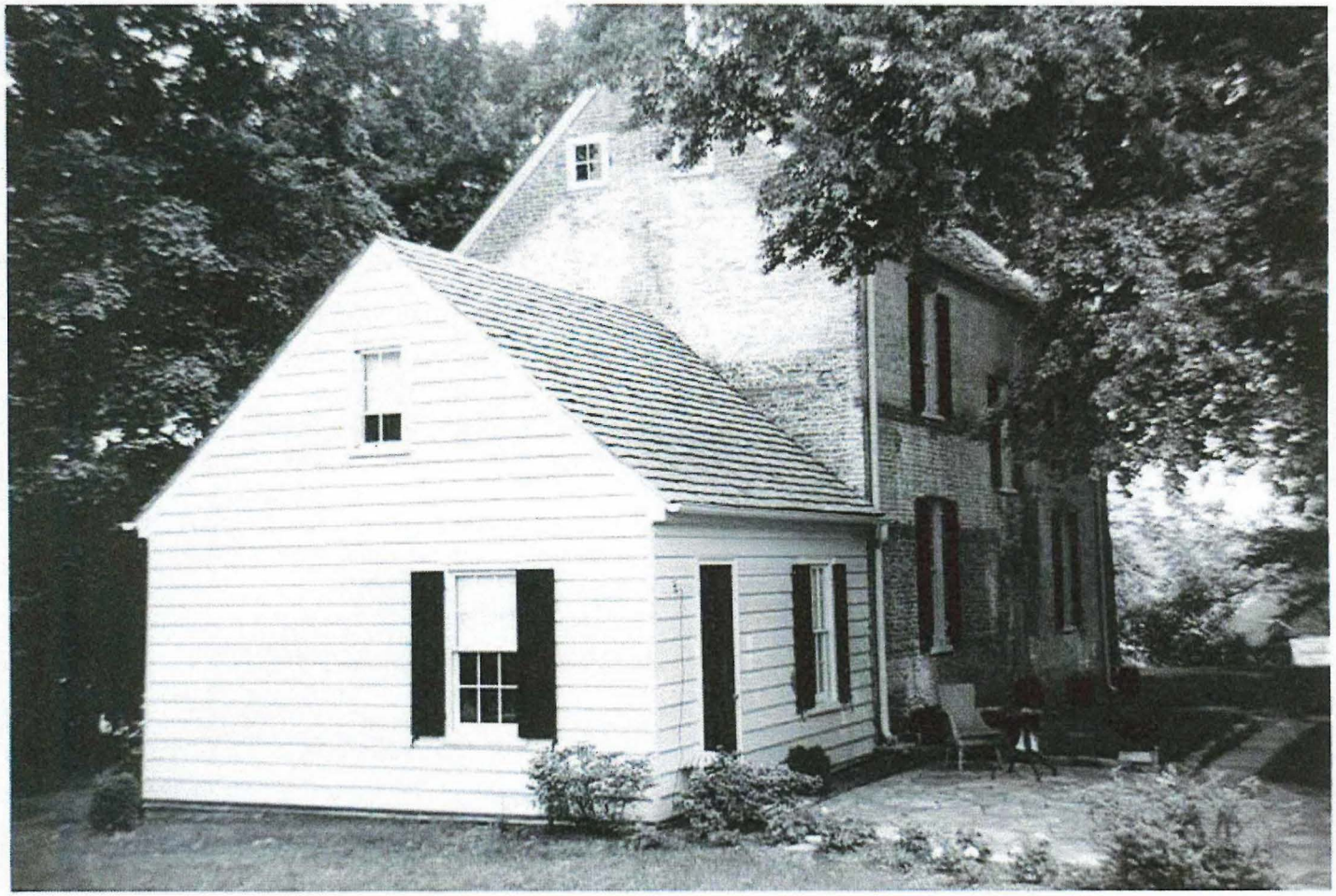
**Historic Photo A22: Colvin Run Miller's House- Room 102 Fireplace and Built-in Cupboard, December 1968**
**Lt Stuart and C Scwartz, Photographers**
**Courtesy Fairfax County Public Library**



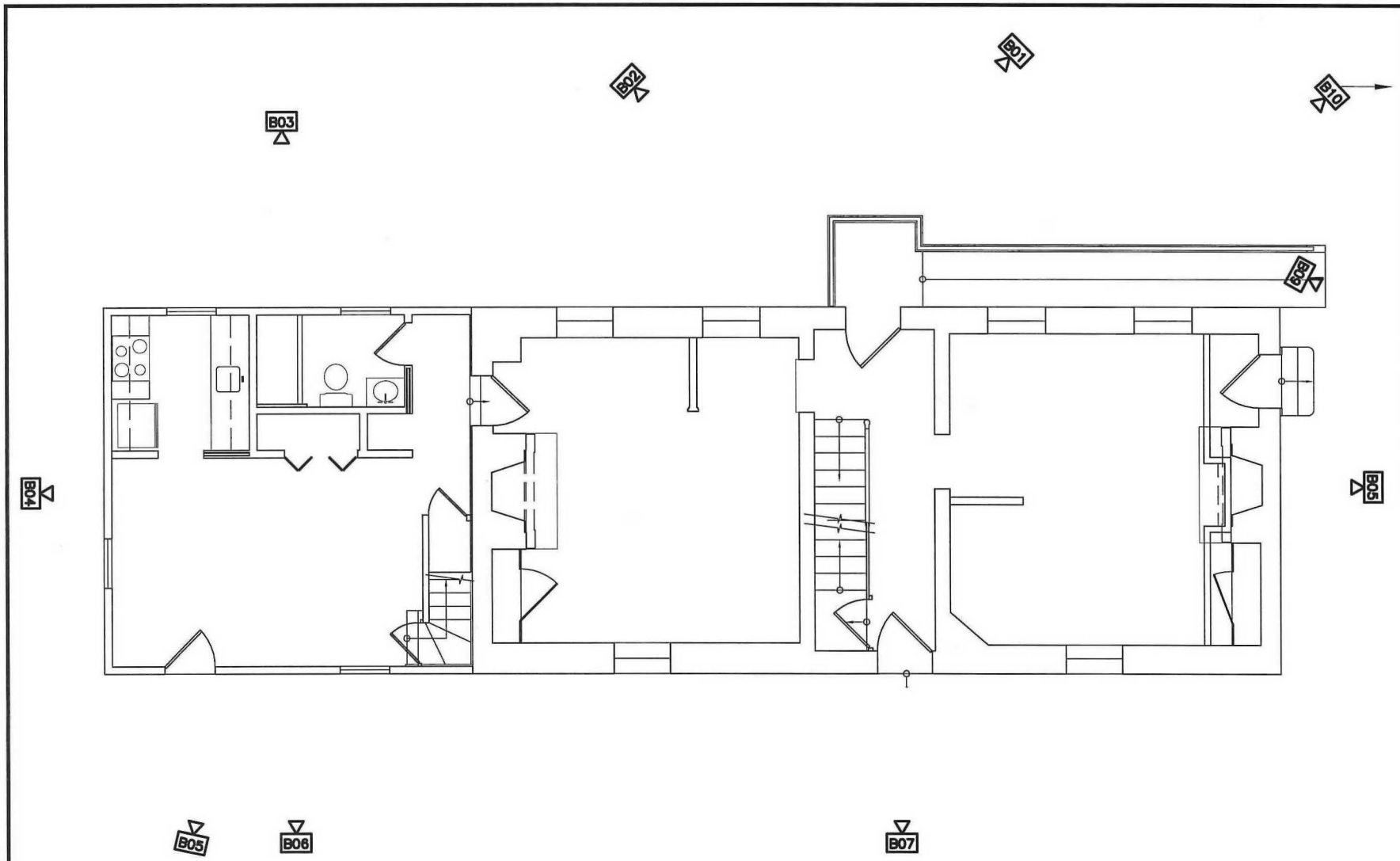

**Historic Photo A23: Colvin Run Miller's House- Room 102 Fireplace and Mantelpiece, December 1968**
**Lt Stuart and C Scwartz, Photographers**
**Courtesy Fairfax County Public Library**




**Historic Photo A24: Colvin Run Miller's House- Room 102 Built-In Cupboard, December 1968**
**Lt Stuart and C Scwartz, Photographers**
**Courtesy Fairfax County Public Library**



**Historic Photo A25: Colvin Run Miller's House- Rear View Showing Recent Addition, June 23, 1969**
**Photographers Initials: HD**
**Courtesy Fairfax County Public Library**




NORTH

## EXISTING CONDITION
## EXTERIOR PHOTO KEY PLAN

SCALE: 1/8" = 1'-0"

SWSG
SHLATTER WILSON SARVER & GRAY
1821 Michael Faraday Drive
Suite 100
Reston, VA 20190
703-471-8803
A PROFESSIONAL CORPORATION
Engineering • Architecture • Construction Management

FAIRFAX COUNTY PARK AUTHORITY
12055 Government Center Pkwy.
Suite 927
Fairfax, Virginia 22035

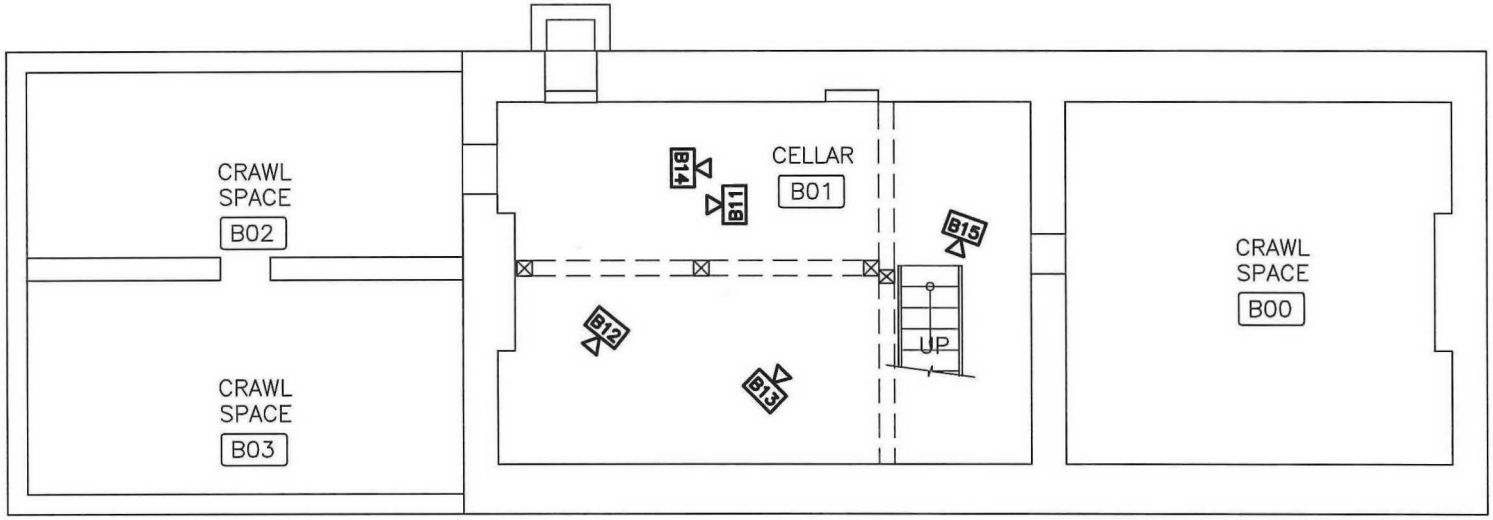
# COLVIN RUN MILLER'S HOUSE
GREAT FALLS, VA
10017 COLVIN RUN ROAD
GREAT FALLS, VA 22066

PROJECT # 10064

DATE 05/02/11

FIGURE

**B1**




NORTH

## EXISTING CONDITION CELLAR FLOOR PHOTO PLAN

SCALE: 1/8" = 1'-0"

SWSG
SHAFFER WILSON SARVER & GRAY
1921 Michael Faraday Drive
Suite 300
Reston, VA 20190
703-471-6203
A PROFESSIONAL CORPORATION
Engineering • Architecture • Construction Management

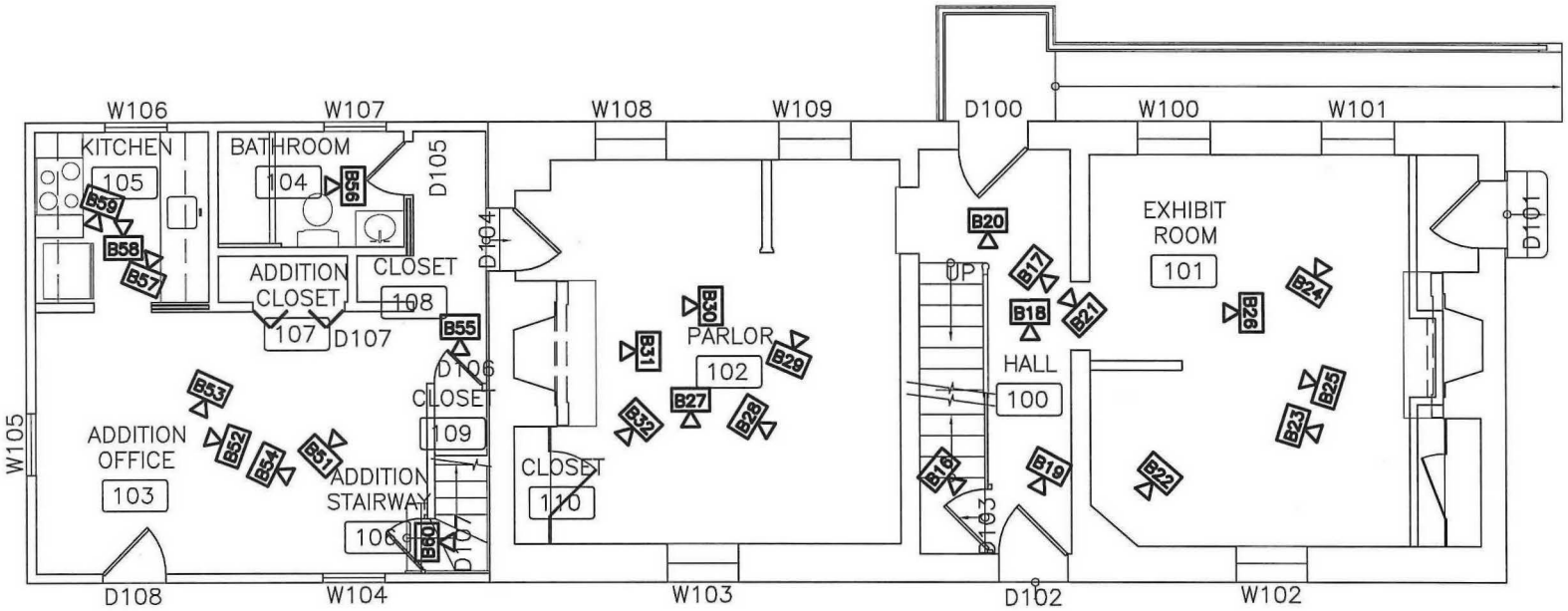
FAIRFAX COUNTY PARK AUTHORITY
12055 Government Center Pkwy.
Suite 927
Fairfax, Virginia 22035

COLVIN RUN MILLER'S HOUSE
GREAT FALLS, VA
10017 COLVIN RUN ROAD
GREAT FALLS, VA 22066

PROJECT # 10064

DATE 05/02/11

FIGURE **B2**




NORTH

## EXISTING CONDITION FIRST FLOOR PHOTO PLAN

SCALE: 1/8" = 1'-0"

SHAFFER WILSON SARVER & GRAY

SWSG

1821 Michael Faraday Drive
Suite 300
Reston, VA 20190
703-471-6803

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FAIRFAX COUNTY PARK AUTHORITY

12055 Government Center Pkwy.
Suite 927
Fairfax, Virginia 22035

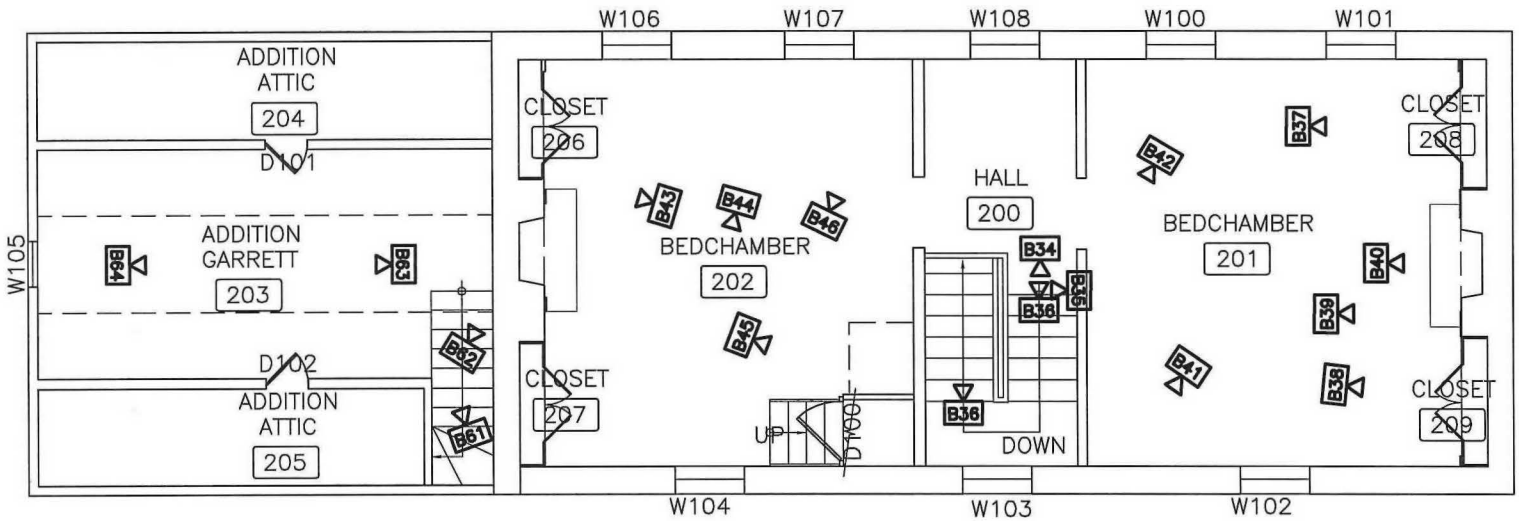
COLVIN RUN MILLER'S HOUSE
GREAT FALLS, VA
10017 COLVIN RUN ROAD
GREAT FALLS, VA 22066

PROJECT # 10064

DATE 05/02/11

FIGURE

B3




NORTH

## EXISTING CONDITION SECOND FLOOR PHOTO KEY PLAN

SCALE: 1/8" = 1'-0"

SWSG
SHAFFER WILCOX SARVER & GRAY
1821 Michael Faraday Drive Suite 300
Reston, VA 20190
703-471-6609
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FAIRFAX COUNTY PARK AUTHORITY
12055 Government Center Pkwy.
Suite 927
Fairfax, Virginia 22035

COLVIN RUN MILLER'S HOUSE
GREAT FALLS, VA
10017 COLVIN RUN ROAD
GREAT FALLS, VA 22066

PROJECT # 10064

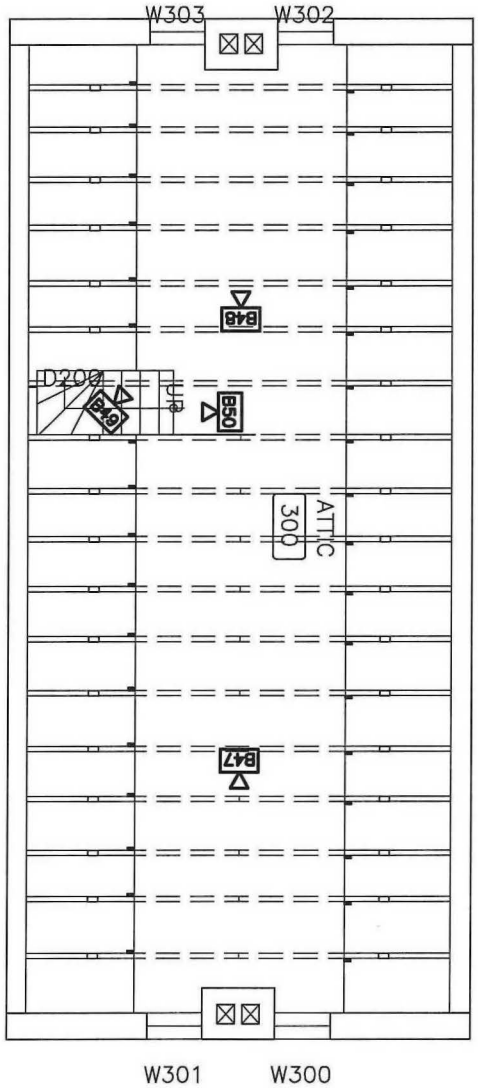
DATE 05/02/11

FIGURE **B4**

NORTH

# EXISTING CONDITION ATTIC PHOTO KEY PLAN

SCALE: 1/8" = 1'-0"




| | | | | | |
|---|---|---|---|---|---|
| B5 | DATE 05/02/11 FIGURE | PROJECT # 10064 | COLVIN RUN MILLER'S HOUSE<br>GREAT FALLS, VA<br>10017 COLVIN RUN ROAD<br>GREAT FALLS, VA 22066 | FAIRFAX COUNTY PARK AUTHORITY<br>12055 Government Center Pkwy.<br>Suite 927<br>Fairfax, Virginia 22035 | SWSG SHAFFER WILSON SARVER & GRAY<br>1821 Michael Faraday Drive<br>Suite 302<br>Reston, VA 20190<br>703-471-8803<br>A PROFESSIONAL CORPORATION<br>Engineering • Architecture • Construction Management |

**Existing Condition Photo B01: Colvin Run Miller's House Exterior Front Fascade, North Elevation**

**Existing Condition Photo B02: Colvin Run Miller's House Exterior Front Fascade, North Elevation**

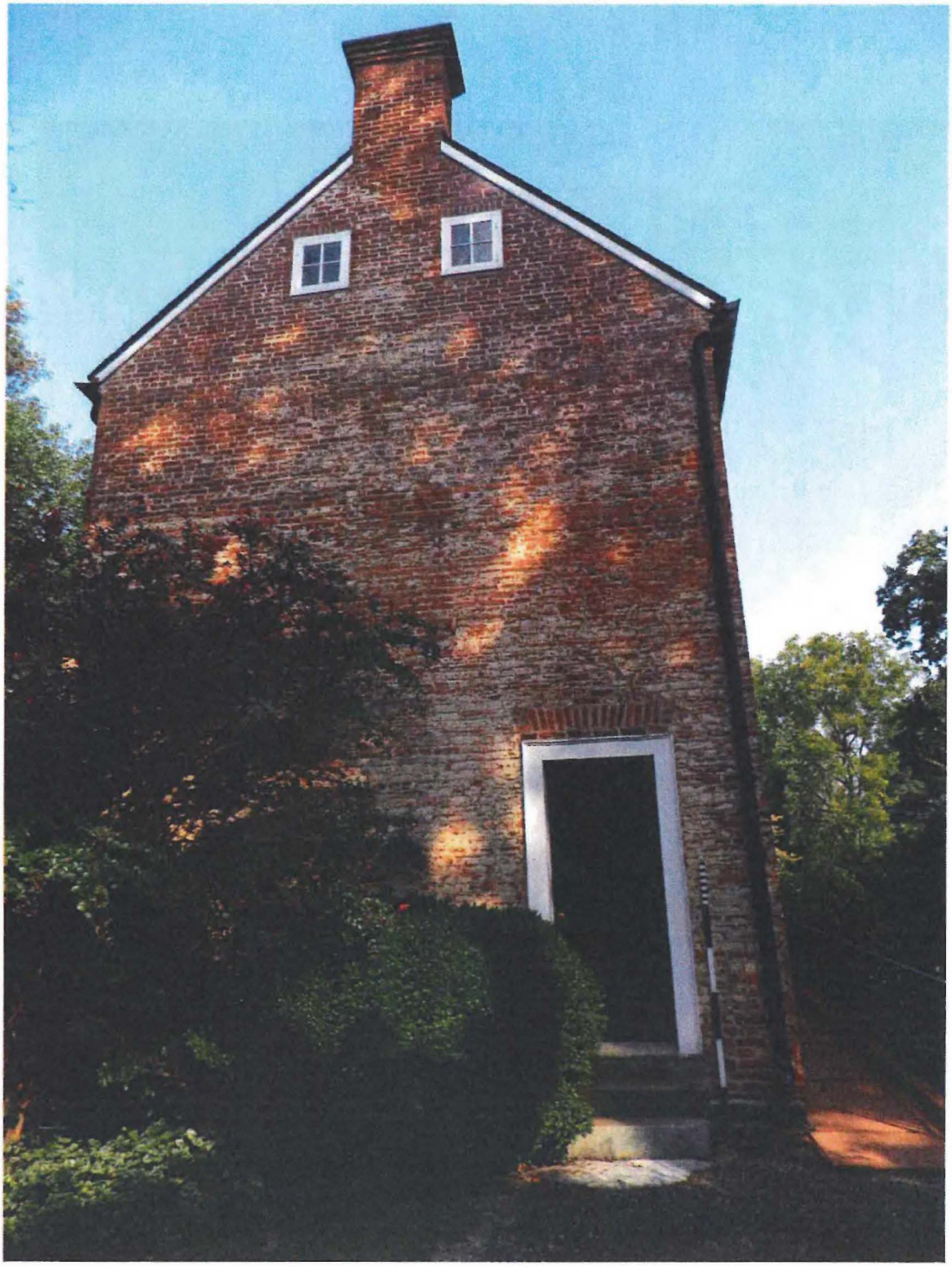
**Existing Condition Photo B03: Colvin Run Miller's House Exterior Fascade of Addition, North Elevation**

**Existing Condition Photo B04: Colvin Run Miller's House Exterior Addition, West Elevation**

**Existing Condition Photo B05: Colvin Run Miller's House Exterior Addition and Rear View, South Elevation**

**Existing Condition Photo B06: Colvin Run Miller's House Exterior Addition, South Elevation**

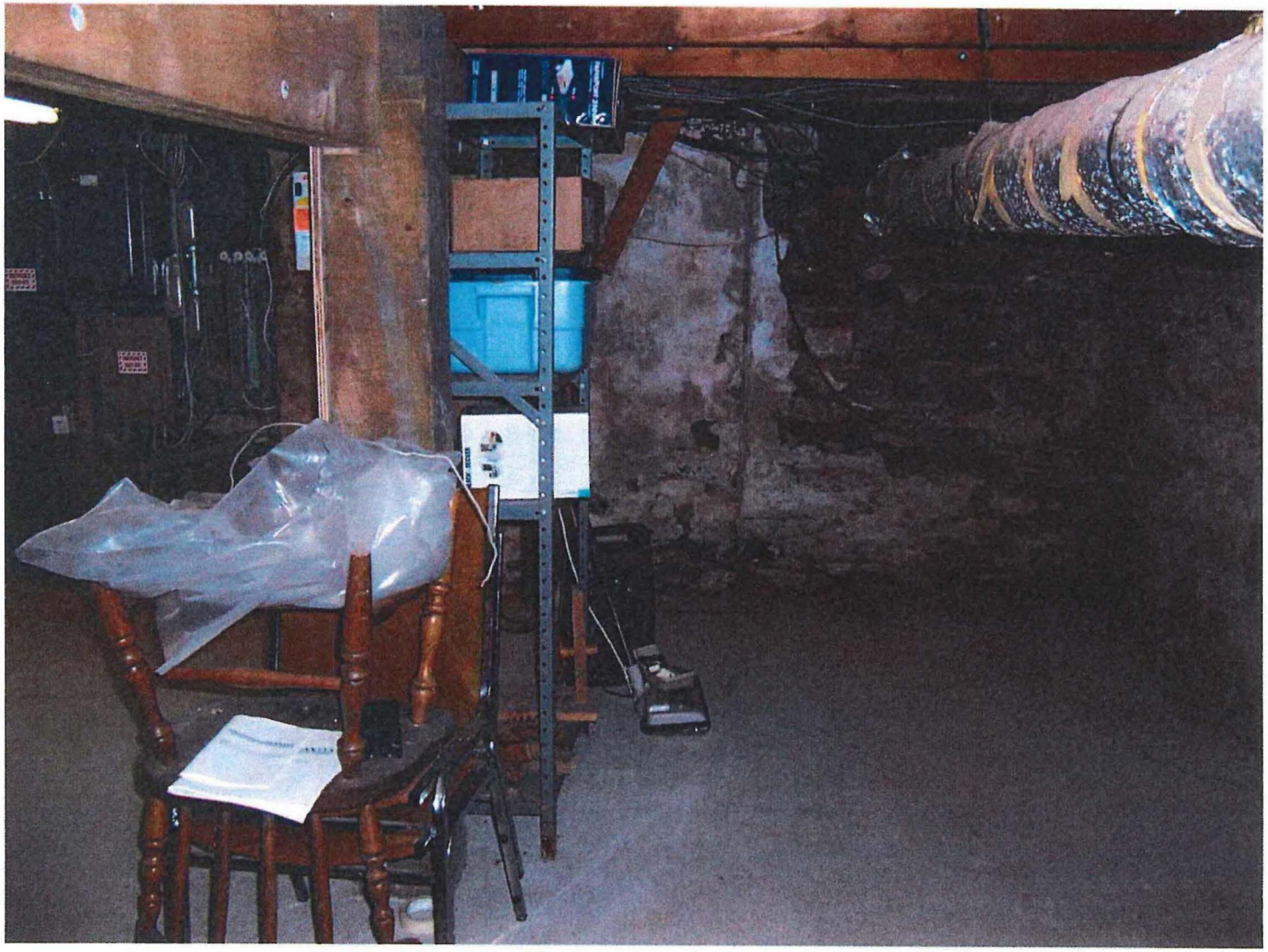
**Existing Condition Photo B07: Colvin Run Miller's House Exterior South Elevation**



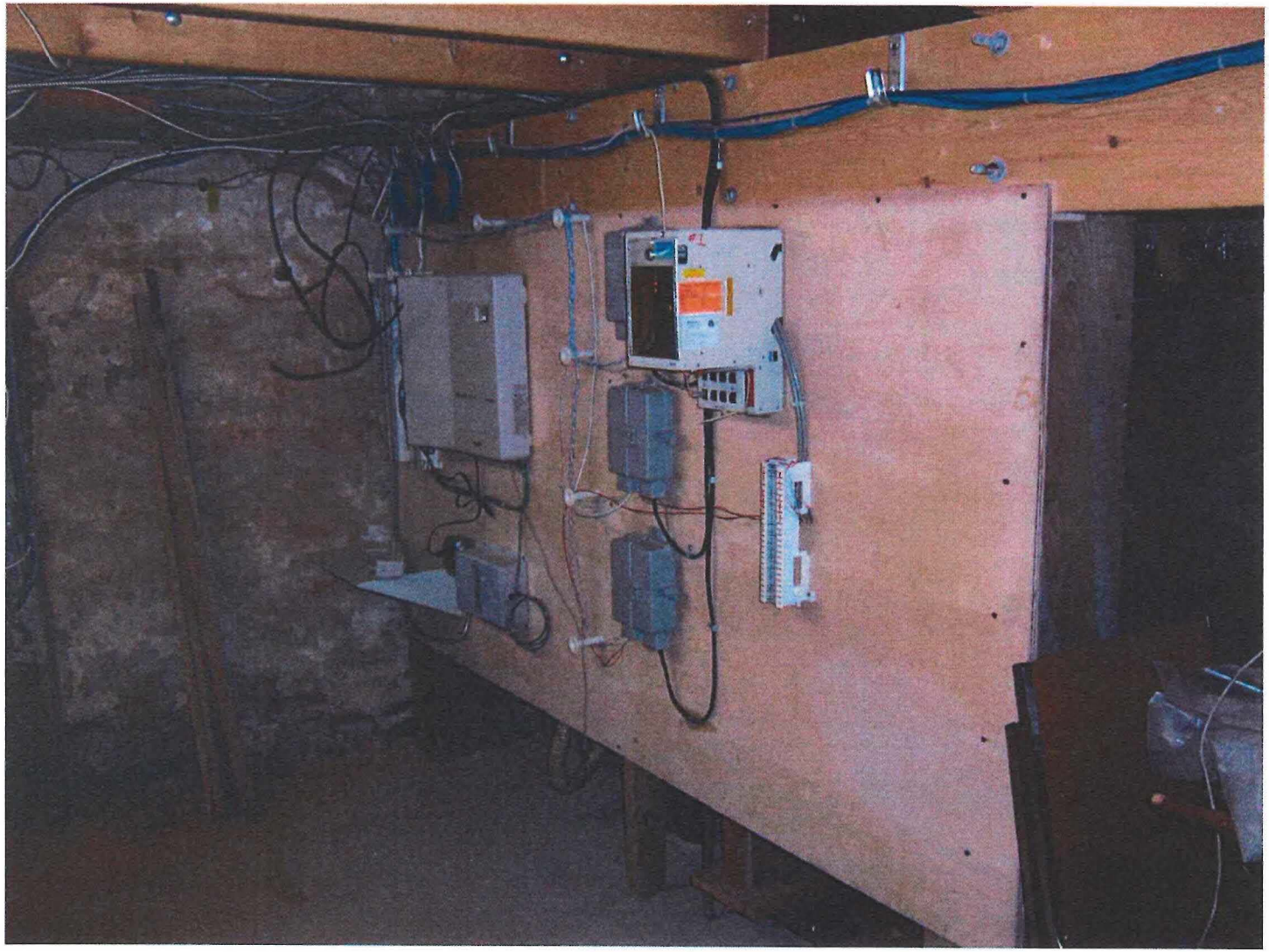
**Existing Condition Photo B08: Colvin Run Miller's House Exterior East Elevation**

**Existing Condition Photo B09: Colvin Run Miller's House Exterior Side Yard on Eastern Side of House**

**Existing Condition Photo B10: Colvin Run Miller's House Exterior Landscape, View of East Elevation**



**Existing Condition Photo B11: Colvin Run Miller's House**
**Cellar Room B01**



**Existing Condition Photo B12: Colvin Run Miller's House**
**Cellar Room B01**

**Existing Condition Photo B13: Colvin Run Miller's House**
**Cellar Room B01**

**Existing Condition Photo B14: Colvin Run Miller's House**
**Cellar Room B01**

**Existing Condition Photo B15: Colvin Run Miller's House**
**Steps From Cellar to First Floor**

**Existing Condition Photo B16: Colvin Run Miller's House**
**Original Cellar Door (D103) to First Floor**

**Existing Condition Photo B17: Colvin Run Miller's House First Floor Hall Room 100 - Facing Exhibit Room Doorway**

**Existing Condition Photo B18: Colvin Run Miller's House First Floor Hall Room 100 – Facing Back Door (D102)**

**Existing Condition Photo B19: Colvin Run Miller's House First Floor Hall Room 100 Rear (D102) and Cellar (D103) Doors**

**Existing Condition Photo B20: Colvin Run Miller's House First Floor Hall Room 100 - Stairs and Newel Post**

**Existing Condition Photo B21: Colvin Run Miller's House First Floor Hall Room 100 - Facing Front Door (D100)**

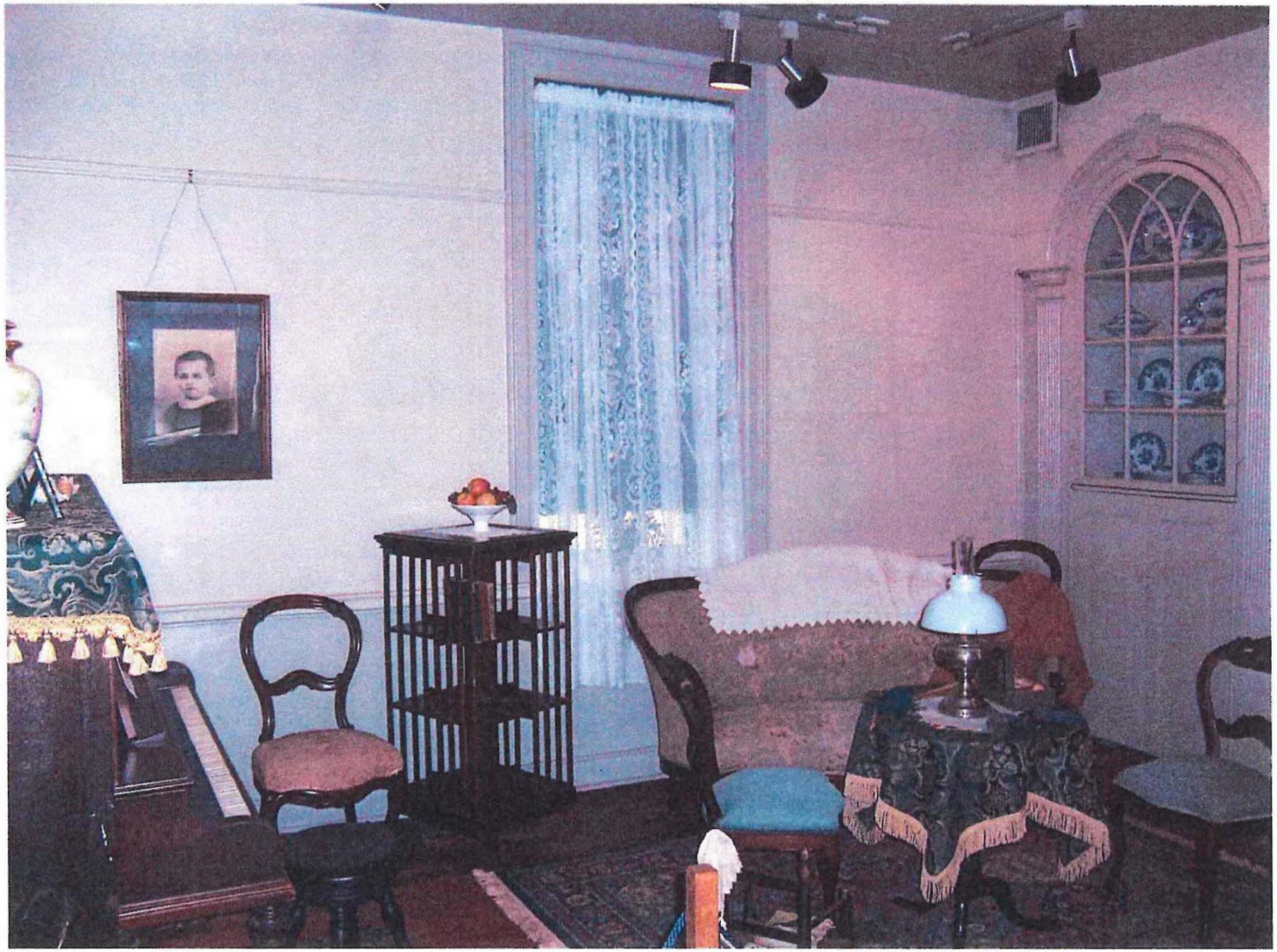
**Existing Condition Photo B22: Colvin Run Miller's House First Floor Exhibit Room 101**

**Existing Condition Photo B23: Colvin Run Miller's House First Floor**
**Exhibit Room 101**

**Existing Condition Photo B24: Colvin Run Miller's House First Floor Exhibit Room 101**

**Existing Condition Photo B25: Colvin Run Miller's House First Floor**
**Exhibit Room 101**

**Existing Condition Photo B26: Colvin Run Miller's House First Floor**
**Exhibit Room 101 - Facing Hall 100**



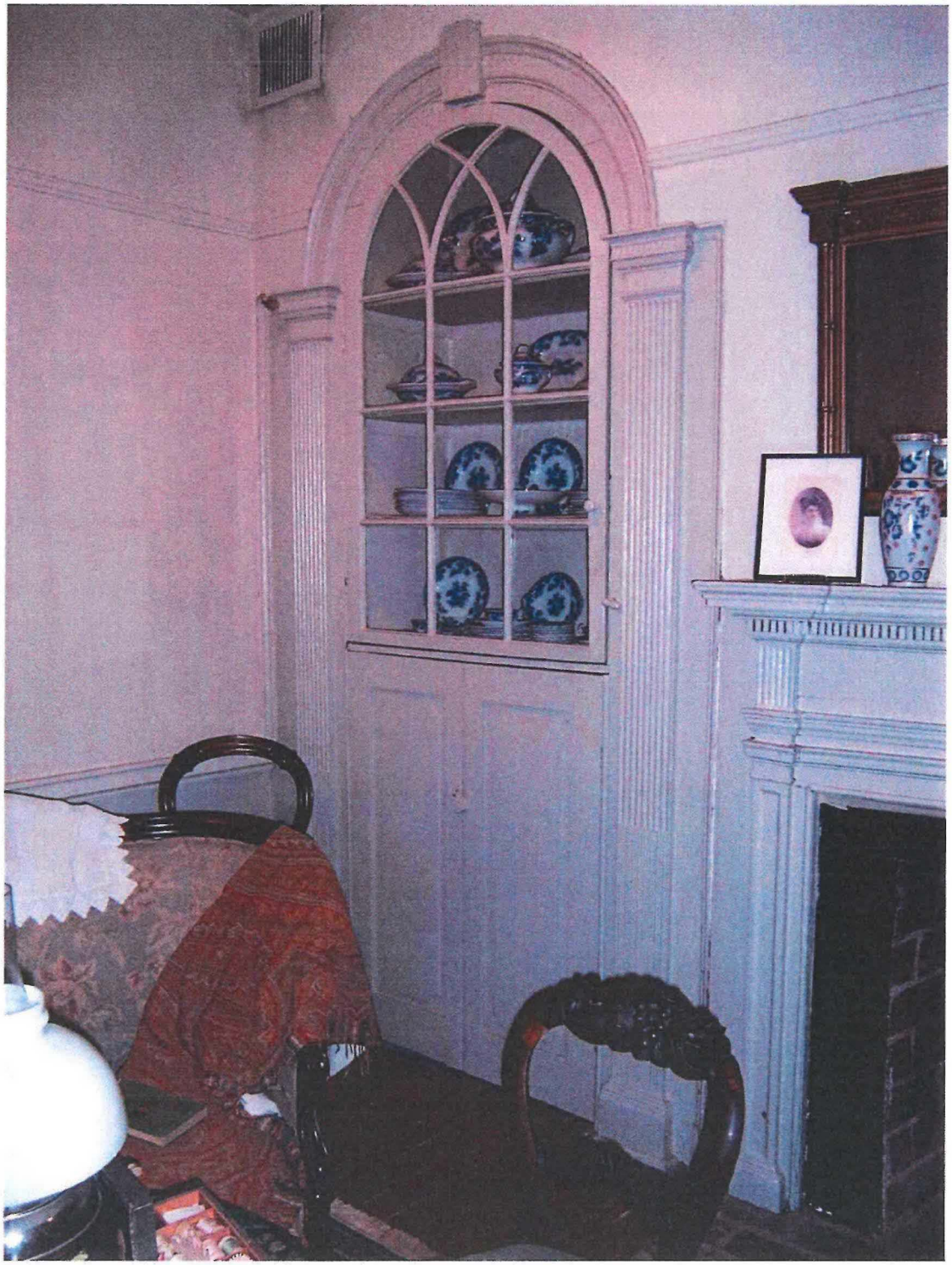
**Existing Condition Photo B27: Colvin Run Miller's House First Floor Parlor Room 102 – View Towards West**

**Existing Condition Photo B28: Colvin Run Miller's House First Floor Parlor Room 102 – View Towards South**

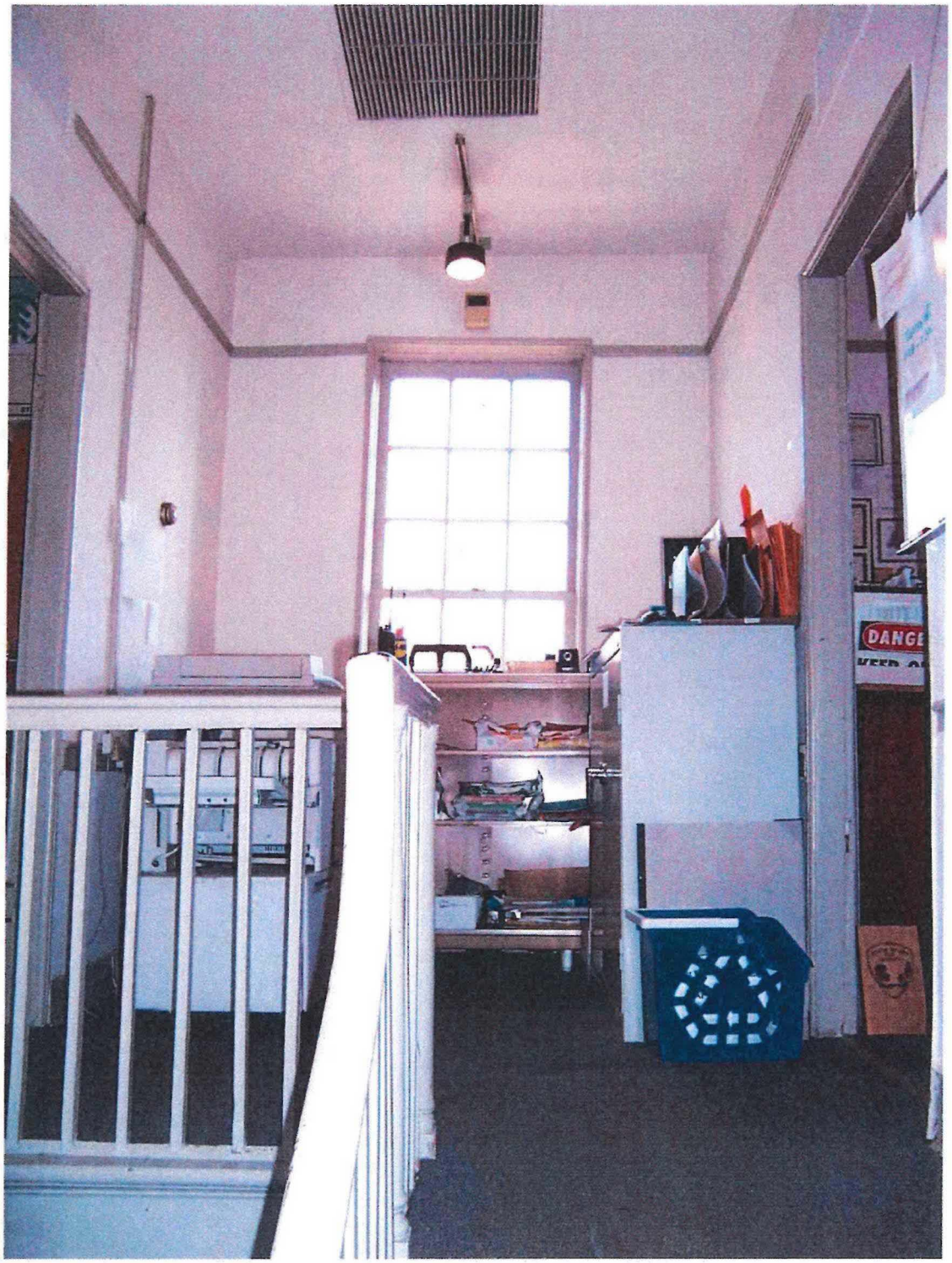
**Existing Condition Photo B29: Colvin Run Miller's House First Floor Parlor Room 102 – View Towards Front Door (D100)**

**Existing Condition Photo B30: Colvin Run Miller's House First Floor Parlor Room 102 – View Towards North**

**Existing Condition Photo B31: Colvin Run Miller's House First Floor Parlor Room 102 – Fireplace and Mantelpiece**



**Existing Condition Photo B32: Colvin Run Miller's House First Floor Parlor Room 102 – Built-in Cupboard**



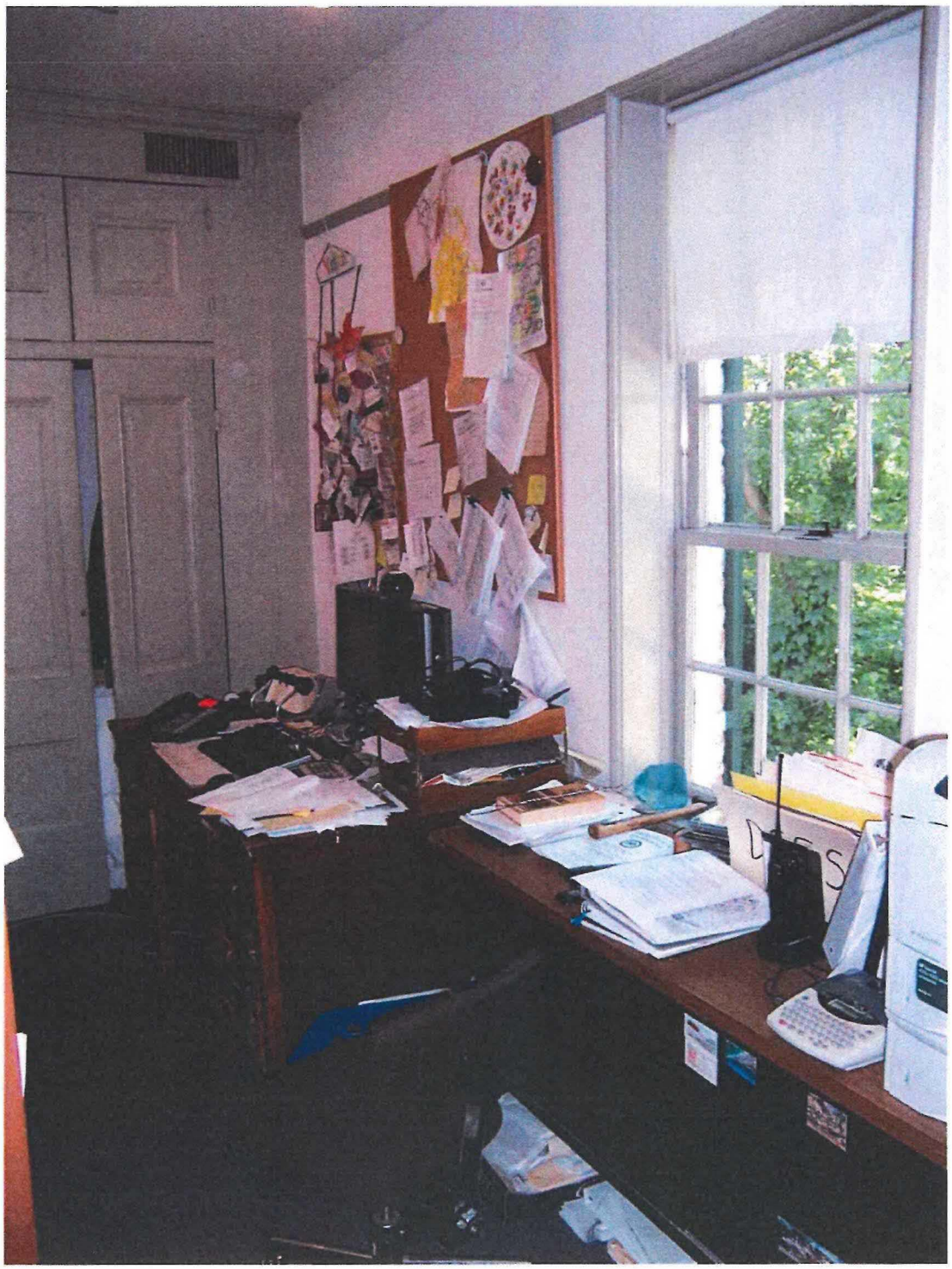

**Existing Condition Photo B33: Colvin Run Miller's House Second Floor Hall Room 200 – Stairway Landing**

**Existing Condition Photo B34: Colvin Run Miller's House Second Floor Hall Room 200 – Balustrade**

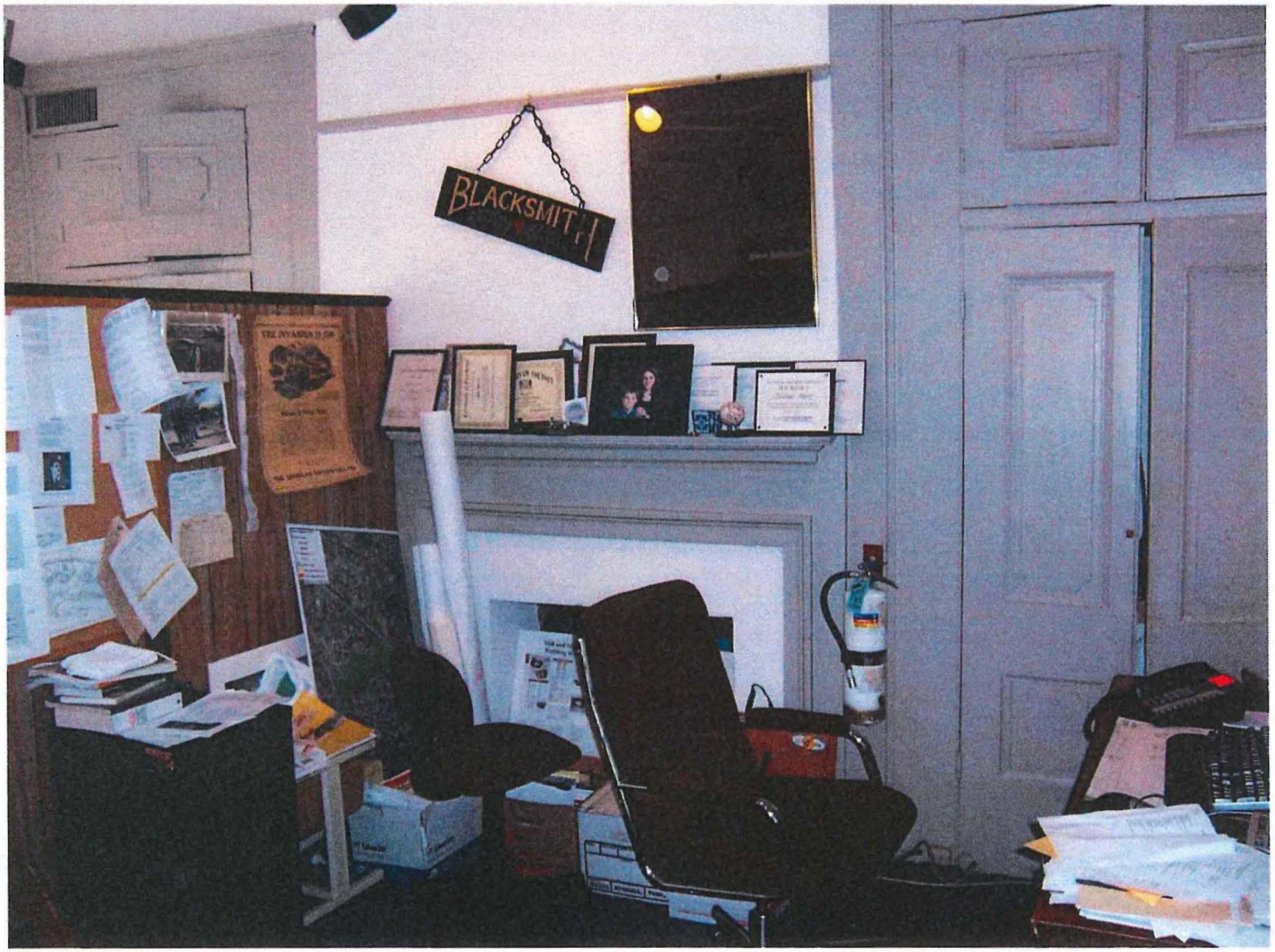
**Existing Condition Photo B35: Colvin Run Miller's House Second Floor Hall Room 200 – Stair Railing**

**Existing Condition Photo B36: Colvin Run Miller's House Second Floor Hall Room 200 – Stairs to Front Door (D100)**

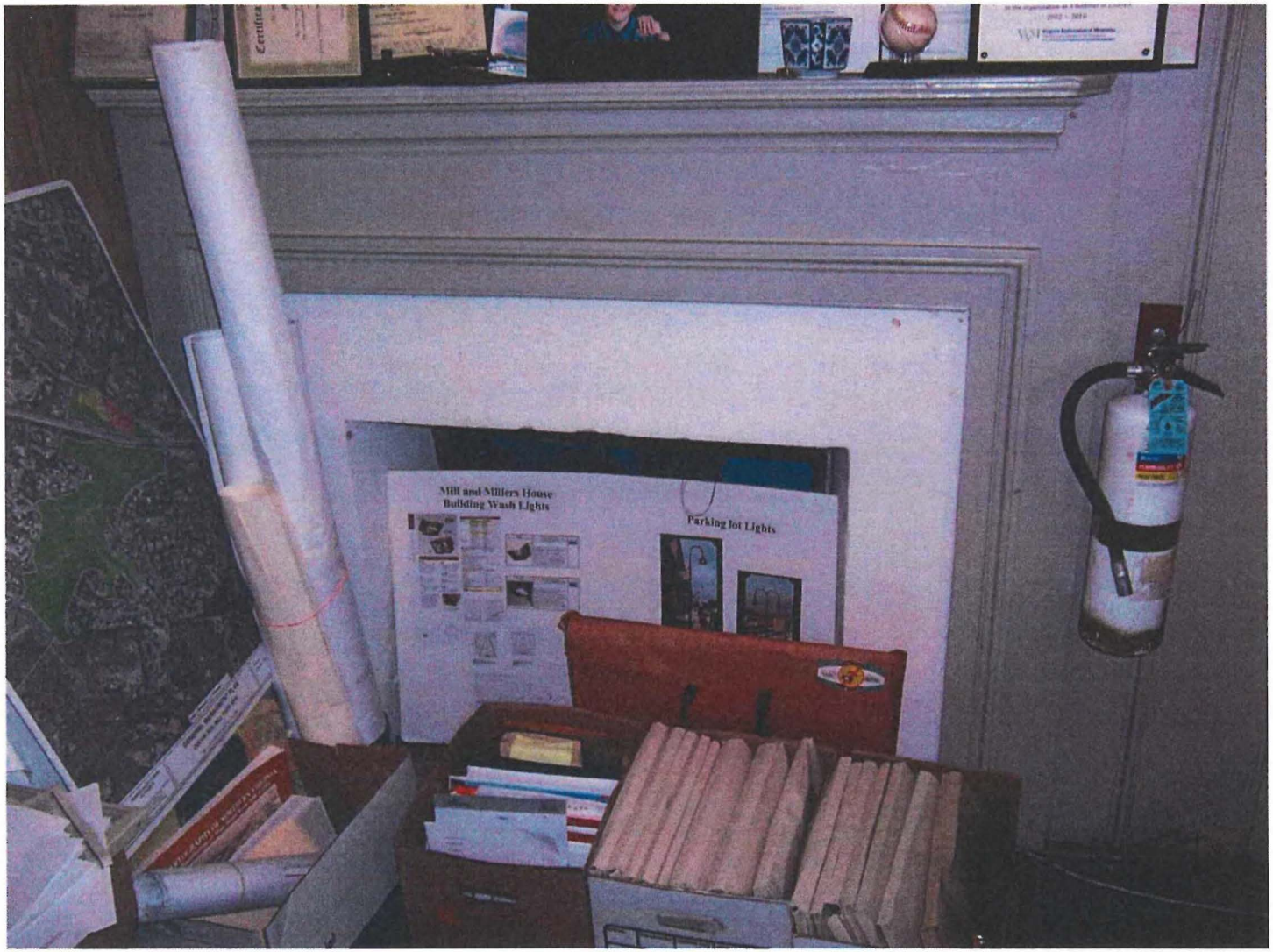
**Existing Condition Photo B37: Colvin Run Miller's House Second Floor Bedchamber 201 – Closet**



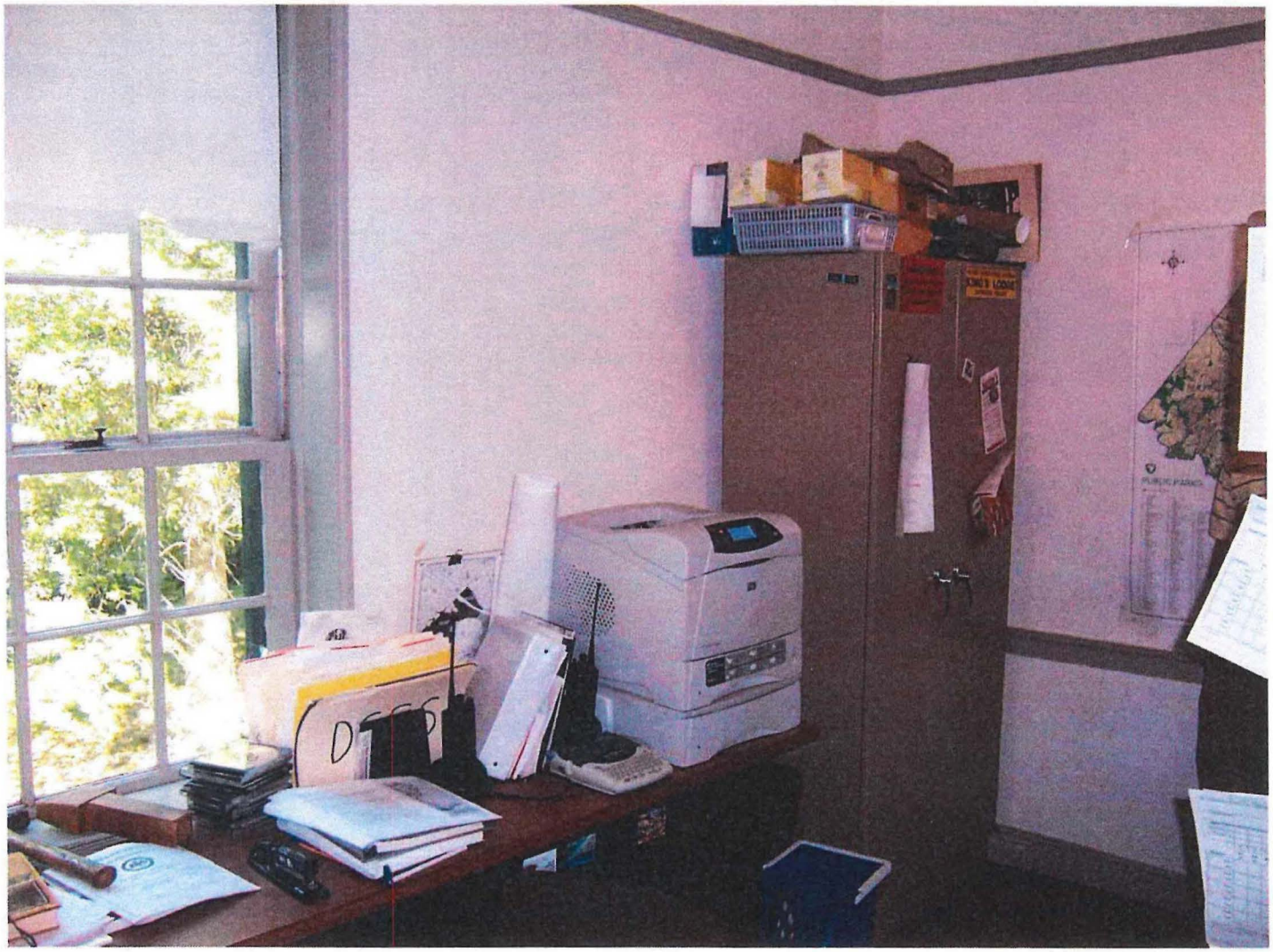
**Existing Condition Photo B38: Colvin Run Miller's House Second Floor Bedchamber 201 – View Towards South**




**Existing Condition Photo B39: Colvin Run Miller's House Second Floor Bedchamber 201 – Mantelpiece and Closets**

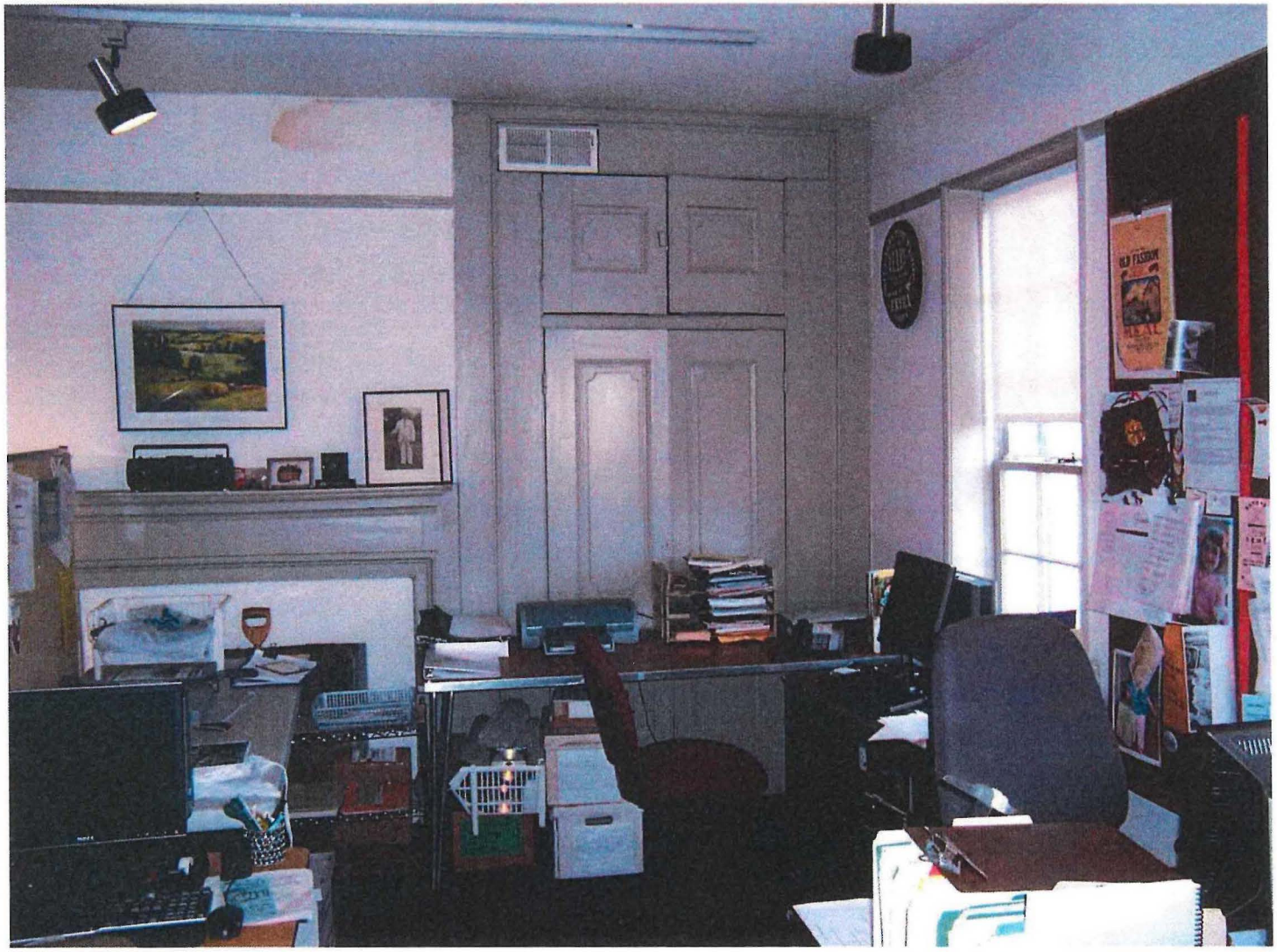



**Existing Condition Photo B40: Colvin Run Miller's House Second Floor Bedchamber 201 – Mantelpiece**

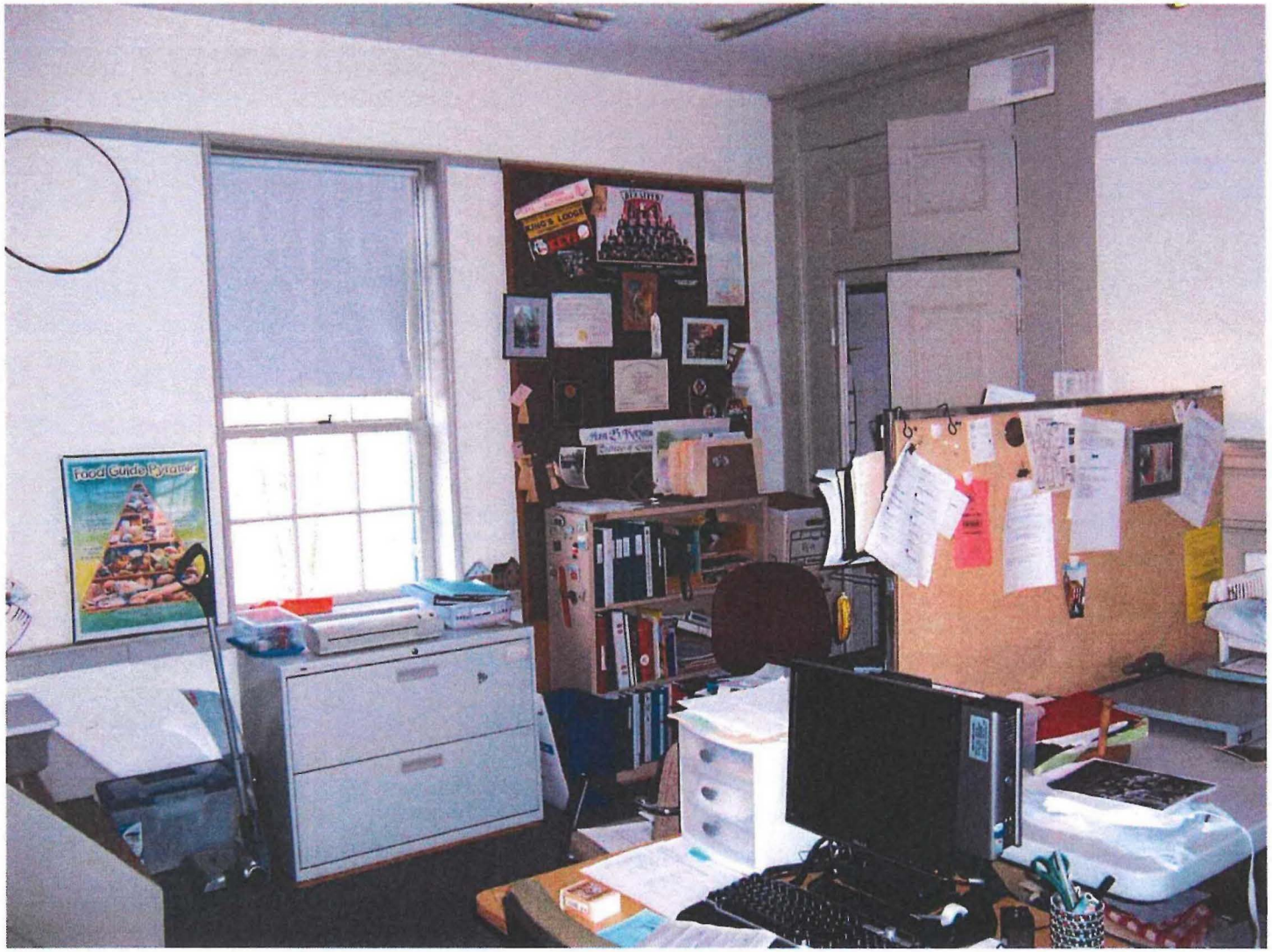


**Existing Condition Photo B41: Colvin Run Miller's House Second Floor Bedchamber 201 – View Towards West**

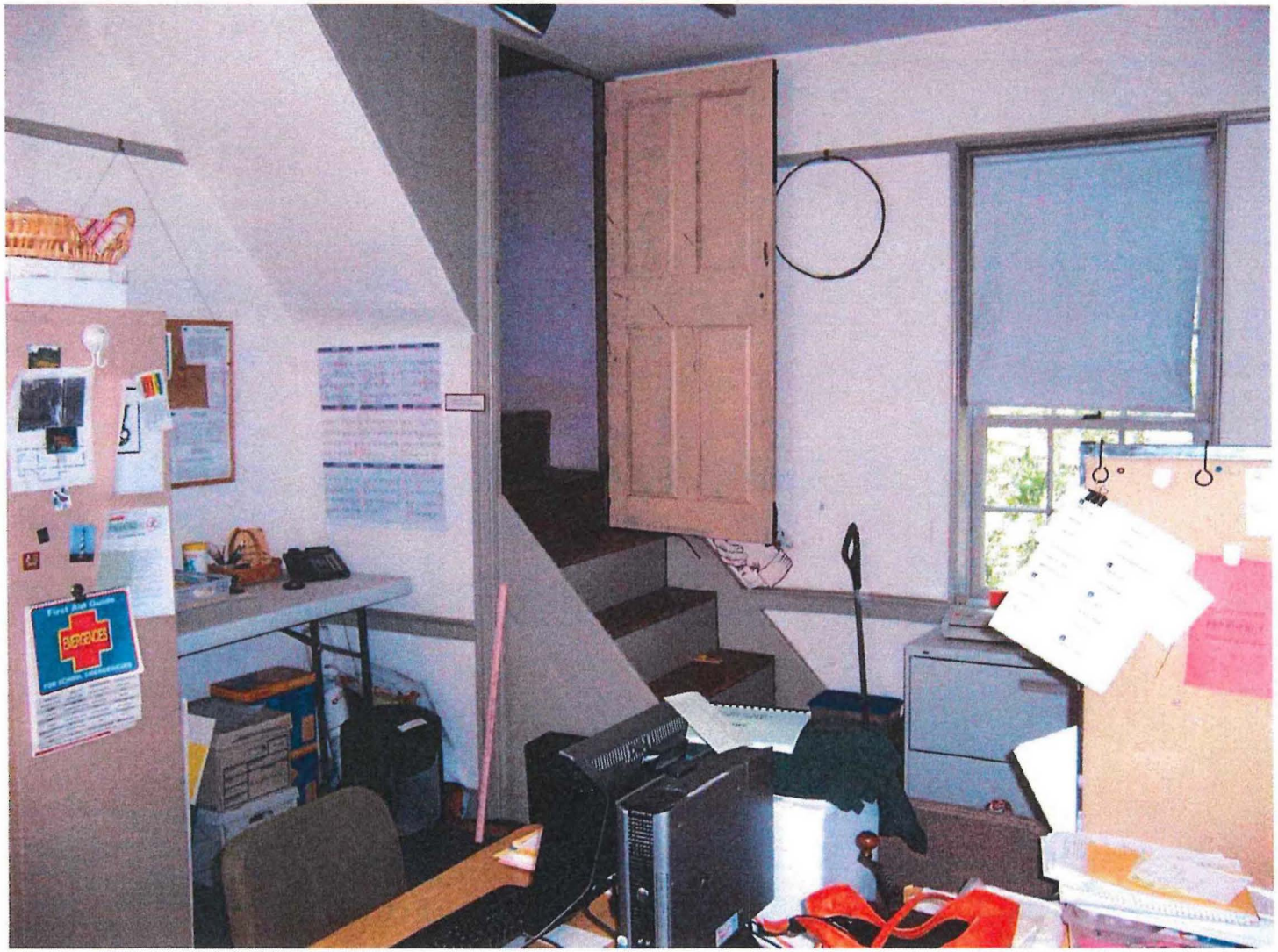
**Existing Condition Photo B42: Colvin Run Miller's House Second Floor Bedchamber 201 – View Towards Hall 200**



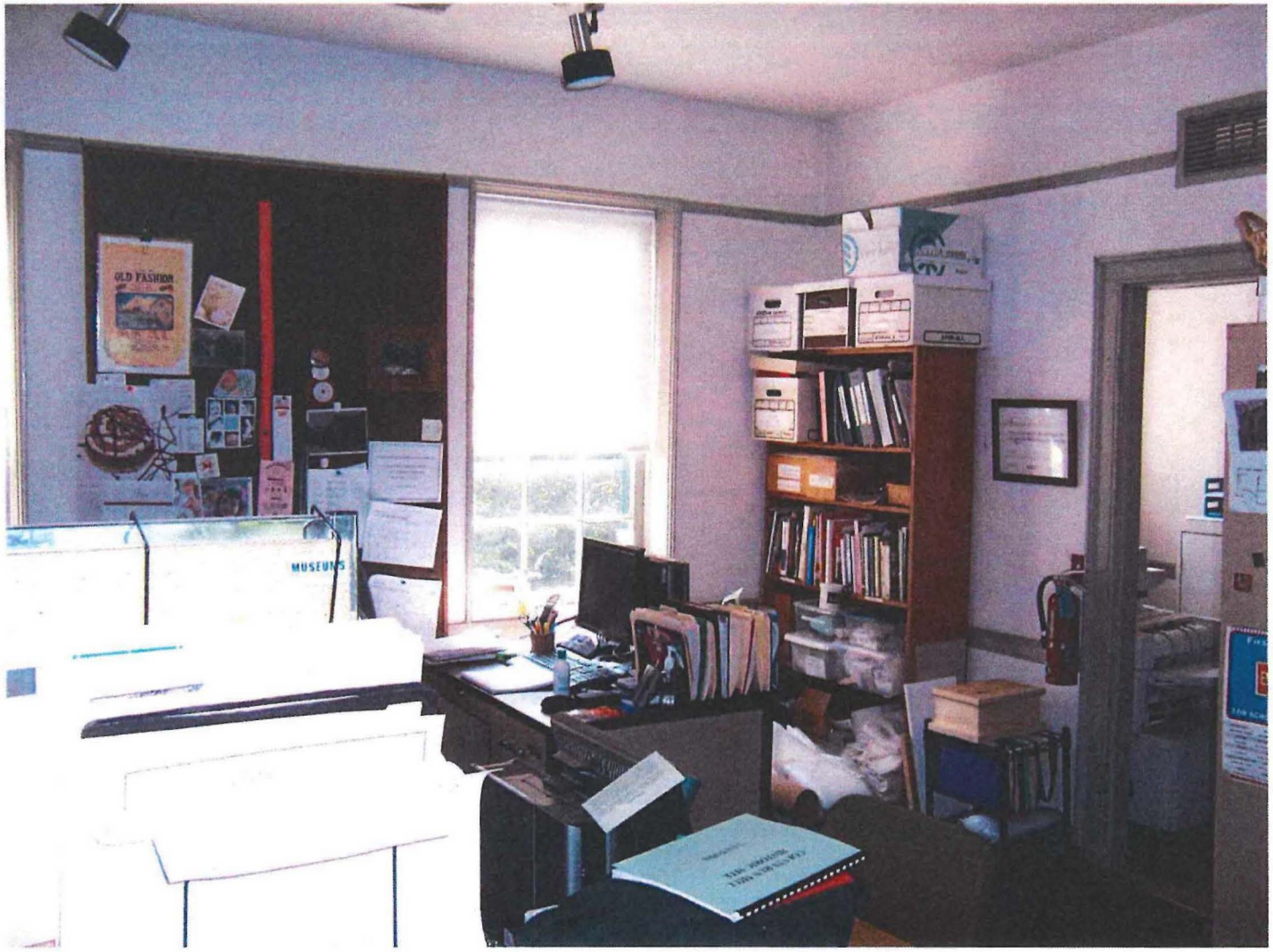
**Existing Condition Photo B43: Colvin Run Miller's House Second Floor Bedchamber 202 – View Towards North**



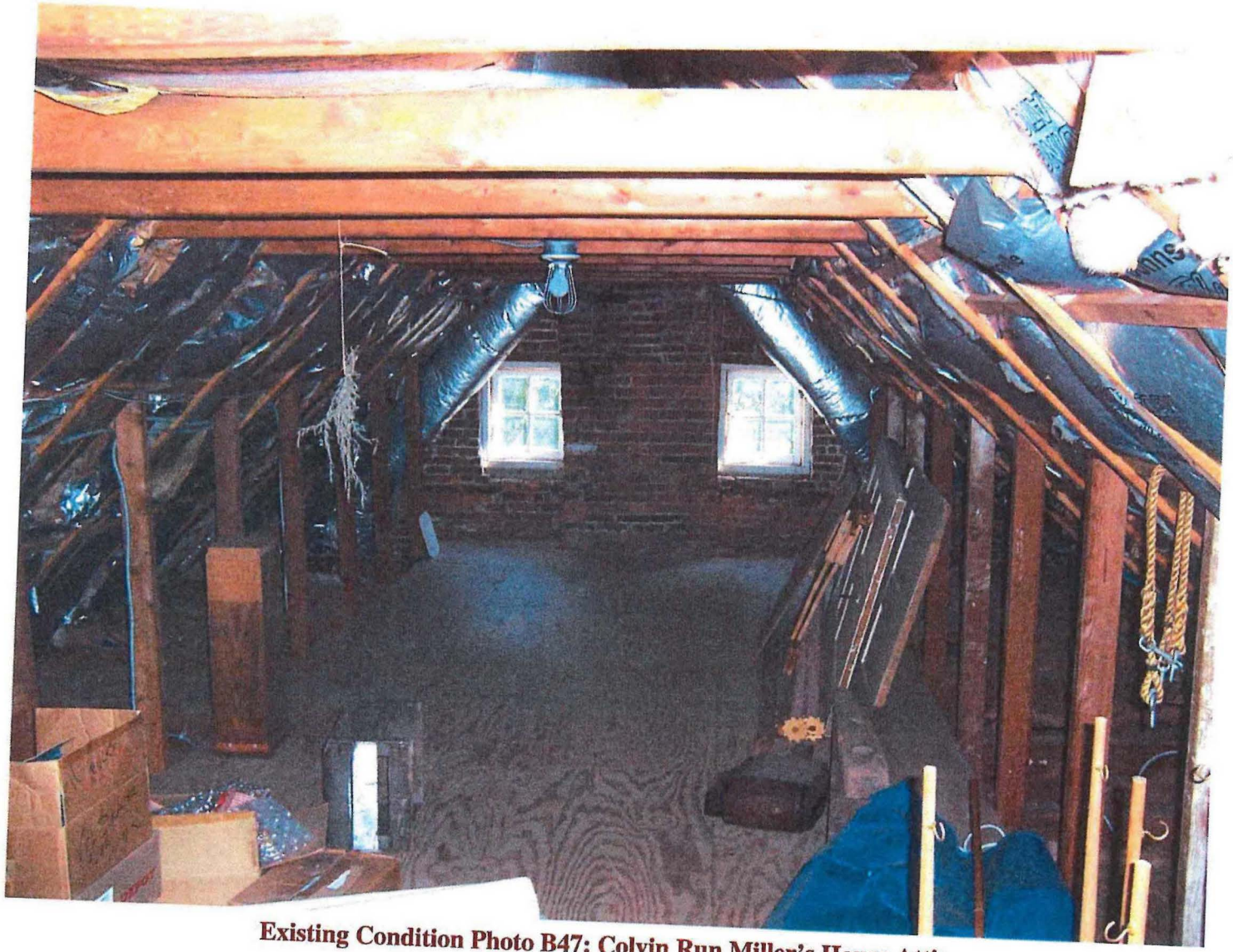

**Existing Condition Photo B44: Colvin Run Miller's House Second Floor Bedchamber 202 – View Towards West**



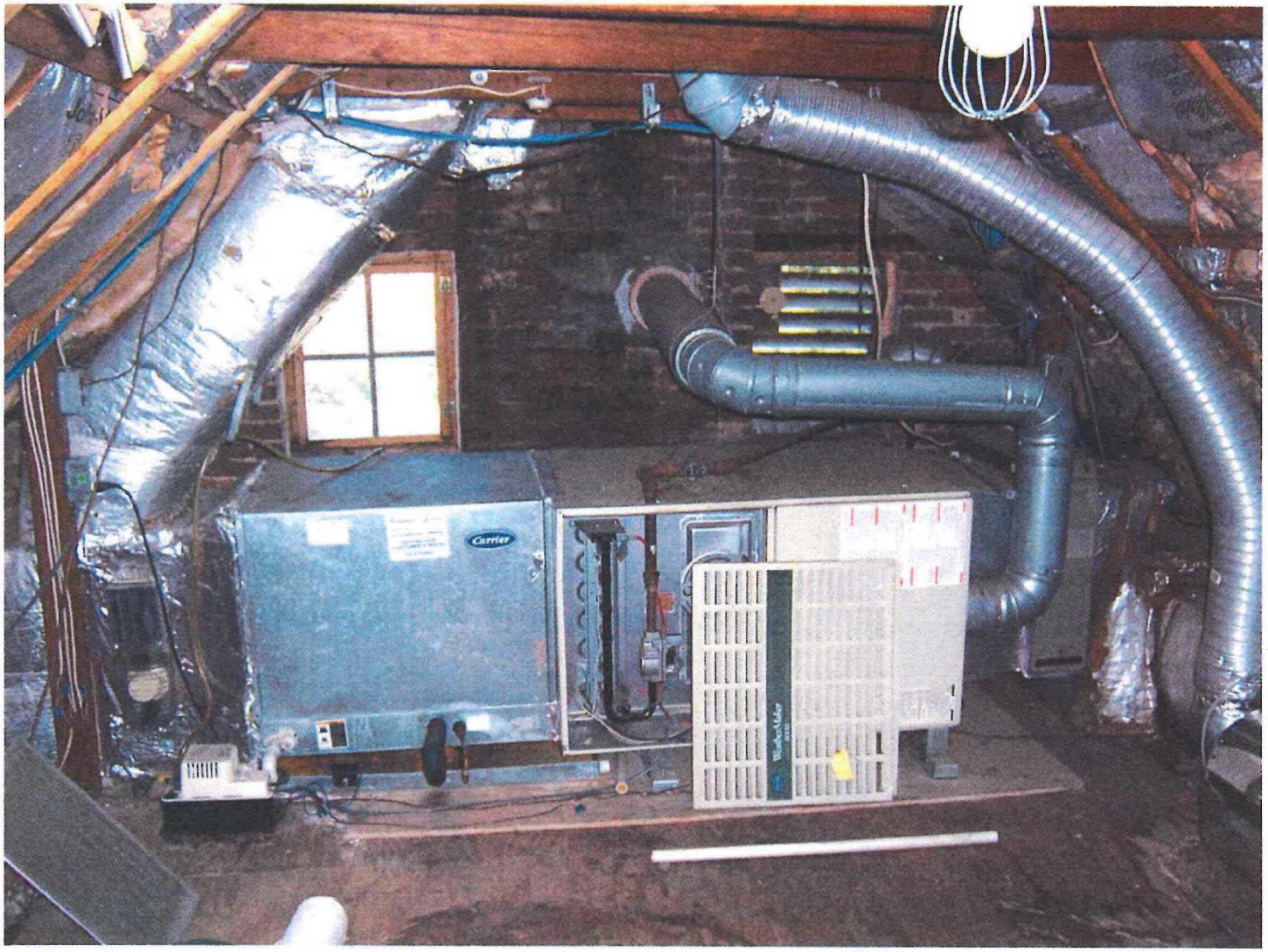

**Existing Condition Photo B45: Colvin Run Miller's House Second Floor Bedchamber 202 – View Towards Attic Stairway**




**Existing Condition Photo B46: Colvin Run Miller's House Second Floor Bedchamber 202 – View Towards East**

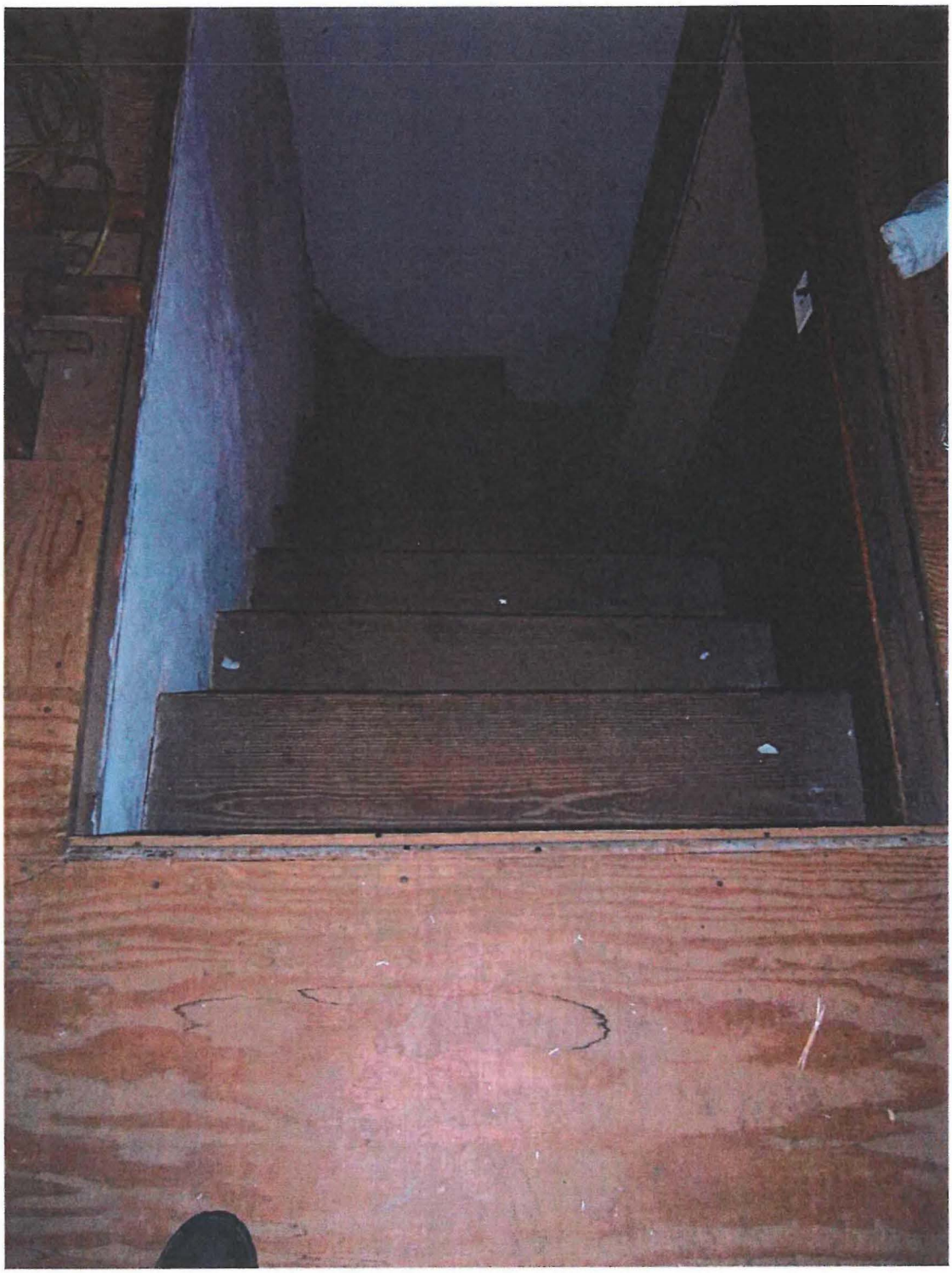


**Existing Condition Photo B47: Colvin Run Miller's House Attic**
**View Towards East**




**Existing Condition Photo B48: Colvin Run Miller's House Attic HVAC Unit**

**Existing Condition Photo B49: Colvin Run Miller's House Attic Stairs and Light Switch**



**Existing Condition Photo B50: Colvin Run Miller's House Attic Stairway**

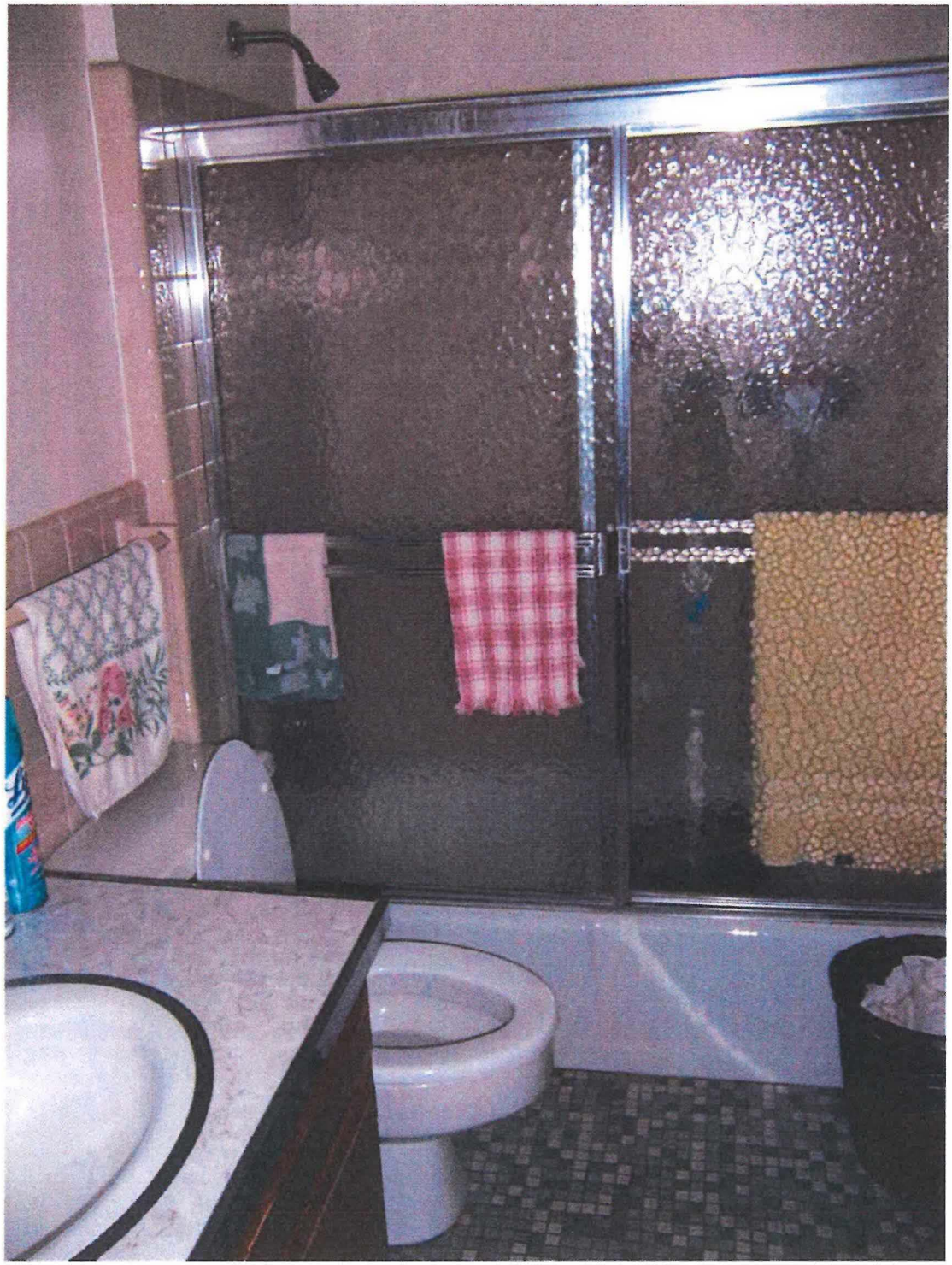
**Existing Condition Photo B51: Colvin Run Miller's House Addition**
**Office 103 – View Towards East**

**Existing Condition Photo B52: Colvin Run Miller's House Addition**
**Office 103 – View Towards North**

**Existing Condition Photo B53: Colvin Run Miller's House Addition**
**Office 103 – View Towards West**

**Existing Condition Photo B54: Colvin Run Miller's House Addition**
**Office 103 – View Towards South**

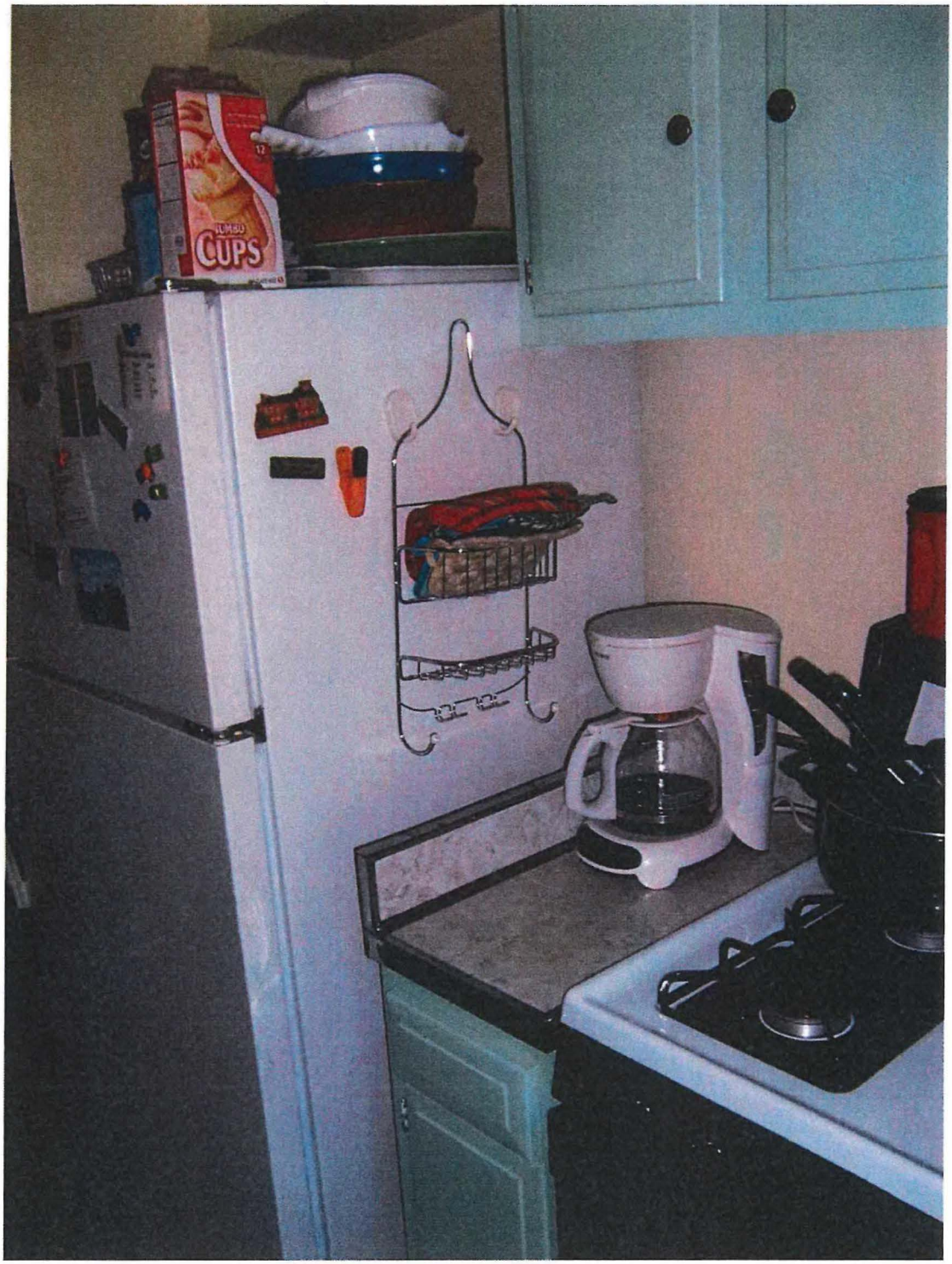
**Existing Condition Photo B55: Colvin Run Miller's House Addition**
**Office 103 – View of Closet 109**



**Existing Condition Photo B56: Colvin Run Miller's House Addition**
**Bathroom 104**

**Existing Condition Photo B57: Colvin Run Miller's House Addition**
**Kitchen 105 - Sink and Cupboards**

**Existing Condition Photo B58: Colvin Run Miller's House Addition**
**Kitchen 105 - View Towards North**

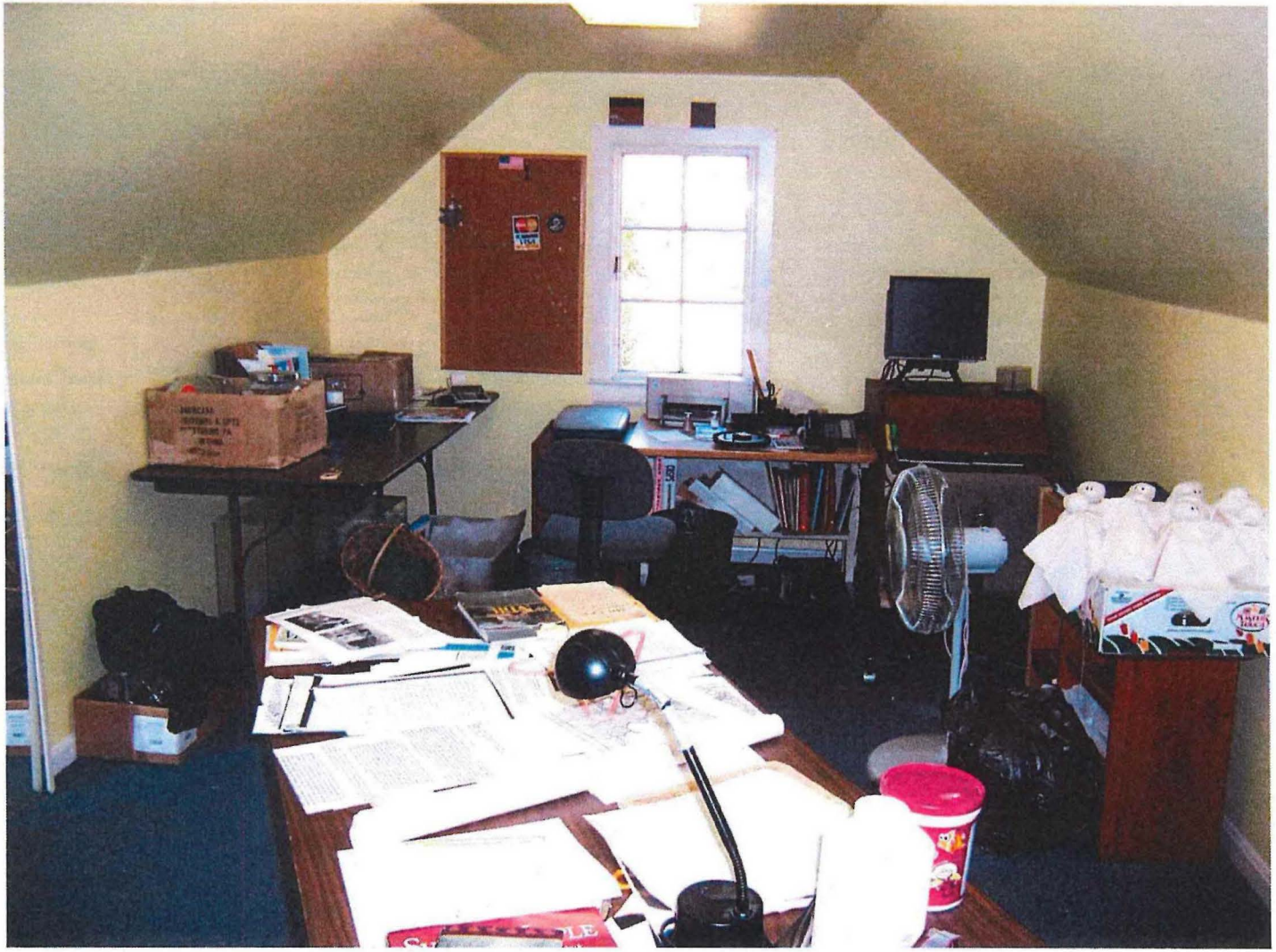



**Existing Condition Photo B59: Colvin Run Miller's House Addition**
**Kitchen 105 – View Towards West**

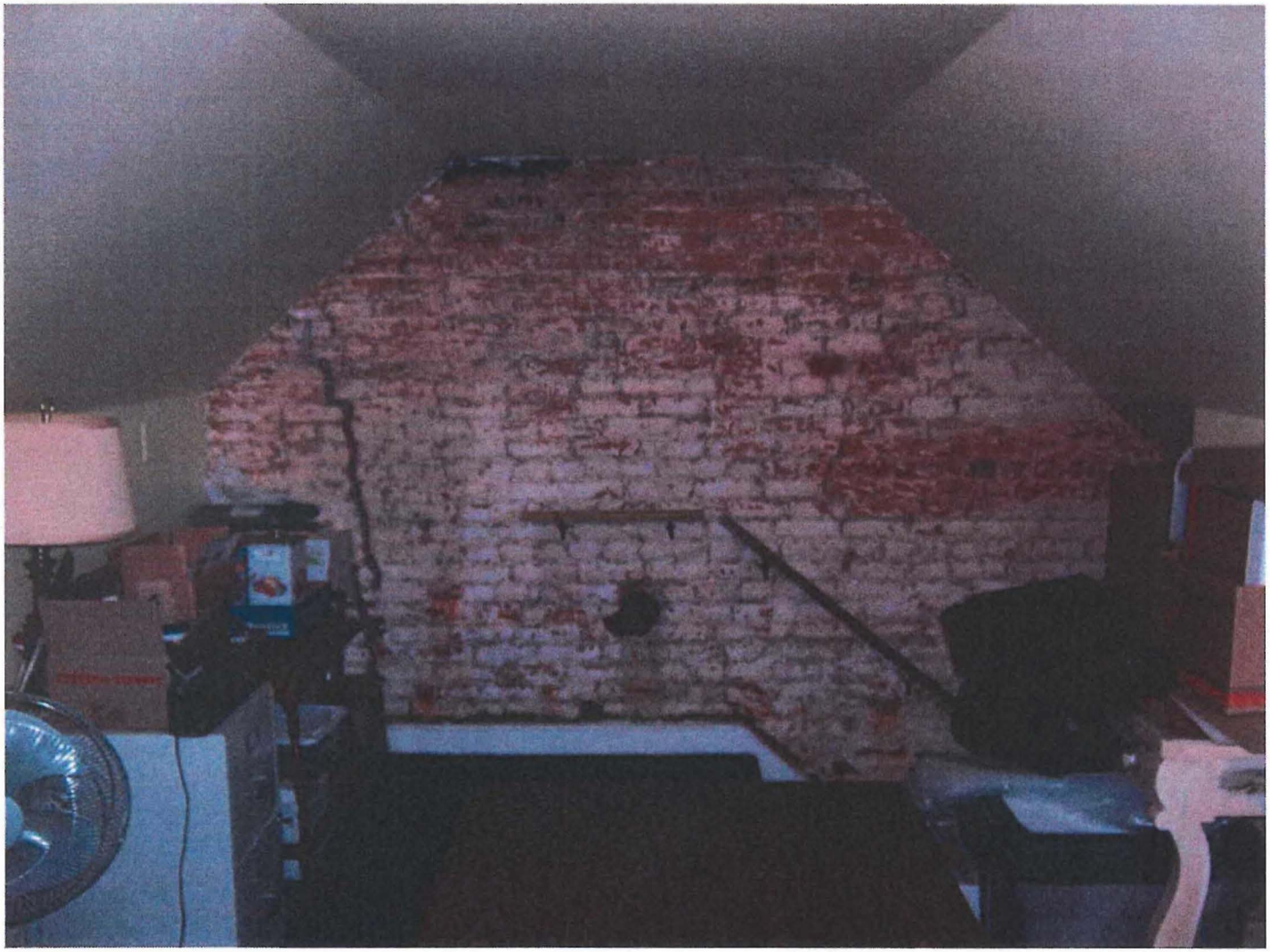
**Existing Condition Photo B60: Colvin Run Miller's House Addition**
**Stairway 106 – Original Exterior Wall**

**Existing Condition Photo B61: Colvin Run Miller's House Addition**
**Stairway 106**

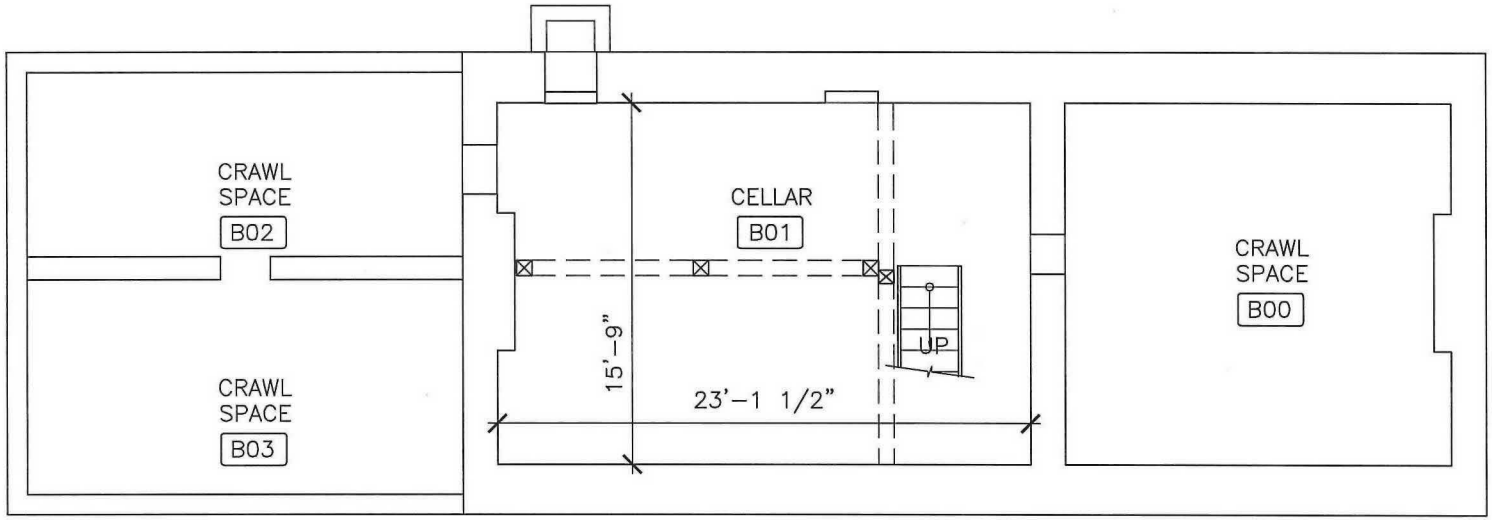
**Existing Condition Photo B62: Colvin Run Miller's House Addition**
**Stairway 106**



**Existing Condition Photo B63: Colvin Run Miller's House Addition**
**Garrett 203 - View Towards West**



**Existing Condition Photo B64: Colvin Run Miller's House Addition**
**Garrett – View Towards East**




NORTH

## EXISTING CONDITION
## CELLAR FLOOR PLAN

SCALE: 1/8" = 1'-0"

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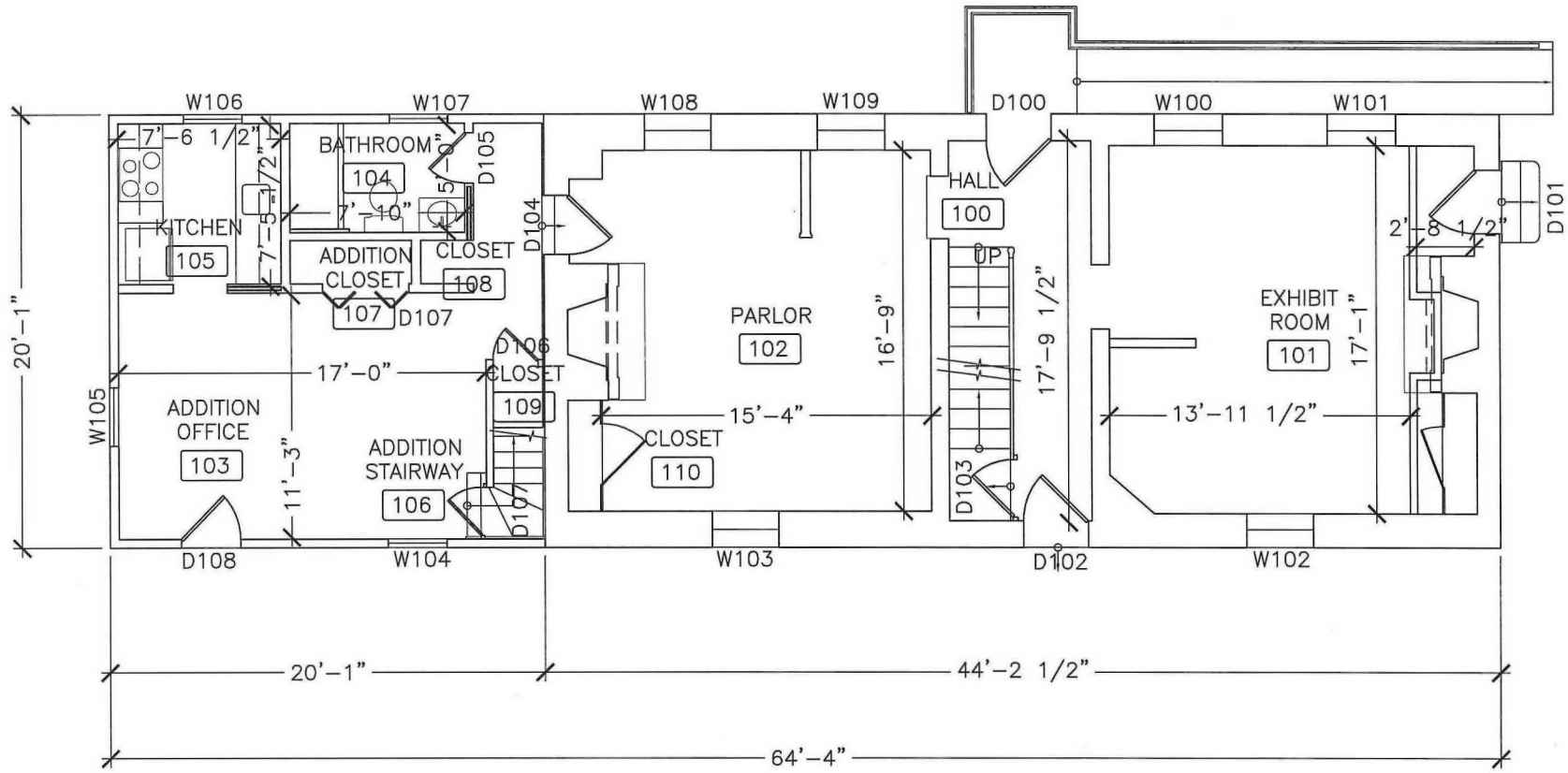
COLVIN RUN MILLER'S HOUSE
GREAT FALLS, VA
10017 COLVIN RUN ROAD
GREAT FALLS, VA 22066

PROJECT # 10064

DATE 05/02/11

FIGURE C1




NORTH

## EXISTING CONDITION FIRST FLOOR PLAN

SCALE: 1/8" = 1'-0"

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PROJECT # 10064

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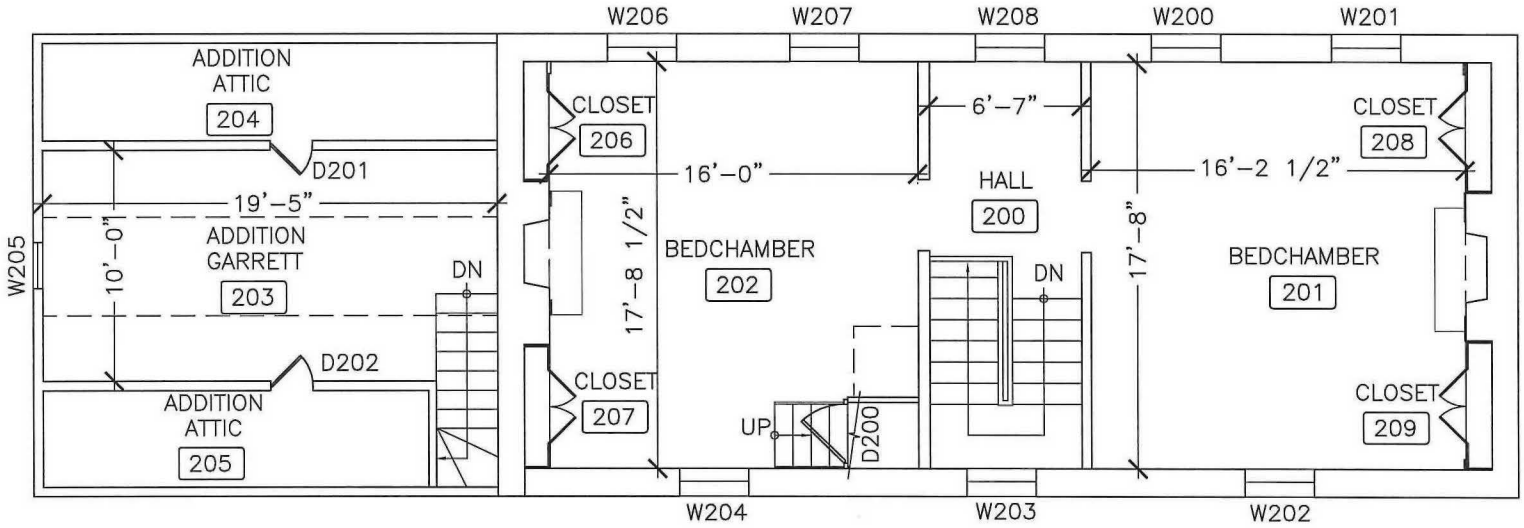
FIGURE C2




NORTH

## EXISTING CONDITION
## SECOND FLOOR PLAN

SCALE: 1/8" = 1'-0"

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PROJECT # 10064

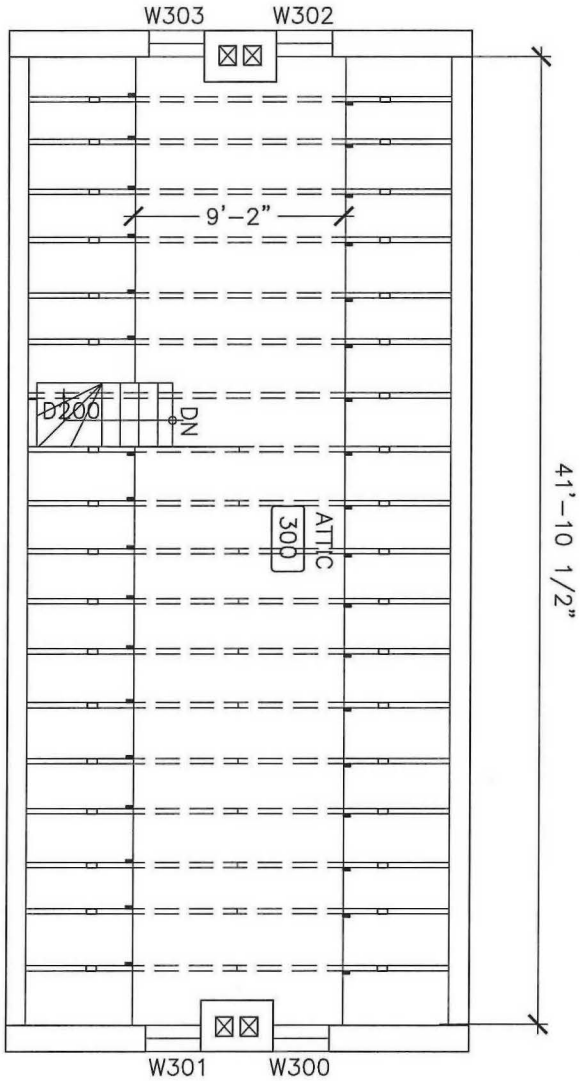
DATE 05/02/11

FIGURE C3

NORTH

# EXISTING CONDITION
## ATTIC PLAN

SCALE: 1/8" = 1'-0"




| | | | | | |
|---|---|---|---|---|---|
| C4 | FIGURE | 05/02/11 | DATE | PROJECT # 10064 | COLVIN RUN MILLER'S HOUSE<br>GREAT FALLS, VA<br>10017 COLVIN RUN ROAD<br>GREAT FALLS, VA 22066 |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## EXISTING SOUTHWESTERN ELEVATION

SCALE: 1/8" = 1'-0"

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COLVIN RUN MILLER'S HOUSE
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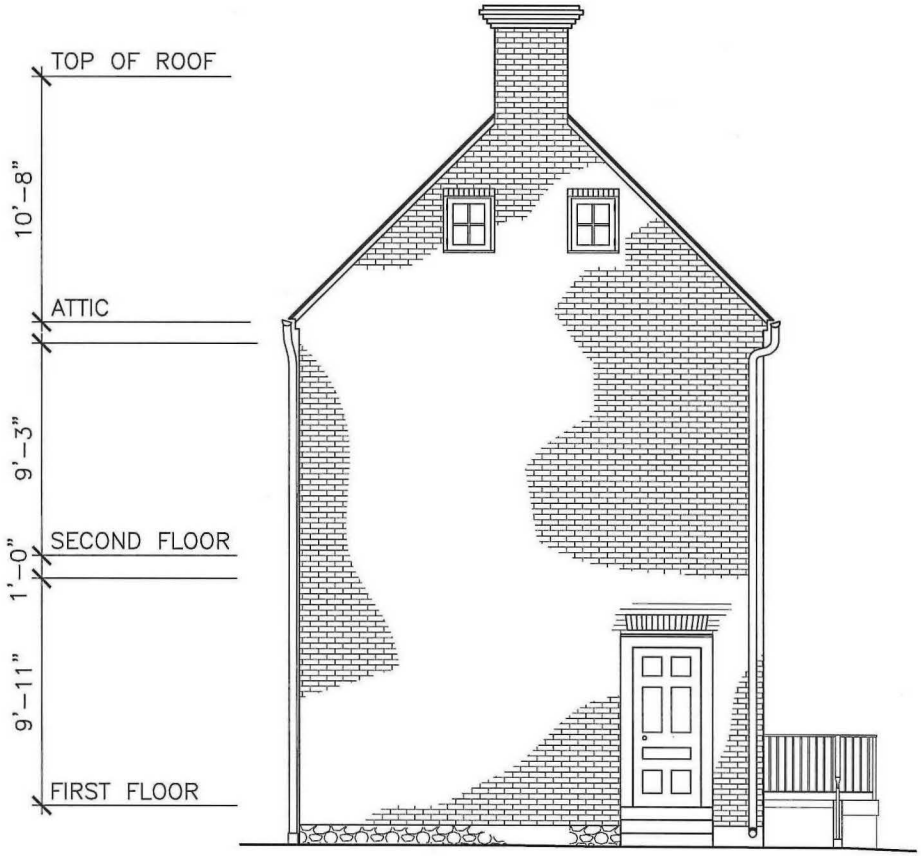
GREAT FALLS, VA 22066

PROJECT # 10064

DATE 05/02/11

FIGURE C5




## EXISTING SOUTHEASTERN ELEVATION

SCALE: 1/8" = 1'-0"

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GREAT FALLS, VA 22066

PROJECT # 10064

DATE 05/02/11

FIGURE C6

## EXISTING NORTHEASTERN ELEVATION

SCALE: 1/8" = 1'-0"

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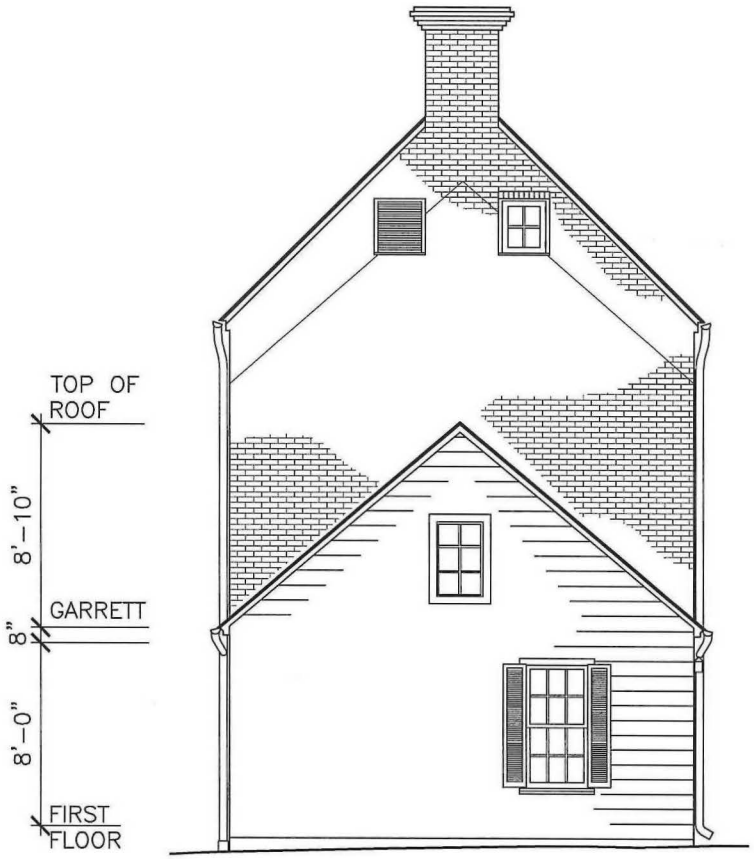
PROJECT # 10064

DATE 05/02/11

FIGURE C7




## EXISTING NORTHWESTERN ELEVATION

SCALE: 1/8" = 1'-0"

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COLVIN RUN MILLER'S HOUSE
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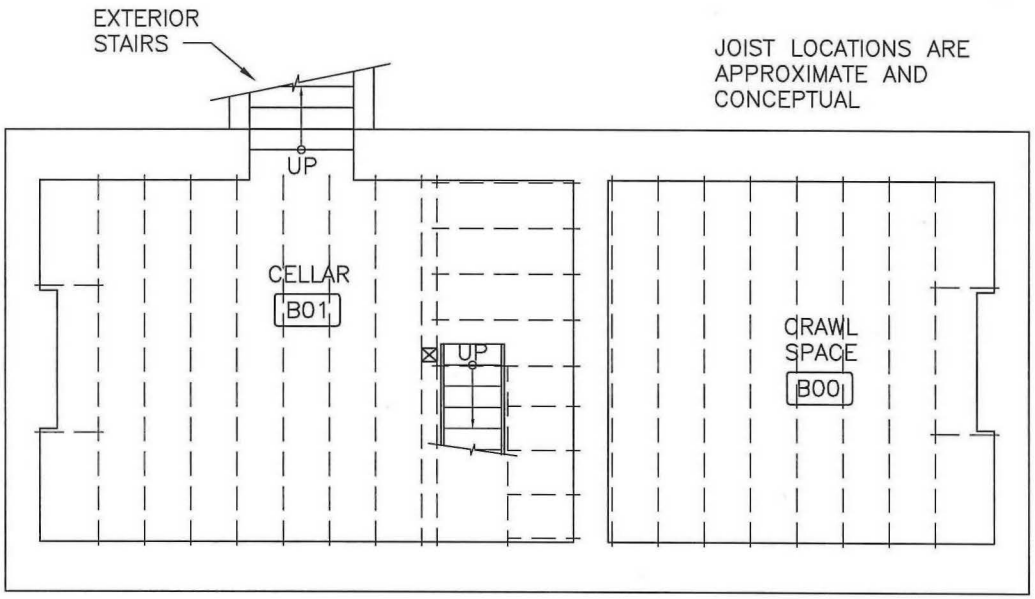
10017 COLVIN RUN ROAD
GREAT FALLS, VA 22066

PROJECT # 10064

DATE 05/02/11

FIGURE C8




NORTH

## CONCEPTUAL CELLAR FLOOR PLAN CA. 1806

SCALE: 1/8" = 1'-0"

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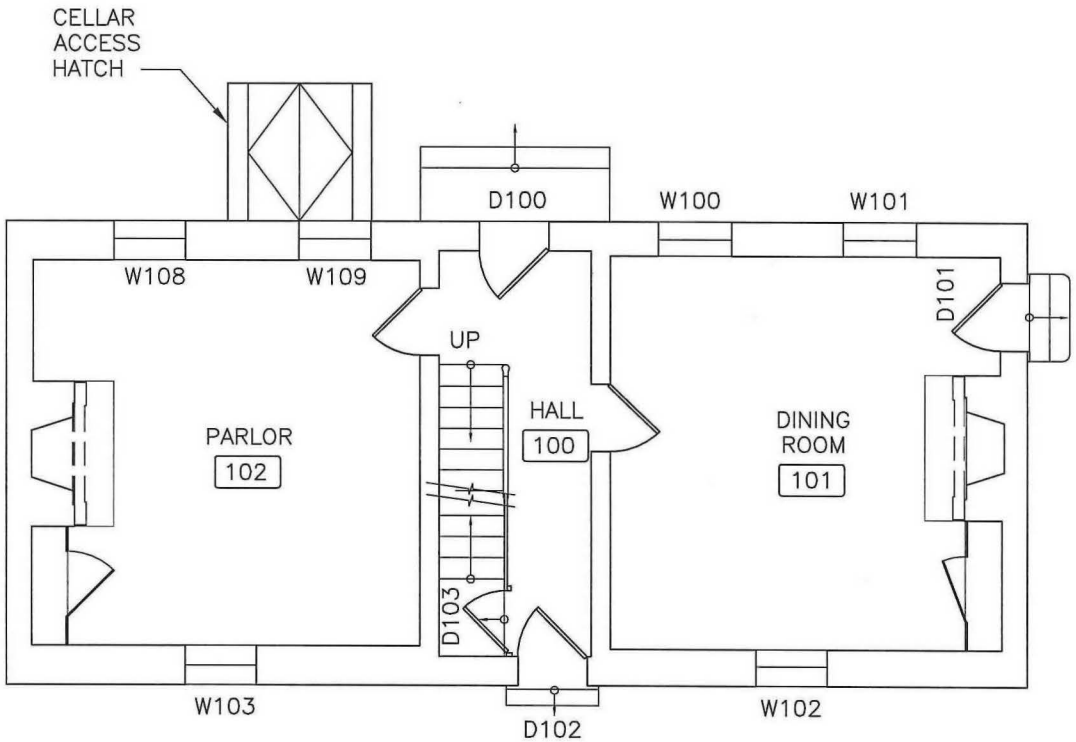
10017 COLVIN RUN ROAD
GREAT FALLS, VA 22066

PROJECT # 10064

DATE 05/02/11

FIGURE

D1




NORTH

## CONCEPTUAL FIRST FLOOR PLAN CA. 1806

SCALE: 1/8" = 1'-0"

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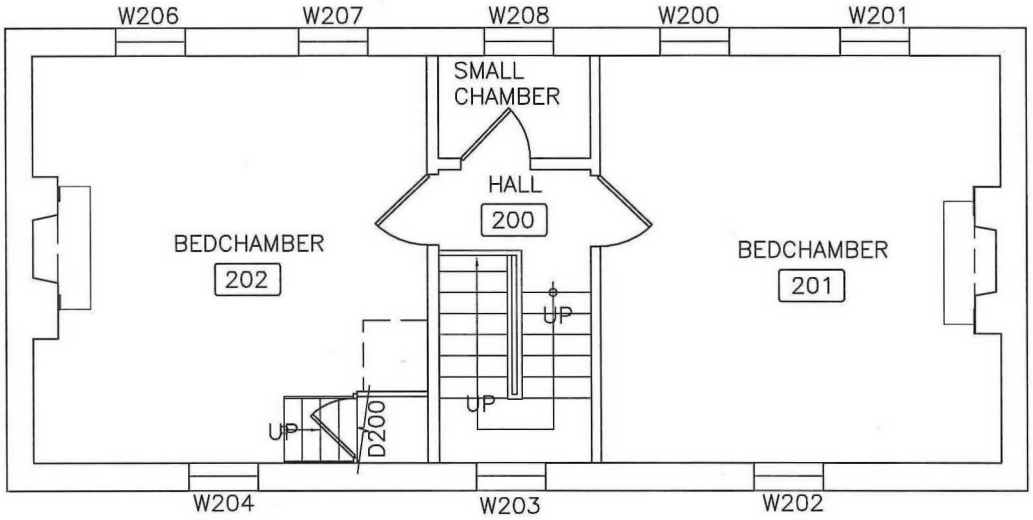
10017 COLVIN RUN ROAD
GREAT FALLS, VA 22066

PROJECT # 10064

DATE 05/02/11

FIGURE

**D2**




NORTH

## CONCEPTUAL SECOND FLOOR PLAN CA. 1806

SCALE: 1/8" = 1'-0"

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PROJECT # 10064

DATE 05/02/11

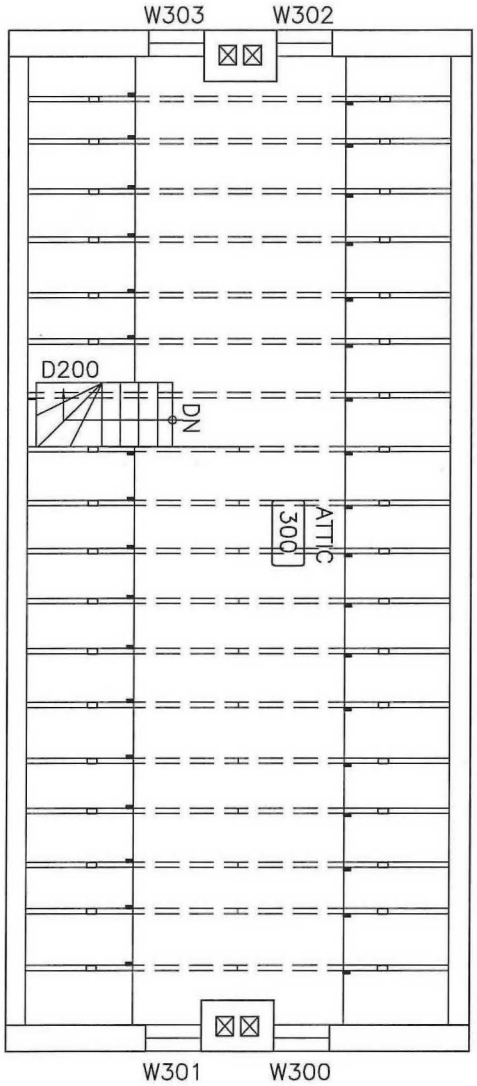
FIGURE

**D3**

NORTH

# CONCEPTUAL ATTIC FLOOR PLAN CA. 1806

SCALE: 1/8" = 1'-0"




| | | | | | |
|---|---|---|---|---|---|
| D4 | FIGURE | DATE 05/02/11 | PROJECT # 10064 | COLVIN RUN MILLER'S HOUSE<br>GREAT FALLS, VA<br>10017 COLVIN RUN ROAD<br>GREAT FALLS, VA 22066 | FAIRFAX COUNTY PARK AUTHORITY<br>12055 Government Center Pkwy.<br>Suite 927<br>Fairfax, Virginia 22035 |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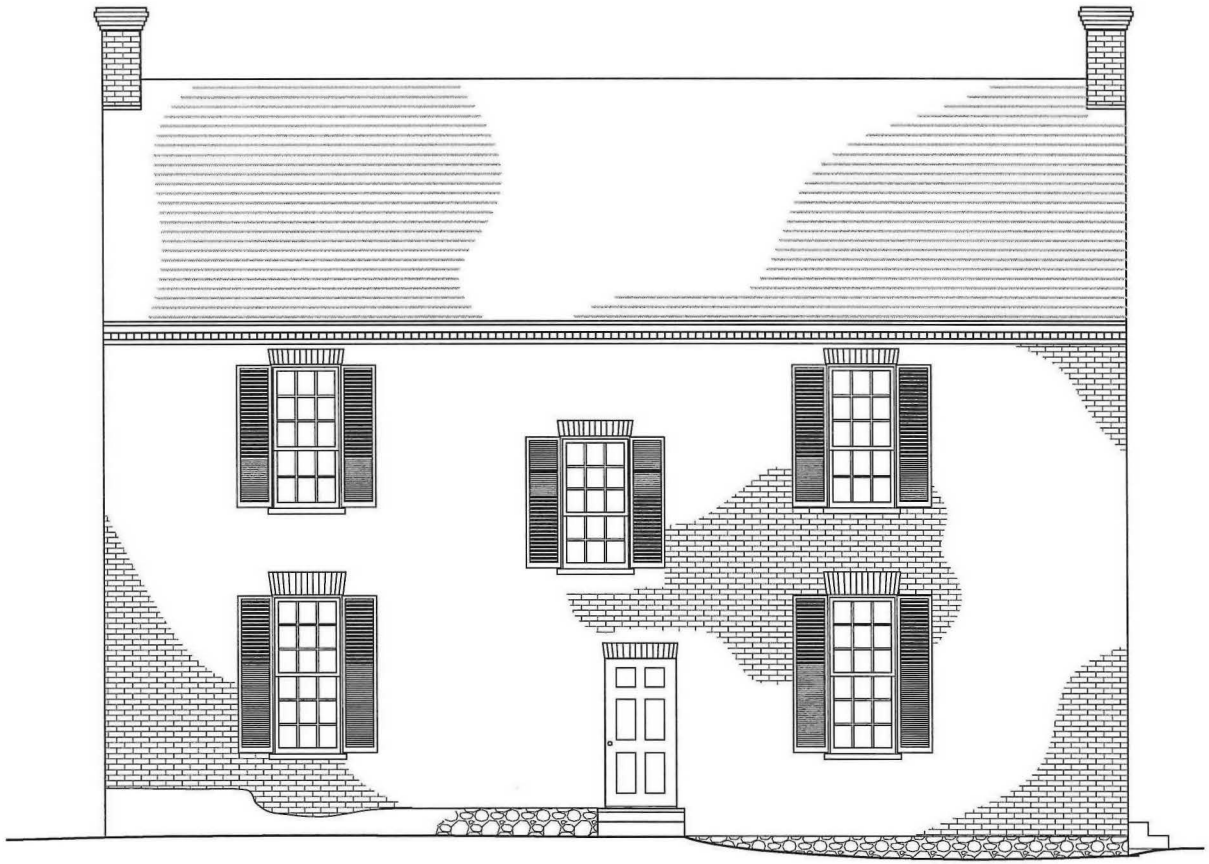

## CONCEPTUAL SOUTHWESTERN ELEVATION CA. 1806

SCALE: 1/8" = 1'-0"


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GREAT FALLS, VA
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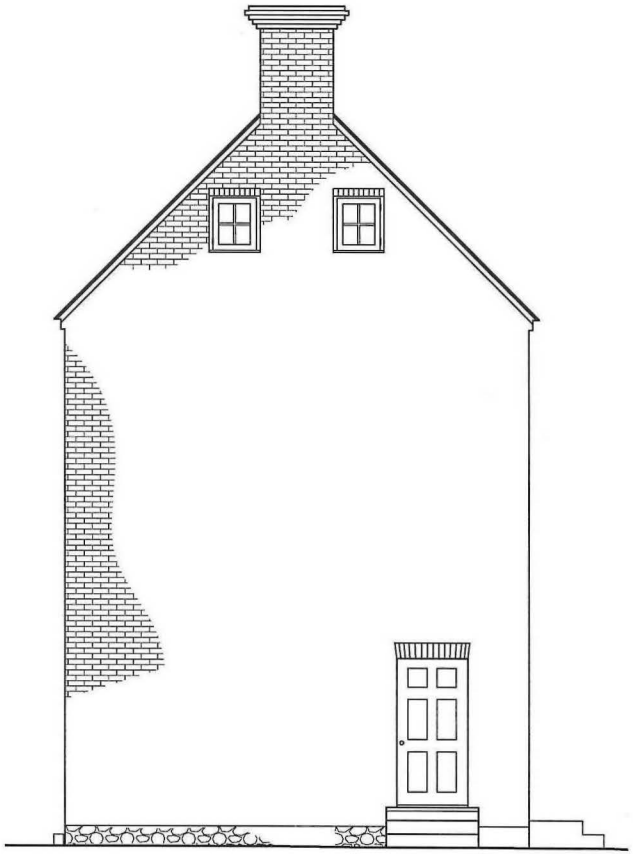
PROJECT # 10064

DATE 05/02/11

FIGURE

**D5**



## CONCEPTUAL SOUTHEASTERN ELEVATION CA. 1806

SCALE: 1/8" = 1'-0"


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FIGURE

**D6**

## CONCEPTUAL NORTHEASTERN ELEVATION CA. 1806

SCALE: 1/8" = 1'-0"


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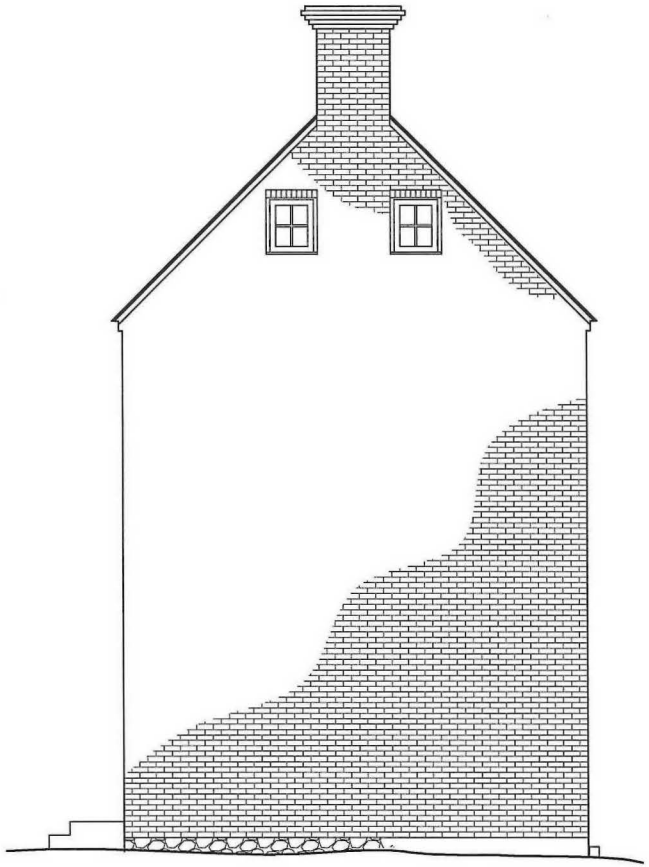
GREAT FALLS, VA 22066

PROJECT # 10064

DATE 05/02/11

FIGURE

**D7**



CONCEPTUAL NORTHWESTERN ELEVATION CA. 1806

SCALE: 1/8" = 1'-0"

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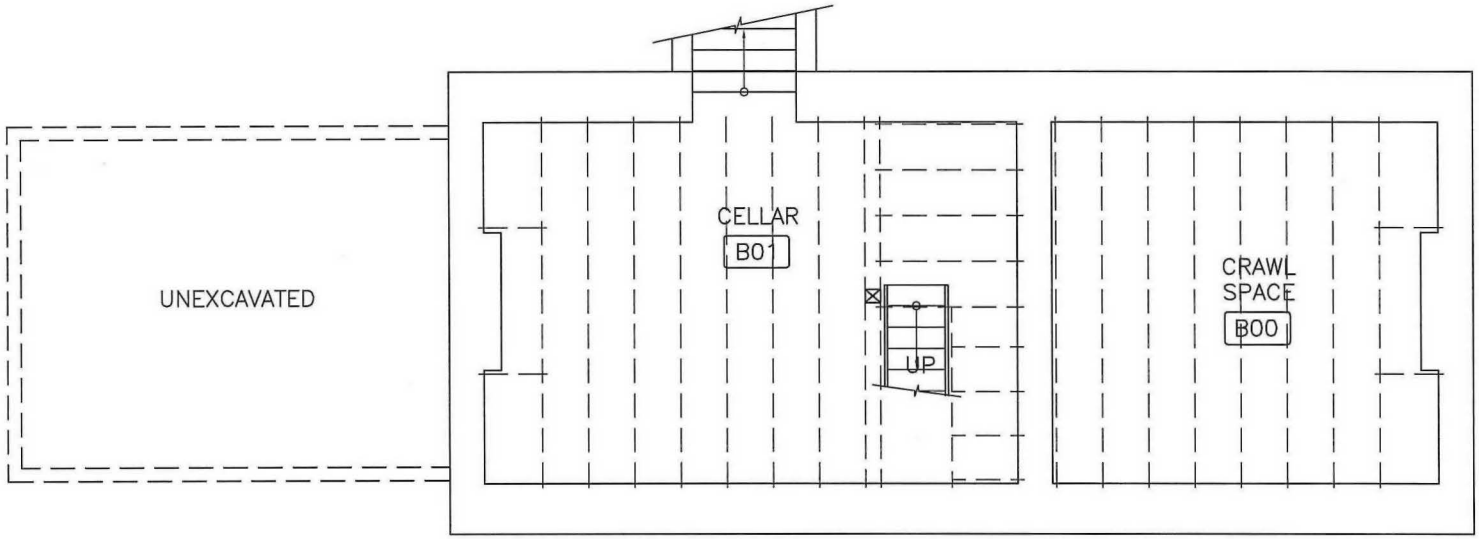
PROJECT # 10064

DATE 05/02/11

FIGURE

D8




NORTH

## CONCEPTUAL CELLAR FLOOR PLAN MID 19TH CENTURY

SCALE: 1/8" = 1'-0"

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PROJECT # 10064

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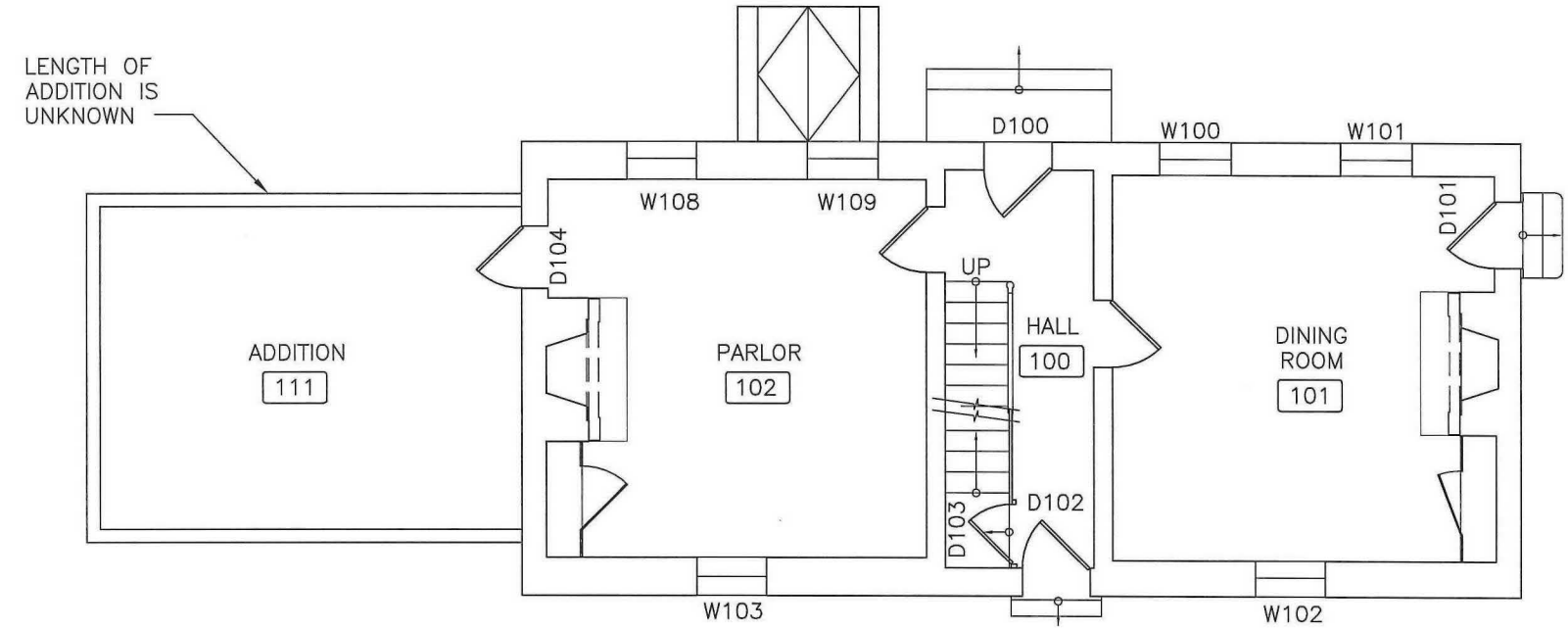
FIGURE D9




NORTH

## CONCEPTUAL FIRST FLOOR PLAN MID 19TH CENTURY

SCALE: 1/8" = 1'-0"

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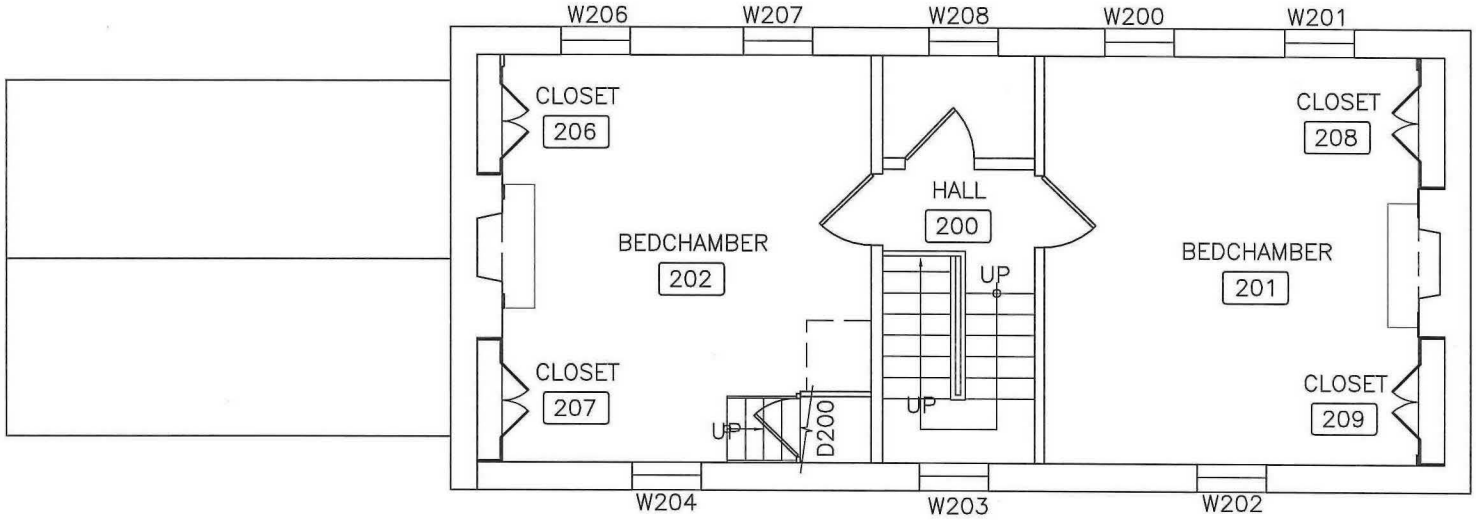
FIGURE

**D10**




NORTH

## CONCEPTUAL SECOND FLOOR PLAN MID 19TH CENTURY

SCALE: 1/8" = 1'-0"

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PROJECT # 10064

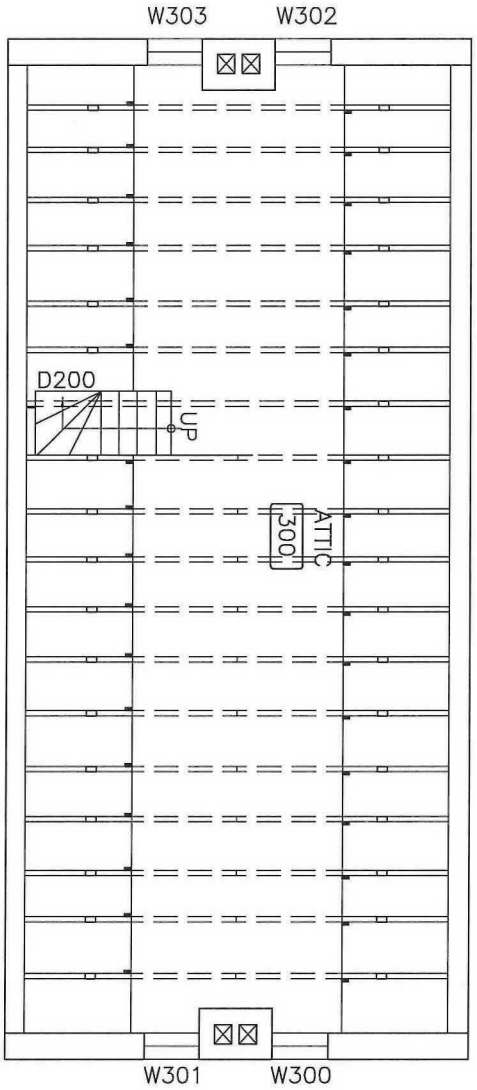
DATE 05/02/11

FIGURE D11

NORTH

# CONCEPTUAL ATTIC FLOOR PLAN MID 19TH CENTURY

SCALE: 1/8" = 1'-0"




| | | | | | |
|---|---|---|---|---|---|
| D12 | FIGURE | DATE 05/02/11 | PROJECT # 10064 | COLVIN RUN MILLER'S HOUSE<br>GREAT FALLS, VA<br>10017 COLVIN RUN ROAD<br>GREAT FALLS, VA 22066 | FAIRFAX COUNTY PARK AUTHORITY<br>12055 Government Center Pkwy.<br>Suite 927<br>Fairfax, Virginia 22035 |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## CONCEPTUAL SOUTHWESTERN ELEVATION MID 19TH CENTURY

SCALE: 1/8" = 1'-0"

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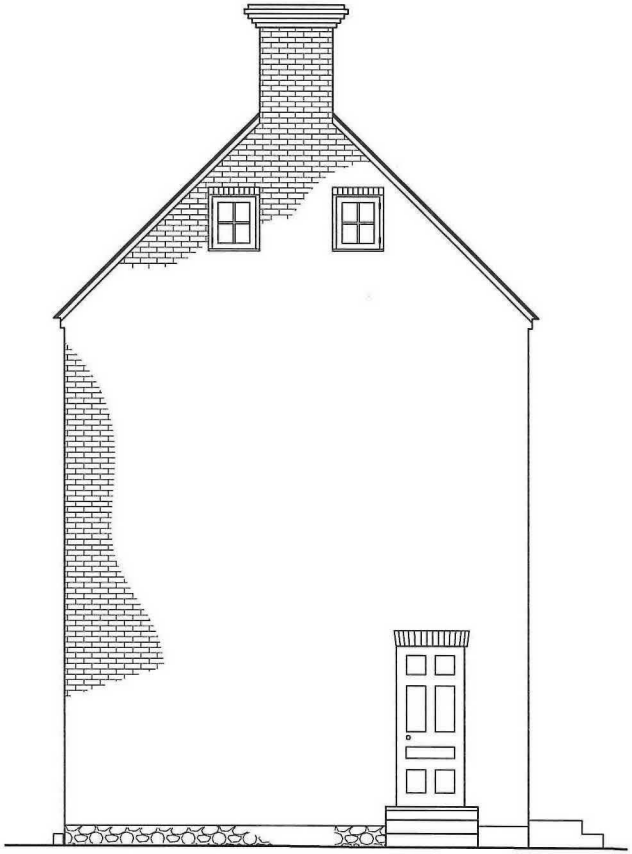
PROJECT # 10064

DATE 05/02/11

FIGURE

**D13**



CONCEPTUAL SOUTHEASTERN
ELEVATION MID 19TH CENTURY

SCALE: 1/8" = 1'-0"

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PROJECT # 10064

DATE 05/02/11

FIGURE

D14

## CONCEPTUAL NORTHEASTERN ELEVATION MID 19TH CENTURY

SCALE: 1/8" = 1'-0"

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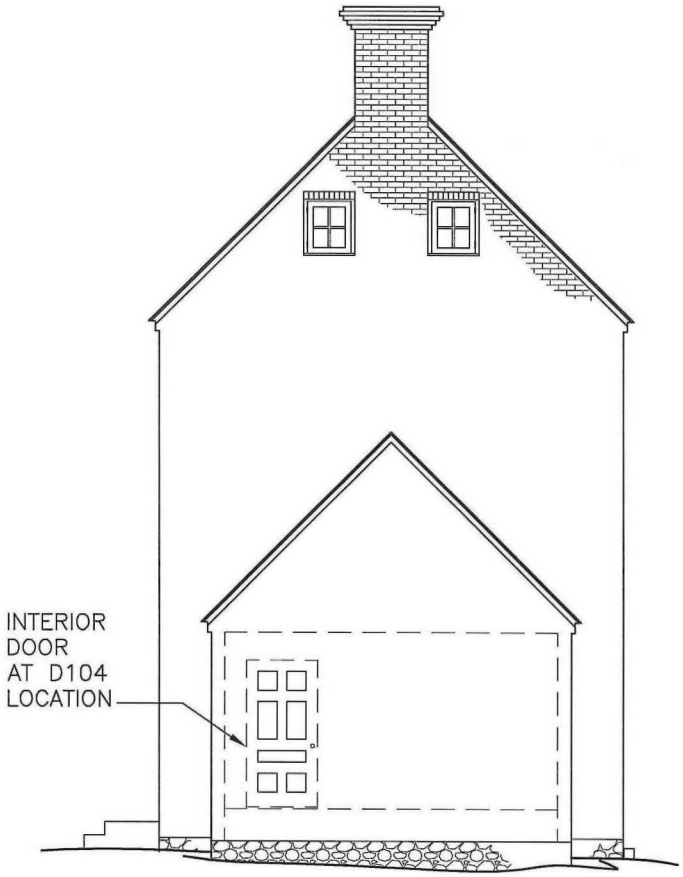
PROJECT # 10064

DATE 05/02/11

FIGURE

D15




## CONCEPTUAL NORTHWESTERN ELEVATION MID 19TH CENTURY

SCALE: 1/8" = 1'-0"

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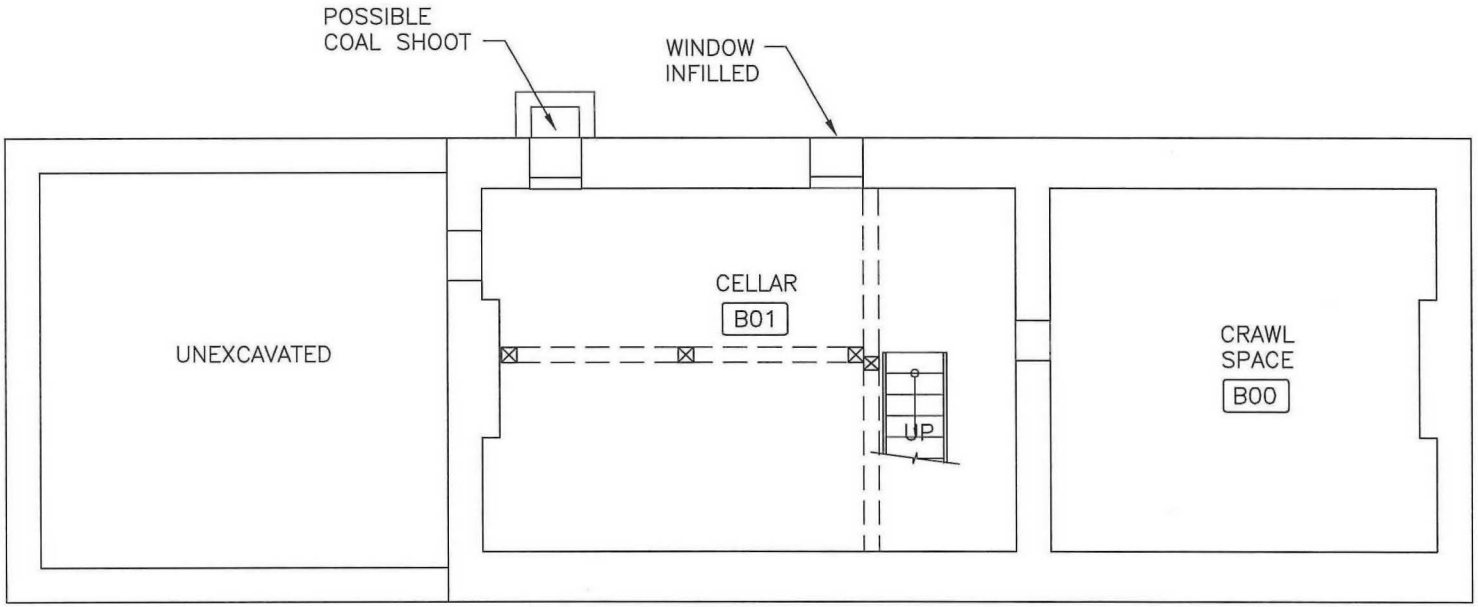
10017 COLVIN RUN ROAD
GREAT FALLS, VA 22066

PROJECT # 10064

DATE 05/02/11

FIGURE **D16**



## CONCEPTUAL CELLAR FLOOR PLAN CA. 1885

SCALE: 1/8" = 1'-0"

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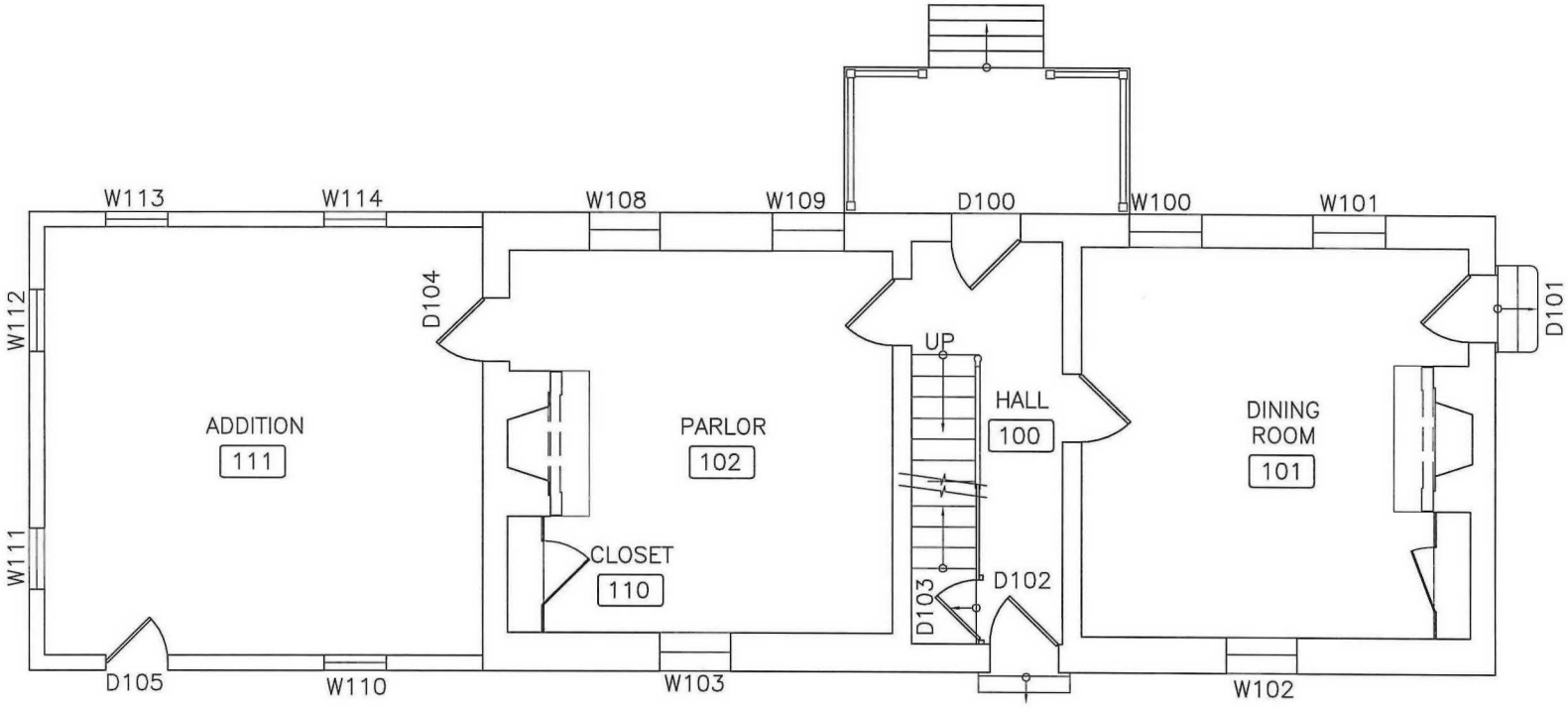
FIGURE

D17




NORTH

## CONCEPTUAL FIRST FLOOR PLAN CA. 1885

SCALE: 1/8" = 1'-0"

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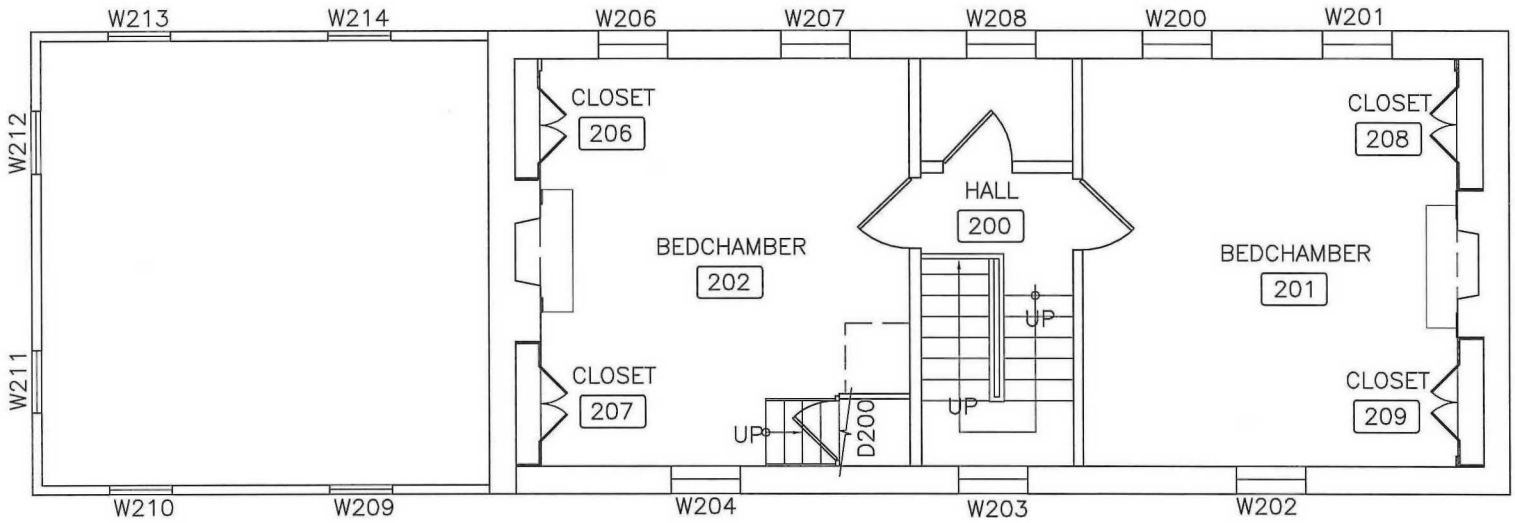
COLVIN RUN MILLER'S HOUSE
GREAT FALLS, VA
10017 COLVIN RUN ROAD
GREAT FALLS, VA 22066

PROJECT # 10064

DATE 05/02/11

FIGURE

**D18**




NORTH

## CONCEPTUAL SECOND FLOOR PLAN CA. 1885

SCALE: 1/8" = 1'-0"

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GREAT FALLS, VA 22066

PROJECT # 10064

DATE 05/02/11

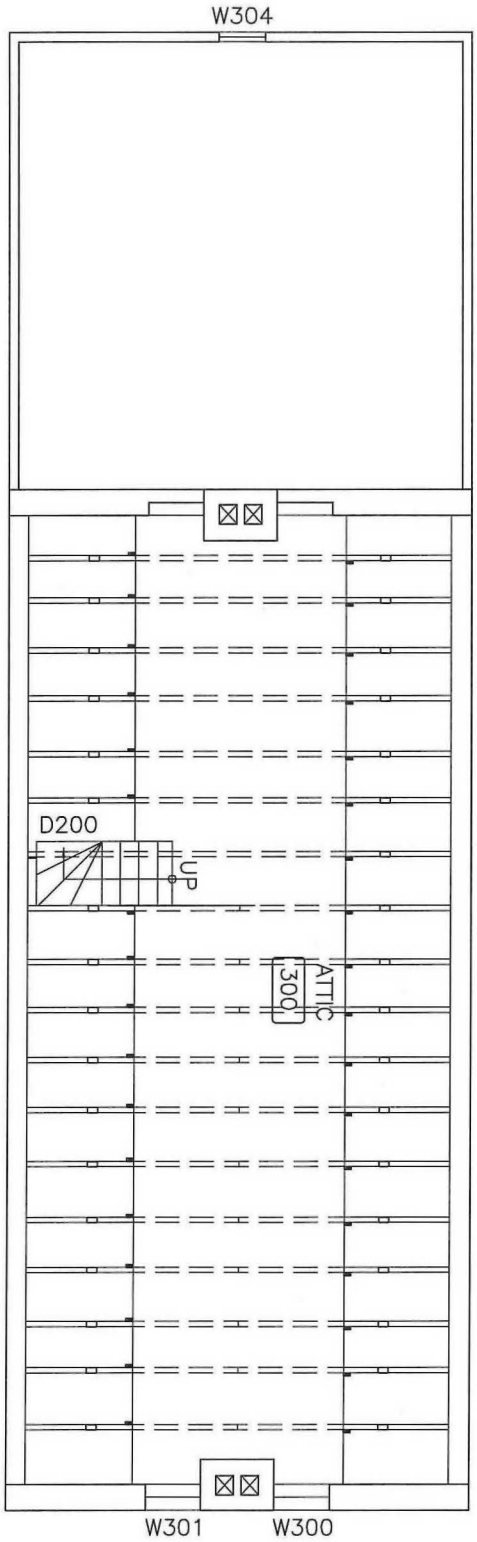
FIGURE

D19

NORTH

# CONCEPTUAL ATTIC FLOOR PLAN CA. 1885

SCALE: 1/8" = 1'-0"




| | | | | | |
|---|---|---|---|---|---|
| D20 | FIGURE | DATE 05/02/11 | PROJECT # 10064 | COLVIN RUN MILLER'S HOUSE<br>GREAT FALLS, VA<br>10017 COLVIN RUN ROAD<br>GREAT FALLS, VA 22066 | FAIRFAX COUNTY PARK AUTHORITY<br>12055 Government Center Pkwy.<br>Suite 927<br>Fairfax, Virginia 22035 |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## CONCEPTUAL SOUTHWESTERN ELEVATION CA. 1885

SCALE: 1/8" = 1'-0"


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COLVIN RUN MILLER'S HOUSE
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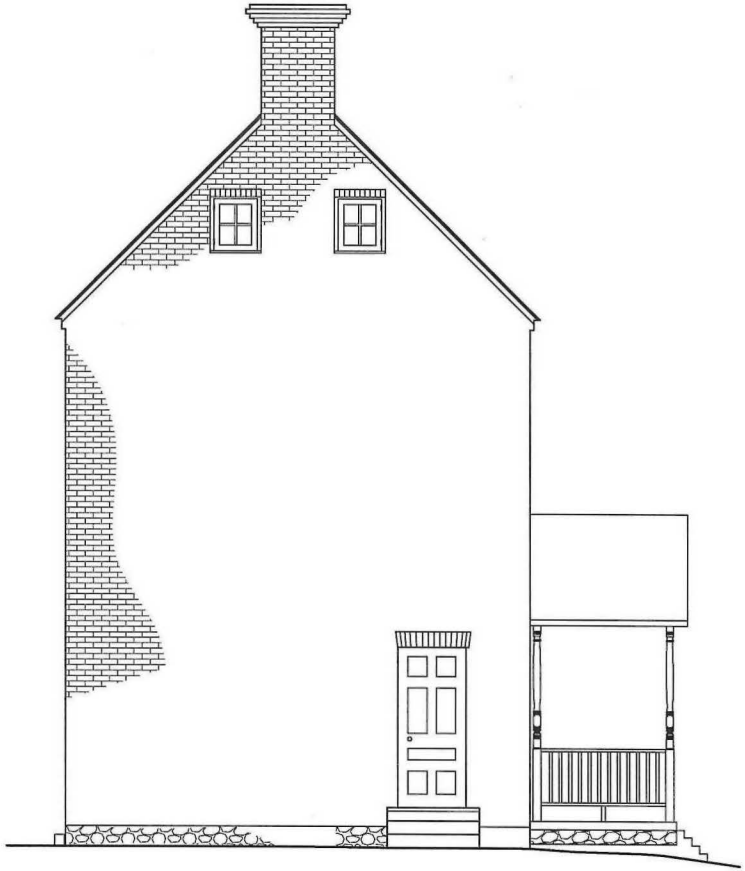
GREAT FALLS, VA 22066

PROJECT # 10064

DATE 05/02/11

FIGURE

**D21**



CONCEPTUAL SOUTHEASTERN ELEVATION CA. 1885

SCALE: 1/8" = 1'-0"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COLVIN RUN MILLER'S HOUSE
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GREAT FALLS, VA 22066

PROJECT # 10064

DATE 05/02/11

FIGURE

**D22**

## CONCEPTUAL NORTHEASTERN ELEVATION CA. 1885

SCALE: 1/8" = 1'-0"


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COLVIN RUN MILLER'S HOUSE
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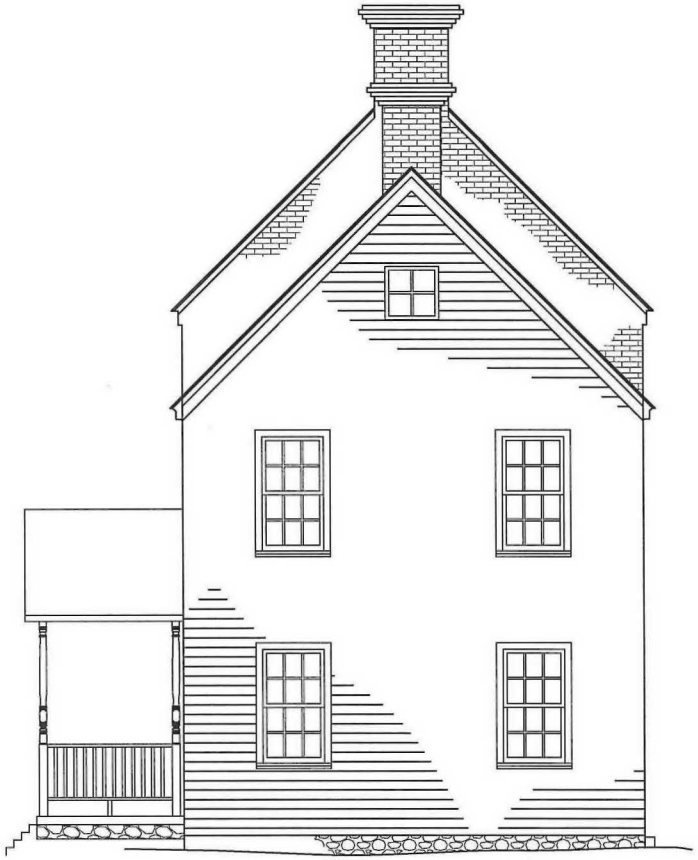
PROJECT # 10064

DATE 05/02/11

FIGURE

**D23**



CONCEPTUAL NORTHWESTERN ELEVATION CA. 1885

SCALE: 1/8" = 1'-0"

SHAFFER WHITCOMB SARVER & GRAY

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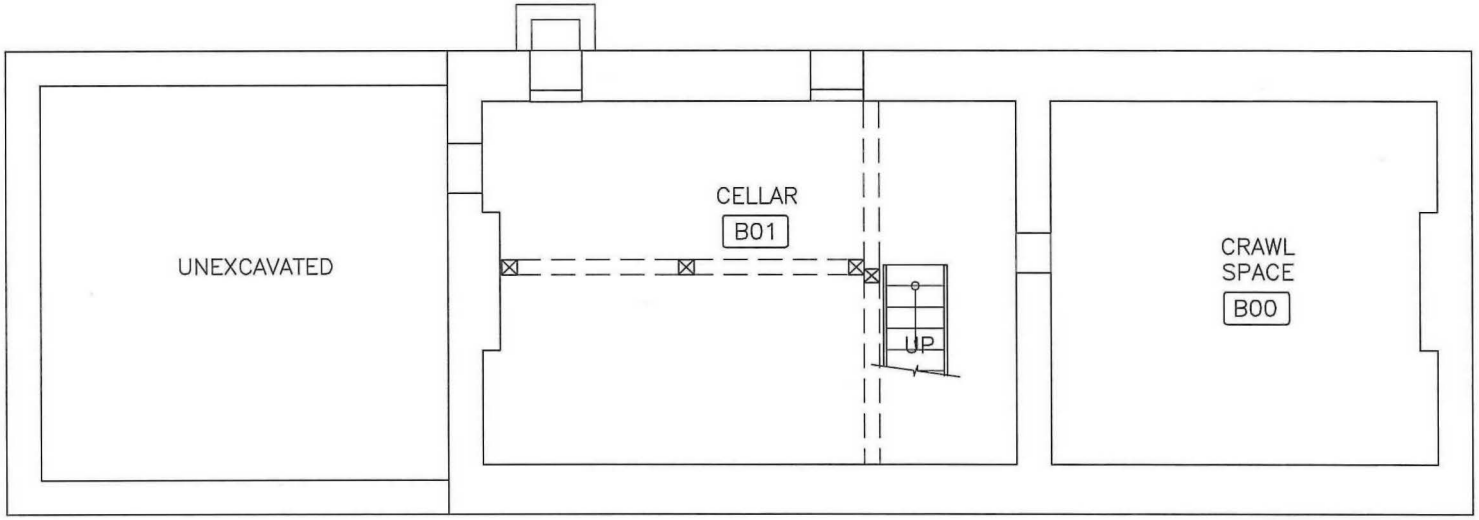
FIGURE

D24




NORTH

## CONCEPTUAL CELLAR FLOOR PLAN CA. 1930

SCALE: 1/8" = 1'-0"

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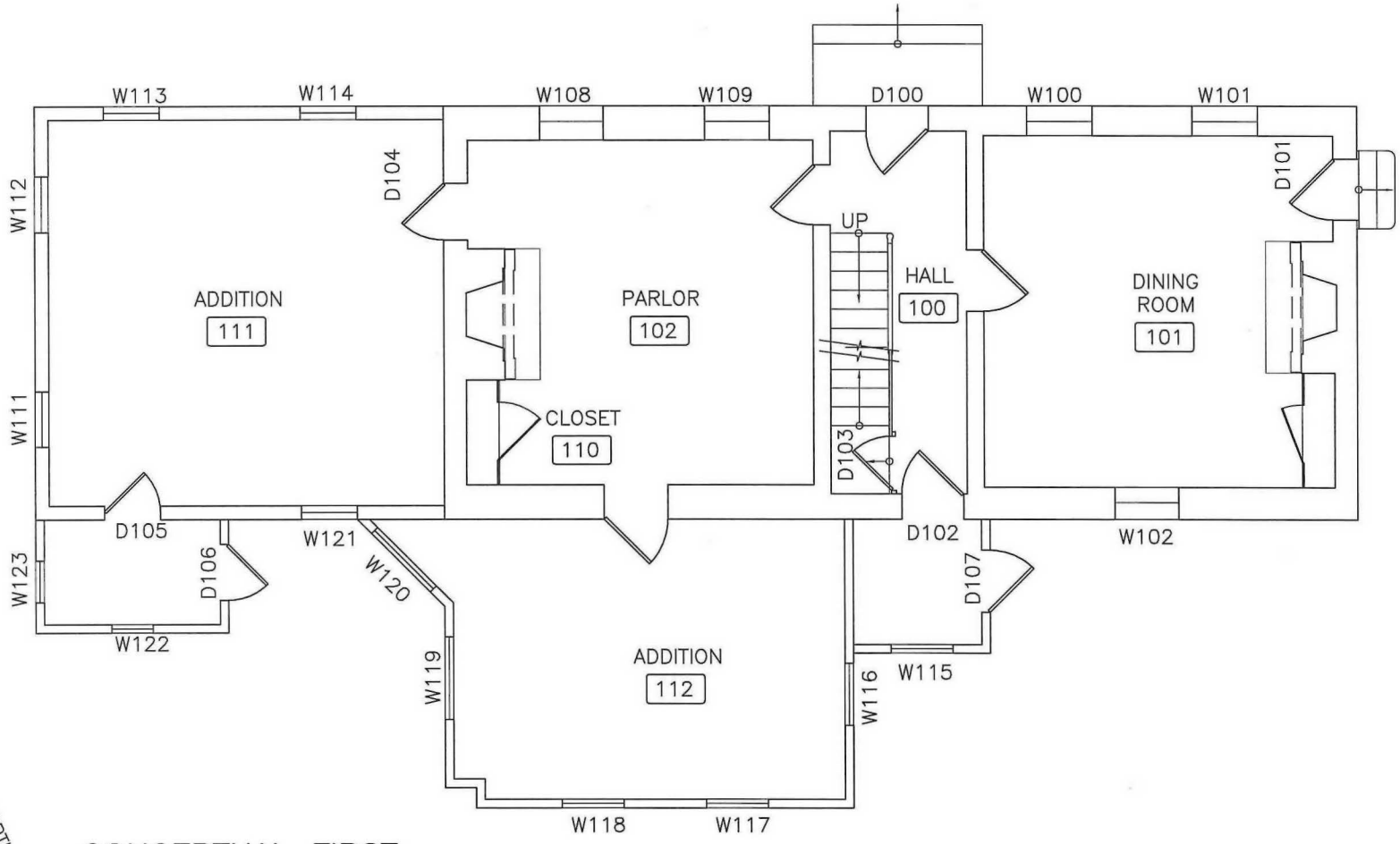
PROJECT # 10064

DATE 05/02/11

FIGURE

**D25**




## CONCEPTUAL FIRST FLOOR PLAN CA. 1930

SCALE: 1/8" = 1'-0"

SHAFFER WILLSON SARVER & GRAY

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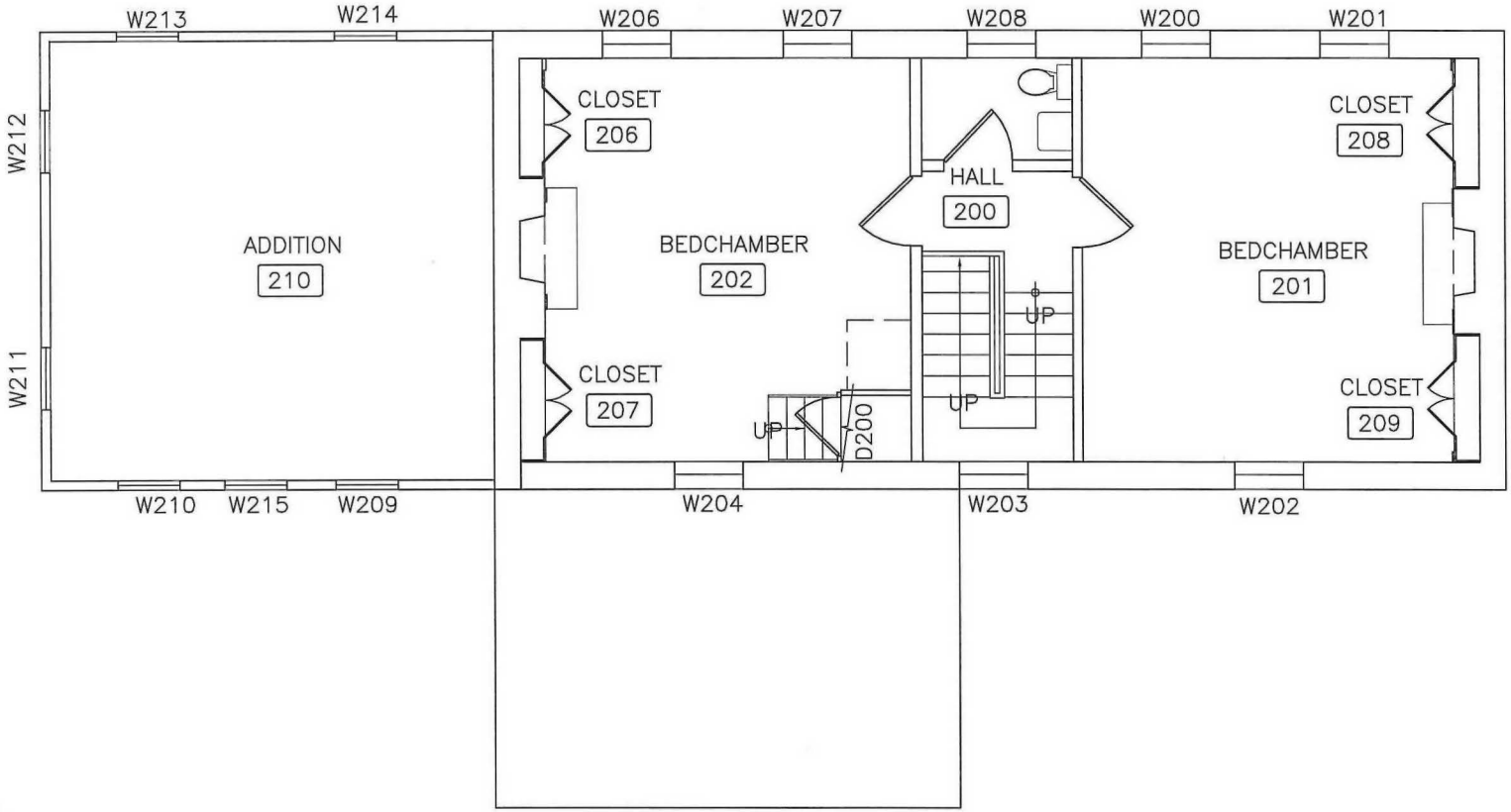
DATE 05/02/11

FIGURE

D26

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## CONCEPTUAL SECOND FLOOR PLAN CA. 1930

SCALE: 1/8" = 1'-0"

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PROJECT # 10064

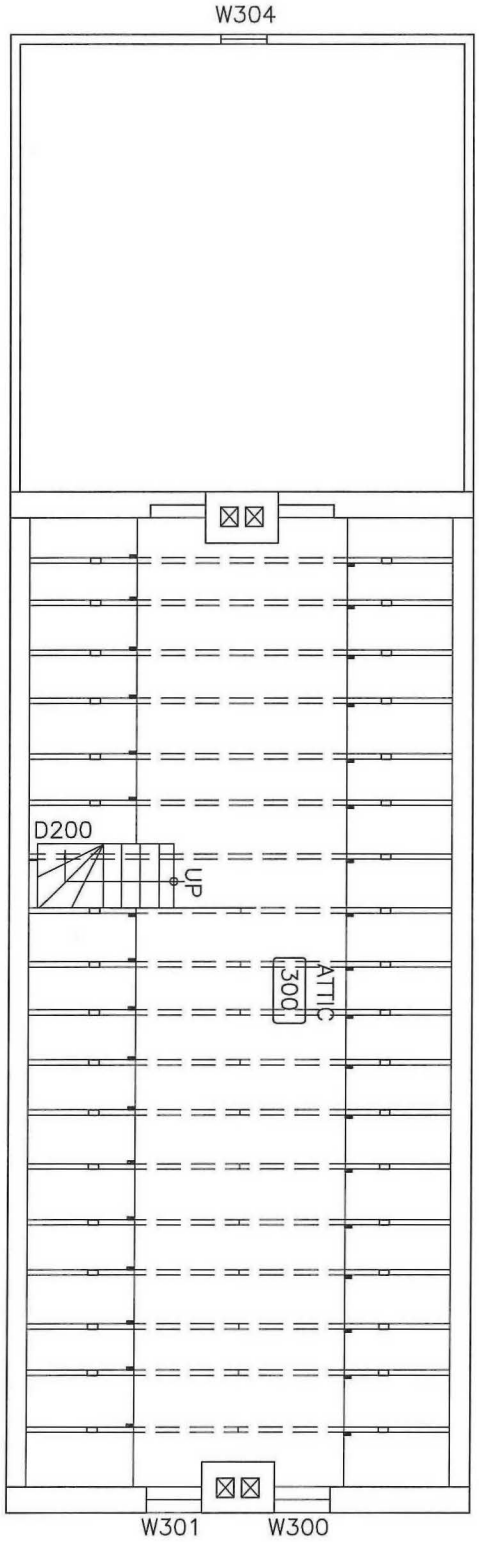
DATE 05/02/11

FIGURE **D27**

NORTH

# CONCEPTUAL ATTIC FLOOR PLAN CA. 1930

SCALE: 1/8" = 1'-0"




| | | | | | |
|---|---|---|---|---|---|
| D28 | DATE 05/02/11 FIGURE | PROJECT # 10064 | COLVIN RUN MILLER'S HOUSE<br>GREAT FALLS, VA<br>10017 COLVIN RUN ROAD<br>GREAT FALLS, VA 22066 | FAIRFAX COUNTY PARK AUTHORITY<br>12055 Government Center Pkwy.<br>Suite 927<br>Fairfax, Virginia 22035 | SWSG<br>SHAFFER WILSON SARVER & GRAY<br>1821 Michael Faraday Drive<br>Suite 302<br>Reston, VA 20190<br>703-471-8603<br>A PROFESSIONAL CORPORATION<br>Engineering • Architecture • Construction Management |

## CONCEPTUAL SOUTHWESTERN ELEVATION CA. 1930

SCALE: 1/8" = 1'-0"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DATE 05/02/11

FIGURE

**D29**

CONCEPTUAL SOUTHEASTERN ELEVATION CA. 1930

SCALE: 1/8" = 1'-0"

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FIGURE

D30

## CONCEPTUAL NORTHEASTERN ELEVATION CA. 1930

SCALE: 1/8" = 1'-0"


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# COLVIN RUN MILLER'S HOUSE
GREAT FALLS, VA

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PROJECT # 10064

DATE 05/02/11

FIGURE

**D31**

CONCEPTUAL NORTHWESTERN ELEVATION CA. 1930

SCALE: 1/8" = 1'-0"

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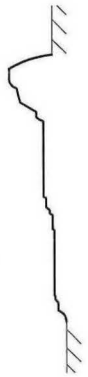
PROJECT # 10064

DATE 05/02/11

FIGURE

D32

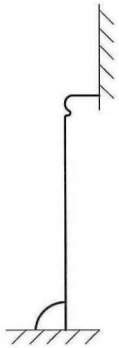
HANDRAIL SECTION
AT HALL STAIR



HALF–RAIL AT
SECOND RUN OF
HALL STAIR

## STAIR MILLWORK

SCALE: 3" = 1'–0"



HALL
ROOM 100

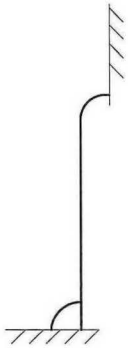
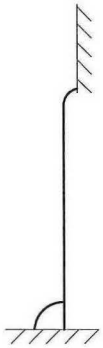
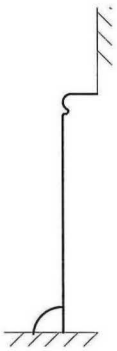


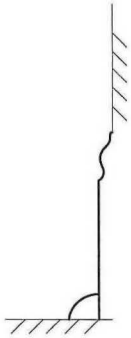
EXHIBIT
ROOM 101



PARLOR AT WALL
WITH TWO WINDOWS
ROOM 102



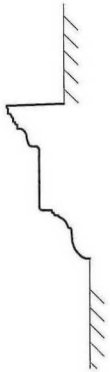
PARLOR WALL
ADJACENT TO
HALL ROOM 102



HALL
ROOM 200

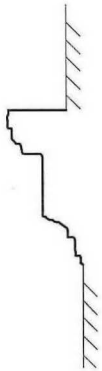
## BASEBOARD PROFILES

SCALE: 3" = 1'–0"



HALL
ROOM 100

HALL
ROOM 200



TYPICAL FIRST
FLOOR RAIL

TYPICAL SECOND
FLOOR RAIL

## CHAIR RAIL PROFILES

SCALE: 3" = 1'–0"

PICTURE RAIL,
TYPICAL

## PICTURE RAIL PROFILE

SCALE: 3" = 1'–0"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COLVIN RUN MILLER'S HOUSE
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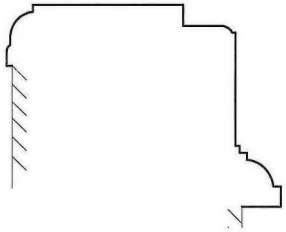
GREAT FALLS, VA 22066

PROJECT # 10064

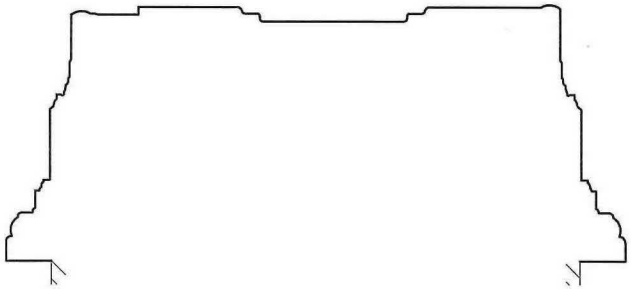
DATE 05/02/11

FIGURE

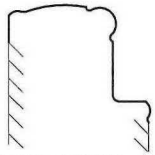
E1



TYPICAL SECOND FLOOR
DOOR JAMB AT HALL 200



TYPICAL FIRST FLOOR INTERIOR DOOR JAMB AT HALL 100

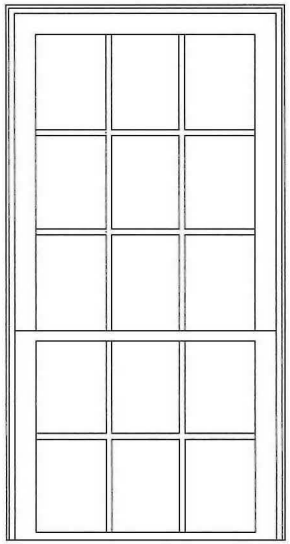


ATTIC DOOR JAMB
DOOR D200

## DOOR JAMB SECTIONS

SCALE: 3" = 1'-0"

1 PILASTER PLAN DETAIL
SCALE: 3" = 1'-0"

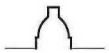


TYPICAL SECOND FLOOR
WINDOW ELEVATION

## WINDOW ELEVATION

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

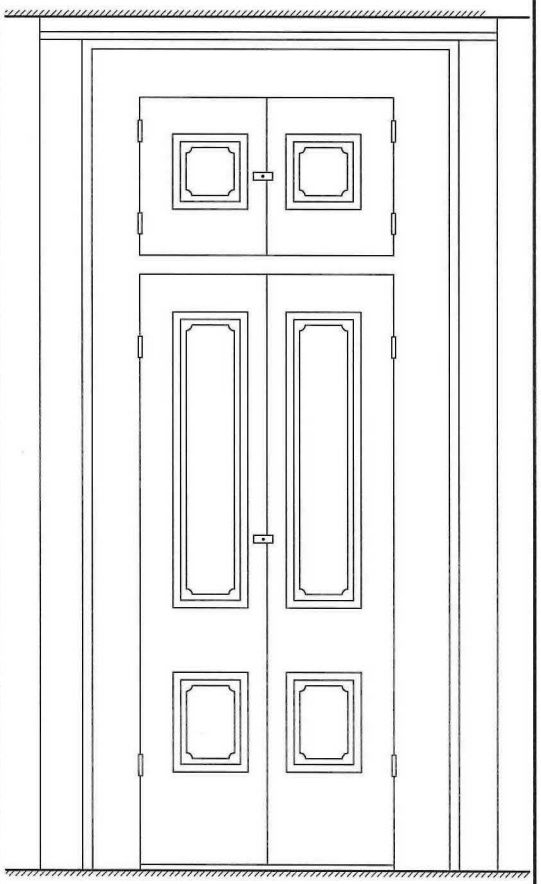
TYPICAL WINDOW
MUNTIN PROFILE



WINDOW W203
MUNTIN PROFILE

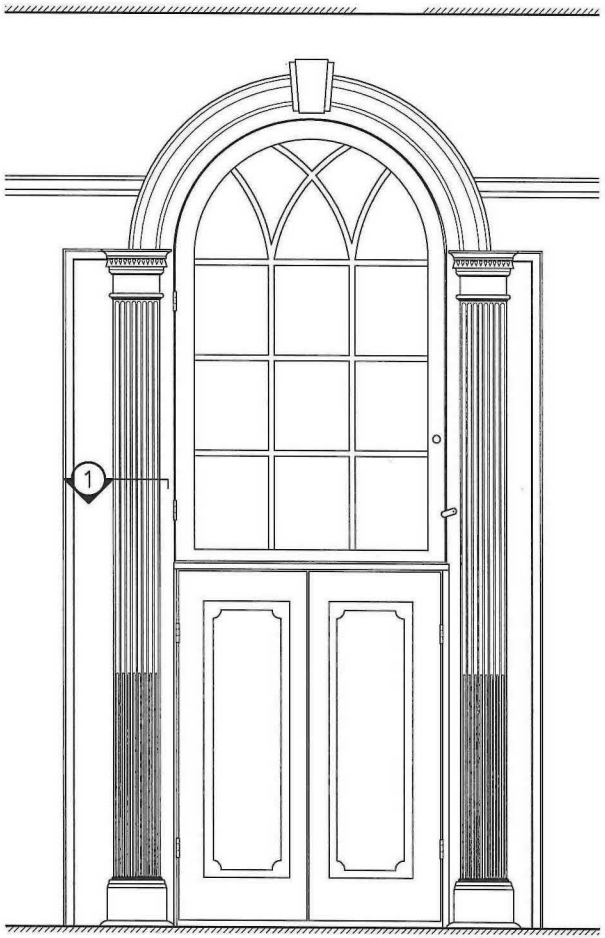
## WINDOW MUNTINS

SCALE: 3" = 1'-0"



## SECOND FLOOR CLOSET

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




## BOWFAT ELEVATION

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

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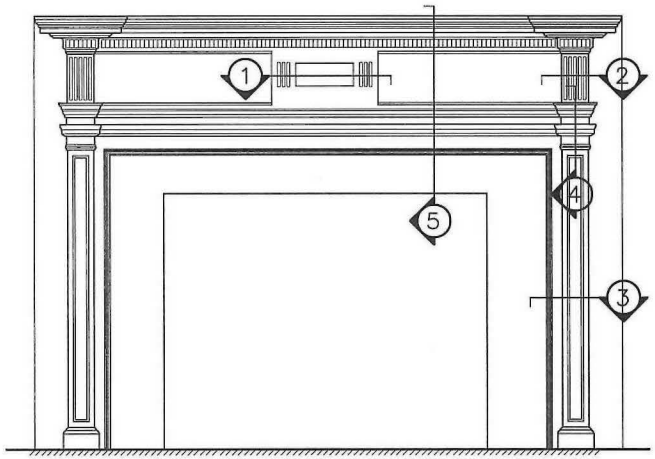
GREAT FALLS, VA 22066

PROJECT # 10064

DATE 05/02/11

FIGURE

E2

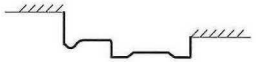



## PARLOR FIREPLACE MANTLEPIECE

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

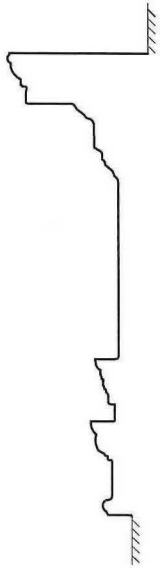
1 MANTLE CENTER PIECE

2 MANTLE UPPER PILASTER



3 MANTLE LOWER PILASTER

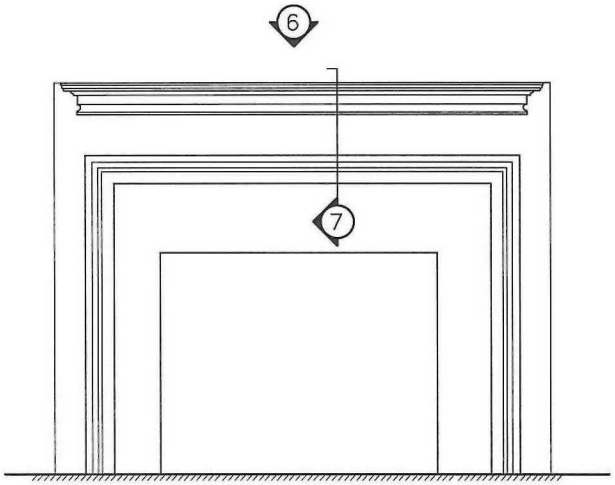
4 MANTLE PILASTER DETAIL



5 MANTLE SECTION

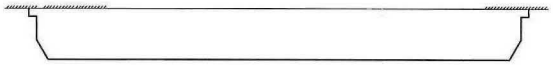
## PARLOR FIREPLACE MANTLEPIECE

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




## SECOND FLOOR FIREPLANCE MANTLEPIECE

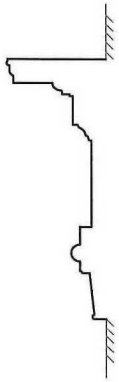
SCALE: 1/2" = 1'-0"



6 MANTLESHELF PLAN
SCALE: 1/2" = 1'-0"

## PARLOR FIREPLACE MANTLEPIECE

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



7 MANTLE SECTION
SCALE: 1 1/2" = 1'-0"

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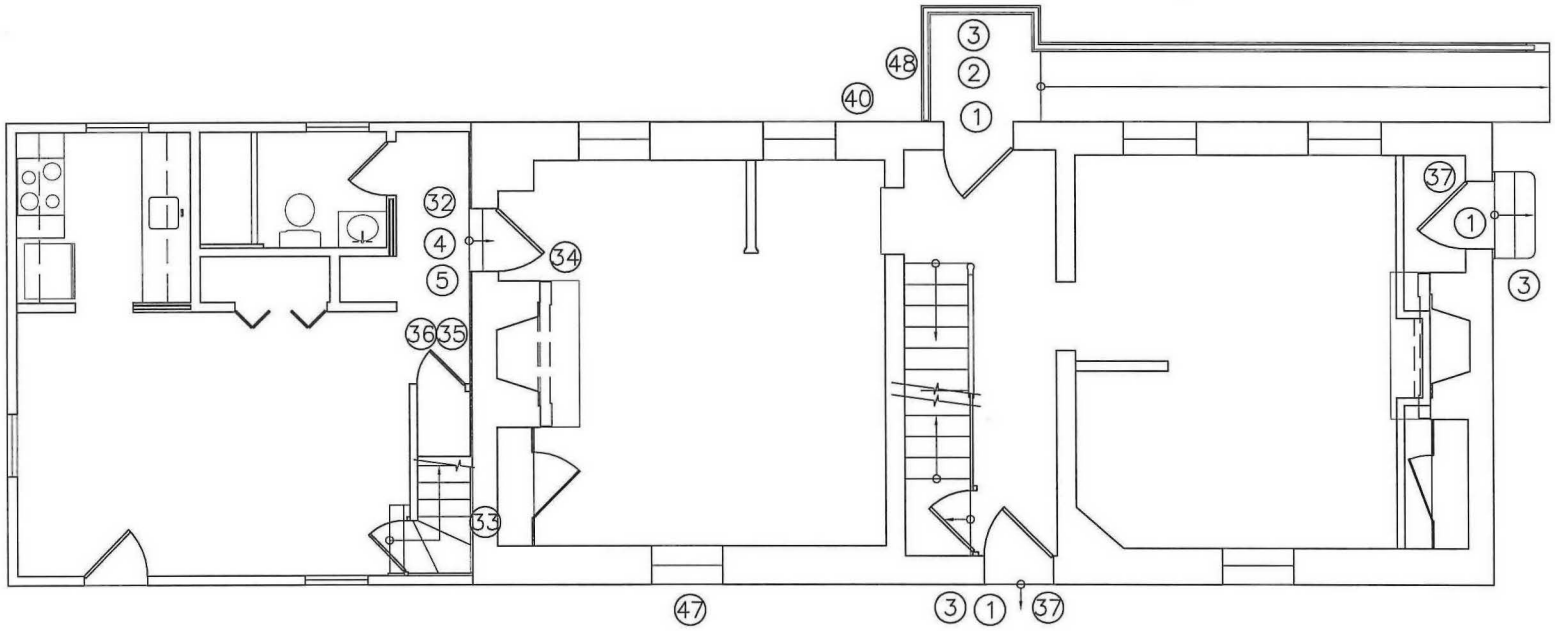
FIGURE

**E3**




NORTH

## KEY INDICATORS – EXTERIOR

SCALE: 1/8" = 1'–0"

SHAFFER WILSON SARVER & GRAY
SWSG
1823 Michael Faraday Drive
Suite 200
Reston, VA 20190
703-471-6803
A PROFESSIONAL CORPORATION
Engineering • Architecture • Construction Management

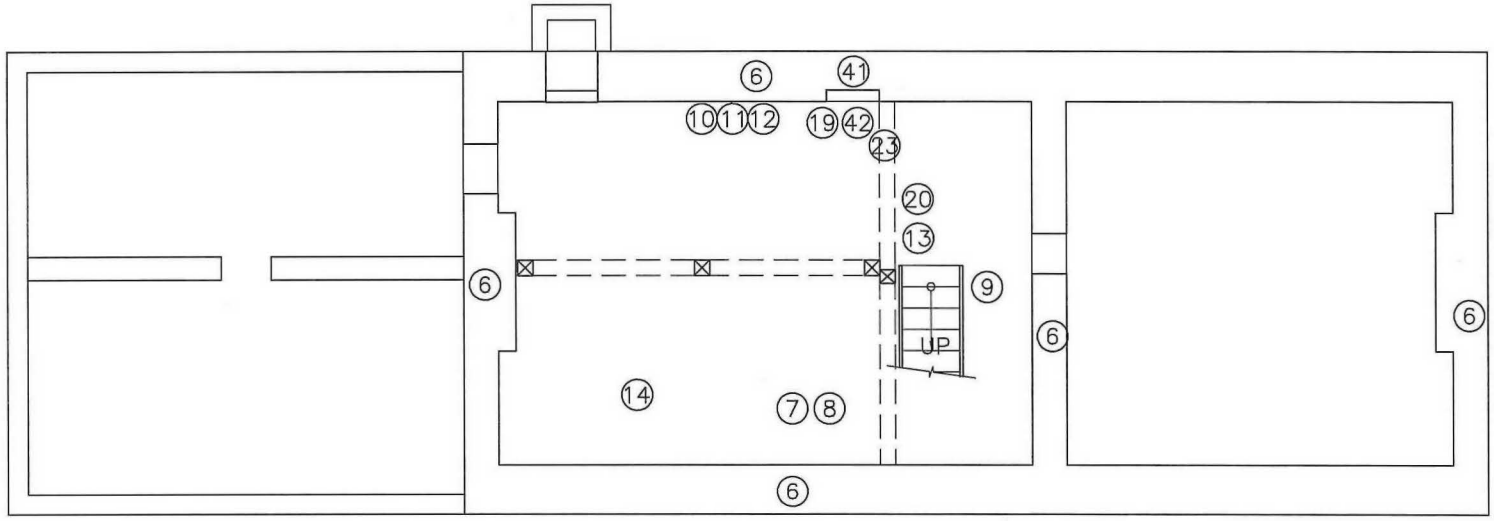
FAIRFAX COUNTY PARK AUTHORITY
12055 Government Center Pkwy.
Suite 927
Fairfax, Virginia 22035

COLVIN RUN MILLER'S HOUSE
GREAT FALLS, VA
10017 COLVIN RUN ROAD
GREAT FALLS, VA 22066

PROJECT # 10064

DATE 05/02/11

FIGURE F1




NORTH

## KEY INDICATORS – CELLAR

SCALE: 1/8" = 1'–0"

SWSG

SHAFFER WILSON SARVER & GRAY

1821 Michael Faraday Drive
Suite 300
Reston, VA 20190
703-471-8803

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Engineering • Architecture • Construction Management

FAIRFAX COUNTY PARK AUTHORITY

12055 Government Center Pkwy.
Suite 927
Fairfax, Virginia 22035

COLVIN RUN MILLER'S HOUSE
GREAT FALLS, VA
10017 COLVIN RUN ROAD
GREAT FALLS, VA 22066

PROJECT # 10064

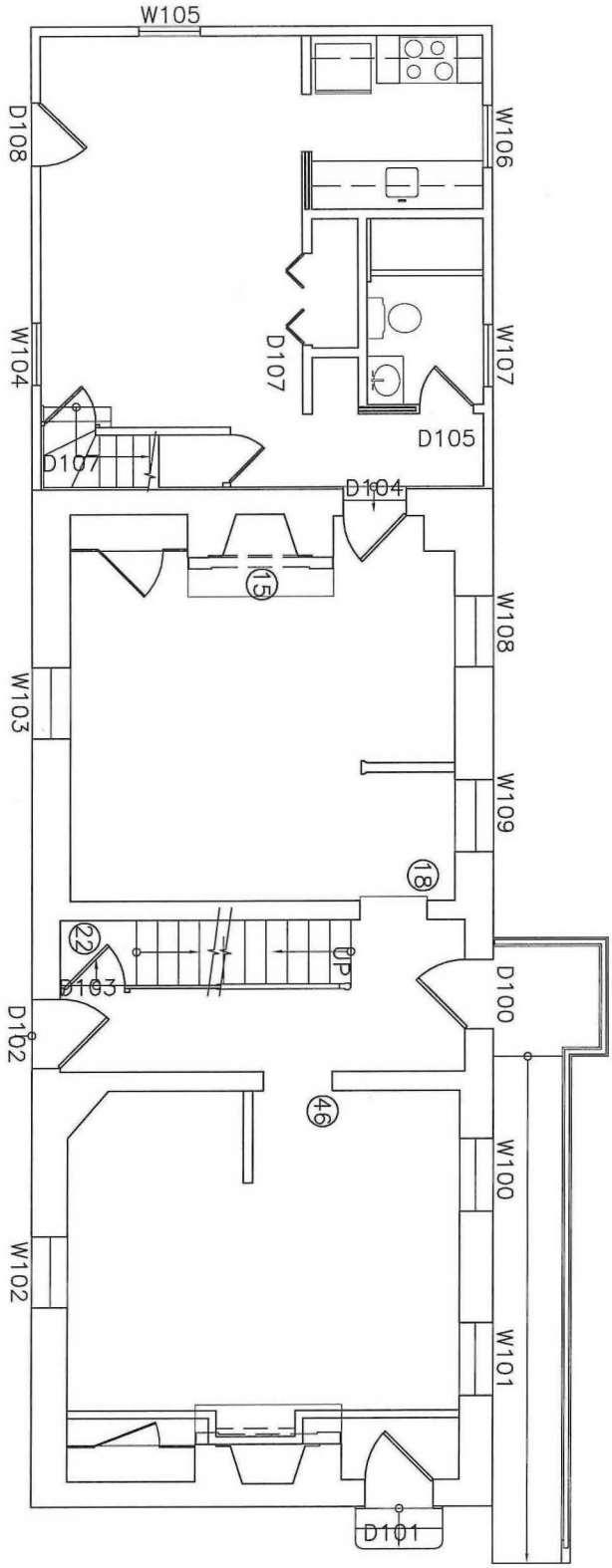
DATE 05/02/11

FIGURE

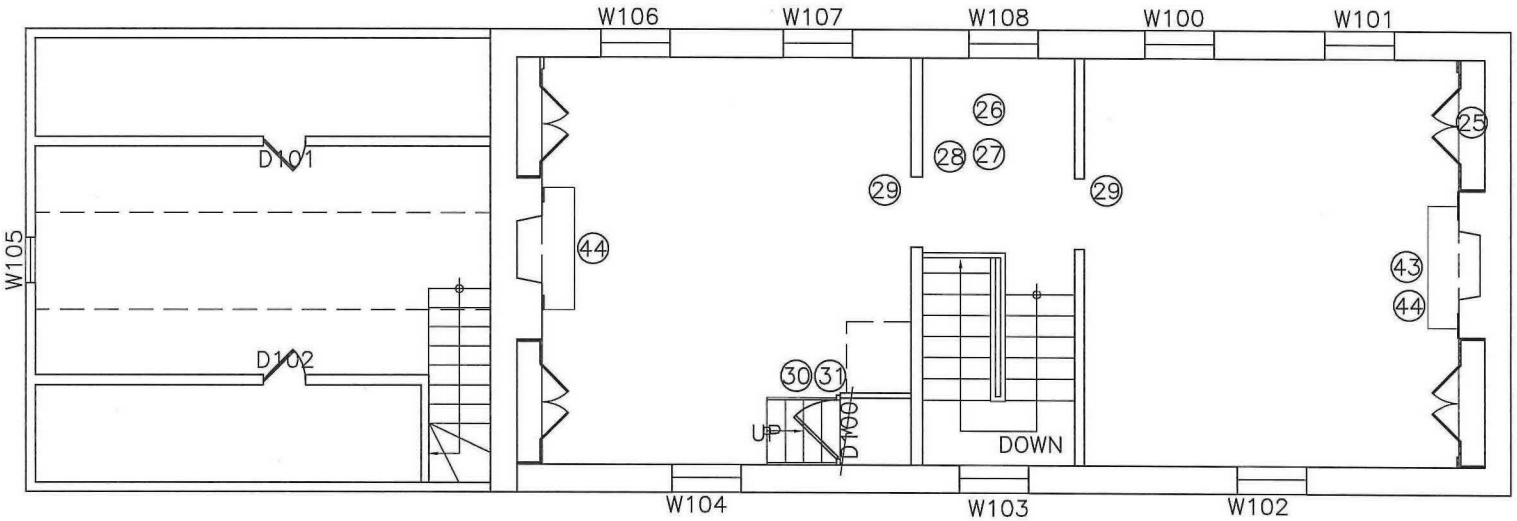
**F2**

# KEY INDICATORS – FIRST FLOOR

SCALE: 1/8" = 1'-0"




| | | | | | |
|---|---|---|---|---|---|
| FIGURE F3 | DATE 05/02/11 | PROJECT # 10064 | COLVIN RUN MILLER'S HOUSE<br>GREAT FALLS, VA<br>10017 COLVIN RUN ROAD<br>GREAT FALLS, VA 22066 | FAIRFAX COUNTY PARK AUTHORITY<br>12055 Government Center Pkwy.<br>Suite 927<br>Fairfax, Virginia 22035 | SWSG SHAFFER WILSON SARVER & GRAY<br>1821 Michael Faraday Drive<br>Suite 302<br>Reston, VA 20190<br>703-471-6803<br>A PROFESSIONAL CORPORATION<br>Engineering • Architecture • Construction Management |




NORTH

## KEY INDICATORS – SECOND FLOOR

SCALE: 1/8" = 1'-0"

SWSG
SHAFFER WILSON SAWYER & GRAY
1921 Michael Faraday Drive
Suite 300
Reston, VA 20190
703-471-8883
A PROFESSIONAL CORPORATION
Engineering • Architecture • Construction Management

FAIRFAX COUNTY PARK AUTHORITY
12055 Government Center Pkwy.
Suite 927
Fairfax, Virginia 22035

COLVIN RUN MILLER'S HOUSE
GREAT FALLS, VA
10017 COLVIN RUN ROAD
GREAT FALLS, VA 22066

PROJECT # 10064

DATE 05/02/11

FIGURE

**F4**

# COLVIN RUN MILL CHAIN OF KEY EVENTS

| Date | Instrument | Description |
|---|---|---|
| Prior to: 17 Aug 1739 | | **Col John Colvill granted 5,568 acres from Northern Neck Proprietors, though the grant was never recorded.** |
| 08 Jun 1739 | NN E:38 | Survey for grant to Thomas, Lord Fairfax for 12,588 acres that he assigned to Bryan Fairfax in a grant issued in I:124. A parcel originally surveyed for William Norris is noted to now belong to William Fairfax. The 12,588 does not include the Norris parcel, though it appears on the survey plat. |
| 11 Aug 1739 | NN E:100 | John Warner survey, on the orders of William Fairfax Esqr, his plat of 5,568 Acres shows the future Washington purchase as having been originally surveyed for William Norris. |
| 22/23 Jan 1741 | PW DB E:203 | **William Fairfax purchases 5,568 acres of land from John Colville *called and known by the name of Towlston Grange.*** |
| 17 Mar 1752 | NN H:136 | George Washington is granted 760 acres at the head of the south fork of Bull Skin in Frederick County, Virginia. [N.B. Washington began acquiring land in the area of present-day Charles Town, WV in 1750.] |
| 1754 | His Excellency by J. Ellis, p. 56 | Governor Dinwiddie issues a proclamation making 200,000 acres of bounty land available on the east side of the Ohio River to Virginians who serve in the war. |
| 20 Feb 1759 | FX WB B1(651)171 | **Bryon Fairfax is devised 5,500 acres of land from his father, William Fairfax. [Also per LN DB C:458]** |
| 02 Feb 1763 | | Treaty of Paris signed, ending the French and Indian War. |
| 1763 | His Excellency by J. Ellis, p. 55,56 | George Washington, along with other investors, form the Mississippi Land Company, which requested a grant of over 2.5 million acres on both sides of the Ohio river. The request was denied. |
| 12 Apl 1763 | LN DB C:458 | **George Washington purchased 275 acres from Bryon Fairfax and Elizabeth, his wife. Property** |

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| | **was part of Towlston Grange tract of 5,568 acres.** |
| 07 Oct 1763 | Royal Proclamation of 1763 by King George III made the region from the Great Lakes to the Gulf of Mexico, and from the Mississippi to the western slope of the Appalachian mountains an Indian reservation. Former officers of the French and Indian War were eligible for grants of 5,000 acres each. |
| 13 May 1773 FX DB K1(11):308 | John Shepperd leases 41 3/5 acres from Bryan Fairfax. |
| 15 Aug 1778 LOC American Memory | George Washington letter to Lund Washington – *Having so fully expressed my Sentiments concerning this matter, I shall only add a word or two respecting Barry's Land. The same motives which induce a purchase in the one case prevail in the other, and however unwilling I may be to part with that small tract I hold on difficult Run (containing by Deed, if I recollect right 275 acres, but by measurement upwards of 300) on acct. of the valuable Mill Seat Meadow Grds. &ca.* |
| 15 Jun 1783 Netherton, Colvin Run Mill | Letter from George Washington stating that he had been informed by Lund Washington *that some person has petitioned or is about to petition the Court at Loudoun for an Acre of the Land I bought of you on Difficult to build a Mill on...* |
| 23 Sep 1784 VJ & Alex Adv, p3 | TO BE RENTED…*At the same time will be let on lease for three lives, or 21 years, about 300 Acres of LAND, lying on Difficult-Run, where the great road crosses that leads from Alexandria to Leesburg...This tract has on it a very valuable mill-seat, situated near the road, and there may be made near or quite 50 acres of meadow, the remaining part of the land will be found to be very proper soil for farming...The above tracts of land are the property of General WASHINGTON...* |
| 23 Nov 1786 FX DB Q1(17):377 | John Shepperd leases, in a three-lives lease, land from Bryan Fairfax on Difficult Run and between a small branch and the Main Road. |
| 17 Jun 1789 FX DB R1(18):472 | John Sheppard purchases the two parcels he was leasing from Bryan Fairfax, consisting of 120 acres. |
| 23 May 1793 LOC American Memory | Letter from Robert T. Hooe to George Washington – *I was informed the other day that an attempt* |

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| | *would be made by Shepherd, who keeps Tavern at Difficult Bridge, to condemn part of your land for a Mill that he is about to erect – a Friend of yours requested of me to mention it to you. I shall attend the Loudon June Court, & if you have any orders to give Regarding this matter, I will serve you to the best of my power.* |
| 29 May 1793 LOC American Memory | Letter from George Washington to Robert Townsend Hooe *I thank you for the information of Shepherds intention to apply to the Court of Loudoun County for the purpose of having some of my* [sic] *on Difficult run condemned for his benefit. I had heard of it before, & on my way to this City last October, I wrote a letter of Colo Powell on the occasion, of which the enclosed is a copy, but having received no acknowledgement thereof – I presume it never reached his hands...* |
| 15 Jun 1793 LOC American Memory | Letter from Levin Powell to George Washington *...the result of my enquiries has been that a Mr. Shepherd of that neighbourhood has not yet relinquished this Idea of building a Mill & I think it probable about the place you apprehended. It has been the uniform practice in this County for the Court to give preference to the first applicant, the Law seems to favor that opinion and upon enquiring I find it has always been so construed and is still by the Magistrates, I am therefore inclined to think it will be very difficult to prevent his getting an order should he first apply. under the circumstances I would beg leave to recommend to your consideration whether it would not be adviseable for you to obtain an order of Court first, the Law directs that when an order is obtained the Mill must be begun within one year of* [?] *within three, but if it was inconvenient for you to begin the work within that time, you might obtain a new order a little before the year expired and continue to do so until it was convenient to proceed on the work, the expence of this work will be trifling. If this method should meet your approbation wish I shall with pleasure pursue any directions which you may be pleased to give me, in which case it will be necessary to let me know the name of the stream which the Mill is to be built, and whether the whole work will be on your land or whether an acre of some other persons land must be condemned to* |

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| | *your Dam to* [?] *it to whose land it is. You would have heard from me upon this subject sooner, but I consider it proper to proceed in my enquiries with great caution for fear the person might take the Alarm and make application for a order, and I did not like to Trouble you with a letter without being able say really how the matter stood....* |
| 26 Aug 1793 LOC American Memory | George Washington letter to Robert Lewis, Esqr - ...nothing short of a very high price would Induce me to sell my small tract of about 300 Acres on Difficult Run in Loudoun County; for which, on account of the Mill Seat – quantity of Meadow land contiguity to the Great Falls (where a town is erecting) George town, the Federal City, and Alexandria from the last of which it is only 18 miles – It was sometime before I left home, in treaty with a Dutchman for it, with the annual rent of of [sic] Sixty Pounds. |
| 09 Sep 1794 FX DB X1(24)372 | Elisha Dick and Hannah, his wife, sell 550 acres to John Gill, part of John Lewis's patents for 337 ac and 401 ac. |
| 26 Apl 1795 LOC American Memory | George Washington letter to John Gill – |
| | *I repeat now, what I said to you then; viz, that renting the lands does not in the first place promote my Views. And in the second the measure may eventually be liable to serious disadvantages; for which reason, it would be much more agreeable to me to alienate the property altogether; and this I would do to you, upon the same terms I offered Mr. Bailey* [Pearce Baylor (Bailey)] , *namely £900 down, and £900 more on a credit to be agreed on, with* |
| | *If this is incompatable with your Views, and renting only will answer them, at least for a time, I will tho' reluctantly, agree to the following terms. namely, to receive £130 pr Ann; to cease on the payment of £2,000 in specie or current money equal thereto, at the time of payment which latter shall be done in ten years, from the date of the agreement: And not only the land, but unexceptionable personal Security shall be given for performance of the Annual payment and the sum of £2000 within the time above mentioned; And more over that if the Annual* |

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| | *Sum of £130 shall not be paid within ... days after it becomes due it shall be optional in me to reenter, and take possession of the land, as if no agreement for it had ever taken place, And the full sum due thereon, arising from the afore mentioned rent to be paid not withstanding...* |
| 04 May 1795 LOC American Memory | George Washington letter to John Gill – |
| | *... the reason why I requested other Security than the Land and your own bond for the performance of the Contract, which you were inclined to enter into, for my small tract on Difficult Run, arose from an expression which fell from you at Mount Vernon (according to my understanding of it) Viz, that you did not want the land with a View to improve it.* |
| | *Hence, no advantages seeming to be contemplated from the mill seats, or meadow ground, (which in my estimation compose the most valuable part of the property) I could not conceive what the object of the purchase could be, unless to carry off the wood; the doing of which I well know would diminish the value of the land: and of course, if there should be any failure in the personal security, that I meet the land in a reduced state, would be my only resort.* |
| | *If I have misconceived your meaning, that is, if your object in buying is to let the land lye dormant for the chance of a rise in its price; or if you meant contrary to my construction, (of your expression) to erect buildings thereon; to improve the grounds; I will on condition that none of the wood or coal made therefrom (both of which must be in demand at the Iron Works carrying on at the great falls) is removed from the land untill the principal Sum of two thousand pounds is paid.* |
| 17 May 1795 LOC American Memory | George Washington letter to Gustavus Scott - *I am much obliged by your kind enquiry into the value of the land I hold on Difficult run, although the communication respecting it has come too late, if a gentleman to whom I had made an offer of it acceeds to my terms. Your offer to assist me in the disposal of this land was friendly, and I feel greatful for it. With Esteem etc.* |
| 17 May 1795 LOC American Memory | George Washington letter to Charles Lee – *Dear* |

*Sir: Mr. Gill (of Alexandria) and I, have been in treaty sometime for a small tract of land which I hold in Loudoun county on Difficult run, at the bridge on the Leesburgh road. If he will agree to the following terms, from the spirit of which there will be no departure, such writings as will subserve both of our purposes, I pray you to draw.*

*1st. For him to hold the land by lease for the term of ten years, to commence from the date of the instrument; for the use and occupation of which, he is to pay in coin of the United States, or other money current at the time, and equivalent thereto, four hundred and thirty three dollars and a third yearly, and every year during the continuance of the said lease, at the Bank of Alexandria; for which a check is to be given.*

*2d. If any part of the said sum of 433 1/3 shall be behind, or unpaid in manner aforesd, thirty days after the same shall become due, it shall and may be lawful (and optional in for me to re-enter and take possession of the premises as if no such lease had ever been granted. And if property should not be found thereon adequate to the rent, recourse in the ordinary mode, may be resorted for recovery of the same.*

*3d. That not a timber tree, stick of wood, coal made therefrom, or Ore, if any be on the land, shall be removed therefrom, under any pretence whatsoever; or used otherwise than for the purposes of the premises.*

*4th. That for the support and benefit of the same, there shall be left standing on the said tract, at the expiration of the lease a fourth part, at least, of the wood.*

*5th. It is understood and agreed, and the parties accordingly are to bind themselves as follow--viz: John Gill, his heirs &ca. to pay to George Washington his heirs &ca. on or at any time before, the expiration of the aforementioned term of ten years, the sum of Six thousand, six hundred and Sixty six dollars, and two thirds of a dollar, in the manner before mentioned; and for surety thereof, is to give his own bond with sufficient penalty. In*

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| | *consideration of which payment, well and truly performed, George Washington, or his heirs &ca. is to convey, in fee simple, the aforesaid tract; and the rent thence forward is to cease, and determine.* |
| | *6th. Whereas by Deeds of lease and release from the Revd. Mr. Fairfax to me, the stream of difficult run is made the boundary between the land thus conveyed, and land conveyed by Deed from ... to ... on the other, or lower side of the run, and whereas by the last mentioned deed, a straight line is called for as the boundary between the two tracts, which may, according to circumstances, occasion a diminution in the quantity of my land; now it is understood and agreed, (be this as it may) that no alteration, consequent thereof, is to take place in the rent, or in the purchase money of this tract: for by the tract, and not by the acre, I sell it. The Deeds from Mr. Fairfax to me, specifies two hundred and seventy five acres only; but by a resurvey, if I recollect rightly, it measures three hundred and three acres; but I mean to give no other warrantee than I have received of it; and from this, to except what might be involved in dispute by the different lines; and so I would have it expressed, in order to avoid a controversy hereafter.* |
| | *With great esteem etc.* |
| 09 Jul 1795 FX DB Y1(25):125 | William Sheppard purchases 200 acres from Rezin Offutt on small branch of Difficult Run. |
| 09 Jul 1795 FX DB Y1(25):138 | Rezin Offutt and Elizabeth, his wife, lease the 200 acres from William Sheppard for the time period of the natural life of Elizabeth Offutt. |
| 29 Nov 1797 Estate of Geo Wash, p. 385 | Ledger "C" states in account with John Gill *To my agreement with you this day for arrearages of Rent etc. due by you for land leased you on Difficult (vide agreement) £260 $866.67* |
| 09 Jul 1799 Will of Geo Washington | Schedule of property includes Difficult run of 300 acres valued at $6,666. *This tract for the size of it is valuable, more for its situation than the quality of its soil, though that is good for Farming; with a considerable portion of grd that might, very easily, be improved into Meadow. It lyes on the great road from the City of Washington, Alexandria and George Town, to Leesburgh & Winchester; at* |

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| | *Difficult bridge; nineteen miles from Alexandria, less from the City & George Town, and not more than three from Matildaville at the Great Falls of Potomac. There is a valuable seat on the Premises--and the whole is conditionally sold--for the sum annexed in the Schedule.* |
| 13 Oct 1799 Papers of Geo Washington | In a letter from George Washington to John Gill, Washington is attempting to collect rent in arrears from Gill. Washington notes that Gill had done nothing with the land. He also states that he was offered 1,500 pounds cash with a thousand down, and that the person who operates the tavern at the bridge would have given more. |
| 12 Nov 1799 LOC American Memory | George Washington letter to John Gill – *I am just returned from Difficult Run whither I was to examine your land, and to see how it was situated in connexion with mine, to ascertain the quantity in the part you had offered to me – the quality - &c. When you proposed to* [?] *that part of lot No 10 which lyes on the East side of Difficult run, I presume you were unacquainted with three* [?] *instances attending it – 1st, that you would leave only 85 acres on the west side of the said run, 2nd, that you would take all the woodland (except a very narrow* [?] *or two, - and 3rd all the land of any value. – For the land on the West side is not only extremely hilly and broken, but much worn and gullied. The (uninhabited) house thereon is tumbling down, - the Fence around the field is in ruins, and not a sufficiency of timber to repair it – and no part of the land within less than 80 rod of mine…* |
| 26 Nov 1799 Papers of Geo Washington | In a letter from George Washington to Bryan Fairfax, Washington notes that he had acquired the Difficult Run tract from Fairfax in order to have a Stage for his Waggons while he had land in Berkley. He states that it has been many years since he has had his people on the land, and now feels it may make a good small farm since the area around the tract was overstocked with laborers. |
| 20 Jan 1800 FX WB H1(657)1 | Will of George Washington proved in court. Martha Washington retained possession of almost all of Washington's property as her dower portion. The Difficult Run tract was valued at $6,666. |

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| 22 May 1802 | Death of Martha Washington |
| 01 Nov 1802 Alex Advertiser | Advertisement of tracts of land by the executors of the late Gen. Go. Washington. ...*A tract in Loudoun county on Difficult Run, containing 300 acres. The soil well adapted for farming and a considerable proportion of it might easily be improved into meadow. There is a valuable mill-seat on the premises. It lies on the great road from the City of Washington, Alexandria and George Town to Leesburgh and Winchester, nineteen miles from Alexandria, less from the City and George Town and not more than thee from the Great Falls of Potomac.* |
| 21 Jan 1803 FX DB E2(31):150 | **William Sheppard purchases 300 acres from the heirs of George Washington for 2,000 pounds Virginia currency.** |
| 21 Jan 1803 FX Drawer X (D2:439) | Trust from William Sheppard to the heirs of George Washington. The payment is for 666 pounds 13 shillings and 4 pence currently money of Virginia on the first day of September 1804 and 1805 with 6 percent interest. The trust was recorded in the deed book on 16 May 1803. Beneath the clerk's signature is a calculation that adds 666.13.4 three times to equal 2000. In 1797 the exchange rate between pounds Virginia currency and dollars was $3.3333 per pound; hence, it appears that 2,000 pounds was approximately the value Washington listed in the schedule of his will of $6,666. |
| 1804 FX Land Tax | Tax rate increased from 9/ to 10/0 per acre. |
| Dec 1808 Lundgard Fredericksburg Case | William Sheppard signed a note for $362 payable to Mahlon Schooley. [N.B. Schooley may have operated a mill in Waterford, VA] |
| 30 Jan 1809 Alex Gaz | Advertisement by William Sheppard ...*Two Stray Cows. - Came to my plantation some time ago, two red COWS - The owner is requested to prove property, pay charges, and take them away. William Sheppard. Fairfax County.* |
| 25 Jul 1809 Alex Gaz | Advertisement by William Sheppard. ...*I wish to RENT for one or more years, A VALUABLE MILL, which is in good order for manufacturing wheat into flour, and also well calculated for country work, in Fairfax county, on the direct road leading from Leesburg to Alexandria; with two water* |

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| | *wheels, one 21 feet high one 20 feet high, with one pair of five feet burr stones and one pair of four and half feet country stones, and a place for another pair of burr stones which can be in order in short time if required - it has every machinery necessary. For the particulars apply to the subscriber living in Fairfax County, Virginia. William Sheppard* |
| 1810 Lundgard Fredericksburg Case | William Sheppard signed a note payable to James Coleman. [N.B. James Coleman operated a grist mill in Fairfax Parish, Fairfax County.] |
| 1811 Lundgard Fredericksburg Case | William Sheppard signed a note payable to Thomas Fairfax. |
| Mar 1811 Lundgard Fredericksburg Case | William Sheppard signed a note for $162.93 payable to Thomas Shreve. [N.B. Shreve was an Alexandria merchant.] |
| 23 Apl 1811 Alex Gaz, p. 1 | Mill for Sale. *I will sell or I will let, for a Term of years, a grist and merchant Mill & 70 acres of good fertile land...and 10 miles from any other merchant mill, and in a good neighborhood for wheat, corn, rye, &c. and it being so immediately on the road where all kinds of horse food will sell to great advantage. The Mill House is built with brick; it is 41 feet by 50 feet and 3 stories high, and on a never failing stream, with 2 water wheels, one pair of good country stones, and one pair of five feet French Burrs of good quality, and a conveniency for another pair, part of the works already framed, and seasoned timber sufficient to finish them; it has every conveniency and necessary machinery for the manufacturing flour and country work. The works are almost new and in complete order, with a good dwelling-house, kitchen, cooper's shop & other buildings necessary, and a good peach orchard. there is about 2 acres of improved meadow, and 6 or 8 more may be added; the balance is well timbered... William Sheppard.* |
| 30 Apl 1811 The Washingtonian | William Sheppard advertises the mill for sale or rent. Describes mill house as brick measuring 41' by 50'. |
| 30 May 1811 Alex Gaz, p1 | Public Sale. - *...A Tract of Land, situate on Difficult Run, in the said county, containing by estimation 300 acres, which land is now in the possession of the said William Shepard. The land will be laid off in convenient lots for the accommodation of* |

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| | *purchasers. On this land is a large Brick Mill for the manufacture of flour. The mill and the mill lot will be sold separate from the rest of the tract. No more of the above property will be sold than will be necessary to raise the sum of one thousand three hundred & thirty three pounds six shillings and eight pence, with interest...from the 5th day of January, 1803... Edward I Lee, Thomas Swann, Commissioners.* |
| 04 Jun 1811 Washingtonian | Advertisement same as April 23, 1811 in the Gazette. In addition it states: *N.B. If the above described property be not sold or let, before Saturday, 15th June next, it will on that day be sold to the highest bidder for cash. William Sheppard* |
| 22 Aug 1811 FX DB L2(38):190 | Edmund J Lee and Thomas Swann, Commissioners, foreclosed on mortgage given by William Sheppard to the Executors of George Washington, and advertise land, with improvements thereon, to be sold. William Sheppard and Lawrence Lewis became the purchasers for the price of five thousand two hundred and thirty dollars. Lewis directed the commissioners to convey the property to Sheppard. |
| 22 Aug 1811 FX DB L2(38):193 | **Philip Carper purchases 90 acres from William Sheppard and Sarah, his wife for $5,500. Deed mentions Colvills branch, the great road, and the mill. *...including the Mill, Mill House, Dam, Race, and all and singular... Beginning at a white oak standing on a clift of rocks on the side of the great road and below the mill running thence across the road...above the mill dam...down the mill dam...opposite the mill dam...to the head of a canal...to the lower end of said canal...* Philip Carper is given the rights to raise the dam of the mill without compensation to Sheppard for additional overflow onto Sheppard's land.** |
| 1813 FX Personal Property Taxes | Philip Carper's mill had an annual rental value of $500. |
| Jan 1813 Lundgard Fredericksburg Case | William Sheppard signed a note for $130.00 payable to Robert Reid. |
| 18 Oct 1813 FX DB M2(39):405 | Philip Carper purchases 37 ½ acres from William Sheppard adjacent to the land previously purchased by Carper from Sheppard. |

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| 1814 FX Personal Property Taxes | Philip Carper's mill had an annual rental value of $400. |
| 17 May 1814 FX DB O2(41)71 | Philip Carper purchases 44 acres on Sugarland Run and another tract of 218 acres, both from Nicholas Harper's heirs. |
| 20 Mar 1815 FX DB O2(41):167 | George Gunnell surveys 263 acres of land of William Sheppard, deceased, on the order of the Fairfax County Court. Plat attached. The metes and bounds indicate that there was a bridge within 5 poles of Carper's corner (near the old dam). Carper's mill dam near where the current race reaches the run. The earlier canal is termed a ditch. |
| 1815 FX Personal Property Taxes | Philip Carper's mill had an annual rental value of $400. He owned a house valued at $2,000. [N.B. William Moss's house was valued at $1,500.] |
| 1820-1821 FX Land Taxes | Philip Carper's buildings on the mill tract are valued at $9,500. |
| 14 Jun 1821 FX DB S2(45)355 | Philip Carper sells 19 acres adjacent to James and Charles Coleman to Sanford Cockerill. |
| 1822 FX Land Taxes | Philip Carper's buildings on the Mill tract are valued at $7,000. No explanation is given for the reduction in value. The building value remains constant until the reassessment of 1840. |
| 07 Aug 1823 FX DB U2(47):321 | Philip Carper purchases 181 acres from Robert Douglass for $1,400. The land is adjacent to Swift, Fairfax, and etc. and called Pine Goose on mine branch. |
| 15 Sep 1824 FX DB V2(48)281 | Philip Carper and Catharine, his wife, sell 230 acres to Frederick Carper, less what was already sold to Sanford Cockerille and the Directors of the Leesburg Turnpike Company for $500. Land was Harper's. The land was valued at $3,500 and the difference between the $3,500 and the $500 is a legacy given to their son, Frederick Carper. |
| 13 Sep 1828 FX DB Y2(51):84 | Philip Carper, and Catherine, his wife, sell 107 ½ acres to Jane Tynan, James Tynan, and John Tynan The tract of land is situated on the Leesburg and Alexandria road at the Court house Run. |
| 20 Jun 1831 FX DB Z2(52):354 | Superior Court of Chancery for the Fredericksburg District deeds 342 ½ acres to Israel Sheppard. The land belonged to William Sheppard, decd. Deed notes that Sarah Sheppard is widow, and the |

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| | William, Isreal, Eliza, and Sarah Sheppard are children and heirs. The land was advertised in the Alexandria papers. |
| 31 Sep 1833 FX DB B3(54):15 | William Sheppard enters into trust agreement with Eli Offutt and George W. Gunnell using adjacent land as collateral. |
| 31 Sep 1834 FX DB B3(54):223 | William Sheppard et.al. enter into trust agreement with William Gunnell. |
| 25 Aug 1834 FX DB B3(54):228 | Eli Offitt, trustee for George Gunnell releases William Sheppard from trust. |
| 25 Aug 1834 FX DB B3(54):230 | Ferdinand Richardson, trustee for George Gunnell, releases trust. |
| 26 Aug 1834 FX DB B3(54):223 | William Gunnell purchases two tracts totaling 86 acres from the Sheppard heirs. Parcel 1 had been sold by Bryan Fairfax to John Sheppard and Parcel 2 was sold by George Washington's Executors to William Sheppard. |
| 10 Apl 1838 Richmond Enquirer, p. 3 | *Fairfax - John Powell (Republican) and Ball (Whig) have been nominated.* Article doesn't say for which office they were nominated. |
| 1839/40, 1842/43 Reg. of VA Gen Assbly | Powell, John. House, 1839/40, 1842/43, Fairfax. Report of Virginia State Library. Google Books. |
| 15 Jul 1839 FX DB F3(58):13 | Philip Carper purchases 38 acres and 3 poles from Orlando Fairfax. The tract is adjacent to the land formerly purchased by Carper of William Sheppard and on the west thereof. |
| 28 Aug 1839 Alex Gaz, p. 3 | Philip Carper is on Committee of Correspondence and Vigilance for the County of Fairfax's Whigs. |
| 21 Dec 1839 FX DB F3(58):317 | Philip Carper sells 181 acres called Pine Grove to Laudon Money. |
| 00 Sep 1841 FX DB G3(59):157 | **John Powell purchases three tracts from Philip Carper for $6,500. Parcel 1 was Sheppard of 90 acres, Parcel 2 was Sheppard of 37 ½ acres, and Parcel 3 was Orlando Fairfax of 38 acres. Deed notes that Carper resides on the land purchased of Sheppard. A note following the deed states that *It is understood by the parties that the "Grave Yard" to contain 1/8 of an acre is not intended to be conveyed in this deed but is reserved for the use of said Carper and his heirs subject to their use as a family burying ground.*** |

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| 00 Dec 1841 FX DB G3(59):196 | John Powell enters into trust agreement on behalf of Philip Carper with John J. Coleman and Thomas Carper as trustees. The trust includes the 90 acre parcel with the mill, mill dam, house, &c., the 37 ½ acre parcel, and the 38 acre parcel. John Powell secures $4,000 using the land as collateral. |
| 29 Mar 1842 Alex Gaz, p. 2 | John Powell, writing from Republican Mills as a candidate for the state legislature, relayed his position that he was opposed to the Distribution Bill that unfairly distributed the proceeds of the sale of public lands to the states. He felt that the only reason it could be justified was to wrest the money from politicians who extravagantly spent taxpayers money under the Van Buren administration. Therefore, he would vote for the bill provided the funds were applied to pay down the government debt. |
| 28 Mar 1843 Alex Gaz, p3 | Newspaper advertisement acknowledges John Powell's *active and zealous exertions* in passing the law relative to Fisheries on the Potomac. Mr. John Powell is listed as the Delegate from Fairfax. |
| 16 May 1843 FX DB H3(60):204 | John Powell acquires 86 acres from Israel Sheppard, who purchased the land from Henry W. Thomas. |
| 15 Jan 1844 FX DB K3(63):157 | Sheppard heirs sell 220 acres to George W. Hunter. |
| 26 Mar 1844 Alex Gaz, p. 2 | Democrats select John Powell, Esq. as candidate to unite the Democrats of Fairfax in the upcoming election. |
| 09 Apl 1844 Alex Gaz p.2 | John Powell withdrawals as a candidate to ensure the party would not be divided. He supports candidate Col. R. R. Farr. |
| 30 May 1844 Alex Gaz, p. 2 | John Powell, of Fairfax County, presented a petition signed mainly by residents of the District of Columbia, to the state legislature prohibiting gill fishing on the Potomac. The law passed during the last session. |
| 17 Jun 1844 FX cff Susp 5i (1877-025) | John Powell and Nancy Powell, his wife, enter into a trust agreement with David Fitzhugh and Andrew Fitzhugh to cover a $1,500 debt due to Andrew Fitzhugh. Three notes of $500 each, the first one dated 17 Jun 1844, comprise the debt. Three parcels of land are used as collateral: Carper's Mill containing 200 acres where John Powell resides, 86 acres purchased from Israel Sheppard, and 35 ½ |

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| | acres purchased from the heirs of William Sheppard. |
| 21 Feb 1845 Alex Adv, p. 2 | John Powell speaks at Democratic meeting in Fairfax. He is thanked for withdrawing his name as a candidate. |
| 23 May 1848 FX DB Q3(69):344 | George W. Hunter, and Angelina his wife, sell 200 acres to Alfred Leigh. Deed mentions "mill race or canal," "junction of the Said Canal with the mill bed run [?] |
| 02 Sep 1848 Alex Gaz, p. 3 | John Powell advertises his legal services, available at his Alexandria office located on the east side of Royal, between King and Prince Streets. *Notary Public and Agency for Claims, Alexandria, Virginia, will attend to all business connected with his office, to wit: protestations, taking of affidavits or deposition, &c. He will also act as agent for the sale of property or renting out the same, drawing deeds, deeds of trust, and bills of sale for real or personal estate. He will also attend to Revolutionary claims of all kinds, bounty land claims for military services arising out of the late war with Mexico, particularly bounty land or treasury scrip, arrearages of pay, mileage, &c. and to prosecute them either before Congress, or the several department of the government...* |
| Nov Term 1848 FX cff 17H(1850-17) | Robert R. Jackson vs. John Powell, who is accused of trespass by cutting down a great many trees on Jackson's adjacent property. Powell asserts it is his property. Court case contains plats. |
| 09 July 1849 Alex Gaz, p. 3 | *A Post Office has been established at Republican Mills, (Powell's) in Fairfax County, nine miles S. E. from Falls Church. Alfred Leigh, Post Master.* |
| 15 Mar 1850 FX DB Z2(52):40 | Philip Carper is released from guardian bond by Eliza Sheppard and Sarah Ann Sheppard. Their mother, Sarah Sheppard was their guardian. |
| 02 Aug 1850 Alex Gaz, p. 3 | Citizens of Prince William County desire that John Powell, Esq of Alexandria run as the Democratic candidate of that county to represent the District in the proposed Convention to amend the State Constitution. They offer their support due to his efforts when he was a delegate from Fairfax county in 1842 to lower the costs of the collection of debts. |

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| 23 Jun 1856 | U.S. Postal Records, microflm | John Powell postmaster of Republican Mills. from 23 June 1856 until it was transferred to Thornton's Depot on 27 Jun 1860. Alfred Leigh was postmaster from 3 July 1849 until John Powell assumed the office. |
| 1860 Federal Census | | John Powell, Asst. Marshal, enumerated the census for Fairfax on 10 Dec 1860 and listed his family as follows: John Powell, age 56, male, white, farmer, value of real estate $12,000, value of personal estate $4,250, born in Virginia; Nancy Powell, age 49, female, white, married; Margaret Powell, age 22, female, white, seamstress, born in Virginia; Harmonia [?] E. Powell, age 19, female, white, at school, born in Virginia; Drucilla [?] Powell, age 16, female, white, at school, born in Virginia; William J. Powell, age 11, census lists him as a female, white, at school, born in Virginia. |
| 27 May 1861 | Daily Nat'l Intelligencer, p. 3 | Capt. Powell, of the Washington Home Guard, seized 169 head of mutton three miles above chain bridge and impounded them near there. They had been intended for delivery to Georgetown butchers who supply meat to Union soldiers. |
| 20 Feb 1863 | Daily Nat'l Intelligencer, p. 3 | Dr. John S. Powell, son of John Powell, was alleged a rebel spy and put on trial. He was charged with acting as a guide to rebel forces to Dumfries during the recent attack on that post while living within Union lines as a private citizen. |
| 10 Sep 1866 | FX cff SUSP 24L(1868-041) | **Capt** John Powell, of Republican Mills, enters into an agreement with Dr. Paul Gregory to drill a well for oil and salt on his property in Fairfax County. |
| 22 Mar 1867 | Daily Nat'l Intelligencer, p.3 | *Petroleum Oil - We have been shown us a specimen of the crude oil obtained from the well now in progress of excavation on the land of Captain John Powell, near Republican Mills, in Fairfax county. The depth of the well at present is one hundred and sixteen feet, and its diameter is four inches and a half. The first sand rock bored through was thirty-eight feet thick, the second seventeen feet six inches, and the third four feet. Bituminous shell constitutes the remaining depth.* |
| 1870 | Industry Census | John Powell; Grist Mill; Capital (real and personal) invested in business – 2,000; Kind of Power – Water; 20 ft wheel; Name or Description of Machine - Run(?) Stones; Number of Machines – 1; |

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| | Avg number of hands employed males above 16 years – 1; Females above 15 years – 0; Children and youth – 0; Number of months in active operation reducing part time to full time – 3; Kind of material – Grain; Quantity of Material – 1,000; Value of Material – 1,000; Production Kind – Meal; Value of Production – 1,200; 1/8 reduced for toll; For Owners Chiefly [Note: the word *Chiefly* is struck through.] |
| 12 Oct 1872 FX DB P4(94)100 | Bankruptcy petition by John Powell. He lists his creditors, including Wm J. Powell, miller for services as such performed within six months - $50. |
| 19 Nov 1872 FX DB P4(94)57 | John Powell lists land exempt from bankruptcy per homestead exemption, including 335 ½ acres on Difficult Run known as Powell's mill Tract. |
| 20 Mar 1874 Fairfax News, p2 | Commissioners sell 144 ¾ acres on Calvin's Branch in vicinity of Powell's Mill, was land Roland Richards purchased of John Powell. |
| 19 May 1876 Alex Gaz, p.2 | Capt. John Powell and Alfred Leigh are the two Conservative party delegates selected to represent the Dranesville district at the State Convention to be held in Richmond on May 31, 1876. |
| 28 Dec 1877 FX cff Susp 5i (1877-025) | Exrs of Samuel Cropley vs. John Powell. Conclusion of John Powell's bankruptcy case. |
| 26 Mar 1883 FX DB C5(107):349 | Henry W. Cockerille purchases 80 acres from John S. Fowler, of the city of Alexandria, and O.W. Huntt of Fairfax County assignees in the bankruptcy of John Powell. Tract is north of the Alexandria Pike. |
| 23 Apl 1883 FX DB C5(107):190 | Joseph S. House purchases 90 acres from John S. Fowler, of the city of Alexandria, and O.W. Huntt of Fairfax County assignees in the bankruptcy of John Powell. Tract includes mill and house. Deed mentions private road leading to the mill and both the small and large dam. |
| 11 Apl 1883 FX DB C5(107):264 | Joseph S. House and E. C. Cartzendorforer paid Alfred Leigh one hundred dollars for all damages Leigh may sustain from building of the Dam of the Said Colvin Run Mills. |
| 27 Apl 1883 FX DB C5(107):223 | Addison B. Millard purchases 32 acres, 2 rods from Joseph S. House and Laura C. House. |

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| 03 Nov 1893 FX Herald, p. 2 | A. B. Millard is paid $0.75 by County for *gds outside paupers* as shown on County financial statement. |
| 02 Aug 1897 FX DB Z5(130)311 | Samual Millard purchases 5 acres on the south side of the alexandria Pike adjacent to Money from Emma A. Poland. |
| 10 Nov 1903 FX cff 144c(1904-025) | Emma C. Millard and Samuel Millard vs. Joseph Berry et. al. regarding the construction of a culvert across the turnpike to discharge water from the Spring Branch onto the meadow lot belonging to Mrs. Millard. A despondent in the court case states that Mrs. Millard's garden was one acre in size and adjoined her dwelling. Another despondent stated it was about 100 yards up the road. Court case contains a plat depicting the mill and mill race and road and tail race profiles. |
| 01 Feb 1907 FX Herald, p3 | *Mr. Samuel Millard has built an addition to his home.* |
| 03 Nov 1920 FX WB 9:419 | Emma Millard died. Will probated on November 3, 1920. |
| 03 Nov 1920 FX DB S8(201)117 | List of the heirs of Emma C. Millard presented to the court. The list provides the age and last known address of each heir. |
| 12 Jan 1921 FX DB T8:500 | Samuel Millard purchases a 2/3rds interest and Alfred L. Millard purchases a 1/3 interest in the 32 acre, 2 Roods tract of land, including the Mill Dam and the Mill Race, known at different times as the "Carper's Mill" and "Powell's Mill" and "Millard's Mill" and "Brick Mill". The land is purchased from the Everett Millard, et. al. ALSO a lot or strip of One Rood of land adjoining the aforesaid tract being the residue of that certain parcel of land which was conveyed by Clifton Mitchell and Rosa C. Mitchell, his wife to the late Addison B. Millard by deed M5:554 in 1892. |
| 11 Apl 1929 FX Independent, p. 3 | Millard Bros. advertise water ground flour and meal. |
| 31 Jul 1934 FX DB O11:229 | Bernard B. Bailey purchases tract with buildings and improvements and all of the appurtenances and easements and overflow rights, … including the Mill Dam and the Mill Race known at different times as "Carper's Mill" Powell's Mill" Millard's Mill" and "Brick Mill", situated on the south side of |

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| | the Alexandria and Leesburg Turnpike at Colvin Run, ALSO a lot or strip of One rood. |
| 22 Feb 1935 Wash Post, p18 | *Itinerary of Hikers Includes Visit to Colvin Run Village – Community Boasts Grist Mill Which Is Still in Operation – The 7-mile hike up Difficult Run, planned for Sunday by the Wanderbirds Hiking club, includes a visit to Colvin Run Village, a picturesque community which boasts of the only grist mill now believed to be in operation in this part of the country. The return route lies along Captain Hickory Run, along which may be seen the ruins of two other grist mills which ceased operation several decades ago... The trail follows the right bank of Hickory Run for about a mile, passing the ruins of an old grist mill. Some of the rusted machinery is still in place... Several old colonial homes are to be seen here as well as the grist mill which is still in operation. Nearby is the millrace and the dam across the stream.* [Note: Map provided.] |
| 31 May 1935 Wash Post, p. 13 | *Sunday's Hike Goes Through Historic Region* – By Robert Shosteck - *...In Colvin Run village, just below the dam, the Wanderbirds will inspect one of the oldest grist mills in this area and the only one believed to be in operation at the present time. This mill was erected in 1794 and it is said that George Washington had an interest in it. The giant oaken mill wheel is still intact and the long mill race is kept in good repair.* [Note: Map provided show location of old mill dam, Colvin Run Village, and a soapstone quarry.] |
| 29 Nov 1935 Wash Post, p26 | *140-Year-Old Mill to Be Start Of Wanderbirds' Sunday Hike – Sunday's Wanderbird trek along Wolftrap Run in nearby Virginia starts from the 140-year-old Tom Carper Mill, a place of great historic interest, where one can still buy a bag of fine whole-wheat flour and view the old burrs which have ground out meal and flour for more than a century... The starting-point of the hike is the Tom Carper Mill, a weather-beaten stone structure dating back to 1794. Little is known or recorded of the history of the mill prior to the Civil War, according to Sam Millard, the retired miller who lives nearby. The Millard family bought it in 1882 and operated it until last July, when illness forced* |

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| | *Mr. Millard to sell. The present owner operates the mill but a few days a month.* |
| 13 Mar 1937 Wash Post, p. X5 | *Outdoors - ...Colvin Run, better known as Wheelers Mill Run, is a feeder of Difficult...* |
| 04 Sep 1938 Wash Post, p8 | *Old Mill is Historic – Among the numerous markers along highways in all parts of the county is one calling attention to the "old brick mill" at Colvin Run. Built in 1794 and now owned by B. B. Bailey, this old mill has been in continuous use. Many Washingtonians get their water-ground corn meal there, and numerous tourists stop by for the same purpose.* |
| 21 Oct 1941 FX Chancery #5762 | Bernard B. Bailey vs. J. A. Anderson, State Highway Commissioner, Department of Highways, Commonwealth of Virginia. Bailey sues for damages as a result of the construction of Route 7 through his land. |
| 01 May 1943 FX DB 406:18 | Bernard B. Bailey enters into trust agreement with Frederick S. Tyler and Basil D. Boteler. |
| 02 Apl 1944 FX Chancery #6046 | State Highway Commissioner vs. Bernard B. Bailey. |
| July 1944 FX DB 434:455 | Decree on compensation for taking of land for Route 7. Land was taken in 1941. |
| 10 Jan 1946 FX DB 474:302 | Release of Trust by Tyler and Boteler. |
| 11 Oct 1946 FX Herald, p. 4 | Bernard Baily zoning change requests *permission to reopen and operate the old Mill located on the NW side of Route No. 7 at Colvin Run, Dranesville District.* |
| 27 Oct 1964 Wash Post, p. B10 | *Open Spaces Program Helps Fairfax Schools – Areas surrounding four Fairfax County elementary schools will benefit from the recently announced $48,970 Federal grant to the Fairfax County Park Authority...The grant also will provide money for a 45-acre tract known as Colvin's Run in Leesburg Pike. Th* [sic] *parcel includes a mill built in 1794 and is slated for development as a national monument and park.* |
| 29 Jan 1965 FX DB 2569:224 | Memorandum of Lis Pendens; Fairfax County Park Authority suit pending in Circuit Court to acquire six parcels from Bernard B. Bailey. |
| 21 Jul 1965 FX DB 2640:413 | Circuit Court Order vesting property to the Fairfax County Park Authority following valuation by |

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| | commissioners and payment to the court by the FCPA. |
| 10 Sep 1965 Wash Post, P. B34 | *It's North Against South in Battle Over Proposal to Widen Route 7* – By Kenneth M. Boyd - *...The dispute concerns Rte. 7, which the Virginia Highway Department plans to widen into a four-lane highway from the Dulles Access Road to the Loudoun County line, a stretch of eight miles... "If you put it on the north side," said Bayard Evans, "Colvin Mill Run will be butchered." The 18th Century mill recently was purchased by the county as a park site and the highway would come within ten feet of it, he said.* |
| 14 Dec 1965 Wash Post, p. A18 | *Road Engineers Pledge to Save Old Rte 7 Mill – Preservation of the 171-year-old Colvin Run grist mill in Fairfax County was guaranteed yesterday when the State Highway Department pledged that widening of Rte. 7 will not encroach on the historic structure."* |
| 09 Sep 1969 Wash Post, p. C1 | *By the Old Mill Stream – Staunch timbers are used to prop listing wall of the old mill at Colvin Run Road and Rte 7 near Dranesville, VA., which is being restored by engineer Clifford Currie for the Fairfax county Park Authority. Currie dates the mill back to 1812, although many believe it was built in 1794. For the restoration, Currie will use new bricks for about three-quarters of the building and hand-hewn wooden beams. At bottom left, workmen rebuild the millrace. Currie... inspects one of the original millstones. He says the mill was last used in the early 1940s.* |
| 23 Oct 1969 Wash Post, p. K3 | *Old Mill Comes Out of Cocoon - ...When the restoration, begun in 1967...The mill, generally believed to have been erected in 1794, was bought in 1934 by Bernard Bailey, a lawyer, for $6,000; In the 1940s it was closed...In 1950 Bailey asked Bayard D. Evans, a McLean restaurateur, if he wanted to remodel the mill into an inn. Instead, Evans, who believes "the few remaining landmarks should be passed on for future generations to enjoy," led a drive to preserve the mill...Emma and Louise Millard, daughters of the last active miller, the late Sam Millard, are "thrilled about the restoration. They live with their 92-year-old mother about a half mile from the mill...People gathered at* |

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| | *the mill to grind their wheat and corn and also to exchange gossip...J.B. Campbell, the sprightly septuagenarian who is directing restoration of water power at the mill...Also involved in the Colvin Run Mill project are Washington restoration architect Walter C. Macomber and Canadian-born millwright Clifford Currie, who oversees daily construction...Currie says restoration was started "just in time." The building had shifted 18 inches off center, and only the soundness on the random-width floor boards held the building together...Eighty-five per cent of the timber in the mill will be new, says Currie. The new wood will be artificially aged so it will match the time-worn timbers...Some replacement timbers came from the old dismantled Kensley mill in Fauquier County. More than 100 living trees, in Fairfax county and out of state, are tagged for construction of the mill's wooden gears and 20-foot diameter water wheel. A local oak, more than eight feet in circumference, will be cut for the wheel's 20-foot main shaft...A ten-acre lake will be created on the south side of Rte. 7 and the original dam site rebuilt.* |
| 01 Oct 1970 Wash Post, p. F1 | *Park Plans Shrink - ...The grist mill, typical of the kind used in George Washington's time, dates from 1794. The red brick four-story mill is adjacent to the run where a water trough is being rebuilt...* [Photo caption: *Fairfax park employees Eston Moyers, left, and John Petty hand-hew the shaft for the water wheel at Colvin Run Mill, being restored.*] |
| 31 Oct 1973 Wash Post, p B7 | *For 'Historic Preservation' – Ford's Theater, Canal Square in Georgetown and Colvin Mill Run in Fairfax County last night won the first annual awards of the Washington chapter of the American Institute of Architects...The award for Colvin Mill Run went to the Fairfax County Park Authority, which maintains the mill as a recreation facility, and to John B. Campbell, an 83-year-old, Philadelphia engineer who restored the production line mill. – by Sarah Booth Conroy* |
| 09 Jul 1984 FXDB 5987:436 | Parcel C, containing 6,880 square feet, sold to Robert M Plaut and Nancy V. Plaut, his wife with a conservation easement attached by the FCPA. |

Parcel is located on the east side of Route 743. The parcel contained a house. Plat attached.

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**Abbreviations**

AX City of Alexandria
CF City of Fredericksburg
cff Chancery file folder
CR Court record
DB Deed book
FX Fairfax County
LN Loudoun County
OB Order Book
OR Official Records of Civil War
NO Northumberland County
NN Northern Neck grant
PW Prince William County
VJ&AA Virginia Journal and Alexandria Advertiser
WB Will book
WC Westmoreland County

# APPENDIX H. BIBLIOGRAPHY

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**Newspaper Sources**
(Refer to Endnotes of Chapter 2 and Appendix G.)

**Welsh Color & Conservation, Inc.**
Analysis of Historic Paints and Wallpapers

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E-mail: fswelsh@welshcolor.com

Website: www.welshcolor.com

# *MICROSCOPICAL PAINT AND COLOR ANALYSIS*

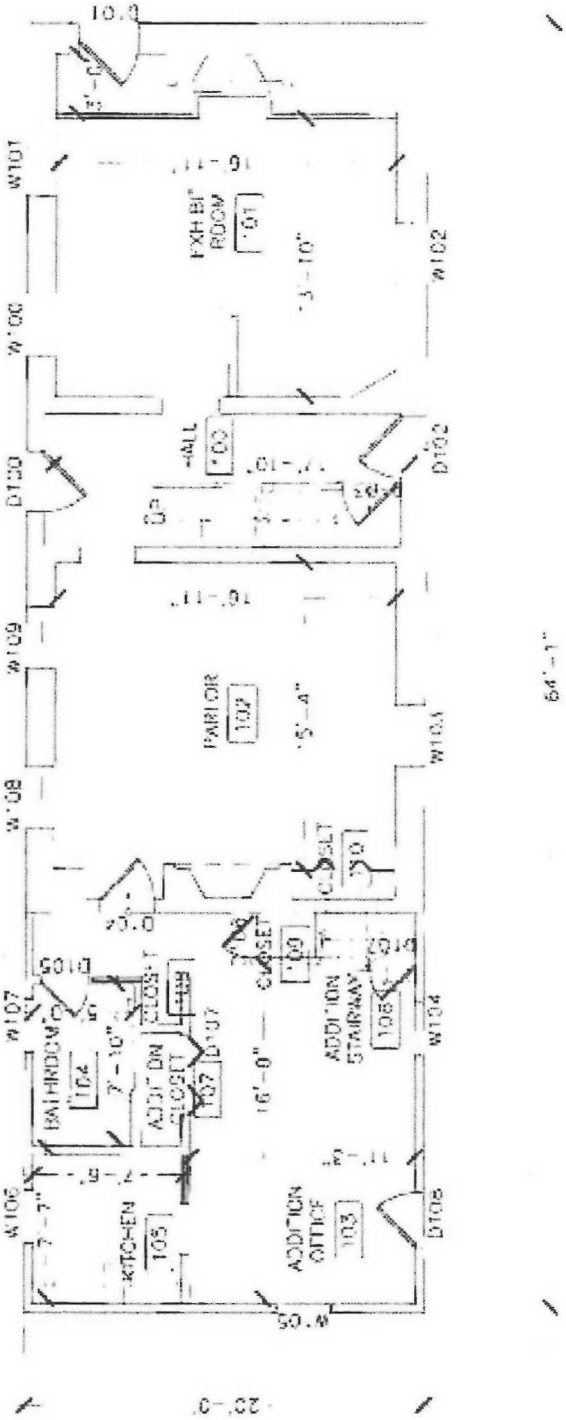
| PROJECT INFORMATION | CLIENT INFORMATION |
|---|---|
| Name: Colvin Run Miller's House<br>Location: Great Falls, Virginia<br><br>Construction Date: ca. 1815<br>Style: 2 ½ Story with Center Hall<br><br>Owner: Fairfax County | Name: Deborah Robison<br>Company: SWSG<br>Address: 1821 Michael Faraday Drive, Suite 302<br>Reston, Virginia 20190<br><br>Phone: 703-471-6803<br>Email:<br><br>*Today's Date: 1/10/11* |

**DESCRIPTION OF PROJECT**

To determine the nature and color of two paint/finishes schemes – the original and the late 19th century.

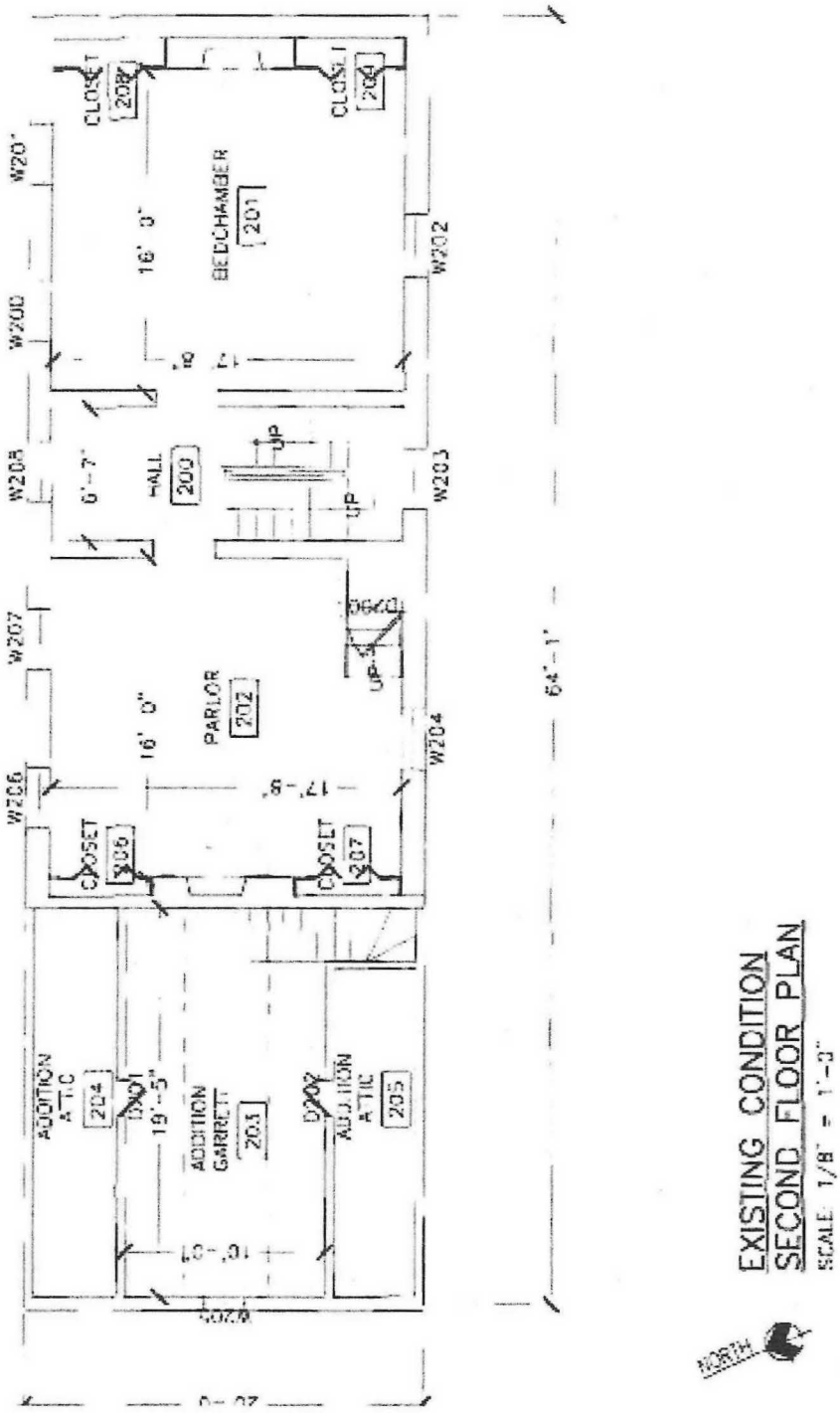
| SCOPE OF PROJECT | SITE INVESTIGATION/SAMPLING |
|---|---|
| • Space: Exterior & Interior<br><br>• Period of Significance: Original & Late 19th c.<br><br>• Finishes analyzed for composition:<br>☐ original<br>☐ later<br>■ none<br><br>• Finishes analyzed for color:<br>■ original<br>■ later<br>☐ none<br><br>• Color system used:<br>☐ CIE LAB (illuminant $C^2$)<br>■ Munsell<br>☐ none<br><br>• Finishes described by general color name only:<br>☐ all, above original<br>■ all, except original & late 19th c.<br><br>• Historic documents referenced:<br>■ photographs<br>☐ illustrations<br>■ written<br>☐ none | • Sampled by: Frank S. Welsh<br><br>• Date sampled: August & September, 2010<br><br>• No. of samples taken: 97<br>(Contracted to take only 50 samples)<br>• No. of samples analyzed:<br>97 with stereomicroscope<br>0 with polarized light microscope (PLM)<br>0 with scanning electron microscope<br>0 with FTIR<br>0 crossection photomicrographs<br><br> |

# SUMMARY OF FINISHES




EXISTING CONDITION
FIRST FLOOR PLAN
SCALE 1/8" = 1'-0"

## SUMMARY OF FINISHES




EXISTING CONDITION
SECOND FLOOR PLAN
SCALE: 1/8" = 1'-0"

# SUMMARY OF FINISHES

## EXTERIOR

Original Period

Because of the extensive removals during the restoration of the house in the early 1970's, very little paint evidence remains on the exterior woodwork and masonry. However, there is enough to determine the majority of the paint history on both. The historic photograph from the late 19th century (below) is very helpful.

The evidence we found on the door and window trim indicates that the trim was originally painted white with a lead-based, oil paint. However, there are no original exterior doors. It is probably safe to speculate that they could have been painted with a dark brown color because this is the color that was used on the interior doors, only two of which remain. Dark brown was a common door color in the period of the original construction of this house.

The evidence suggests that the brickwork probably was not painted originally, however, sometime in the early 19th century a pale orange yellow paint was applied. This pale orange yellow color was used several more times and even though much paint was scraped in the 1970's, the yellow is still visible in many locations on the brick today.

Late 19th Century

The late 19th century photograph of the house depicts it as having white trim with brickwork that is very clearly evident. However, the brickwork in the photo is actually imitated brickwork that was accomplished by painting all of the bricks with a moderate reddish brown oil paint and then painting in all of the mortar joints with a small "pencil" brush with white oil paint. This "penciling" was very common in the mid-to-late 19th century and evidence of this painting technique is still evident on the south façade of the house (see photo below) under the cornice, at the west end. This white penciling was done very neatly – straight lines that were a little narrower than the actual mortar joints. (Arrow in photo to left points to the white penciling.) Notice also in the historic photo above that both the brick jack arch and jamb of the one window are white.

The frame addition in the photo no longer exists. The color of the clapboards may have been the same moderate reddish brown as used on the brickwork.

The rear exterior door is the only old door that remains and it dates to the early-to-mid 1800's; it is not original. The original finish on it is a grained finish to imitate wood. It was repainted numerous times afterwards and then it was grained again to imitate a medium brown colored wood in the late 19th century. It is impossible to know what kind of wood the graining imitated with just a small sample viewed under the microscope.

One minor note of interest is that we found a mid-1800's dark brown paint that on the exterior window trim that was made with the minerals franklinite and zincite. This type of paint was marketed as Brown Zinc paint and was made only in the 1850's by The New Jersey Zinc Company of Newark, New Jersey. For more information on this paint, refer to Frank S. Welsh's article: "Identification of 1850's Brown Zinc Paint Made with Franklinite and Zincite at the U.S. Capitol" *APT Bulletin: Journal of Preservation Technology*, Vol. 39, No. 1, 2008. (This article received APT's Anne de Fort-Menares Award for the article that best demonstrates excellence in the application of historical research to preservation practice published in the *APT Bulletin* during 2008.)

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**INTERIOR**

Original Period

Even though there have been significant removals of paint and wallpaper on the interior, mainly during the 1970's restoration of the house, there is still enough good evidence, especially in the second floor rooms (which is where we did extensive sampling), to indicate that all of the wood trim in all of the rooms originally was painted with the same color scheme. This original scheme consisted of the following paint colors and finishes

- A Dark Brown was used on the vertical faces of the baseboards (including those associated with the staircases), cap molding of chair rails (and handrails), window sills, top shelves of mantelpieces, doors and also the newel posts of the stair balustrade (above floor height). The plinth blocks of the first floor room's mantels and cupboard(s) were also painted with the dark brown, but not those in the second floor rooms. The dark brown was also painted on the flat frieze area of the architrave on the outside of the first run of the staircase. Placement of this color on the stairs is illustrated in part in accompanying images.

- A Light Blue was used on all of other trim in all of the rooms without exception. In other words, this light blue was the principle color on the trim in the house.

- The only room with evidence of paint on the plaster is the Center Stair Hall. Both the wainscot and the walls above the chair rail exhibit numerous layers of a White lime whitewash that appears to be from the earliest painting periods of the house.

- All other rooms' plaster has been very thoroughly scraped, replaced or covered over with new plaster or drywall. There is evidence of glue size on the original plaster, and in Rooms 200 & 202, there are tiny fragments of late-19th c. or early-20th c. (wood pulp) wallpaper. There are larger fragments of this type of wallpaper in the South Closet of Room 202. This type of glue size/wallpaper evidence, or lack thereof, usually indicates that the plaster walls would have been wallpapered from the very beginning. The closets in the second floor bedrooms are not original; they were added two paint periods later, i.e. early/mid 1800's. Because they were added, one would expect to find residual evidence of an original paint such as calcimine or whitewash on their walls if they had been treated with paint originally, but none was found.

- The fireplace plaster was uncoated in the earliest periods. (Black was used only in the 20th c.) The flooring and the stair treads and risers were also uncoated in the earliest periods.

Late 19th Century

The evidence from all of the rooms indicates that the interior was painted and repainted many times throughout the 19th c. Determining where the 19th c. paints stop and the early 20th c. paints begin in the layer structures of the samples that we took, is difficult. We decided to evaluate the relative/approximate age of the paint layers by testing for the presence of lead (i.e. lead-based paint). Those that did not test positively for lead in the middle of the layering probably contain zinc oxide pigment. Zinc-based paints were widely used from the 1860's to the 1890's. We identified several layers of these non-lead-based paints on the trim in each of the rooms. We chose the upper most one, if there were two, as the one that would be the most representative of the late 19th c.

The late 19th c. colors varied from room-to-room, because they were not painted at the same time, but the evidence, or lack thereof, of treatments on the plaster strongly suggests that all of the walls in the house were wallpapered. The wallpaper fragments that do exist have been discussed above. There is a lack of evidence on ceiling plaster because of replacement. The ceilings could have been painted white either with white calcimine or with whitewash, or they may have been papered with white ceiling papers. The late 19th c. color scheme consisted of the following treatments:

- Room 101: White paint was used on all of the trim.
- Room 102: Light Bluish Gray was used on all of the trim.
- Rooms 100 and 200: Light Bluish Gray was used on all of the trim (including the stair risers) with the exception of the entire handrail and all of the newel posts (above floor height). These features were painted a reddish brown and top-coated with varnish.
- Room 201: Olive Green was used on all of the trim in the room.
- Room 202: Medium Pink was used on all of the trim in the room (including the stair risers) with the exception of the mantelpiece, which was painted entirely black.

Intermediate Periods

The focus of this effort is restricted to two period paint schemes of historical significance – the original and one from the late 19th century. For additional information concerning these and the colors of the paints in between, please refer to the attached laboratory data sheets. Also, we proposed to take 50 +/- samples for this effort and to photograph several samples that have good paint layer evidence in crossection. However, in order to obtain sufficient evidence of both periods, because of the paint removals and paint color variations, etc. we had to take almost twice as many, i.e., 97 samples. The 1970's paint removal compromised the condition of the paint layers in such a way that we could not find good samples to photograph in crossection to capture meaningful images that would represent some of the layer structure.

Colors and Color Samples

The colors described above from both periods of historical significance were matched to the Munsell color system. Their placement as well as samples of each are presented in the following tables.

## *SUMMARY OF FINISHES*

Copies of Color Chips as shown do not reflect original paint chip colors. Refer to Original Report.

| ORIGINAL & LATE 19TH CENTURY EXTERIOR PAINT FINISHES | | | | |
|---|---|---|---|---|
| **Room and Feature Painted** | **Paint Color, Type and Reflectance** | **Pigments Identified** | **Munsell Color Reference Values:** | **Color Sample** *(Caution: printed/digital colors are only representational.)* |
| ORIGINAL EXTERIOR PAINT FINISHES | | | | |
| All wood trim (except doors) | White Oil Semi-gloss | N/A | 5 Y 9/0.5 | |
| Note: No original exterior doors exist. They probably would have been painted with the same dark brown color as was used on the two remaining interior doors. | | | | |
| LATE 19TH CENTURY EXTERIOR PAINT FINISHES (brick portion only, since frame addition no longer exists) | | | | |
| | | | | |
| All wood trim (except doors) | White Oil Semi-gloss | N/A | 5 Y 9.25/0.5 | |
| Doors | Grained to imitate wood of medium brown color | N/A | N/A | |
| Brick facades (including small projecting soffit of cornice) | Moderate Reddish Brown Oil Flat | N/A | 8.8 R 3.5/3.9 | |
| Mortar Joints, Toothed Brick Cornice; Jack Arches, Jambs & Heads of Door & Window Openings | White Oil Flat | N/A | 5 Y 9.25/0.5 | |
| Note: The mortar joints were neatly penciled with white paint over the reddish brown paint to imitate real mortar. This was not an uncommon painting practice in the mid-to-late 19th century. The white penciling was actually narrower than the real width of the actual mortar joint, and it was very straight, not wobbly. | | | | |

## *SUMMARY OF FINISHES*

Copies of Color Chips as shown do not reflect original paint chip colors. Refer to Original Report.

| ORIGINAL INTERIOR PAINT FINISHES | | | | |
|---|---|---|---|---|
| **Room and Feature Painted** | **Paint Color, Type and Reflectance** | **Pigments Identified** | **Munsell Color Reference Values:** | **Color Sample** *(Caution: printed/digital colors are only representational.)* |
| All Rooms:<br><br>Vertical faces of baseboards, cap molding of chair rails and handrails, window sills, top shelves of mantelpieces, doors and newel posts of the stair balustrade above floor height, plinth blocks of first floor rooms' mantels and cupboard(s), flat frieze area of architrave on outside of first run of staircase. | Dark Brown<br>Oil<br>Semi-gloss | N/A | 10 R 2/2 | |
| All Rooms:<br><br>All other trim | Light Blue<br>Oil<br>Semi-gloss | N/A | 10 BG 8/2 | |
| Rooms 100 & 200:<br><br>Plaster Walls | White<br>Whitewash<br>Flat | N/A | N 9.5/ | |
| All other rooms:<br><br>Plaster Walls | Evidence suggests the use of wallpapers | Patterns Unknown | N/A | |

Note: The plaster ceilings in all of the rooms may have been whitewashed white originally; however, there is no evidence remaining. All flooring and stair treads and risers were uncoated.

## *SUMMARY OF FINISHES*

Copies of Color Chips as shown do not reflect original paint chip colors. Refer to Original Report.

| LATE 19TH CENTURY INTERIOR PAINT FINISHES | | | | |
|---|---|---|---|---|
| **Room and Feature Painted** | **Paint Color, Type and Reflectance** | **Pigments Identified** | **Munsell Color Reference Values:** | **Color Sample** *(Caution: printed/digital colors are only representational.)* |
| Room 101<br><br>All wood trim | White<br>Oil<br>Semi-gloss | N/A | 5 Y 9/0.5 | |
| Rooms 100 & 200 & 102<br><br>All wood trim including stair risers but excluding handrail and all newel posts above floor height | Light Bluish Gray<br>Oil<br>Semi-gloss | N/A | 5 B 8/0.5 | |
| Rooms 100 & 200<br><br>Entire handrail and all newel posts above floor height | Reddish Brown<br>Oil<br>Semi-gloss with varnish top-coat | N/A | 5 R 2/6 | |
| Room 201:<br><br>All wood trim | Olive Green<br>Oil<br>Semi-gloss | N/A | 10 Y 6/3.5 | |
| Room 202:<br><br>All wood trim and stair risers, except mantelpiece | Medium Pink<br>Oil<br>Semi-gloss | N/A | 7.5 R 6/6 | |
| Room 202:<br><br>Mantelpiece | Black<br>Oil<br>Semi-gloss | N/A | N 0.5/ | |
| All Rooms:<br><br>Plaster Walls | Evidence suggests the use of wallpapers | Patterns Unknown | N/A | |
| Note: The plaster ceilings in all of the rooms may have been painted white with either whitewash or calcimine in the late 19th c.; however, there is no evidence remaining. Flooring and stair treads were not painted. | | | | |

**PLACEMENT OF ORIGINAL COLORS ON STAIRCASES:**
**LIGHT BLUE AND DARK BROWN**

Vertical face of baseboard is brown, but small cap is light blue.

Stair trim board is entirely light blue

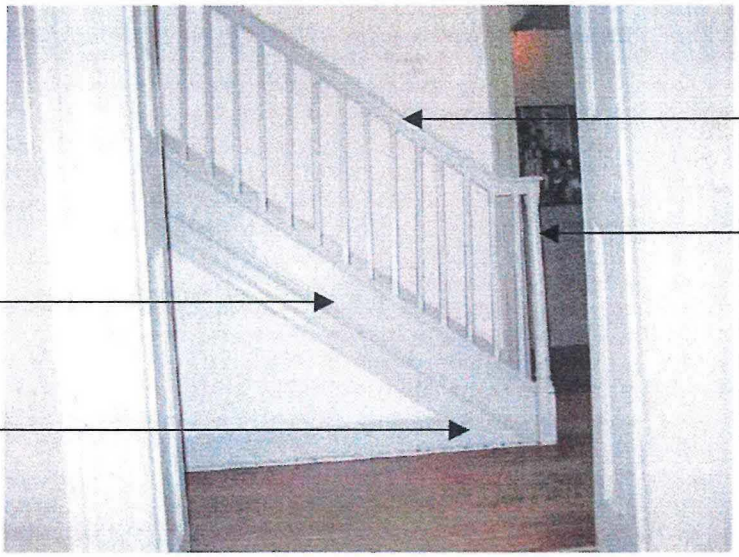
Cap mold of chair rail is dark brown, but the moldings under the cap are light blue

Dark brown of vertical face of baseboard ends at the stair trim board

Stair treads and risers were unpainted originally.

Vertical face of skirt board is dark brown, but cap bead is light blue.

# SUMMARY OF FINISHES



Only the cap of the handrail is dark brown, the flat sides and underside is light blue. The cut line is at the bottom of the curve of the cap. The exception is at this first newel.

The newel posts are dark brown -- from the floor up to the handrail, except this first newel. The small turned section at the end of the handrail on top of the newel is also dark brown.

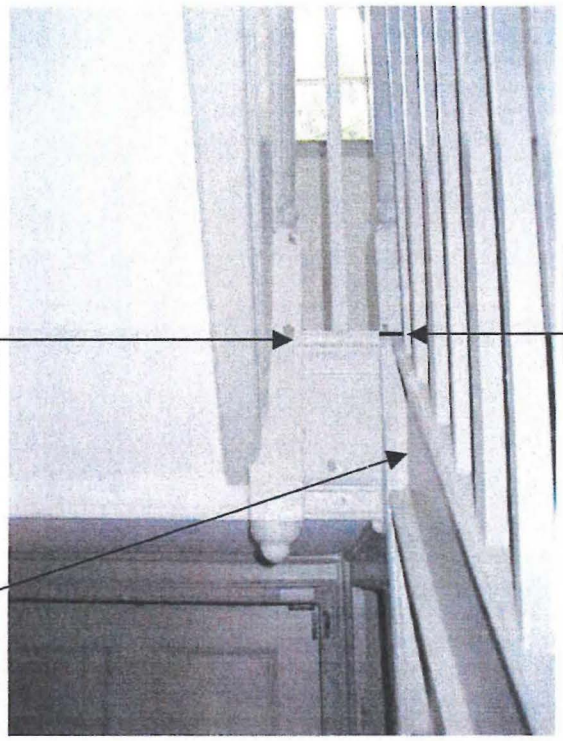
Flat frieze area of stair architrave (only on this first long run of the staircase) is dark brown; moldings above and below are light blue

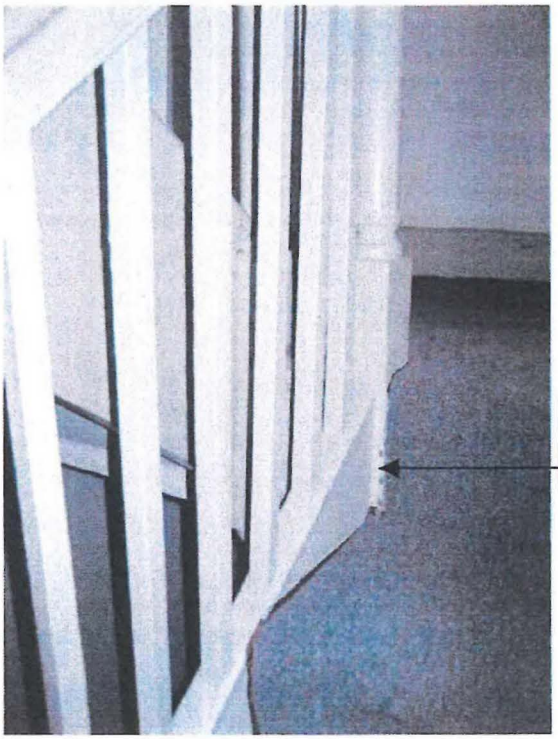
Dark brown on vertical face of baseboard stops at the diagonal joint with the stair architrave

Only the cap of the handrail is dark brown, the flat sides and underside is light blue. The cut line is at the bottom of the curve of the cap.

This first newel post is entirely dark brown -- from the floor up to the cap of the handrail.

Vertical face of skirt board is dark brown, as is the small vertical face of the cap bead, however the horizontal surface of the cap is light blue, as are the balusters.


No dark brown on this face of this newel.
Dark brown is on base of this newel only from above the floor height. It is not on the face below this line.
Dark brown frieze area of architrave stops at this corner.


Dark brown on this small corner of newel extends to tread here.

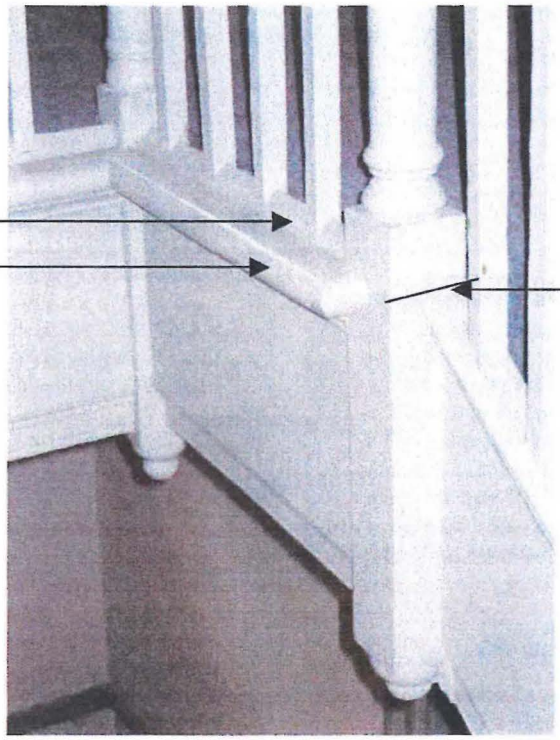
## *SUMMARY OF FINISHES*

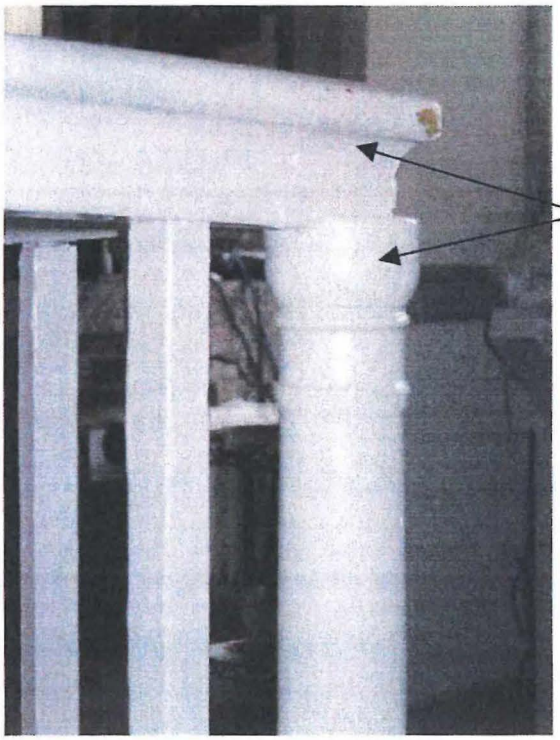
Newels posts are entirely dark brown and the balusters are light blue.

Vertical face of skirt board is dark brown, as is the small vertical face of the cap bead, however the horizontal surface of the cap is light blue, as are the balusters.

This exposure shows the cut line for the original dark brown/light blue on this face of the newel at the top of the last run of the stairs.

## SUMMARY OF FINISHES



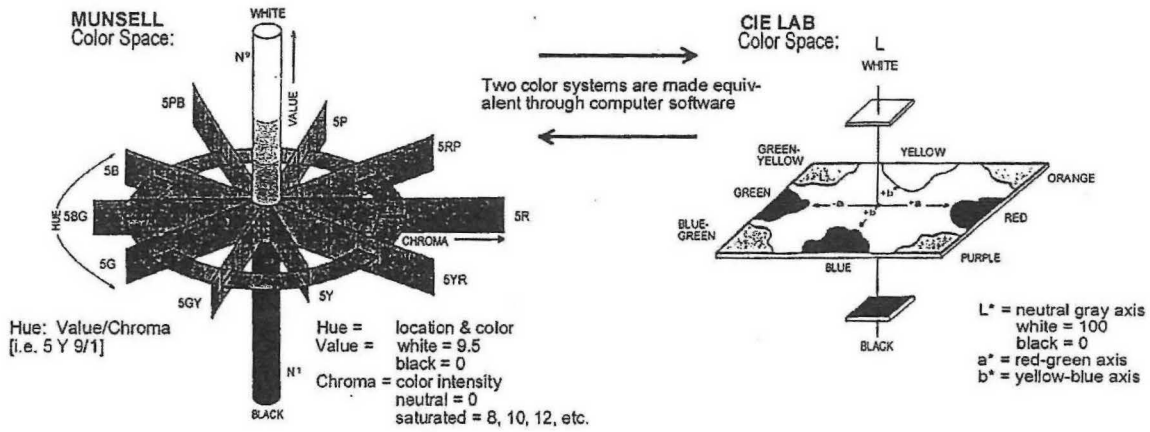



# LABORATORY DATA

| PROJECT | DATE OF ANALYSIS |
|---|---|
| COLVIN RUN MILLER'S HOUSE | August & September 2010 |
| **SPACES** | **ANALYST** |
| Exterior & Interior | Frank S. Welsh |

## EQUIPMENT AND METHODOLOGY

- Equipment
  - Bausch & Lomb stereomicroscope (10 - 105x)
  - Nikon SKE polarized light microscope
  - Schott halogen fiber-optic illuminator (3200K)
- Evaluation of samples for original color
  - Architectural paints discolor as they age
  - Attempts made to find cleanest & brightest evidence
- Color assessment and matching:
  - Visual matching in tungsten light 3200K
  - Colors named according to traditional usage
  - Mathematical color system: CIE LAB (L* a* b*)
  - Visual color system: Munsell
  - Portable spectrophotometer (0 - 45° geometry)
  - General illumination: Tungsten (2400K)
  - PC for spectrophotometric & CIE to Munsell software
  - Requisite samples bleached with U.V. radiation to attempt reversal (20% - 50%) of yellowing of oil binder




## DESCRIPTION OF PRESENTATION OF LABORATORY DATA FROM THE ANALYSIS

- The following pages contain all of the requisite information found on each sample gathered during the laboratory analysis of the historically significant coatings.
- The information on these pages is the data from which the conclusions have been drawn that are presented in the summary of finishes.
- The key to abbreviations used in the data sheets is found on the following page.
- Illustrations diagramming the locations from which the samples were taken are included in the Field Note - Sample Location sheets.

## KEY TO THE ABBREVIATIONS USED IN THE LABORATORY DATA SHEETS

For Layer/Coat:

- P = prime or sealer coating
- I = intermediate or second prime
- Gr = ground or base coating for marbling or graining
- F = finish for final coating

For Color Name:

- W = white
- YW = yellowish white
- YG = yellowish gray
- GY = grayish yellow
- BL = blue
- GRN = green
- BRN = brown
- MRB = moderate reddish brown
- MOY = moderate orange yellow
- POY = pale orange yellow
- LT = light
- MED = medium
- VRY = very
- PL = pale
- GRY = gray or grayish
- BLK = black

For Munsell Value:

- This is the color reference value in the Munsell Color System.

For Type of coating:

- O = oil
- D = distemper or calcimine
- Wsh = whitewash
- Vrn = varnish
- Stn = stain
- Pb = lead content

For Gloss:

- Fl = flat finish
- L = low gloss
- S = semi-gloss
- G = gloss
- H = high-gloss

For Age:

- orig = original
- er = early
- md = middle
- lt = late
- c = century

# PRELIMINARY LABORATORY DATA SHEETS

EXTERIOR

| Sample Number | Location/ Description | Layers and Comments |
|---|---|---|
| Ext.-1 | South elev. 1st Fl. Door to Center Hall | 1P White (Pb) Orig<br>2I YW " "<br>3Gr YW " "<br>4I Dark Brown glaze for graining "<br>5F Clear coat "<br>6F Dk. Olive Green md 19th c<br>7F YW md/lt 19th c<br>8Gr YW lt 19th c<br>9I Med. Brown glaze for graining "<br>10F Clear coat. "<br>11-19 F's Dk Greens 20th c |
| Ext.-2 | South elev. 1st Fl. Frame of doorway to Center Hall | 1P White Orig<br>2I White "<br>3F White "<br>4-5 F's W's/YW's md 19th c<br>6F Dk Brown md/lt 19th c<br>7-11 F's W's lt 19th c<br>12-20 F's Dk Greens 20th c |
| Ext.-3 | South elev. 1st Floor. Frame of Southern most window. | 1P White Orig<br>2I " "<br>3F " "<br>4-5 F's W's/YW's er/md 19th c<br>6I Gray (ZnO) md 19th c<br>7F Dk Brown* md/lt 19th c<br>8F Lt Green "<br>9-11 F's W's lt 19th c<br>12-20 F's W's 20th c |
| Ext.-4 | South elev. Landing @ Hall Window Frame | Same as ext.-3. |
| Ext.-5 | North elev. 1st Floor Frame of Exhibit Rm. Window Nxt to Front Door | Same as ext.-3 |
| Ext.-6 | South elev. Toothed Brick Cornice: Above projecting Soffit. | 1-3± F's PO Yel. er 19th c<br>4-6 F's W's (Pb) md 19th c<br>7-8 F's Lt Greens (ZnO) md/lt 19th c<br>9-12± W's (Pb) lt 19th<br>er 20th c |
| Ext.-7 | South elev. Toothed brick cornice - Projecting Soffit. | 1-3± F's PO Yel. er 19th c<br>4-5 F's Pale Grays md 19th c<br>6-8 F's Whites md/lt 19th c<br>9F M.R.B. lt 19th c<br>10F W "<br>- loss of paint from 20th c. |

*Note: Dk Brown in 3+4 is Brown Zinc Paint from H.F. Zinc Co. ca. 1955-60

# PRELIMINARY LABORATORY DATA SHEETS

EXTERIOR

| Sample Number | Location/ Description | Layers and Comments | Sample Number | Location/ Description | Layers and Comments |
|---|---|---|---|---|---|
| | | | | | |
| Ext.-8 | South elev. | 1-3 P.O. Yel's er 19th c | | | |
| | Brick work | 4-5 Fs Lt Grays exped 18th c | | | |
| | just below | 6-9 Fs W's (wwsl) mid 19th c | | | |
| | cornice on | 10 F MRB w/ (1st 19th c | | | |
| | west end | w pencilling. | | | |
| | | 11 F White " " | | | |
| | | - loss of 20th c paints | | | |
| | | Note: 10 F MRB + W | | | |
| | | are oil paints | | | |
| | | | | | |
| Ext.-9 | South elev. | - Multiple P.O. Yel's | | | |
| | 1st Floor | - Lt Grays | | | |
| | Brick Jambs | - W's. | | | |
| | of doorway | | | | |
| | to Centr Hall | (No MRB) | | | |
| | | | | | |
| Ext.-10 | North elev. | - Multiple P.O. Yels | | | |
| | 1st Floor | - Lt Grays | | | |
| | Brick Jambs | - D/k Gray / Black | | | |
| | of window | - Lt Green (ZnO) | | | |
| | to Exhibit | - W's | | | |
| | Rm. | (No MRB) | | | |

# PRELIMINARY LABORATORY DATA SHEETS

ROOM 100

| Sample Number | Location/ Description | Layers and Comments |
|---|---|---|
| 100-1 | Vertical faces of baseboards | 1P YG Orig<br>2F Dk Brown "<br>3F Dk Brown er19th c<br>4F Med Gray "<br>5F YW erlate19th c<br>6F Grayish Green mid19th c<br>7F Greenish Gray "<br>8F Lt Gray mid/lt19th c<br>9F Lt Blush Gray lt19th c.<br>10F Graining on YW/Yel <20th c<br>11-21 F's W's Lt Green, 20th c Gray, Black, Brown W, Gray |
| 100-2 | Beaded cap of baseboards | 1P YG<br>2I Lt Blue<br>3F Lt Blue<br>4F YW<br>5-22 - Same as 4-21 in 100-1 |
| 100-3 | Cap of Chair Rail | 1P YG Orig<br>2F Lt Blue "<br>3F YW er19th c<br>4F Med Gray<br>5F Grayish Green<br>6F Greenish Gray<br>7F Lt Gray<br>8F Lt Blush Gray lt19th c<br>9F Graining on YW/Yel.<br>10-20 F's W's, Gray, Green, Browns, Gray 20th c |
| 100-4 | Trim of doorway to rear ext. | 1P YG Orig<br>2I Lt Blue "<br>3F Lt Blue "<br>4-5 F's YW's<br>6F Lt Gray<br>7F Lt Blush Gray lt19th c<br>8F Yel/YW<br>9-15 F's W's, Blue, Browns, Gray 20th c. |

# PRELIMINARY LABORATORY DATA SHEETS

ROOM 100

| Sample Number | Location/ Description | Layers and Comments |
|---|---|---|
| 100-5 | Rear Exterior Door (Ear/md 19th c) | Completely stripped in 1970. There's only a trace/suggestion of orig er/md 19th c brownish colored graining on a YW/Yel ground coat. |
| 100-6 | Trim of basement doorway | Same as 100-4 |
| 100-7 | Door to basement. | Original finish is the dark brown. paint evidence is not clear after that for ascertaining Lt 19th c F. |
| 100-8 | Transom sash of front doorway | Stripped/Weathered Trace of orig. Lt Blue |
| 100-9 | Staircase baseboards - both sides | Same orig F of dark brown + Lt 19th c F of Lt Blush Gray |
| 100-10 | Bead/Cap of staircase baseb'ds | Lt Blue - Orig F Lt Blush Gray Lt 19 c F |
| 100-11 | First Run of Staircase - Outer Architrave Center "Frieze" Area | DK Brown - Orig F Lt Blush Gray Lt 19th c F |
| 100-12 | First Run of Staircase - Architrave Moldings excluding frieze area | Lt Blue - Orig F Lt Blush Gray - Lt 19th c F |
| 100-13 | Beaded fascia board at ceiling of turn of staircase | Lt Blue - Orig F Lt Blush Gray - Lt 19th c F |

# PRELIMINARY LABORATORY DATA SHEETS

ROOM 100

| Sample Number | Location/ Description | Layers and Comments | Sample Number | Location/ Description | Layers and Comments |
|---|---|---|---|---|---|
| | | | | | |
| | | | | | |
| 100-14 + 100-15 | Plaster Dado + Plaster above chair rail | - 4-5 layers of early white lime whitewashes then 20th c paints | | | |

# PRELIMINARY LABORATORY DATA SHEETS

ROOM 101

| Sample Number | Location/ Description | Layers and Comments |
|---|---|---|
| | | |
| 101-1+2 | Chair rail below cap | 1P YG Orig |
| | | 2I LtBlue " |
| | | 3F LtBlue* " |
| | | 4F YW early 19th c |
| | | 5F YW early/mid 19th c |
| | | 6-9F's Black w/ Some gray primes mid 19th c |
| | | 10F White (No Pb) mid/1st 19th c |
| | | 11F White* " " |
| | | 12-15 W's (Pb) 1st 19/20th c |
| | | 16F W (No Pb) 20th c |
| | | 17F W (Pb) " |
| | | 18F W (No Pb) " |
| | | 19-22 F's Grays, Green Brown 20th c |
| | | |
| | | |
| 101-3 | Cap of Chair rail | 1P YG Orig |
| | | 2I LtBlue " |
| | | 3F Dk Brown " |
| | | 4F MRB |
| | | 5F MRB |
| | | 6-9 Blacks |
| | | 10F W |
| | | 11F W* 1st 19th c |
| | | 12-22 Same as in 101-1 |
| | | |
| | | |
| | | |
| | | |
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| | | |
| | | |

| Sample Number | Location/ Description | Layers and Comments |
|---|---|---|
| | | |
| 101-4 | Mantelpiece below shelf | Stripped - leaving only poor evidence that suggests it was painted the same as 101-1+2. |
| | | |
| 101-5 | Shelf of Mantelpiece | Same as 101-3. |
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# PRELIMINARY LABORATORY DATA SHEETS

ROOM 102

| Sample Number | Location/ Description | Layers and Comments |
|---|---|---|
| 102-1 | Vertical faces of baseboards | 1P DkBrown Orig<br>2F " " "<br>3-4Fs DkBrowns ~1/19th c<br>5-6 Fs Grays Mid 19th c<br>7 F Lt Blush Gray Lt 19th c<br>8-13 Fs W, Black, Red brown, Gray 20th c<br>Note: Gaps in layering due to scraping, etc |
| 102-2 | Cap bead of Baseboard | Orig = Lt Blue<br>Lt 19th c = Lt Blush Gray |
| 102-3 | Plinth of Cabinet | Orig = Dk Brown<br>Lt 19th c = Lt Blush Gray |
| 102-4 | Chair Rail below cap | Orig = Lt Blue<br>Lt 19th c = Lt Blush Gray |
| 102-5 | Cap of Chair Rail + Window Sills | Orig = Dark Brown<br>Lt 19th c = Lt Blush Gray |
| 102-6 + 102-8 | Mantel Plinths + Mantel Shelf | Orig = Dk Brown<br>Lt 19th c = Lt Blush Gray |
| 102-7 | Mantel below Shelf + not including plinths | Orig = Lt Blue<br>Lt 19th c = Lt Blush Gray |
| 102-9 | Cabinet trim excluding plinths (typical layer structure for other trim too) | 1P YG Orig<br>2I Lt Blue "<br>3F Lt Blue "<br>- dirt<br>4F Brownish Tan<br>5F Yel. Gray<br>6F Yellow<br>- grime<br>7F Med Blue<br>8-9Fs YWs<br>10F Lt Olive Brown<br>11F Med. Blue Gray<br>* 12F Lt Blue Gray (No Pb) Lt 19th c<br>13F Lt Med Blue Gray<br>14F Lt Gray Blue<br>15F Reddish Orange<br>16F Pale Yellow<br>17-21Fs YWs, Ws<br>22-23 Fs Med Grays<br>24F Lt Green<br>25F Brown<br>26F Lt Gray |

# PRELIMINARY LABORATORY DATA SHEETS

ROOM 102

| Sample Number | Location/ Description | Layers and Comments | Sample Number | Location/ Description | Layers and Comments |
|---|---|---|---|---|---|
| | | | | | |
| 102-10 | Cabinet - Lower paneled doors | - Stripped clean | | | |
| | | | | | |
| 102-11 | Cabinet - Upper glass doors | Very degraded evidence - could be id to 102-9 but impossible to be certain. | | | |
| | | | | | |
| 102-12 | Trim of doorway to Hall | Same as 102-11 | | | |
| | | | | | |
| 102-13 | Door to Addition | c/mid 19th c door. | | | |
| | | 1st F = Lt Brown graining on YW/Yel grnd | | | |
| | | Lt 19th c F = ? because of paint removal in 1970's. - | | | |
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# PRELIMINARY LABORATORY DATA SHEETS

ROOM 200

| Sample Number | Location/ Description | Layers and Comments |
|---|---|---|
| 200-1 | Vertical faces of baseboards | 1P YG Orig<br>2F Dk Brown "<br>3F Med Gray cr/19th c<br>4F YW cr/md 19th c<br>5F Grysh Green md/19th c<br>6F Lt Gray md/lt 19th c<br>7F Lt Blush Gray md/p t/19th c<br>8F Graining on YW cr 20th c<br>9-13F's YW's, W's 20th c<br>14-18F's Gray, Blacks, W, Gray " |
| 200-2 | Beaded Cap of baseboards | 1P YG Orig<br>2F Lt Blue "<br>3F Lt Blue "<br>4F Med Gray cr/19th c<br>5F YW cr/md 19th c<br>6F Grysh Green md 19th c<br>7F Lt Gray md "<br>8F Lt Blush Gray md/lt 19th c<br>9F Graining on YW cr 20th c<br>10-19F's Same as 200-1 " |
| 200-3 | Chair rail below cap | 1P YG Orig<br>2F Lt Blue "<br>3F Lt Blue "<br>4+5F's YW's (2) cr/md 19th c<br>6F Grysh Green md 19th c<br>7F Lt Gray md/lt 19th c<br>8F Lt Blush Gray lt 19th c<br>9F Grysh Yel. cr 20th c<br>10-18F's W's, Green, Broms, Gray 20th c |
| 200-4 | Cap of Chair rail | 1P YG Orig<br>2F Lt Blue "<br>3F Dk Brown "<br>4F YW cr 20th c<br>- Cap.<br>5F Lt Gray md 19th c<br>6F Lt Blush Gray lt 19th c<br>7F Graining on YW<br>8-18 - Same as 200-3 20th c |
| 200-5 | Trim of doorways to Rooms 200 + 201 | Same as 200-3 |

# PRELIMINARY LABORATORY DATA SHEETS

ROOM 200

| Sample Number | Location/ Description | Layers and Comments |
|---|---|---|
| 200-6 | Mid 19th c doors in attic. | Stripped w/ evidence of original graining under 1970's graining. |
| 200-7 | Hand rail below cap | 1P YG Orig<br>2I Lt Blue "<br>3F Lt Blue "<br>4F DK Brown c/19th c<br>5F Med Gray mid 19th c<br>6F DK Brown "<br>7F Red Brown w/Varn 1st 19th c<br>8F Yel<br>9-12 F's Graining Grey, etc |
| 200-8 | Cap of hand rail | Dark Brown Orig<br>Red Brown w/Varn 1st 19th c |
| 200-9 | Balusters | Similar to 200-3 |
| 200-10 | Toe molding & floor nosing @ balustrade | Same as 200-3 |
| 200-11 | Newel Posts | Same as 200-8 |
| 200-12 | Drop Newel | Same as 200-3 |
| 200-13 | Plaster Wainscot. | Suggestion of size on plaster<br>1-5 F's white Whitewashes<br>- Traces of wood pulp. wall paper fibers<br>- 5 or 6 layers of 20th c. paints |

# PRELIMINARY LABORATORY DATA SHEETS

ROOM 200

| Sample Number | Location/ Description | Layers and Comments | Sample Number | Location/ Description | Layers and Comments |
|---|---|---|---|---|---|
| | | | | | |
| | | | | | |
| 200-14 | Upper plaster walls | No old paints at sample locations | | | |
| | | | | | |
| | | | | | |
| 200-15 | Stair treads | No old finishes | | | |
| | | | | | |
| 200-16 | Stair Risers | 1P YW er 19th c | | | |
| | | 2F YW " | | | |
| | | 3F Grysh Green md 19th c | | | |
| | | 4F Lt Gray " | | | |
| | | 5F Lt Blush Gray lt 19th c | | | |
| | | 6-15F's Ws, Gray, Green, Brown 20th c | | | |
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# PRELIMINARY LABORATORY DATA SHEETS

ROOM 201

| Sample Number | Location/ Description | Layers and Comments |
|---|---|---|
| 201-1 | Vertical faces of base boards | 1P YG Orig<br>2I Lt Blue (only near cap) "<br>3F Dk Brown "<br>4F Dk Gray cr 19th c<br>5F Grysh Red<br>6F Bluish Green mid 19th c<br>7F Olive Green * Lt 19th c<br>8-11 F's Whites Lt 19/20th c<br>12-17 F's Blue, Blacks, Brown, W, Gray 20th c |
| 201-2 | Cap bead of base boards | 1P YG Orig<br>2I Lt Blue "<br>3F Lt Blue "<br>4-17 Same as 201-1 |
| 201-3 | Cap of Chair rail | 1P YG Orig<br>2I Lt Blue "<br>3F Dk Brown "<br>- gap because of paint loss<br>4F Lt Bluish Green mid 19th c<br>5F Olive Green Lt 19th c<br>6-10 F's W's. Lt 19th/20th c<br>11-15 F's Blue, Green, Brown, W, Gray 20th c |

| Sample Number | Location/ Description | Layers and Comments |
|---|---|---|
| 201-4 | Chair rail below cap. | 1P YG. Orig<br>2I Lt Blue "<br>3F Lt Blue "<br>4F YW/Yel cr 19th c<br>5F YW/Pinksh cr/mid 19th c<br>6F Lt Bluish Green mid 19th c<br>7F Olive Green Lt 19th c<br>8-12 F's W's Lt 19/20th c<br>13-17 F's Blue, Green, Brown, W, Gray 20th c |
| 201-5 | Trim of doorway to Hall | Same as 201-4 (better evidence) |
| 201-6 | Mid-19th c door in Attic. | Stripped in 1970's. Trace of ori's. graining then Olive green. (Graining is contemp w/ YW) |
| 201-7 | Trim of closet doorways. (cr/mid 19th c) | 1P YW cr/mid 19th c<br>2F YW Orig "<br>3F (several of Bluish Green - (Olive)) Lt 19th c<br>4F Olive Green Lt 19th c<br>5F White<br>6- Same as in 201-4<br>Note: 3rd paint period |

# PRELIMINARY LABORATORY DATA SHEETS

ROOM 201

| Sample Number | Location/ Description | Layers and Comments |
|---|---|---|
| 201-8 | Upper closet doors | 1P YW — er19th c<br>2Gr Pale Yellow — "<br>3F Brown glaze for graining — "<br>4F Olive Green — 1/H19th c<br>- gap because of 1970's stripping<br>- 1970's graining + later paints |
| 201-9 | Large closet doors | Same as 201-8 |
| 201-10 | Mantelpiece below shelf. | 1P YW — Orig<br>2I Lt Blue — "<br>3F Lt Blue — "<br>4F YW/Yel. — er19th c<br>5I Gray — er/mid19th c<br>6I Black — "<br>7F Black - gloss — mdH19th c<br>8F Black — "<br>9F Olive Green — 1/H19th c<br>10F W.<br>11- Same as in 201-4 |
| 201-11 | Shelf of Mantelpiece | 1P YG — Orig<br>2F Dark Brown — "<br>3- Same as 4- in 201-10. |
| 201-12<br>201-13 | Plaster wainscot<br>Plaster walls above chair rail | Orig plaster but no old coatings - they have been stripped. There are only 20th c era paints on the plaster where sampled. |
| 201-14 | Picture Rail | - New - 1970's. |
| 201-15 | Fireplace plaster surround | - No old paints. (Black is 20th c.) |

# PRELIMINARY LABORATORY DATA SHEETS

ROOM 202

| Sample Number | Location/ Description | Layers and Comments |
|---|---|---|
| 202-1 | Vertical faces of baseboards | 1P Dk Brown Orij<br>2F Dk Brown "<br>3F Dk Brown er19th c<br>4F Med Gray er/md19th c<br>5F Brownish Pink md19th c<br>6F Med. Pink<br>7F Med. Pink lt19th c<br>8-10F's W's 20th c<br>11-13F's Blue, Black "<br>Brown, W, Gray. |
| 202-2 | Cap bead of baseboards. | 1P YG Orij<br>2I Lt Blue "<br>3F Lt Blue "<br>4F YW er19th c<br>5F Med Gray er/md19th c<br>6F Brownish Pink md19th c<br>7F Med Pink lt19th c<br>8-10F's W's 20th c<br>11-13 Same as 202-1 |
| 202-3 | Chair rail/ Lower cap | 1P YG Orij<br>2I Lt Blue "<br>3F Lt Blue "<br>4F YW er19th c<br>5F Pale Pink md19th c<br>6F Med Pink lt19th c<br>7-12 - Same as 8-13 in 202-1 |
| 202-4 | Cap mold of Chair rail. | 1P YG Orij<br>2I Lt Blue "<br>3F Dk Brown "<br>4F Dk Brown<br>5F Pale Pink<br>6F Med Pink lt19th c<br>7-12F's Same as 8-13 in 202-1 |
| 202-5 | Trim of doorway to attic | Same as 202-3 |

# PRELIMINARY LABORATORY DATA SHEETS

ROOM 202

| Sample Number | Location/ Description | Layers and Comments |
|---|---|---|
| 202-6 | Door to Attic | 1P Dk Brown Orig<br>2F Dk Brown "<br>3F Black/Green cr/md 19th c<br>4F Lt/Med Gray md 19th c<br>5F Med Pink Hi 19th c<br>6-11 Same as 8-13 in 202-1 |
| 202-6 | Door to Hall ca. cr/md 19th c (in Attic) | 1F Med. Brown graining on a YW/Yel ground coat.<br>2F Med Pink Hi 19th c.<br>3-6F's W's, Graining, Gray. 20th c |
| 202-7 | Outer Trim board of Stairs to Attic including its cap. | Same as 202-3. |
| 202-9 | Mantelpiece below shelf. | 1P YG Orig<br>2I Lt Blue "<br>3F Lt Blue "<br>4F YW cr 19th c<br>5F Lt/Med Gray md 19th c<br>6F Black Hi 19th c<br>7-12 Same as in 202-3 |
| 202-10 | Shelf of Mantelpiece | 1P YG Orig<br>2F Dk Brown "<br>3F Dk Brown cr 19th c<br>4F Lt/Med Brown md 19th c<br>5F Black. Hi 19th c<br>6-11 F's Same as 202-3 |
| 202-11 | Trim of closet doors cr/md 19th c | 1P YG cr/md 19th c<br>2F Pale Pink "<br>3F Med Pink Hi 19th c<br>4-9 F's Same as 202-3 |

# PRELIMINARY LABORATORY DATA SHEETS

ROOM 202

| Sample Number | Location/ Description | Layers and Comments |
|---|---|---|
| 202-12 + 202-13 | Large lower closet doors + Small upper closet doors | Same as 202-6 |
| 202-14 + 202-15 | Stairs to Attic - Risers + Treads | Stripped w/ evidence they were first painted in mid/lt 19th c w/ Med Pink |
| 202-16 | Upper board wall @ attic stair. | Same as 202-3. |
| 202-17 | Plaster wainscot. | Only 5 layers of 20th c paint. |
| 202-18 | Plaster walls above chair rail at Stairway to attic @ chair rail. | 1. Tiny fragments of er 20th c wood pulp wallpaper then - 5-6 layers of 20th c. paints. |
| 202-19 | Plaster of fireplace surround | - traces of older whitewash. - Black - White } 20th c |
| 202-20 | South closet wall above chair rail | - Clean plaster - Fragments of er 20th c woodpulp wallpaper - 3 layers 20th c paints |
| 202-21 | South closet baseboard | Same as 202-1 + 202-2 up to the Med. Gray. |
| 202-22 | South Closet Chair rail | Same as 202-3 + 202-4 up to the YW. |
| 202-23 | S. Closet Flooring | Not painted until 20th c |

Form 10-445
(5/62)

1. STATE Virginia
COUNTY Fairfax
TOWN -- VICINITY Colvin Run
STREET NO. 10015 Colvin Run Road
Great Falls, Virginia
ORIGINAL OWNER Philip Carper
ORIGINAL USE Residence
PRESENT OWNER Fairfax County Park Authority
PRESENT USE Museum House
WALL CONSTRUCTION Brick
NO. OF STORIES 2

HISTORIC AMERICAN BUILDINGS SURVEY
INVENTORY #16

2. NAME Colvin Run Miller's House

DATE OR PERIOD c. 1815
STYLE --
ARCHITECT Unknown
BUILDER Unknown

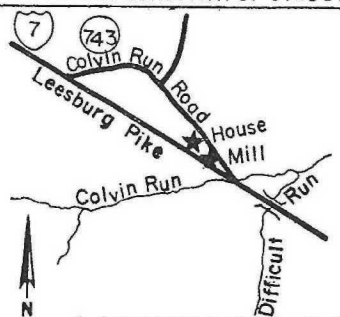
3. FOR LIBRARY OF CONGRESS USE

4. NOTABLE FEATURES, HISTORICAL SIGNIFICANCE AND DESCRIPTION OPEN TO PUBLIC Yes

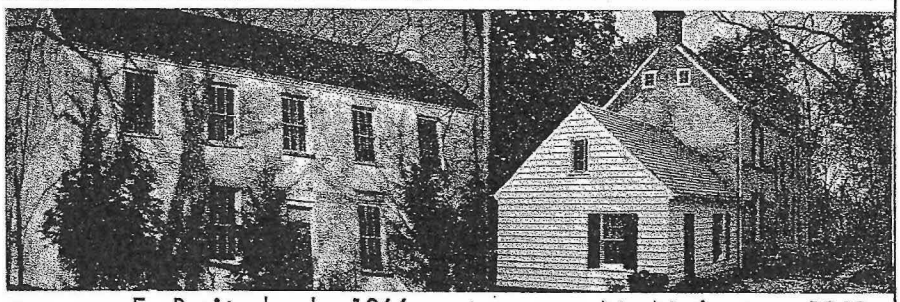
The house is located on a triangular piece of land formed by Leesburg Pike and Colvin Run Road. The latter was formerly a right-of-way for the Alexandria-Leesburg Pike, which was built between 1810 and 1820, generally following the route of the earlier Eastern Ridge Road. The house can be placed in the transitional period between Federal and Greek Revival styles. The basic form tends to be typical of the latter period, but the trim and details are basically of the earlier 19th century style, according to E. Blaine Cliver, restoration architect. The brick was poorly baked, causing the house to deteriorate more rapidly than is normally the case. It is laid in common, or American bond, with flat brick arches over doors and windows. The dogtooth brick cornice resembles those on the meat house at Ash Grove, near Tysons Corner, and Earp's Ordinary, in Fairfax City. The nails used in the interior woodwork were the type in use between 1790 and 1820, and the nails in the present flooring are the type which came into use about 1815, and are currently available. The WPA inventory in 1937, as well as other sources, have dated the house at 1779, but the construction details do not seem to bear evidence of a date earlier than c. 1810. Local tradition holds that the log house north on Colvin Run Road called "Kalorama Spring" (formerly "Tricketts") was the first miller's house.

Renovation of the miller's house was under the direction of William M. Haussman, A.I.A., in 1967. The two-story frame and clapboard addition on the northwest was razed and the materials burned during the process, thus eliminating much evidence, but it is apparent from markings on the exterior brick wall of the house that an earlier dependency existed. It is on the foundations of the earlier addition that the present one and a half story frame and clapboard addition has been patterned and built, now providing a residence for the park superintendent. Stone foundations, possibly from early outbuildings, are still in evidence in the yard around the house.

5. PHYSICAL CONDITION OF STRUCTURE Endangered No Interior Good Exterior Good




6. LOCATION MAP (Plan Optional)



E. Breitenbach, 1966 7. PHOTOGRAPH N. Netherton, 1969

8. PUBLISHED SOURCES (Author, Title, Pages)
INTERVIEWS, RECORDS, PHOTOS, ETC.
See Virginiana Collection files, Fairfax County Public Library.
Ross D. Netherton, The Colvin Run Miller's House, manuscript, 1969.

9. NAME, ADDRESS AND TITLE OF RECORDER
Mrs. Ross D. Netherton
Fairfax County Division of Planning
4100 Chain Bridge Road
Fairfax, Virginia 22030

DATE OF RECORD 10/8/69

COMMONWEALTH OF VIRGINIA

# COUNTY OF FAIRFAX
# HISTORIC LANDMARKS SURVEY

| | |
|---|---|
| Name of Property: | Colvin Run Miller's House |
| Owner: | Fairfax County Park Authority |
| Location (Street Address): | 10015 Colvin Run Road, Great Falls, Virginia |
| Mailing Address: | P.O. Box 236, Annandale, Virginia 22003 |
| Other Locational Data: | At intersection of Colvin Run Road and Leesburg Pike. |
| Acreage: | 33.0719 (including parklands across Leesburg Pike). |
| Property Identification Number: | 18-2-001-24 |
| Deed Book Reference: | Deed Book 2640, page 413. |
| Location of Title: | Fairfax County Courthouse |
| Assessed Value: | $139,685 ($100,000 buildings, including the mill) January 1977 listing. |
| Zoning Status: | RE-1 |
| Present Use: | Used to house exhibits |
| Restrictions: | Public ownership |
| Magisterial District: | Dranesville ✓ |
| Planning District: | Upper Potomac |
| Open to Public: | Yes |
| Setting: | On the narrow ridge of a steep hill overlooking the mill, Difficult Run Valley and Route 7. |
| Additional Material Available: | See Virginiana Collection files, Fairfax County Public Library: HABSI form 1969; photographs; research notes.<br>E. Blaine Cliver, Preliminary Investigation of the Colvin Run Mill, manuscript, June, 1968.<br>Oliver Martin, On and Off the Concrete, Washington, D.C., 1930.<br>Ross D. Netherton, The Colvin Run Mill, manuscript, 1969. |

NLS

Date: 10/13/69
rev. 7/1/77

Recorder: Mrs. Ross D. Netherton
Division of Planning

COMMONWEALTH OF VIRGINIA
COUNTY OF FAIRFAX
Heritage Resources
2855 Annandale Road
Falls Church, Virginia 22042

9/93
(0217D)

HERITAGE RESOURCES BRANCH

HISTORIC RESOURCES SURVEY

Historic Name: Colvin Run Miller's House

Common Name:

Street Address:

Tax Parcel No.:

Present Owner: FCPA

Original Use and Date:

Present Use: Museum House

Interim Uses:
(with dates, if known)

1. BUILDING STYLE Federal

2. STORIES(number): 2

   BAYS(number): front 5 side (church)_____
   [X] symmetrical [] asymmetrical

3. FOUNDATION [] piers [X] continuous [] not visible
   Materials rough-cut, coursed fieldstone

   BASEMENT [] yes [] no [X] not visible
   [] low basement (less than 2 ft. above grade)
   [] raised basement (3 ft. or more above grade)

4. WALL STRUCTURAL SYSTEM
   [] wood
   [] masonry
   [] steel
   [] unknown

Other porches/sheds/stoops,etc: cut stone stoop w/iron railings on each side w/one large stone step

11.DOOR(S), MAIN ENTRY
Type and Material: single paneled wood

Door Surround: 3 pane rectangular glazed transom
flat jack arch
"ghost" of orig. porch

12.WINDOWS
Main Floor Type and Material: 9 over 9 double-hung sash, wood
flat (jack) arches

Main Floor Window Surround: shutters w/shutter dogs
on both floors

Other Floors: 9 over 6

13.ADDITIONS AND ALTERATIONS "Residence with upper cut stone foundation / stone frame addition, 2 bay 6 over 6 double hung wash windows w/shutters, asphalt shingle roof stone pipe, but no chimney, single wooden door on west facade (over)

14.OBSERVED CONDITION:
[X] good [] fair [] poor

15.OUTBUILDING 1
use exhibitional/maintenance shop stories and bays_____
foundation_____ construction material_____
roof type and material_____

OUTBUILDING 2
use general store stories and bays_____
foundation_____ construction material_____
roof type and material_____

16.LANDSCAPE FEATURES several large maples (oaks?)
stone path to front door

17.SETTING near intersection of Route 7 & Islington
w/sufficient land to maintain usual setback
but not eliminate highway noise

18.TOPOGRAPHY hilly, combination of grass & natural
wooded area

# Department of Historic Resources
## Reconnaissance Level Survey

Fairfax (County) — *DHR Id#:* 029-0023

### *Resource Identification*

Other Id#: 029-0008

*Property Name(s):* ..... Colvin Run Miller's House {Historic}
*Property Date:* ..... 1815
*Address(s):* ..... 10015 Colvin Run Road {Current}
*County/Independent City:* Fairfax (County)
Vicinity of: ..... Colvin Run
*State, Zip:* .....Virginia
*USGS Quad Name:* ..... VIENNA
*Surrounding area:* ..... Hamlet
*Restricted location data?.* No

*National Register Eligibility Status*
Property is Historic (50 years or older)

Property has not been evaluated

This Property is associated with the Colvin Run Mill [district]

### *Resource Description*

*Ownership Status:* ..... Public - Local

*Primary Resource Exterior Component Description:*

| Component | Comp Type/Form | Material | Material Treatment |
|---|---|---|---|
| Chimneys | Chimneys - Interior end | Brick | |
| other | other | | |
| Foundation | Foundation - Solid | Brick | |
| Roof | Roof - Gable | | Roof - Shingle |
| Structural System | Structural System - Masonry | Brick | other |
| Windows | Windows - Sash, double-hung | | Windows - 6/6 |

*Site Description:* ..... The house is located on atop a small hill and is situated just west of the Colvin Run Mill.

*Secondary Resource Desc:* Stone foundations, possibly from early outbuildings, are still in evidence in the yard around the house.

*WUZIT Count:*

| No. | Wuzit Types | Historic? |
|---|---|---|
| 1 | Single Dwelling | Historic |
| 0 | Foundation | Historic |

*NR Resource Count:*

| # | NR Resource Type | Contributing Status |
|---|---|---|
| 1 | Building | Contributing |

Contributing: 1.00 Total: 1.00

### *Individual Resource Information*

*WUZIT:* ..... Single Dwelling

*Est. Date of Construction:* .... 1815 ca {VDHR Survey File}
*Accessed?* .....
*Primary Resource?* ..... Yes
*Number of Stories:* ..... 2.0
*Interior Plan Type:* .....
*Threats to Resource:* ..... None

*Description:* The house is located on a triangular piece of land formed by Leesburg Pike and Colvin Run Road. The latter was formerly a right-of-way for Alexandria-Leesburg Pike, which was built between 1810 and 1820, generally following the route of the earlier Eastern Ridge Road. The house can be placed in the transitional period between Federal and Greek Revival styles. The basic form tends to be typical of the latter period, but the trim and details are basically of the earlier 19th century syle, according to E. Blaine Cliver, restoration architect. The brick was poorly baked, causing the house to deteriorate more rapidly than is normally the case. It is laid in common, or American bond, with flat brick arches over doors and windows. The dogtooth brick cornice resembles those on the meat house at Ash Grove, near Tysons Corner, and Earp's Ordinary, in Fairfax City. The nails used in the interior woodwork were the type in use between 1790 and 1820, and the nails in the present flooring are the type which came into use about 1815, and are currently available. The WPA inventoy in 1937, as well as other sources, have dated the house at 1779, but the construction details do not seem to bear evidence of a date earlier than c. 1810.

### *Cemetery Information*

*CRM Event # 1,*

| | |
|---|---|
| *Cultural Resource Management Event:* ..... | HABS Inventory |
| *Date:* ..... | 1957/11/99 |
| *Organization or Person:* ..... | George Worthington |
| *CRM Event Notes or Comments:* ..... | |

*CRM Event # 2,*

| | |
|---|---|
| *Cultural Resource Management Event:* ..... | HABS Inventory |
| *Date:* ..... | 1969/10/08 |
| *Organization or Person:* ..... | Fairfax Co.-Mrs. Ross Netherton |
| *CRM Event Notes or Comments:* ..... | |

*CRM Event # 3,*

| | |
|---|---|
| *Cultural Resource Management Event:* ..... | Reconnaissance Survey |
| *Date:* ..... | 1969/10/13 |
| *Organization or Person:* ..... | Mrs. Ross Netherton |
| *CRM Event Notes or Comments:* ..... | County of Fairfax Historic Landmarks Survey |

*CRM Event # 4,*

| | |
|---|---|
| *Cultural Resource Management Event:* ..... | Reconnaissance Survey |
| *Date:* ..... | 2003/09/99 |
| *Organization or Person:* ..... | Eric Griffitts |
| *VDHR Project ID # Associated with Event:* .. | 2003-1006 |
| *CRM Event Notes or Comments:* ..... | Property documented by Louis Verger Group for VDOT Project # 0007-029-128,P102;PPMS:52328 |

*CRM Event # 5,*

| | |
|---|---|
| *Cultural Resource Management Event:* ..... | HistDist:Recommnd Contributing |
| *Date:* ..... | 2004/01/07 |
| *Organization or Person:* ..... | Marc Holma |
| *VDHR Project ID # Associated with Event:* .. | 2003-1006 |
| *CRM Event Notes or Comments:* ..... | |

Haussmann, William M

Preliminary Report Restoration of and Addition to the Miller's House At the Colvin Run Mill

September 15, 1976

PRELIMINARY REPORT

RESTORATION OF AND ADDITION TO

THE MILLER'S HOUSE

AT THE COLVIN RUN MILL

COLVIN RUN MILL ROAD, near Route 7

FAIRFAX COUNTY, VA,

prepared by:

William M. Haussmann, AIA
architect

Sept. 15, 1967

PRELIMINARY REPORT

RESTORATION OF AND ADDITION TO THE MILLER'S HOUSE

AT THE COLVIN RUN MILL

COLVIN RUN MILL ROAD NEAR ROUTE 7

FAIRFAX COUNTY, VA.

## PREFACE

The work which it is proposed to do in connection with the Miller's House may be considered in two parts. There is, first, the wing the advisability of the construction of which was expressed in the committee report referred to in the cover letter. This was to be, quoting from that report, "----guided by all physical and documentary evidence available----". and, second, the main house upon which the work is largely that of rehabilitation or if one prefers the word, restoration. The material which has been prepared in order to make possible the carrying out of this proposed work consists of drawings, specifications and this report. These have been based on the assumption that the work will be performed under the force account concept under the general technical direction of a contractor with experience in this field and with the consulting architectural supervision of the undersigned. In this way it will be possible to maintain complete control over all phases of the work so that additions to or omissions from the contemplated scope can easily be arranged as further research and/or informed judgment might indicate.

## THE WING

The lateral dimensions of the wing are based on foundations which exist on the site; the vertical dimensions are based on certain indications which are evident on the north wall. Exploratory excavations were made in connection with the foundations in January 1967, some of the results of which were incorporated in a letter, a copy of which is attached. It is known that a two story wing sat on these foundations until recently. There is circumstantial evidence that a one story wing sat on or very near them. The markings on the north wall indicate what seems to be a one story structure of what seems to have been about the same depth as the main house. Trenching in a north-south direction, extended beyond the end of the existing foundation gave no evidence of any other cross wall. There was, in fact, aside from a small pile of stone against the north wall of the main house and several isolated stones forming no as yet determinable use pattern, no evidence not directly attributable to the two story wing. It appeared that the top of the hill had been sliced off; soil a few inches or less below the surface appeared undisturbed. Evidence to date has not led to any supportable conclusion as to whether the one story unit predated or postdated the main house.

It has not yet been determined whether the two story wing replaced the one story structure or if it was a rebuilding of - and possible raising of - it. While it is not felt that the evidence has thus far resulted in any positive conclusions, it would appear to be a reasonably safe assumption that what was probably the earlier wing sat on or about the same location as the two story wing. Of the two wings, it is perhaps belaboring a point to indicate that the two story wing existed until very recently; that it covered over the attic masonry openings on this end; that it must have been of a later date than the one story unit; and that therefor the evidence of the one story unit on the north wall could be accepted as evidence that this was an earlier construction.

It was decided, therefor that the existing foundations should be preserved in situ and this it is proposed to do. These foundations are, however, no longer structurally sound so that it is proposed to support the new wing independently. As it was pointed out earlier, the height of the wing was established from certain indications on the north wall of the main house. The precise dimension and the pitch were determined on the site and this information was transferred to the graphic documentation, assuming that the ridge line of the wing would have been from 10" to 12" higher than the indication on the wall, inferring that the wall indication was that of the underside of the rafter construction.

The exterior of the wing is an attempt to express the functional requirements suggested in the committee report interpreted in the manner of the time within the area of the dates assumed for its construction. No evidence of possible materials for external walls has yet been found. Since the later two story wing was of wood construction and since it is somewhat more probable that a brick structure would have survived (which it did not) it was decided that a wood framed and faced wing was a more logical approach. The roof is suggested as slate for reasons which appear further on in the body of this report.

Questions concerning the existence of the wing raise further questions concerning other outbuildings or service facilities. Until the site has been further studied and researched, any consideration of this must be entirely speculative, and, as for instance in the case of "Pennsbury", north of Philadelphia, so also the type of structure which it would be proper to assume might normally have existed. There is no apparent evidence to this point that the wing was intended to provide cooking facilities, nor does the cellar yet appear to have provided them. Trenching has not yet indicated anything in the nature of a symmetrical wing to the south and there is no apparent evidence so far of construction which must once have existed in the depressed area to the south. Since there is some evidence of the former existence of subsidiary structures on the site, and since it is hardly likely that the house, as part of an ensemble could have successfully existed without them, it is suggested that a careful topographic survey, followed by an analysis and trenching be done to attempt to develop the sites of the outbuildings which it is assumed must once have existed.

Observation and study of the wing foundations and the excavations which were done do not indicate clearly that the wing either preceded or succeeded the main house. One small piece of evidence - interesting but not conclusive - exists to the effect that the door on this (north) end had been reversed apparently after it had originally been installed. The quality of the masonry over the door and the crudeness of the construction of the arch - at variance with all those elsewhere in the building point to the possibility of a change having been made, but not to the time at which it might have been done. There seems to be no great reason to doubt, however, that a structural mass of the general shape and probably of external materials shown existed at the same time as the main house. Since the two story wing was obviously later than the one story wing, it is the earlier of the two which is being conjecturally restored.

The interior is entirely functional; it may be used as, in effect, an "efficiency" apartment or in connection with the main house as a living room or an office. There is not sufficient headroom in the attic for sleeping quarters and access to that space is therefor limited to a trap door.

THE MAIN HOUSE

It is proposed, primarily, that work in the main house be limited to rehabilitation and/or restoration. To this end all evidence of the recent attempt to fit the structure for temporary occupancy, as well as almost all evidence of the occupancy of the past 140 years, more or less, will be removed. The appearance of the house will be little changed. There follow, however, explanations of the reasoning behind some of the work which it is proposed to do.

DATE

Neither the evidence of the structure itself nor the research which has been done have been absolutely conclusive in establishing the date of the construction of the house. Comparison with the mill, to which the date of 1795 has been assigned, as well as houses in Georgetown, Alexandria, Leesburg and Waterford suggest a date for the house of at least 10 and more probably 20 - 25 years later, that is, 1805 - 1820. Since, however, with possible minor exception, no work is planned to be based on antecedents but rather on the internal evidence the question of the date, while historically of importance is architecturally somewhat academic.

THE ENVELOPE

(1) WALLS

These were at one time apparently extensively repointed and there are evidences of plaster "smears" on other than the north end. Some of the arches over the openings had already been in poor condition prior to the present and at one time they had been covered with plaster false arches. No work except reconditioning, pointing where necessary, and the application of clear waterproofing is contemplated.

(2) ROOF

The present roof structure was braced in 1966 by a method which left the (presumably) original construction intact. The original roofing material would appear to have been some type of shingles; shingle lath of very irregular width and spacing still exists. It is considered improbable that the present tin "flat iron" pattern shingles go back very far in point of time and the underside of the shingle laths show evidence of the nailing of an earlier covering with cut nails. These earlier materials might have been slate or wood. With - to date - no positive conclusion as to which might have been used, and given the fire resistant quality of the former, it is suggested. The question was raised as to why, if the original roof had been slate, it did not still exist. Possible slates which might have been used could have been Buckingham, Peach Bottom and Bangor. The age of Bangor "ribbon" slate is estimated at from 60 to 75 years and would probably have needed replacement long since. We may only deduce from that, that if a slate roof had been the original installation it could have been in need of replacement at some point in the past. So also, of course, with wood. It might be pointed out here that the roof construction, even with the new bracing, is not sturdy enough to support a clay or concrete simulated wood shingle.

(3) WINDOWS

There is reasonable agreement with Mr. Lewis' conclusion that the existing sash are not original. In the case of two of them the evidence is indisputable. The second floor frames are all so constructed that the fixed upper sash of each window originally rested in a pocket in the frame. One frame which was closely examined would appear to be original and the others are like it. The bottom of this pocket is at a point in the jamb which, when worked out graphically would exactly give a 9 over 6 light window. When these proportions are applied to the lower sash, they work out to a 9 over 9 light window. The second floor sash have perhaps two or three coats of paint as compared to perhaps 6 or more for the tested portions of the jamb. Further, the openings have obviously been worked over. The limited tests which have so far been performed on the first floor are not yet considered conclusive and answers have not yet been forthcoming to questions which have been raised. Specifically, they have as yet not been extensive enough to permit a correlation of colors of sash and other work in the areas in which they have been done. If, as it is believed, the second floor sash are not only not original but not particularly "old", the deduction would be to the effect that the first floor sash are also not original. The arrangement of lights such as is described here is still existent in one or two examples in Waterford. The basic frames will be retained as will as much of the trim as has not deteriorated beyond redemption.

(4) DOORS

The opinion has been reached that the doors are probably original and should, with the certain exception of the front door, be retained.

Where paint color sequences were taken, they revealed a correlation between the doors and other work in the same spaces. The doors and their trim would appear to be disparate and in particular the doors on the closets in the second floor vary in character from other work. However this may be, there seems to be a strong probability that all of this work was installed at about the same time and that it was also probably of contemporary production, thatis: not reused from other sources. Further and detailed color sequences will be run of wood members in all spaces and correlation will be made of them prior to the authorization of a definite work program . There seems little doubt that the entrance door is of a much later period and it is proposed to replace it with a door of the same design as the other exterior doors. The two end doors are alike in pattern but not in exterior trim. These will be subject to careful study before rehabilitation is attempted. That on the north is the one referred to previously as having been reversed at one time.

Further exploratory work is needed on the west door from the north room. The original opening would seem ~~intended~~ to have been intended to take a window. While it will be necessary to remove the trim and frame to determine a time sequence, the door and its panelled reveal are of differing detail from any other work in the house; the trim is the same as the other trim in this room. Although the drawings indicate replacing the door with what is assumed to have been the window existing at the time of the original construction, a final decision will not be made until further research has been done.

As to the closets: the opinion now held is that those in the second floor are contemporary with the original construction. There had been no doubt as to those on the first floor, although one (in the north room) has been modified at some time. A more informed opinion may be reached on this, also, with further research.

As the drawings indicate, the exterior steps will all be further studied. Those on the north will disappear beneath the proposed construction; those on the south are incorrect and will be rebuilt except for their footings; those on the east are not original and may be rebuilt (the disintegrated railings will be replaced); and those on the west will be subjected to further study. It was quite recently discovered that there had been what was probably a "cellar door" type of opening in the east wall to the right of the stoop. Further excavation will be done here before a decision is made respecting its restoration. There may have been, to judge from markings on the wall, as many as three appendages on the east wall. One was a porch; one possibly a hood and other inconclusive markings suggest a smaller (porch?). The hood was the earliest and is tentatively suggested.

(5) FLOORS

Most of the floors are probably the original ones except in the case of the north room which was resurfaced over the existing floor. The floor in the hall is somewhat higher than those adjoining because the joists in this space were set higher than the others for a reason as yet unknown.

All work identifiable as recent - relatively speaking - such as concrete slabs and the steel sash in the single window will be removed. The floor will remain as packed earth. The opening intended to receive an additional opening for ventilation purposes will be filled in to match the adjoining work. The stairs will be rehabilitated to the extent that examination of its parts proves advisable. The supporting post can probably be retained, providing it only with a footing and perhaps replacement of the extreme lower part. The beams seem , as of now, in acceptable condition but the ends of several of the joists have been affected by rot and termites. The approach suggested here is that the existing joists be retained but thoroughly dried and chemically treated and that those parts requiring it be strengthened by the addition of new members. Pointing the walls, where they require it and whitewashing them would complete the work in this area. The possibility of a cellar entrance is discussed elsewhere. Adequate precautions against surface water and termites will also need to be taken.

(6) HEAT

It is propsed to heat the house electrically, through the use of radant heat panels in the ceilings controlled by thermostats concealed, where possible, behind doors. There should be no evidence, to the casual eye, of any heating equipment. Wiring has been carefully planned to run in stud partitions, in closets and in the attic.

CONCLUSION

Briefly it is proposed:

(1) To construct a wing on the north end of the existing house over existing foundations, but independently supported; to sift and examine all earth displaced by this activity; and to design the wing in a manner harmonious with the style of the main house.

(2) To perform only such work on the main house as may be required to preserve it from further deterioration; to restore existing original elements to their appearance at their approximate installation; and to do such other work as research interpreted by informed opinion may indicate.

William M. Haussmann, AIA

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Telephone 234 2703

Jan. 16, 1967

Mr. James Roll
Director,
Fairfax County Park Authority
P. O. Box 236
Annandale, Va.

re: the Miller's House
Colvin Run Mill

Dear Jim:
You will recall that it was agreed that further research should be attempted on the ground in order to determine, if possible, the dimensions of the earlier wing on the upper end of the Miller's House for the purpose of locating as much accuracy as possible to advise for the suggested reconstruction of this wing. You will recall also that weather conditions delayed the work on the site until Tuesday, Jan. 10. Until date I was able to proceed with the help of the three men who had been provided by the Authority.

While studies are still incomplete, I think they have advanced far enough to say that there appears as of now, at least, to be no definite conclusive evidence in the ground of any foundations other than those now existing. A trench dug roughly on the longitudinal axis of the building and extending but on a different line six feet beyond the foundation and to a varying depth as great as 34 inches revealed basically nothing but the native red brown clay of the region. There were evidences of plaster remaining from the demolition of the two story wing which had existed until comparatively recently and a very thin discontinuous strata of what was apparently dark ground plaster, probably from the same structure. The area which the foundations appeared not to have been disturbed except as far as the digging extended, in two places. One, in the approximate center of the brick end wall bears all the earmarks of a small dump or deposit of loosely piled stones of the type found in the retaining walls and foundations in the immediate area. It did not appear to be a structural foundation. The other was a transverse intersection, not clearly defined, with a deposit consisting of area spalls and other debris to a depth of a few inches and a width of, roughly, a foot. These conditions have all been photographed in color and copies will be made available to you. The surface had probably been levelled off, since there was no evidence of topsoil. The stone foundations had haphazardly fitted into shallow trenches somewhat over a foot in depth; the clay would have easily held its shape in a vertical cut.

The results to date are thus almost completely negative but even with this some tentative opinions are possible. These would be, among others: (1) that the existing foundation has not been cut; that is either lengthened or shortened, although the type of masonry in which it is laid makes this particularly conjectural; (2) that the existing wing foundations were probably built after, rather than before the main house but the evidence for this is slight and susceptible to other interpretation; (3) that there is a distinct possibility that the foundations could have served for both

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wings and (4) in fact that the upper floor of the two story wing could have been experimental in part on an earlier wing or (5) that the earlier wing was not a "wing" per se (see 2) and could have been constructed on real grills. There is no evidence to date that an earlier construction was destroyed by fire. A reasonably logical deduction, circumstantial, it is true, is that the foundation as it exists served both structures or that they were, whatever their history, contiguous to this degree.

Acting on this assumption the wing, if reconstructed using the same roof pitch as the lower - and probably earlier - of the two but possibly establishing the ridge approximately over a foot higher to obtain adequate headroom. The structure would be approximately 20' by 38' and could contain a living room and/or office, a bath, a kitchen and a bedroom, this in the attic. Some tentative studies have been made in this direction. With a rough area of 613 square feet and a cost of $20 per square foot it could be built for $12,260.

Doing certain assumptions viz: that the main block could also be built new for $20 per square foot at 3000 square feet, that is $61,320 and that a reasonable repair/rehabilitation/restoration could be performed for half that cost, meaning that half the fabric is sound, this would be $30,660 which does the value of the work already installed or on hand ($4,000 ?) we would have a figure of $16,664 for a limited step in this direction, pending necessary research and approvals. A partial list of what should be done to arrest further deterioration and to restore the exterior to its probable original appearance - assuming that this is the proper approach and I think it is - would be: electric wallpaper but in the ceilings; some rehabilitation of the refinished electrical installation; repair of all exterior stairways; removal of plumbing at both and restoration of partitions at both to their pre-bath locations; replacement and/or repair of rotted, termite infested and absolutely deteriorated wood and masonry; repair of siding, shingles and restoration of surfaces and elements; utility connections.

The total cost with these qualifications and stipulations would then be $16,664 plus $10,260 plus $2,052 (10% contingencies) or $28,976. I have often said that I consider the reference to costs on assumptions such as these to be a very dangerous procedure, but this will give you some idea. Architectural services are of course, not included in this.

If I may help further in any way please feel free as always to call me.

Sincerely,

William M. Haussmann

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April 6, 1967

Mr. Jason H. Hall, Director
Fairfax County Park Authority
Post Office Box 1136
Fairfax, Virginia 22030

Dear Mr. Hall:

RE: [illegible]
[illegible] Mill Pond
[illegible], Virginia

As your superior, I am [illegible] fully the need which is expected to be done on this project in accordance with our discussion. Since we [illegible] obviously do not [illegible] I am [illegible] attempt to describe [illegible] detail but rather to outline the [illegible] involved.

It should, of course, be [illegible] that the "Byford" to which I refer is that which is expressed in the [illegible] OF [illegible] dated December 1, 1966, concerning the Colvin Run Miller's House. The second, [illegible] by the Park Authority, are in part:

> "The following is the recommendation of this architect:
> (a) That a 1/2-story wing be a separate building all because [illegible] be built on the end of the Miller's house. This not to be [illegible] all original [illegible] evidence available for the [illegible] of the [illegible].
> (b) That the Miller's house be restored to its [illegible] in accordance with [illegible] and documentary evidence available. The restoration of this building would require the addition of minimal heating and electrical installations [illegible] the determination of its use, of which [illegible] are [illegible] several possibilities."

In connection with recommendation (a), it is intended that I [illegible] consultant [illegible] the original [illegible] of [illegible] to the [illegible] of the [illegible] on this end. As you know, we [illegible] that [illegible] on this, and this [illegible]. [illegible] will of course be [illegible]. This will [illegible] a small kitchen, [illegible] provide for [illegible] the [illegible] floor. There will be

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Mr. James A. Bell, Director
Fairfax County Park Authority
April 6, 1977
Page Two

return to a left phase. This wing of course would be designed in the manner of the period of the main house and probably be faced with wood.

The following six comments are in relation to recent exhibition (B):

(1) All evidence of recent work in connection with the main and kitchen houses will be removed and repaired, and the partition between the dormer lab and the upper attic will also be removed since it did not originally exist.

(2) The entire (incomplete) electrical layout will be restudied. It would not be possible at this time to say what use or the action could be made of it, but the service which has already been installed would be retained.

(3) Heat will be provided by means of radiant panels concealed in the ceilings of which certain will also create a small discomfort in each space to be heated. Studies have already been made of this, and the cost of the operation.

(4) All operations, both exterior and interior, will be thoroughly analyzed and studied. Interior work will be removed. Any roof requiring repair and/or replacement will be restored to preserve any dictate.

(5) Potted and dirtied period work in the basement and wherever else it may occur in the house will be restored as research deems correct.

(6) I would prefer to postpone comment on the roofing material until we have looked much more carefully into this situation.

This outline is of necessity very brief. I may wish to discuss the work at these premises which I might find helpful with the project director, but all information and recommendations will be channeled through your office.

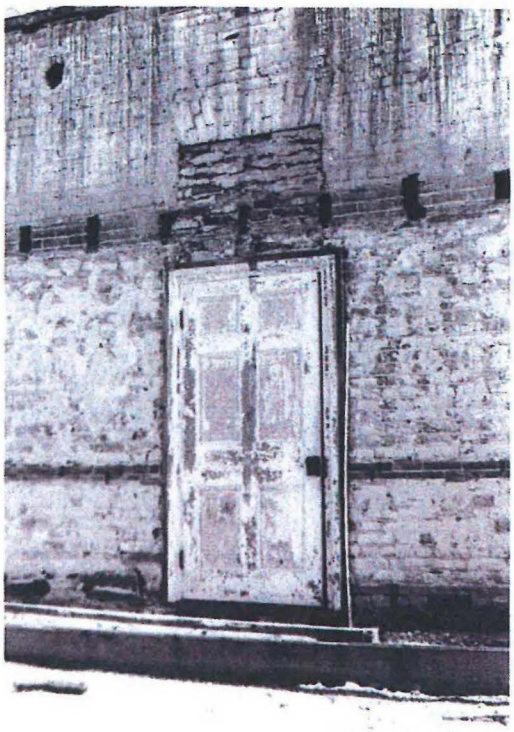
Sincerely,

William M. Haussmann, AIA

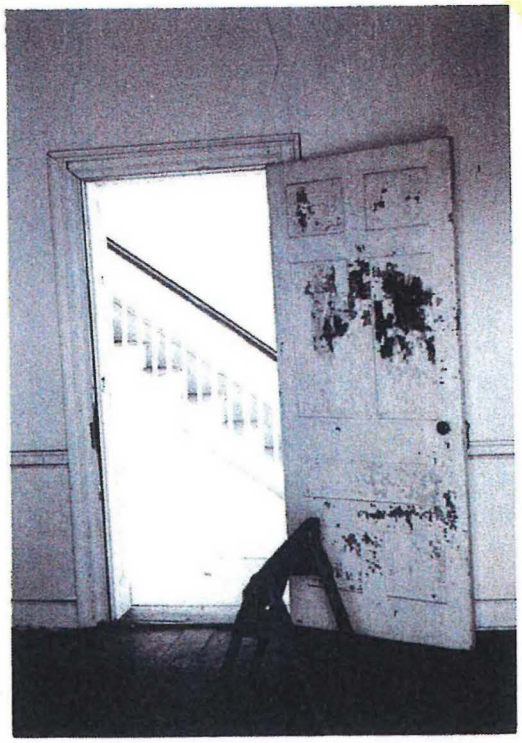
WMH/ajd

PHOTOGRAPHS

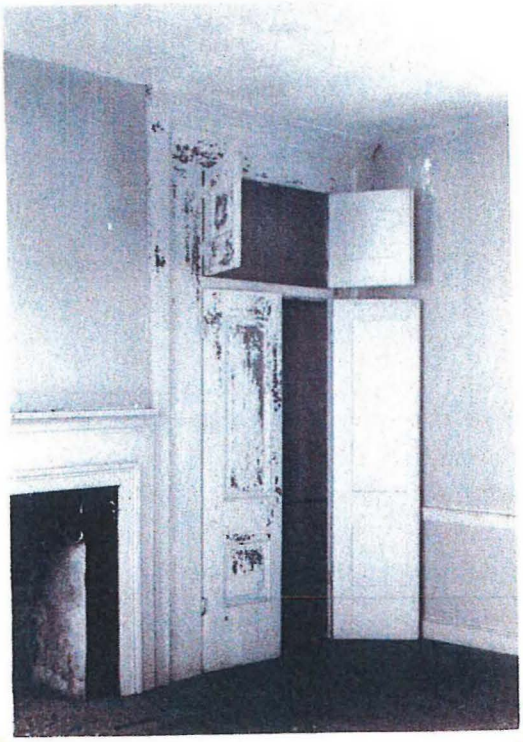
NORTH DOOR



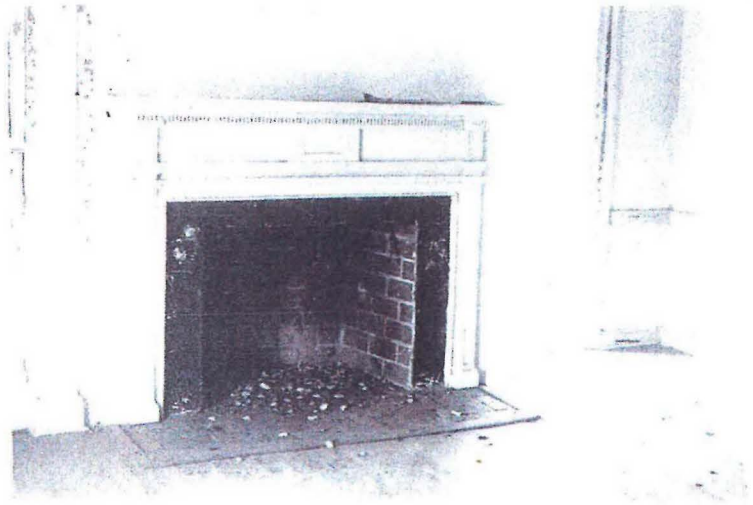
WEST DOOR FROM
NORTH ROOM



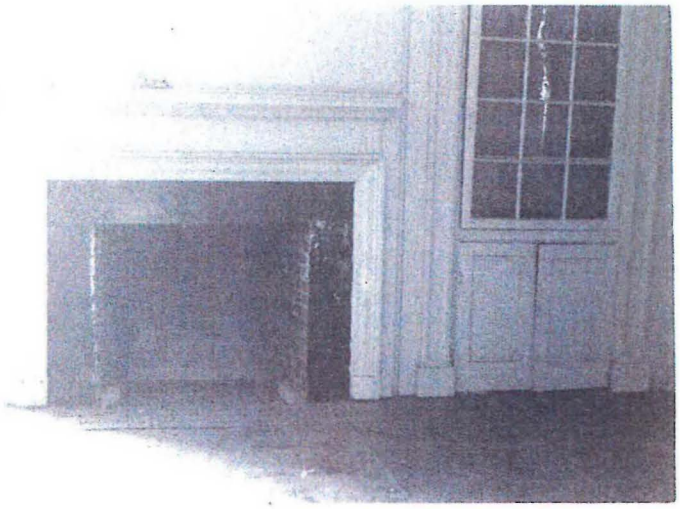
DOOR TO STAIRHALL
SOUTH ROOM
FIRST FLOOR



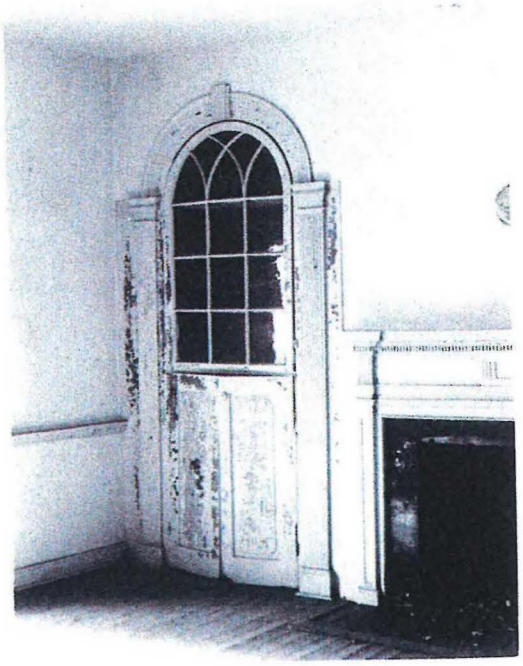
NORTHEAST CLOSET
NORTH ROOM
SECOND FLOOR



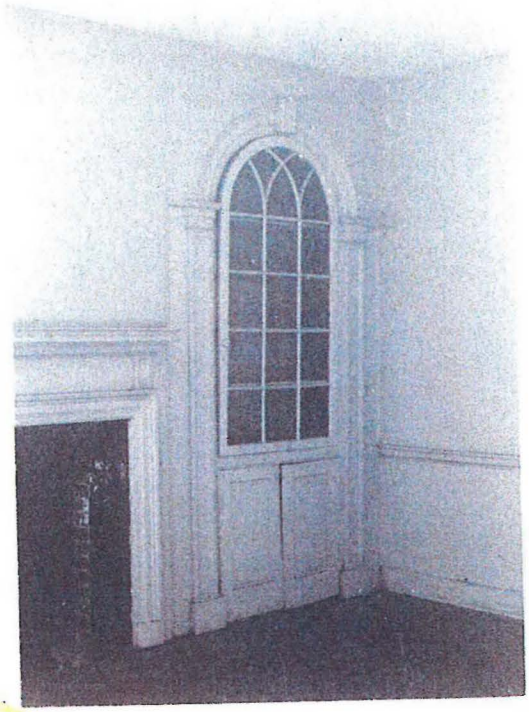
MANTEL, NORTH ROOM, FIRST FLOOR



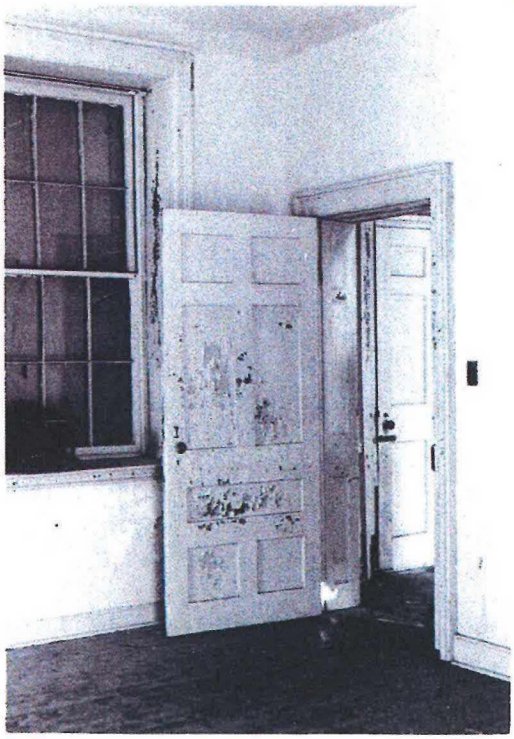
MANTEL, SOUTH ROOM, FIRST FLOOR



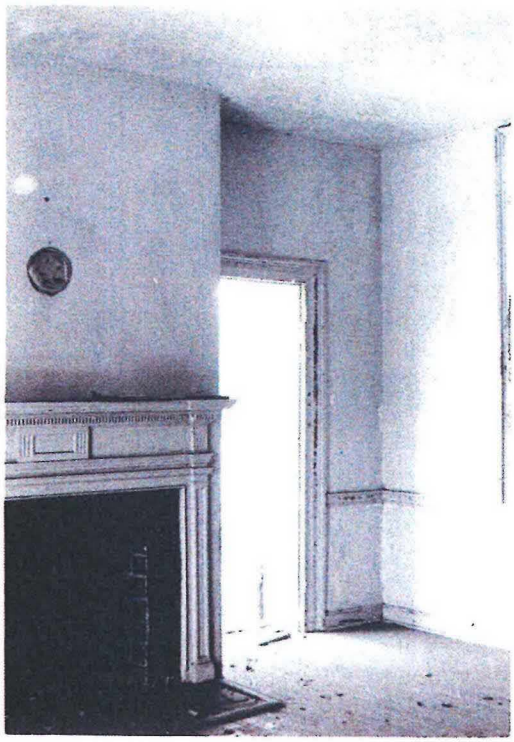
CABINET, NORTH ROOM



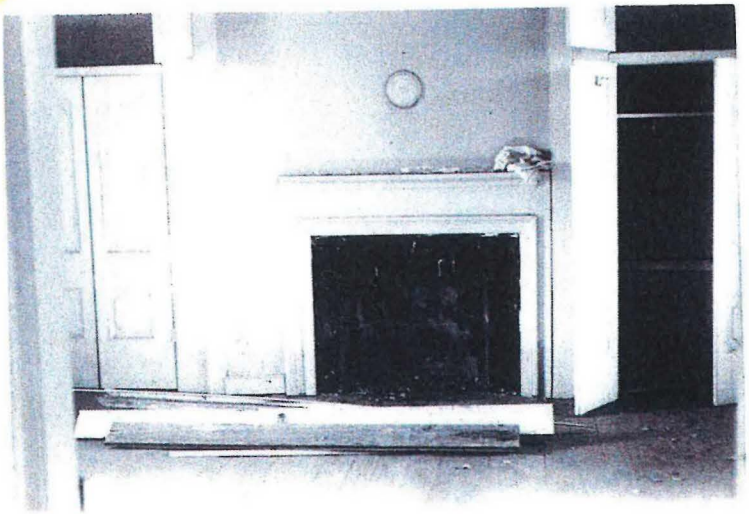
CABINET, SOUTH ROOM



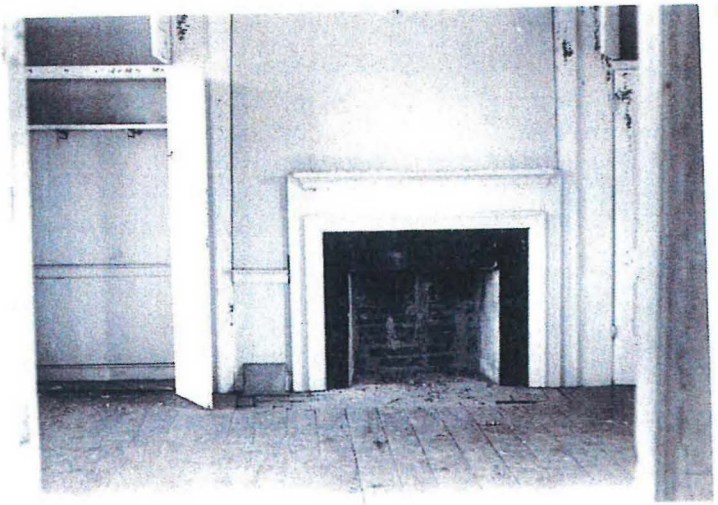
DOOR TO STAIRHALL,
NORTH ROOM



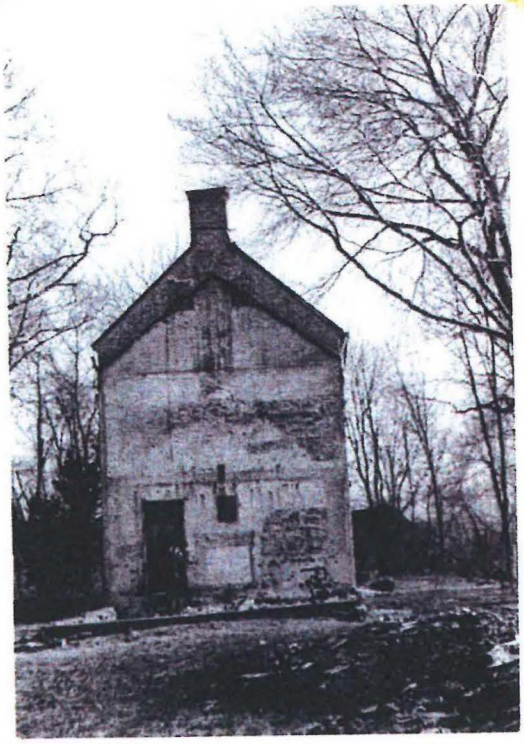
NORTH (EXTERIOR) DOOR
NORTH ROOM



NORTH WALL, NORTH ROOM, SECOND FLOOR

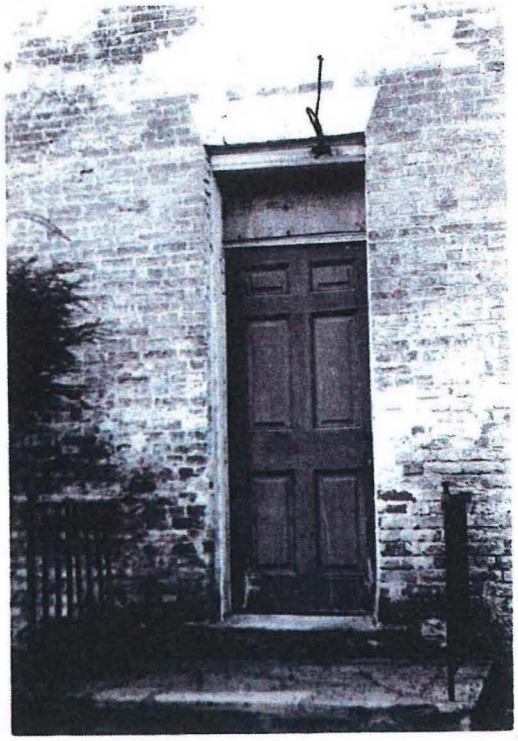


SOUTH END, SOUTH ROOM, SECOND FLOOR



NORTH END

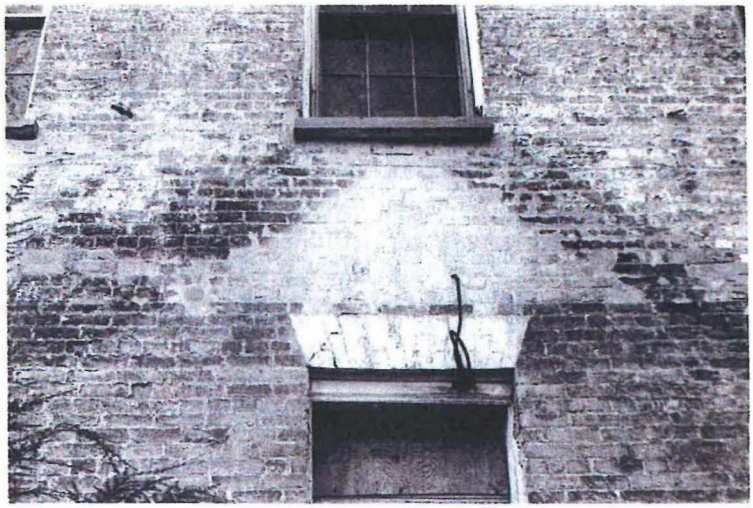
SOUTH END



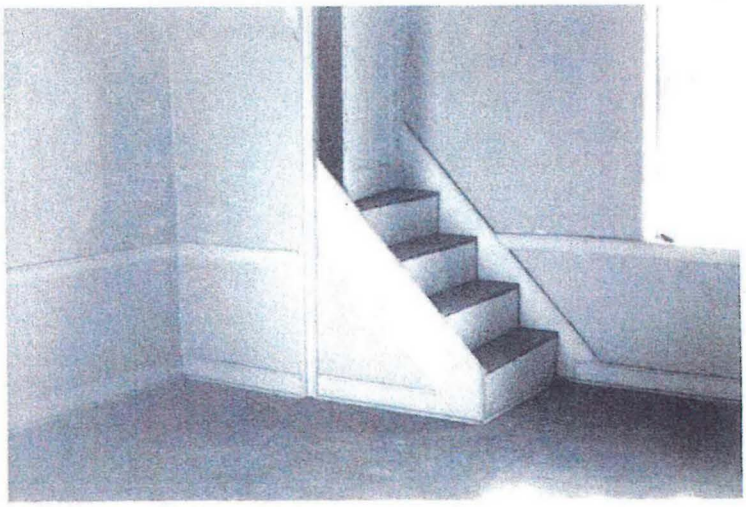
EAST DOOR

WEST DOOR

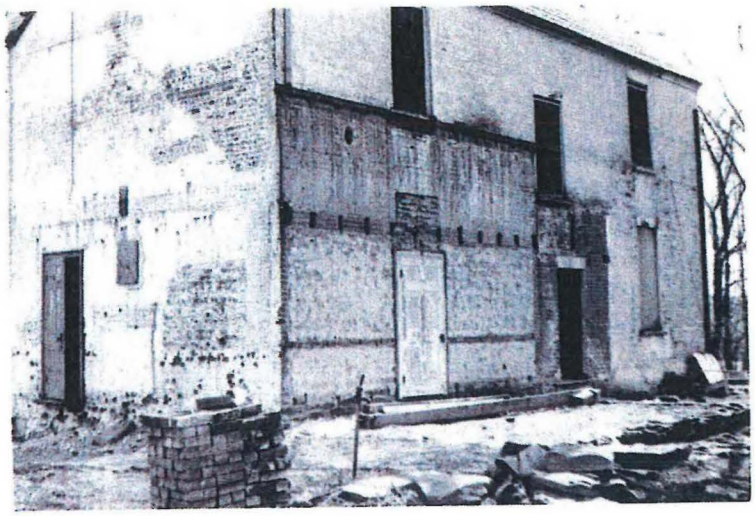
NORTH GABLE END



OVERDOOR, EAST END



STAIRS TO ATTIC, NORTH ROOM, SECOND FLOOR



WEST FACE

HOUSE FROM THE NORTHEAST

HOUSE FROM THE NORTHWEST

Form No. 10-300 (Rev. 10-74)

UNITED STATES DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE

# NATIONAL REGISTER OF HISTORIC PLACES INVENTORY -- NOMINATION FORM

DATA SHEET

FOR NPS USE ONLY
RECEIVED OCT 13 1976
DATE ENTERED AUG 16 1977

SEE INSTRUCTIONS IN *HOW TO COMPLETE NATIONAL REGISTER FORMS*
TYPE ALL ENTRIES -- COMPLETE APPLICABLE SECTIONS

## 1 NAME

HISTORIC: Colvin Run Mill

AND/OR COMMON:

## 2 LOCATION

STREET & NUMBER: 10017 Colvin Run Road

__NOT FOR PUBLICATION

CITY, TOWN: X VICINITY OF Great Falls

CONGRESSIONAL DISTRICT: 10th (Joseph L. Fisher)

STATE: Virginia CODE: 51 COUNTY: Fairfax CODE: 059

## 3 CLASSIFICATION

| CATEGORY | OWNERSHIP | STATUS | PRESENT USE | |
|---|---|---|---|---|
| __DISTRICT | X PUBLIC | X OCCUPIED | __AGRICULTURE | __MUSEUM |
| __BUILDING(S) | __PRIVATE | __UNOCCUPIED | __COMMERCIAL | X PARK |
| X STRUCTURE | __BOTH | __WORK IN PROGRESS | X EDUCATIONAL | __PRIVATE RESIDENCE |
| __SITE | **PUBLIC ACQUISITION** | **ACCESSIBLE** | __ENTERTAINMENT | __RELIGIOUS |
| __OBJECT | __IN PROCESS | X YES: RESTRICTED | __GOVERNMENT | __SCIENTIFIC |
| | __BEING CONSIDERED | __YES: UNRESTRICTED | __INDUSTRIAL | __TRANSPORTATION |
| | | __NO | __MILITARY | __OTHER: |

## 4 OWNER OF PROPERTY

NAME: Fairfax County Park Authority

STREET & NUMBER: P.O. Box 236

CITY, TOWN: Annandale __ VICINITY OF STATE: Virginia 22003

## 5 LOCATION OF LEGAL DESCRIPTION

COURTHOUSE, REGISTRY OF DEEDS, ETC.: Fairfax County Courthouse

STREET & NUMBER: 4000 Chain Bridge Road

CITY, TOWN: Fairfax STATE: Virginia 22030

## 6 REPRESENTATION IN EXISTING SURVEYS

TITLE: Fairfax County Inventory of Historic Sites

DATE: October 1969 __FEDERAL __STATE X COUNTY __LOCAL

DEPOSITORY FOR SURVEY RECORDS: Virginiana Collection, Fairfax County Public Library

CITY, TOWN: Fairfax STATE: Virginia

## 7 DESCRIPTION

| CONDITION | | CHECK ONE | CHECK ONE |
|---|---|---|---|
| X EXCELLENT | __DETERIORATED | __UNALTERED | X ORIGINAL SITE |
| __GOOD | __RUINS | X ALTERED | __MOVED DATE_____ |
| __FAIR | __UNEXPOSED | | |

DESCRIBE THE PRESENT AND ORIGINAL (IF KNOWN) PHYSICAL APPEARANCE

The Colvin Run Mill is a ~~four~~ 3½-story brick and frame structure constructed between 1810 and 1820 and repaired and restored between 1969 and 1975. It is a simple rectangular structure, 50'3" long, 41'8" wide, and 47'6" high. The walls are brick, set in American common bond, with every fourth course in headers, and topped by a gable roof. Approximately 75,000 of the more than 200,000 bricks in the structure are replacements, all made by old methods to the exact size of the original bricks. The windows are double-hung sash, 12/12, except for those in the gable ends which are 12/8. The gable ends are covered with wood siding, 1'6", and 5" to the weather. The roof is covered with cedar shakes.

The mill was acquired by the Fairfax County Park Authority in 1965. Then a disused grist mill, it was on a 30-acre site which also contained a miller's house, an old shed, and the remains of a milldam-millrace system. After much research and consideration, it was decided to restore the mill as a representative sample of the pioneering work of Oliver Evans, the inventor and technologist who helped bring the idea of the production line to America.

The mill's design follows the principles established by Evans, whose book The Young Mill-wright and Miller's Guide (1794) first demonstrated that grains could be transformed into meal by a single, continuous, automated process. According to Evans' revolutionary design, the machinery for receiving the power is generated by an overshot waterwheel located on the first floor. It transmits power to the millstones and all other moving machinery in the mill. The millstones are located on the second floor, along with facilities for receiving the grain and shipping the finished flour and meal. The "boulting chest," where flour and meal are sifted and separated by grades, is located on the third floor. On the fourth floor the freshly ground meal or flour is cooled prior to the sifting. Movement of the flour from one operation to another is accomplished by a complicated series of conveyor belts and hoists, all powered by the waterwheel.

When the mill was examined, it was found that because of its advanced deterioration, most of the major and minor structural members would have to be replaced. Some of the mill's machinery was found to be usable, but to ensure both historical and mechanical accuracy, nearly every major subsystem had to be specially constructed. Accordingly, most of the existing reconstructed mechanisms are made of wood as they would have been at the time of the mill's construction. The woods used are those stipulated by Oliver Evans: oak for structures of high stress; redwood and cypress for areas touching water; maple for pins and cogs. The overshot wheel was also designed according to Evans' calculations, as described in his book. (It should be noted that in a small number of cases, modern materials were utilized in place of Evans' suggestions in order to give greater strength to certain segments of the structure. In each case, these variations are indicated as such to visitors to the mill.)

Architectural historians who examined the mill determined that the walls of the structure had originally been made entirely of brick, although in 1965 the west wall (next to the waterwheel) had a wood siding. Through excavation, it was found that the original brick wall had collapsed in the mid-1800's and had hastily been replaced with wooden siding. Isolation of the cause of this collapse and correction of the original error were crucial to the success of the restoration. It was discovered that, as originally constructed, the west wall and southwest corner had been built on a soft clay and that these foundations were "floating" and thus unstable. In addition, the wooden frame for the gearing in the cog pit was in direct contact with the original brick wall, thus transmitting the vibrations from the moving machinery

(See continuation sheet # 1)

into the wall and creating the instability which led to the wall's collapse. In the reconstruction process, the mill foundation was stabilized through subterranean concrete injection, and the cog pit framing was rebuilt and separated from the reconstructed wall; it was for the reconstruction of this wall that most of the 75,000 new bricks were designed to match the size and appearance of the original bricks. The mortar, too, was carefully chosen for its visual and mechanical compatibility with the existing nineteenth-century mortar.

In addition to the major work on the mill structure, the millrace from the Colvin Run had to be re-excavated, lined with concrete, faced with stone, and routed through a 100'-long culvert constructed beneath the Leesburg Turnpike (U.S. Highway Route 7).

Also on the park site is a two-story red brick structure which for many years served as the residence of the miller and his family. According to architectural historian Blaine Cliver, the house is of early nineteenth-century style and probably dates from about the same time as the mill. After a modest restoration, the structure is now utilized in an adaptive use program to display exhibitions of art work, photography, and the like. In addition, there is an old dairy shed which has been adapted to use as an eighteenth/nineteenth-century carpentry shop and is an active interpretive center open to the public. A recent addition to the site is the c. 1890 Cockerill general store which was formerly located across from the mill on Colvin Run Road but was moved to the park property in 1973. It serves as a museum facility by showing an early twentieth-century general store and is a functioning post office.

The careful attention to detail and high standards of workmanship in the restoration of the Colvin Run Mill have been given both local and national recognition. In 1973, the Washington Metropolitan Chapter of the American Institute of Architects presented a first-place award "to Colvin Run Mill for achievement of excellence in historic preservation and architectural design." In 1975, the American Institute of Architects presented an Honor Award for Craftsmanship to the Fairfax County Park Authority "in recognition of the distinguished accomplishment in preservation craft technology in the program of restoration (1973) of the Colvin Run Mill."

## 8 SIGNIFICANCE

| PERIOD | AREAS OF SIGNIFICANCE -- CHECK AND JUSTIFY BELOW | | | |
|---|---|---|---|---|
| __PREHISTORIC | __ARCHEOLOGY-PREHISTORIC | __COMMUNITY PLANNING | __LANDSCAPE ARCHITECTURE | __RELIGION |
| __1400-1499 | __ARCHEOLOGY-HISTORIC | __CONSERVATION | __LAW | __SCIENCE |
| __1500-1599 | X AGRICULTURE | __ECONOMICS | __LITERATURE | __SCULPTURE |
| __1600-1699 | __ARCHITECTURE | __EDUCATION | __MILITARY | __SOCIAL/HUMANITARIAN |
| __1700-1799 | __ART | X ENGINEERING | __MUSIC | __THEATER |
| X 1800-1899 | __COMMERCE | __EXPLORATION/SETTLEMENT | __PHILOSOPHY | __TRANSPORTATION |
| X 1900- | __COMMUNICATIONS | __INDUSTRY | __POLITICS/GOVERNMENT | __OTHER (SPECIFY) |
| | | __INVENTION | | |

SPECIFIC DATES c. 1810-1820 BUILDER/ARCHITECT unknown

STATEMENT OF SIGNIFICANCE

Flour-milling was one of the most important of the services performed in colonial and early nineteenth-century Virginia. Some of the large plantations operated their own mills, but most people depended for their flour on one of the many water-powered grist mills scattered along the watercourses of Virginia.

Colvin Run Mill is built according to the principles of Oliver Evans, the inventor and technologist who revolutionized grist mill construction and helped bring the production line to America.

Tobacco reigned as the undisputed king of crops in the agriculture of the Northern Neck during the first century following its settlement. By 1740, however, declining annual yields of tobacco from the exhausted soil indicated the necessity of diversification of crops. Corn and wheat became increasingly popular because they were staples which helped feed the farmer's family and his dependents. Moreover, the accessibility of the Northern Neck farms to the Chesapeake Bay meant that the crops could be shipped either as grain or as milled flour to ports along the coast, to the West Indies, and to Europe.

Thus, Northern Virginia began to develop "merchant mills" producing flour for a wider market than that which the large number of small neighborhood mills had served. In addition to grinding for a "toll" or fixed percentage of the grain brought to him, the merchant miller purchased wheat and corn from the farmer, storing it in his mill until the flour market was favorable. Then he would grind it, pack it, and haul it to a port where it could be used by local bakers or shipped either as flour or ship's bread.

Merchant milling became increasingly important to Northern Virginia's economy during the last half of the eighteenth century, and continued to provide the area's major means of earning credits in the markets of other regions until the centers of wheat production and flour milling shifted westward in the 1830's and 1840's.

Lacking good roads, inland mills not on or near navigable watercourses had been restricted to serving local areas. But by the 1820's and 1830's, several turnpike roads crossed Northern Virginia from the Shenandoah Valley to Alexandria, Georgetown, and Dumfries. Along these roads the grain farmers of the valley could send their grain or flour to the coastal markets. Wagon transportation, however, was still expensive, and flour was cheaper to haul than grain. Therefore, it was common practice for those farmers who had no mill at their point of departure to stop at a mill along the way and convert the grain into flour or meal.

Also, by 1830, milling methods generally were improving, due in large part to the writings and inventions of Oliver Evans. It was he who designed and equipped many mills, including one in which grinding and processing flour was carried on without the use of manual labor. Most of the principles which

(See continuation sheet # 2)

were used in his mill had been developed earlier, but Evans combined them into a single system in which the grain and meal were moved from one part of the mill to another by the use of leather and wood conveyor buckets attached to canvas or leather belts. Mechanical scoops or rakes were also used to move grain and flour through troughs and chutes, to stir grain in the hopper, and to spread meal evenly over the floor of the meal loft so that it would cool and dry. Originally a man or boy was employed in the mill to attend to the stirring in the hopper or the meal loft. Evans invented a mechanical device to perform these tasks which, not surprisingly, became known as the "hopper boy." He also developed elevators to move grain from one floor to another at a rate of 300 bushels of grain or meal per hour.

Evans also improved the design of millstones, and in 1796 received the third patent issued by the United States Patent Office for a process of manufacturing stones which could be balanced and sharpened to grind grain to any desired size. Coming as they did at a time when normal imports of French buhrstones were interrupted by revolution in France and blockades by the British Navy, the inventions and innovations of Evans went far toward giving American industry its own foundations. In later years, as the importance of his work became appreciated, Evans was referred to as the "father of mechanized flour milling."

The first recorded survey of the site on which Colvin Run Mill stands is dated June 8, 1739, shortly before the land was granted to John Colvill by the proprietor. Colvill later sold the land to William Fairfax who, in turn, willed it to Bryan Fairfax, from whom George Washington purchased it in 1763. Washington kept this tract until his death, and letters written during the War for Independence speak of his intention to build a mill on Difficult Run. There is no further documentation, however, to support the conclusion that he had this specific site in mind or that he carried through his plan.

According to architectural historian Blaine Cliver, the Colvin Run Mill was probably built between 1810 and 1820. In 1811, Philip Carper had purchased some 30 acres of land on "Colvill's branch" of Difficult Run. Carper's descendants claim that he built the mill and this is certainly consistent with Cliver's estimate of its date of construction.

Philip Carper owned the property from 1811 until 1842, a period of steady growth in the mill's value. The next owner, John Powell, held the property from 1842 to 1883, a time of great change in Northern Virginia. Agricultural prosperity came to an end when the Civil War interfered with normal farming and milling. An indication of the postwar economic depression in Northern Virginia was the declaration of bankruptcy of John Powell.

(See continuation sheet # 3)

The purchase of the mill in 1883 by Addison Millard ushered in its most prosperous era. The Millard family operated the mill until 1934 and turned it into one of the earliest roller mills of the area. During this time, a cluster of neighborhood services such as a blacksmith shop, several saw mills, a general store and post office were located across the old road from the mill, and the mill area became the center for social activities and exchange of local news.

During the ownership of Bernard Bailey (1934-1965), the activity of the mill was seriously hampered by the state highway department's relocation of Route 7 to a new alignment south of the mill. Although the new road straightened the highway, it crossed between the mill and the milldam in a deep cut, meaning that water for the mill had to be carried through concrete pipes under the highway. Affected both by this development and the changing economic needs of the area, the mill gradually fell into disuse and deterioration. The efforts to save the mill led to its acquisition in 1965 by the Fairfax County Park Authority. The property thus acquired included the mill, the miller's house, a dairy barn, and the remains of the milldam and millrace.

Over the next several years, the mill was painstakingly restored by the Park Authority, and today it stands as a monument both to the skills of its early builders and millers and to the craftsmanship of the twentieth-century artisans who accomplished its restoration. In 1972, the Fairfax County Government recognized the importance of the mill by establishing a historic district to protect the property and its environs.

## 9 MAJOR BIBLIOGRAPHICAL REFERENCES

Netherton, Ross D., Colvin Run Mill, Fairfax, Va.: Fairfax County Office of Comprehensive Planning, 1976.

## 10 GEOGRAPHICAL DATA

ACREAGE OF NOMINATED PROPERTY 7.52

UTM REFERENCES

| | ZONE | EASTING | NORTHING | | ZONE | EASTING | NORTHING |
|---|---|---|---|---|---|---|---|
| A | 18 | 301095 | 4315700 | B | 18 | 301190 | 4315810 |
| C | 18 | 301505 | 4315400 | D | | | |

VERBAL BOUNDARY DESCRIPTION

The Colvin Run Mill property is listed in the Fairfax County Deed Books as parcel 18-2 ((1)) 7 and part of 18-2 ((1)) 24. The original maps are located in the County Division of Mapping, 4100 Chain Bridge Road, Fairfax, Virginia.

LIST ALL STATES AND COUNTIES FOR PROPERTIES OVERLAPPING STATE OR COUNTY BOUNDARIES

| STATE | CODE | COUNTY | CODE |
|---|---|---|---|
| STATE | CODE | COUNTY | CODE |

## 11 FORM PREPARED BY

NAME / TITLE
Elizabeth S. David, Historic Preservation Planner

ORGANIZATION
Fairfax County Office of Comprehensive Planning

DATE
August 6, 1976

STREET & NUMBER
4100 Chain Bridge Road

TELEPHONE
(703) 691-2101

CITY OR TOWN
Fairfax

STATE
Virginia 22030

## 12 STATE HISTORIC PRESERVATION OFFICER CERTIFICATION

THE EVALUATED SIGNIFICANCE OF THIS PROPERTY WITHIN THE STATE IS:

NATIONAL ___ STATE X LOCAL ___

As the designated State Historic Preservation Officer for the National Historic Preservation Act of 1966 (Public Law 89-665), I hereby nominate this property for inclusion in the National Register and certify that it has been evaluated according to the criteria and procedures set forth by the National Park Service.

STATE HISTORIC PRESERVATION OFFICER SIGNATURE

TITLE Julius R. Fishburne, Jr., Executive Director
Virginia Historic Landmarks Commission

DATE SEP 21 1976

FOR NPS USE ONLY

I HEREBY CERTIFY THAT THIS PROPERTY IS INCLUDED IN THE NATIONAL REGISTER

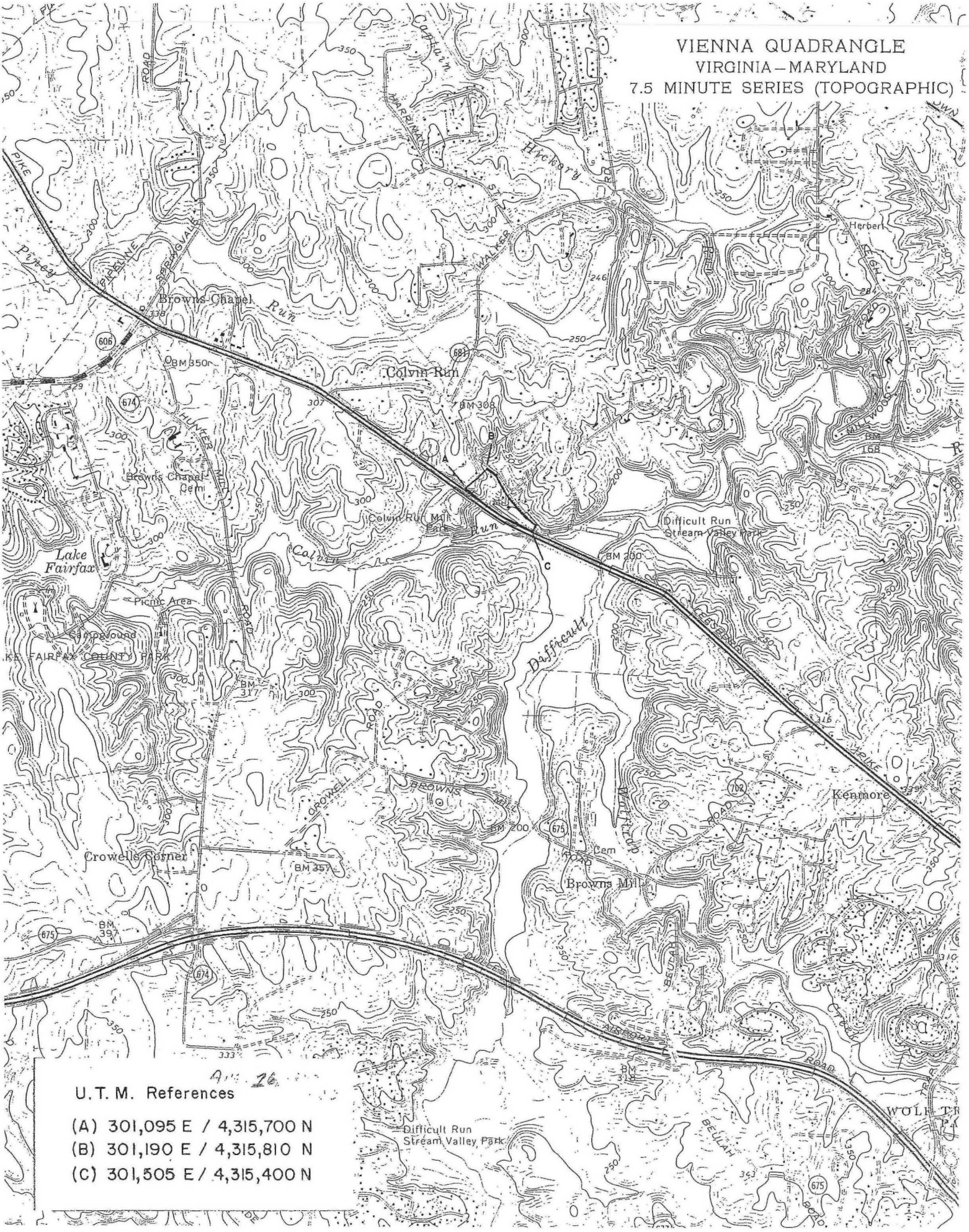
DATE 8/16/77

~~DIRECTOR, OFFICE OF ARCHEOLOGY AND HISTORIC PRESERVATION~~ KEEPER OF THE NATIONAL REGISTER

ATTEST DATE 8-15-77

~~KEEPER OF THE NATIONAL REGISTER~~

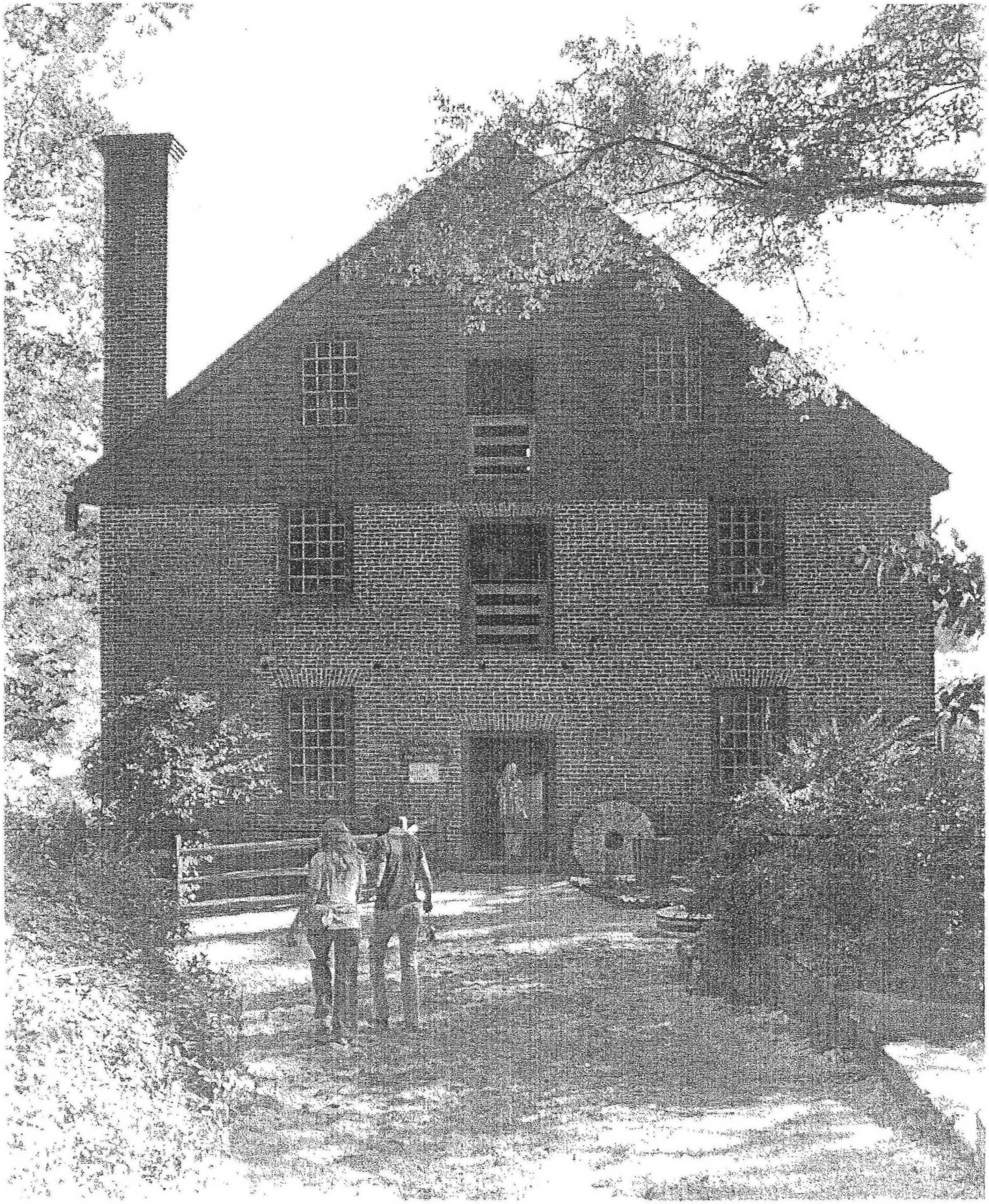
GPO 892-453

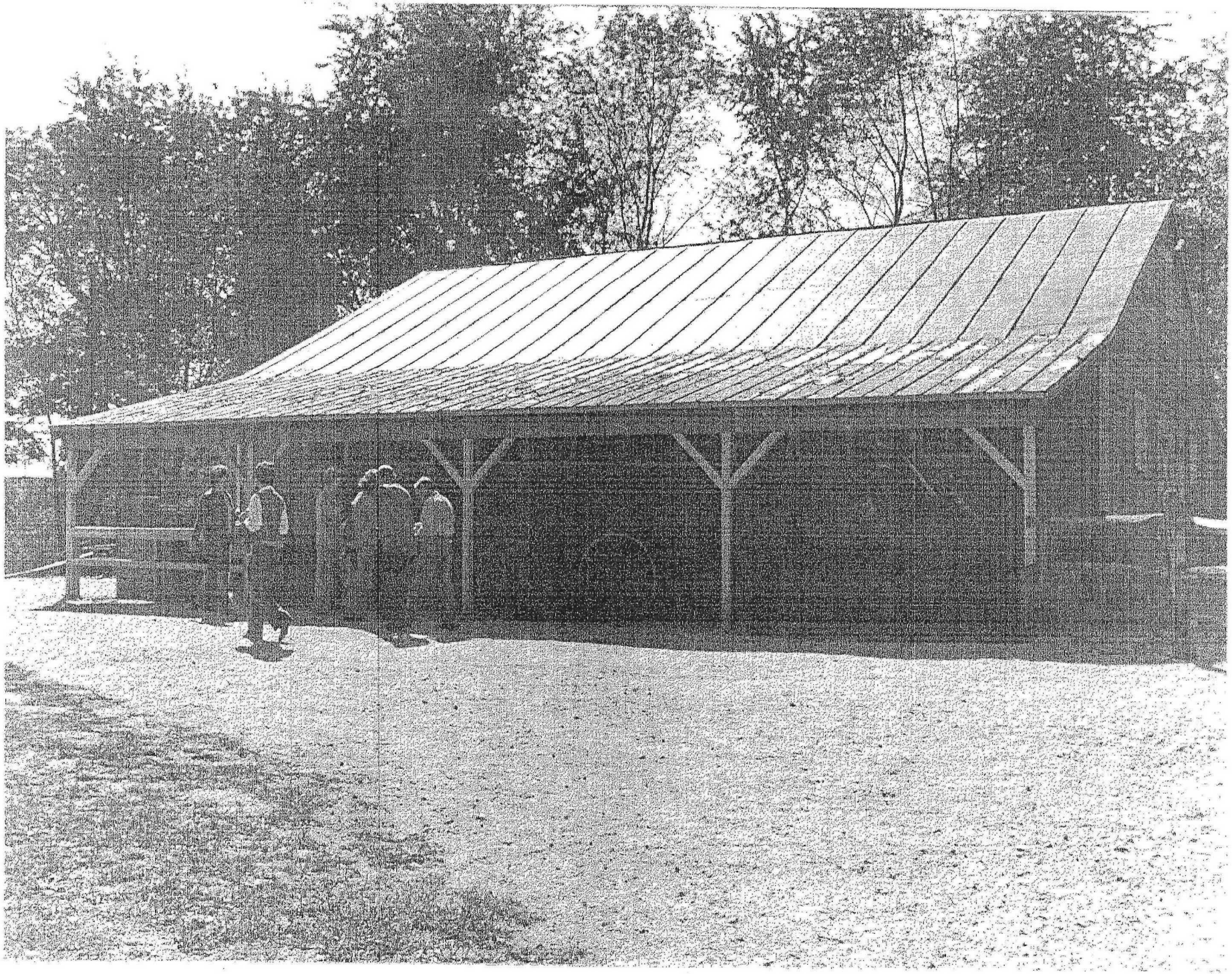

VIENNA QUADRANGLE
VIRGINIA – MARYLAND
7.5 MINUTE SERIES (TOPOGRAPHIC)
Browns Chapel
Colvin Run
Colvin Run Mill Park
Difficult Run Stream Valley Park
Lake Fairfax
Picnic Area
Campground
LAKE FAIRFAX COUNTY PARK
Crowells Corner
Browns Mill
Kenmore
Herbert
Difficult Run Stream Valley Park
A
B
C
U.T.M. References
(A) 301,095 E / 4,315,700 N
(B) 301,190 E / 4,315,810 N
(C) 301,505 E / 4,315,400 N

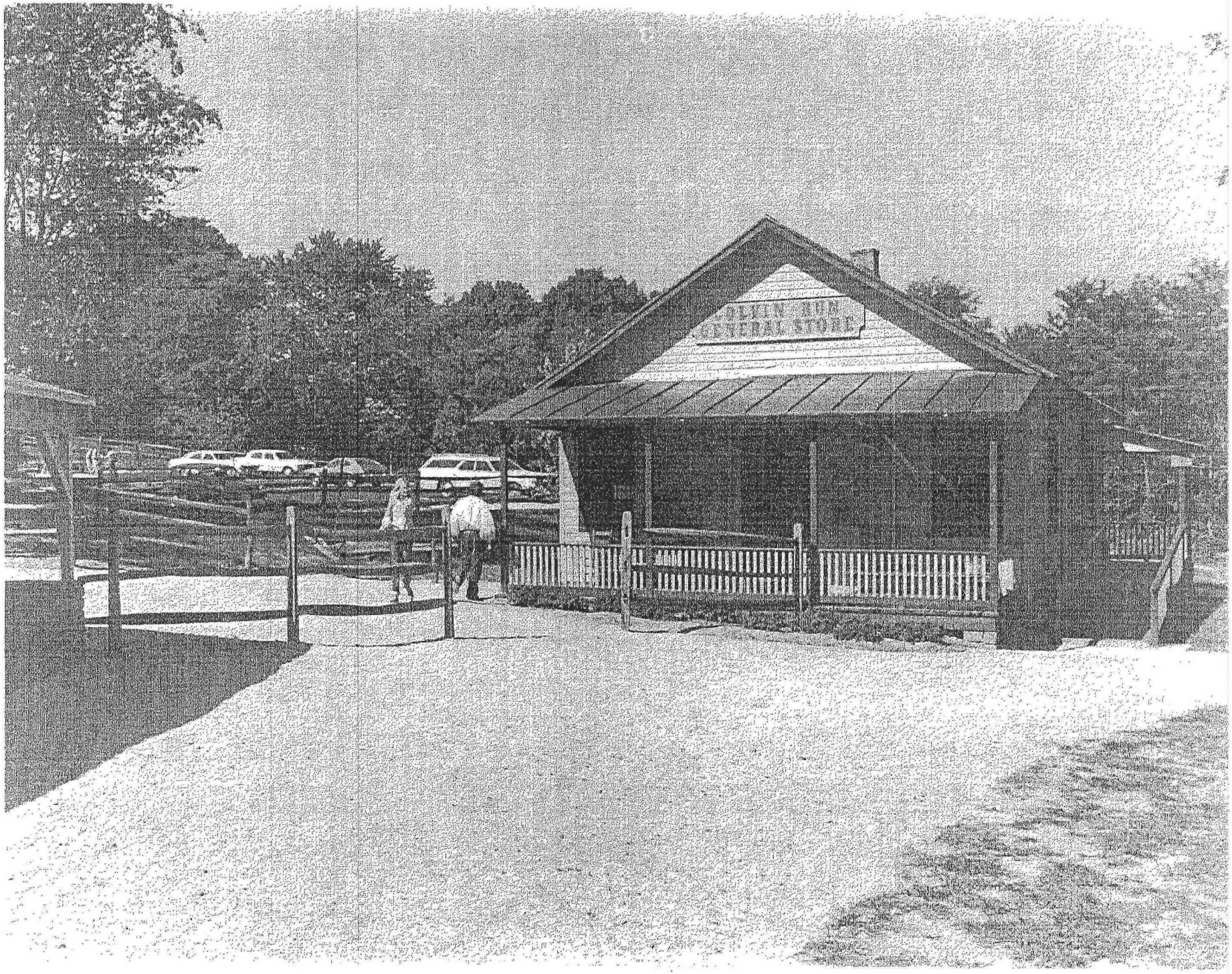
COLVIN RUN MILLER'S HOUSE AUG 18 1977
Fairfax County, Virginia OCT 13 1976
Credit: Dale Long, Fairfax Co. Park Authority
1975
Negative filed: Fairfax County Park Authority
Annandale, Virginia
Ext. View of West elevation of Miller's House
4 of 7

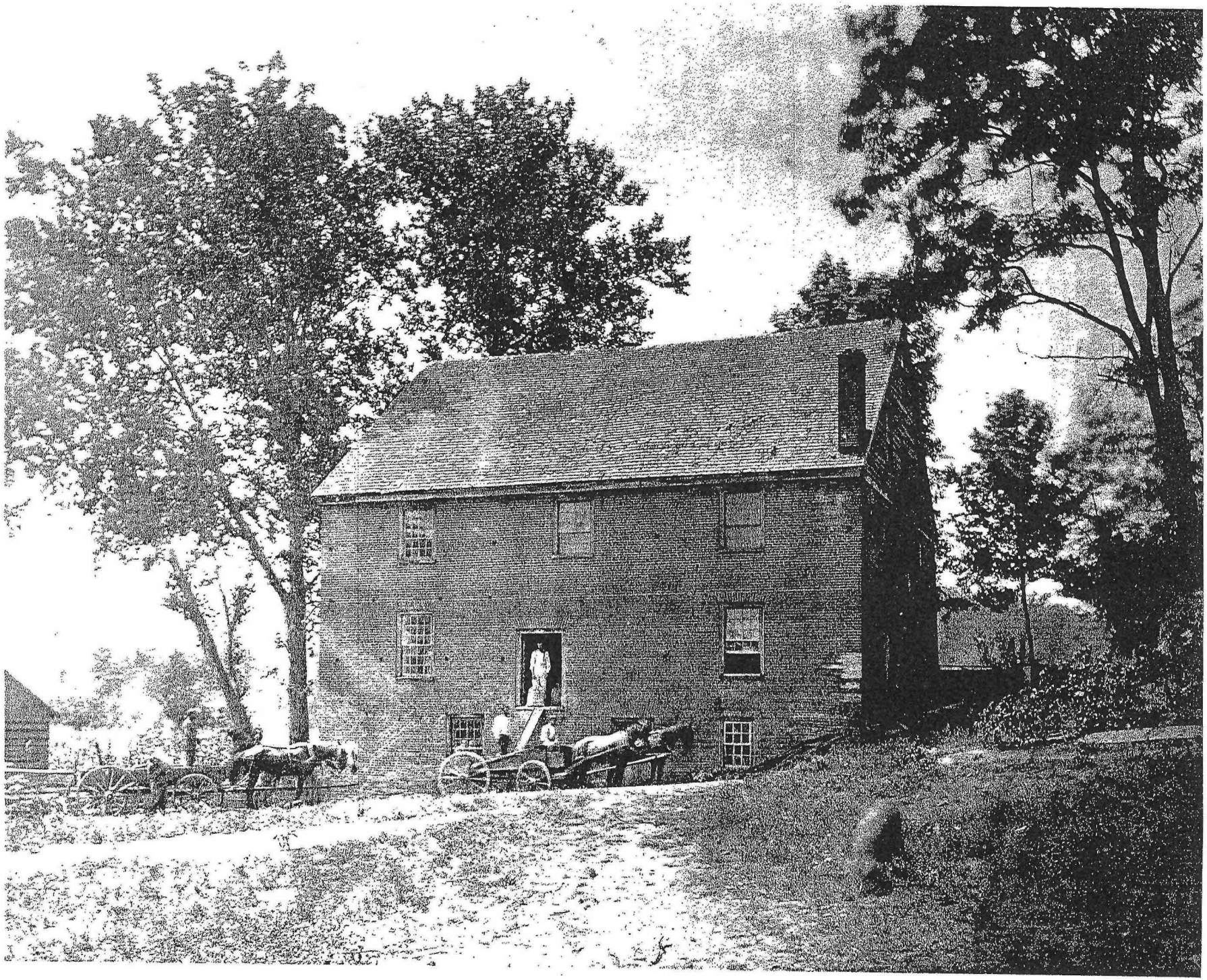
PROPERTY OF THE NATIONAL REGISTER

Colvin Run Mill






GENERAL STORE



ECS LLC
MID-ATLANTIC

# ASBESTOS-CONTAINING MATERIALS AND LEAD-BASED PAINT ASSESSMENT
# COLVIN RUN MILL PARK RESIDENCE
# 10017 COLVIN RUN ROAD
# GREAT FALLS, VIRGINIA

**ECS PROJECT NO. 01:17453**

**FOR**

**SWSG**

**JANUARY 27, 2011**

January 27, 2011

Ms. Debbie Robison
SWSG
1821 Michael Faraday Drive
Suite 302
Reston, Virginia 20190

ECS Project No. 01:17453

Reference: Limited Asbestos Containing Materials and Lead-Based Paint Assessment, Colvin Run Mill Park Residence, 10017 Colvin Run Road, Great Falls, Virginia.

Dear Ms. Robison:

ECS Mid-Atlantic, LLC (ECS) is pleased to provide SWSG with the results of the above referenced survey for the subject. This work was performed in general conformance with ECS Proposal No. 01:33517-EP, dated February 19, 2010. The following is a summary of results of the above referenced work. The work was performed, in general, on December 21, 2010.

## SUBJECT DESCRIPTION

The subject consists of a two-story with basement former residence. The building includes office spaces, a kitchen and display rooms. Building materials included drywall walls and ceilings, plaster walls, wood floors, vinyl floor tiles, roof shingles and caulking.

## LIMITATIONS

At the time of the assessment the building was occupied. As such, non-destructive means were used during the survey. During the assessment, ECS attempted to access all building materials. However, due to the destructive means required to access all materials, certain areas (i.e., sub-grade sealants, flooring located below underlayments, areas behind walls and above hard ceilings, etc.) were deemed inaccessible and were not inspected.

## RESULTS

### Asbestos

The asbestos assessment was performed by an U.S. Environmental Protection Agency (EPA) accredited and Commonwealth of Virginia asbestos inspector (license no. 3303 003581). Samples of suspect asbestos-containing materials (ACMs) were collected utilizing hand tools and placed into individual, labeled plastic bags. A total of fifty (50) unique suspect ACM samples were sent to EMSL Analytical for analysis via Polarized Light Microscopy in accordance with current EPA-600 methodology. Materials consisting of additional layers were analyzed separately. EMSL Analytical is listed as an accredited laboratory by the National Voluntary Laboratory Accreditation Plan (NVLAP) managed by the National Institute of Standards and Technology (NIST) for bulk sample analysis. A minimum of three samples for each unique material were submitted. If the first sample of each material is found to contain asbestos, the remaining samples of that material are not analyzed as they are deemed to contain asbestos by regulation. In total, fifty-nine (59) layers were analyzed.

For a summary of all materials found to contain asbestos see Table 1 below. A list of all materials sampled and tested for asbestos content is located in Table 2 which can be found in the appendix.

**Table 1**
**Asbestos Containing Materials**
**Colvin Run Mill Park Residence**
**10017 Colvin Run Road**
**Great Falls, Virginia 22066**

| Location | Material | Friability | Estimated Quantity |
|---|---|---|---|
| Addition | Drywall Joint Compound | Friable | Throughout Addition |

Drywall joint compound in the original portion of the building was found to contain trace amounts (<1%) of Chrysotile asbestos. While this does not classify the joint compound as an ACM under the EPA definition, OSHA still regulates any work which will disturb materials identified with trace amounts of asbestos (reference the November 24, 2003 OSHA Interpretation document - Compliance Requirements For Renovation Work Involving Materials Containing Less Than 1% Asbestos). Any Contractors disturbing this material will need to comply with the 2003 OSHA Interpretation document. Due to these requirements, it is often more convenient and economical to have work which involves disturbing these materials to be performed by a licensed asbestos abatement contractor.

Additionally, suspect ACMs may be present in inaccessible areas including above hard ceilings and behind walls. Any materials encountered during demolition or renovation which will involve any of these areas, a follow-up survey may be performed to include destructive means to access these areas as necessary.

## Lead-Based Paint

The LBP assessment was performed by a Commonwealth of Virginia licensed Lead Risk Assessor (license no. 3356 000912). The assessment was conducted utilizing the U.S. EPA and Commonwealth of Virginia definition of lead-based paint. Under this definition, all painted surfaces which contain lead in concentrations equal to or greater than 1.0 milligrams per square centimeter ($\geq$ 1.0 mg/cm$^2$) are classified as coated with LBP. Painted surfaces and ceramic tile glazing were assessed for lead content using a Direct-Read X-Ray Fluorescence (XRF) Spectrometer manufactured by Innov-X Systems.

The representative survey included taking readings from walls, ceilings, stairwells, and miscellaneous components. All LBP is classified based on condition and given an Intact, Fair, or Poor condition. A total of 135 readings were collected during the survey, including calibration and standardization readings.

The following is a summary of results for testing combinations analyzed. The components below were found to contain lead in concentrations equal to or exceeding 1.0 mg/cm$^2$ and therefore are classified as lead-painted components:

Original Portion of Structure

- White Wood Window Sills – Parlor
- White Wood Chair Rails – Parlor
- Gray Plaster Walls – Parlor and Display Room
- White Plaster Walls – Throughout Original Portion
- Gray Wood Fire Place – Parlor
- Gray Wood Door Casings – Hallway
- Gray Wood Doors – Hallway
- Gray Wood Newel Post – Stairwell
- Gray Wood Stair Stringer – Stairwell
- Gray Wood Window Sash – Stairwell
- Gray Wood Chair Rail – Stairwell
- Gray Wood Closet Door Casing – 2$^{nd}$ Floor
- Gray Wood Closet Door – 2$^{nd}$ Floor
- White Wood Fire Place – 2$^{nd}$ Floor
- Green Wood Door Casings – Exterior
- Green Wood Doors – Exterior

Addition Portion of the Structure

- Beige Ceramic Tile – Bathroom
- White Ceramic Toilet – Bathroom
- White Wood Door Casings – Hallway
- Varnish Wood Door – Hallway
- White Wood Door Jambs – Dinning Room
- White Wood Door Casings – Exterior
- White Wood Window Casings – Exterior

## RECOMMENDATIONS

### Asbestos

The materials listed in Table 1 consist of friable (i.e., able to be crumbled, pulverized, and/or reduced to powder by hand pressure when dry) materials which contain greater than one percent (> 1%) asbestos. By definition, these materials are considered ACMs. Friable materials will easily produce airborne asbestos fibers if disturbed. Non-Friable materials may also produce airborne asbestos fibers if disturbed. Prior to renovation which might disturb the ACMs, all identified ACMs must be removed by a licensed asbestos abatement contractor. ACMs that will not be disturbed by renovation activities may be maintained in place. When the existing ACM in a building is in good condition, the implementation of an Operations and Maintenance Program is widely accepted as an interim provision prior to removal.

During asbestos abatement, an asbestos project monitor should monitor the work daily. This involves collecting air samples from within and outside abatement work areas to evaluate the abatement contractor's work practices are sufficient to prevent asbestos fiber release from within the work area. The project monitor should inform the building owner if the asbestos abatement contractor is not performing his work in accordance with project specifications, state and local regulations as well as EPA regulation 40 CFR Part 61-National Emission Standards for Hazardous Air Pollutants Subpart M: National Emission Standard for Asbestos, and U.S. Occupational Safety and Health Administration (OSHA) regulation 29 CFR 1926.1101 – Asbestos in Construction which, in part, requires the contractor to perform personal exposure monitoring for all workers abating and disposing of asbestos containing materials.

### Lead-Based Paint

Lead-based paint is an environmental concern primarily when it becomes airborne or is ingested. Any contractor performing work that could impact paint films or glazing (i.e. scrapped or flaked off, or made airborne in a dust media) that have detectable

concentrations of lead should be informed of the testing results and should take appropriate actions to comply with OSHA Standard 29 CFR 1926.62. – Lead in Construction. Lead exposure monitoring should be conducted initially during work that will disturb lead-painted components.

Lead-based paint was observed to be in fair condition throughout the portions of the structure surveyed. A complete list of all lead-based paint readings collected from within the building is included in the appendix of this report

If we can be of further assistance to you, please do not hesitate to contact us at (703) 471-8400.

Sincerely,

**ECS MID-ATLANTIC, LLC**

Rachael L. Rossmeissl-Stone
Environmental Scientist

Stephen R. Geraci
Senior Environmental Scientist

William R. Leonard, C.P.G.
Environmental Department Manager
Principal

Enclosures: Table 2 - Asbestos Sampling Results
Laboratory Analytical Report
XRF Lead-Based Paint Data Sheet

I:\Environmental\RPT\17000\17453 Colvin Run Road\17453 Report.doc

## TABLE 2
## BULK SAMPLING OF SUSPECT ASBESTOS-CONTAINING MATERIALS

| Sample # | Sampling Location | Material/Description | Analytical Results |
|---|---|---|---|
| 01 | Kitchen Area | 12" x 12" Beige Floor Tile with Square Pattern with Clear Mastic | Floor Tile: NAD<br>Mastic: NAD |
| 02 | Kitchen Area | 12" x 12" Beige Floor Tile with Square Pattern with Clear Mastic | Floor Tile: NAD<br>Mastic: NAD |
| 03 | Kitchen Area | 12" x 12" Beige Floor Tile with Square Pattern with Clear Mastic | Floor Tile: NAD<br>Mastic: NAD |
| 04 | Kitchen | Addition Drywall | NAD |
| 05 | Attic | Addition Drywall | NAD |
| 06 | 1st Floor Closet | Addition Drywall | NAD |
| 07 | Attic | Addition Drywall Joint Compound | Asbestos:<br>2% Chrysotile |
| 08 | 2nd Floor | Addition Drywall Joint Compound | N/A |
| 09 | Stairwell | Addition Drywall Joint Compound | N/A |
| 10 | Kitchen | Addition Black Sink Undercoat | NAD |
| 11 | Kitchen | Addition Black Sink Undercoat | NAD |
| 12 | Kitchen | Addition Black Sink Undercoat | NAD |
| 13 | Basement Stairwell | Original Plaster Walls | Skim Coat: NAD<br>Base Coat: NAD |
| 14 | Basement Stairwell | Original Plaster Walls | Skim Coat: NAD<br>Base Coat: NAD |
| 15 | Hallway | Original Plaster Walls | Skim Coat: NAD<br>Base Coat: NAD |
| 16 | Around Fireplace | Original Plaster Walls | Skim Coat: NAD<br>Base Coat: NAD |

NAD = No Asbestos Detected
N/A = Not Analyzed Due to Positive Stop

## TABLE 2
## BULK SAMPLING OF SUSPECT ASBESTOS-CONTAINING MATERIALS

| Sample # | Sampling Location | Material/Description | Analytical Results |
|---|---|---|---|
| 17 | 2nd Floor Cupboard | Original Plaster Walls | Skim Coat: NAD<br>Base Coat: NAD |
| 18 | Crawl Space | Black and Gray Rolled Roof Shingle | NAD |
| 19 | Crawl Space | Black and Gray Rolled Roof Shingle | NAD |
| 20 | Crawl Space | Black and Gray Rolled Roof Shingle | NAD |
| 21 | Crawl Space | Black Paper Associated with Fiberglass Insulation | NAD |
| 22 | Crawl Space | Black Paper Associated with Fiberglass Insulation | NAD |
| 23 | Crawl Space | Black Paper Associated with Fiberglass Insulation | NAD |
| 24 | Basement | Plaster Over Masonry Walls | Skim Coat: NAD<br>Base Coat: NAD |
| 25 | Basement | Plaster Over Masonry Walls | Skim Coat: NAD<br>Base Coat: NAD |
| 26 | Basement | Plaster Over Masonry Walls | Skim Coat: NAD<br>Base Coat: NAD |
| 27 | Cupboard Next to Fireplace | Original Drywall | NAD |
| 28 | Basement | Original Drywall | NAD |
| 29 | 2nd Floor Ceiling in Office #2 | Original Drywall | NAD |
| 30 | Cupboard Next to Fireplace | Original Drywall Joint Compound | <1% Chyrsotile |

NAD = No Asbestos Detected
N/A = Not Analyzed Due to Positive Stop

## TABLE 2
## BULK SAMPLING OF SUSPECT ASBESTOS-CONTAINING MATERIALS

| Sample # | Sampling Location | Material/Description | Analytical Results |
|---|---|---|---|
| 31 | Basement | Original Drywall Joint Compound | <1% Chyrsotile |
| 32 | 2nd Floor Ceiling in Office #2 | Original Drywall Joint Compound | <1% Chyrsotile |
| 33 | Foyer | Original Interior Door Caulk | NAD |
| 34 | Foyer | Original Interior Door Caulk | NAD |
| 35 | Foyer | Original Interior Door Caulk | NAD |
| 36 | Exterior | Addition Door and Window Caulk | NAD |
| 37 | Exterior | Addition Door and Window Caulk | NAD |
| 38 | Exterior | Addition Door and Window Caulk | NAD |
| 39 | Exterior | Addition Window Glaze | NAD |
| 40 | Exterior | Addition Window Glaze | NAD |
| 41 | Exterior | Addition Window Glaze | NAD |
| 42 | Exterior | Addition Shingle Roof | NAD |
| 43 | Exterior | Addition Shingle Roof | NAD |
| 44 | Exterior | Addition Shingle Roof | NAD |
| 45 | Exterior | Original Window Glaze | NAD |
| 46 | Exterior | Original Window Glaze | NAD |
| 47 | Exterior | Original Window Glaze | NAD |
| 48 | Exterior | Original Window Caulk | NAD |
| 49 | Exterior | Original Window Caulk | NAD |
| 50 | Exterior | Original Window Caulk | NAD |

NAD = No Asbestos Detected
N/A = Not Analyzed Due to Positive Stop

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# Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy

| | | | Non-Asbestos | | Asbestos |
|---|---|---|---|---|---|
| **Sample** | **Description** | **Appearance** | **% Fibrous** | **% Non-Fibrous** | **% Type** |
| 01-Floor Tile<br>*041100942-0001* | ADDITION - 12"x12" BEIGE FLOOR TILE W/SQUARE PATTERN | Beige<br>Non-Fibrous<br>Heterogeneous | | 100% Non-fibrous (other) | **None Detected** |
| 01-Mastic<br>*041100942-0001A* | ADDITION - 12"x12" BEIGE FLOOR TILE W/SQUARE PATTERN | Clear<br>Non-Fibrous<br>Homogeneous | | 100% Non-fibrous (other) | **None Detected** |
| 02-Floor Tile<br>*041100942-0002* | ADDITION - 12"x12" BEIGE FLOOR TILE W/SQUARE PATTERN | Beige<br>Non-Fibrous<br>Heterogeneous | | 100% Non-fibrous (other) | **None Detected** |
| 02-Mastic<br>*041100942-0002A* | ADDITION - 12"x12" BEIGE FLOOR TILE W/SQUARE PATTERN | Clear<br>Non-Fibrous<br>Homogeneous | | 100% Non-fibrous (other) | **None Detected** |
| 03-Floor Tile<br>*041100942-0003* | ADDITION - 12"x12" BEIGE FLOOR TILE W/SQUARE PATTERN | Beige<br>Non-Fibrous<br>Heterogeneous | | 100% Non-fibrous (other) | **None Detected** |

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Analyst(s)

*Chris Little (59)*

Stephen Siegel

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# Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy

| | | | Non-Asbestos | | | | Asbestos |
|---|---|---|---|---|---|---|---|
| **Sample** | **Description** | **Appearance** | **%** | **Fibrous** | **%** | **Non-Fibrous** | **% Type** |
| 03-Mastic *041100942-0003A* | ADDITION - 12"x12" BEIGE FLOOR TILE W/SQUARE PATTERN | Clear Non-Fibrous Homogeneous | | | 100% | Non-fibrous (other) | **None Detected** |
| 04 *041100942-0004* | ADDITION - DRYWALL | Brown/White Fibrous Heterogeneous | 10% | Cellulose | 90% | Non-fibrous (other) | **None Detected** |
| 05 *041100942-0005* | ADDITION - DRYWALL | Brown/White Fibrous Heterogeneous | 8%<br>5% | Cellulose<br>Glass | 87% | Non-fibrous (other) | **None Detected** |
| 06 *041100942-0006* | ADDITION - DRYWALL | Brown/White Fibrous Heterogeneous | 30% | Cellulose | 70% | Non-fibrous (other) | **None Detected** |
| 07 *041100942-0007* | ADDITION - DRYWALL JOINT COMPOUND | Tan Non-Fibrous Heterogeneous | | | 98% | Non-fibrous (other) | **2% Chrysotile** |
| 08 *041100942-0008* | ADDITION - DRYWALL JOINT COMPOUND | | | | | | **Stop Positive (Not Analyzed)** |

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# Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy

| | | | Non-Asbestos | | Asbestos |
|---|---|---|---|---|---|
| **Sample** | **Description** | **Appearance** | **% Fibrous** | **% Non-Fibrous** | **% Type** |
| 09 *041100942-0009* | ADDITION - DRYWALL JOINT COMPOUND | | | | **Stop Positive (Not Analyzed)** |
| 10 *041100942-0010* | ADDITION KITCHEN - BLACK SINK UNDERCOAT | Black Non-Fibrous Heterogeneous | | 100% Non-fibrous (other) | **None Detected** |
| 11 *041100942-0011* | ADDITION KITCHEN - BLACK SINK UNDERCOAT | Black Non-Fibrous Heterogeneous | | 100% Non-fibrous (other) | **None Detected** |
| 12 *041100942-0012* | ADDITION KITCHEN - BLACK SINK UNDERCOAT | Black Non-Fibrous Heterogeneous | | 100% Non-fibrous (other) | **None Detected** |
| 13-Skim Coat *041100942-0013* | BASEMENT ORIGINAL - PLASTER WALLS | White Non-Fibrous Heterogeneous | | 100% Non-fibrous (other) | **None Detected** |
| 13-Base Coat *041100942-0013A* | BASEMENT ORIGINAL - PLASTER WALLS | Gray Non-Fibrous Heterogeneous | | 100% Non-fibrous (other) | **None Detected** |

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# Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy

| | | | Non-Asbestos | | Asbestos |
|---|---|---|---|---|---|
| **Sample** | **Description** | **Appearance** | **% Fibrous** | **% Non-Fibrous** | **% Type** |
| 14-Skim Coat *041100942-0014* | BASEMENT ORIGINAL - PLASTER WALLS | White Non-Fibrous Heterogeneous | | 100% Non-fibrous (other) | **None Detected** |
| 14-Base Coat *041100942-0014A* | BASEMENT ORIGINAL - PLASTER WALLS | Gray Non-Fibrous Heterogeneous | | 100% Non-fibrous (other) | **None Detected** |
| 15-Skim Coat *041100942-0015* | HALLWAY ORIGINAL - PLASTER WALLS | White Non-Fibrous Heterogeneous | | 100% Non-fibrous (other) | **None Detected** |
| 15-Base Coat *041100942-0015A* | HALLWAY ORIGINAL - PLASTER WALLS | Gray Non-Fibrous Heterogeneous | | 100% Non-fibrous (other) | **None Detected** |
| 16-Skim Coat *041100942-0016* | FIRE PLACE ORIGINAL - PLASTER WALLS | White Non-Fibrous Heterogeneous | | 100% Non-fibrous (other) | **None Detected** |
| 16-Base Coat *041100942-0016A* | FIRE PLACE ORIGINAL - PLASTER WALLS | Gray Non-Fibrous Heterogeneous | | 100% Non-fibrous (other) | **None Detected** |

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# Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy

| | | | Non-Asbestos | | | | Asbestos |
|---|---|---|---|---|---|---|---|
| **Sample** | **Description** | **Appearance** | **%** | **Fibrous** | **%** | **Non-Fibrous** | **% Type** |
| 17-Skim Coat *041100942-0017* | 2ND FLOOR NEAR CUPBOARD ORIGINAL - PLASTER WALLS | White Non-Fibrous Heterogeneous | | | 100% | Non-fibrous (other) | **None Detected** |
| 17-Base Coat *041100942-0017A* | 2ND FLOOR NEAR CUPBOARD ORIGINAL - PLASTER WALLS | Gray Non-Fibrous Heterogeneous | | | 100% | Non-fibrous (other) | **None Detected** |
| 18 *041100942-0018* | CRAWLSPACE - BLACK & GRAY ROLLED SHINGLE | Brown/Black Fibrous Heterogeneous | 35% | Cellulose | 65% | Non-fibrous (other) | **None Detected** |
| 19 *041100942-0019* | CRAWLSPACE - BLACK & GRAY ROLLED SHINGLE | Brown/Black Fibrous Heterogeneous | 35% | Cellulose | 65% | Non-fibrous (other) | **None Detected** |
| 20 *041100942-0020* | CRAWLSPACE - BLACK & GRAY ROLLED SHINGLE | Brown/Black Fibrous Heterogeneous | 35% | Cellulose | 65% | Non-fibrous (other) | **None Detected** |

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# Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy

| | | | Non-Asbestos | | | | Asbestos |
|---|---|---|---|---|---|---|---|
| **Sample** | **Description** | **Appearance** | **%** | **Fibrous** | **%** | **Non-Fibrous** | **% Type** |
| 21<br>*041100942-0021* | CRAWLSPACE - BLACK PAPER ASSOCIATED W/FIBERGLASS INSULATION | Black<br>Fibrous<br>Heterogeneous | 65% | Cellulose | 35% | Non-fibrous (other) | **None Detected** |
| 22<br>*041100942-0022* | CRAWLSPACE - BLACK PAPER ASSOCIATED W/FIBERGLASS INSULATION | Black<br>Fibrous<br>Heterogeneous | 65% | Cellulose | 35% | Non-fibrous (other) | **None Detected** |
| 23<br>*041100942-0023* | CRAWLSPACE - BLACK PAPER ASSOCIATED W/FIBERGLASS INSULATION | Black<br>Fibrous<br>Heterogeneous | 65% | Cellulose | 35% | Non-fibrous (other) | **None Detected** |
| 24-Skim Coat<br>*041100942-0024* | BASEMENT - PLASTER OVER MASONRY WALLS | White<br>Non-Fibrous<br>Heterogeneous | | | 100% | Non-fibrous (other) | **None Detected** |
| 24-Base Coat<br>*041100942-0024A* | BASEMENT - PLASTER OVER MASONRY WALLS | Gray<br>Non-Fibrous<br>Heterogeneous | | | 100% | Non-fibrous (other) | **None Detected** |

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# Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy

| | | | Non-Asbestos | | | Asbestos |
|---|---|---|---|---|---|---|
| **Sample** | **Description** | **Appearance** | **%** | **Fibrous** | **% Non-Fibrous** | **% Type** |
| 25-Skim Coat *041100942-0025* | BASEMENT - PLASTER OVER MASONRY WALLS | White Non-Fibrous Heterogeneous | | | 100% Non-fibrous (other) | **None Detected** |
| 25-Base Coat *041100942-0025A* | BASEMENT - PLASTER OVER MASONRY WALLS | Gray Non-Fibrous Heterogeneous | | | 100% Non-fibrous (other) | **None Detected** |
| 26-Skim Coat *041100942-0026* | BASEMENT - PLASTER OVER MASONRY WALLS | White Non-Fibrous Heterogeneous | | | 100% Non-fibrous (other) | **None Detected** |
| 26-Base Coat *041100942-0026A* | BASEMENT - PLASTER OVER MASONRY WALLS | Gray Non-Fibrous Heterogeneous | | | 100% Non-fibrous (other) | **None Detected** |
| 27 *041100942-0027* | ORIGINAL - DRYWALL WALLS & CEILINGS | Brown/White Fibrous Heterogeneous | 10% | Cellulose | 90% Non-fibrous (other) | **None Detected** |
| 28 *041100942-0028* | ORIGINAL - DRYWALL WALLS & CEILINGS | Brown/White Fibrous Heterogeneous | 10% | Cellulose | 90% Non-fibrous (other) | **None Detected** |

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# Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy

| | | | Non-Asbestos | | | | Asbestos |
|---|---|---|---|---|---|---|---|
| **Sample** | **Description** | **Appearance** | **%** | **Fibrous** | **%** | **Non-Fibrous** | **% Type** |
| 29 *041100942-0029* | ORIGINAL - DRYWALL WALLS & CEILINGS | Brown/White Fibrous Heterogeneous | 10% | Cellulose | 90% | Non-fibrous (other) | **None Detected** |
| 30 *041100942-0030* | ORIGINAL - DRYWALL JOINT COMPOUND | White Non-Fibrous Heterogeneous | | | 100% | Non-fibrous (other) | **<1% Chrysotile** |
| 31 *041100942-0031* | ORIGINAL - DRYWALL JOINT COMPOUND | White Non-Fibrous Heterogeneous | | | 100% | Non-fibrous (other) | **<1% Chrysotile** |
| 32 *041100942-0032* | ORIGINAL - DRYWALL JOINT COMPOUND | White Non-Fibrous Heterogeneous | | | 100% | Non-fibrous (other) | **<1% Chrysotile** |
| 33 *041100942-0033* | ORIGINAL - INTERIOR DOOR CAULK | Gray/White Non-Fibrous Heterogeneous | | | 100% | Non-fibrous (other) | **None Detected** |
| 34 *041100942-0034* | ORIGINAL - INTERIOR DOOR CAULK | Gray/White Non-Fibrous Heterogeneous | | | 100% | Non-fibrous (other) | **None Detected** |
| 35 *041100942-0035* | ORIGINAL - INTERIOR DOOR CAULK | Gray/White Non-Fibrous Heterogeneous | | | 100% | Non-fibrous (other) | **None Detected** |

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# Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy

| | | | Non-Asbestos | | Asbestos |
|---|---|---|---|---|---|
| **Sample** | **Description** | **Appearance** | **% Fibrous** | **% Non-Fibrous** | **% Type** |
| 36<br>*041100942-0036* | ADDITION - EXTERIOR DOOR WINDOW CAULK | White<br>Non-Fibrous<br>Homogeneous | | 100% Non-fibrous (other) | **None Detected** |
| 37<br>*041100942-0037* | ADDITION - EXTERIOR DOOR WINDOW CAULK | White<br>Non-Fibrous<br>Homogeneous | | 100% Non-fibrous (other) | **None Detected** |
| 38<br>*041100942-0038* | ADDITION - EXTERIOR DOOR WINDOW CAULK | White<br>Non-Fibrous<br>Homogeneous | | 100% Non-fibrous (other) | **None Detected** |
| 39<br>*041100942-0039* | ADDITION - EXTERIOR WINDOW GLAZE | White<br>Non-Fibrous<br>Heterogeneous | | 100% Non-fibrous (other) | **None Detected** |
| 40<br>*041100942-0040* | ADDITION - EXTERIOR WINDOW GLAZE | White<br>Non-Fibrous<br>Heterogeneous | | 100% Non-fibrous (other) | **None Detected** |
| 41<br>*041100942-0041* | ADDITION - EXTERIOR WINDOW GLAZE | White<br>Non-Fibrous<br>Heterogeneous | | 100% Non-fibrous (other) | **None Detected** |

Initial report from 01/17/2011 07:07:26

Analyst(s)

*Chris Little (59)*

Stephen Siegel, CIH, Laboratory Manager
or other approved signatory

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Samples analyzed by EMSL Analytical, Inc. 200 Route 130 North, Cinnaminson NJ NVLAP Lab Code 101048-0, AIHA-LAP, LLC-IHLAP Lab 100194, NYS ELAP 10872, NJ DEP 03036

EMSL Analytical, Inc.
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Project: **17453**

Customer ID: ECMA78
Customer PO:
Received: 01/14/11 9:15 AM
EMSL Order: 041100942

EMSL Proj:
Analysis Date: 1/16/2011

# Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy

| | | | Non-Asbestos | | | | Asbestos |
|---|---|---|---|---|---|---|---|
| **Sample** | **Description** | **Appearance** | **%** | **Fibrous** | **%** | **Non-Fibrous** | **% Type** |
| 42<br>*041100942-0042* | ADDITION - SHINGLE ROOF | Brown/Black<br>Fibrous<br>Heterogeneous | 20% | Glass | 80% | Non-fibrous (other) | **None Detected** |
| 43<br>*041100942-0043* | ADDITION - SHINGLE ROOF | Brown/Black<br>Fibrous<br>Heterogeneous | 20% | Glass | 80% | Non-fibrous (other) | **None Detected** |
| 44<br>*041100942-0044* | ADDITION - SHINGLE ROOF | Brown/Black<br>Fibrous<br>Heterogeneous | 20% | Glass | 80% | Non-fibrous (other) | **None Detected** |
| 45<br>*041100942-0045* | ORIGINAL - EXTERIOR WINDOW GLAZE | Gray/White<br>Non-Fibrous<br>Heterogeneous | | | 100% | Non-fibrous (other) | **None Detected** |
| 46<br>*041100942-0046* | ORIGINAL - EXTERIOR WINDOW GLAZE | Gray/White<br>Non-Fibrous<br>Heterogeneous | | | 100% | Non-fibrous (other) | **None Detected** |
| 47<br>*041100942-0047* | ORIGINAL - EXTERIOR WINDOW GLAZE | Gray/White<br>Non-Fibrous<br>Heterogeneous | | | 100% | Non-fibrous (other) | **None Detected** |
| 48<br>*041100942-0048* | ORIGINAL - EXTERIOR WINDOW CAULK | White<br>Non-Fibrous<br>Heterogeneous | | | 100% | Non-fibrous (other) | **None Detected** |

Initial report from 01/17/2011 07:07:26

Analyst(s)

*Chris Little (59)*

Stephen Siegel

Stephen Siegel, CIH, Laboratory Manager
or other approved signatory

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Samples analyzed by EMSL Analytical, Inc. 200 Route 130 North, Cinnaminson NJ NVLAP Lab Code 101048-0, AIHA-LAP, LLC-IHLAP Lab 100194, NYS ELAP 10872, NJ DEP 03036

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EMSL Order: 041100942

EMSL Proj:
Analysis Date: 1/16/2011

## Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy

| | | | Non-Asbestos | | Asbestos |
|---|---|---|---|---|---|
| **Sample** | **Description** | **Appearance** | **% Fibrous** | **% Non-Fibrous** | **% Type** |
| 49<br>*041100942-0049* | ORIGINAL - EXTERIOR WINDOW CAULK | White<br>Non-Fibrous<br>Heterogeneous | | 100% Non-fibrous (other) | **None Detected** |
| 50<br>*041100942-0050* | ORIGINAL - EXTERIOR WINDOW CAULK | White<br>Non-Fibrous<br>Heterogeneous | | 100% Non-fibrous (other) | **None Detected** |

Initial report from 01/17/2011 07:07:26

Analyst(s)

*Chris Little (59)*

Stephen Siegel, CIH, Laboratory Manager
or other approved signatory

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Samples analyzed by EMSL Analytical, Inc. 200 Route 130 North, Cinnaminson NJ NVLAP Lab Code 101048-0, AIHA-LAP, LLC-IHLAP Lab 100194, NYS ELAP 10872, NJ DEP 03036



**THIS IS THE LAST PAGE OF THE REPORT.**

ECS MID-ATLANTIC, LLC "Setting the Standard for Service"
MID-ATLANTIC Geotechnical • Construction Materials • Environmental • Facilities

XRF Lead Based Paint Results
Miller House - Colvin Run
Great Falls, VA
ECS Project No. 01:17453

| Date | Reading | Room | Side | Substrate | Color | Condition | Component | Notes | Comments | Pb | Pb +/- |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 21-Dec-10 | 1 | Calibration | | | | | | | Colvin Run | 1.07 | 0.04 |
| 21-Dec-10 | 2 | Calibration | | | | | | | Colvin Run | 1.04 | 0.03 |
| 21-Dec-10 | 3 | Calibration | | | | | | | Colvin Run | 1.04 | 0.03 |
| 21-Dec-10 | 4 | Kitchen | A | Wood | Brown | Intact | Window Casing | | Addition | 0.07 | 0.04 |
| 21-Dec-10 | 5 | Kitchen | A | Wood | Brown | Intact | Window Sill | | Addition | 0.02 | 0.01 |
| 21-Dec-10 | 6 | Kitchen | A | Wood | White | Intact | Window Sash | | Addition | 0.03 | 0.01 |
| 21-Dec-10 | 7 | Kitchen | A | Wood | Brown | Intact | Baseboard | | Addition | 0.01 | 0.02 |
| 21-Dec-10 | 8 | Kitchen | B | Wood | Light Green | Intact | Cabinet | Upper | Addition | 0.00 | 0.00 |
| 21-Dec-10 | 9 | Kitchen | B | Wood | Light Green | Intact | Cabinet Door | Upper | Addition | 0.00 | 0.00 |
| 21-Dec-10 | 10 | Kitchen | D | Wood | Light Green | Intact | Cabinet Door | Lower | Addition | 0.00 | 0.00 |
| 21-Dec-10 | 11 | Kitchen | D | Wood | Light Green | Intact | Cabinet | Lower | Addition | 0.00 | 0.00 |
| 21-Dec-10 | 12 | Kitchen | A | Drywall | White | Intact | Wall | | Addition | 0.13 | 0.05 |
| 21-Dec-10 | 13 | Bathroom | A | Drywall | White | Intact | Wall | | Addition | 0.01 | 0.02 |
| **21-Dec-10** | **14** | **Bathroom** | **A** | **Ceramic** | **Beige** | **Intact** | **Wall** | | **Addition** | **1.00** | **0.04** |
| **21-Dec-10** | **15** | **Bathroom** | **C** | **Ceramic** | **Beige** | **Intact** | **Wall** | | **Addition** | **1.00** | **0.02** |
| 21-Dec-10 | 16 | Bathroom | D | Ceramic | White | Intact | Tub | | Addition | 0.00 | 0.01 |
| **21-Dec-10** | **17** | **Bathroom** | **C** | **Ceramic** | **White** | **Intact** | **Toilet** | | **Addition** | **1.00** | **0.02** |
| 21-Dec-10 | 18 | Bathroom | A | Wood | White | Intact | Window Casing | | Addition | 0.43 | 0.06 |
| 21-Dec-10 | 19 | Bathroom | A | Wood | White | Intact | Window Sill | | Addition | 0.66 | 0.10 |
| 21-Dec-10 | 20 | Bathroom | A | Wood | White | Intact | Window Sash | | Addition | 0.01 | 0.01 |
| 21-Dec-10 | 21 | Bathroom | B | Wood | White | Intact | Door Casing | | Addition | 0.38 | 0.06 |
| 21-Dec-10 | 22 | Bathroom | B | Wood | White | Intact | Door Jamb | | Addition | 0.18 | 0.09 |
| 21-Dec-10 | 23 | Bathroom | B | Wood | White | Intact | Door | | Addition | 0.60 | 0.10 |
| 21-Dec-10 | 24 | Bathroom | C | Wood | Varnish | Intact | Cabinet | | Addition | 0.00 | 0.00 |
| 21-Dec-10 | 25 | Bathroom | C | Wood | Varnish | Intact | Cabinet Door | | Addition | 0.00 | 0.00 |
| **21-Dec-10** | **26** | **Hallway** | **B** | **Wood** | **White** | **Intact** | **Door Casing** | | **Addition** | **1.78** | **0.26** |
| **21-Dec-10** | **27** | **Hallway** | **B** | **Wood** | **Varnish** | **Intact** | **Door** | | **Addition** | **1.09** | **0.04** |
| 21-Dec-10 | 28 | Hallway | | Wood | Varnish | Intact | Floor | | Addition | 0.00 | 0.00 |
| 21-Dec-10 | 29 | Hallway | D | Wood | White | Intact | Shelf | | Addition | 0.00 | 0.00 |
| 21-Dec-10 | 30 | Hallway | D | Wood | White | Intact | Shelf Support | | Addition | 0.00 | 0.00 |
| 21-Dec-10 | 31 | Closet | C | Wood | White | Intact | Door Casing | | Addition | 0.45 | 0.13 |
| 21-Dec-10 | 32 | Closet | C | Wood | White | Intact | Door Jamb | | Addition | 0.04 | 0.02 |
| 21-Dec-10 | 33 | Closet | C | Wood | White | Intact | Door | | Addition | 0.17 | 0.05 |
| 21-Dec-10 | 34 | Closet | A | Wood | White | Intact | Door | | Addition | 0.57 | 0.11 |
| 21-Dec-10 | 35 | Closet | A | Wood | Brown | Intact | Door Casing | | Addition | 0.46 | 0.08 |
| 21-Dec-10 | 36 | Hallway | B | Drywall | White | Intact | Wall | | Addition | 0.00 | 0.00 |
| 21-Dec-10 | 37 | Hallway | B | Wood | White | Intact | Wall | | Addition | 0.20 | 0.07 |
| 21-Dec-10 | 38 | Closet | D | Wood | White | Intact | Door Casing | | Addition | 0.24 | 0.07 |
| 21-Dec-10 | 39 | Closet | D | Wood | White | Intact | Door Jamb | | Addition | 0.53 | 0.09 |
| 21-Dec-10 | 40 | Dining Room | C | Drywall | White | Intact | Wall | | Addition | 0.00 | 0.00 |
| 21-Dec-10 | 41 | Dining Room | C | Wood | Brown | Intact | Baseboard | | Addition | 0.06 | 0.04 |
| 21-Dec-10 | 42 | Dining Room | C | Wood | Brown | Intact | Door Casing | | Addition | 0.36 | 0.07 |
| **21-Dec-10** | **43** | **Dining Room** | **C** | **Wood** | **White** | **Intact** | **Door Jamb** | | **Addition** | **1.47** | **0.23** |
| 21-Dec-10 | 44 | Dining Room | C | Wood | White | Intact | Door | | Addition | 0.49 | 0.10 |
| 21-Dec-10 | 45 | Dining Room | D | Drywall | White | Intact | Wall | | Addition | 0.00 | 0.00 |
| 21-Dec-10 | 46 | Dining Room | | Drywall | White | Intact | Ceiling | | Addition | 0.00 | 0.00 |
| 21-Dec-10 | 47 | Stairwell | B | Wood | White | Intact | Stair Stringer | | Addition | 0.03 | 0.03 |
| 21-Dec-10 | 48 | Stairwell | B | Wood | Varnish | Intact | Railing | | Addition | 0.00 | 0.00 |
| 21-Dec-10 | 49 | Stairwell | B | Brick | White | Poor | Wall | | Addition | 0.00 | 0.00 |
| 21-Dec-10 | 50 | 2nd Floor | A | Wood | White | Intact | Door Casing | | Addition | 0.72 | 0.11 |
| 21-Dec-10 | 51 | 2nd Floor | A | Wood | White | Intact | Door Jamb | | Addition | 0.01 | 0.02 |
| 21-Dec-10 | 52 | 2nd Floor | A | Wood | White | Intact | Door | | Addition | 0.81 | 0.08 |
| 21-Dec-10 | 53 | 2nd Floor | A | Wood | White | Intact | Baseboard | | Addition | 0.33 | 0.07 |
| 21-Dec-10 | 54 | 2nd Floor | A | Drywall | Yellow | Intact | Wall | | Addition | 0.03 | 0.04 |
| 21-Dec-10 | 55 | 2nd Floor | C | Drywall | Yellow | Intact | Wall | | Addition | 0.01 | 0.02 |
| 21-Dec-10 | 56 | 2nd Floor | D | Drywall | Yellow | Intact | Wall | | Addition | 0.03 | 0.03 |
| 21-Dec-10 | 57 | 2nd Floor | D | Wood | White | Intact | Window Casing | | Addition | 0.25 | 0.05 |
| 21-Dec-10 | 58 | 2nd Floor | D | Wood | White | Intact | Window Sill | | Addition | 0.27 | 0.05 |
| 21-Dec-10 | 59 | 2nd Floor | D | Wood | White | Poor | Window Sash | | Addition | 0.06 | 0.03 |
| 21-Dec-10 | 60 | 2nd Floor | | Drywall | Yellow | Intact | Ceiling | | Addition | 0.00 | 0.00 |
| **21-Dec-10** | **61** | **Parlor** | **A** | **Wood** | **White** | **Intact** | **Window Sill** | | **Original** | **2.57** | **0.44** |
| 21-Dec-10 | 62 | Parlor | A | Wood | White | Intact | Window Casing | | Original | 0.73 | 0.11 |
| 21-Dec-10 | 63 | Parlor | A | Wood | White | Intact | Window Sash | | Original | 0.67 | 0.08 |
| 21-Dec-10 | 64 | Parlor | A | Wood | White | Intact | Window Casing | | Original | 0.70 | 0.10 |
| **21-Dec-10** | **65** | **Parlor** | **A** | **Wood** | **White** | **Intact** | **Chair Rail** | | **Original** | **1.40** | **0.08** |
| 21-Dec-10 | 66 | Parlor | A | Wood | White | Intact | Baseboard | | Original | 0.38 | 0.08 |
| 21-Dec-10 | 67 | Parlor | A | Plaster | White | Intact | Wall | | Original | 0.09 | 0.06 |
| **21-Dec-10** | **68** | **Parlor** | **B** | **Plaster** | **Gray** | **Intact** | **Wall** | | **Original** | **5.00** | **1.85** |
| **21-Dec-10** | **69** | **Parlor** | **B** | **Wood** | **Gray** | **Intact** | **Door Casing** | | **Original** | **5.00** | **2.46** |
| **21-Dec-10** | **70** | **Parlor** | **C** | **Plaster** | **White** | **Intact** | **Wall** | | **Original** | **5.00** | **1.98** |
| **21-Dec-10** | **71** | **Parlor** | **D** | **Plaster** | **White** | **Intact** | **Wall** | | **Original** | **5.00** | **0.79** |
| 21-Dec-10 | 72 | Parlor | D | Wood | Gray | Intact | Door Casing | China Cabinet | Original | 0.91 | 0.04 |
| 21-Dec-10 | 73 | Parlor | D | Wood | Gray | Intact | Door | China Cabinet, Upper | Original | 0.78 | 0.09 |

XRF Lead Based Paint Results
Miller House - Colvin Run
Great Falls, VA
ECS Project No. 01:17453

| Date | Reading | Room | Side | Substrate | Color | Condition | Component | Notes | Comments | Pb | Pb +/- |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 21-Dec-10 | 74 | Parlor | D | Wood | Gray | Intact | Door | China Cabinet, Lower | Original | 0.58 | 0.07 |
| 21-Dec-10 | 75 | Parlor | D | Wood | Gray | Intact | Shelf | China Cabinet | Original | 0.00 | 0.00 |
| **21-Dec-10** | **76** | **Parlor** | **D** | **Wood** | **Gray** | **Intact** | **Fire Place** | | **Original** | **5.00** | **1.21** |
| 21-Dec-10 | 77 | Parlor | A | Brick | Gray | Intact | Wall | | Original | 0.00 | 0.00 |
| 21-Dec-10 | 78 | Hallway | A | Wood | Gray | Intact | Door Casing | | Original | 0.94 | 0.04 |
| 21-Dec-10 | 79 | Hallway | A | Wood | Gray | Intact | Door | | Original | 0.63 | 0.11 |
| **21-Dec-10** | **80** | **Hallway** | **B** | **Plaster** | **White** | **Intact** | **Wall** | | **Original** | **5.00** | **3.82** |
| **21-Dec-10** | **81** | **Hallway** | **D** | **Plaster** | **White** | **Intact** | **Wall** | | **Original** | **1.00** | **0.02** |
| 21-Dec-10 | 82 | Display Room | D | Plaster | Gray | Intact | Wall | | Original | 0.00 | 0.00 |
| **21-Dec-10** | **83** | **Display Room** | **C** | **Plaster** | **Gray** | **Intact** | **Wall** | | **Original** | **5.00** | **1.67** |
| 21-Dec-10 | 84 | Display Room | D | Wood | Gray | Intact | Baseboard | | Original | 0.00 | 0.00 |
| 21-Dec-10 | 85 | Display Room | | Wood | Gray | Intact | Stage | | Original | 0.00 | 0.00 |
| 21-Dec-10 | 86 | Display Room | | Wood | Varnish | Intact | Floor | | Original | 0.00 | 0.00 |
| **21-Dec-10** | **87** | **Hallway** | **C** | **Wood** | **Gray** | **Intact** | **Door Casing** | | **Original** | **5.00** | **1.98** |
| **21-Dec-10** | **88** | **Hallway** | **C** | **Wood** | **Gray** | **Intact** | **Door** | | **Original** | **1.55** | **0.13** |
| **21-Dec-10** | **89** | **Hallway** | **D** | **Wood** | **Gray** | **Intact** | **Door Casing** | | **Original** | **5.00** | **1.85** |
| 21-Dec-10 | 90 | Hallway | D | Wood | Gray | Intact | Door Jamb | | Original | 0.02 | 0.03 |
| **21-Dec-10** | **91** | **Hallway** | **D** | **Wood** | **Gray** | **Intact** | **Door** | | **Original** | **5.00** | **1.50** |
| 21-Dec-10 | 92 | Basement | | Wood | White | Poor | Column | | Original | 0.00 | 0.00 |
| 21-Dec-10 | 93 | Basement | | Wood | White | Poor | Ceiling | | Original | 0.00 | 0.00 |
| **21-Dec-10** | **94** | **Stairwell** | | **Wood** | **Gray** | **Fair** | **Newel Post** | | **Original** | **2.19** | **0.27** |
| 21-Dec-10 | 95 | Stairwell | | Wood | Gray | Fair | Railing | | Original | 0.78 | 0.09 |
| **21-Dec-10** | **96** | **Stairwell** | **D** | **Wood** | **Gray** | **Intact** | **Stair Stringer** | | **Original** | **2.09** | **0.24** |
| **21-Dec-10** | **97** | **Stairwell** | **D** | **Plaster** | **White** | **Intact** | **Wall** | | **Original** | **5.00** | **1.72** |
| 21-Dec-10 | 98 | Stairwell | | Plaster | White | Intact | Ceiling | | Original | 0.00 | 0.00 |
| **21-Dec-10** | **99** | **Stairwell** | **C** | **Plaster** | **White** | **Intact** | **Wall** | | **Original** | **5.00** | **1.85** |
| 21-Dec-10 | 100 | Stairwell | C | Wood | Gray | Intact | Window Sill | | Original | 0.59 | 0.14 |
| 21-Dec-10 | 101 | Stairwell | C | Wood | Gray | Intact | Window Casing | | Original | 0.67 | 0.09 |
| **21-Dec-10** | **102** | **Stairwell** | **C** | **Wood** | **Gray** | **Intact** | **Window Sash** | | **Original** | **1.03** | **0.04** |
| **21-Dec-10** | **103** | **Stairwell** | **C** | **Wood** | **Gray** | **Intact** | **Chair Rail** | | **Original** | **2.37** | **0.31** |
| 21-Dec-10 | 104 | Stairwell | C | Wood | Gray | Intact | Baseboard | | Original | 0.85 | 0.06 |
| **21-Dec-10** | **105** | **2nd Floor** | **A** | **Plaster** | **White** | **Intact** | **Wall** | | **Original** | **5.00** | **1.62** |
| **21-Dec-10** | **106** | **2nd Floor** | **B** | **Plaster** | **White** | **Intact** | **Wall** | | **Original** | **5.00** | **1.20** |
| **21-Dec-10** | **107** | **2nd Floor** | **B** | **Wood** | **Gray** | **Intact** | **Door Casing** | **Closet** | **Original** | **5.00** | **0.87** |
| **21-Dec-10** | **108** | **2nd Floor** | **B** | **Wood** | **Gray** | **Intact** | **Door** | **Closet** | **Original** | **5.00** | **0.55** |
| **21-Dec-10** | **109** | **2nd Floor** | **C** | **Plaster** | **White** | **Intact** | **Wall** | | **Original** | **5.00** | **2.30** |
| **21-Dec-10** | **110** | **2nd Floor** | **D** | **Plaster** | **White** | **Intact** | **Wall** | | **Original** | **5.00** | **1.35** |
| **21-Dec-10** | **111** | **2nd Floor** | **D** | **Wood** | **White** | **Intact** | **Fire Place** | | **Original** | **5.00** | **1.98** |
| 21-Dec-10 | 112 | 3rd Floor | D | Wood | White | Intact | Window Sill | | Original | 0.28 | 0.05 |
| 21-Dec-10 | 113 | 3rd Floor | D | Wood | White | Intact | Window Casing | | Original | 0.60 | 0.06 |
| 21-Dec-10 | 114 | 3rd Floor | D | Wood | White | Intact | Window Sash | | Original | 0.00 | 0.00 |
| 21-Dec-10 | 115 | 3rd Floor | | Wood | Brown | Intact | Cubical | | Original | 0.00 | 0.00 |
| 21-Dec-10 | 116 | Exterior | C | Wood | White | Intact | Wall | | Addition | 0.00 | 0.00 |
| **21-Dec-10** | **117** | **Exterior** | **C** | **Wood** | **White** | **Intact** | **Door Casing** | | **Addition** | **1.43** | **0.21** |
| 21-Dec-10 | 118 | Exterior | C | Wood | Green | Intact | Door | | Addition | 0.79 | 0.09 |
| 21-Dec-10 | 119 | Exterior | C | Wood | Green | Intact | Shutters | | Addition | 0.00 | 0.00 |
| 21-Dec-10 | 120 | Exterior | C | Wood | White | Intact | Window Sill | | Addition | 0.68 | 0.14 |
| **21-Dec-10** | **121** | **Exterior** | **C** | **Wood** | **White** | **Fair** | **Window Casing** | | **Addition** | **1.48** | **0.24** |
| 21-Dec-10 | 122 | Exterior | C | Wood | White | Fair | Window Sash | | Addition | 0.74 | 0.12 |
| 21-Dec-10 | 123 | Exterior | D | Wood | White | Intact | Wall | | Addition | 0.00 | 0.00 |
| 21-Dec-10 | 124 | Exterior | A | Metal | Green | Intact | Railing | | Original | 0.00 | 0.00 |
| 21-Dec-10 | 125 | Exterior | A | Wood | Green | Intact | Shutters | | Original | 0.00 | 0.00 |
| 21-Dec-10 | 126 | Exterior | A | Wood | White | Intact | Window Sill | | Original | 0.02 | 0.02 |
| 21-Dec-10 | 127 | Exterior | A | Wood | White | Intact | Window Casing | | Original | 0.44 | 0.09 |
| 21-Dec-10 | 128 | Exterior | A | Wood | White | Intact | Window Sash | | Original | 0.79 | 0.10 |
| **21-Dec-10** | **129** | **Exterior** | **A** | **Wood** | **Green** | **Intact** | **Door Casing** | | **Original** | **1.13** | **0.07** |
| **21-Dec-10** | **130** | **Exterior** | **A** | **Wood** | **Green** | **Intact** | **Door** | | **Original** | **1.42** | **0.17** |
| **21-Dec-10** | **131** | **Exterior** | **B** | **Wood** | **Green** | **Intact** | **Door** | | **Original** | **2.05** | **0.25** |
| 21-Dec-10 | 132 | Exterior | B | Wood | White | Intact | Door Casing | | Original | 0.00 | 0.00 |
| 21-Dec-10 | 133 | Calibration | | | | | | | Colvin Run | 1.03 | 0.03 |
| 21-Dec-10 | 134 | Calibration | | | | | | | Colvin Run | 1.03 | 0.03 |
| 21-Dec-10 | 135 | Calibration | | | | | | | Colvin Run | 1.02 | 0.03 |

041100942

EMSL ANALYTICAL, INC.

# Asbestos Lab Services Chain of Custody

**EMSL Order Number** *(Lab Use Only)*: 041100942

Beltsville, MD
10768 Baltimore Avenue
Beltsville, MD 20705
PHONE: (301) 937-5700
FAX: (301) 937-5701

**Company:** ECS Mid-Atlantic

**Street:** 14026 Thunderbolt Place, Suite 100

**EMSL-Bill to:** ☑ Same ☐ Different
If Bill to is Different note instructions in Comments**
*Third Party Billing requires written authorization from third party*

**City/State/Zip:** Chantilly, VA 20151

**Report To (Name):** Leslie Condon

**Fax:**

**Telephone:** 703-471-8400

**Email Address:** lcondon@ecslimited.com

**Project Name/Number:** 17453

**Please Provide Results:** Email **Purchase Order:** **State Samples Taken:** VA

**Turnaround Time (TAT) Options* – Please Check**

☐ 3 Hour ☐ 6 Hour ☐ 24 Hour ☐ 48 Hour ☒ 72 Hour ☐ 96 Hour ☐ 1 Week ☐ 2 Week

*For TEM Air 3 hours/6 hours, please call ahead to schedule. *There is a premium charge for 3 Hour TEM AHERA or EPA Level II TAT. You will be asked to sign an authorization form for this service. Analysis completed in accordance with EMSL's Terms and Conditions located in the Analytical Price Guide.

**PCM - Air**
- ☐ NIOSH 7400
- ☐ w/ OSHA 8hr. TWA

**PLM - Bulk (reporting limit)**
- ☒ PLM EPA 600/R-93/116 (<1%)
- ☐ PLM EPA NOB (<1%)

Point Count
- ☐ 400 (<0.25%) ☐ 1000 (<0.1%)

Point Count w/Gravimetric
- ☐ 400 (<0.25%) ☐ 1000 (<0.1%)
- ☐ NYS 198.1 (friable in NY)
- ☐ NYS 198.6 NOB (non-friable-NY)
- ☐ NIOSH 9002 (<1%)

**TEM – Air** ☐ 4-4.5hr TAT (AHERA only)
- ☐ AHERA 40 CFR, Part 763
- ☐ NIOSH 7402
- ☐ EPA Level II
- ☐ ISO 10312

**TEM - Bulk**
- ☐ TEM EPA NOB
- ☐ NYS NOB 198.4 (non-friable-NY)
- ☐ Chatfield SOP
- ☐ TEM Mass Analysis-EPA 600 sec. 2.5

**TEM – Water:** EPA 100.2
- Fibers >10µm ☐ Waste ☐ Drinking
- All Fiber Sizes ☐ Waste ☐ Drinking

**TEM- Dust**
- ☐ Microvac - ASTM D 5755
- ☐ Wipe - ASTM D6480
- ☐ Carpet Sonication (EPA 600/J-93/167)

**Soil/Rock/Vermiculite**
- ☐ PLM CARB 435 - A (0.25% sensitivity)
- ☐ PLM CARB 435 - B (0.1% sensitivity)
- ☐ TEM CARB 435 - B (0.1% sensitivity)
- ☐ TEM CARB 435 - C (0.01% sensitivity)
- ☐ EPA Protocol (Semi-Quantitative)
- ☐ EPA Protocol (Quantitative)

**Other:**
- ☐

☒ **Check For Positive Stop – Clearly Identify Homogenous Group**

**Samplers Name:** Leslie S. Condon **Samplers Signature:** [signature]

| Sample # | Sample Description | Volume/Area (Air) HA # (Bulk) | Date/Time Sampled |
|---|---|---|---|
| 01-03 | 12"x12" Beige Floor Tile w/ Square Pattern / Addition | #1 | 12/21/10 |
| 04-06 | Dry wall / Addition | #2 | |
| 07-09 | Drywall Joint Compound / Addition | #3 | |
| 10-12 | Black Sink Undercoat / Addition Kitchen | #4 | |
| 13-14 | Plaster Walls / Basement Original | #5 | |
| 15 | / Hallway Original | | |
| 16 | / Fire Place Original | | |
| 17 | / 2nd Floor near Cupboard Original | | |

**Client Sample # (s):** 01 - 50 **Total # of Samples:** 50

**Relinquished (Client):** [signature] **Date:** 1/13/11 **Time:** Fed Ex

**Received (Lab):** [signature] 915A **Date:** 1.14.11 **Time:**

**Comments/Special Instructions:** please copy Rachel Rossmeissl-Stone at rrossmeissl@ecslimited.com

SAMPLES ACCEPTED FOR ANALYSIS BY EMSL ANALYTICAL INC.

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041100942

EMSL ANALYTICAL, INC.

# Asbestos Lab Services Chain of Custody

**EMSL Order Number** *(Lab Use Only)*: 041100942

Beltsville, MD
10768 Baltimore Avenue
Beltsville, MD 20705
PHONE: (301) 937-5700
FAX: (301) 937-5701

| Sample # | Sample Description | Volume/Area (Air) HA # (Bulk) | Date/Time Sampled |
|---|---|---|---|
| 18-20 | Black & Gray Rolled Shingle in Crawlspace | #6 | 12/21/10 |
| 21-23 | Black Paper Associated w/ Fiberglass Ins./Crawlspace | #7 | |
| 24-26 | Plaster over Masonry Walls/Basement | #8 | |
| 27-29 | Drywall Walls & Ceilings/Original | #9 | |
| 30-32 | Drywall Joint Compound/Original | #10 | |
| 33-35 | Interior Door Caulk/Original | #11 | |
| 36-38 | Exterior Door & Window Caulk/Addition | #12 | |
| 39-41 | Exterior Window Glaze/Addition | #13 | |
| 42-44 | Shingle Roof/Addition | #14 | |
| 45-47 | Exterior Window Glaze/Original | #15 | |
| 48-50 | Exterior Window Caulk/Original | #16 | |
| | | | |
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**Comments/Special Instructions:** please copy Rachel Rossmeissl-Stone at rrossmeissl@ecslimited.com

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