

# HILL TOP HOUSE HOTEL

## HISTORIC RESOURCES PLAN

HARPERS FERRY, WV



# CONTENTS

1. Executive Summary
2. Historic Background
  - A. Historic Context Overview
  - B. Significance and Integrity of Resources
  - C. Historic Photographs and Maps
3. Resource Assessments
  - A. Methodology
  - B. Design Criteria
  - C. Historic Preservation Issues and Opportunities
  - D. Resource Assessment: Armory Dwelling - Block E, Lot 1
  - E. Resource Assessment: Armory Dwelling - Block E, Lot 2
  - F. Resource Assessment: Armory Dwelling - Block E, Lot 3
  - G. Resource Assessment: Armory Dwelling – Block E, Lot 5
  - H. Resource Assessment: Barbershop – Block E, Lot 6
  - I. Resource Assessment: Armory Dwelling – Block F, Lot 1
  - J. Resource Assessment: Hill Top Hotel Building
4. Overall Site Assessment
  - A. Archaeological Overview
  - B. Cultural Landscape Overview
5. Conclusion and Management Recommendations



## **1. EXECUTIVE SUMMARY**

- A. Introduction
- B. Historic Background
- C. Resource Assessments
- D. Overall Site Assessment
- E. Management Recommendations



## A. INTRODUCTION

In March of 2018, SWaN Investors, LLC of Leesburg, Virginia contracted the Mills Group to complete a Historic Resources Plan for the Hill Top Hotel Site located in Harpers Ferry, West Virginia. The purpose of this study was to identify all contributing resources in the study area, including a description of the overall historic context of the site in order to be responsive to the requirements of Codified Ordinance of Harpers Ferry, Part 13, Article 1302.

In completing the Historic Resources Plan, the "Hill Top Hotel Site, Armory Buildings and Ridge Street Dwellings Building Conditions Report" and "Hill Top Hotel, Building Condition Report" completed by Oehrlein & Associates Architects in September of 2008 was revisited and updated to include current existing conditions and recommended rehabilitation scopes of work.

This document provides a documentation of physical changes to the study area over time, a description and condition assessment of each resource within the study area, and recommendations for the preservation and rehabilitation of the structures for future use. This report also provides a historic context for the site, an evaluation of the integrity and significance of the resources on the site, an overview of previous archaeological activity, and an assessment of the site's potential as a cultural landscape. Finally, this document synthesizes management recommendations for each contributing resource. The retention of the c. 1919 portion of the separate lodge building, located to the southeast of the main hotel structure, is recommended. However, this building is considered a non-contributing resource to the Harpers Ferry Historic District and is therefore not addressed in this Historic Resources Plan.

The process undertaken to prepare this Historic Resources Plan consisted of several phases. Prior to beginning fieldwork, Mills Group conducted archival research through the West Virginia Division of Culture and History Archives, the U.S. Geological Survey, the Jefferson County Museum, and the WVU West Virginia and Regional History Center. These repositories provided historic photographs, maps, and documents that helped to inform the construction history of the building. Mills Group then conducted site visits to measure and record the building, took digital photographs, and assessed the current condition of the buildings. The final phase consisted of additional analysis and report preparation.

## B. HISTORIC BACKGROUND

The Hill Top Hotel site is constructed on a bluff formerly known as Magazine Hill in Harpers Ferry, West Virginia. The town's selection as the site of the second national armory by George Washington in 1795 led to its development as an industrial community. Some of the earliest buildings in town include "Armory Dwellings" which were constructed between 1827 and 1837 by the government for use as worker housing. The Hill Top Hotel site contains five such residences, as well as a house dating to c. 1860 that was ultimately converted for use as a barbershop. Following the Civil War, the armory was dismantled and auctioned off to private landowners, and Harpers Ferry became a hub of tourism in the area. The original Hill Top House Hotel building was constructed by the Lovett family in 1888 and served as one of the most luxurious lodging options in the area for many years. Ravaged by fire in both 1912 and 1919, the Hill Top was rebuilt twice and remained



in operation through the remainder of the twentieth century before closing in 2008. Today, partially as the result of the creation of the Harpers Ferry National Historical Park in 1963, the town of Harpers Ferry is one of the few intact representative examples of early-to mid-nineteenth century towns in West Virginia. Each year, nearly 500,000 visitors explore the Harpers Ferry National Historical Park, which serves as an interpretive center for the history of John Brown and other factors which led to the beginning of the Civil War.<sup>1</sup> Additionally, Harpers Ferry serves as the national headquarters for the Appalachian Trail Conservancy, and is the home of the National Park Service's Artifact Conservation lab.

## **C. RESOURCE ASSESSMENTS**

As part of the Historic Resources Plan, resource assessments were completed for the armory dwellings, barbershop, and hotel building. These assessments are based upon the 2008 Oehrlein & Associates reports and include historical background, building description, construction history, condition assessment, and recommended rehabilitation scopes of work, as well as updated condition assessments and recommended rehabilitation scopes of work which reflect the existing conditions of the resources as of 2018.

## **D. OVERALL SITE ASSESSMENT**

The overall site assessment portion of the Historic Resources Plan focuses on issues related to the site and landscape of the hotel property. Past archaeological investigations on the property are discussed as part of this assessment. This section also presents an assessment of the site's potential as a cultural landscape and presents recommendations for retaining important landscape features.

## **E. MANAGEMENT RECOMMENDATIONS**

The final chapter in the Historic Resources Plan synthesizes recommendations for the treatment and preservation of contributing resources within the hotel property. Updated recommended rehabilitation scopes of work for five armory dwellings, the barbershop, and the hotel building are presented in this section. Additionally, this section of the Plan summarizes recommendations for future archaeological and cultural landscape assessments.

---

<sup>1</sup> Harpers Ferry National Historical Park, "Your Dollars at Work," National Park Service, April 10, 2015, <https://www.nps.gov/hafe/learn/management/yourdollarsatwork.htm>, accessed April 2, 2018.



## **2. HISTORIC BACKGROUND**

- A. Historic Context Overview
- B. Significance and Integrity of Resources
- C. Historic Photographs and Maps



## A. HISTORIC CONTEXT OVERVIEW

The Hill Top Hotel site is constructed on a bluff formerly known as Magazine Hill in Harpers Ferry, West Virginia. The hotel overlooks the confluence of the Potomac and Shenandoah Rivers, as well as portions of the area of Harpers Ferry known as Lower Town. Immediately south and west of the hotel parcel are several small residential buildings that were constructed in the early nineteenth century to house workers in the Harpers Ferry Armory. Today, the Hill Top Hotel site is roughly bounded by Potomac Street and the railroad tracks to the north and east, Washington Street to the south, and Columbia Street to the west, although a portion of the land west of Columbia Street is also considered to be within the current study area. Ridge Street bisects the site and serves as the main access route to the hotel parcel.

The town of Harpers Ferry is one of the few intact representative examples of early- to mid-nineteenth century towns in West Virginia. In 1751, millwright Robert Harper purchased 125 acres of land at the confluence of the Potomac and Shenandoah Rivers from Lord Thomas Fairfax. Harper constructed a water-powered sawmill along the Shenandoah River and operated a ferry across the Potomac. In 1785, George Washington visited the site. Recognizing the potential for additional water-powered industries in the area, as President, Washington selected the town as the site for the second United States armory in 1795. The first national armory had been constructed in Springfield, Massachusetts and served the New England states through the Revolution; however, Washington saw the need for an additional armory to serve the southern states. Harpers Ferry was seen as an ideal location, not only because of its water power, but because of its proximity to the new Federal City being planned along the Potomac River at Washington, D.C.<sup>1</sup>

Although Washington's idea was initially met with resistance from his cabinet members, the government began purchasing land in Harpers Ferry from local landowners in 1796. The project was delayed due to a lack of funding until 1798, when threat of war with France pushed newly-elected President John Adams to move ahead with the armory construction at Harpers Ferry.<sup>2</sup> The government began developing the town with both industrial buildings for arms production and barracks for worker housing. The production of rifles and muskets began in Harpers Ferry in 1801. The armory and town remained relatively small and isolated into the mid-1830s, when the arrival of the Baltimore & Ohio Railroad (B&O) and the Chesapeake and Ohio Canal (C&O) began to allow for the mass transportation of materials and supplies to Harpers Ferry. This access presumably also allowed for the construction of new housing for armory workers, and the government set to work constructing brick and coursed stone residences throughout the town. Most of these residences were constructed between 1827 and 1837. Other private properties

---

<sup>1</sup> Andrew S. Lee, *The U.S. Armory at Harpers Ferry Historic Resource Study* (Harpers Ferry: Harpers Ferry National Historical Park, 2006), 3.

<sup>2</sup> Ibid, 7.

were purchased and rehabilitated for use as worker housing during this time and into the 1860s.<sup>3</sup>

The grading of most roads in Harpers Ferry occurred in 1856. While Shenandoah, Potomac, and High (or Washington) Street were in place and being utilized through the early nineteenth century, in 1852, Armory superintendent Major John Symington oversaw the layout of the grid of secondary streets. Today, this grid is largely maintained.<sup>4</sup> Because this grid was laid out with little regard for the rugged topography of the area, many streets were named but never graded or used—these streets are referred to as “paper streets.” By 1859, the armory operation consisted of not only the official armory grounds and rifle factory, but also stables, a machine shop, a lumber yard, and a powder magazine. This magazine was located on a bluff overlooking town that came to be known as “Magazine Hill.” Historic maps indicate the presence of a “Seminary Lot” also located on Magazine Hill during this time.

The commencement of the Civil War in 1861 placed Harpers Ferry at the convergence of Union and Confederate interests. The town's riverside location and access to transportation, along with the availability of armory machinery, made Harpers Ferry a highly-contested site during the war. After a brief 1861 occupation by Confederate forces left the armory buildings burned and ransacked for armory machinery, the ruins of the former armory sat abandoned.<sup>5</sup> Ultimately, the massive cost of rebuilding the armory discouraged the government from rebuilding at Harpers Ferry, so the property was auctioned off.<sup>6</sup> At the end of the war, the town of Harpers Ferry was also badly damaged, with few buildings and even fewer residents remaining.

Post-Civil War Harpers Ferry saw the transition of much of the town from public to private land as the government began to auction off property. Along with this, the main economic engine of the town transitioned from a largely industrial society to one fueled by tourism, and new businesses and hotels began to pop up.<sup>7</sup> During this time, residences constructed by the government for armory workers were also auctioned off to private owners. In 1880, the B&O Railroad constructed a twenty-acre amusement park called Island Park on Byrne's Island in the Potomac River. The creation of this park helped to fuel the tourism industry in postwar Harpers Ferry.<sup>8</sup>

In 1888, Thomas and Lavinia Lovett began construction of the Hill Top House Hotel on Magazine Hill. Thomas was the son of Harpers Ferry residents William and Sarah Lovett, who had moved to the area in 1860 from Winchester, VA.<sup>9</sup> As one of the few landowning

---

<sup>3</sup> Harpers Ferry Planning Commission, National Register of Historic Places Nomination Form: Harpers Ferry Historic District, (Harpers Ferry: 1979), 13.

<sup>4</sup> Barbara Rasmussen, NRHP Nomination: Harpers Ferry Historic District, Amendment (Charleston, WV: 2010), Section 7 Page 2.

<sup>5</sup> Lee, *Armory Historic Resource Study*, 61, 77.

<sup>6</sup> Megan Bailey, *Ethnographic Overview and Assessment: Harpers Ferry National Historical Park* (Washington, D.C.: National Park Service, 2017), 26.

<sup>7</sup> Ibid.

<sup>8</sup> Ibid, 28.

<sup>9</sup> Lynn C. Lewis, “The Lovett History,” *Spirit of Jefferson Farmer's Advocate*, February 14, 2008.



African-American families in town, the Lovetts ran multiple boarding houses and were early supporters of Storer College. Established in 1867, Storer would serve as the only institution in West Virginia to provide secondary and post-secondary education to African Americans for the next 25 years.<sup>10</sup> The Hill Top House Hotel opened in 1888 as a three-story frame building.<sup>11</sup> There is evidence that building materials salvaged from the dismantling of the armory, particularly sandstone fence caps, were utilized in the construction of a low stone wall along the southern portion of the lot.<sup>12</sup>

By 1898, the Lovetts had made several improvements to the property, including the construction of a four-story stone addition to the hotel and the erection of a dance pavilion northwest of the hotel. An 1898 *Spirit of Jefferson* article noted that the new stone addition would include bath tubs with running hot and cold water and electric lights, both amenities which were rare for area hotels at the time. The Hill Top was considered by far the most modern and luxurious in Harpers Ferry and drew a great deal of business as a result. Business was so lucrative that in 1904, for the first time, the Lovetts chose to keep the hotel open all winter and construct a new dining room addition. In 1905, a steam heating plant was constructed to serve the hotel in the winter months.<sup>13</sup>

The western half of the Hill Top House Hotel was destroyed by a fire in December of 1912, after which it was rebuilt, this time entirely from stone masonry, in time to receive guests for the summer of 1913. Inspired by a concept drawing completed by the architectural firm of Ernest C. S. Holmboe and Robert C. Lafferty, the new building utilized the remaining stone walls of the original hotel and featured three stories and a tower on the southeast corner. The hotel was once again badly damaged by fire in June of 1919. Reconstruction began the following month. Historic maps and aerial photography images indicate that the two-story stone lodge building was constructed to the south of the hotel c. 1919. In 1926, the Lovetts sold the property to Fred McGee.<sup>14</sup> Tourism had begun to decline, particularly with the rising popularity of the automobile, and Island Park, which the Hill Top overlooked, fell into disrepair. Despite this trend, visitors to the Hill Top Hotel continued to return. In 1959, Dixie Kilham bought the hotel, which was later purchased by William Stanhagen.<sup>15</sup>

By the 1950s, Harpers Ferry was struggling to maintain its allure as a tourist attraction and had been host to a long line of failed business ventures, devastating fires, and floods. Seeing the largely-abandoned town as an opportunity for education and interpretation of John Brown's raid and Civil War history, the National Park Service began to acquire large portions of the town in the mid-1950s. In 1963, the Harpers Ferry National Historical

---

<sup>10</sup> Bailey, *Ethnographic Overview and Assessment*, 27.

<sup>11</sup> Sheila R. Crane, "Morrell House," *Written Historical and Descriptive Data*, Historic American Buildings Survey (Washington, D.C.: National Park Service, U.S. Department of the Interior, 1995), 28.

<sup>12</sup> Lee, *Armory Historic Resource Study*, 93.

<sup>13</sup> Crane, "Morrell House," 26.

<sup>14</sup> Walton Danforth Stowell Jr., "Hill Top House," e-WV: The West Virginia Encyclopedia, January 17 2013, accessed April 4 2018, <https://www.wvencyclopedia.org/articles/377>.

<sup>15</sup> Stowell Jr, "Hill Top House."

Park was designated and opened to the public. While tourism in the town never again reached the heights that it enjoyed in the late nineteenth century, the creation of the Park helped to bring new visitors to Harpers Ferry. Presumably driven by an increased demand, a new, three-story wing of hotel rooms was added to the lodge building at the Hill Top Hotel in the 1970s. The Hill Top Hotel continued to operate year-round until 2008, when it was permanently closed due to structural deficiencies. These deficiencies are explored in Part 3 of this report.

## **Bibliography**

- Bailey, Megan. *Ethnographic Overview and Assessment: Harpers Ferry National Historical Park*. Washington, D.C.: National Park Service, 2017.
- Crane, Sheila R. "Morrell House." *Written Historical and Descriptive Data, Historic American Buildings Survey*. Washington, D.C.: National Park Service, U.S. Department of the Interior, 1995.
- Harpers Ferry Planning Commission. *National Register of Historic Places Nomination Form: Harpers Ferry Historic District*. Harpers Ferry: 1979.
- Lee, Andrew S. *The U.S. Armory at Harpers Ferry Historic Resource Study*. Harpers Ferry: Harpers Ferry National Historical Park, 2006.
- Lewis, Lynn C. "The Lovett History." *Spirit of Jefferson Farmer's Advocate*, February 14, 2008.
- Stowell Jr., Walton Danforth. "Hill Top House." *e-WV: The West Virginia Encyclopedia*, January 17, 2013. Accessed April 4, 2018, <https://www.wvencyclopedia.org/articles/377>.
- Rasmussen, Barbara. *NRHP Nomination: Harpers Ferry Historic District, Amendment*. Harpers Ferry, WV: Division of Culture and History, 2010.



## **B. SIGNIFICANCE AND INTEGRITY OF RESOURCES**

The Hill Top Hotel site and its surrounding properties are important resources that help to define the historic character of Harpers Ferry. The hotel building, armory dwellings, and streets each play a role in understanding the history and character of the site.

### **Site and Streets**

While Potomac, Shenandoah, and Washington Streets have been in place since the earliest development of the armory at Harpers Ferry, the grid of secondary north-south streets, laid out in the mid-1850s, also represent an important character-defining feature of the town. Currently, East Ridge Street and Columbia Street are within the boundaries of the Hill Top Hotel property. According to some historic maps of the area, the Hill Top Hotel site contains the northernmost terminus of Lancaster Street, a "paper street" which was named and surveyed but never graded and opened due to its steep, rocky topography. Because Harpers Ferry was laid out in a grid pattern with little consideration for topography, similar undeveloped "paper streets" are located throughout the town.<sup>16</sup> The 2013 Comprehensive Plan for Harpers Ferry calls for an evaluation of paper streets for future development, including the creation of mini-parks or stormwater drainage systems. Because this portion of Lancaster Street was never graded or opened, it does not retain significant character-defining features that contribute to the overall historical significance of the town or the Harpers Ferry Historic District. East Ridge Street and Columbia Street, also located on the property, maintain their historic alignment but have been subject to repaving and other routine maintenance activities that have compromised their integrity of materials and workmanship. Today, these streets maintain integrity of location, design, setting, and association.

### **Armory Dwellings**

The five Armory Dwellings on the Hill Top Hotel property are thought to have been built roughly between 1827 and 1837. The dwellings located on Lots 1, 2, and 3 of Block E follow the same basic layout and are constructed of brick. These buildings are significant for their association with the operation of the armory and are examples of government-built housing. Each of these buildings are considered contributing resources to the Harpers Ferry Historic District. Originally, all three residences had gable roofs; however, today, the roof of the dwelling on Lot 3 has been replaced with a modified shed roof. New windows and doors have been added to some of these buildings, but in general, they all maintain integrity of location, design, setting, materials, workmanship, feeling, and association.

The duplex dwelling located on Lot 5 of Block E features log construction not seen elsewhere on the parcel. Although the exact construction date of the building is not known, its unique method of construction raises the possibility that it may predate the other armory dwellings. Built as a single-story two-room residence, the building was expanded over the years with the construction of a stone kitchen wing to the north, a connecting addition between the log and stone sections, and a second story. Wood

---

<sup>16</sup> Barbara Rasmussen, National Register of Historic Places Nomination Form: Harpers Ferry Historic District, Amendment (Harpers Ferry: 2008), Section 7 Page 1.

clapboard sheathing was added to the entirety of the building, further obscuring the original construction. This resource is significant for its association with the armory operation at Harpers Ferry and is unique in that it may have been purchased from a former owner, rather than built, by the government for use as worker housing. Despite extensive alterations, this building is considered a contributing resource to the Harpers Ferry Historic District. Today, most of the west half of the building is heavily deteriorated or missing; however, the extant (east) half of the building maintains integrity of location, design, setting, materials, workmanship, feeling, and association.

The armory dwelling located on Lot 1 of Block F was constructed in 1837 and, at one time, housed the superintendent of the armory. The dwelling is significant for its association with the operation of the armory at Harpers Ferry, and is considered a contributing resource to the Harpers Ferry Historic District. Sanborn maps indicate that the rear wing was originally an open porch at the first level and an enclosed sleeping porch at the second level. Today, the entire wing is enclosed and serves as part of the house. The brick used in the turret on the southwest corner features different characteristics from that used throughout the rest of the house, suggesting that this may be a later addition. A set of steps which lead from the ground level to the front porch also appear to be a later addition. Despite these alterations, the building retains integrity of location, design, setting, materials, workmanship, feeling, and association.

### **Barbershop**

The building located on Lot 6 of Block E, known commonly as the Barbershop, was constructed between 1859 and 1868. Constructed as a residence and later partially converted for commercial use, this building is significant for its association with the early residential development of Harpers Ferry and for the twentieth-century commercial development of the town. This building is considered a contributing resource to the Harpers Ferry Historic District. A one-story porch was originally situated on the north side of the building; however, by 1933, this was removed, and a small single-story extension, still in place today, was added to the east. With the partial conversion of the building from residential to commercial use, the western portion of the first level front elevation was reconfigured to allow for two large storefront windows with bulkheads and a central recessed entry door. Although these storefront windows are not in keeping with the original historic character of the building, they have gained historical significance in their own right. Today, this building retains integrity of location, setting, materials, workmanship, feeling, and association.

### **Hill Top Hotel and Lodge**

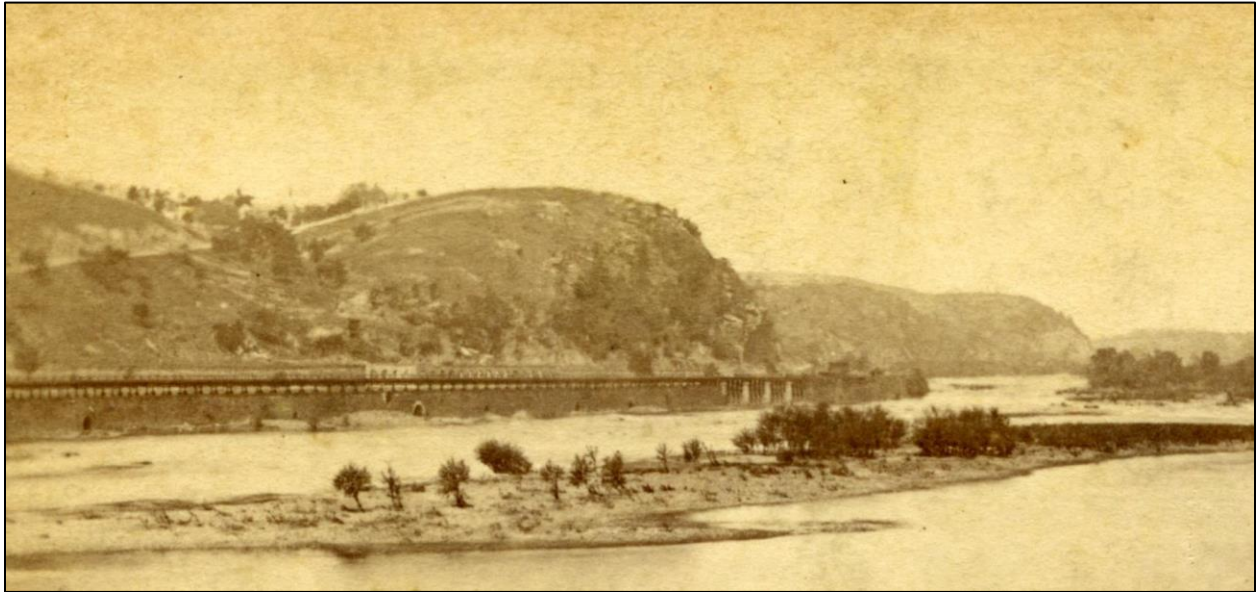
The Hill Top Hotel, originally constructed in 1888, served as a landmark and center of tourism in Harpers Ferry for over a century, despite being nearly destroyed by fire in both 1912 and 1919. The building is significant for its association with early tourist activity in Harpers Ferry after the closure of the armory, as well as for its association with famous patrons such as Woodrow Wilson, Mark Twain, and Alexander Graham Bell. Additionally, this building is significant for its association with the Lovett family, who were among the first landowning African American families in Harpers Ferry. The hotel is considered a

contributing resource to the Harpers Ferry Historic District. The exterior of the hotel building has undergone several renovations and additions that have almost completely obscured its historic character, and deterioration has led to the partial loss of sections of the building (See Chapter 3, Resource Assessments). The interior of the building also features very little in the way of historic features such as original flooring, plaster walls, and molding due to continued renovations and replacements of these elements through the mid to late twentieth century. Although the building retains integrity of location, setting, materials, and association, the integrity of design, workmanship, and feeling have been compromised, largely as a result of deterioration and settlement.

The lodge building, located south of the hotel, was constructed c. 1919. Additions to the building have almost entirely obscured its original historic character. While this building shares an association with the hotel, a series of additions and alterations through the twentieth century have compromised the historic integrity of the building, and it is considered a non-contributing resource to the Harpers Ferry Historic District. As it is not considered a contributing element, the lodge building is not addressed as part of this Historic Resources Plan.



## C. HISTORIC PHOTOGRAPHS



*Figure 1. View of Magazine Hill prior to 1888. Courtesy Dan Riss.*

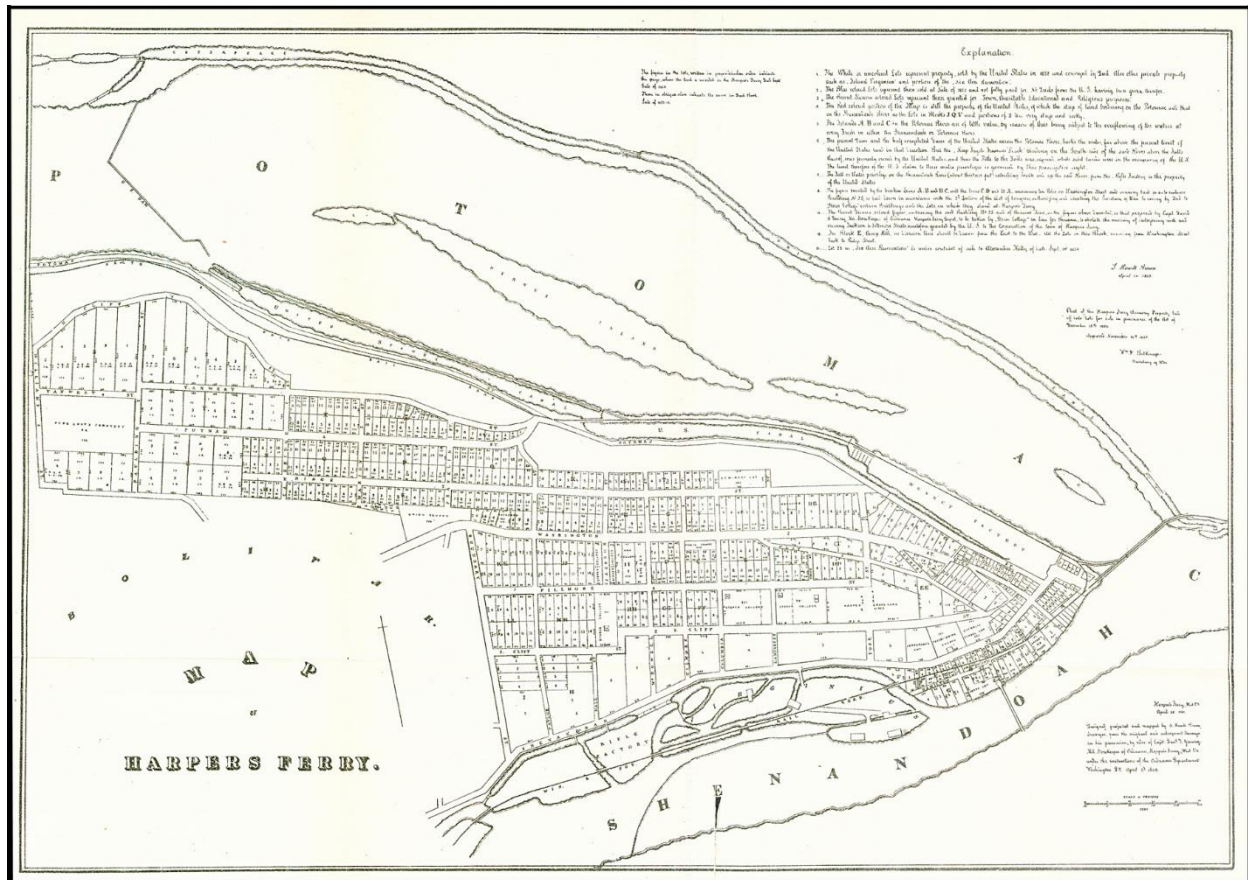


Figure 2. Map of Harpers Ferry in 1859. Courtesy WV Division of Culture and History.

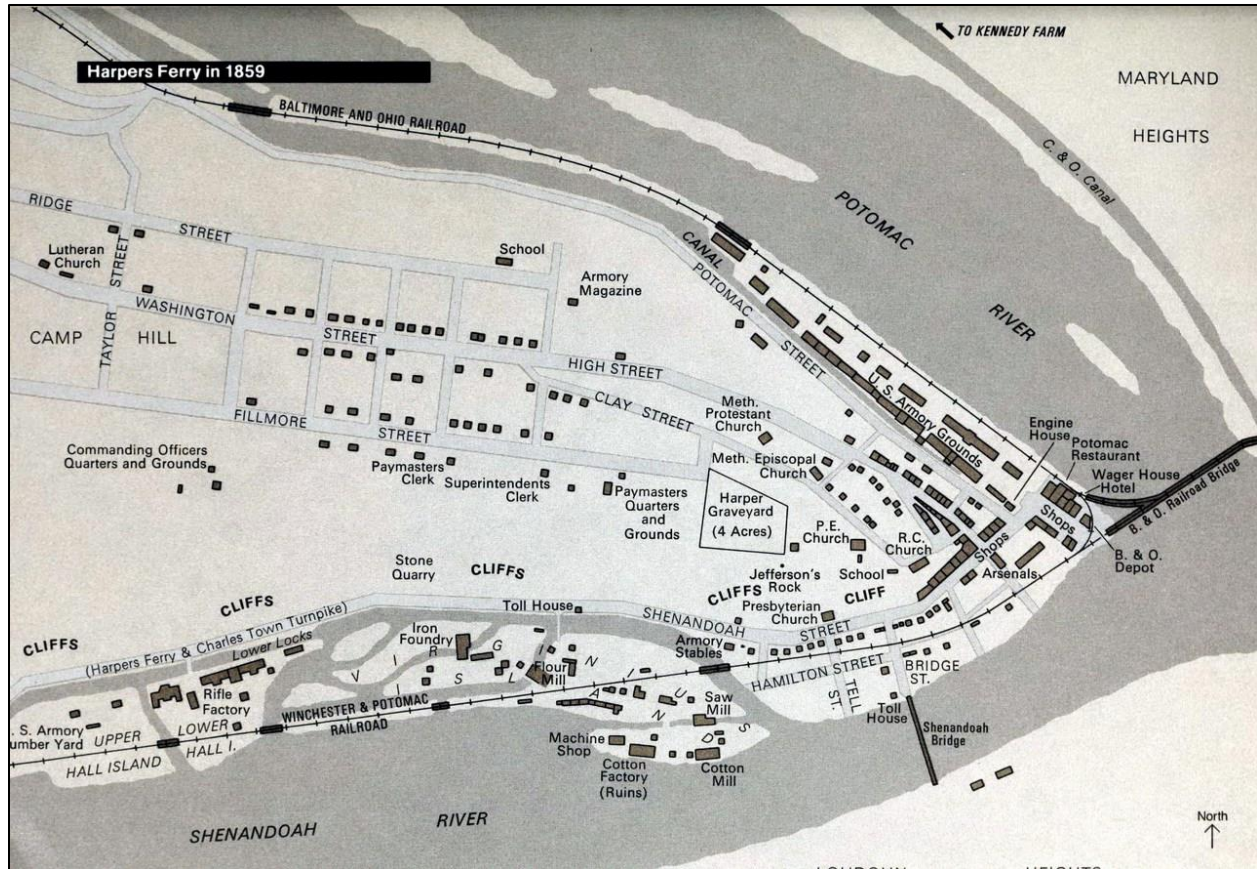


Figure 3. Map of Harpers Ferry in 1859. Courtesy Accessible Archives.





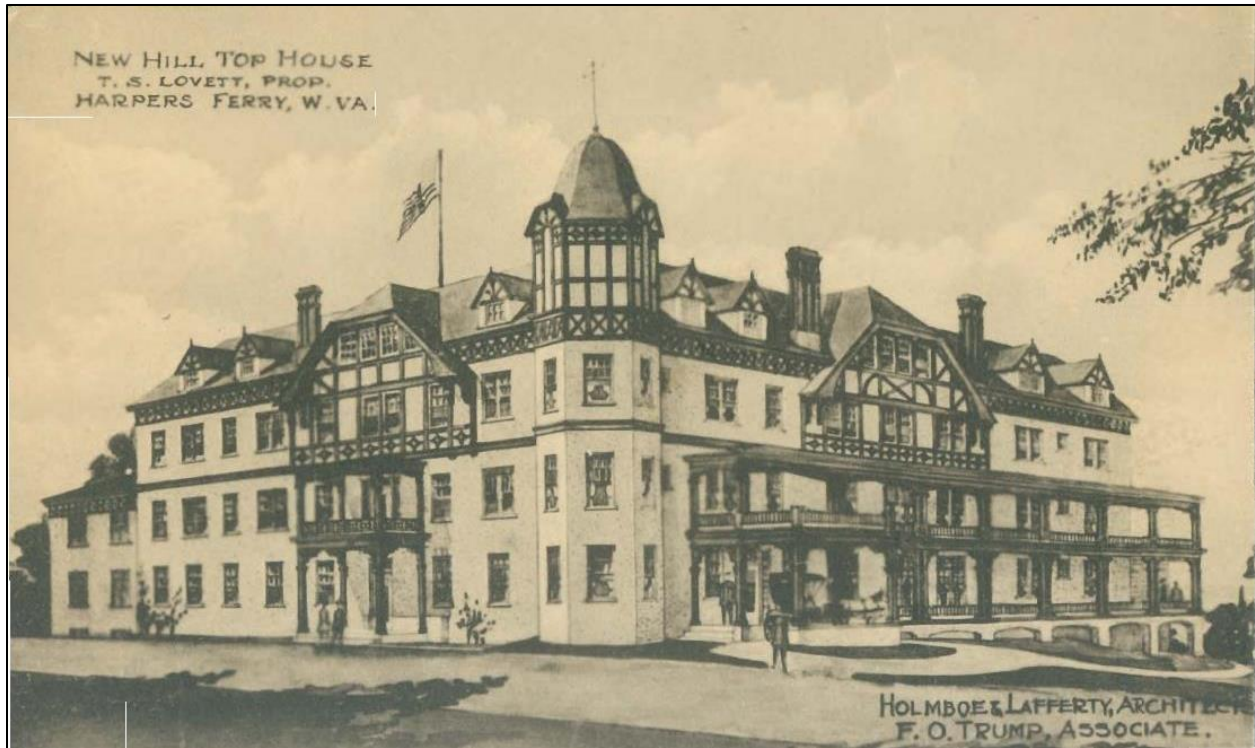


*Figure 5. Lower Town and Magazine Hill, Harpers Ferry, c. 1895. Courtesy National Park Service.*



*Figure 6. View of Magazine Hill, c. 1888-1898. Courtesy Dan Riss.*





*Figure 7. Concept drawing of design for reconstructed Hill Top Hotel after 1912 fire. Courtesy Dan Riss.*






*Figure 8. Postcard illustrating reconstructed Hill Top Hotel after 1912 fire.  
Courtesy Dan Riss.*

**Harpers Ferry, West Va.**

**Harpers Ferry, West Va.**



# Hill Top House

Located in the rugged mountains of West Virginia —overlooking the 'junction of the Potomac and Shenandoah Rivers.

**Beautiful Scenery.**  
**Every Modern Convenience.**

**Excellent Fishing.**  
**Table Famous.**

**The Ideal Place For Health, Rest, and Recreation**

**ROOMS WITH BATH,**  
**Rates, \$12 to \$18 Per Week.**

**Ask Someone Who Has Stopped Here**  
**Personal Management T. S. LOVETT, Prop.**

Figure 9. Newspaper advertisement for Hill Top House Hotel published in the June 18, 1916 edition of the Washington Times. Courtesy Library of Congress Chronicling America Project.



*Figure 10. Photograph of remains of hotel after 1919 fire. Courtesy Harpers Ferry Historic Landmarks Commission Collection, catalog #269.*



*Figure 11. Photograph of remains of hotel, east wall, after 1919 fire. Courtesy Harpers Ferry Historic Landmarks Commission Collection, catalog #270.*





*Figure 12. Photograph showing rebuilding of hotel after 1919 fire. Courtesy Dan Riss.*

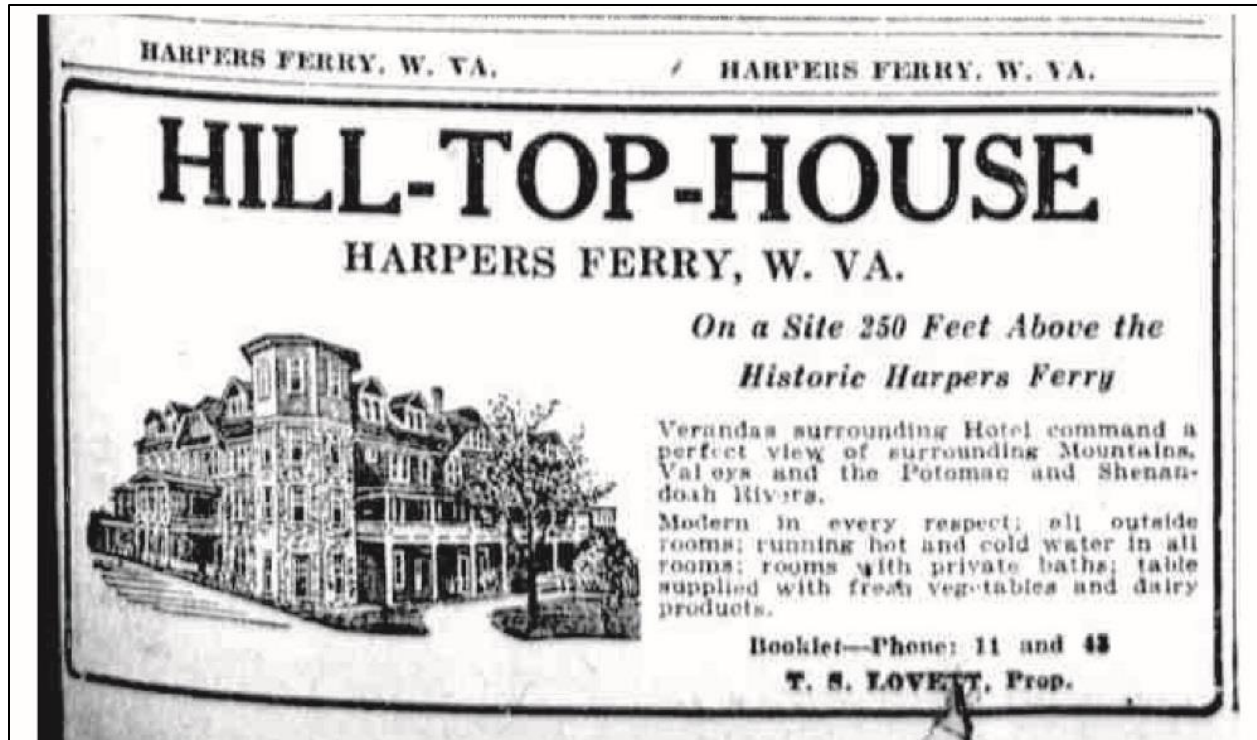


Figure 13. Newspaper advertisement for Hill Top House Hotel published in the July 13, 1921 edition of Philadelphia's Evening Public Ledger. Courtesy Library of Congress Chronicling America Project.



*Figure 14. Aerial photograph of Hill Top Hotel and Lodge building, c. 1960.  
Courtesy Dan Riss.*

### 3. RESOURCE ASSESSMENTS

A. Methodology

B. Design Criteria

C. Historic Preservation Issues and Opportunities

D. Resource Assessment: Armory Dwelling – Block E, Lot 1

- i. Historical Background
- ii. Building Description
- iii. Construction History
- iv. Condition Assessment – 2018 Update
- v. Recommended Rehabilitation Scope of Work – 2018 Update
- vi. Existing Conditions Floor Plans

E. Resource Assessment: Armory Dwelling – Block E, Lot 2

- i. Historical Background
- ii. Building Description
- iii. Construction History
- iv. Condition Assessment – 2018 Update
- v. Recommended Rehabilitation Scope of Work – 2018 Update
- vi. Existing Conditions Floor Plans

F. Resource Assessment: Armory Dwelling – Block E, Lot 3

- i. Historical Background
- ii. Building Description
- iii. Construction History
- iv. Condition Assessment – 2018 Update
- v. Recommended Rehabilitation Scope of Work – 2018 Update
- vi. Existing Conditions Floor Plans



G. Resource Assessment: Armory Dwelling – Lot E, Block 5

- i. Historical Background
- ii. Building Description
- iii. Construction History
- iv. Condition Assessment – 2018 Update
- v. Recommended Rehabilitation Scope of Work – 2018 Update
- vi. Existing Conditions Floor Plans

H. Resource Assessment: Barbershop – Block E, Lot 6

- i. Historical Background
- ii. Building Description
- iii. Construction History
- iv. Condition Assessment – 2018 Update
- v. Recommended Rehabilitation Scope of Work – 2018 Update
- vi. Existing Conditions Floor Plans

I. Resource Assessment: Armory Dwelling – Block F, Lot 1

- i. Historical Background
- ii. Building Description
- iii. Construction History
- iv. Condition Assessment – 2018 Update
- v. Recommended Rehabilitation Scope of Work – 2018 Update
- vi. Existing Conditions Floor Plans

J. Resource Assessment: Hill Top Hotel Building

- i. Summary Construction History
- ii. Building Description
- iii. Construction History
- iv. Condition Assessment – 2018 Update

## A. METHODOLOGY

The interior and the exterior of the Hill Top Hotel, Armory Dwellings, and Barbershop were intensively surveyed by The Mills Group in March of 2018. The general overview involved the visual condition assessment of each building's superstructure, exterior cladding/building envelope, exterior doors and windows, and interior spaces and finishes. The comprehensive methodology that Mills Group uses for this type of building assessment with issues of rehabilitation, restoration, preservation, and adaptive re-use can be summarized by the following dictum:

*Sensitive and accountable preservation and restoration work must be responsive to the category of historical significance of the building. Each building provides a unique set of requirements and conditions. So too, each solution is unique. Regardless of the building's significance, we apply the physician's dictum, "do no harm." This basic philosophy guides us through all phases of a project. Moreover, this philosophy instills respect for the fabric of the structure and encourages judicious use of the latest preservation techniques and remedies, guided by past experience and on-going research on preservation techniques both from academia and the preservation trades.*

This report represents the beginning of a larger preservation project process, the **ROADMAP**, which results in a building that is completely rehabilitated and sustainable. The **ROADMAP** process involves the following steps:

- **R**esearch the Building
- **O**bserve Existing Conditions
- **A**nalyze Issues and Opportunities
- **D**evelop Alternatives
- **M**ake Recommendations
- **A**ssemble Construction Documents
- **P**rovide Construction Administration Services

Beyond the technical aspects of the **ROADMAP** process, every historic building project must strive to be a continuum of education and maintenance.

## B. DESIGN CRITERIA

The following list of reference materials and publications represent the basis of design, and provide procedural and technical guidelines with respect to various aspects of this project's scope of work.

- IBC [International Building Code] 2015
- NFPA 101-2015 and WV State Fire Code Title 87
- Americans with Disabilities Act Architectural Guidelines (ADAAG)
  - (Assessment of code deficiencies and accessibility by the disabled is based upon the IBC 2006 and on the Americans with Disabilities Act Architectural Guidelines (ADAAG). It should be noted that the IBC and ADAAG contain both scope and technical provisions for accessibility. The building code requirements only apply when work (alterations, repairs or conversion) requiring a building permit is undertaken. ADA, however, is a Civil Rights Law and its provisions apply to all new and existing public accommodations. If renovation work is undertaken in order to comply with ADA, the work, itself, must also meet IBC requirements. Where scope or technical requirements in the IBC exceed those of ADA, this is noted in the report).
- The Secretary of the Interior's Standards for the Treatment of Historic Properties, 1992.
- Guidelines for Preserving, Rehabilitating, Restoring & Reconstructing Buildings, by Kay D. Weeks and Anne E. Grimmer, 1995.

### Overarching West Virginia State Historic Preservation Laws

Applicable preservation laws which provide the framework for all preservation, rehabilitation, and restoration work throughout the state include:

- **§29-1-8** – Historic Preservation Section of West Virginia Code creates the State Historic Preservation Office within the Division of Culture and History and grants to it a number of duties, including the ability to locate, survey, investigate, register, identify, preserve and protect historic, architectural, archaeological and cultural sites, structures and objects worthy of preservation. It also gives the section the ability to review all undertakings permitted, funded, licensed or otherwise assisted by the state in order to protect historic resources.
- **§20-7A-5** – Archaeology, Permits for Excavation requires a person to obtain a permit from the Director of Natural Resources in order to excavate or remove a historic or prehistoric ruin, burial ground, archaeological or paleontological site, including saltpeter workings, relics or inscriptions, fossilized footprints, bones or other such features.

- **§20-12-1** through §20-12-8 – Conservation and Preservation Easements authorize any governmental body or qualified charitable, tax-exempt organization to hold a conservation easement or a preservation easement. A conservation easement is a nonpossessory interest in real property for the purpose of retaining or protecting for public benefit the natural, scenic or open-space value of the property, including the preservation of its historical, architectural, archaeological or cultural aspects.
- **§29-1-8b** – Protection of Historic and Prehistoric Sites prohibits the disturbance or destruction, unless permitted by the State Historic Preservation Office, of historic and prehistoric landmarks, sites and districts on lands owned or leased by the state, or on private lands where development rights have been acquired by the state.



## C. HISTORIC PRESERVATION ISSUES AND OPPORTUNITIES

### Overview

The Hill Top Hotel site has several tangible architectural components that convey the historic character of the original complex. The hotel building, armory dwellings, and barbershop building all possess features that have the potential to convey a historical perspective on social and cultural trends of the past. Several interior and exterior changes have somewhat affected the historic character of each building since its initial construction; however, each resource also retains several character-defining features that should be retained in future development activities.

The Harpers Ferry Historic District was listed in the National Register of Historic Places (NRHP) on October 15, 1979. The hotel building, armory dwellings, and barbershop are all considered contributing elements to the historic district. As contributing elements to the Historic District, and as a measure to ensure continued listing in the NRHP, pursuant work on these building will be reviewed and coordinated with the West Virginia SHPO. Because the hotel lodge building is considered a non-contributing resource to the historic district due to compromised integrity, it is excluded from this discussion and subsequent resource assessments.

The major component of any rehabilitation project begins with the identification of materials and features that are important in defining the building's historic character. This identification process begins with research into historic documents, photographs, and maps (see Chapter 2, Historic Background). The second step is the protection and maintenance of the existing fabric of the building so that the preservation goals of the project can be fully realized. Only after these initial steps have been completed can the repair or in-kind replacement of severely damaged or deteriorated historic materials and features be considered.

The character-defining features of each contributing resource within the hotel site are detailed in the following sections. For more information on each resource, see Chapter 2 part B: Significance and Integrity of Resources.

### **Hill Top Hotel Building**

Originally completed in 1888, the Hill Top Hotel building has been damaged by fire and reconstructed twice, both in 1912 and in 1919. The structure which replaced the original hotel building featured stone exterior masonry walls, open porches on the east and south sides, dormers, and a turret at the southeast corner. Today, not all of these features are extant due to modifications over time and deterioration. The character-defining features of the hotel building are as follows:

- Exterior stone masonry walls
- Low massing and L-shaped footprint
- Single-hung, divided-light windows with stone lintels
- Corner turret
- Low gabled roof with dormers
- Open porches
- Masonry chimneys

### **Armory Dwelling – Block E, Lot 1 – 400 Washington Street**

Constructed between 1827 and 1837, the dwelling located on Lot 1 of Block E was constructed by the government for use as armory worker housing. Since its initial construction, features including a porch extension to the east, new window openings, and decorative architectural details have been added to the building. The character-defining features of this armory dwelling are as follows:

- Exterior brick masonry walls with scored stucco sheathing
- Two-story massing and winged footprint
- Covered porch with decorative frieze
- Single-hung, divided-light windows
- Cogged brick detail at eaves
- Gable roof
- Masonry chimneys
- Decorative eave brackets

### **Armory Dwelling – Block E, Lot 2 – 420 Washington Street**

Constructed between 1827 and 1837, the dwelling located on Lot 2 of Block E was constructed by the government for use as armory worker housing. This building has been subject to very little alteration since its initial construction. The character-defining features of this armory dwelling are as follows:

- Exterior brick masonry walls
- Two-story massing and winged footprint
- Covered porch
- Single-hung, divided-light windows
- Cogged brick detail at eaves
- Gable roof
- Masonry chimneys

### **Armory Dwelling – Block E, Lot 3 – 450 Washington Street**

Constructed between 1827 and 1837, the dwelling located on Lot 3 of Block E was constructed by the government for use as armory worker housing. Since its initial construction, this building has undergone reconstruction of its roof, the conversion of first-floor window openings into door openings, and the creation of new window openings. Additionally, many windows have been replaced with single-hung wood windows without divided lights. The character-defining features of this armory dwelling are as follows:

- Exterior brick masonry walls
- Two-story massing and winged footprint
- Covered porch
- Single-hung, 6-over-6-light windows
- Cogged brick detail at rear eave
- Modified shed roof with decorative eave brackets
- Masonry chimneys

### **Armory Dwelling – Block E, Lot 5 – 470 Washington Street**

Constructed before 1837, the dwelling located on Lot 5 of Block E served as armory worker housing. Since its initial construction as a two-room log building, the structure has undergone considerable alterations, many of which have gained historical significance in their own right. The character-defining features of this armory dwelling are as follows:

- Exterior log, frame, and stone walls
- Wood clapboard and shingle sheathing
- Two-story massing
- Covered porch with decorative posts, brackets, and balustrade
- Single-hung windows
- Gable roof with central dormer
- Masonry chimneys

### **Barbershop – Block E, Lot 6 – 490 Washington Street**

Constructed between 1859 and 1868, the building located on Lot 6 of Block E served as a residence before being converted for commercial use, and once housed a barbershop. Since its initial construction as a two-room log building, the structure has undergone considerable alterations, many of which have gained historical significance in their own right. The character-defining features of this building are as follows:

- Exterior brick masonry walls
- Side hall entrance
- Storefront windows with recessed entry door
- Single-hung, divided-light windows
- Cogged brick detail at eaves
- Side-gable roof
- Paired masonry chimneys



### **Armory Dwelling – Block F, Lot 1 – 500 Washington Street**

Constructed between 1837 and 1838, the dwelling located on Lot 1 of Block F once served as the home of armory superintendent Henry W. Clowe. Since its initial construction, the rear wing of the home, originally a sleeping porch, has been enclosed. It is also possible that the second-story turret was a later addition to the building, and windows throughout appear to have been replaced. Additionally, the stone masonry steps that lead to the front porch were constructed c. 1930, around which time the porch piers may have been reconstructed. The character-defining features of this armory dwelling are as follows:

- Exterior masonry walls
- Metal sheathing on exterior walls of rear wing
- Decorative wood shingle details
- Covered porch
- Single-hung windows with shutters
- Gable roof with central dormer and decorative eave detail
- Masonry chimneys

## D. ARMORY DWELLING - BLOCK E, LOT 1 400 WASHINGTON STREET

The following Historical Background, Building Description, and Construction History are reprinted from the 2008 Oehrlein & Associates Report.

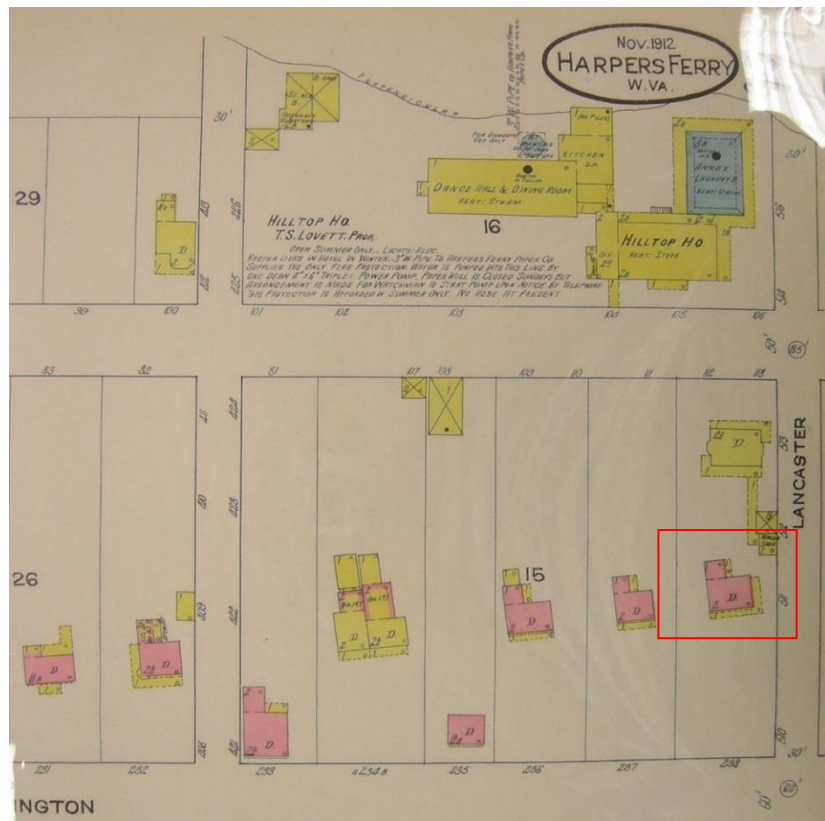
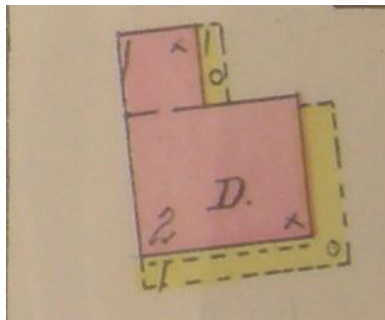
### HISTORICAL BACKGROUND

This building was probably built between 1831 and 1832 by the U.S. Government to house workers at the Harpers Ferry Armory. It is likely that it was constructed as part of a larger contract for 22 houses by John Markell in 1831-32. According to research, the houses built under this particular contract were described as:

2-stories high, with a cellar, and 37 by 20 feet in size. The cellar was 8 feet deep, had stone walls 22 inches thick, and held the kitchen, pantry, and 'cellar'. The second story, also brick, had three bedrooms. The first story, brick, was 9 feet high and had a central hall and two rooms. The second or half story, also brick, had three bedrooms. The front and rear brick walls were 14 inches thick and the gable end walls were 9 inches thick. The gable roof was covered with wood shingles.<sup>1</sup>

### Sanborn Map 1912:

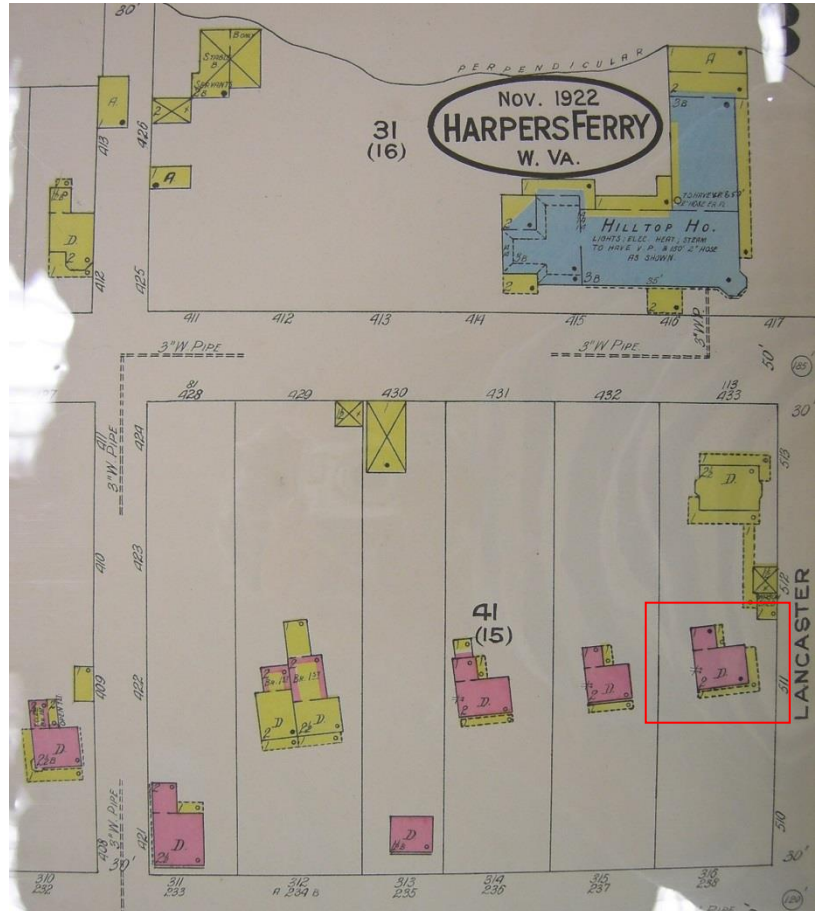
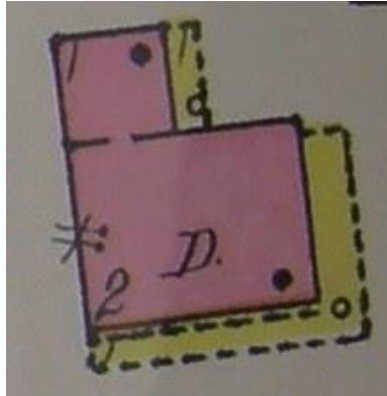
The map shows a two-story brick (pink) dwelling with smaller, one-story brick wing to the north. Both brick sections have a shingle roof. A one-story porch (yellow) wraps the east and south sides of the main house block. A similar frame porch also appears at the rear wing of the building.



<sup>1</sup> Snell, A History of Armory Dwelling Houses, Volume II, 111; Snell, The Town of Harpers Ferry in 1859: A Physical History Documentation for the 1859 Historical Base Map, 49.

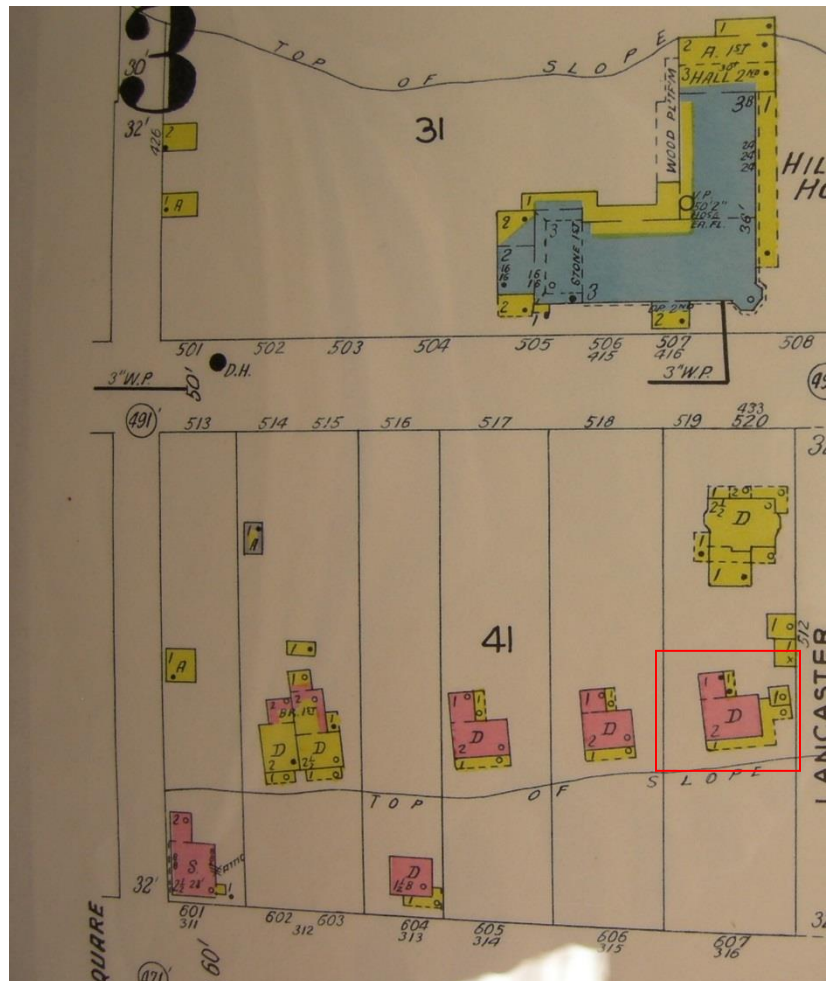
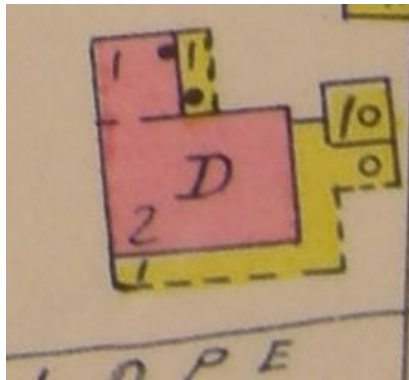
### Sanborn Map 1922:

The configuration of the dwelling is similar to the 1912 survey. This map shows that the shingle roof on the brick structure has been replaced with a composition roof. The map also indicates windows on the first and second stories of the two-story portion of the building.



### Sanborn Map 1933:

Between 1922 and 1933, a one-story frame addition was added to the east side of the building. The map indicates that the addition has a similar roof to that of the existing one-story frame porch.





## BUILDING DESCRIPTION

This building is a brick masonry residence built on fieldstone foundation walls. The brick masonry of this house is covered with stucco ranging from ½"-3/4" thick. The stucco is scored to look like stone. The main portion of the building is rectangular, approximately 28 feet wide and 22 feet deep, with two finished floor levels above an unfinished cellar. There is a one story wing with a cellar on the rear (north) side of the building that measures approximately 12 feet wide and 16 feet deep. This wing is also of brick masonry wall construction on fieldstone foundation walls. The cellars between the main building and wing are not interconnected, and have differing floor elevations and floor-to-ceiling heights. The first floor of the main building has a single-story wrap-around porch on the south and east sides. The porch is wood frame construction on brick masonry piers. Both portions of the building have side gable roofs covered in asphalt shingles. The porch has a hip roof covered with standing-seam metal. There are masonry fireplaces and chimneys on the east and west ends of the main portion of the building, as well as the north end of the single-story wing. An abandoned cistern is located to the east of the building.

The site is steeply sloped site. As a result, the first floor level of the rear wing is twenty inches higher than the first floor level of the main portion of the building. The front elevation faces south, towards Washington Street. At present, the site is overgrown with vegetation.

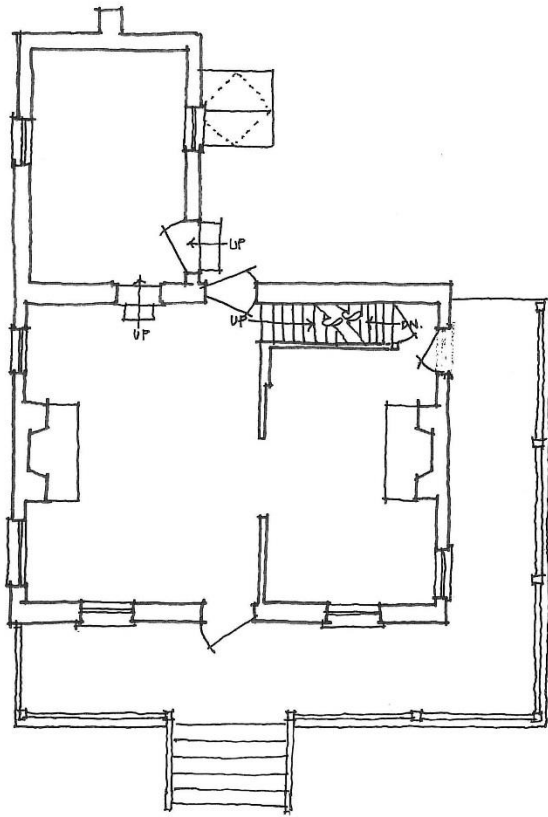
There is a furnace in the cellar with ductwork leading to floor grilles at the first floor level. Transfer grilles between the first and second floors allow air to be transmitted to the upstairs rooms. There is no supply of heated air to the rear wing.



South elevation of residence, Block E, Lot 1 (Oehrlein & Associates, 2008).



East elevation of the building showing one-story rear wing. Note the two entrance doors to the main portion of the building (left) and the rear wing (right) (Oehrlein & Associates, 2008).



Existing first floor plan sketch (Oehrlein & Associates, 2008).



View in attic above rear wing. Note the evidence of a former chimney on the far wall (Oehrlein & Associates, 2008).

## CONSTRUCTION HISTORY

Based upon survey of the building to date, the following modifications are not original. It is not apparent when these changes were made. With the exception of these modifications, the remainder of the building is original construction.

The exterior chimney on the north elevation of the rear wing is an addition after the original construction. When looking into the attic of the rear wing, the interior face of the north masonry wall shows signs that a brick bump-out has been removed from this wall. There is a vertical band of soot-covered brick indicating that there was once a chimney at this location. When looking closely at the current chimney on the exterior side of this north wall, there is a distinct joint between the chimney and the wall indicating that the chimney was added later. Also, there is no stucco on the portion of the north wall concealed by the chimney. This indicates that the stucco was a later modification to the building, as was the chimney.

As noted above, the stucco on the exterior of the building is not original construction. Where visible, the brick masonry under the stucco is in good condition and has not been painted. The buildings on Block E, Lots 2 and 3 are very similar in plan to this structure, but those buildings do not have the stucco exterior finish.

The exterior porch is constructed of wood elements of a newer vintage than the rest of the house. The masonry piers, and the Sanborn maps, indicate that there was originally a porch on the south and east sides of the house. At the cellar level, there is a pile of stored wood balusters. These may have been from the original railing around the perimeter of the porch. These items should be saved for use in rehabilitation of the building.

The exterior door on the east elevation (adjacent to the interior stair to the basement) is not original. The wood frame and door details do not match the other three exterior doors. When the modification was made, a wood lintel and masonry arch were installed over the opening. The style of the masonry arch differs from those used in other (original) masonry openings. The masonry arch above this door opening has failed due to poor construction techniques, causing cracking in the masonry wall above. Based on



evidence seen in structures on Block E, Lots 2 and 3, the existing door opening was very likely a window opening.

The stairway from the first floor to the cellar was a later addition to the building. There are open joist pockets in the north masonry wall of the building where the floor joists once framed into the wall before the stair modification was made. Also, the framing around the stair opening is of a more recent vintage than the original floor framing. At the first floor, there is a change in flooring material that also suggests modifications were made at the location of this stair.

The masonry opening between the main house and rear wing is likely not original construction. It is possible that the rear wing was a kitchen, and therefore not directly connected to the main house. Both the main house and the wing have exterior entrance doors. There is a twenty inch drop in floor elevation from the rear wing to the main building, further suggesting they were not originally interconnected.

In the second floor bedrooms, closets and storage have been built adjacent to both fireplaces. Inside these storage areas, there is very old wallpaper on plaster, whereas other walls have been covered with gypsum board.

Throughout much of the interior of the house, gypsum board has been installed over the original plaster wall and ceiling surfaces. In many, but not all, of these instances, new wood base molding was added.



Porch construction details looking west (Oehrlein & Associates, 2008).



Existing first floor door at north end of east elevation of main building (Oehrlein & Associates, 2008).



3D Point Cloud scanning of house (Mills Group 2018).



Localized loss of mortar at foundation walls (Mills Group 2018).



Missing floor framing in rear wing (Mills Group 2018).

The following Condition Assessment and Recommendations are representative of the 2018 scope of study.

### **CONDITION ASSESSMENT – 2018 UPDATE**

As of 2018, the house is in generally fair condition and has had some repair and interior demolition work completed. For the purposes of this report, the period of significance for the property is defined as c. 1831 – c. 1880.

#### **Structural**

- **Foundation:** There has been a failure of the foundation wall in the cellar under the main house at the northwest corner and of the north retaining wall under the porch. The failures are due to the deterioration of the mortar. Since the north wall is buried in the hill, the wall has remained relatively moist causing a more rapid deterioration of the mortar. Without regular repointing, the wall ultimately failed. A localized loss of mortar at the foundation walls was observed in 2018.
- **Main Floor Framing:** The beam bears on the stone wall and is supported at the interior on 3 temporary steel columns. Currently, these steel columns are still in place, providing additional support to the first floor framing. Additionally, moisture intrusion has caused deterioration of the first floor bearing members at the foundation walls.
- **Rear Wing Floor Framing:** The first floor framing in the rear wing is completely absent.
- **Exterior Porch Framing:** The exterior porch is framed with wood members that are partially deteriorated.
- **Main Roof Construction:** The roof construction in the main portion of the building consists of a new standing seam metal roof over wood sheathing over roof rafters. As of 2018, modern wood members have been sistered to the rafters on the north side of the roof, and several portions of wood decking have been



replaced. The roof framing system has no ridge beam or collar ties. Second floor ceiling joists, some of which have been recently replaced, act as tension ties to restrain the rafters from spreading.

- **Rear Wing Roof Construction:** Roof construction in the rear wing is new standing seam metal over new wood decking over new roof rafters fastened to new ceiling joists. Eaves are finished with a new fascia board.
- **Rear Wing Ceiling Assembly:** There is currently no existing ceiling assembly in the rear wing.
- **Wall Construction:** Some settlement has occurred in the north wall of the main portion of the house adjacent to the stair from the first to second floors. Some of the settlement may be attributed to the failed foundation wall. There is water damage in this wall, and the stair assembly has deflected concurrently with the wall movement. A new jack arch and supporting masonry has been recently installed to support the exterior door opening on this wall. In an effort to further address the water infiltration issue, the new roof structure over the rear wing was installed with a cut-out allowing for the clearance of the second-floor window that was previously partially covered by the rear wing roof framing. When the basement stair was installed, a significantly undersized header was utilized to support the cut first floor joists. Currently, a few shoring elements have been placed under the header; however, they are inadequate and significant deflection of the structural members framing out the stair opening has occurred. Consequently, all elements supported by these members have also deflected. This has caused diagonal cracks to form in the second floor wall adjacent to the stairs and the half-height stair partition to pull away from the exterior wall on the second floor.
- **Interior Wall Construction:** All plaster and lath has been removed from interior frame walls, leaving only the timber studs.



View of north-facing replaced roof decking, sistered rafters, and replaced ceiling joists (Mills Group 2018).



View of replaced roof framing and decking in rear wing (Mills Group 2018).



Reconstructed jack arch and adjacent masonry over exterior door opening on north wall (Mills Group 2018).



Reconstructed roof form with window cut-out (Mills Group 2018).



Wood stair assembly from first floor to second floor level (Mills Group 2018).

Several studs are missing, while others are deflected and out of alignment.

- **Stair Assembly:** The current stair assembly from the first to second level is comprised of wood treads and carriage with an average rise of 9 ¾" and average run of 10 ½". These dimensions are out of compliance with current building code and safety standards.

### **Exterior**

- **Wall Sheathing:** Stucco over the stone foundation walls at the cellar level is failing, needs to be removed and possibly replaced. Stucco over the brick masonry at the first and second floor levels is well adhered in some locations, but failing or missing in other locations. The west wall has only ±30% of its stucco remaining. Similarly, the north wall of the main building, as well as that of the rear wing, has very little stucco remaining.
- **Exterior Wall Construction:** Cracking is evident in the second floor north window on the east elevation. Observation of other adjacent buildings revealed wood interior lintels behind a masonry arch at the exterior.
- **Porch:** The porch shows signs of settlement and the porch structure, including the masonry piers, will have to be rebuilt.
- **Shutters:** No window shutters remain on the building. If the original shutters can be located, these should be used as a pattern for the creation of new wood shutters.
- **Cellar Doors:** The wooden access doors to the cellar under the rear wing are missing and should be replaced
- **Windows:** The wood window frames throughout the building have deteriorated due to the presence of vegetation and moisture.

### **Interior**

- **Ceiling:** There are no extant ceilings at the first or second floor levels of the main building or rear wing.



- Floors: Most interior floorboards are in good condition, and the painted finish has been removed. Some floorboards are cupped. Where alterations have taken place, the original floorboards are missing.



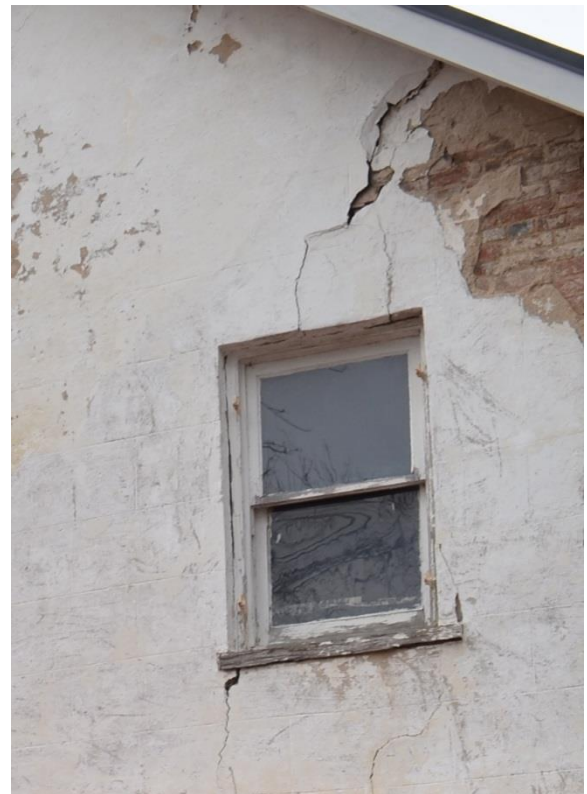
Existing knee wall at north wall of second floor (Mills Group 2018).



Historic window casing at north window on east wall, second floor (Mills Group 2018).



View of south elevation illustrating settlement of masonry porch piers and deterioration of porch framing (Mills Group 2018).



Cracking observed above second floor north window on east elevation (Mills Group 2018).



Retaining wall adjacent to rear wing; selectively rebuild with salvaged stone and mortar to match existing (Mills Group 2018).



Existing interior door trim; clean, repair, prime and paint all elements scheduled to remain (Mills Group 2018).

## RECOMMENDED REHABILITATION SCOPE OF WORK – 2018 UPDATE

### Stone Masonry Foundation Walls:

- Excavate full perimeter down to footers. Parge stone foundations above grade and add waterproof membrane to parging. Stabilize and repair foundation walls locally. Add perimeter drainage system tied to stormwater infrastructure.

### Brick Masonry Porch Piers:

- Stabilize and repoint porch piers per NPS Preservation Briefs 1, 2, and 47.

### Stone Masonry Retaining Wall:

- Reconstruct with existing stone and mortar to match existing. Proposed infrastructure may necessitate modification of this wall.

### Floor Framing:

- Main Building, Level 1: Selectively structurally reinforce first-level joists. Install new header at opening to basement.
- Rear Wing: Reconstruct wood floor framing and subfloor.
- Porch Floor Framing: Reconstruct to match existing.

### Roof Framing:

- Rear Wing: Install new soffit on east-facing eave.
- Porch Roof Framing: Stabilize or reconstruct porch roof framing. Install new wood ceiling to match historic precedent.

### Exterior Walls:

- Brick Masonry Exterior Walls: Surface cleaning, minor repointing, and repainting per NPS Preservation Briefs 1, 2, and 47. Restore stucco per NPS Preservation Brief 22.
- Porch Railing: Remove and replace with wood railing to match historic precedent.
- Wood Frame Panels Between Porch Piers: Install new wood lattice panels to match historic precedent.



#### Exterior Windows:

- *Wood Double Hung Windows: Remove existing and replace with new custom wood double-hung divided-light windows. Add new storm windows.*
- *Wood Casement Window, south side west elevation: Remove and infill with brick masonry to match existing to return to historic appearance.*
- *Missing windows, south side-east elevation and north side-west elevation: Fabricate new custom double-hung divided-light wood windows. Add new storm windows.*

#### Exterior Doors:

- *South 5-Panel Wood Door with Upper Panel Lights and Transom: Remove glazing and install new wood panels to match existing. Clean and paint per NPS Preservation Brief 47. Clean and oil hardware, and add new storm door.*
- *Missing East Basement Access Door: Fabricate new custom wood door and hardware to match historic profiles. Add new storm door.*
- *East Level 1 Wood Panel Door: Fabricate new custom wood door and hardware to match historic profiles. Add new storm door.*
- *Missing North Level 1 Door: Clean and paint per NPS Preservation Brief 47. Clean and oil hardware, and add new storm door.*
- *East 6-Panel Wood Door to Rear Wing: Clean and paint per NPS Preservation Brief 47. Clean and oil hardware, and add new storm door.*
- *Missing East Bulkhead Door to Cellar: Fabricate new custom wood bulkhead door and hardware.*

#### Roofing:

- *Main Roof: Install new gutters and downspouts. Install new snow guards in eagle style.*



View of new sheet metal roofing and flashing (Mills Group 2018).



View of interior stud walls with plaster and lath removed; install new interior gypsum board wall finishes and ceilings (Mills Group 2018).



View of reconstructed chimneys at rear wing and main building (Mills Group 2018).



View of deteriorated stucco on west elevation (Mills Group 2018).



View of missing wood sheathing between masonry porch piers (Mills Group 2018).



Historic wood baseboard trim to be replicated throughout (Mills Group 2018).

- *Roof Covering, Porch Roof:* Install new standing-seam metal roofing; install gutters and downspouts.

#### *Interior Partitions:*

- *Configuration* to be determined by architect. Stabilize all frame walls to remain.

#### *Interior Doors:*

- *Replace missing doors* with new custom wood doors to match historic profiles. Install new hardware and hinges to match historic precedent.
- *Paint existing doors;* clean and oil existing hardware per NPS Preservation Brief 18.

#### *Interior Fittings:*

- *Millwork:* Configuration to be determined by architect. Replace any missing elements with new to match historic profiles.
- *Fireplace and Mantle, First Level West Side:* Clean and paint mantle, and adapt fireplace with gas-burning logs.
- *Fireplace, First Level East Side:* Repair hole in masonry. Complete minor repointing of masonry. Adapt with gas-burning logs, and fabricate new custom wood mantle to match existing.
- *Fireplace and Mantle, Second Level West Side:* Configuration to be determined by architect.
- *Fireplace and Mantle, Second Level East Side:* Clean and paint mantle, and adapt fireplace with gas-burning logs.

#### *Stair Construction:*

- *Interior Stairs from Basement to Level 1:* Architect to review code compliance. Secure first-level access door to cellar.
- *Interior Stairs from Level 1 to Level 2:* Architect to review code compliance.

#### *Stair Finishes:*

- *Interior Stairs from Basement to Level 1:* Refinish natural wood.



- *Interior Stairs from Level 1 to Level 2: Refinish natural wood.*

*Interior Wall Finishes:*

- *Plaster Wall Finishes: Replace missing plaster. Clean and paint existing plaster, and repair any cracking per NPS Preservation Brief 21.*

*Interior Floor Finishes:*

- *Level 1 and Level 2 Wood Flooring: Replace missing boards. Strip and refinish existing flooring and apply additional clear protective finish per NPS Preservation Brief 18.*
- *Basement Flooring: Install new concrete subfloor at basement level.*

*Interior Ceiling Finishes:*

- *Interior Missing Plaster Ceiling Finishes: Install new plaster or gypsum ceiling finishes per NPS Preservation Brief 18.*



View of missing mantle at east fireplace on first floor; replicate west fireplace mantle for installation (Mills Group 2018).



Existing mantle at west fireplace of first floor to be replicated (Mills Group 2018).

## HISTORIC RESOURCE PLAN RECOMMENDATIONS

Structure	Armory House 1	Address	400 Washington Street
-----------	----------------	---------	-----------------------

UNIFORMAT Building Element Classification		Summary of Existing Conditions	Recommendations	Under HLC Purview (Yes or No)	Justification (If not "Like Kind")	
SUBSTRUCTURE	A1010 Standard Foundations	Stone masonry foundation walls: Deterioration of mortar, particularly at northwest corner; deterioration of parging	Excavate full perimeter down to footers. Parge stone foundations above grade and add waterproof membrane to parging. Stabilize and repair foundation walls locally. Add perimeter drainage system tied to stormwater infrastructure.	Yes	Like kind	
	A1020 Special Foundations	1. Brick Masonry Porch Piers: Signs of settlement and mortar deterioration	Stabilize and repoint porch piers per NPS Preservation Briefs 1, 2, and 47	Yes	Like kind	
		2. Stone Masonry Retaining Wall: West side collapsed	Reconstruct with existing stone and new mortar to match existing. Proposed infrastructure may necessitate modification of this wall.	Yes	Like kind	



## HISTORIC RESOURCE PLAN RECOMMENDATIONS

Structure

Armory House 1

Address

400 Washington Street

UNIFORMAT Building Element Classification		Summary of Existing Conditions	Recommendations	Under HLC Purview	Justification	
SHELL	B1010 Floor Construction	1. Wood Floor Framing, Level 1 Main Building: Some water/insect damage and deterioration at north wall; undersized header at opening to basement	Selective structural reinforcement of first-level joists; install new header at opening to basement	No		
		2. Floor Framing, Rear Wing: Missing	Reconstruct wood floor framing and subfloor	No		
		3. Wood Floor Framing, Level 2 Main Building: Some sistered joists; servicable condition	No action	No		
		4. Porch Floor Framing: Deteriorated joists; signs of settlement in porch piers	Reconstruct porch floor framing	No		
	B1020 Roof Construction	1. Main Roof Framing: Recently rehabilitated; Servicable condition	No action	Yes		
		2. Rear Wing Roof Framing: Recently rehabilitated; servicable condition; east soffit missing	Install new soffit on east-facing eave	Yes		
		3. Porch Roof Framing: Some deteriorated members; signs of deflection resulting from porch pier settlement; ceiling missing	Stabilize or reconstruct porch roof framing; install new wood ceiling to match historic precedent	Yes		Like kind
	B2010 Exterior Walls	1. Brick Masonry Exterior Walls: Some moisture evident along base of north wall; cracking in north wall resulting from foundation failure; scored stucco deteriorated	Surface cleaning, minor repointing, and repainting per NPS Preservation Briefs 1, 2, and 47; restore stucco per NPS Preservation Brief 22	Yes		Like kind
		2. Wood Porch Railing: Non-original feature; some deterioration	Remove and replace with wood railing to match historic precedent	Yes		Match period of significance
		3. Wood Frame Panels Between Porch Piers: Largely deteriorated and missing	Install new wood lattice panels to match historic precedent	Yes		Match period of significance

## HISTORIC RESOURCE PLAN RECOMMENDATIONS

Structure

**Armory House 1**

Address

**400 Washington Street**

UNIFORMAT Building Element Classification		Summary of Existing Conditions	Recommendations	Under HLC Purview	Justification	
SHELL	B2020 Exterior Windows	Wood Double-Hung Windows: Deteriorated frames, sashes, and sills	Remove existing and replace with new custom wood double-hung divided-light windows; add new storm windows	Yes	Like kind	
		Wood Casement Window, south side west elevation: Non-original feature	Remove and infill with brick masonry to match existing to return to historic appearance	Yes	Match period of significance	
		Windows, south side-east elevation and north side-west elevation: Missing	Fabricate new custom double-hung divided-light wood windows; add new storm windows	Yes	Like kind	
	B2030 Exterior Doors	1. South 5-Panel Wood Door with Upper Panel Lights and Transom: Servicable condition	Remove glazing and install new wood panels to match existing; clean and paint per NPS Preservation Brief 47; clean and oil hardware; add new storm door	Yes	Like kind	
		2. East Basement Access Door: Missing	Fabricate new custom wood door and hardware to match historic profiles; add new storm door	Yes	Like kind	
		3. East Level 1 Wood Panel Door: Stiles deteriorated; panels missing	Fabricate new custom wood door and hardware to match historic profiles; add new storm door	Yes	Like kind	
		4. North Level 1 Door: Missing	Fabricate new custom wood door and hardware to match historic profiles; add new storm door	Yes	Like kind	
		5. East 6-Panel Wood Door to Rear Wing: Servicable condition	Clean and paint per NPS Preservation Brief 47; clean and oil hardware; add new storm door	Yes	Like kind	
		6. East Bulkhead Door to Cellar: Missing	Fabricate new custom wood bulkhead door and hardware.	Yes	Like kind	
	B3010 Roof Coverings	1. Standing Seam Metal Roof Covering, Main Roof: Recently replaced; servicable condition	Install new gutters, downspouts, and snow guards in eagle style	Yes	Like kind	
		2. Standing Seam Metal Roof Covering, Porch Roof: Requires replacement	Install new standing-seam metal roofing; install gutters and downspouts	Yes	Like kind	
	B3020 Roof Openings	Brick Masonry Chimneys: Recently rebuilt; servicable condition	No action	Yes		

## HISTORIC RESOURCE PLAN RECOMMENDATIONS

Structure

Armory House 1

Address

400 Washington Street

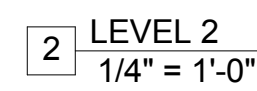
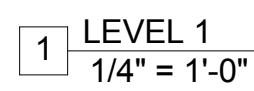
UNIFORMAT Building Element Classification		Summary of Existing Conditions	Recommendations	Under HLC Purview	Justification	
INTERIORS	C1010 Partitions	Interior Frame Walls: Plaster and lath removed; deflection evident	Configuration to be determined by architect; stabilize all frame walls scheduled to remain	No		
	C1020 Interior Doors	Interior Wood Paneled Doors: Many missing; remaining in servicable condition	Replace missing doors with new custom wood doors to match historic profiles; install new hardware and hinges to match historic precedent. paint existing doors; clean and oil existing hardware per NPS Preservation Brief 18	No		
	C1030 Fittings	1. Interior Wood Millwork: Baseboards mostly deteriorated/missing; remaining millwork in servicable condition	Configuration to be determined by architect; replace any missing elements with new to match historic profiles	No		
		2. Interior Fireplace and Mantle, First Level West Side: servicable condition	Clean and paint mantle; adapt with gas-burning logs	No		
		3. Interior Fireplace, First Level East Side: Mantle removed; hole in masonry; servicable condition	Repair hole in masonry; minor repointing; adapt with gas-burning logs; fabricate new custom wood mantle to match existing	No		
		4. Interior Fireplace and Mantle, Second Level West Side: Currently enclosed	Configuration to be determined by architect	No		
		5. Interior Fireplace and Mantle, Second Level East Side: Servicable condition; deterioration of masonry hearth mortar	Clean and paint mantle; adapt with gas-burning logs	No		
	C2010 Stair Construction	1. Interior Wood Stairs from Basement to Level 1: Severe deflection and settlement	Architect to review code compliance; secure first-level access door to cellar.	No		
		2. Interior Wood Stairs from Level 1 to Level 2: Servicable condition	Architect to review code compliance	No		
	C2020 Stair Finishes	1. Interior Wood Stairs from Basement to Level 1: Servicable condition	Refinish natural wood finish if access to remain	No		
		2. Interior Wood Stairs from Level 1 to Level 2: Servicable condition	Refinish natural wood finish	No		

## HISTORIC RESOURCE PLAN RECOMMENDATIONS

Structure	Armory House 1	Address	400 Washington Street
-----------	----------------	---------	-----------------------

UNIFORMAT Building Element Classification		Summary of Existing Conditions	Recommendations	Under HLC Purview	Justification	
INTERIORS	C3010 Wall Finishes	Interior Plaster Wall Finishes: Some deterioration due to water damage along north wall; missing plaster in reconstructed areas of rear wing; all other walls servicable condition	Replace missing plaster; clean and paint existing plaster, repair any cracking per NPS Preservation Brief 21	No		
	C3020 Floor Finishes	1. Interior Wood Floor Finishes, Level 1 and Level 2: Some missing floorboards; remaining in servicable condition	Replace missing boards; strip and refinish existing flooring; apply additional clear protective finish per NPS Preservation Brief 18.	No		
		2. Interior Basement Floor Finishes: Not extant	Install new concrete floor surface at basement level	No		
	C3030 Ceiling Finishes	Interior Plaster Ceiling Finishes: Missing	Install new plaster or gypsum ceiling finishes per NPS Preservation Brief 18	No		





Revision Schedule		
No.	Revision Description	Date

INTENDED DRAWING USE:	
EXISTING CONDITIONS	
Project number	17106
Date	04/26/18
Drawn by	PLM
Checked by	MJM

# A101

Scale	1/4" = 1'-0"
-------	--------------

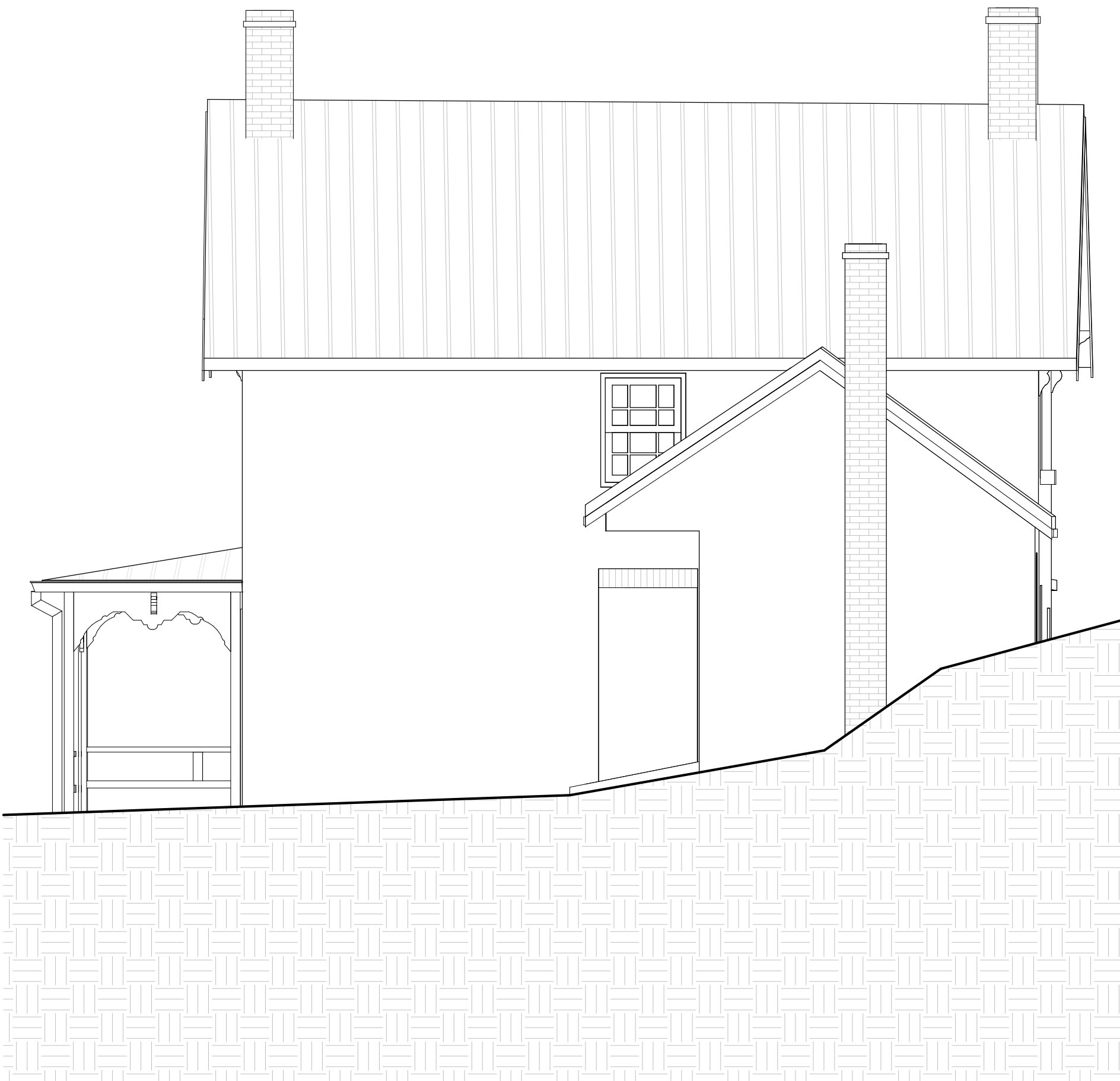
SCALE REFERS TO 24" X 36" PAPER SIZE



① SOUTH  
1/4" = 1'-0"



② WEST  
1/4" = 1'-0"



③ NORTH  
1/4" = 1'-0"



④ EAST  
1/4" = 1'-0"

PROJECT:  
**ARMORY DWELLING 1**  
400 WASHINGTON STREET, HARPERS FERRY, WV  
SWAN INVESTORS - HILL TOP HOTEL  
ELEVATIONS

Revision Schedule		
No.	Revision Description	Date
INTENDED DRAWING USE:		
EXISTING CONDITIONS		
Project number	17106	
Date	04/26/18	
Drawn by	PLM	
Checked by	MJM	
A102		
Scale	1/4" = 1'-0"	
SCALE REFERS TO 24" X 36" PAPER SIZE		

## E. ARMORY DWELLING - BLOCK E, LOT 2 420 WASHINGTON STREET

The following Historical Background, Building Description, and Construction History are reprinted from the 2008 Oehrlein & Associates Report.

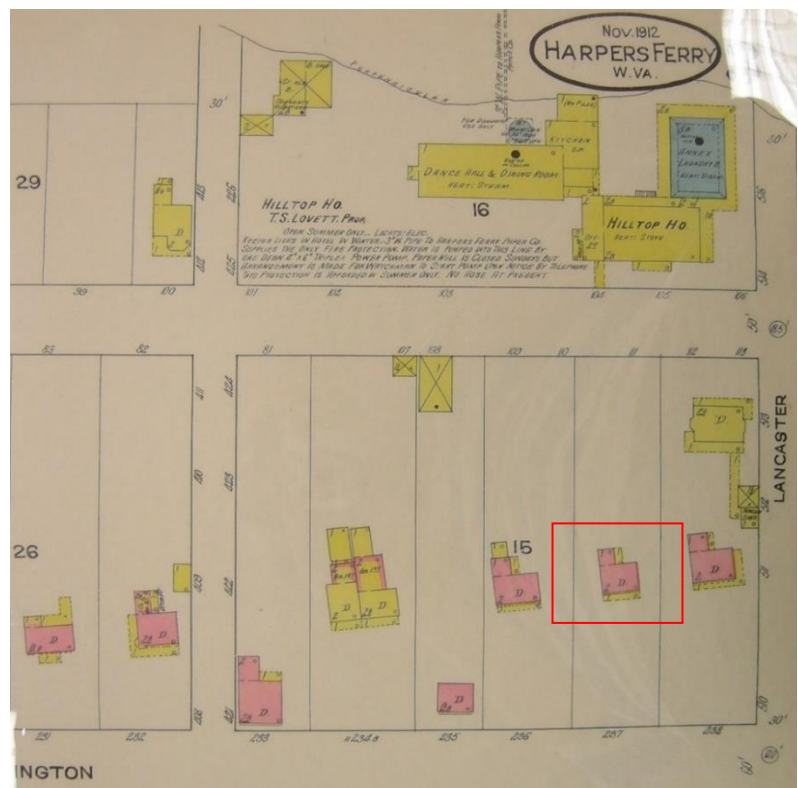
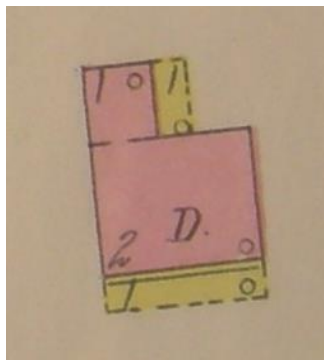
### HISTORICAL BACKGROUND

This building was probably built between 1831 and 1832 by the U.S. Government to house workers at the Harpers Ferry Armory. It is likely that it was constructed as part of a larger contract for 22 houses by John Markell in 1831-32. According to research, the houses built under this particular contract were described as:

2-stories high, with a cellar, and 37 by 20 feet in size. The cellar was 8 feet deep, had stone walls 22 inches thick, and held the kitchen, pantry, and 'cellar'. The second story, also brick, had three bedrooms. The first story, brick, was 9 feet high and had a central hall and two rooms. The second or half story, also brick, had three bedrooms. The front and rear brick walls were 14 inches thick and the gable end walls were 9 inches thick. The gable roof was covered with wood shingles.<sup>1</sup>

### Sanborn Map 1912:

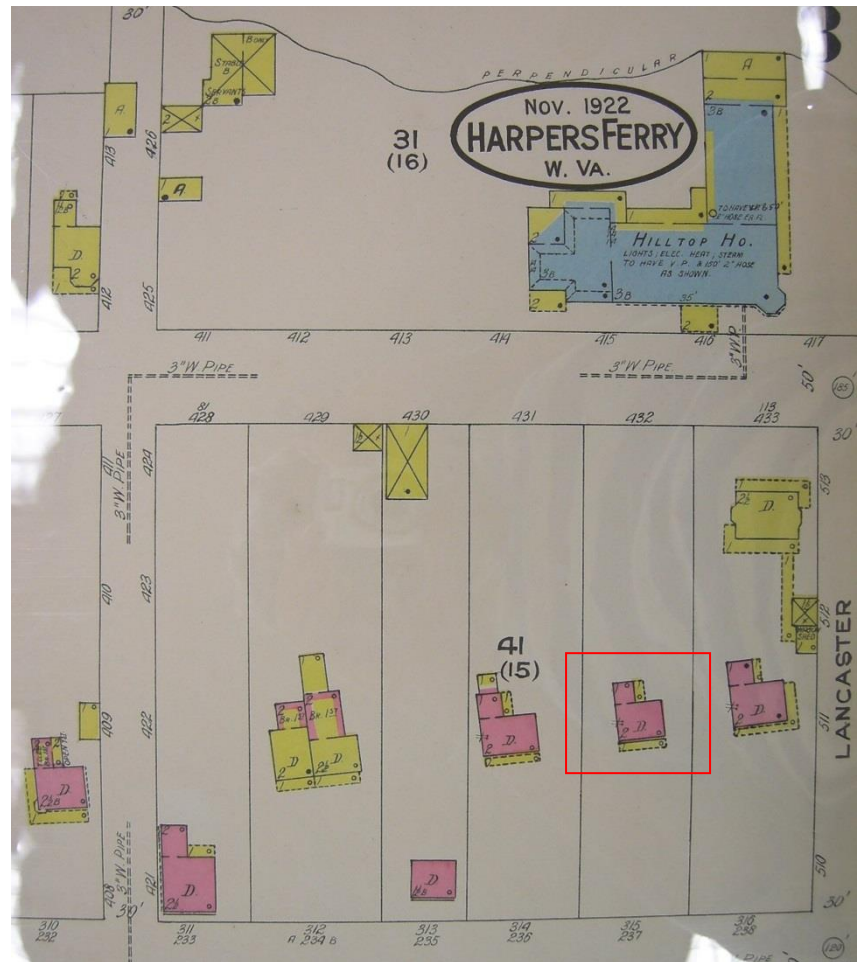
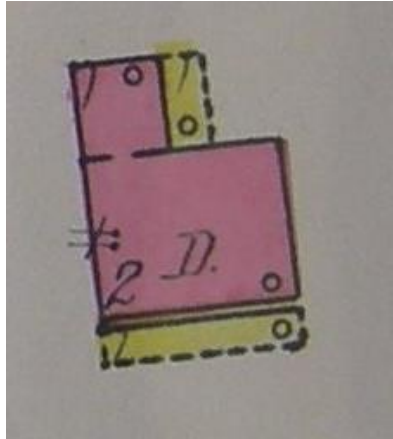
The map shows a two-story brick (pink) dwelling with smaller, one-story brick wing to the north. Both brick sections have a slate or tin roof. A one-story porch (yellow) is located on the east side of the one-story brick wing. A one-story porch is also attached to the south side of the two-story building.



<sup>1</sup> Snell, A History of Armory Dwelling Houses, Volume II, 111; Snell, The Town of Harpers Ferry in 1859: A Physical History Documentation for the 1859 Historical Base Map, 49.

### Sanborn Map 1922:

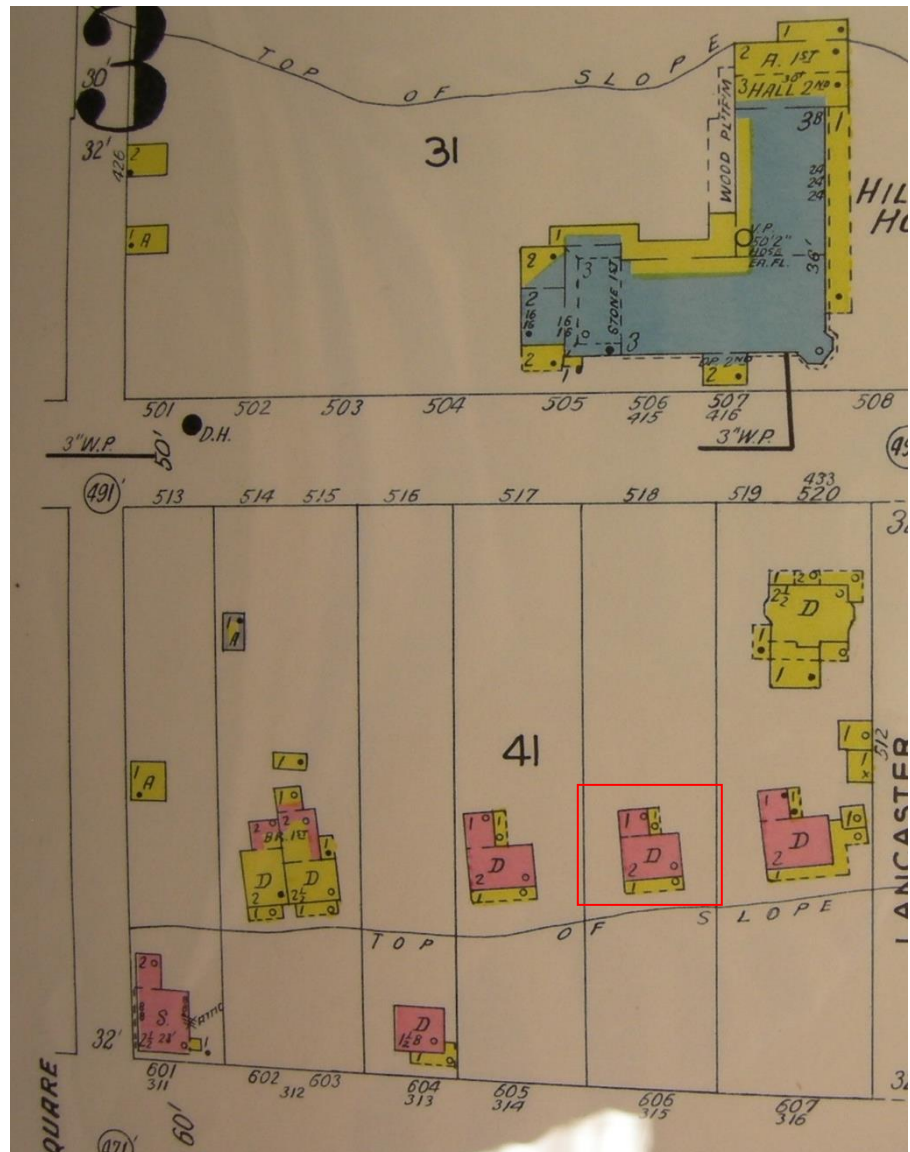
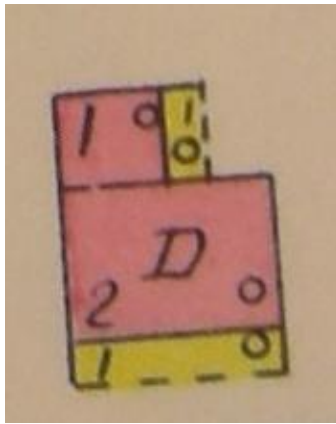
The configuration of the brick dwelling is similar to the 1912 survey. The map also indicates windows on the first and second story of the two-story portion of the building.





### Sanborn Map 1933:

It appears as though there were no changes to the house between 1922 and 1933.



## BUILDING DESCRIPTION

The building on this property is a brick masonry house built upon fieldstone foundation walls. The exterior walls are built with brick masonry in common bond pattern with  $\pm 1/2"$  mortar joints. The walls are currently painted. The main portion of the building is rectangular, approximately 28 feet wide and 22 feet deep, with two finished floor levels and an unfinished basement. There is a single-story wing on the rear (north) side of the building that measures approximately 12 feet wide and 16 feet deep. The wing is also of brick masonry construction on fieldstone foundation walls. The fieldstone foundation wall at the north, east and west sides are parged and painted while the south side, located under the porch, is left exposed. Both portions of the building have painted standing-seam metal gable roofs. There are brick fireplaces and chimneys on the east and west ends of the main portion of the building, as well as the north end of the single-story wing. The first floor of the wing is approximately 24" higher than the first floor level of the main portion of the house.

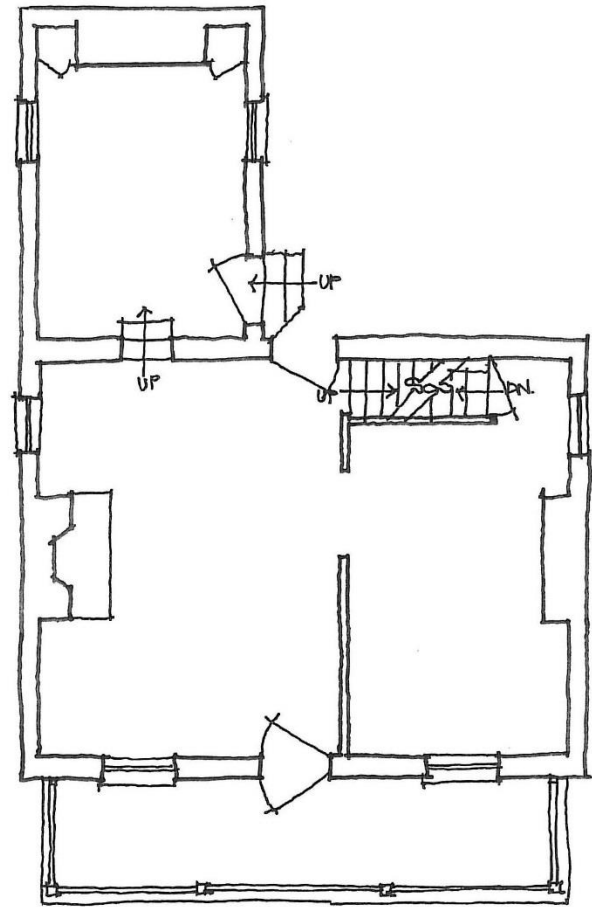
The first and second floors of the main portion of the house have 2-over-2 windows while the rear wing has 6-over-6 windows. All windows have wood sills and jack arches. There are two 6-over-3 windows at the basement level foundation wall of the south elevation.

A single-story porch is located at the front (south) side of the house facing Washington Street. The porch is of wood frame construction and has a painted metal standing-seam hip roof and snow guards. There are painted lattice wood panels set between each masonry pier supporting the wood porch structure.

The building is located on a sloped site surrounded by overgrown vegetation and exposed earth.

## CONSTRUCTION HISTORY

Based upon our survey of the house to date, the following modifications appear not to be original. It is not apparent when these changes were made. With the exception of these modifications, the remainder of the house is original construction.



Existing first floor plan (Oehrlein & Associates, 2008).



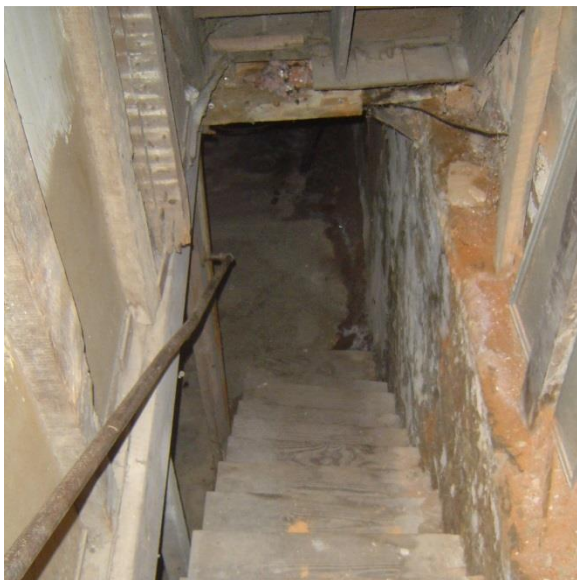
View of north elevation and rear wing (Oehrlein & Associates, 2008).



View from Washington St (south) (Oehrlein & Associates, 2008).



Opening to rear wing and north exterior door (Oehrlein & Associates, 2008).



Basement stair and framing (Oehrlein & Associates, 2008).

There is an opening at the masonry wall between the main house and rear wing at the first floor. This is likely a later modification. The presence of an exterior door at the rear wing suggests that this structure was historically intended for a separate use, possibly as a kitchen. Three steps were built at the opening to accommodate the change in floor elevation between the two structures.

The exterior wood door at the north elevation, first floor, is not original to the building.

The exterior door at the south elevation, first floor, is original but has been modified to have two glass lights.

The exterior door at the east elevation leading to the basement is not original.

The stairway leading to the basement from the first floor is not part of the original building construction. This is evidenced by the recent gypsum board enclosure, rough unfinished edges of the wood floorboards at the stair opening and the infill of the original joist pockets with different colored brick. The wood stair and the framing around the stair opening are of a more recent frame construction. The stair header is nominally sized, therefore probably installed later than 1900. Also at this opening, the underside of the stair above shows ghost lines of lathwork and the interior face of the masonry wall has remnants of finish plaster. Both conditions indicate that this area was originally finished and was once part of the east room of the first floor. Wood posts support the stair carriages.

A water heater is located in the basement. Baseboard heaters are installed throughout the building.

The ceilings throughout the building, except for the rear wing, are painted gypsum board. The ceiling at the rear wing has painted gypsum board over plaster.

The fireplaces at the first floor are exposed brick. Several repairs have been made to the fireplaces as evidenced by an array of mortar types and colors, all with varying joint profiles. The fireplace opening at the east end has been closed up with brick masonry. The brick hearth



has been removed and replaced with wood floorboards.

There are two rooms and one full bathroom at the second floor. The fireplace at the east room is completely covered with gypsum board while the fireplace at the west end is exposed brick with the opening covered by a plywood panel set in place with spray foam insulation. The original hearths of both fireplaces have been removed. The hearth in the east room was replaced with wood floorboards. The hearth in the west room was replaced with a smaller raised brick hearth and wood floor in-fill. Closets have been built adjacent to both fireplace projections.

A pull-down stair has been installed in the ceiling of the second floor stair hall to provide access to the attic space.



First floor fireplace at east room (Oehrlein & Associates, 2008).



Second floor fireplace at west room (Oehrlein & Associates, 2008).





3D Point Cloud scanning of house (Mills Group 2018).



Evidence of bulging and cracking above basement door on east elevation (Mills Group 2018).



View of out-of-plumb chimneys on main building (Mills Group 2018).

The following Condition Assessment and Recommendations are representative of the 2018 scope of study.

### **CONDITION ASSESSMENT – 2018 UPDATE**

As of 2018, the house is in generally fair condition and has had some repair and interior demolition work completed. For the purposes of this report, the period of significance for the property is defined as c. 1831 – c. 1880.

#### **Structural**

- *Foundation:* Fieldstone foundation walls are approximately 24" thick with individual fieldstones set in a bed of soft mortar. There is no evidence of foundation settlement.
- *Chimney:* The brick chimney at the west end is significantly out of plumb (leaning towards east at the top). Several bricks at the top course of the chimneys are missing or damaged.
- *Exterior Walls:* While the overall construction of the exterior walls is generally good, there are areas where the paint has flaked away and where moisture has weathered the mortar and brick. These conditions generally occur along the base of the building where the brick masonry is constantly in contact with wet earth. The east wall of the main building is showing signs of bulging, and there is a settlement crack in the mortar joints just above the lintel of the basement door.
- *Main First Floor Framing:* Near the center of the house, at the first floor level, there is supplemental floor framing whose purpose is unknown. At this location, an adjustable steel post supports a joist, possibly to provide additional support for the framing directly below the first and second floor partition walls. The north end of this joist is deteriorated and sistered. A piece of brick is installed between the deteriorated portion of the joist and

center carriage of the stair above. An adjustable column and temporary wood shoring at the basement support the framing around the stair opening.

- **Main First Floor Framing:** The modified first floor framing around the stair opening to the basement is undersized. A header spans the length of the basement stair and supports the floor joists. A few shoring elements have been installed at the ends of some of the joists to relieve the header. Some deflection has taken place, but no major damaged was observed.
- **First Floor Stair Assembly:** There are wood posts supporting the carriages of the first floor stair. Currently, these stairs are comprised of wood treads on a wood carriage with an average rise of 9 ¾" and average run of 10 ½". These dimensions are out of compliance with current building code and safety standards.
- **Second Floor Framing:** The attic/second floor ceiling framing are 2"x7-1/2" wood joists spaced at 20" on center.
- **Roof Framing:** The roof framing is wood rafters. The rafters have a bird's mouth notch where they meet the wood sill. Roof sheathing comprised of wood planks laid flat and running perpendicular to the rafters. There is no ridge beam. A positive connection between the joists and rafters, which presumably restrain the rafters from spreading, was not observed.
- **Wood Joists:** All wood joists in the main portion of the building run in the north-south direction.
- **Rear Wing Framing:** A new sheet metal roof is supported by a combination of existing and new wood rafters with wood plank sheathing that has been partially replaced. New wood rafter tails have been sistered to the new and existing rafters. There is no ridge beam. Currently, no soffit is present beneath the east eaves of the rear wing.
- **Porch Framing:** The porch framing is a mix of older and newer lumber. Brick piers support wood beams that frame into the



Bulging evident along east wall of main building (Mills Group 2018).



Second floor exposed ceiling/attic floor framing with removed plaster and lath (Mills Group 2018).





View of porch framing beneath new porch flooring (Mills Group 2018).



Reconstructed jack arch and adjacent masonry over north exterior door (Mills Group 2018).



View of new standing-seam metal roof (Mills Group 2018).



Reconstructed porch railing and rim board (Mills Group 2018).

exterior of the foundation wall. Between the beams is a mixture of old and new nominal joists. The southeast pier is approximately 3" out-of-plumb, leaning in the southeast direction. A few of the wood framing members are deteriorated slightly. New porch flooring and rim board have been installed over the existing framing.

## **Exterior**

- **Wall Sheathing:** The paint coatings on the brick masonry and parged foundation wall surfaces are peeling and flaking, particularly in areas where attached vegetation has been removed.
- **Exterior Wall Construction:** A few of the brick arches above door and window openings show signs of movement. The arches tend to have very little bearing; therefore, the cracking may be the result of the failing bearing conditions. The cracking may also be exacerbated if shrinkage or deterioration of the wood lintel at the interior has occurred. The jack arch above the door on the east wall of the rear wing has been removed and replaced with random brick. The jack arch above the north door to the main building, along with adjacent masonry, has been rebuilt.
- **Main Roof:** The new standing-seam metal roof is in good condition but is missing gutters and downspouts.
- **Porch:** The porch flooring has been replaced,, along with the rim board. The porch ceiling is no longer present.
- **Porch Railing:** The porch railing has been rebuilt using the original balusters as a pattern.
- **Windows:** The wood window sills at the east and west elevations of the main portion of the building are rotten. The wood window sill at the second floor on the west elevation (bathroom) has been replaced by loose brick in-fill. At the south elevation, the window sills at the second floor are in poor condition, while those

protected by the porch structure are in good condition. The east window sill in the rear wing is also in good condition because it is protected by the roof overhang.

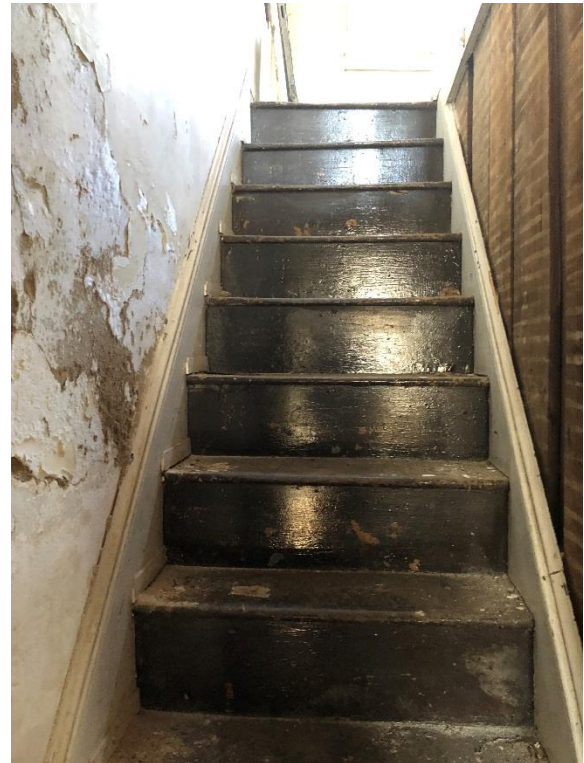
- **Shutters:** Wood window shutters throughout are missing. The remaining shutters are currently located inside the main building.
- **Rear Wing Roof:** The roof of the rear wing has been recently reconstructed and re-sheathed in standing seam metal. The east-facing eave soffit is missing.



Shutters stored inside main building (Mills Group 2018).

### **Interior**

- **Masonry Walls:** At the first and second floors of the main building, the interior face of the exterior masonry walls is finished in plaster. The overall condition of the plaster is good except for two isolated areas at the first floor:
  - Below the window on the north end of the west wall of the main portion of the building there is plaster damage caused by excessive moisture.
  - Along the north wall of the stair from the first to second floor there is moisture infiltration in this plaster wall surface.
- **Basement Stairs:** The wood stair going down to the basement is unsafe and in poor condition.
- **Trim:** Existing interior wood baseboard trim is inconsistent and not original.
- **Doors:** All doors have missing or unmatched hardware.
- **Windows:** All windows are missing sash chains and pulleys. A window at the west elevation of the first floor (main building) is missing its bottom sash. An aluminum storm window has been installed over this window as a temporary protective measure. The bottom sash of the east window in the rear wing is also missing.
- **Window Details:** Window details such as mullions and sash frame profiles throughout the building are varied.



Plaster deterioration along north wall adjacent to stairs (Mills Group 2018).





Stairs from first floor to basement level (Mills Group 2018).

- Floors: Interior floors are random length wood planks. The planks range from 4-3/4" to 7" wide. The wood floorboards have been stained and coated with a clear finish. The condition of the floorboards at the first floor is generally good with a few exceptions:
  - The floorboards at the northwest corner of the first floor are rotten.
  - At the second floor, the floor and subfloor at the northwest corner of the bathroom is completely deteriorated.
  - At the east room, a floorboard is damaged along the north wall of the room.



Fireplace, first level east side (Mills Group 2018).

## RECOMMENDED REHABILITATION SCOPE OF WORK – 2018 UPDATE

### Stone Masonry Foundation Walls:

- Excavate full perimeter down to footers. Parge stone foundations above grade and add waterproof membrane to parging. Add perimeter drainage system tied to stormwater infrastructure.

### Brick Masonry Porch Piers:

- Reconstruct southeast porch pier. Stabilize, repoint, and repaint remaining porch piers per NPS Preservation Briefs 1, 2, and 47.

### Slab on Grade:

- Rear Entry Slab: Remove existing slab and stairs. Reconstruct slab to allow for positive drainage and ADA accessibility per NPS Preservation Brief 32.

### Floor Framing:

- Main Building, Level 1: Selectively structurally reinforce first-level joists. Install new header at opening to basement.
- Porch Floor Framing: Selectively structurally reinforce deteriorated porch floor joists.

### Roof Framing:

- Rear Wing: Install new soffit on east-facing eave.
- Porch Roof Framing: Install new wood ceiling to match historic precedent.

### Exterior Walls:

- Brick Masonry Exterior Walls: Surface cleaning, minor repointing, and repainting per NPS Preservation Briefs 1, 2, and 47. Replace missing jack arch over east door to rear wing.
- Porch Railing: Architect to review code compliance.
- Lattice Panels Between Porch Piers: Replace deteriorated panels with new to match existing.



View of new roofing; install new gutters and downspouts for rainwater diversion (Mills Group 2018).



Exposed second floor interior wall framing (Mills Group 2018).





Plywood panel and foam insulation, along with raised brick hearth, at second floor west fireplace (Mills Group 2018).



Existing stairs from first floor to second floor level (Mills Group 2018).

#### Exterior Windows:

- Wood Double Hung Windows: Remove existing and replace with new custom wood double-hung divided-light windows. Add new storm windows.

#### Exterior Doors:

- South 6-Panel Wood Door with Upper Panel Lights and Transom: Remove glazing and install new wood panels to match existing. Clean and paint per NPS Preservation Brief 47. Clean and oil hardware, and add new storm door.
- East Basement Access Door: Clean and paint per NPS Preservation Brief 47. Clean and oil hardware, and add new storm door.
- North Door, Level 1: Clean and paint per NPS Preservation Brief 47. Clean and oil hardware, and add new storm door.
- East 6-Panel Wood Door to Rear Wing: Clean and paint per NPS Preservation Brief 47. Clean and oil hardware, and add new storm door.

#### Roofing:

- Main Roof: Install new gutters and downspouts. Install new snow guards in eagle style.

#### Chimneys:

- Main Building and Rear Wing Chimneys: Reconstruct chimneys above roof. Parge reconstructed caps and add screening.

#### Interior Partitions:

- Configuration to be determined by architect. Stabilize all frame walls to remain.

#### Interior Doors:

- Replace missing doors with new custom wood doors to match historic profiles. Install new hardware and hinges to match historic precedent.
- Paint existing doors; clean and oil existing hardware per NPS Preservation Brief 18.

#### Interior Fittings:

- Millwork: Configuration to be determined by architect. Replace any missing elements with new to match historic profiles.
- Interior Fireplace, First Level West Side: Clean and paint mantle, and adapt fireplace with gas-burning logs.
- Interior Fireplace, First Level East Side: Configuration to be determined by architect.
- Interior Fireplace, Second Level West Side: Configuration to be determined by architect.
- Abandoned Fireplace, Second Level East Side: Configuration to be determined by architect.

#### Stair Construction:

- Interior Stairs from Basement to Level 1: Architect to review code compliance. Secure first-level access door to cellar.
- Interior Stairs from Level 1 to Level 2: Architect to review code compliance.

#### Stair Finishes:

- Interior Stairs from Basement to Level 1: Refinish natural wood.
- Interior Stairs from Level 1 to Level 2: Refinish natural wood.

#### Interior Wall Finishes:

- Plaster Wall Finishes: Replace missing plaster. Clean and paint existing plaster, and repair any cracking per NPS Preservation Brief 21.

#### Interior Floor Finishes:

- Level 1 and Level 2 Wood Flooring: Replace missing boards. Strip and refinish existing flooring and apply additional clear protective finish per NPS Preservation Brief 18.
- Basement Flooring: Install new concrete subfloor at basement level.



Open rafters on overhanging east side of rear wing roof; replace ceiling/soffit in this area (Mills Group 2018).



Interior framing with plaster and lath removed (Mills Group 2018).



*Interior Ceiling Finishes:*

- *Interior Missing Plaster Ceiling Finishes:  
Install new plaster or gypsum ceiling  
finishes per NPS Preservation Brief 18.*

## HISTORIC RESOURCE PLAN RECOMMENDATIONS

Structure	Armory House 2	Address	420 Washington Street
-----------	----------------	---------	-----------------------

UNIFORMAT Building Element Classification		Summary of Existing Conditions	Recommendations	Under HLC Purview (Yes or No)	Justification (If not "Like Kind")	
SUBSTRUCTURE	A1010 Standard Foundations	Stone masonry foundation walls: Servicable condition	Excavate full perimeter down to footers. Parge stone foundations above grade and add waterproof membrane to parging. Add perimeter drainage system tied to stormwater infrastructure.	Yes		
	A1020 Special Foundations	Brick Masonry Porch Piers: Southeast pier leaning out of plumb; others in servicable condition	Reconstruct southeast porch pier; minor repointing of remaining piers	Yes	Like kind	
	A1030 Slab on Grade	Rear entry slab: Some cracking and deflection	Remove existing slab and stairs; reconstruct to allow for positive drainage and ADA accessibility per NPS Preservation Brief 32	Yes	Like kind	

## HISTORIC RESOURCE PLAN RECOMMENDATIONS

Structure	Armory House 2	Address	420 Washington Street
-----------	----------------	---------	-----------------------

UNIFORMAT Building Element Classification		Summary of Existing Conditions	Recommendations	Under HLC Purview	Justification	
SHELL	B1010 Floor Construction	1. Wood Floor Framing, Level 1 Main Building: Some water/insect damage and deterioration at north wall; undersized header at opening to basement	Selective structural reinforcement of first-level joists; install new header at opening to basement	No		
		2. Floor Framing, Rear Wing: Servicable condition	No action	No		
		3. Wood Floor Framing, Level 2 Main Building: Some sistered joists; servicable condition	No action	No		
		4. Porch Floor Framing: Some deteriorated joists	Selective structural reinforcement of porch joists	No		
	B1020 Roof Construction	1. Main Roof Framing: Recently rehabilitated; Servicable condition	No action	Yes		
		2. Rear Wing Roof Framing: Recently rehabilitated; servicable condition; east soffit missing	Install new soffit on east-facing eave	Yes		
		3. Porch Roof Framing: Servicable condition; ceiling missing	Install new wood porch ceiling to match historic precedent	Yes		
	B2010 Exterior Walls	1. Brick Masonry Exterior Walls: Some moisture evident along base of north wall; servicable condition	Surface cleaning, minor repointing per NPS Preservation Briefs 1, 2, and 47	Yes		Like kind
		2. Wood Porch Railing: Recently replaced; servicable condition	Architect to review code compliance	Yes		
		3. Porch Lattice Panels: Deterioration at grade	Replace deteriorated panels with new to match existing	Yes		Like kind

## HISTORIC RESOURCE PLAN RECOMMENDATIONS

Structure	Armory House 2	Address	420 Washington Street
-----------	----------------	---------	-----------------------

UNIFORMAT Building Element Classification		Summary of Existing Conditions	Recommendations	Under HLC Purview	Justification	
SHELL	B2020 Exterior Windows	Wood Double-Hung Windows: Deteriorated frames, sashes, and sills	Remove existing and replace with new custom wood double-hung divided-light windows; add new storm windows	Yes	Like kind	
	B2030 Exterior Doors	1. South 6-Panel Wood Door with Upper Panel Lights and Transom: Servicable condition	Remove glazing and install new wood panels to match existing; clean and paint per NPS Preservation Brief 47; clean and oil hardware; add new storm door	Yes	Like kind	
		2. East Basement Access Door: Servicable condition	Clean and paint per NPS Preservation Brief 47; clean and oil hardware; add new storm door	Yes	Like kind	
		3. North Door, Level 1: Removed from hinges; appears to be in servicable condition	Clean and paint per NPS Preservation Brief 47; clean and oil hardware; add new storm door	Yes	Like kind	
		4. East 6-Panel Wood Door to Rear Wing: Servicable condition	Clean and paint per NPS Preservation Brief 47; clean and oil hardware; add new storm door	Yes	Like kind	
	B3010 Roof Coverings	Standing Seam Metal Roof Covering, Main Roof and Porch Roof: Recently replaced; servicable condition	Install new gutters, downspouts, and snow guards in eagle style	Yes	Match period of significance	
	B3020 Roof Openings	Brick Masonry Chimneys: Slight deflection; spalling bricks; caps deteriorated	Reconstruct chimneys above roof; parge caps and add screening	Yes	Like kind	



## HISTORIC RESOURCE PLAN RECOMMENDATIONS

Structure	Armory House 2	Address	420 Washington Street
-----------	----------------	---------	-----------------------

UNIFORMAT Building Element Classification		Summary of Existing Conditions	Recommendations	Under HLC Purview	Justification	
INTERIORS	C1010 Partitions	Interior Frame Walls: Plaster and lath removed; deflection evident	Configuration to be determined by architect; stabilize all frame walls scheduled to remain	No		
	C1020 Interior Doors	Interior Wood Paneled Doors: Many missing; remaining in servicable condition	Replace missing doors with new custom wood doors to match historic profiles; install new hardware and hinges to match historic precedent. paint existing doors; clean and oil existing hardware per NPS Preservation Brief 18	No		
	C1030 Fittings	1. Interior Wood Millwork: Baseboards mostly deteriorated/missing; remaining millwork in servicable condition	Configuration to be determined by architect; replace any missing elements with new to match historic profiles	No		
		2. Interior Fireplace, First Level West Side: Mantle removed; servicable condition	Clean and paint, adapt with gas-burning logs; fabricate new wood mantle to match existing	No		
		3. Interior Fireplace, First Level East Side: Currently enclosed	Configuration to be determined by architect	No		
		4. Interior Fireplace, Second Level West Side: Mantle missing; enclosed	Configuration to be determined by architect	No		
		5. Interior Abandoned Fireplace, Second Level East Side: Currently enclosed	Configuration to be determined by architect	No		
	C2010 Stair Construction	1. Interior Wood Stairs from Basement to Level 1: Severe deflection and settlement	Architect to review code compliance; secure first-level access door to cellar.	No		
		2. Interior Wood Stairs from Level 1 to Level 2: Servicable condition	Architect to review code compliance	No		

## HISTORIC RESOURCE PLAN RECOMMENDATIONS

Structure	Armory House 2	Address	420 Washington Street
-----------	----------------	---------	-----------------------

UNIFORMAT Building Element Classification		Summary of Existing Conditions	Recommendations	Under HLC Purview	Justification	
INTERIORS	C2020 Stair Finishes	1. Interior Wood Stairs from Basement to Level 1: Servicable condition	Refinish natural wood finish if access to remain	No		
		2. Interior Wood Stairs from Level 1 to Level 2: Servicable condition	Refinish natural wood finish	No		
	C3010 Wall Finishes	Interior Plaster Wall Finishes: Some deterioration due to water damage along north wall; all other walls servicable condition	Replace missing plaster; clean and paint existing plaster, repair any cracking per NPS Preservation Brief 21	No		
	C3020 Floor Finishes	1. Interior Wood Floor Finishes, Level 1 and Level 2: Some missing floorboards; remaining in servicable condition	Replace missing boards; strip and refinish existing flooring; apply additional clear protective finish per NPS Preservation Brief 18.	No		
		2. Interior Basement Floor Finishes: Not extant	Install new concrete floor surface at basement level	No		
	C3030 Ceiling Finishes	Interior Plaster Ceiling Finishes: Missing	Install new plaster or gypsum ceiling finishes per NPS Preservation Brief 18	No		

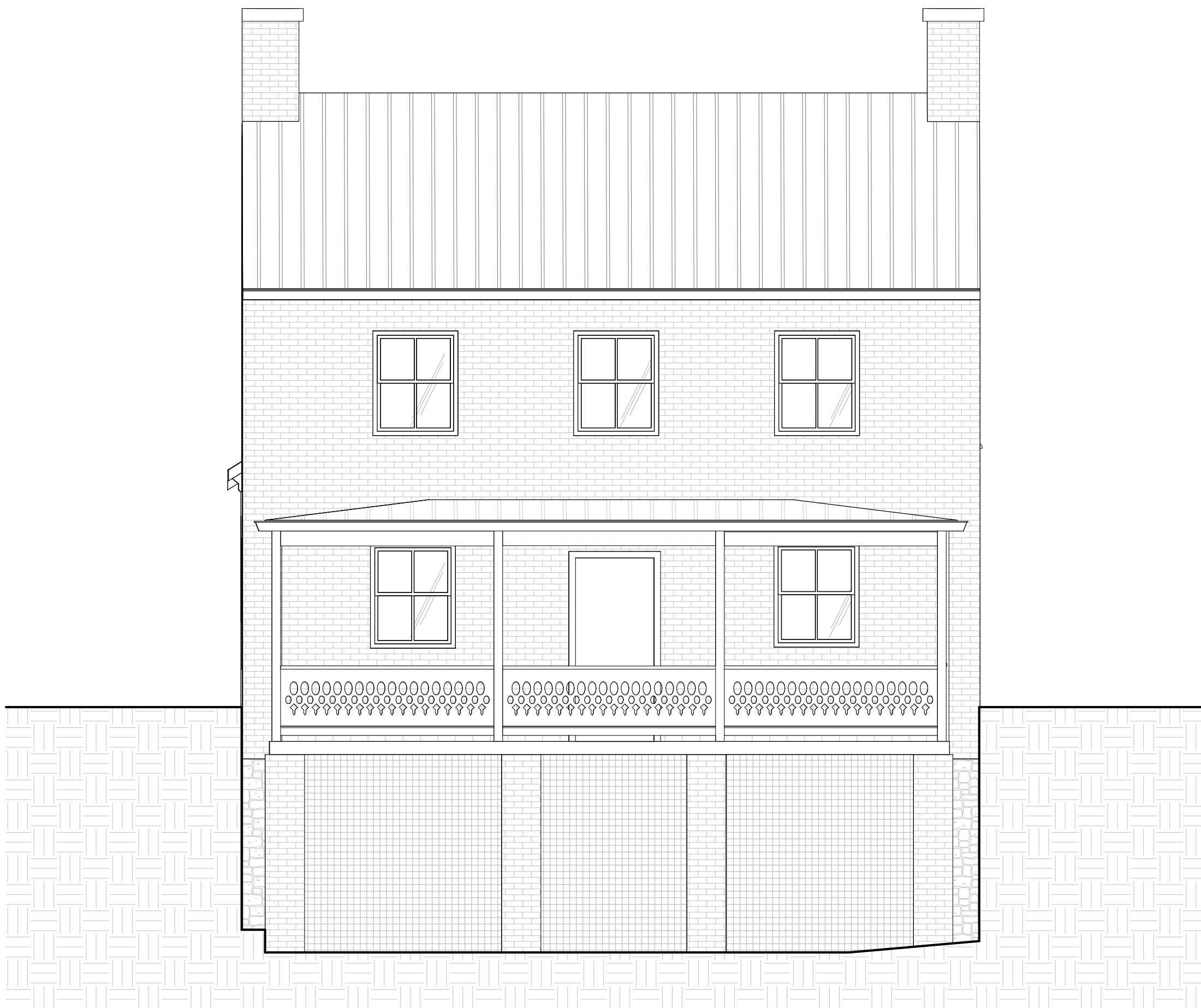


420 WASHINGTON STREET, HARPERS FERRY, WV

SWAN INVESTORS - HILL TOP HOTEL

# FLOOR PLANS

4/27/2018 9:28:02 AM



① SOUTH  
1/4" = 1'-0"



② WEST  
1/4" = 1'-0"



③ NORTH  
1/4" = 1'-0"



④ EAST  
1/4" = 1'-0"

PROJECT:  
**ARMORY DWELLING 2**  
420 WASHINGTON STREET, HARPERS FERRY, WV  
SWAN INVESTORS - HILL TOP HOTEL  
**ELEVATIONS**

Revision Schedule		
No.	Revision Description	Date
INTENDED DRAWING USE:		
EXISTING CONDITIONS		
Project number	17106	
Date	04/17/18	
Drawn by	Author	
Checked by	Checker	
A102		
Scale	1/4" = 1'-0"	
SCALE REFERS TO 24" X 36" PAPER SIZE		



**F. ARMORY DWELLING - BLOCK E, LOT 3**  
**450 WASHINGTON STREET**

The following Historical Background, Building Description, and Construction History are reprinted from the 2008 Oehrlein & Associates Report.

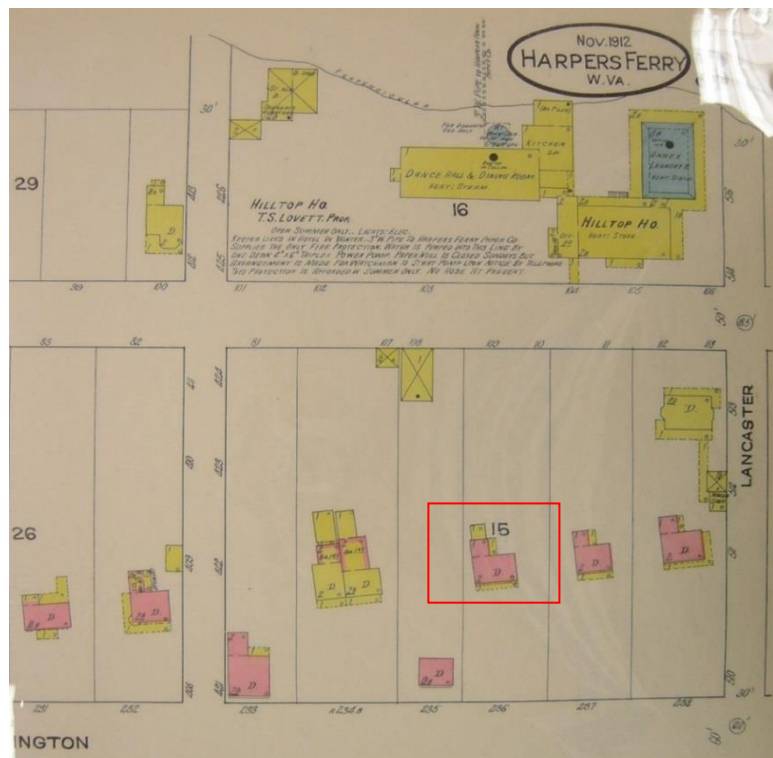
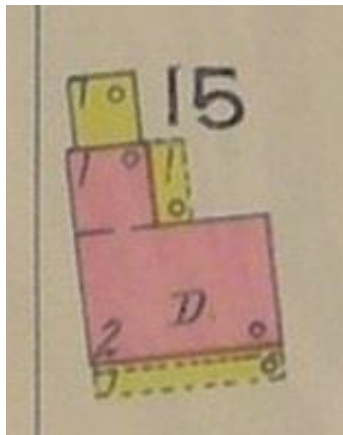
## HISTORICAL BACKGROUND

This building was probably built between 1831 and 1832 by the U.S. Government to house workers at the Harpers Ferry Armory. It is likely that it was constructed as part of a larger contract for 22 houses by John Markell in 1831-32. According to research, the houses built under this particular contract were described as:

2-stories high, with a cellar, and 37 by 20 feet in size. The cellar was 8 feet deep, had stone walls 22 inches thick, and held the kitchen, pantry, and 'cellar'. The second story, also brick, had three bedrooms. The first story, brick, was 9 feet high and had a central hall and two rooms. The second or half story, also brick, had three bedrooms. The front and rear brick walls were 14 inches thick and the gable end walls were 9 inches thick. The gable roof was covered with wood shingles.<sup>1</sup>

### Sanborn Map 1912:

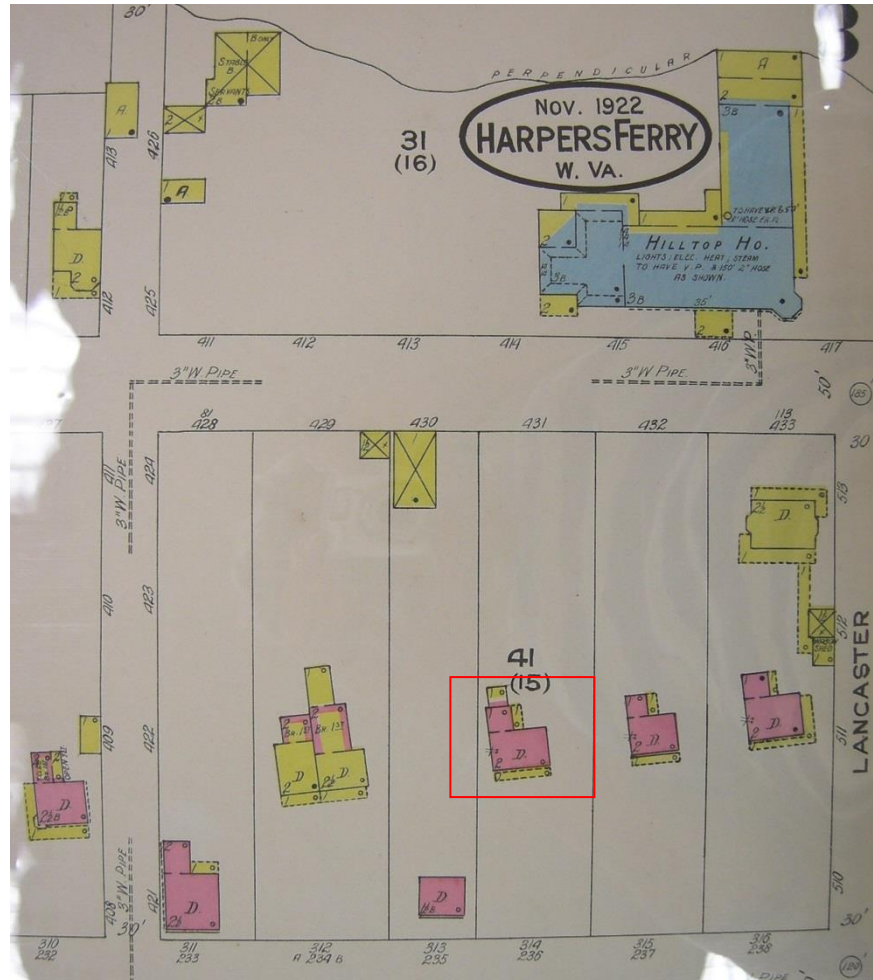
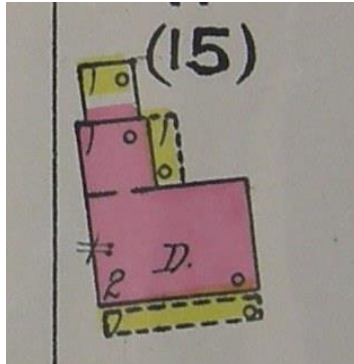
The map shows a two-story brick (pink) dwelling with smaller, one-story brick wing to the north. Both brick sections have a slate or tin roof. A one-story porch (yellow) is located on the east side of the rear brick wing. A one-story porch is also attached to the south side of the two-story building. This map also indicates a one-story frame structure to the north of the brick wing.



<sup>1</sup> Snell, *A History of Armory Dwelling Houses*, Volume II, 111; W. Snell, *The Town of Harpers Ferry in 1859: A Physical History Documentation for the 1859 Historical Base Map*, 49.

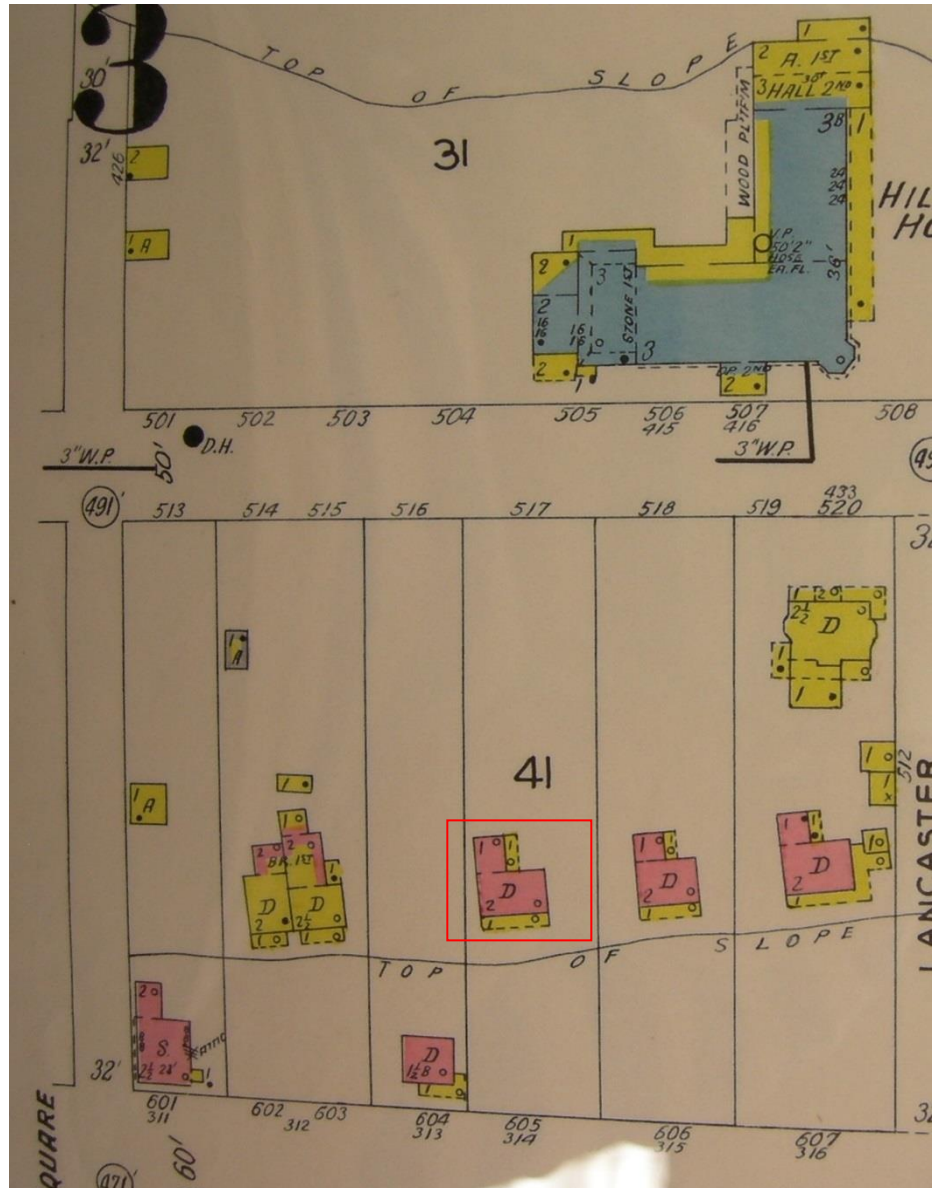
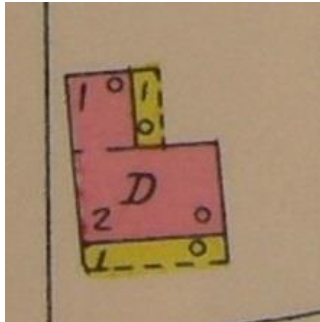
### Sanborn Map 1922:

The configuration of the brick dwelling is similar to the 1912 survey. The map also indicates windows on the first and second story of the two-story portion of the building.



### Sanborn Map 1933:

The one-story wood frame addition on the north side of the rear wing was removed prior to 1933. The remainder of the building appears unchanged.





## BUILDING DESCRIPTION

The building on this property is a brick masonry residence built upon coursed rubble fieldstone foundation walls. The main portion of the building is rectangular, approximately 28 feet wide and 22 feet deep, with two finished floor levels above an unfinished cellar. There is a one story wing with a cellar on the rear (north) side of the building that measures approximately 12 feet wide and 16 feet deep. This wing is similar construction to the main building. The cellars between the main building and wing are interconnected, and have differing floor elevations and floor-to-ceiling heights.

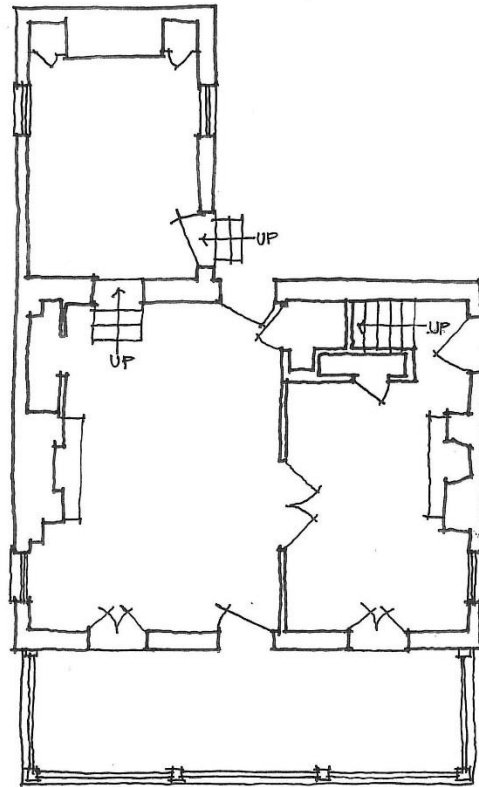
A wood frame porch, accessible from the main floor, is located on the south elevation, facing Washington Street. It is supported by modern wood posts. The main building is covered by a shed roof with decorative wood cornice and brackets, sloping to the north, while the wing has a side gable roof with a large overhang at the east elevation. Both roofs are standing-seam metal. The porch has a hip roof which is also covered with standing-seam metal. There are masonry fireplaces and chimneys on the east and west ends of the main portion of the building, and the north end of the single-story wing.

Brick masonry units are red-orange in color and measure  $\pm 8\text{-}1/2\text{''} \times 2\text{-}1/4\text{''} \times 3\text{-}1/2\text{'}$ ". This brick is a handmade brick, laid in common bond pattern with  $3/8\text{'}$ " to  $1/2\text{'}$ " horizontal and vertical joints with a flush profile. The buff colored joints are finished flush or slightly raked ( $1/16\text{'}$ " max.). All of the exterior brick has been painted, with most of the paint still well adhered to the masonry. The fieldstone walls are parged. Jack arches are located above the original masonry openings. Windows vary in configuration between single light, 1-over-1 and multi-light, 6-over-6 throughout the building. An abandoned cistern is located to the north of the residence.

The site is steeply sloped site. As a result, the first floor level of the rear wing is approximately eighteen inches higher than the first floor level of the main portion of the building. The front elevation faces south, towards Washington Street. At present, the site is overgrown with



South elevation of residence, Block E, Lot 3 (Oehrlein & Associates, 2008).



Existing first floor plan (Oehrlein & Associates, 2008).





North elevation of showing one-story rear wing. Note the two entrance doors to the main portion of the building (left) and the rear wing (right) (Oehrlein & Associates, 2008).



Invasive ivy at west elevation (Oehrlein & Associates, 2008).

vegetation and approximately 60% of the building is enveloped in ivy.

There is a furnace in the cellar with ductwork leading to floor grilles at the first floor level. Transfer grilles between the first and second floors allow supply air to be transmitted to the upstairs rooms. The rear wing is not heated. An abandoned fuel oil tank is located in the southeast corner of the cellar.

## CONSTRUCTION HISTORY

Based upon our survey of the building to date, we have determined that the following modifications are not original. It is not apparent when these changes were made. With the exception of these modifications, the remainder of the building is original construction.

The existing roof on the main building is a shed roof with Italianate details, including decorative wood brackets and a wood cornice on the south, east and west façades. This is in contrast to the residences on Block E, Lots 1 and 2, both contemporaneous to this structure, which are constructed with side gable roofs. The brick corbelled cornice on the north face is consistent with the details found on the other buildings. A distinct change of brick is also visible from within the attic at the south elevation. Further investigation is necessary to determine if the shed was indeed part of the original design or, as is likely, a later renovation to the structure.

The porch on the south, main elevation, has been altered from its original design. The roof is supported by four posts which are enclosed within tapered wood column covers. The column covers are later additions to the building, likely added in the early part of the 20th century. Ghostlines of previous ornate handrail profiles are visible on the column covers which contrast with the extant simple, modern square post and baluster railing. Non-original plywood box beams have been added between the posts and a plywood ceiling has replaced the original. The porch is supported below on four, modern 4x4 wood posts which rest upon grade, with no footings below. Several additional posts have recently been added to provide additional structural support. A single wood lattice panel exists at the west elevation. It is unclear but likely that this lower level below the porch was once



enclosed with lattice similar to that which is existing. The porch floor is constructed of plywood on old, possibly original, 3"x7-3/4" mortise-and-tenon wood joists. A 1x3 wood plank ceiling is visible in portions, but is not continuous.

A modern electric circuit panel has been added to the south face of the fieldstone wall. A 6-over-6 wood, double-hung window, wood sill and frame at the south elevation of the cellar are likely the only remaining original window components in the building. Hinges remain as evidence of shutters formerly at this location. The door at this level provides the only access to the cellar beneath the main portion of the building. While the frame and door are of older wood, it is difficult to discern if they are original construction. The wood door sill at this location has completely rotted away.

While the cellars both appear to be original construction, the opening which joins the two is a later alteration. This is evidenced by the undefined edges of the stone masonry opening and the inadequate wood lintel which carries the balance of the brick wall above. The joists at this location rest upon the lintel and serve as further indication of the modifications to the foundation wall at this opening. The interior is partially finished - the north, west, and south walls of the main cellar have wood wainscot and parged or plaster walls above, while the ceiling has remnants of plaster and lath. These are obvious later additions, as the joists show evidence of having been painted prior to application of the plaster.

Four masonry window openings on the west elevation, which are visible from within the cellars, have been altered from their original function. There is no evidence of former window frames at these locations. One opening is still visible on both the interior and exterior, while the three remaining openings have been covered with wood panels or plaster on the interior and with brick on the exterior. A similar condition occurs at the opening on the east elevation in the cellar below the main building.

Access to the cellar of the rear wing from the east has been removed and the original bulkhead opening is covered with a concrete sidewalk. The original masonry opening remains



Detail of Italianate wood cornice and brackets at shed roof of main building (Oehrlein & Associates, 2008).



View from porch at south elevation (Oehrlein & Associates, 2008).



View of porch structure at south elevation (Oehrlein & Associates, 2008).



Mortise-and-tenon porch floor structure (Oehrlein & Associates, 2008).



Modified original rear cellar access (east elevation) (Oehrlein & Associates, 2008).

but concrete blocks have been added in the cellar to reduce the height of the opening.

At the first floor, the exterior door on the east elevation (adjacent to the interior stair) is not original and has been replaced with an aluminum door in a non-historic wood frame. The lintel used at this opening is not visible due to the existing door framing. However, cracking in the masonry wall above this opening indicates that the lintel is either poorly constructed or insufficiently sized for the load carried. Based on evidence seen in structures on Block E, Lots 1 and 2, it is possible that a window was once located in this current door location.

Two entries located on the north and east elevations provide access to the wing and the west room of the main building. Concrete steps have been added for ease of access to the wing from the exterior. These concrete steps obstruct the swing of the screen door formerly installed at the north entry door. Both doors are modified, non-original, raised panel wood doors. A 4-light transom located above the north entry is consistent with the building's original construction period; it has been obstructed from view on the exterior by the screen door framing and on the interior by the stair bulkhead.

The masonry opening between the main house and rear wing is likely not original construction. It is possible that the rear wing was a kitchen, and therefore not directly connected to the main house. This idea is reinforced by the two separate exterior entrance doors at the north and east elevations. As noted earlier, there is approximately eighteen inches between floor elevations of the main building and the rear wing, further suggesting they were not originally interconnected.

The porch is accessed through a modified, non-original, raised panel wood door with transom via the west room on the first floor. A second transom at the exterior indicates the location of a screen door which is no longer in place. The south entry is flanked on each side by a pair of French windows. Although French windows are consistent with the period of original construction, it is likely that these were later modifications to the original double-hung window masonry openings which are visible on



the south elevations of both residences on Block E, Lots 1 and 2.

A half-bath is currently located within the stair alcove and accessed from the west room of the first floor. It is likely that the cellar access was removed at the time of this addition. Further evidence suggests that the main stair, in its current configuration, is reversed from its original run. The stair, unlike those in the residences on Block E, Lots 1 and 2, is accessed from the east room, rather than the west. The framing around the stair opening is of a more recent vintage than the original floor framing. At the first floor, there is a change in flooring material that also suggests modifications were made at the location of this stair.

The first floor of the main building is composed of two adjacent rooms. The two spaces are separated along the north-south axis by a partition wall with French doors. The doors were likely added in the early part of the 20th century. While the fireplace and hearth in the east room are still visible, the west fireplace has been covered with gypsum board. The brick hearth is still visible and it is assumed that the firebox is intact. A closet is located to the north of the fireplace and was likely added at the time the fireplace was enclosed. Similarly, the closet in the east room is a modern addition. Although in its original location, the concrete block firebox indicates that the east room fireplace and hearth were recently renovated. A chimney on the north wall of the rear wing indicates a third fireplace once existed at this location. Like the west room, the fireplace in the rear wing has been covered with wood paneling and gypsum board. The firebox is assumed intact. Masonry above the fireplace opening is parged. However, no hearth is visible in the first floor or the structure below the cellar, often an indication a wood stove rather than traditional wood-burning fireplace, was in use at this location. Further investigation is necessary.

Throughout much of the interior of the house, gypsum board has been installed over the original plaster wall and ceiling surfaces. In many areas new wood base molding was added. In addition, the gypsum board has obscured the original depth of many of the moldings at the doors and windows. Although the casework at



Masonry opening added at east elevation. Note crack in mortar joints above door (Oehrlein & Associates, 2008).



Detail stair bulkhead at transom over north entry (Oehrlein & Associates, 2008).



Framing of stair at first floor. Modern framing contrasts with original tenoned floor joists (Oehrlein & Associates, 2008).





West room fireplace covered with drywall (Oehrlein & Associates, 2008).



New firebox at east room fireplace, first floor (Oehrlein & Associates, 2008).



Boarded fireplace in east room, second floor. West room fireplace similar condition. Note brick hearth has been removed at this location and filled with wood flooring (Oehrlein & Associates, 2008).

the exterior elevations is old, it is not consistent throughout. This, in turn, has made determination of the extent of original moldings difficult to assess. In addition, casework was likely altered in past renovations at the time that newer, non-original doors and windows were added to the building.

As previously noted, the stair direction was likely modified from its original form. A modern banister and handrail are located at the second floor landing. A hall closet located at the top of the landing is not original. In the second floor bedrooms, closets have been built for additional storage. The closet in the east bedroom is finished in plaster, while that in the west bedroom is gypsum board. Both bedrooms have fireplaces which have been enclosed with plywood panels. The mantels of both are still visible and are consistent with the period of original construction. The hearth has been removed in the east bedroom and replaced with wood plank flooring. The original brick hearth of the west fireplace remains in place.

Windows are inconsistent in style, varying between 6-over-6 and 1-over-1 double-hung. The 6-over-6 wood window at the south elevation of the cellar is the best representation of the original window detailing and construction.

The following Condition Assessment and Recommendations are representative of the 2018 scope of study.



3D Point Cloud scanning of house (Mills Group 2018).



View of brick masonry repair (Mills Group 2018).



View of missing floor framing in rear wing (Mills Group 2018).

## CONDITION ASSESSMENT – 2018 UPDATE

As of 2018, the house is in generally fair condition and has had some repair and interior demolition work completed. For the purposes of this report, the period of significance for the property is defined as c. 1831 – c. 1880.

### Structural

- **Foundation:** Foundation walls are approximately 24 inches thick made of fieldstone set in a bed of soft mortar. There has been a failure of the foundation wall in the cellar under the main house at the northeast corner. The failure is due to deterioration of the mortar. Since the north wall is buried in the hill, the wall has remained relatively moist causing a more rapid deterioration of the mortar. Without regular repointing, the wall ultimately failed.
- **Cellar:** The dirt floor in the cellar of the main building is constantly wet and muddy, even after extended periods without rain.
- **Chimney Foundation:** A portion of the east chimney fieldstone foundation wall, which had previously been repaired with brick, shows evidence of recent failure at the north corner where several courses of brick are eroded and/or missing.
- **Exterior Walls:** Load-bearing brick walls at the first and second floors run parallel to the east-west axis and are approximately 12 inches thick. The shear walls running north-south, also constructed of brick masonry, are approximately 8 inches thick. Areas of cracking and spalling brick masonry throughout have been recently repaired. In addition, most of the east and west walls of the rear wing appear to have been recently rebuilt.
- **Floor Framing:** In the main cellar, there is a header in the northeast corner, similar to the stair framing in the buildings on Block E, Lots 1 and 2. The opening has been filled in with small joists from the header to



the wall. The joists bearing on the north wall appear to have some loss due to deterioration; however, access was difficult due to large amounts of soil adjacent to the foundation wall. Closer observation is necessary to confirm the condition of the joist ends. Supporting a portion of the joists are two parallel 3-ply 2x8 beams. The northern beam is supported by 3" diameter steel temporary shoring columns on both ends. The southern beam is supported by a column at the east end, but is unsupported at the west.

- **Rear Wing Floor Framing:** First floor framing in the rear wing is absent.
- **Second Floor Framing:** Approximately 20 sq.ft. of subfloor has been removed at the northwest corner of the second floor due to water damage. The floor joists beneath this subfloor are deteriorated, also as a result of water damage. A temporary frame partition wall is located beneath this area on the first floor and appears to be providing support to the floor joists above.
- **Porch Framing:** The south porch has been recently rebuilt and features new wood framing on wood posts anchored by concrete footers. New chamfered wood posts and a decorative pierced wood balustrade span the south elevation of the porch. There are currently no balusters on the east and west elevations, and no stair or ramp access from the ground.
- The shed roof at the main building slopes to the north and has been recently rebuilt. It consists of a new standing-seam metal roof over wood sheathing on roof rafters bearing on ceiling joists, all new construction. The rafters are supported at the interior east-west wall. New wood fascia and decorative corbels have been installed along the south and west elevations to match the existing along the east elevation.
- The rear wing gable roof framing system has no ridge beam or collar ties and is constructed of rafters and ceiling joists. A



West elevation showing rebuilt rear wing walls (Mills Group 2018).



View of dwelling facing southwest (Mills Group 2018).



East elevation of dwelling (Mills Group 2018).





Reconstructed roof framing (Mills Group 2018).



Detail of reconstructed eaves and brackets (Mills Group 2018).



Rehabilitated roof framing over rear wing (Mills Group 2018).

new standing-seam metal roof is supported by a mix of original and new random width wood sheathing. Currently, no soffit is present beneath the east eaves of the rear wing.

- **Chimneys:** The east and west chimneys, as well as the rear wing chimney, have recently been rebuilt.
- **Rear Wing Roof Structure:** The new roof structure over the rear wing was installed with a cut-out allowing for the clearance of the second-floor window that was previously partially covered by the rear wing roof framing.
- **Exterior Walls:** Some settlement has occurred in the north wall of the main portion of the house adjacent to the stair from the first to second floors. There is evidence of water damage in this wall as indicated by organic growth on both interior and exterior surfaces. The stair assembly has settled concurrently with the wall settlement.
- **Settlement:** Additional settlement has occurred along the north-south axis, in line with the interior partition wall, evident in the slope of the interior floor surfaces at both the first and second floor. There is evidence of settlement and stabilization efforts at the interior of the south wall.

### **Exterior**

- **Wall Sheathing:** The paint over the brick masonry is generally well adhered but has deteriorated particularly in areas of high moisture and vegetation. Approximately 80% of the foundation wall parging has deteriorated.
- **Windows:** The wood window sash and frames are generally in fair to poor condition. Sills are of various materials – wood, concrete or brick – but generally in fair condition.
- **Shutters:** Although there is extant shutter hardware at each of the window locations, no shutters currently exist.
- **Cellar Door:** The wooden sill at the cellar door is deteriorated and missing.

## Interior

- *Wall Surfaces:* All gypsum and plaster wall and ceiling material has been removed from interior spaces.
- *Flooring:* Interior floors are wood planks of random length and ranging in width. Most of these floorboards are in good condition. Where alterations have taken place, the original floorboards are missing and have been replaced with plywood.
- *Second Level Flooring:* There is water damage at floorboards near the center of the south wall and near the stairs.
- *Hearth bricks* are out of alignment at the west fireplace.



Shoring element on south wall, second level (Mills Group 2018).



Missing basement access door, south wall (Mills Group 2018).



Plaster deterioration under north window, second level (Mills Group 2018).





View of French windows (Mills Group 2018).



Non-original 1-over-1 double-hung wood windows (Mills Group 2018).

## **RECOMMENDED REHABILITATION SCOPE OF WORK – 2018 UPDATE**

### *Stone Masonry Foundation Walls:*

- Excavate full perimeter down to footers. Parge stone foundations above grade and add waterproof membrane to parging. Stabilize and repair foundation walls locally. Add perimeter drainage system tied to stormwater infrastructure.

### *Stone Masonry Chimney Foundation Walls:*

- Repair or rebuild locally.

### *Slab on Grade:*

- Remove existing slab. Reconstruct to allow for positive drainage.

### *Floor Framing:*

- Main Building, Level 1: Selectively structurally reinforce first-level joists.
- Rear Wing: Reconstruct wood floor framing and subfloor.
- Main Building, Level 2: Sister joist ends at north and south wall. Install beam to support level 2 joists.

### *Roof Framing:*

- Rear Wing: Install new soffit on east-facing eave.
- Porch Roof Framing: Install new wood ceiling to match historic precedent.

### *Exterior Walls:*

- Brick Masonry Exterior Walls: Surface cleaning, minor repointing, and repainting per NPS Preservation Briefs 1, 2, and 47.
- Porch Railing: Install railing to match existing on east and west sides of porch.

#### Exterior Windows:

- *Wood Double Hung Windows:* Remove existing and replace with new custom wood double-hung divided-light windows. Add new storm windows.
- *Missing Windows, Rear Wing:* Fabricate new custom double-hung divided-light wood windows. Add new storm windows.
- *French Windows, South Elevation:* Clean and paint per NPS Preservation Brief 9. Install new weatherstripping at jambs and meeting rails and new sash hardware. Install new storm windows.

#### Exterior Doors:

- *South 3-Panel Wood Door with Top Panel Light and Transom:* Remove glazing and install new wood panels to match existing. Clean and paint per NPS Preservation Brief 47. Clean and oil hardware, and add new storm door.
- *Missing South Basement Access Door:* Fabricate new custom wood door and hardware to match historic profiles. Add new storm door.
- *East Level 1 6-Panel Door:* Clean and paint per NPS Preservation Brief 47. Clean and oil hardware, and add new storm door.
- *Missing North Level 1 Door:* Fabricate new custom wood door and hardware to match historic profiles. Add new storm door.
- *Missing East Door to Rear Wing:* Fabricate new custom wood door and hardware to match historic profiles. Add new storm door.

#### Roofing:

- *Main Roof:* Install new gutters and downspouts. Install new snow guards in eagle style.

#### Chimneys:

- *All Chimneys:* Parge brick cap and add screening.



Various interior doors stored in dwelling (Mills Group 2018).



View of interior stairs from level 1 to level 2 (Mills Group 2018).





View of exposed interior partition walls and remaining interior closet door (Mills Group 2018).



View of enclosed fireplace, first level west side (Mills Group 2018).

#### Interior Partitions:

- Configuration to be determined by architect. Stabilize all frame walls to remain.

#### Interior Doors:

- Replace missing doors with new custom wood doors to match historic profiles. Install new hardware and hinges to match historic precedent.
- Paint existing doors; clean and oil existing hardware per NPS Preservation Brief 18.

#### Interior Fittings:

- Millwork: Configuration to be determined by architect. Replace any missing elements with new to match historic profiles.
- Fireplace and Mantle, First Level West Side: Configuration to be determined by architect.
- Fireplace and Mantle, First Level East Side: Clean and paint mantle, and adapt fireplace with gas-burning logs.
- Fireplace, Second Level West Side: Adapt with gas-burning logs. Fabricate new wood mantle to match existing.
- Fireplace and Mantle, Second Level East Side: Clean and paint mantle and re-attach. Adapt fireplace with gas-burning logs.

#### Stair Construction:

- Interior Stairs from Level 1 to Level 2: Architect to review code compliance.

#### Stair Finishes:

- Interior Stairs from Level 1 to Level 2: Refinish natural wood.

#### Interior Wall Finishes:

- Plaster Wall Finishes: Replace missing plaster. Clean and paint existing plaster, and repair any cracking per NPS Preservation Brief 21.

*Interior Floor Finishes:*

- *Level 1 and Level 2 Wood Flooring:*  
*Replace missing boards. Strip and refinish existing flooring and apply additional clear protective finish per NPS Preservation Brief 18.*
- *Basement Flooring:* *Install new concrete subfloor at basement level.*

*Interior Ceiling Finishes:*

- *Interior Missing Plaster Ceiling Finishes:*  
*Install new plaster or gypsum ceiling finishes per NPS Preservation Brief 18.*

## HISTORIC RESOURCE PLAN RECOMMENDATIONS

Structure	Armory House 3	Address	450 Washington Street
-----------	----------------	---------	-----------------------

UNIFORMAT Building Element Classification		Summary of Existing Conditions	Recommendations	Under HLC Purview (Yes or No)	Justification (If not "Like Kind")	
SUBSTRUCTURE	A1010 Standard Foundations	Stone masonry foundation walls: Deterioration of mortar, particularly at northeast corner; deterioration of parging	Excavate full perimeter down to footers. Parge stone foundations above grade and add waterproof membrane to parging. Stabilize and repair foundation walls locally. Add perimeter drainage system tied to stormwater infrastructure.	Yes	Like kind	
	A1020 Special Foundations	Stone masonry chimney foundation walls: Missing brick/stone	Repair/rebuild locally	No		
	A1030 Slab on Grade	Rear entry slab: Cracking and deterioration evident	Remove existing slab; reconstruct to allow for positive drainage	Yes	Like kind	

## HISTORIC RESOURCE PLAN RECOMMENDATIONS

Structure

**Armory House 3**

Address

**450 Washington Street**

UNIFORMAT Building Element Classification		Summary of Existing Conditions	Recommendations	Under HLC Purview	Justification	
SHELL	B1010 Floor Construction	1. Wood Floor Framing, Level 1 Main Building: Some water/insect damage and deterioration at north wall	Selective structural reinforcement of first-level joists	No		
		2. Floor Framing, Rear Wing: Missing	Reconstruct wood floor framing and subfloor	No		
		3. Wood Floor Framing, Level 2 Main Building: Some deteriorated members; note temporary stabilization frame wall on Level 1	Sister joist ends; install beam to support Level 2 joists in place of temporary stabilization wall	No		
		4. Porch Floor Framing: Recently reconstructed; servicable condition	No action	No		
	B1020 Roof Construction	1. Main Roof Framing: Recently rehabilitated; Servicable condition	No action	Yes		
		2. Rear Wing Roof Framing: Recently rehabilitated; servicable condition; east soffit missing	Install new soffit on east-facing eave	Yes		
		3. Porch Roof Framing: Servicable condition	Install new wood porch ceiling to match historic precedent	Yes		
	B2010 Exterior Walls	1. Brick Masonry Exterior Walls: Partially reconstructed; servicable condition	Surface cleaning, minor repointing per NPS Preservation Briefs 1, 2, and 47	Yes		Like kind
		2. Wood Porch Railing: Recently reconstructed; east and west sections missing; other sections servicable condition	Install railing to match existing on east and west sides of porch	Yes		Like kind
	B2020 Exterior Windows	1. Wood Double-Hung Windows: Deteriorated frames, sashes, and sills	Remove existing and replace with new custom wood double-hung divided-light windows; add new storm windows	Yes		Like kind
		2. Windows, Rear Wing: Missing	Install new custom wood double-hung divided-light windows; add new storm windows			
		3. Wood French Windows, South Elevation: Servicable condition; outfitted with wood exterior storm windows	Clean and paint per NPS Preservation Brief 9; new weatherstripping at jambs and meeting rails; new sash hardware; install new storm windows	Yes		Like kind



## HISTORIC RESOURCE PLAN RECOMMENDATIONS

Structure

**Armory House 3**

Address

**450 Washington Street**

UNIFORMAT Building Element Classification		Summary of Existing Conditions	Recommendations	Under HLC Purview	Justification	
SHELL	B2030 Exterior Doors	1. South 3-Panel Wood Door with Top Panel Light and Transom: Servicable condition	Remove glazing and install new wood panels to match existing; clean and paint per NPS Preservation Brief 47; clean and oil hardware; add new storm door	Yes	Like kind	
		2. South Basement Access Door: Missing	Fabricate new custom wood door and hardware to match historic profiles; add new storm door	Yes	Like kind	
		3. East 6-Panel Door: Servicable condition	Clean and paint per NPS Preservation Brief 47; clean and oil hardware; add new storm door	Yes	Like kind	
		4. North Door, Level 1: Missing	Fabricate new custom wood door and hardware to match historic profiles; add new storm door	Yes	Like kind	
		5. East Door to Rear Wing: Missing	Fabricate new custom wood door and hardware to match historic profiles; add new storm door	Yes	Like kind	
	B3010 Roof Coverings	Standing Seam Metal Roof Covering, Main Roof and Porch Roof: Recently replaced; servicable condition	Install new gutters, downspouts, and snow guards in eagle style	Yes	Match period of significance	
	B3020 Roof Openings	Brick Masonry Chimneys: Recently reconstructed; servicable condition	Parge brick cap and add screening	Yes	Like kind	

## HISTORIC RESOURCE PLAN RECOMMENDATIONS

Structure

**Armory House 3**

Address

**450 Washington Street**

UNIFORMAT Building Element Classification		Summary of Existing Conditions	Recommendations	Under HLC Purview	Justification	
INTERIORS	C1010 Partitions	Interior Frame Walls: Plaster and lath removed; deflection evident	Configuration to be determined by architect; stabilize all frame walls scheduled to remain	No		
	C1020 Interior Doors	Interior Wood Paneled Doors: Many missing; remaining in servicable condition	Replace missing doors with new custom wood doors to match historic profiles; install new hardware and hinges to match historic precedent. paint existing doors; clean and oil existing hardware per NPS Preservation Brief 18	No		
	C1030 Fittings	1. Interior Wood Millwork: Baseboards mostly deteriorated/missing; remaining millwork in servicable condition	Configuration to be determined by architect; replace any missing elements with new to match historic profiles	No		
		2. Interior Fireplace and Mantle, First Level West Side: Enclosed	Configuration to be determined by architect	No		
		3. Interior Fireplace and Mantle, First Level East Side: Servicable condition	Clean and paint, adapt with gas-burning logs	No		
		4. Interior Fireplace, Second Level West Side: Mantle missing; servicable condition	Adapt with gas-burning logs; fabricate new wood mantle to match existing	No		
		5. Interior Fireplace, Second Level East Side: Mantle removed; servicable condition	Clean and paint, adapt with gas-burning logs; re-attach mantle	No		
	C2010 Stair Construction	Interior Wood Stairs from Level 1 to Level 2: Reconstructed; servicable condition	Architect to review code compliance	No		
	C2020 Stair Finishes	Interior Wood Stairs from Level 1 to Level 2: Servicable condition	Refinish natural wood finish	No		
	C3010 Wall Finishes	Interior Plaster Wall Finishes: Some deterioration due to water damage, mostly along north wall; all other walls servicable condition	Replace missing plaster; clean and paint existing plaster, repair any cracking per NPS Preservation Brief 21	No		

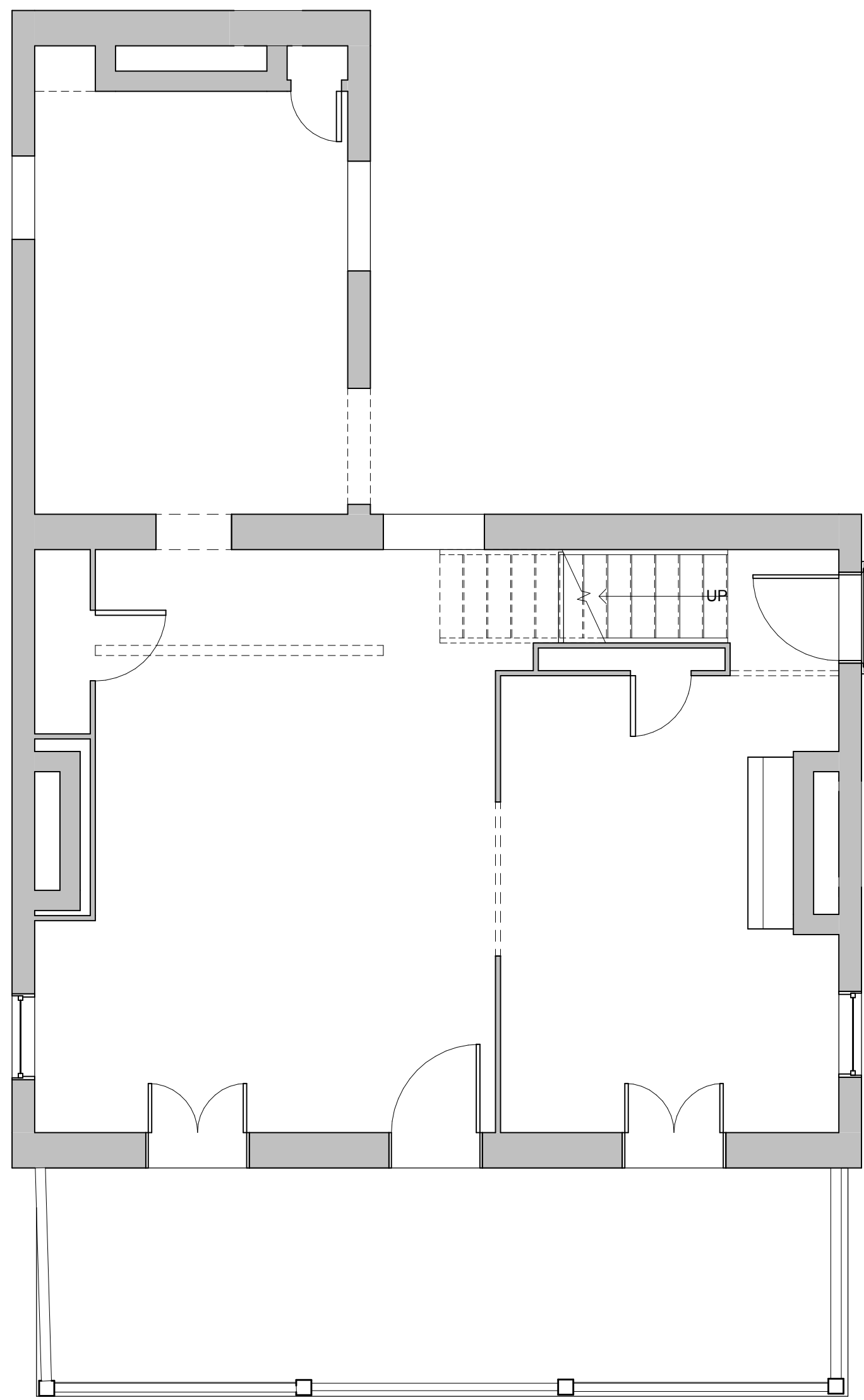
HISTORIC RESOURCE PLAN RECOMMENDATIONS		
Structure	Armory House 3	Address 450 Washington Street

UNIFORMAT Building Element Classification		Summary of Existing Conditions	Recommendations	Under HLC Purview	Justification	
INTERIORS	C3020 Floor Finishes	Interior Wood Floor Finishes, Level 1 and Level 2: Some missing floorboards; remaining in servicable condition	Replace missing boards; strip and refinish existing flooring; apply additional clear protective finish per NPS Preservation Brief 18.	No		
		Interior Basement Floor Finishes: Not extant	Install new concrete floor surface at basement level	No		
	C3030 Ceiling Finishes	Interior Plaster Ceiling Finishes: Missing	Install new plaster or gypsum ceiling finishes per NPS Preservation Brief 18	No		

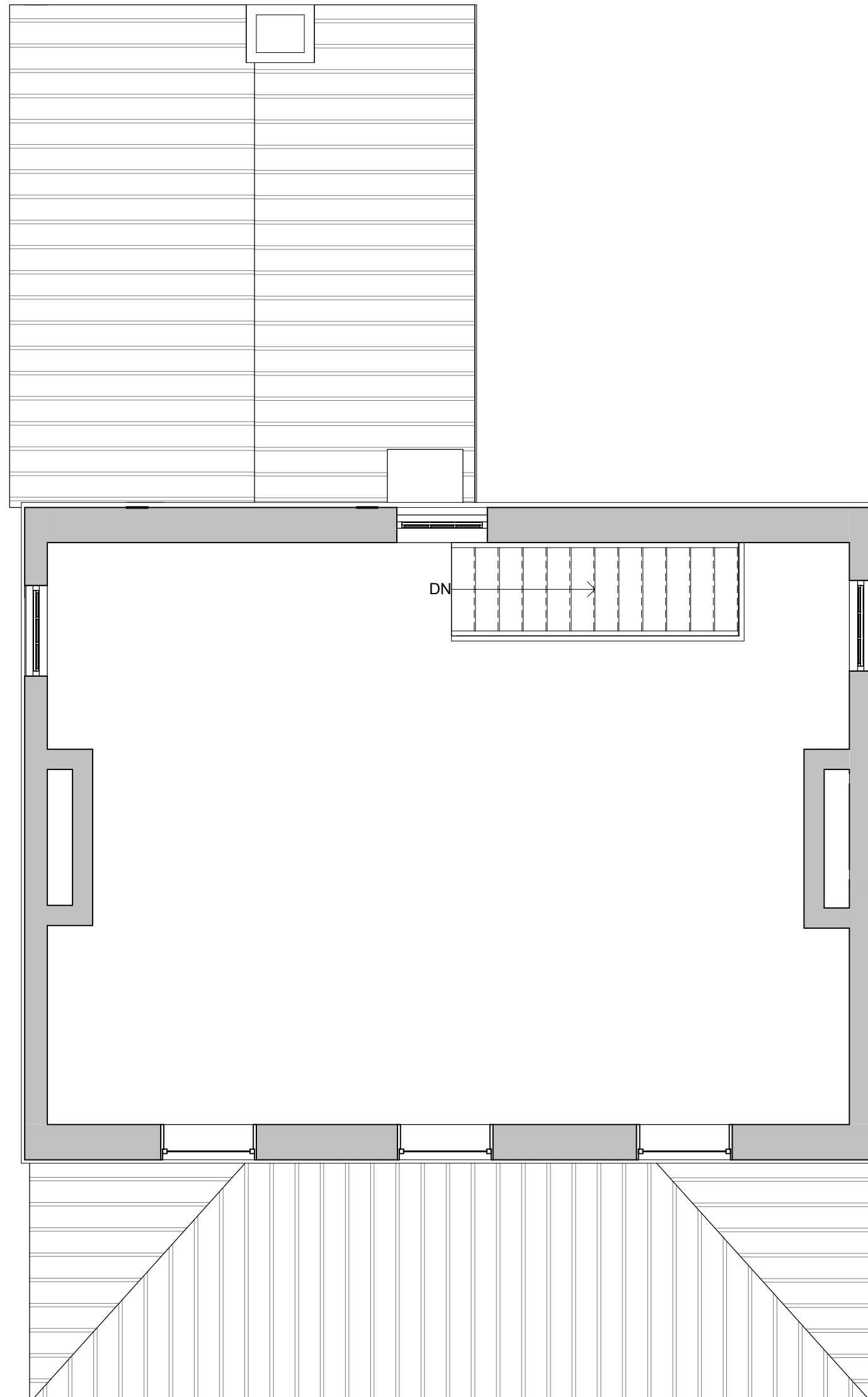


ARCHITECTURE ■ PLANNING ■ PRESERVATION

533 WHARF STREET, SUITE 300 53 14TH STREET, SUITE 607  
MORGANTOWN, WV 26501 WHEELING, WV 26003  
PH. 304.296.1010 WWW.MILLSGROUPONLINE.COM PH. 304.233.0048



① LEVEL 1  
1/4" = 1'-0"



② LEVEL 2  
1/4" = 1'-0"

PROJECT:

ARMORY DWELLING 3

450 WASHINGTON STREET, HARPERS FERRY, WV

SWAN INVESTORS - HILL TOP HOTEL

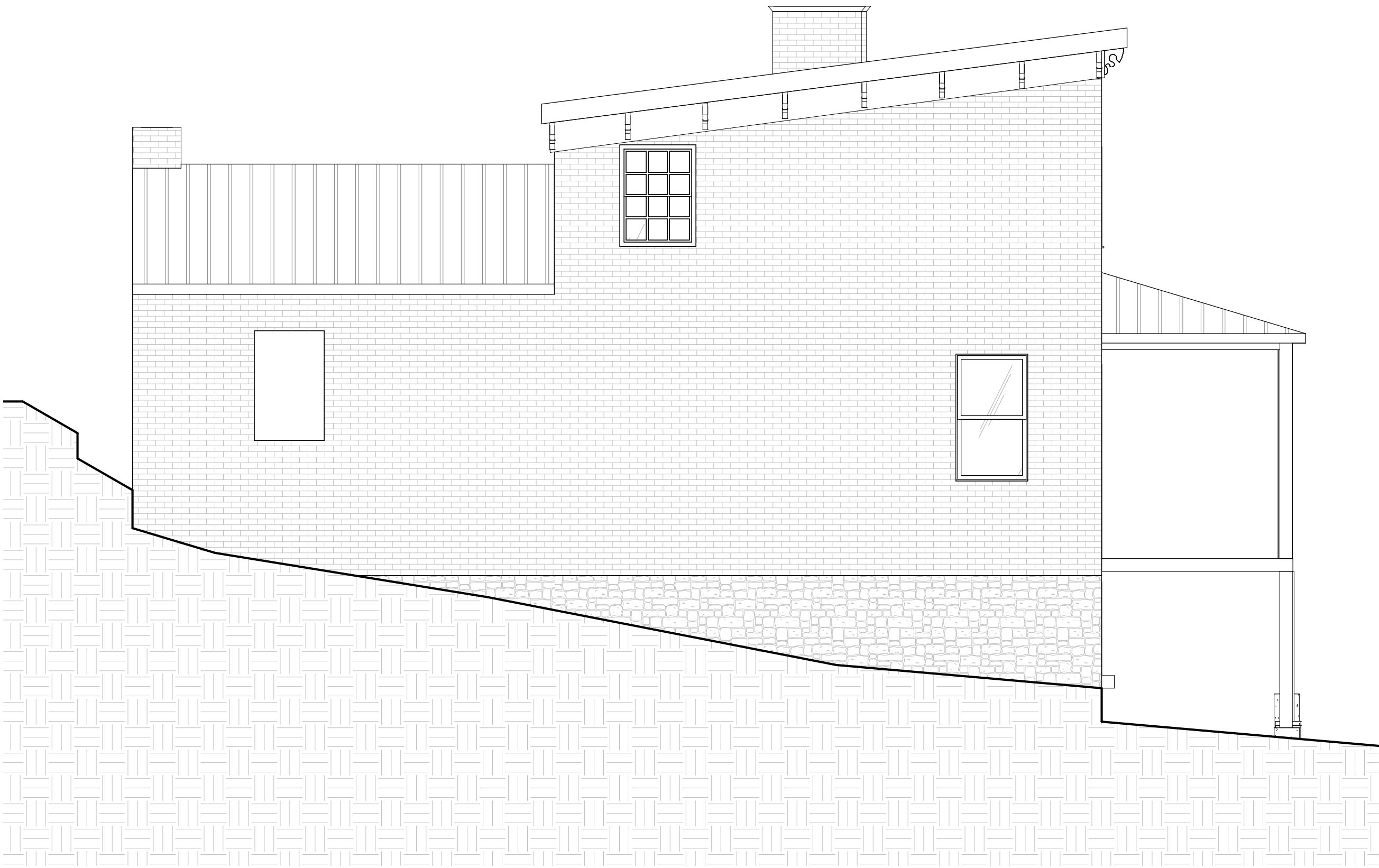
FLOOR PLANS

Revision Schedule		
No.	Revision Description	Date
INTENDED DRAWING USE:		
EXISTING CONDITIONS		
Project number		17106
Date		04/26/18
Drawn by		PLM
Checked by		MJM
<div>A101</div>		
Scale		1/4" = 1'-0"
SCALE REFERS TO 24" X 36" PAPER SIZE		

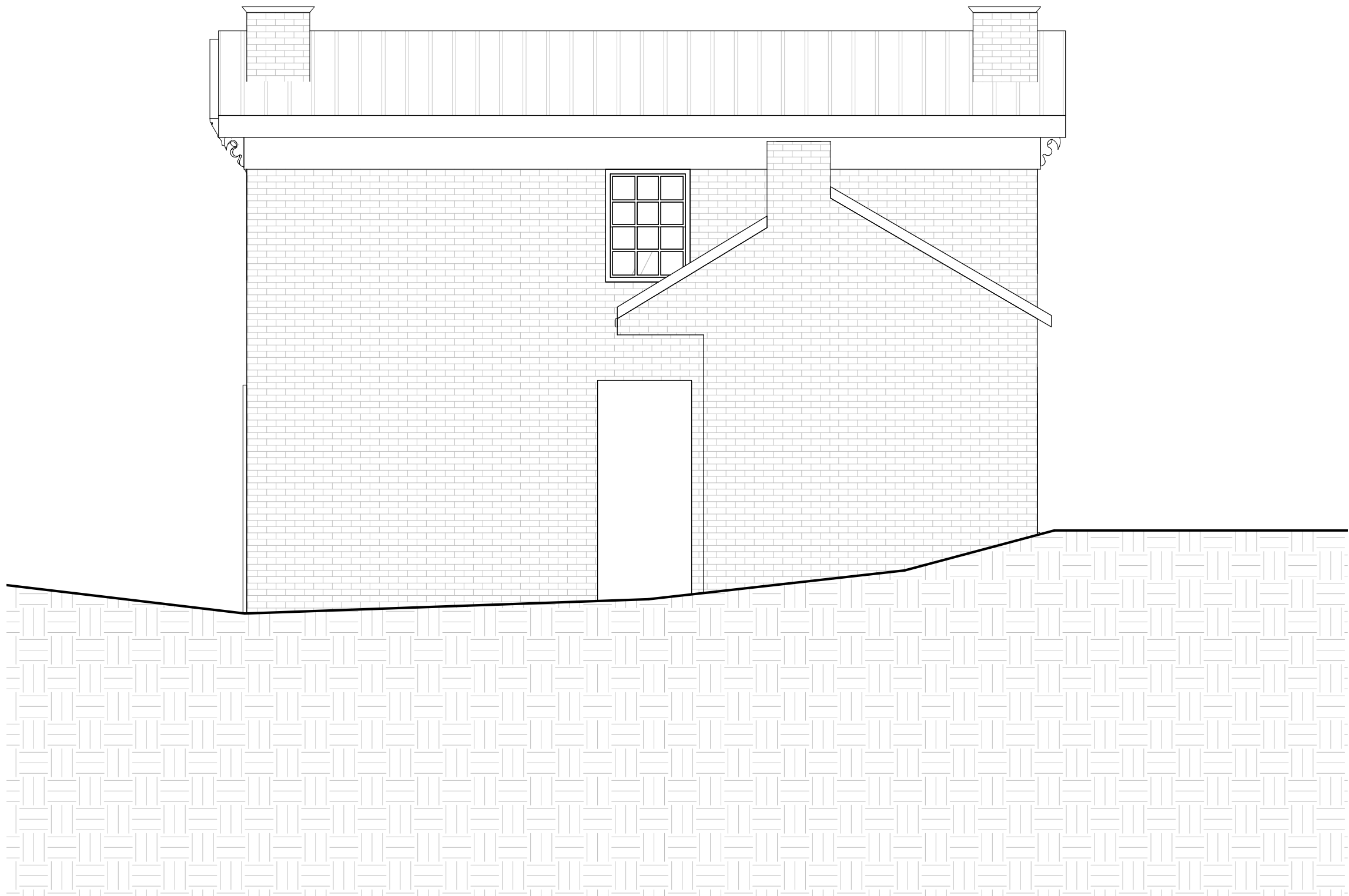




① SOUTH  
1/4" = 1'-0"



② WEST  
1/4" = 1'-0"



③ NORTH  
1/4" = 1'-0"



④ EAST  
1/4" = 1'-0"

PROJECT:  
**ARMORY DWELLING 3**  
450 WASHINGTON STREET, HARPERS FERRY, WV  
SWAN INVESTORS - HILL TOP HOTEL  
ELEVATIONS

Revision Schedule		
No.	Revision Description	Date
INTENDED DRAWING USE:		
EXISTING CONDITIONS		
Project number	17106	
Date	04/26/18	
Drawn by	PLM	
Checked by	MJM	
A102		
Scale	1/4" = 1'-0"	
SCALE REFERS TO 24" X 36" PAPER SIZE		

## G. ARMORY DWELLING - BLOCK E, LOT 5

470 WASHINGTON STREET

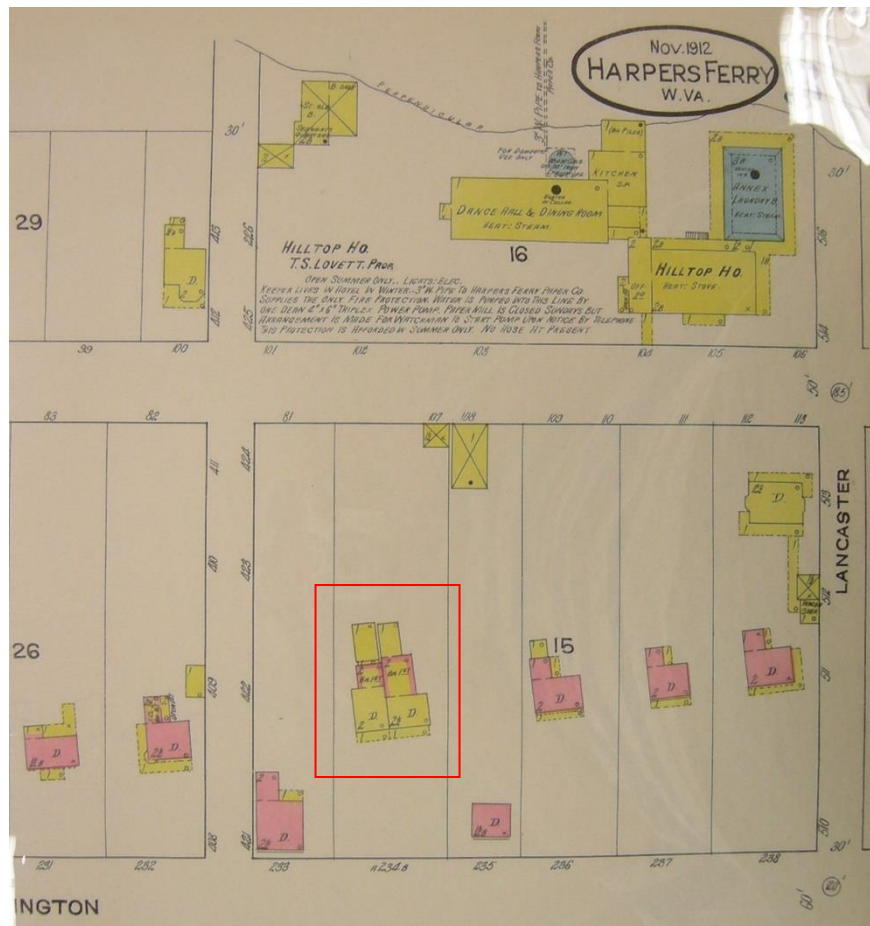
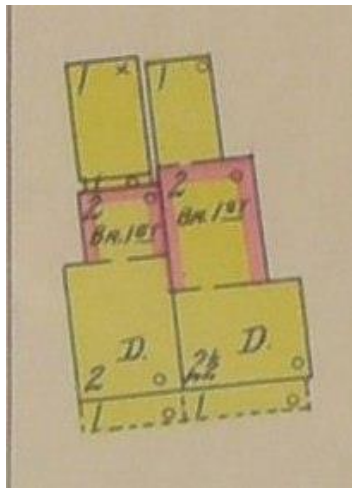
The following Historical Background, Building Description, and Construction History are reprinted from the 2008 Oehrlein & Associates Report.

### HISTORICAL BACKGROUND

At the time of sale in 1859, Block E, Lot 5 contained two one-story frame dwellings owned by Asa Marsteller. These houses were erected prior to 1837 by the United States for use as Armory dwellings.<sup>1</sup> It is unclear whether these are the same one-story buildings with substantial later additions, or if the existing structures were constructed sometime after 1859.

#### Sanborn Map 1912:

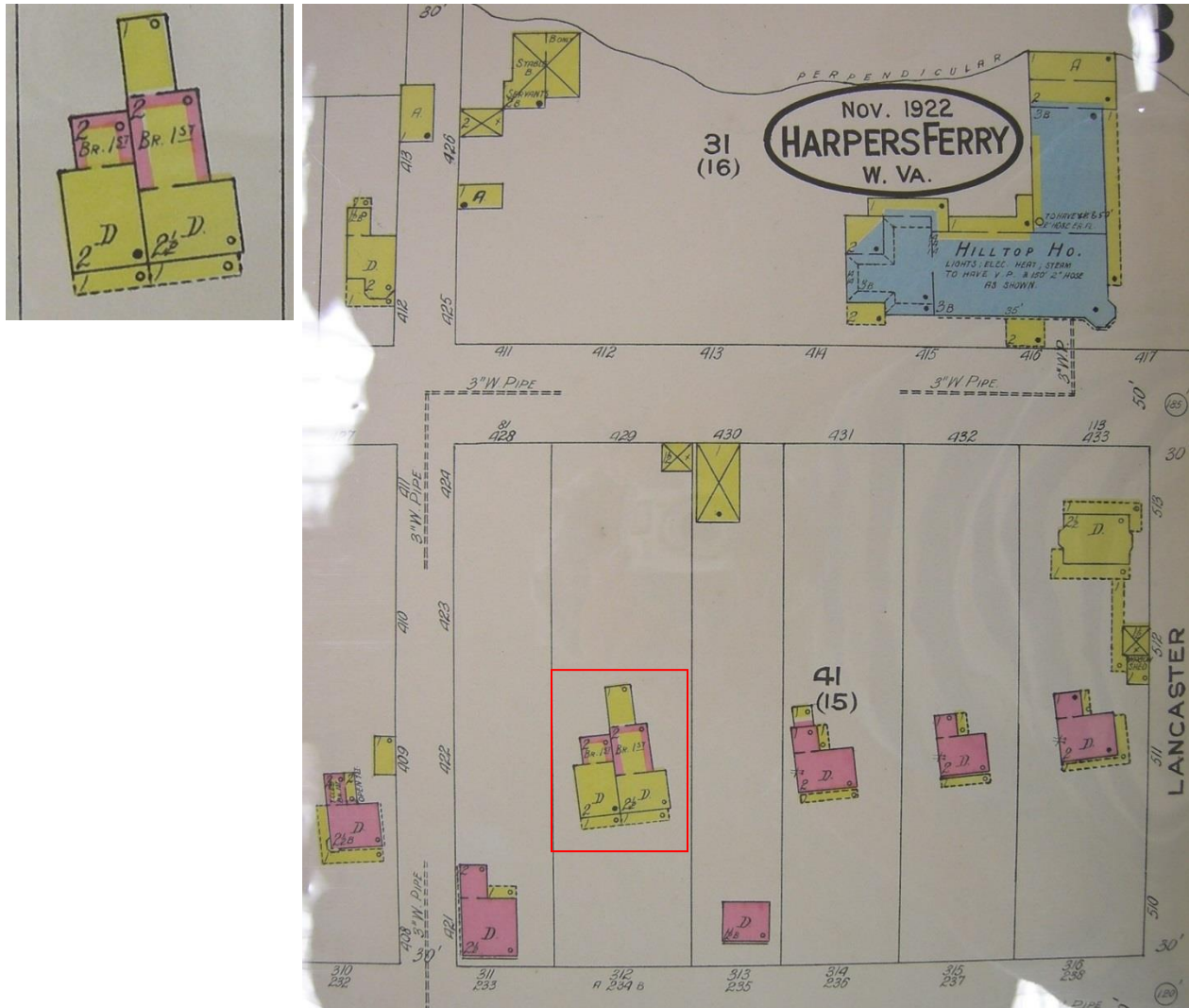
The map shows two wood-frame dwellings; a two-story building on the west and a two-and-a-half-story building on the east. The buildings share a common party wall which divides the structure into an east and west dwelling (duplex). Each dwelling has a two-story rear wing, with brick on the first floor and wood frame on the second, and a one-story wood-frame wing to the north. Both of the buildings are covered with a tin or slate roof, with the exception of the west one-story frame addition, which is covered with wood shingles. A one-and-a-half story wood frame stable is located at the northeast corner of the lot.



<sup>1</sup> Snell, The Town of Harpers Ferry in 1859: A Physical History Documentation for the 1859 Historical Base Map, 49.

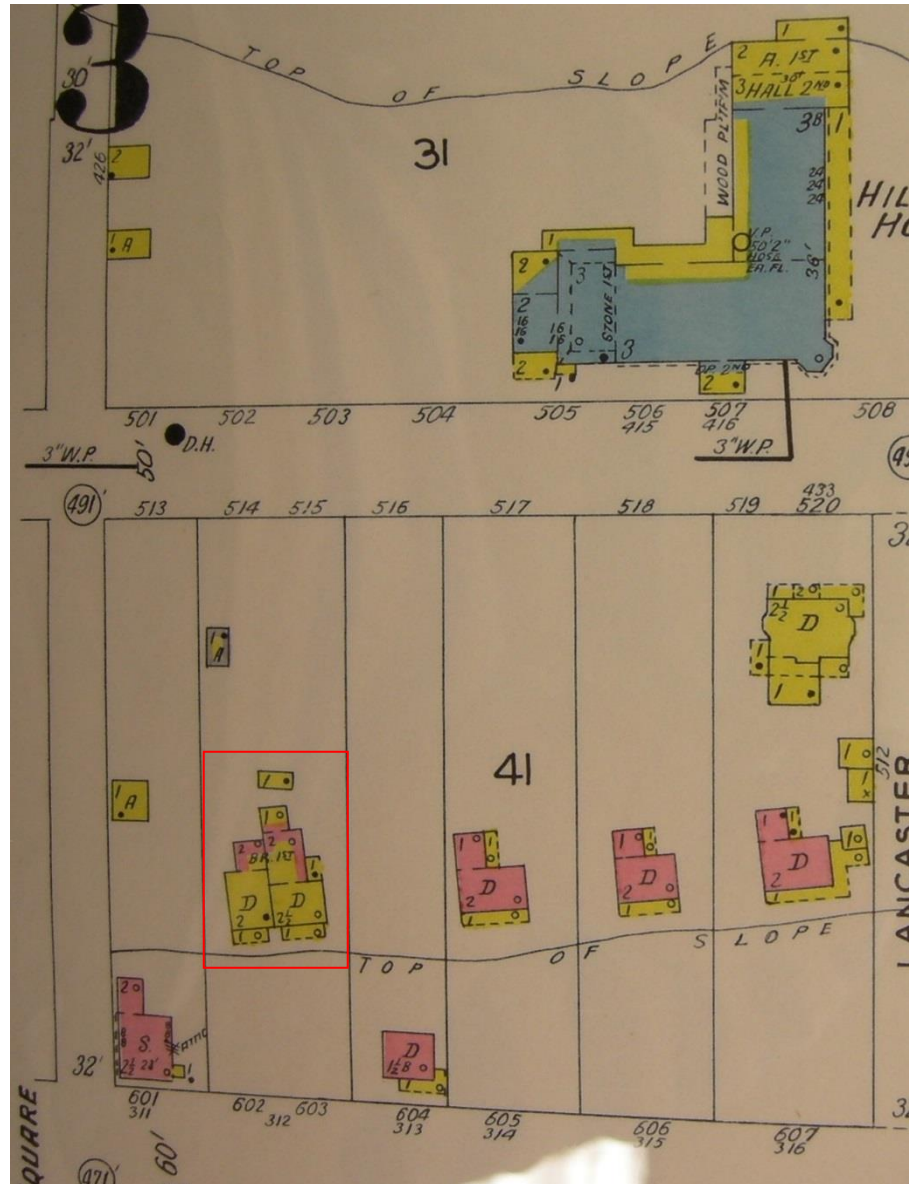
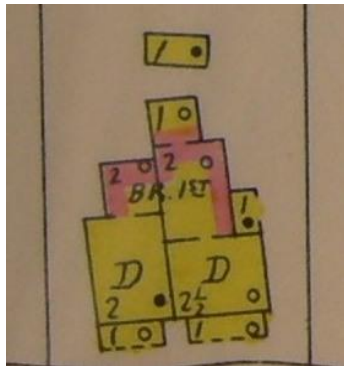
## Sanborn Map 1922:

The only change in the time span from 1912 to 1922 is the removal of the wood-frame, one-story wing on the west dwelling.



### Sanborn Map 1933:

The wood-frame addition on the back of the east dwelling appears to be smaller in 1933 than in 1922. On the east dwelling, a one-story frame addition has been attached to the east side. The front porches on the dwellings also appear to be separated, possibly indicating that they were rebuilt. A new one-story frame structure is located to the northeast of the east duplex. Its function is not noted; however, it is likely to have served an accessory function to the dwelling, such as a carriage house or storage shed. A freestanding wood-frame auto house is also located on the property further to the north. The stable at the northeast corner of the lot has been demolished.





## BUILDING DESCRIPTION

The existing building on this property is a two story duplex of log, wood-frame and stone construction on fieldstone foundation walls. The main portion of the original building is rectangular, approximately 48 feet wide and 20 feet deep. It is constructed of log walls on the first floor and wood-frame construction on the second story. A common party wall divides the structure along the north-south axis into two distinct units, each with two finished floor levels above a cellar level. The east unit cellar is finished, while the west unit cellar remains unfinished. There is a two story rear wing to the north of the main building, also divided into two clearly distinct halves, and likely once a free-standing structure which was later connected to the main building. This rear wing measures approximately 34 feet wide and 16 feet deep, and is of stone construction at the first floor with wood frame construction at the second floor. There is no basement or cellar level. A two-story wood frame "connector", approximately 8 feet deep, is located between the main, original building and the stone building. The east unit has a second addition to the north of the rear wing. This single story wood frame structure is clad in wood and aluminum siding and measures approximately 11 feet wide and 12 feet deep.

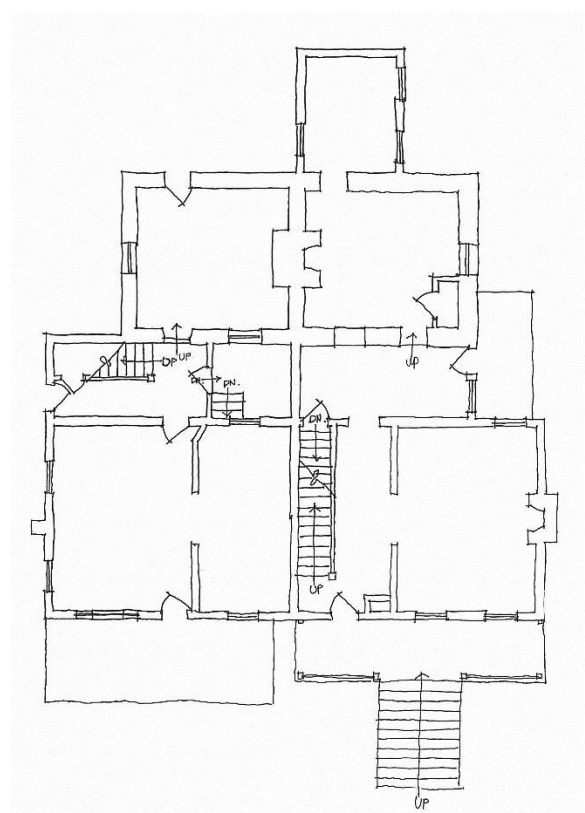
Each unit has a separate wood framed porch located on the south elevation, facing Washington Street. The east unit has a covered porch of wood frame construction supported on masonry piers. The west unit porch is a simple wood frame platform on wood and steel posts. A two-story wood frame porch is located on the east elevation of the east unit.

The original, main building has a side gabled roof with a standing-seam metal roof on the east unit and asphalt roll roofing sheet on the west. The rear additions have shed roofs of varying slope covered with flat-seam and standing-seam metal roofing. There are brick masonry chimneys on the east and west ends of the original portion of the building, and fireplaces with a shared brick chimney at the party wall in the stone building.

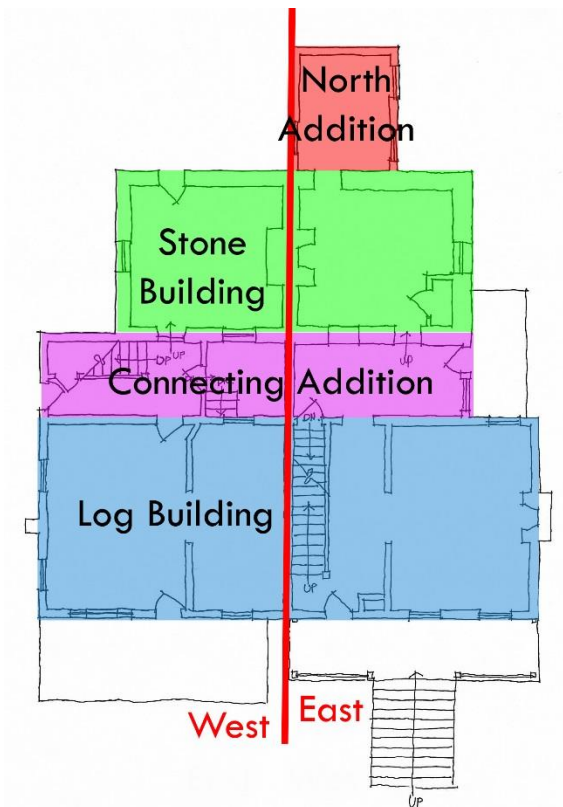
The stone walls of the first floor of two story rear wing to the north of the main building are parged. Wood and vinyl windows varying in



South elevation of west half of residence, Block E, Lot 5 (Oehrlein & Associates, 2008).



Existing first floor plan (Oehrlein & Associates, 2008).



Key to building elements and the proposed sequence of construction (Oehrlein & Associates, 2008).

configuration between 1-over-1, 2-over-1, and 6-over-6 are used throughout the building. The majority of the windows are not historic.

The site is steeply sloped. The front elevation faces south, towards Washington Street. At present, the site is overgrown with vegetation.

Radiators are located adjacent to exterior walls throughout the east unit and provide heat; window unit air conditioners are used in select rooms for cooling. The west unit does not have a working heating/cooling system. A furnace is located in the cellar, but there is no ductwork. Floor grilles at the first floor level and transfer grilles between the first and second floors allow supply air to be transmitted to the upstairs rooms.

## CONSTRUCTION HISTORY

Due to the building complexity, its sequence of construction has been broken down in order to aid in analysis of the building history. The following is based upon survey of the building to date the following is a likely sequence of construction for the building on Block E, Lot 5.

### Pre-1837 to 1859

A one-story log residence (hereafter referred to as the "log building") approximately 48 feet wide and 20 feet deep was constructed on stone foundation walls. There may have been a log wall running in the north-south direction, dividing the building into two rooms. The original basement, however, was very likely one large open area.

### 1859

According to deed records, two one-story frame dwellings were located on the property by the time of sale from the US Government to Asa Marsteller. There is no mention of any other structures on this property at this time, which may indicate that by 1859 the log building had been subdivided into two separate dwelling units.

### 1859 to 1912

First, a one-story stone building (hereafter referred to as the "stone building") was constructed to the north of the log building, resulting in an approximately 8 foot wide open breezeway between the two structures. The stone building has a central stone fireplace that serves to divide it into two rooms. Because of its



fireproof stone construction, this building may have served as a detached kitchen for the log building.

Next, a second floor level was added to the west half of the log building (hereafter referred to as the "second floor addition(s) to the log building"). Shortly after, a second floor was added to the east half of the log structure. Both additions were of wood frame construction.

A subsequent phase of construction enclosed the breezeway between the log and stone buildings at the east unit. This may have been initially a one-story addition, or a two-story construction that coincided with the addition of a second floor level above the stone building. All of these changes were executed in wood frame construction.

Next, a two-story wood frame addition was constructed to enclose the breezeway of the west unit. In addition, a second floor addition of wood frame construction was added above the stone portion of the building. (Hereafter both east and west breezeway enclosures are referred to as the "connecting addition.")

Finally, one-story wood frame rear wings were added to both the east and west units.

### **1912 to 1922**

Between 1912 and 1922, the one-story rear wing on the west unit was demolished.

### **1922 to 1933**

Between 1922 and 1933, a small wood frame addition was added to the north of the stone building on the east unit (hereafter referred to as the "north addition"). Also, a one story wood frame porch was constructed at the intersection of the connecting addition and the stone building of the east unit.

### **Modifications Over Time**

Based upon our survey of the building to date, the following modifications are not original to this building. It is not apparent when these changes were made. With the exception of these modifications, and those discussed previously under 'Sequence of Construction', the remainder of the building may be original construction.



Photograph of modern wood floor framing installed on top of original wood floor in west unit (Oehrlein & Associates, 2008).



Existing picture window at location of former door opening in west unit (Oehrlein & Associates, 2008).



Arrows point to old wood siding on north elevation of east unit log building (Oehrlein & Associates, 2008).



Former window opening in stone wall now filled in with brick masonry (Oehrlein & Associates, 2008).



Existing exterior wood siding over older shiplap wood siding on west elevation of west unit log building (Oehrlein & Associates, 2008).

## **Structural**

- West Unit
  - A modern floor framing system of 2x10 wood joists was constructed over the existing floor and floor framing system in the stone building. Original ceiling joists in this space have been removed (except for one) and replaced with contemporary nominal lumber.
  - An original door opening on the first floor south elevation has been modified to a large picture window. A new door opening has been created to the east of the existing picture window.

## **Exterior**

- East Unit
  - The east unit is clad in aluminum siding which is not original. At the north elevation of the log building, there is a limited amount of wood siding visible at the first floor only. The siding is 5" tall with beveled joints top and bottom.
  - A former window opening has been filled in on the north elevation of the stone building.
  - Most windows on the east unit are new, with few exceptions. Several window frames are older material.
  - Aluminum trim has been applied over what may be old or original wood trim at the east unit windows.
  - Exterior storm windows and screens have been added to many of the windows.
  - Exposed brick at the window opening on the north elevation of the stone building indicates that this opening may have been added or modified over the life of the building.
  - Wood shutters on the east unit are not original.
  - The existing wood porch on the south elevation is not original. Painted masonry piers at the porch are old and may date to as far back as the time of the second floor addition to the log building.
  - The wood two-story, covered porch on the east elevation is not original to the building.



- The chimney on the east elevation of the duplex is made of 8-1/8"x2-1/4"x3-3/4" red bricks with vertically combed faces. Horizontal and vertical mortar joints are 1/2"-3/4" wide and raked 3/8" deep from the face of the brick. The chimney is not original to the building.
- West Unit
  - The log building and the connecting addition of the west unit have German lap wood siding with 5" exposed to weather. At a door opening on the west elevation of the log building, there is some exposed older painted wood shiplap siding, 3/4" thick and 6 1/4" to weather. This siding, and the previously mentioned wood siding on the east unit of the log building, is some of the oldest remaining examples of wood siding on the building.
  - Most windows on the west unit are new, with a few exceptions. The northernmost first floor window on the west elevation of the log building has a wood top sash with pegged connections. The second floor window on the west elevation of the connecting addition is a 9-over-6 double-hung sash with pegged connections. These two window sash may be the oldest surviving windows in the building.
  - Exposed brick at the first floor window opening on the west elevation of the stone building indicates that this opening may have been added or modified over the life of the building.
  - There is evidence that shutters once existed at windows of the second floor addition to the stone building on the west unit.
  - The existing wood porch on the south elevation is not original.
  - The chimney on the west elevation, constructed of concrete masonry units, is not original to the duplex.



Existing window on west elevation of log building (west unit) with wood top sash having pegged connections (Oehrlein & Associates, 2008).



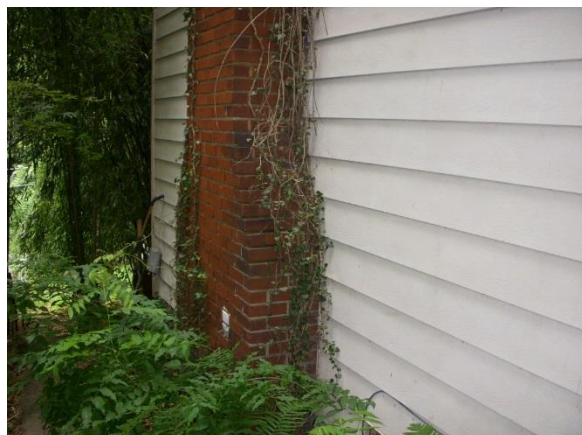
Existing window opening in west elevation of stone building (west unit). Brick masonry on the left side of this opening indicates that the width of the opening may have been modified over time. Also note the portion of wood removed from the wood sill (Oehrlein & Associates,



Shadows at the second floor windows of the west unit indicate the former presence of shutters at these windows (Oehrlein & Associates, 2008).



Painted masonry piers under the east unit porch on the south elevation are the only historic element of the porch still remaining (Oehrlein & Associates, 2008).



Existing brick masonry chimney on the east elevation of the log building (east unit). This chimney is not original to the building (Oehrlein & Associates, 2008).



## **Interior – General**

- East Unit
  - According to the previous owner, the interior has been heavily modified over the past eleven years.
  - West Unit
  - Much of the building's structure, materials and finishes are missing or heavily damaged due to extensive water infiltration into the building.

## **Interior – Cellar**

- East Unit
  - Stone foundation walls have been underpinned on the east half of the log building.
  - Supplemental columns, of both steel and wood, have been added in the cellar to support and reinforce the first floor wood framing systems above.
  - The cellar has a concrete floor slab that is a later modification.
  - The stone foundation walls are white-washed.
  - The stairs from cellar to first floor in the east half of the building are not original.
- West Unit
  - Supplemental columns, of both steel and wood, have been added in the cellar to support and reinforce the first floor wood framing systems above.
  - The cellar maintains its original dirt floor.

## **Interior – First Floor**

- East Unit
  - Existing wood flooring in the log building and its second floor addition have been modified or altered over time. Existing wood floor finishes in this area are likely not original.
  - While the wood doors and frames within the log building are old, they do not appear original to the construction.
  - Suspended gypsum board ceilings have been installed in the log building.
  - There is an existing one inch rise from the floor in the stair hall to the floor in the living room in the log building.
  - Interior wood window casings at windows in the first floor living room of



Existing wood flooring at first floor level in east unit log building (Oehrlein & Associates, 2008).



Wood fireplace mantel on first floor, east unit stone building (Oehrlein & Associates, 2008).



Location of a former door opening at the second floor in the east unit connecting addition to the second floor of the stone building (Oehrlein & Associates, 2008).



Existing painted CMU chimney on the west elevation of the log building (west unit). This chimney is not original to the building (Oehrlein & Associates, 2008).



Existing porch/balcony on the east elevation at the connecting addition (east unit) (Oehrlein & Associates, 2008).



Existing cellar in east unit of log building. The concrete floor slab is not original to the building. All interior walls are whitewashed. Note the supplemental concrete underpinning at the east foundation wall (beyond) (Oehrlein & Associates, 2008).

the log building are contemporary modifications.

- The previous owner reported that the living room fireplace is not operational.
- The suspended ceiling and lighting in the existing kitchen are not original.
- An interior stair to the basement of the log building is accessed through a door in the southwest corner of the kitchen, first floor. This stair is likely not original, as access was probably originally provided at basement level on the south wall, under the porch.
- The first floor stone building and connecting addition are accessed through the kitchen. There is a 7-1/2" rise in floor elevation at the entry to the connecting addition. Wood wall paneling, acoustic ceilings, built-in niches, and the closet in the southeast corner of this space are all modifications to the space. The entire room has a musty smell, indicating the likelihood of water damage and mold being present within the fabric of this portion of the building. A wood fireplace mantle in the stone building is old, and may be original.
- A single room is located within the north addition. The existing vinyl parquet flooring, wood wall paneling, and acoustic tile ceilings are not original to the construction. There is extensive water damage in this area. Due to a large hole in the floor, a thorough survey of this space could not be completed. Three exterior windows in this addition appear to be original to the construction of this addition.



- West Unit
  - A large opening has been cut in the north log building at the connecting addition. This opening may have been a window at one time.
  - 2-1/4" wide wood flooring running in the north-south direction has been installed over 10-14" random width wood floorboards running in the east-west direction of the log building. Also, the flooring system has been modified near the hearth on the west side of this area.

### **Interior – Second Floor**

- East Unit
  - A closet was added in the northeast corner of the second floor south bedroom.
  - There is visual evidence of a former door opening at the north wall of the second floor bedroom (connecting addition). In this same room, a closet has been added in the southwest corner.
  - The door and frame to the bathroom are not original.
  - The stair banister at the second floor landing has been removed as well as a portion of the guardrail at the stair.
  - A sliding glass door has been added to provide access to the two-story covered porch on the east elevation from the space constructed as part of the stone building addition. In this same room, a closet has been added on the west wall. This closet has wood wall paneling and bi-fold doors. Also, 9" square vinyl flooring has been installed over 3-1/2" wood floorboards running in an east-west direction. Note that there is a  $\pm 4\text{-}1/2"$  rise in floor elevation between the second floor level of the main house (at the connecting addition) and the second story addition on the stone building. The floor in this room slopes downward as it moves towards the northeast corner of the space.
  - Suspended acoustic tile ceilings have been installed in the second floor addition to the log building.



Opening made in north wall of west unit log building (Oehrlein & Associates, 2008).



View looking from the second floor down to the first floor in the east unit. Note the missing guardrail on the left side of the photo (Oehrlein & Associates, 2008).



Photograph of second floor of stone building in the east unit. The sliding glass door on the right side of the photograph is a later modification to the building (Oehrlein & Associates, 2008).

- West Unit
  - 2-1/4" wide wood flooring running in the north-south direction has been installed over 10-14" random width wood floorboards running in the east-west direction in the second floor addition to the log building.

### **Interior – Attic**

- East Unit
  - In the attic space of the second floor addition to the log building, remnants of earlier wood roof shingles are visible under the existing metal roofing.

The following Condition Assessment and Recommendations are representative of the 2018 scope of study.



3D Point Cloud scanning of house (Mills Group, 2018).



Aerial view of house (Mills Group, 2018).



Photograph of south elevation of property illustrating deterioration of west half of duplex (Mills Group, 2018).

## CONDITION ASSESSMENT – 2018 UPDATE

The building on Block E, Lot 5 is in fair to poor condition. The second floor level of the west half of the building is missing, as is the connecting addition on the west half of the building. Additionally, the majority of the first floor framing of the west half of the building is missing. A new frame wall with plywood sheathing has been installed on the west side of the connecting addition in the east side of the duplex. For the purposes of this report, the period of significance for the property is defined as c. 1831 – c. 1880.

### Structural - General

- **Foundation:** Under the original log building, thick foundation walls made of fieldstone are set in a bed of soft mortar. The basement is divided into the east and a west portions by a concrete curb about 14" high supporting a wood bearing wall. In the west side of the log building there was a failure of the west foundation wall, most likely due to the deterioration of the mortar. The west wall is almost completely buried in the hill and consequently has remained relatively moist causing a more rapid deterioration of the mortar. Without regular repointing, the wall eventually failed. In the east side of the log building cellar, the buried east wall shows signs of previous distress and subsequent reinforcement. The supplemental concrete underpinning along the bottom three feet of the wall appears to be in good condition.
- **Stone Building Foundation:** The stone building behind the log building appears to have shallower stone foundation walls with only a small gap between grade and the bottom of the first floor framing.
- **Log Building Floor Framing:** First floor framing within the log structure is similar in layout on both sides of the duplex; however, the framing sizes are different. Joists span in the north-south direction and bear on exterior walls and an intermediate dropped beam near the center of their span. This beam runs east-



west in direction and is supported on a series of columns along its span.

- **Connecting Addition Floor Framing:** The frame wall connecting addition is completely absent on the west side of the duplex. On the east side of the duplex, the first floor framing in this area is just a few inches above grade and spans in the north-south direction.
- **Stone Building Floor Framing:** In the stone building, the second floor joists span in the north-south direction on the east side of the duplex. Second floor joists are absent from the west side of the duplex.

### **Structural - East Unit**

- **Log Building Floor Framing:** In the log building, the joist bearings at the north wall are deteriorated and some have been sistered with newer lumber. The central dropped beam is composed of three plies of wood framing, oriented flat. This beam appears to be a later addition, possibly replacing an original beam. Supporting the beam are four steel columns and one timber post. Marks in the beam suggest an additional column was present near the east wall; however, it appears to have been removed for the installation of a mechanical unit. Around the stair opening, the framing appears meek considering its loading. The first floor in the living room slopes to a low point in the northwest corner.
- **Connecting Addition Floor Framing:** In the connecting addition the first floor framing is supported haphazardly by wood posts on grade. The joists and flooring are saturated at their north bearings.
- **Stone Building Floor Framing:** The first floor framing below the east side of the stone building is unknown.
- **North Addition:** The north addition to the east stone building unit is no longer present, with the exception of the below-grade foundation walls and a poured concrete slab and stairs.
- **Porch Framing:** Porch framing has been entirely rebuilt with new wood joists and



Photograph of basement level and first floor framing beneath log building, east unit (Mills Group, 2018).



Frame wall at west end of east unit's connecting addition (Mills Group, 2018).



New porch framing, flooring, posts, and balustrade on east unit (Mills Group, 2018).



Central gable roof framing over second floor addition to log building, east unit (Mills Group, 2018).



Second floor addition to log building framing visible from first level, east unit (Mills Group, 2018).

framing members spanning from the house to the original masonry piers. .

- **Log Building Second Floor Framing:** Floor joists in the second floor addition to the log building span in the north-south direction and are in fair condition.
- **Stone Building Second Floor Framing:** The second floor joists in the stone building span in the north-south direction. The bottom surface of these joists appeared to be hand hewn.
- **Second Floor East Porch Framing:** The second floor exposed porch on the east side of the stone building is absent.
- **Log Building Roof Framing:** The second floor addition to the log building has a gable roof. However, there are almost no collar ties and no ridge board or beam. A few of the rafters are sistered with newer wood members nailed to the rafters just below the peak. A dormer pierces the roof at the south elevation. There are two 2x4 posts under rafters, one under the cut rafter end supporting the dormer and another at the roof peak near the east wall.
- **Connecting Addition Roof Framing:** The roof above the connecting addition and most of the stone building is a shed roof with minimal slope. Rafters span north-south and also support the ceiling. Two areas of the ceiling were significantly stained and deteriorated indicating roof leaks and most likely wood deterioration. At the northern portion of the stone building, the roof slope becomes fairly steep to meet the top level of the north wall.
- **Door and Window Openings:** The majority of the first floor windows and doors were observed to be in distress. The wood lintels in the stone building were significantly deteriorated and failing.



## **Structural - West Unit**

- **Foundation:** On the west elevation of the stone building, there is a hole in the stone foundation wall.
- **Log Building Floor Framing:** In the log building, wood joists in the westernmost portion are completely missing. Above the door (on the south wall) the joists have been notched down to 6" in depth. In the northeast corner some joists' ends were deteriorated and significantly notched, further reducing the capacity of the joists. The dropped beam is pocketed into the east foundation wall, where the bearing was observed to be insufficient. Additional support is provided by a single intermediate post made of salvaged materials likely found on site. Near the east wall, a section of the beam has been cut out, leaving the joists above unsupported. Overall, first floor joists exhibit noticeable deflection in their current state of repair and support.
- **Connecting Addition Floor Framing:** The connecting addition is no longer present on the west side of the duplex.
- **Stone Building Floor Framing:** In the stone building, the first floor framing is completely absent.
- **Porch Framing:** The west unit porch is no longer present.
- **Log Building Second Floor Framing:** In the second floor addition to the log building, no floor joists remain.
- **Connecting Addition Second Floor Framing:** The second floor framing in the connecting addition is no longer present, nor are the wood stairs that originally led to the second floor of this section.
- **Stone Building Second Floor Framing:** The second floor joists in the stone building are completely missing.
- **Log Building Roof Framing:** The second floor addition to the log building is no longer present.
- **Connecting Addition Roof Framing:** The shed roof which originally covered the



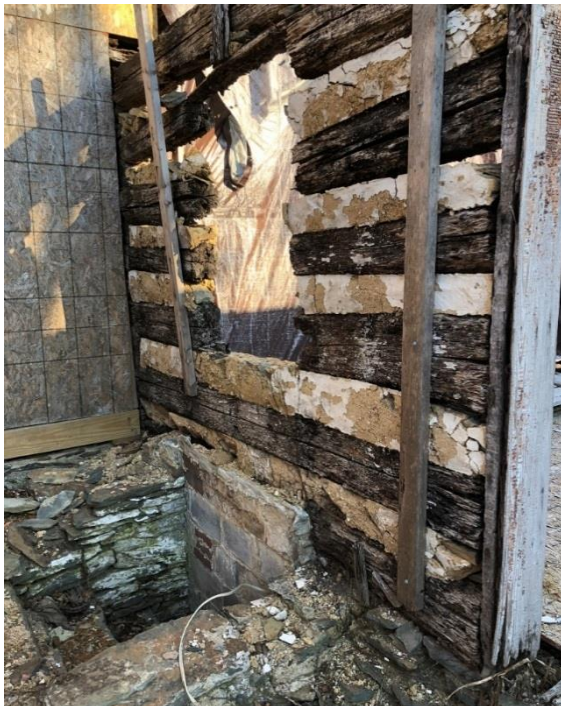
View of deteriorated picture window opening, West Unit log building (Mills Group, 2018).



View of west elevation with protective tarp covering (Mills Group, 2018).



East Unit, stone building fireplace (Mills Group, 2018).



Opening in north wall of West Unit log building (Mills Group, 2018).

connecting addition between the log and stone buildings is no longer present.

- **Stone Building Roof Framing:** The entirety of the roof framing in the stone building is missing.
- **Exterior Walls:** The walls of the log building are exposed at the first floor level, revealing 6" wide x 10" deep logs. The sides of the logs are planed and the ends are v-notched. The south wall on the west side of the log building is experiencing severe deterioration due to termite infestation. The wood studs which originally framed the second floor exterior walls are missing.
- **Door and Window Openings:** There is currently no door frame in the north door opening to the stone building.

### Exterior

- **East Unit**
  - The wooden door from exterior to cellar on the south elevation of the east half of the log building is currently secured shut.
  - The walls of the east side of the log building were not accessible for survey, as they are currently sheathed with wood siding, which appears to be in fair to good condition.
- **West Unit**
  - On the south elevation, decaying and buckling wood siding was evident.
  - Some stucco over the stone walls on the west half of the stone building is missing.
  - All window and door framing is missing from the stone building.

### Interior

- **East Unit**
  - On the interior of the east wall of the log building there is an enclosed brick chimney supported on the foundation wall below. The chimney appears to be cantilevering from the basement wall with little lateral support above.



- In the southeast room of the second floor addition to the east half of the log building, there is mold on walls, indicating that moisture may be penetrating into the wall structure.
- West Unit
  - On the west wall of the log building there was a relatively recent chimney built of concrete masonry units adjacent to the log structure; however, this feature has since collapsed. On the interior there are wood brackets on the first floor wall supporting an older masonry chimney above.



Frame wall on west side of east unit second-story addition to stone building (Mills Group, 2018).



Second floor addition to stone building, east unit – roof framing visible from second level (Mills Group, 2018).



Roof framing over second floor addition to log building, east unit (Mills Group, 2018).

## **RECOMMENDED REHABILITATION SCOPE OF WORK – 2018 UPDATE**

*East and West Units, Stone Masonry Foundation Walls:*

- Excavate full perimeter down to footers. Parge stone foundations above grade and add waterproof membrane to parging. Stabilize and repair foundation walls locally. Add perimeter drainage system tied to stormwater infrastructure.

*East Unit, Rear Entry Slab:*

- Reconfigure to allow for positive drainage.

*North Addition Slab:*

- Remove or reconfigure to allow for positive drainage.

*East Unit Parged Stone Masonry Foundation Walls:*

- Surface cleaning, stucco repair and repainting per NPS Preservation Brief 22.

*Central Concrete and Wood Frame Foundation Wall:*

- Stabilize wall above concrete curb.

*Floor Framing:*

- East Unit Wood Floor Framing, Levels 1 and 2: Selectively structurally reinforce first- and second-level joists.
- West Unit Wood Floor Framing, Level 1: Selectively structurally reinforce joists and rebuild missing floor framing and subfloor.

*Roof Framing:*

- East Unit Porch Roof Framing: Install new porch ceiling.
- West Unit, Main Roof Framing: Install new roof framing over west unit. Configuration to be determined by architect.

*Exterior Walls:*

- East Unit, Log Exterior Walls with Wood Beveled Lap Siding: Surface cleaning and repainting per NPS Preservation Brief 47.
- East Unit, Stone Exterior Walls, Partially Sheathed with Stucco: Surface cleaning

and minor repointing per NPS Preservation Briefs 1, 2, and 47.

- East Unit, Frame Exterior Walls with Wood Beveled Lap Siding: Surface cleaning per NPS Preservation Brief 47.
- East Unit, Wood Porch Railing: Architect to review code compliance. Surface cleaning and repainting per NPS Preservation Brief 47.
- West Unit, Log Exterior Walls: Replace damaged timbers and chinking (assume 70% or greater total replacement). Repair holes in north and south walls. Re-clad exterior with wood beveled lap siding, and paint.
- West Unit, Stone Exterior Walls: Surface cleaning and minor repointing per NPS Preservation Briefs 1, 2, and 47.
- Central Temporary Frame Exterior Walls: Remove and replace with permanent frame walls. Clad with wood beveled siding and paint.

#### Exterior Windows:

- East Unit, Wood Double-Hung Window, East Elevation: Remove existing and replace with new custom wood double-hung divided-light window. Add new storm window.
- East Unit, Vinyl Double-Hung Windows: Remove existing and replace with new custom wood double-hung divided-light windows. Add new storm windows.
- West Unit, Wood Picture Window: Remove and infill with new log timbers to match existing.
- West Unit, Other Window Openings: Install new wood double-hung divided-light windows. Add new storm windows.

#### Exterior Doors:

- East Unit, South 4-Panel Wood Door with Full-Light Top Panel: Remove glazing and install new wood panels to match existing. Clean and paint per NPS Preservation Brief 47. Clean and oil hardware, and add new storm door.



View of deteriorated timber members, West Unit log building (Mills Group, 2018).



Reconstructed porch floor framing and railings (Mills Group, 2018).





View of settlement of East Unit stairs from level 1 to level 2 (Mills Group 2018).



View of single post currently supporting West Unit floor framing (Mills Group 2018).

- East Unit, East 4-Panel Wood Door with Full-Light Top Panel: Clean and paint per NPS Preservation Brief 47. Clean and oil hardware, and add new storm door.
- East Unit, Sliding Glass Door: Remove door and infill wood frame wall.
- West Unit, Missing Entry Door: Configuration to be determined by architect. Fabricate new custom wood door and hardware to match historic profiles if opening to remain.

#### Roofing:

- East Unit, Standing Seam Metal Roofing: Install new gutters and downspouts. Install new snow guards in eagle style.
- West Unit, Missing Roofing: Install new standing-seam metal roofing over log building. Install new gutters and downspouts. Install new snow guards in eagle style. Install new modern roof assembly over stone building, or leave open as interpretive outdoor space.

#### Chimneys:

- East Unit, East Elevation Brick Masonry Chimney: Surface cleaning and repointing per NPS Preservation Briefs 1 and 2.
- Stone Building Brick Masonry Chimney: Surface cleaning and repointing per NPS Preservation Briefs 1 and 2. Parge brick cap and add screening.

#### Interior Partitions:

- East Unit, Interior Stone Walls, Sheathed in Stucco: Re-stucco damaged areas per NPS Preservation Brief 22.
- East Unit, Interior Frame Walls: Configuration to be determined by architect. Stabilize all frame walls to remain.

#### Interior Doors:

- Replace missing doors with new custom wood doors to match historic profiles. Paint existing doors; clean and oil existing hardware per NPS Preservation Brief 18.



#### Interior Fittings:

- Millwork: Configuration to be determined by architect. Replace any missing elements with new to match historic profiles.
- East Unit, Interior Fireplace and Mantle, First Level East Wall: Configuration to be determined by architect. Clean and paint mantle and reattach.
- East Unit, Interior Fireplace and Mantle, First Level Stone Building: Paint and reassemble mantle. Clean chimney and adapt with gas-burning logs.
- West Unit, Interior Fireplace, First Level Stone Building: Clean chimney and adapt with gas-burning logs.

#### Stair Construction:

- East Unit, Interior Wood Stairs from Basement to Level 1: Architect to review code compliance. Rebuild or stabilize after addressing settlement of central wall. Secure first-level access door to basement.
- East Unit, Interior Wood Stairs from Level 1 to Level 2: Architect to review code compliance. Rebuild or stabilize after addressing settlement of central wall. Reconstruct level 2 railing at 42" height.

#### Stair Finishes:

- Interior Stairs from Basement to Level 1: Paint after stabilization/reconstruction.
- Interior Stairs from Level 1 to Level 2: Refinish natural wood after stabilization/reconstruction.

#### Interior Wall Finishes:

- East Unit, Plaster Wall Finishes: Replace missing plaster. Clean and paint existing plaster, and repair any cracking per NPS Preservation Brief 21.

#### Interior Floor Finishes:

- East Unit, Interior Wood Floor Finishes: Replace missing boards. Strip and refinish existing flooring and apply additional clear protective finish per NPS Preservation Brief 18.



View of floor framing of second level visible from porch (Mills Group 2018).



Detail view of west unit porch showing missing ceiling (Mills Group 2018).

- *West Unit, Interior Wood Floor Finishes: Install new wood flooring to match historic precedent.*
- *West Unit, Basement Floor Finishes: Install new concrete subfloor at basement level.*

*Interior Ceiling Finishes:*

- *Interior Missing Plaster Ceiling Finishes: Install new plaster or gypsum ceiling finishes per NPS Preservation Brief 18.*

## HISTORIC RESOURCE PLAN RECOMMENDATIONS

Structure	Armory Duplex	Address	470 Washington Street
-----------	---------------	---------	-----------------------

UNIFORMAT Building Element Classification		Summary of Existing Conditions	Recommendations	Under HLC Purview (Yes or No)	Justification (If not "Like Kind")	
SUBSTRUCTURE	A1010 Standard Foundations	East and West Units, Stone Masonry Foundation Walls: Deterioration of mortar; some stones missing	Excavate full perimeter down to footers. Parge stone foundations above grade and add waterproof membrane to parging. Stabilize and repair foundation walls locally. Add perimeter drainage system tied to stormwater infrastructure	Yes	Like kind	
	A1030 Slab on Grade	1. East Unit, Rear Entry Slab: Severe cracking and deterioration.	Reconfigure to allow for positive drainage	Yes	Like kind	
		2. North Addition Slab: Severe cracking and deterioration.	Remove; or reconfigure to allow for positive drainage	Yes	Like kind	
	A2020 Basement Walls	1. East Unit Parged Stone Masonry Foundation Walls: Stucco restoration recommended.	Surface cleaning, stucco repair and repainting per NPS Preservation Brief 22	No	Like kind	
		2. Central Concrete and Wood Frame Foundation Wall: Settlement evident	Stabilize wall above concrete curb	No	Like kind	



## HISTORIC RESOURCE PLAN RECOMMENDATIONS

<b>Structure</b>	<b>Armory Duplex</b>	<b>Address</b>	<b>470 Washington Street</b>
------------------	----------------------	----------------	------------------------------

UNIFORMAT Building Element Classification		Summary of Existing Conditions	Recommendations	Under HLC Purview	Justification	
SHELL	B1010 Floor Construction	1. East Unit Wood Floor Framing, Levels 1 and 2: Sloping due to settlement; some insect damage	Selective structural reinforcement of first- and second-level joists	No		
		2. West Unit Wood Floor Framing, Level 1: Deteriorated joist ends bearing on foundation walls	Selective structural reinforcement of joists ; rebuild floor framing and subfloor	No		
		3. East Unit Porch Framing: Recently rebuilt; servicable condition	No action	No		
	B1020 Roof Construction	1. East Unit Main Roof Framing: Servicable condition	No action	Yes		
		2. East Unit Porch Roof Framing: Servicable condition; ceiling missing	Install new porch ceiling	Yes		
		3. West Unit, Main Roof Framing: Missing	Install new roof framing over west unit log building; configuration to be determined by architect; install modern roof structure over west unit stone building; or leave open as interpretive outdoor space	Yes		

## HISTORIC RESOURCE PLAN RECOMMENDATIONS

<b>Structure</b>	<b>Armory Duplex</b>	<b>Address</b>	<b>470 Washington Street</b>
------------------	----------------------	----------------	------------------------------

UNIFORMAT Building Element Classification		Summary of Existing Conditions	Recommendations	Under HLC Purview	Justification	
SHELL	B2010 Exterior Walls	1. East Unit, Log Exterior Walls with Wood Beveled Lap Siding: Servicable condition	Surface cleaning, repainting per NPS Preservation Brief 47	Yes	Like kind	
		2. East Unit, Stone Exterior Walls, Partially Sheathed with Stucco: Servicable condition	Surface cleaning, minor repointing per NPS Preservation Briefs 1, 2, and 47	Yes	Like kind	
		3. East Unit, Frame Exterior Walls with Wood Beveled Lap Siding: Servicable condition	Surface cleaning per NPS Preservation Brief 47	Yes	Like kind	
		4. East Unit, Wood Porch Railing: Servicable condition	Architect to review code compliance; surface cleaning and repainting per NPS Preservation Brief 47	Yes	Like kind	
		5. West Unit, Log Exterior Walls: Partially sheathed with wooden shiplap siding; insect infestation and rot evident in logs and chinking; penetration in north and south walls	Replace damaged timbers and chinking (assume 70% replacement); repair holes in north and south walls; reclad exterior with wood beveled lap siding; paint	Yes	Like kind	
		6. West Unit, Stone Exterior Walls: Servicable condition	Surface cleaning, minor repointing per NPS Preservation Briefs 1, 2, and 47	Yes	Like kind	
		7. Central Temporary Frame Exterior Walls: Some plywood panels missing	Remove and replace with permanent frame walls; cover with wood beveled siding	Yes	Match period of significance	
	B2020 Exterior Windows	1. East Unit, Wood Double-Hung Window, East Elevation: Broken glass, deteriorated sill	Remove and replace with new wood double-hung divided-light window; add new storm windows	Yes	Like kind	
		2. East Unit, Vinyl Double-Hung Windows: Non-original feature	Remove and replace with new custom wood double-hung divided-light windows; add new storm windows	Yes		
		3. West Unit, Wood Picture Window: Deteriorated and warped, glazing missing	Remove and infill with new log timbers to match existing	Yes	Like kind	
		4. West Unit, Other Window Openings: Windows missing	Install new wood double-hung divided-light windows; add new storm windows	Yes	Like kind	

## HISTORIC RESOURCE PLAN RECOMMENDATIONS

Structure	Armory Duplex	Address	470 Washington Street
-----------	---------------	---------	-----------------------

UNIFORMAT Building Element Classification		Summary of Existing Conditions	Recommendations	Under HLC Purview	Justification	
SHELL	B2030 Exterior Doors	1. East Unit, South 4-Panel Wood Door with Full-Light Top Panel: Servicable condition	Remove glazing and install new wood panels to match existing; clean and paint per NPS Preservation Brief 47; clean and oil hardware; add new storm door	Yes	Like kind	
		2. East Unit, East 4-Panel Wood Door with Full-Light Top Panel: Servicable condition	Clean and paint per NPS Preservation Brief 47; add new storm door	Yes	Like kind	
		3. East Unit, Sliding Glass Door: Servicable condition	Remove; infill wood frame wall	Yes	Match period of significance	
		4. West Unit, Entry Door: Door missing; frame outfitted with aluminum screen door	Configuration to be determined by architect; fabricate new custom wood door and hardware to match historic profiles if opening to remain	Yes	Match period of significance	
	B3010 Roof Coverings	1. East Unit, Standing Seam Metal Roof Covering: Recently replaced; servicable condition; porch ceiling missing	Install new gutters, downspouts and snow guards in eagle style	Yes	Like kind	
		2. West Unit, Roof Covering: Missing	Install new standing-seam metal roof; add gutters, downspouts and snow guards in eagle style	Yes	Like kind	
	B3020 Roof Openings	1. East Unit, East Elevation Brick Masonry Chimney: Non-original feature; servicable condition	Surface cleaning, repointing per NPS Preservation Briefs 1 and 2	Yes	Like kind	
		2. Stone Building Brick Masonry Chimney: Some brick spalling; servicable condition	Surface cleaning, repointing per NPS Preservation Briefs 1 and 2; parge brick cap and add screening	Yes	Like kind	



## HISTORIC RESOURCE PLAN RECOMMENDATIONS

Structure

**Armory Duplex**

Address

**470 Washington Street**

UNIFORMAT Building Element Classification		Summary of Existing Conditions	Recommendations	Under HLC Purview	Justification	
INTERIORS	C1010 Partitions	1. East Unit, Interior Log Walls: Servicable condition	No action	No		
		2. East Unit, Interior Stone Walls, Sheathed in Stucco: Stucco damage evident at west side of east unit	Re-stucco damaged areas per NPS Preservation Brief 22.	No		
		3. East Unit, Interior Frame Walls: Plaster and lath removed	Configuration to be determined by architect; install plaster or gypsum wall board finish over all frame walls scheduled to remain	No		
	C1020 Interior Doors	East Unit, Interior Wood Paneled Doors: Servicable condition	Replace missing doors with new custom wood doors to match historic profiles; install new hardware and hinges to match historic precedent. paint existing doors; clean and oil existing hardware per NPS Preservation Brief 18	No		
	C1030 Fittings	1. East Unit, Interior Wood Millwork: Some missing/deteriorated elements	Configuration to be determined by architect; replace any missing elements with new to match historic profiles	No		
		2. East Unit, Interior Fireplace and Mantle, First Level East Wall: Mantle removed; enclosed	Configuration to be determined by architect; clean and paint mantle; reattach mantle	No		
		3. East Unit, Interior Fireplace and Mantle, First Level Stone Building: Mantle removed	Paint and reassemble mantle; clean chimney; adapt with gas-burning logs	No		
		4. West Unit, Interior Fireplace, First Level Stone Building: Servicable condition	Clean chimney; adapt with gas-burning logs	No		
	C2010 Stair Construction	1. East Unit, Interior Wood Stairs from Basement to Level 1: Slanting due to wall settlement	Architect to review code compliance; rebuild/stabilize after addressing settlement; secure first-level access door to basement	No		
		2. East Unit, Interior Wood Stairs from Level 1 to Level 2: Slanting due to wall settlement; Level 2 railing missing	Architect to review code compliance; rebuild/stabilize after addressing settlement; reconstruct railing at 42" height	No		

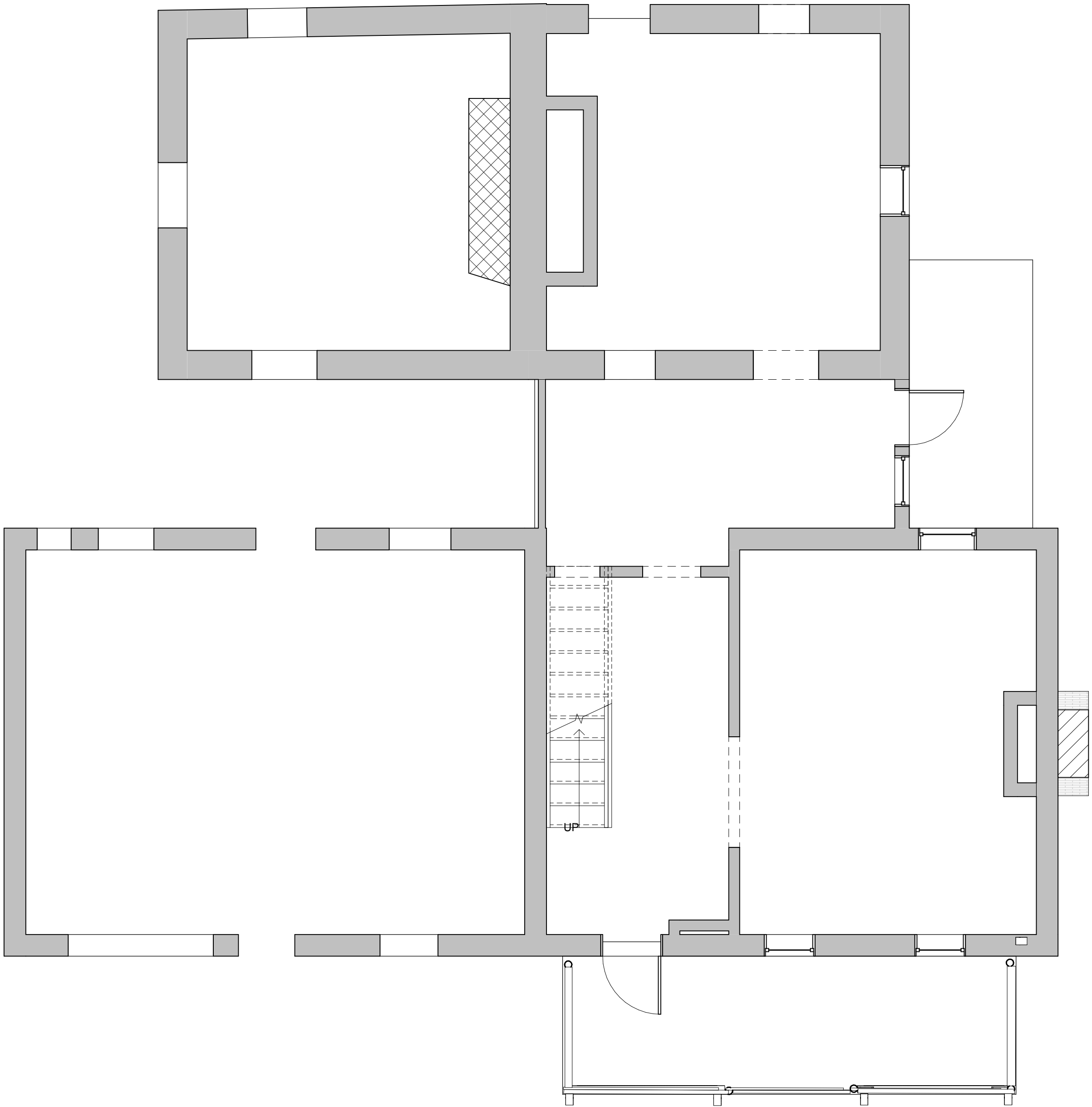
## HISTORIC RESOURCE PLAN RECOMMENDATIONS

<b>Structure</b>	<b>Armory Duplex</b>	<b>Address</b>	<b>470 Washington Street</b>
------------------	----------------------	----------------	------------------------------

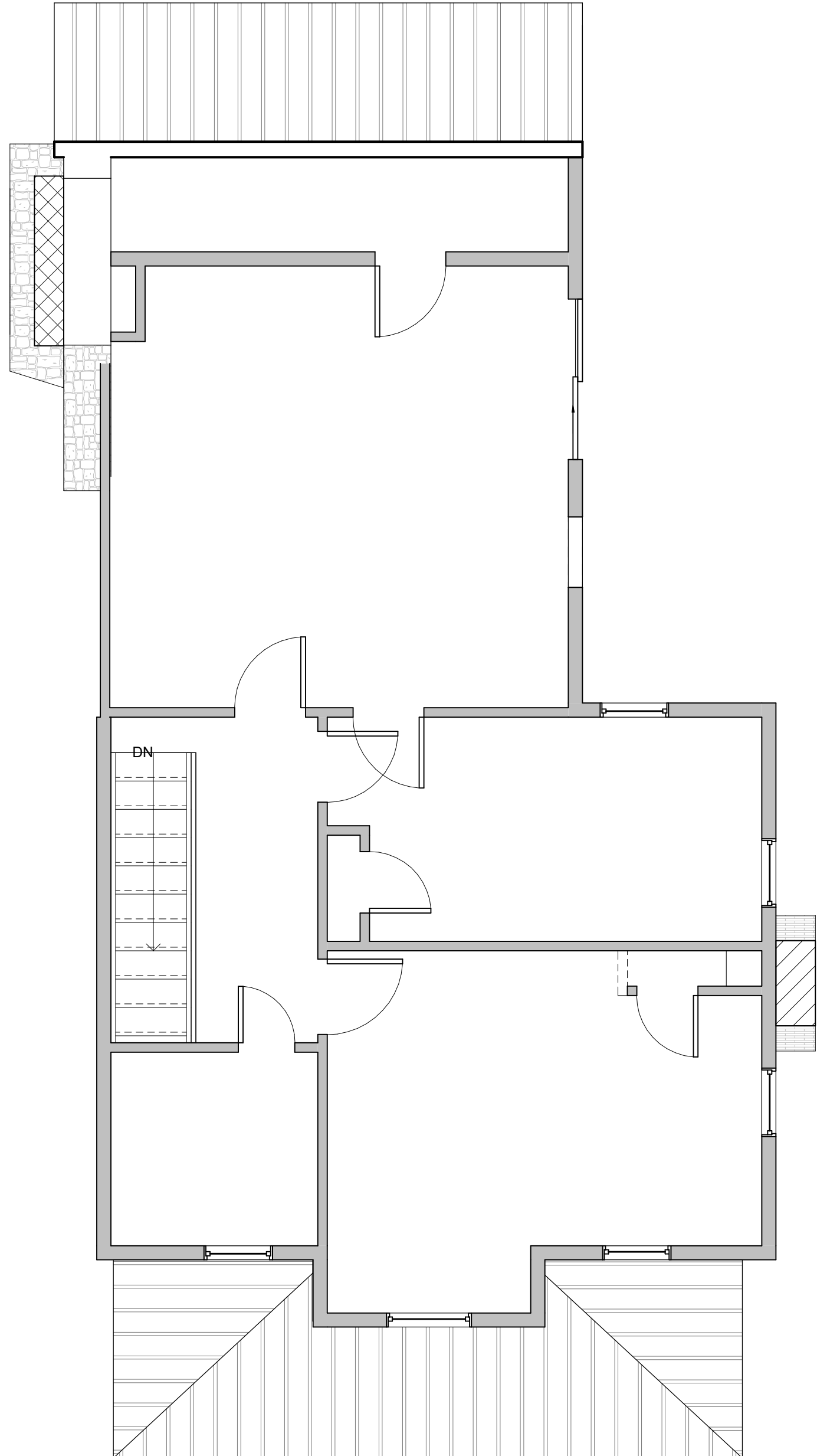
UNIFORMAT Building Element Classification		Summary of Existing Conditions	Recommendations	Under HLC Purview	Justification	
INTERIORS	C2020 Stair Finishes	1. East Unit, Interior Wood Stairs from Basement to Level 1: Servicable condition	Paint after reconstruction/stabilization	No		
		2. East Unit, Interior Wood Stairs from Level 1 to Level 2: Servicable condition	Replicate natural wood finish after reconstruction/stabilization	No		
	C3010 Wall Finishes	East Unit, Interior Plaster Wall Finishes: Servicable condition	Clean and paint all plaster scheduled to remain, repair any cracking per NPS Preservation Brief 21	No		
	C3020 Floor Finishes	1. East Unit, Interior Wood Floor Finishes: Some damage evident	Replace missing boards; strip and refinish existing flooring; apply additional clear protective finish per NPS Preservation Brief 18.	No		
		2. East Unit, Basement Concrete Floor Finishes: Servicable condition	No action	No		
		3. West Unit, Interior Wood Floor Finishes: Missing	Install new wood flooring to match historic precedent	No		
		4. West Unit, Basement Floor Finishes: Missing	Install new concrete floor slab	No		
	C3030 Ceiling Finishes	1. East Unit, Interior Plaster Ceiling Finishes: Missing	Install new plaster or gypsum wall board ceiling finish in first and second levels	No		



3 WHARF STREET, SUITE 300 53 14TH STREET, SUITE 607  
MORGANTOWN, WV 26501 WHEELING, WV 26003  
PH. 304.296.1010 WWW.MILLSGROUPONLINE.COM PH. 304.233.0048



① LEVEL 1  
 $1/4" = 1'-0"$



② LEVEL 2  
1/4" = 1'-0"

PROJECT:

ARMORY DWELLING 4 - DUPLEX

470 WASHINGTON STREET, HARPERS FERRY, WV

SWAN INVESTORS - HILL TOP HOTEL

FLOOR PLANS

Revision Schedule		
No.	Revision Description	Date

INTENDED DRAWING USE:	
EXISTING CONDITIONS	

Project number	17106
Date	04/25/18
Drawn by	PLM
Checked by	MJM

# A101

Scale	1/4" = 1'-0"
-------	--------------

SCALE REFERS TO 24" X 36" PAPER SIZE



① SOUTH  
1/4" = 1'-0"



② WEST  
1/4" = 1'-0"



③ NORTH  
1/4" = 1'-0"



④ EAST  
1/4" = 1'-0"

PROJECT:  
**ARMORY DWELLING 4 - DUPLEX**

470 WASHINGTON STREET, HARPERS FERRY, WV

SWAN INVESTORS - HILL TOP HOTEL

ELEVATIONS

Revision Schedule		
No.	Revision Description	Date
INTENDED DRAWING USE:		
EXISTING CONDITIONS		
Project number	17106	
Date	04/25/18	
Drawn by	PLM	
Checked by	MJM	
A102		
Scale	1/4" = 1'-0"	
SCALE REFERS TO 24" X 36" PAPER SIZE		



## H. BARBERSHOP - BLOCK E, LOT 6

490 WASHINGTON STREET

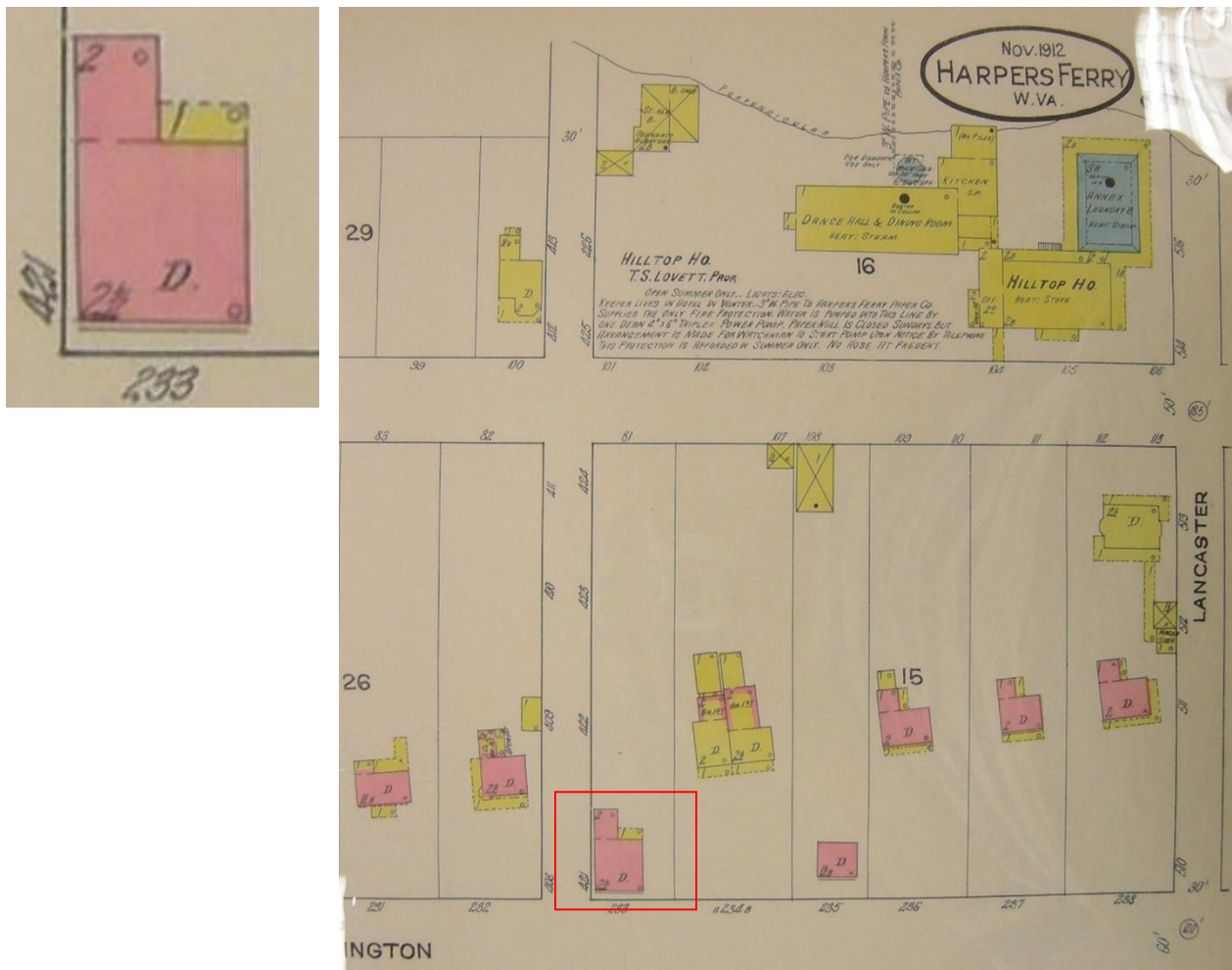
The following Historical Background, Building Description, and Construction History are reprinted from the 2008 Oehrlein & Associates Report.

### HISTORICAL BACKGROUND

At the time of sale in 1859, Block E, Lot 6 was a vacant lot owned by Rezin Cross. It does not appear as though the existing building was constructed by the U.S. Government to house Armory workers; however, it may have been constructed shortly after the land was sold to private citizens. A map titled "Map of Harpers Ferry – Plat of the Harpers Ferry Armory Property laid off into lots for sale in pursuance of the Act of December 15th, 1868" shows a structure on Block E, Lot 6. It is likely that the dwelling was constructed sometime between 1859 and 1868 by the owner, Rezin Cross.

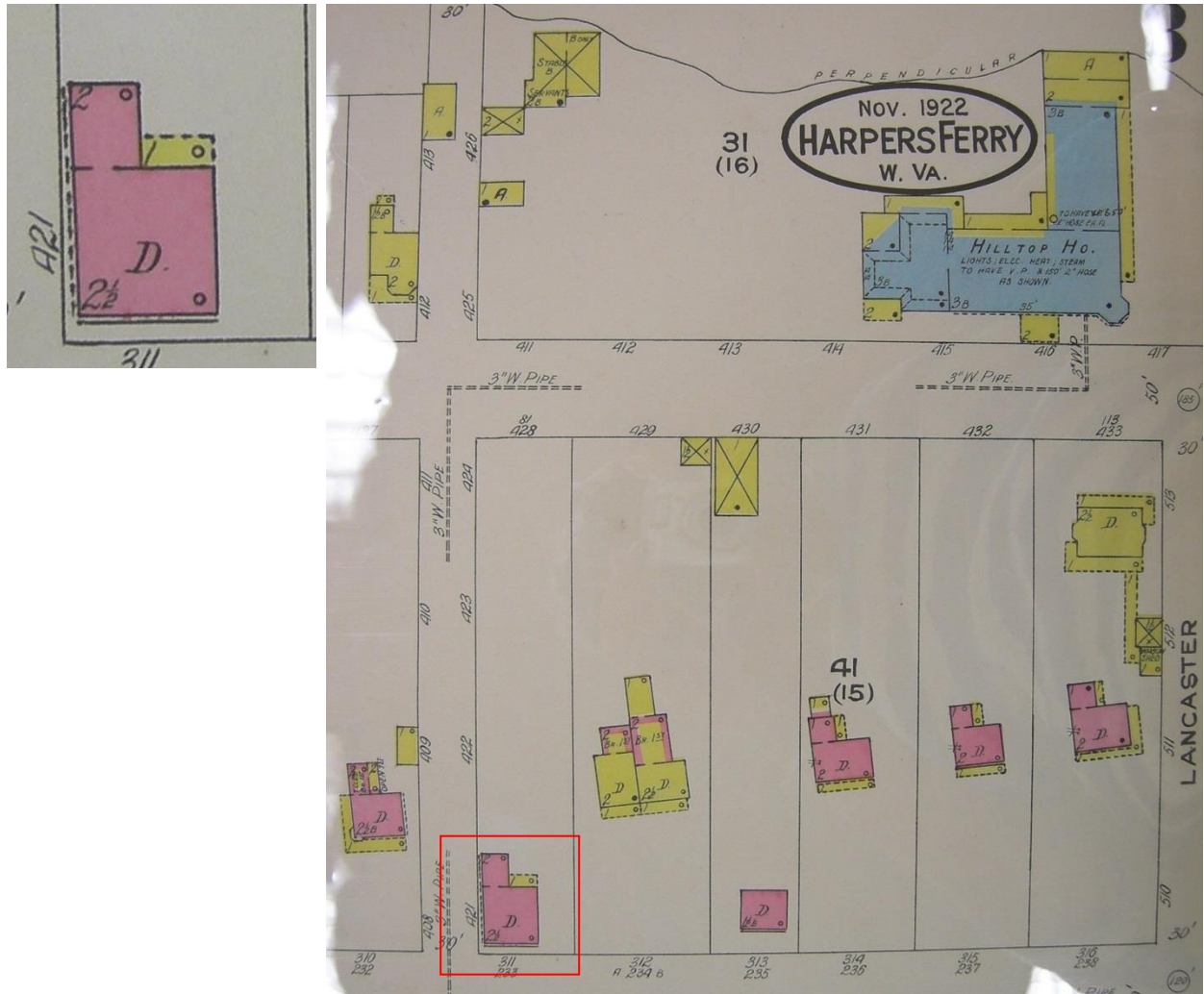
### Sanborn Map 1912:

The map shows a two-and-a-half-story brick (pink) dwelling with a two-story brick wing to the north. Both brick structures have a slate or tin roof. A one-story porch (yellow) is located on the northeast side of the building.



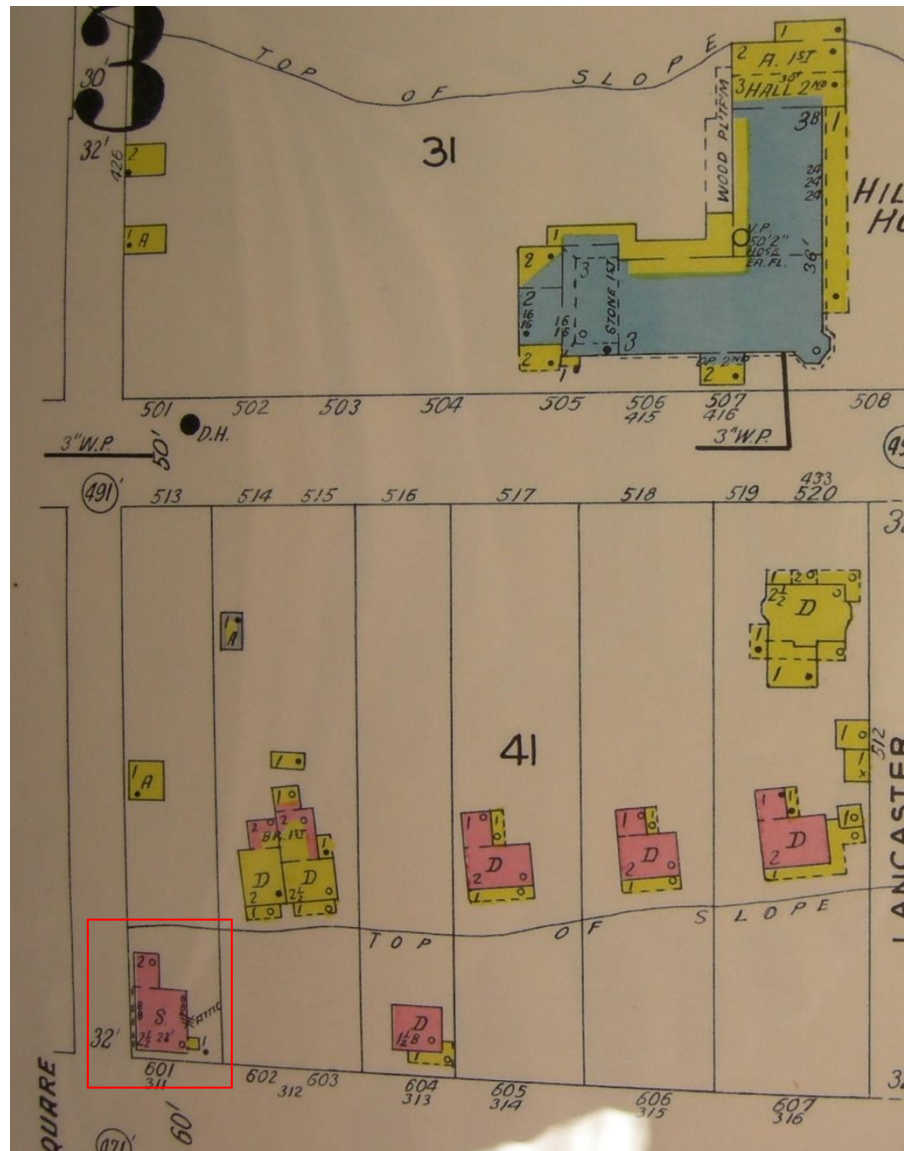
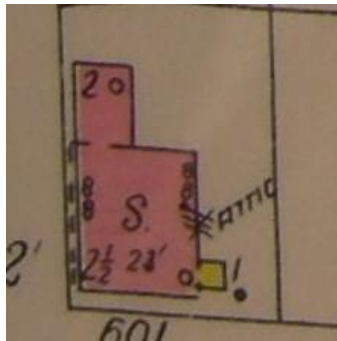
### Sanborn Map 1922:

It appears as though there were no changes to the house between 1912 and 1922.



### Sanborn Map 1933:

The map indicates that between 1922 and 1933 the building was converted from a dwelling to a store. The rear wood-frame porch has been removed and a small, one-story wood-frame structure was added to the east side of the main building. The addition is covered in a composition roof. The map also shows a one-story auxiliary building to the north of the store.





## BUILDING DESCRIPTION

This building is similar in form to other armory houses on the site except that it is larger. It retains the L-shaped plan with a main building block and a rear wing, but with increased overall dimensions. The main portion of the building is approximately eight feet deeper. This increase in depth affects the roof slope and allows the attic to have sufficient height to be usable space. The rear wing is almost three feet wider and two feet deeper, providing additional floor area. The rear wing of this building was also built with two floor levels of usable space, as opposed to the single story rear wings of buildings on Block E, Lots 1 to 3. The rear wing is slab-on-grade construction with no cellar space.

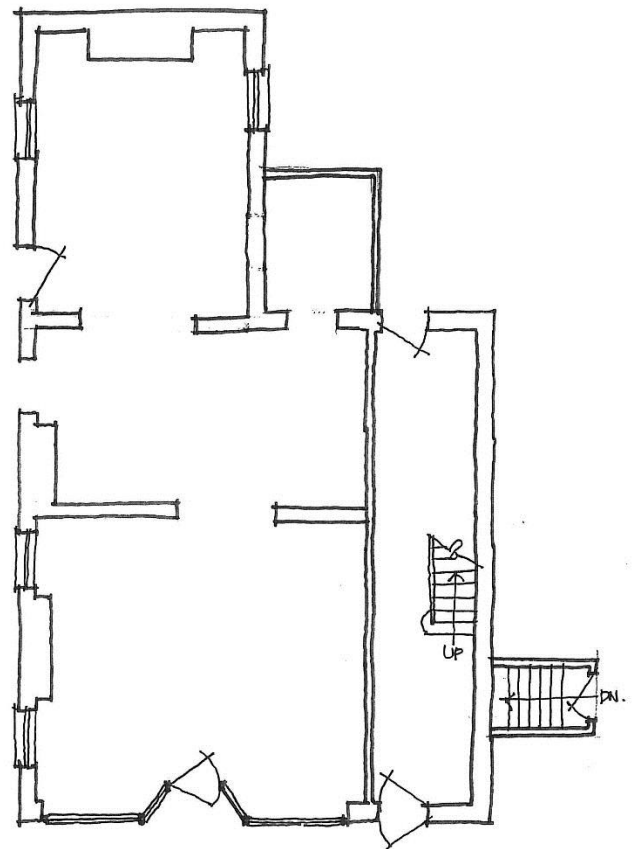
Although this building has many physical similarities to other armory houses on the site, the most noticeable difference is the retail storefront on the south elevation of the first floor. In plan, the first floor is largely devoted to retail space with a separate stair hall along the east side of the main portion of the building. The second floor retains the residential character of other armory houses. The main staircase in the building goes from first floor level up to the attic. A smaller stair leads from first floor level to the cellar.

This building is a brick masonry structure built upon fieldstone foundation walls. The main portion of the building is rectangular, approximately 28 feet wide and 30 feet deep, with two finished floor levels above an unfinished cellar. There is a two story wing on the rear (north) side of the building that measures approximately 15 feet wide and 18 feet deep. This wing is also of brick masonry wall construction on fieldstone foundation walls. Both portions of the building have side gable roofs covered in standing-seam metal roofing. There are two masonry fireplaces and chimneys on the west wall of the main portion of the building, as well as one fireplace/chimney at the north wall of the wing.

There is a small shed structure on the east side of the main building covering a (formerly) exterior stair leading to the cellar. This shed is of wood frame construction with painted, horizontal wood siding and an asphalt shingle roof.



South elevation of building located at Block E, Lot 6 (Oehrlein & Associates, 2008).



Existing first floor plan (Oehrlein & Associates, 2008).





View of north elevation of main building and east elevation of rear wing. The wood-framed shed was added after 1933 (Oehrlein & Associates, 2008).



View of crack in masonry wall at south elevation (Oehrlein & Associates, 2008).

At the north side of the main building, adjacent to the rear wing, there is another small, single-story shed structure added after 1933. This shed is also wood frame construction with horizontal wood siding and a shed roof covered with asphalt shingles.

The exterior brick masonry has some interesting peculiarities to it. Brick masonry units used on the north, east and west elevations are red-orange in color and measure  $\pm 8\text{-}1/4\text{''} \times 2\text{-}3/8\text{''} \times 4\text{''}$ . This brick is a handmade brick, laid in common bond pattern with  $1/2\text{''}$  horizontal and vertical buff colored joints with a concave profile. On the south (front) elevation, the brick is red-orange in color and measures  $\pm 8\text{-}1/4\text{''} \times 2\text{-}3/8\text{''} \times 3\text{-}3/4\text{''}$ . This brick has the textured surface of a handmade brick, but has finer edges and crisper detailing, almost as if it were a pressed brick. Brick on the south elevation is laid in running bond pattern. Horizontal mortar joints range from  $3/8\text{''}$  to  $1/2\text{''}$  tall; vertical joints are  $1/4\text{''}$  to  $3/8\text{''}$  wide. The buff colored joints are finished flush or slightly raked ( $1/16\text{''}$  max.). All of the exterior brick has been painted, with most of the paint still well adhered to the masonry.

All masonry openings on the north, east and west elevations, as well as the second floor window openings on the south elevation, have jack arches. Alterations to the building have different lintel conditions. The first floor door opening on the east end of the south elevation has soldier course bricks above probably supported on a concealed steel lintel. Over the storefront opening, soldier course bricks provide a visual "lintel", but there is certainly additional structure behind the brick to provide necessary support. There is a significant crack above the storefront opening that extends up to the bottom of the second floor windows.

At present, the building is heated by hot water. Radiators set in metal enclosures are located throughout the building adjacent to exterior walls. At the attic floor level there is one window unit air conditioner.

## CONSTRUCTION HISTORY

Based upon our survey of the building to date, the following modifications are not original to this building. It is not apparent when many of these changes were made. With the exception of these modifications, the remainder of the building is original construction.

On the east side of the main portion of the building, the exterior stairway on from grade level down to the cellar is original to the building. The wood shed enclosure at this location was constructed after 1922 and prior to 1933. It was in this same period of time that the use of the building changed from solely residential to include the store use on the first floor.

The storefront and the entrance door on the first floor of the south elevation were added after 1922 and prior to 1933. These alterations required new masonry openings in the south wall of the building.

This building had a full-length shed on the north elevation of the main portion of the building until at least 1922. In 1933, that shed no longer existed. At present, a smaller shed is built on the north elevation between the door opening and the rear wing.

Throughout much of the interior of the structure, gypsum board has been installed over the original plaster wall and ceiling surfaces. In many, but not all, of these instances, new wood base molding was added.

There is a small amount of stucco on the exterior of the building. The chimney projections above the roof on the west wall of the building have been coated with stucco. Also, the north, east and west walls of the rear wing have stucco at the first floor level only. This exterior wall finish is not original to the building.

The chimney at the rear wing has recently been rebuilt and is unpainted. The brick used to rebuild this chimney is not the original brick.

The south window on the west elevation, first floor, has been altered. The historic wood frame remains, but the sash have been removed. The opening now has a single piece of ¼" glazing. All other windows appear original to the building.



Wood frame stair enclosure addition added between 1922 and 1933 (Oehrlein & Associates, 2008).



Detailed view of gypsum board installed over historic plaster (and wallpaper) over wood lath (Oehrlein & Associates, 2008).



View of two chimneys on west elevation (Oehrlein & Associates, 2008).



Interior floorboards of random length and width (Oehrlein & Associates, 2008).



Chimney on rear wing that has been recently reconstructed. Note the decorative eagle snow guards (Oehrlein & Associates, 2008).



The following Condition Assessment and Recommendations are representative of the 2018 scope of study.

## CONDITION ASSESSMENT – 2018 UPDATE

The Barbershop building is in generally fair to good condition. For the purposes of this report, the period of significance for the property is defined as c. 1845 – c. 1880.

### **Structural**

- **Exterior Walls:** There is a crack in the masonry wall on the south elevation, between the storefront opening and the bottom sill of the second floor windows. The entire front wall has a noticeable bow towards the south in this same general area. The diagonal crack pattern and visible out-of-plane movement suggest failure of the lintel by deflecting excessively. The bulging in the south elevation appears to be at the level of the floor framing and may be related to water infiltration or a consequence of the deflecting lintel.
- **Window and Door Openings:** There is some cracking and out-of-plane movement in the jack arch lintels over two windows and one door on the north elevation, one window on the east elevation, and three windows on the west elevation.
- **Chimneys:** The northern chimney on the west wall is leaning slightly to the east.
- **Roofing:** The existing roof of the building is covered with standing-seam metal. There are decorative eagles at each pan that act as snow guards. Some of these snow guards are missing. The roof is keeping the building mostly dry with only one location in the attic ceiling showing water damage, but is near the end of its useful service life. The roof construction under the standing-seam metal was not accessible for survey.
- **Rear Addition Roof Framing:** There is evidence of substantial water damage in the restroom addition located at the rear of the first floor retail space. The shed roof,



3D Point Cloud scanning of building (Mills Group, 2018).



South elevation (Mills Group, 2018).



West elevation showing standing-seam metal roof (Mills Group, 2018).





View of deteriorated rear frame addition (Mills Group, 2018).



View of deteriorated frame basement access addition (Mills Group, 2018).

which is sheathed in asphalt shingles, shows signs of severe deterioration resulting from biological growth and water infiltration.

- **Eastern Addition Roof Framing:** The roof of the eastern frame addition has been subject to water infiltration and biological growth and is partially collapsed.

### **Exterior**

- **Windows:** The south window on the west elevation, first floor, has been altered. All other windows have similar details and are quite old, if not original to the building.

### **Interior**

- **Flooring:** Interior floors are wood planks of random length and width. Most of these floorboards are in good condition; however, some floorboards are cupped. Where alterations have taken place, the original floorboards are missing. There is a noticeable dip in the second floor near the south wall due to structural deficiencies in the south wall. Severe mold was observed on interior plaster of the rear wing, first level.

## RECOMMENDED REHABILITATION SCOPE OF WORK – 2018 UPDATE

### Slab on Grade:

- *Front Entry Slab: Reconfigure to allow for positive drainage and ADA accessibility per NPS Preservation Brief 32.*

### Downspout Spillway:

- *Reconfigure to allow for consolidation of drainage infrastructure per NPS Preservation Brief 39.*

### Floor Framing:

- *Wood Floor Framing, Levels 1 and 2: Selectively structurally reinforce second-level joists near south wall.*

### Roof Framing:

- *Rear Frame Addition Roof Framing: Configuration to be determined by architect. Remove and replace in-kind, if addition to remain.*
- *Basement Access Addition Roof Framing: Remove addition and install new bulkhead door for basement access.*

### Exterior Walls:

- *Brick Masonry Exterior Walls: Repair cracked and bowed south wall. Reinforce/replace structural lintels and jack arches over openings where cracking occurs. Surface cleaning, minor repointing, and repainting/recoating of all other masonry walls per NPS Preservation Briefs 1, 2, and 47. Restore stucco per NPS Preservation Brief 22.*
- *Brick Masonry Exterior Walls with Stucco Sheathing: Restore stucco per NPS Preservation Brief 22, and repaint.*
- *Frame Exterior Walls with Wood Siding, Rear Addition: Replace any deteriorated siding scheduled to remain and repaint.*
- *Frame Exterior Walls with Wood Siding, Basement Access Addition: Remove addition and install new bulkhead door for basement access.*



View of flooring and radiators, second level (Mills Group 2018).



View of kitchen equipment and plaster wall finishes in first level kitchen (Mills Group 2018).



Rear wing fireplace and carpeted flooring (Mills Group 2018).



View of enclosed fireplace, second level west side (Mills Group 2018).

#### Exterior Windows:

- Wood Six-Over-Six Double-Hung Windows: Install new weatherstripping at jambs and meeting rails and new sash hardware. Clean and paint per NPS Preservation Brief 9. Add storm windows.
- Wood Single-Pane Fixed Window - West Elevation: Clean and paint per NPS Preservation Brief 9. Add storm windows.
- Bulkhead Windows: Repair damaged panels. Clean and paint frames.

#### Exterior Doors:

- South 3-Panel Wood Door with Full-Light Top Panel: Clean and paint per NPS Preservation Brief 47. Clean and oil hardware, and add new storm door.
- South 8-Panel Wood Door: Repair damaged frame paneling. Clean and paint per NPS Preservation Brief 47. Clean and oil hardware, and add new storm door.
- North 6-Panel Wood Door: Clean and paint per NPS Preservation Brief 47. Clean and oil hardware, and add new storm door.
- West 4-Panel Wood Door with Upper Panel Glazing: Consider replacement with wood divided-light window to match existing. If not, clean and paint per NPS Preservation Brief 47. Clean and oil hardware, and add new storm door.

#### Roofing:

- Metal Standing-Seam Main Roof: Paint, seal and restore per NPS Preservation Brief 4. Preserve eagle-style snow guards. Reconfigure gutters and downspouts to promote positive drainage.
- Asphalt Shingle Rear and Side Addition Roof Covering: Remove. Replace in-kind on all roofs scheduled to remain.

#### Chimneys:

- West Elevation Brick Masonry Chimneys: Rebuild chimneys above roof level. Parge new brick caps and add screening.



#### Interior Partitions:

- Interior Frame Walls: Configuration to be determined by architect.

#### Interior Doors:

- Paint existing doors. Clean and oil existing hardware per NPS Preservation Brief 18.
- Outfit all new doors with hardware and hinges to match historic precedent.

#### Interior Fittings:

- Millwork: Configuration to be determined by architect. Replace any missing elements with new to match historic profiles.
- Abandoned Fireplace, First Level West Side: Configuration to be determined by architect.
- Fireplaces and Mantle, First Level West Side: Clean and paint mantle. Clean chimneys and adapt with gas-burning logs.
- Fireplace, First Level Rear Wing: Configuration to be determined by architect.
- Abandoned Fireplace, Second Level West Side: Configuration to be determined by architect.
- Fireplaces and Mantle, Second Level West Side: Clean and paint mantle. Clean chimneys and adapt with gas-burning logs.
- Radiators, First and Second Levels: Remove and replace with radiators to match historic precedent.

#### Stair Construction:

- Stairs from Level 1 to Level 2: Architect to review code compliance. Replace missing balusters in-kind.
- Stairs from Main Building to Rear Wing, Second Floor: Architect to review code compliance. Install handrails as needed.
- Stairs from Level 3 to Attic: Architect to review code compliance.



Entry slab and stairs at south wall (Mills Group 2018).



View of fixed wood window, west elevation (Mills Group 2018).



Bulkhead windows at south entry door, west side (Mills Group 2018).





View of secondary entrance door, south elevation east side (Mills Group 2018).



Detail of door frame paneling; south entry door, east side (Mills Group 2018).

#### Stair Finishes:

- Interior Stairs from Basement to Level 1: Replace damaged stair treads. Refinish natural wood finish and repaint.
- Stairs from Main Building to Rear Wing, Second Floor: Refinish natural wood finish and repaint.
- Stairs from Level 3 to Attic: Refinish natural wood finish and repaint.

#### Interior Wall Finishes:

- Plaster Wall Finishes: Replace missing plaster. Clean and paint existing plaster, and repair any cracking per NPS Preservation Brief 21. Follow mold removal protocol to remediate mold in rear wing.
- Exposed Masonry Wall Surfaces: No action; may refinish with plaster or gypsum wall surface as required by programming.

#### Interior Floor Finishes:

- Wood Flooring: Replace missing boards. Strip and refinish existing flooring and apply additional clear protective finish per NPS Preservation Brief 18.
- Carpet Flooring: Remove carpet and replace with wood in keeping with period of significance.
- Linoleum Flooring: Remove linoleum and replace with wood in keeping with period of significance.

#### Interior Ceiling Finishes:

- Interior Plaster Ceilings: Clean and paint, repair any cracking per NPS Preservation Brief 21.

## HISTORIC RESOURCE PLAN RECOMMENDATIONS

Structure	Barbershop	Address	490 Washington Street
-----------	------------	---------	-----------------------

UNIFORMAT Building Element Classification		Summary of Existing Conditions	Recommendations	Under HLC Purview (Yes or No)	Justification (If not "Like Kind")	
SUBSTRUCTURE	A1010 Standard Foundations	Stone masonry foundation walls: Servicable condition	No action	No		
	A1030 Slab on Grade	Front Entry Slab: Servicable condition	Reconfigure to allow for positive drainage and ADA accessibility per NPS Preservation Brief 32	Yes	Like kind	
	A2010 Basement Excavation	Downspout spillway: Eroding perimeter grade	Reconfigure to allow for consolidation of drainage infrastructure per NPS Preservation Brief 39	Yes	Like kind	

## HISTORIC RESOURCE PLAN RECOMMENDATIONS

Structure	Barbershop	Address	490 Washington Street
-----------	------------	---------	-----------------------

UNIFORMAT Building Element Classification		Summary of Existing Conditions	Recommendations	Under HLC Purview	Justification	
SHELL	B1010 Floor Construction	Wood Floor Framing, Levels 1 and 2: Servicable condition; some settlement/dipping at Level 2 near south wall	Selective structural reinforcement of Level 2 joists near south wall	No	Like kind	
	B1020 Roof Construction	1. Main Roof Framing: Servicable condition	No action	Yes		
		2. Rear Frame Addition Roof Framing: Poor condition	Remove and replace in-kind, if addition to remain	Yes	Like kind	
		3. Basement Access Addition Roof Framing: Poor condition	Remove addition and install new bulkhead door for basement access	Yes	Removal of non-original feature, replacement with low-profile feature	
	B2010 Exterior Walls	1. Brick Masonry Exterior Walls: Bowing/cracking on south elevation; Spalling on west elevation at chimneys; Cracking in jack arches above openings on north, east, and west elevations	Repair cracked and bowed south wall; reinforce/replace structural lintels and jack arches over openings; surface cleaning, repointing, and repainting/recoating per NPS Preservation Briefs 1, 2, and 47	Yes	Like kind	
		2. Brick Masonry Exterior Walls with Stucco Sheathing: Servicable condition	Restore stucco per NPS Preservation Brief 22. Repaint.	Yes	Like kind	
		3. Frame Exterior Walls with Wood Siding, Rear Addition: Fair condition; some deterioration of siding at grade	Replacement of any deteriorated siding scheduled to remain, repaint	Yes	Like kind	
		4. Frame Exterior Walls with Wood Siding, Basement Access Addition: Poor condition	Remove addition and install new bulkhead door for basement access	Yes	Removal of non-original feature, replacement with low-profile feature	
	B2020 Exterior Windows	1. Wood Six-Over-Six Double-Hung Windows: Servicable condition	New weatherstripping at jambs and meeting rails, new sash hardware, clean and paint per NPS Preservation Brief 9; add storm windows	Yes	Like kind	
		2. Wood Single-Pane Fixed Window - West Elevation: Servicable condition	Clean and paint; add storm window	Yes	Like kind	
		3. Bulkhead Windows, South Elevation: Some deterioration of wood panels; servicable condition	Repair damaged panels; clean and paint	Yes	Like kind	

## HISTORIC RESOURCE PLAN RECOMMENDATIONS

Structure	Barbershop	Address	490 Washington Street
-----------	------------	---------	-----------------------

UNIFORMAT Building Element Classification		Summary of Existing Conditions	Recommendations	Under HLC Purview	Justification	
SHELL	B2030 Exterior Doors	1. South 3-Panel Wood Door with Full-Light Top Panel: Outfitted with aluminum screen door, servicable condition	Clean and paint per NPS Preservation Brief 47; clean and oil hardware; add new storm door	Yes	Like kind	
		2. South 8-Panel Wood Door: Servicable condition, frame paneling somewhat deteriorated	Repair damaged frame paneling; clean and paint per NPS Preservation Brief 47; clean and oil hardware; add new storm door	Yes	Like kind	
		3. North 6-Panel Wood Door: Servicable condition	Clean and paint per NPS Preservation Brief 47; clean and oil hardware; add new storm door	Yes	Like kind	
		4. West 4-Panel Wood Door with Upper Panel Glazing: Servicable condition, non-original feature	Consider replacement with wood divided-light window to match existing; if not, clean and paint per NPS Preservation Brief 47; clean and oil hardware; add new storm door	Yes	Match period of significance	
	B3010 Roof Coverings	1. Metal Standing-Seam Main Roof Covering: Servicable condition	Paint, seal and restore per NPS Preservation Brief 4; preserve eagle-style snow guards; reconfigure gutters and downspouts to promote positive drainage	Yes	Like kind	
		2. Asphalt Shingle Rear and Side Addition Roof Covering: Poor Condition	Remove and replace on all roofs scheduled to remain	Yes	Like kind	
	B3020 Roof Openings	1. West Elevation Brick Masonry Chimneys: Partially sheathed with stucco; Leaning slightly out-of-plumb	Rebuild chimneys above roof level; Parge new brick caps and add screening	Yes	Like kind	
		2. North Elevation Masonry Chimney: Recently reconstructed, good condition	No action	Yes		



## HISTORIC RESOURCE PLAN RECOMMENDATIONS

Structure	Barbershop	Address	490 Washington Street
-----------	------------	---------	-----------------------

UNIFORMAT Building Element Classification		Summary of Existing Conditions	Recommendations	Under HLC Purview	Justification	
INTERIORS	C1010 Partitions	1. Interior Brick Walls: Servicable condition 2. Interior Frame Walls: Servicable condition	No action Configuration to be determined by architect	No No		
	C1020 Interior Doors	Interior Wood Paneled Doors: Servicable condition	Paint; clean and oil hardware per NPS Preservation Brief 18; install new door hardware and hinges to match historic precedent	No		
	C1030 Fittings	1. Interior Wood Millwork and Built-Ins: Servicable condition	Configuration to be determined by architect; replace any missing elements with new to match historic profiles	No		
		2. Interior Abandoned Fireplace, First Level West Side: Currently enclosed	Configuration to be determined by architect	No		
		3. Interior Fireplaces and Mantle, First Level West Side: Servicable condition	Clean and paint, clean chimneys, adapt with gas-burning logs	No		
		4. Interior Fireplace, First Level Rear Wing: Servicable condition; missing mantle	Configuration to be determined by architect	No		
		5. Interior Abandoned Fireplace, Second Level West Side: Currently enclosed	Configuration to be determined by architect	No		
		6. Interior Fireplaces and Mantle, Second Level West Side: Servicable condition	Clean and paint, adapt with gas-burning logs	No		
		7. Radiators, First and Second Levels: Unknown condition	Remove and replace with radiators to match historic precedent; or remove and install central HVAC	No		
	C2010 Stair Construction	1. Interior Wood Stairs from Level 1 to Level 2: Servicable condition; some missing balusters	Architect to review code compliance; replace missing balusters in-kind	No		
		2. Interior Wood Stairs from Main Building to Rear Wing, Second Floor: Servicable condition	Architect to review code compliance; install handrails as needed	No		
		3. Interior Wood Stairs from Level 3 to Attic: Servicable condition	Architect to review code compliance	No		

## HISTORIC RESOURCE PLAN RECOMMENDATIONS

Structure	Barbershop	Address	490 Washington Street
-----------	------------	---------	-----------------------

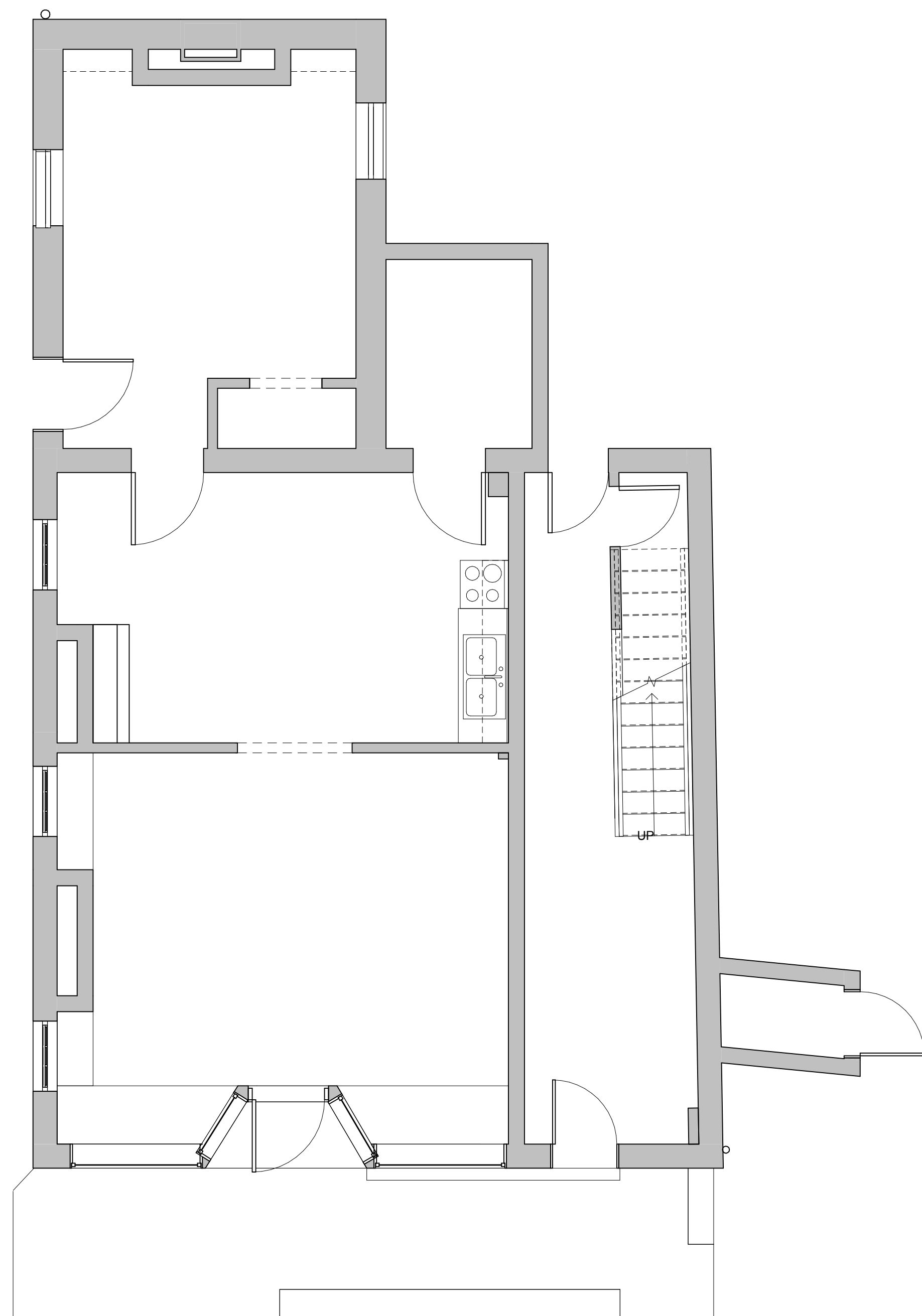
UNIFORMAT Building Element Classification		Summary of Existing Conditions	Recommendations	Under HLC Purview	Justification	
INTERIORS	C2020 Stair Finishes	1. Interior Wood Stairs from Level 1 to Level 2: Servicable condition, three treads damaged	Replace damaged stair treads; refinish natural wood finish; repaint	No		
		2. Interior Wood Stairs from Main Building to Rear Wing, Second Floor: Servicable condition	Refinish natural wood finish; repaint	No		
		3. Interior Wood Stairs from Level 3 to Attic: Servicable condition	Refinish natural wood finish; repaint	No		
	C3010 Wall Finishes	1. Interior Plaster Wall Finishes: Servicable condition	Clean and paint, repair any cracking per NPS Preservation Brief 21; follow mold removal protocol to remediate mold	No		
		2. Interior Exposed Masonry Wall Finishes: Servicable condition	No action; refinish with plaster/gypsum as required	No		
	C3020 Floor Finishes	Interior Wood Floor Finishes: Servicable condition; some damage in Level 1 and Level 2 stair halls	Replace missing boards; strip and refinish existing flooring; apply additional clear protective finish per NPS Preservation Brief 18.	No		
		Interior Carpeted Floor Finishes: Servicable condition, some deterioration due to wear	Remove carpet and replace with wood in keeping with period of significance	No		
		Interior Linoleum Floor Finishes: Servicable condition	Remove linoleum and replace with wood in keeping with period of significance	No		
	C3030 Ceiling Finishes	Interior Plaster Ceiling Finishes: Some cracking throughout; servicable condition	Clean and paint, repair any cracking per NPS Preservation Brief 21	No		



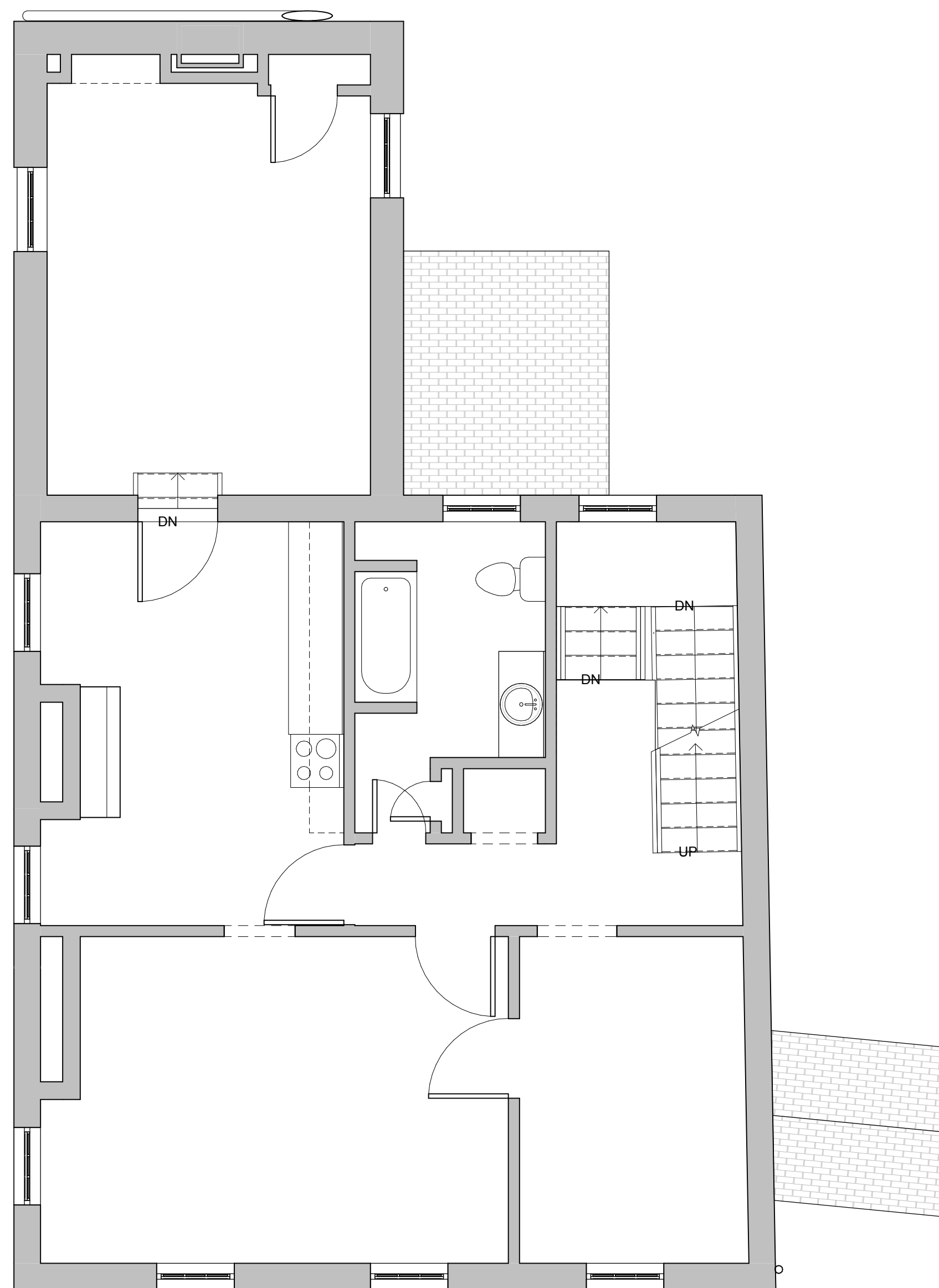
# MILLS GROUP

ARCHITECTURE ■ PLANNING ■ PRESERVATION

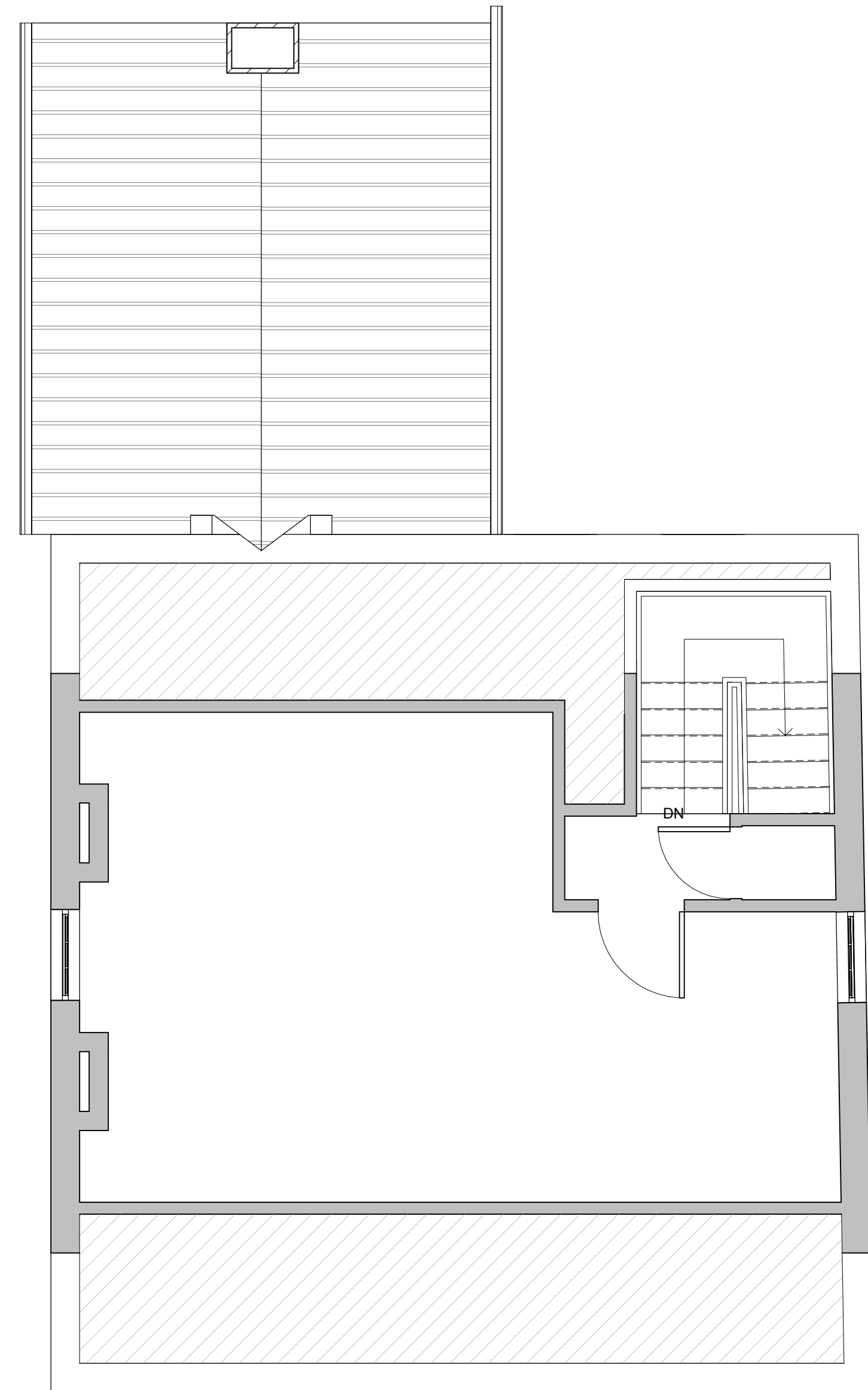
3 WHARF STREET, SUITE 300 53 14TH STREET, SUITE 607  
MORGANTOWN, WV 26501 WHEELING, WV 26003  
PH. 304.296.1010 WWW.MILLSGROUPONLINE.COM PH. 304.233.0048



① LEVEL 1  
1/4" = 1'-0"



② LEVEL 2  
1/4" = 1'-0"



③ ATTIC  
1/4" = 1'-0"

PROJECT:

# BARBERSHOP

490 WASHINGTON STREET, HARPERS FERRY, WV

SWAN INVESTORS - HILL TOP HOTEL

## FLOOR PLANS

### Revision Schedule

No.	Revision Description	Date
-----	----------------------	------


INTENDED DRAWING USE:

## EXISTING CONDITIONS

Project number	17106
Date	04/20/18
Drawn by	PLM
Checked by	MJM

# A101

Scale	1/4" = 1'-0"
-------	--------------

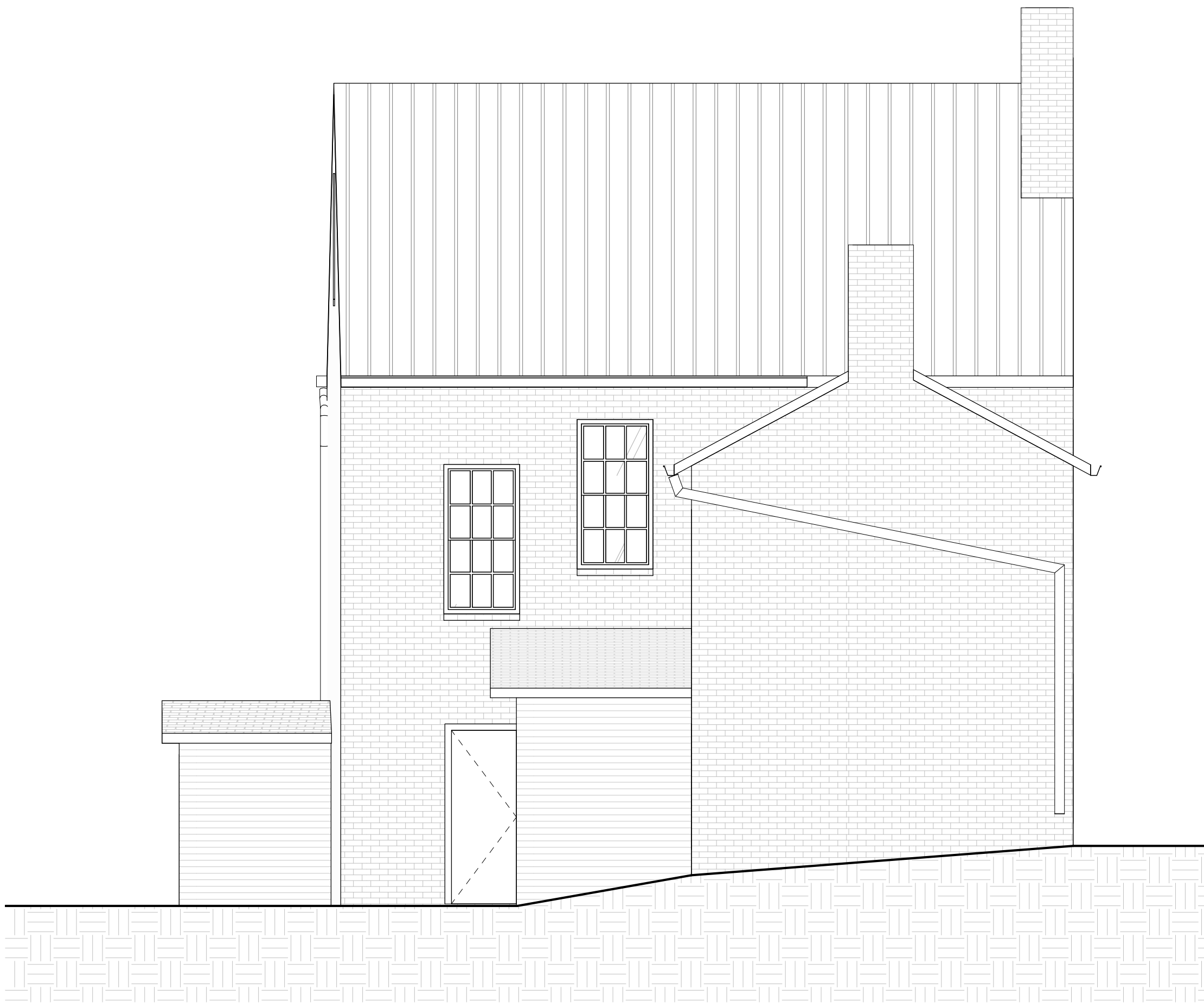
SCALE REFERS TO 24" X 36" PAPER SIZE



① SOUTH  
1/4" = 1'-0"



② WEST  
1/4" = 1'-0"



③ NORTH  
1/4" = 1'-0"



④ EAST  
1/4" = 1'-0"



PROJECT:  
**BARBERSHOP**  
490 WASHINGTON STREET, HARPERS FERRY, WV  
SWAN INVESTORS - HILL TOP HOTEL  
ELEVATIONS

Revision Schedule		
No.	Revision Description	Date
INTENDED DRAWING USE:		
EXISTING CONDITIONS		
Project number	17106	
Date	04/20/18	
Drawn by	PLM	
Checked by	MJM	
A102		
Scale	1/4" = 1'-0"	
SCALE REFERS TO 24" X 36" PAPER SIZE		



## I. ARMORY DWELLING - BLOCK F, LOT 1

500 WASHINGTON STREET

The following Historical Background, Building Description, and Construction History are reprinted from the 2008 Oehrlein & Associates Report.

### HISTORICAL BACKGROUND

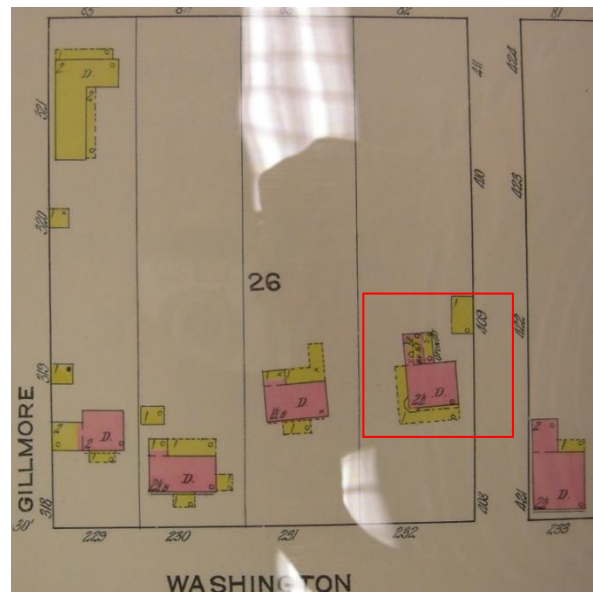
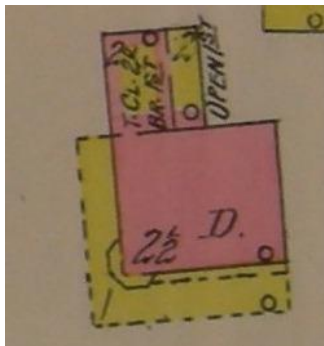
The house located on Block F, Lot 1 was constructed as one of 10 houses on Camp Hill in 1837-38 by either Mason Joseph Hilliard or Mason John Lambaugh.<sup>1</sup> Specifications for the 10 houses were described as:

The main house was 28 by 22 feet, 2-stories high, foundation of stone, 20 inches thick; front and back brick wall 14 inches thick; end wall 9 inches. Kitchen or wing – 1-story high, cellar underneath. Stone foundations 20 inches; brick wall 9 inches. Dimensions 12 by 16 feet.<sup>2</sup>

Henry W. Clowe, former Superintendent of the Armory and Master Machinist was owner of the original building.<sup>3</sup> The original building, however, was modified sometime prior to 1912, as indicated by the Sanborn Map below. The building and land was sold to Henry W. Clowe as a "Brick, 2-story" in 1852,<sup>4</sup> so it is likely that the building additions that exist today date between 1852 and 1912.

### Sanborn Map 1912:

The map shows a two-and-a-half-story brick (pink) dwelling with smaller, two-story brick wing to the north. Both brick sections have slate or tin roofs. A one-story frame porch (yellow) wraps the west and south sides of the main house block. A two-story frame porch, open at the first floor and enclosed at the second, is located at the rear wing of the building. A one-story frame structure is located to the northeast of the main dwelling. Its function is not noted; however, it is likely to have served an accessory function to the dwelling, such as a carriage house or storage shed.



<sup>1</sup> Snell, A History of Armory Dwelling Houses, Volume II, 111.

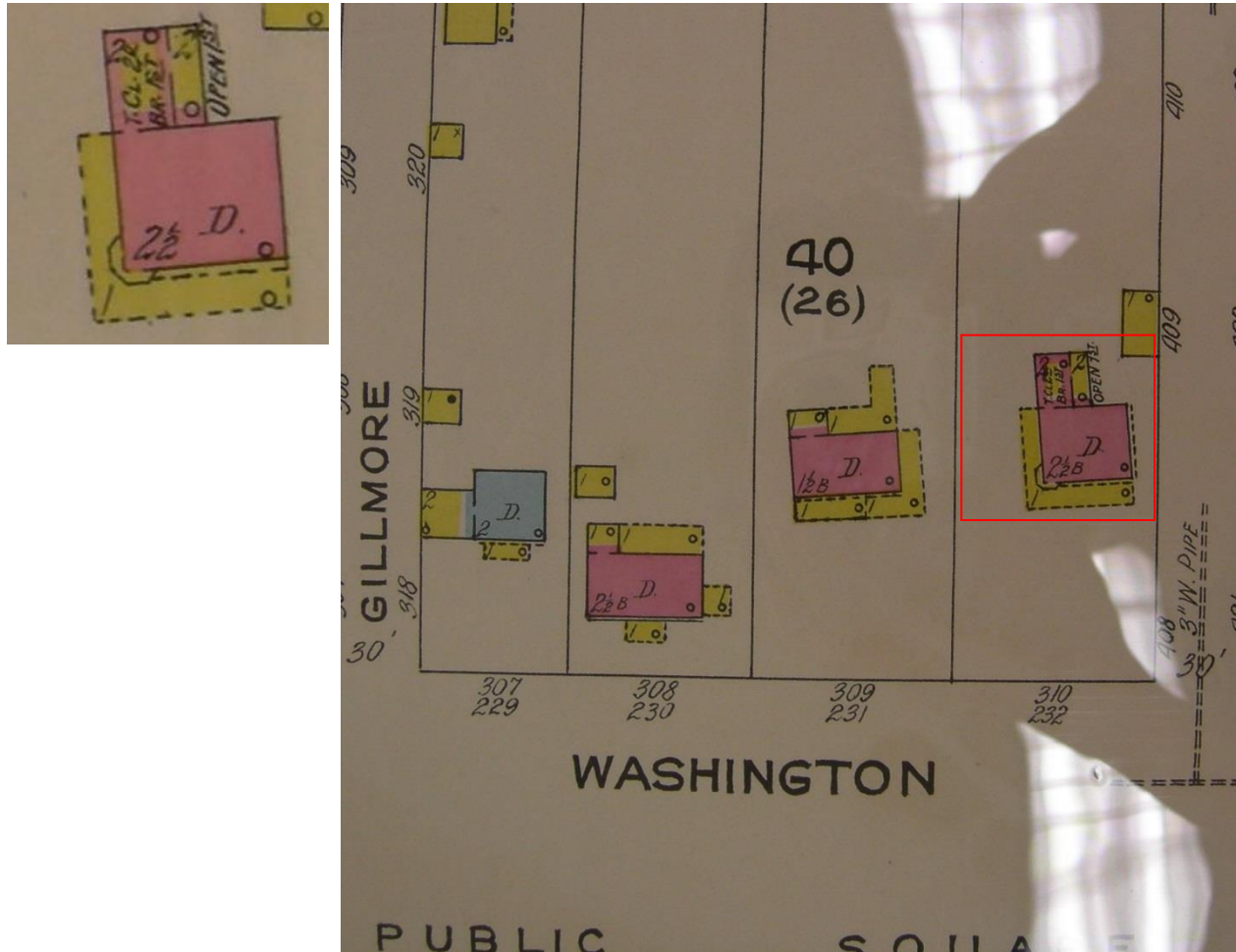
<sup>2</sup> Armory dwellings constructed between 1833-34 were specified with kitchen wings that were 12'x18' feet. Armory dwellings constructed between 1837-38 were specified with slightly smaller kitchen wings, measuring 12'x16'. Snell, A History of Armory Dwelling Houses, Volume II, 111.

<sup>3</sup> Snell, The Town of Harpers Ferry in 1859: Physical History Documentation for the 1859 Historical Base Map, 49.

<sup>4</sup> Snell, A History of Armory Dwelling Houses, Volume II, 113.

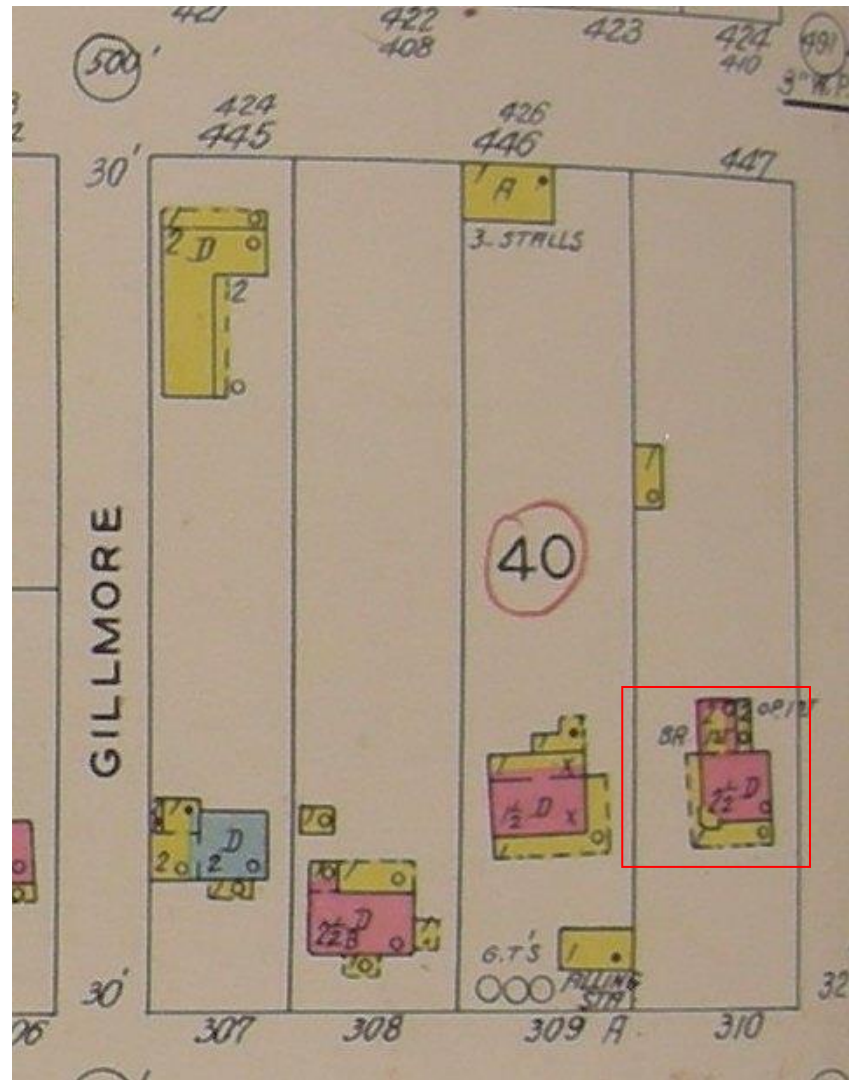
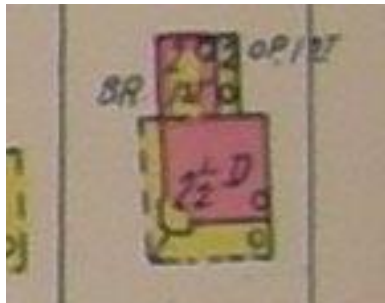
## Sanborn Map 1922

Neither the dwelling nor the accessory structure to the northeast appear to have changed between 1912 and 1922.



### Sanborn Map 1933:

The dwelling does not appear to have changed between 1922 and 1933. The accessory structure located to the northeast has been demolished and a new one-story frame structure has been constructed to the northwest of the dwelling near the lot line.





## BUILDING DESCRIPTION

This building is a brick masonry residence built on fieldstone foundation walls. The fieldstone foundation wall on the east elevation is covered with stucco that is scored to look like stone. The main portion of the building is rectangular, approximately 28 feet wide and 22 feet deep, with two finished floor levels above an unfinished cellar. There is a two story wing with a cellar and attic on the rear (north) side of the building that measures approximately 19 feet wide and 16 feet deep. The original, one-story wing (12 feet wide) is also exposed brick masonry wall construction on fieldstone foundation walls; the second story addition above the wing is wood frame construction with metal siding. The cellars between the main building and the original portion of the rear wing are interconnected, and have the same floor elevations and floor-to-ceiling heights.

The first floor of the main building has a single-story wrap-around porch on the south and east sides. The porch is wood frame construction on stone piers. At the southeast corner of the building at the second floor there is a projecting turret with a conical roof covered in asphalt shingles. The turret is of brick masonry wall construction with wood shingle siding details. Both primary portions of the building have side gable roofs covered in asphalt shingles. There is a cross gable on the south elevation of the building with wood shingle siding, and a gabled dormer on the west elevation of the rear wing. The porch has a low-sloped hip roof covered with standing-seam metal. There are masonry fireplaces and chimneys on the east and west ends of the main portion of the building.

The exterior brick masonry on most of the building is orange in color and measures 8-1/4" to 8-1/2"x2-1/4" to 2-1/2"x4". This brick is a handmade brick, laid in common bond pattern with 3/8 to 1/2" horizontal and vertical buff colored joints with a concave profile. Brick at the turret was not able to be viewed up close, but appears to be a pressed brick with crisper edges and details, with thinner mortar joints. The brick has been painted multiple times.

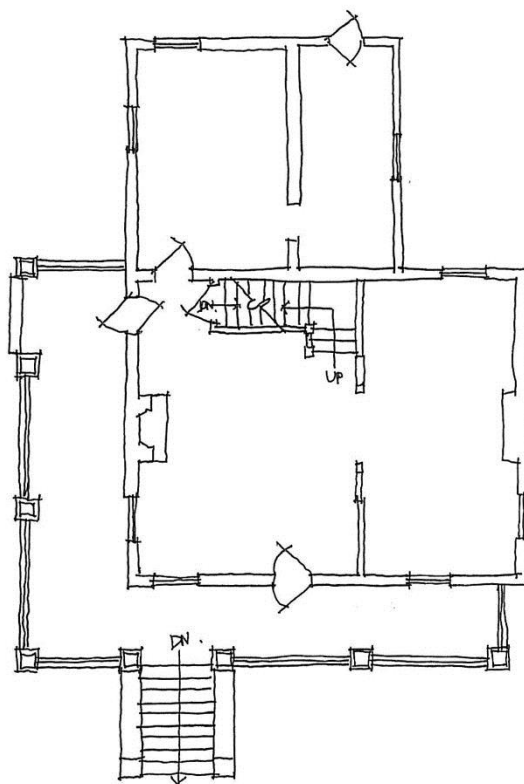
Most windows are one-over-one double-hung wood windows. There is a pair of arched wood



South elevation of residence, Block F Lot 1 (Oehrlein & Associates, 2008).



East and north elevations of the building showing two-story rear wing (Oehrlein & Associates, 2008).



Existing first floor plan. (Oehrlein & Associates, 2008).





Detailed photograph of painted brick masonry. The red on the right is the most recent color, while the maroon is an earlier paint color. Portions of the original orange brick can be seen in areas of missing paint (Oehrlein & Associates, 2008).

windows in the south elevation of the cross gable. These windows are made to look like double-hung windows, but are actually fixed sash. A similar, single arched window is located on the second floor of the rear wing at the east end of the north elevation. There is at least one six-pane casement window in the cellar.

The building is heated by hot water. Radiators set in metal enclosures are located throughout the building adjacent to exterior walls.

The site is steeply sloped site. The front elevation faces south, towards Washington Street.



View of second floor window, east side of north elevation. This window is very similar in detail to the pair of windows in the cross gable of the south elevation, and may have been relocated when the rear wing was expanded (Oehrlein & Associates, 2008).



Typical one-over-one wood window with exterior storm panel installed. Only the first floor windows on the south and west elevations under the porch roof have shutters (Oehrlein & Associates, 2008).

## CONSTRUCTION HISTORY

Based upon survey of the building to date, the following alterations have been made to the original 1838 structure. It is not apparent when these changes were made. With the exception of these modifications, the remainder of the building is original construction.

The original rear wing of the house was a single story masonry structure on fieldstone foundation walls. Prior to 1912, a second story was added, as well as an open porch on the first floor at the east elevation. This porch was enclosed after 1933. The original, one-story portion of the rear wing retains its painted brick exterior, while both the second-story and porch additions are clad in metal siding. The window on the first floor, north elevation of the rear wing was added after the original construction.

At one time, the cellar space was accessed from the exterior by a stair located beneath a bulkhead at grade on the east side of the original rear wing. The opening for this stair has been partially filled in. Two wood posts have been retrofitted to support two first floor joists located within this opening. The original method of support is unclear.

A window opening on the west wall of the rear wing in the cellar has been in-filled with masonry.

In the cellar under the main portion of the building, the interior faces of the east and north walls, as well as the east half of the south wall, were covered with plaster that is partially intact. The interior walls of the cellar under the original rear wing were whitewashed at one point in time.

Foundation walls have underpinned with concrete. The cellar spaces have concrete ground slabs whereas the original condition was likely a dirt floor. The concrete slab continues on the exterior, along the south foundation wall below the porch.

The masonry opening between the cellar spaces under the main house and the rear wing is original. However, the existing door is modern.



View looking southeast at the rear wing of the house. Note that the original portion of the rear wing is brick, while the later addition is clad in metal siding (Oehrlein & Associates, 2008).



Original opening in east wall of cellar below rear wing, partially filled in with fieldstone. Note the existing floor joists above that are supported by two wood posts (Oehrlein & Associates, 2008).





West wall of rear wing cellar showing an area where a window opening in the fieldstone foundation wall has been in-filled (Oehrlein & Associates, 2008)



West foundation wall concrete underpinning and concrete ground slab. Note the damp area in the southwest corner where water often collects (Oehrlein & Associates, 2008)



View to north from the cellar under the main portion of the building into the cellar under the rear wing showing original stone wall opening and modern door and frame construction (Oehrlein & Associates, 2008).

A door opening is located in the former exterior masonry wall at the first floor level between the original rear wing and the enclosed porch addition added to the east. Currently no door is in place; however evidence on the door frame indicates that there once was an in-swinging door at this location. Prior to the rear wing additions, this masonry opening was likely a door to the exterior.

One-over-one, double-hung wood windows are used throughout the structure. While the sash are old, they are not original to the 1838 construction. Exterior storm windows have been added at most windows.

The exterior porch is constructed primarily of wood elements that are newer than the rest of the house.

The stairway from the cellar to first floor and first to second floors was a later modification to the building as indicated by the dimension lumber used for the stair framing. The layout of the original stair configuration could not be determined.

Only one firebox, fireplace mantel and masonry hearth remain located in the west room of the first floor in the main portion of the house. Three additional fireboxes on the first and second floors have been covered over and the mantels and brick hearths removed.

The built-in cabinetry located to the north of the concealed east first floor fireplace is not original. Closets in the second floor bedrooms are not original construction.

There is evidence that there may have once been an opening in the wall between the two south second floor bedrooms.

Most, if not all, wood floors have been replaced through the house. Light fixtures throughout the house have also been replaced over time.



Photograph of the lone remaining fireplace, mantle and brick hearth. Three other fireplaces have been covered over and the mantles and hearths removed (Oehrlein & Associates, 2008).



Door opening in original east exterior masonry wall of rear wing that now leads to the addition added on the east side of the rear wing (Oehrlein & Associates, 2008).



Built-in cabinetry located on the north side of the concealed east first floor fireplace is not original to the house (Oehrlein & Associates, 2008).



Photograph of existing stair from cellar to first floor. Stair is not original to the structure (Oehrlein & Associates, 2008).



Photograph of existing stair from first to second floor. Stair is part of a later renovation to the house (Oehrlein & Associates, 2008).





3D Point Cloud scanning of building (Mills Group, 2018).



View of rear enclosed addition (Mills Group, 2018).



View of central roof dormer from attic (Mills Group, 2018).

The following Condition Assessment is representative of the 2018 scope of study.

### **CONDITION ASSESSMENT – 2018 UPDATE**

As of 2018, the building is in good condition. For the purposes of this report, the period of significance for the property is defined as c. 1831 – c. 1880.

#### **Structural**

- **Foundation:** Foundation walls are approximately 24 inches thick made of fieldstone set in a bed of soft mortar. Much of the mortar has disintegrated and turned to powder. There is an area of missing stone at the south end of the west foundation wall, approximately 16 inches square. Foundation walls for the addition at the rear wing were not accessible.
- **Cellar Walls:** There is a 29" high x 6" wide exterior concrete retaining wall at the southwest corner of the cellar level. This wall retains soil along the west wall of the foundation walls from the concrete slab area beneath the porch along the south side of the building.
- **Main Floor Framing:** In the main portion of the house, first floor framing is supported on the fieldstone foundation walls. Four temporary steel columns have been added for secondary support. Second floor and attic floor framing in the main portion of the house were not accessible.
- **Rear Wing Floor Framing:** First floor framing in the rear wing is 2"x7-1/8" wood joists @ 22" o.c. There are two floor joists that are supported by wood posts in the partially filled original opening for the cellar stair. The bearing condition for these two joists needs immediate attention to prevent a structural failure.

- *Porch Framing:* The exterior porch is framed with a combination of modern and older wood framing. Wood beams at the perimeter and around stone columns are older wood members. Porch floor joists are 2x8 dimensional wood members. Ends of the joists are reinforced with additional 2x wood blocking and metal joist hangers. The porch floor is 3" wide tongue-and-groove pine that is not original.
- *Main Roof Framing:* Roof construction over the main portion of the rear wing is asphalt shingles over 1" thick, random width wood sheathing over roof rafters. There is no ridge beam, but the roof rafters are connected using wooden dowels at the ridge. The side gable has wood rafters with a ridge beam. Roof framing at the turret was not accessible. When the rear wing was enlarged, some of the roof sheathing on the north slope of the main roof was removed to provide access from the rear wing attic into the attic over the main portion of the building.
- *Rear Wing Roof Framing:* Roof construction in the rear wing is asphalt shingles over 1" thick, random width wood sheathing over wood rafters. There is a ridge beam. The gabled dormer has wood rafters with no ridge beam. Wood roof rafters show evidence of being wet at some point in time.



View of closet enclosure, second level rear wing (Mills Group, 2018).



Detail view of window at attic stairs, rear wing (Mills Group, 2018).



Interior view of turret addition (Mills Group, 2018).



Fireplace, first level west side (Mills Group, 2018).

### **Exterior**

- *Door and Window Openings:* Settlement is evident in the masonry jack arch above the first floor window at the south end of the west elevation.
- *Shutters:* Wood shutters for all windows are missing, with the exception of two windows on the south elevation. At least one missing shutter may be stored under the porch.
- *Cellar Door:* The wooden access door to the cellar on the south elevation under the porch has water damage at the bottom. This, coupled with evidence that water often collects on the cellar floor, indicates that there are drainage issues.
- *Cellar Window:* The window frame at the north end of the east wall at the cellar level has been covered over on both the interior and exterior. It is not certain if the window sash remains.

### **Interior**

- *Finishes:* There is an area of damaged plaster ceiling at the east room of the first floor of the main portion of the building. This damage is likely water damage from plumbing fixtures or piping located in the bathroom above.



Decorative column and millwork detail, first level (Mills Group, 2018).



## **RECOMMENDED REHABILITATION SCOPE OF WORK – 2018 UPDATE**

### *Stone Masonry Foundation Walls:*

- Excavate full perimeter down to footers. Parge stone foundations above grade and add waterproof membrane to parging. Stabilize and repair foundation walls locally. Add perimeter drainage system tied to stormwater infrastructure.

### *Porch Stone Masonry Cheek Walls Adjacent to Stairs:*

- Surface cleaning and minor repointing needed per NPS Preservation Briefs 1 and 2.

### *Rear Entry Slab:*

- Reconfigure slab to allow for positive drainage and ADA accessibility.

### *Downspout Spillway:*

- Reconfigure to allow for consolidation of drainage infrastructure per NPS Brief 39.

### *Parged Stone Masonry Foundation Walls:*

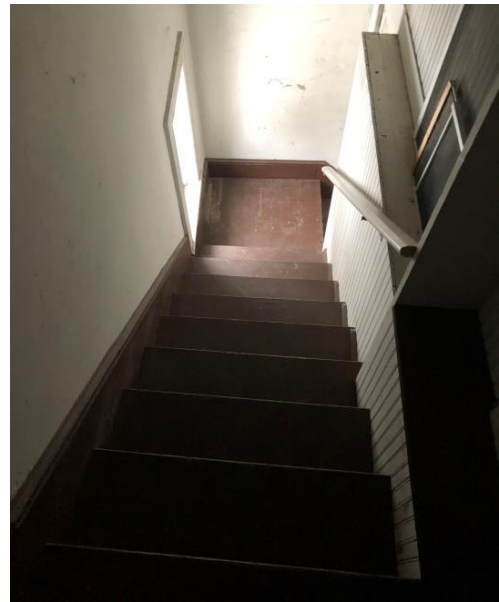
- Surface cleaning, stucco repair and repainting per NPS Preservation Brief 22.

### *Wood Floor Framing, Level 1 and 2:*

- First-level: joists need selective structural reinforcement.

### *Exterior Walls:*

- Brick Masonry Exterior Walls: Surface cleaning, minor repointing, and repainting per NPS Preservation Briefs 1, 2, and 47.
- Frame Exterior Walls with Metal Siding: Surface cleaning and repainting per NPS Preservation Brief 47.
- Porch Railings: Architect to review code compliance. Surface cleaning and repainting per NPS Preservation Brief 47
- Porch Lattice Panels: Surface cleaning and repainting per NPS Preservation Brief 47



View of attic stairs and landing (Mills Group 2018).



Detail view of exterior storm windows (Mills Group 2018).





Overview of property, facing northwest (Mills Group 2018).



Interior finishes, first level, rear wing (Mills Group 2018).



View of second-level stair railing (Mills Group 2018).

#### Exterior Windows:

- Wood Double Hung Windows: New weatherstripping at jambs and meeting rails, new sash hardware, clean and paint per NPS Preservation Brief 9
- Aluminum Exterior Storm Windows: Clean and paint.

#### Exterior Doors:

- South 3-Panel Wood Door with Full-Light Top Panel: Clean and paint per NPS Preservation 47. Add new storm door.
- East 3-Panel Wood Door with Full-Light Top Panel: Clean and paint per NPS Preservation 47. Add new storm door.
- North 4-Panel Wood Door with Full-Light Top Panel: Clean and paint per NPS Preservation 47. Add new storm door.

#### Roofing:

- Roof Covering, Asphalt Shingle Main Roof: Remove asphalt roofing and replace with standing-seam metal roofing. Add new gutters, downspouts, and add snow guards in eagle style.
- Roof Covering, Metal Standing-Seam Porch: Restore, seal and paint covering per NPS Preservation Brief 4.
- Roof Openings, Brick Masonry Chimney: Surface cleaning and repointing needed per NPS Preservation Briefs 1 and 2. Parge brick cap and add screening.

#### Interior Partitions:

- Frame Walls: Configuration to be determined by architect.

#### Interior Doors:

- Replace missing doors with new custom wood doors to match historic profiles. Install new hardware and hinges to match historic precedent.
- Paint existing doors; clean and oil existing hardware per NPS Preservation Brief 18.

#### Interior Fittings:

- Millwork: Configuration to be determined by architect.

- *Fireplace and Mantle, First Level West Side: Clean and paint mantle, and adapt fireplace with gas-burning logs.*
- *Interior Abandoned Fireplace, First Level East Side: Configuration to be determined by Architect.*
- *Radiators: Configuration to be determined by Architect.*

#### *Stair Construction:*

- *Interior Stairs from Basement to Level 1: Architect to review code compliance. Secure first-level access door to basement.*
- *Interior Stairs from Level 1 to Level 2: Extend height of second-floor guardrail to 42". Architect to review code compliance.*
- *Interior Stairs from Level 2 to Attic: Architect to review code compliance.*

#### *Stair Finishes:*

- *Interior Stairs from Basement to Level 1: Repaint stairs.*
- *Interior Stairs from Level 1 to Level 2: Refinish natural wood.*
- *Interior Stairs from Level 2 to Attic: Repaint stairs.*

#### *Interior Wall Finishes:*

- *Plaster Wall Finishes: Clean and paint existing plaster, and repair any cracking per NPS Preservation Brief 21.*

#### *Interior Floor Finishes:*

- *Wood Flooring: Replace missing boards. Strip and refinish existing flooring and apply additional clear protective finish per NPS Preservation Brief 18.*
- *Linoleum Flooring: Replace flooring with material in keeping with period of significance.*

#### *Interior Ceiling Finishes:*

- *Interior Plaster Ceiling Finishes: Clean, paint and repair any cracking per NPS Preservation Brief 21.*



Interior finishes and windows, second level, south wall (Mills Group 2018).



Attic stair entrance and adjacent closet showing stair carriage (Mills Group 2018).

## HISTORIC RESOURCE PLAN RECOMMENDATIONS

Structure	Red House	Address	500 Washington Street
-----------	-----------	---------	-----------------------

UNIFORMAT Building Element Classification		Summary of Existing Conditions	Recommendations	Under HLC Purview (Yes or No)	Justification (If not "Like Kind")	
SUBSTRUCTURE	A1010 Standard Foundations	Stone Masonry Foundation Walls: Servicable condition	Excavate full perimeter down to footers. Parge stone foundations above grade and add waterproof membrane to parging. Add perimeter drainage system tied to stormwater infrastructure.	No		
	A1020 Special Foundations	Porch Stone Masonry Cheek Walls at Steps: Masonry restoration recommended	Surface cleaning, minor repointing per NPS Preservation Briefs 1 and 2	Yes	Like kind	
	A1030 Slab on Grade	1. Reinforced Concrete Basement Floor: Servicable condition	No action	No		
		2. Rear Entry Slab: Servicable condition	Reconfigure to allow for positive drainage and ADA accessibility per NPS Preservation Brief 32	Yes	Like kind	
	A2010 Basement Excavation	Downspout Spillway: Eroding perimeter grade	Reconfigure to allow for consolidation of drainage infrastructure per NPS Preservation Brief 39	Yes	Like kind	
	A2020 Basement Walls	Parged Stone Masonry Foundation Walls: Stucco restoration recommended	Surface cleaning, stucco repair and repainting per NPS Preservation Brief 22	Yes	Like kind	

## HISTORIC RESOURCE PLAN RECOMMENDATIONS

Structure	Red House	Address	500 Washington Street
-----------	-----------	---------	-----------------------

UNIFORMAT Building Element Classification	Summary of Existing Conditions	Recommendations	Under HLC Purview	Justification	
SHELL	B1010 Floor Construction	Wood Floor Framing, Levels 1 and 2: Servicable condition, some insect damage	Selective structural reinforcement of first-level joists	No	
	B1020 Roof Construction	1. Main Roof Framing: Servicable condition	No action	Yes	
		2. Porch Roof Framing: Servicable condition	No action	Yes	
	B2010 Exterior Walls	1. Brick Masonry Exterior Walls: Servicable condition	Surface cleaning, minor repointing, and repainting per NPS Preservation Briefs 1, 2, and 47	Yes	Like kind
		2. Frame Exterior Walls with Metal Siding: Servicable condition	Surface cleaning and repainting per NPS Preservation Brief 47	Yes	Like kind
		3. Porch Railings: Servicable condition	Architect to review code compliance; surface cleaning and repainting per NPS Preservation Brief 47	Yes	Like kind
		4. Porch Lattice Panels: Servicable condition	Surface cleaning and repainting per NPS Preservation Brief 47	Yes	Like kind
	B2020 Exterior Windows	1. Wood Double-Hung Windows: Servicable condition	New weatherstripping at jambs and meeting rails, new sash hardware, clean and paint per NPS Preservation Brief 9	Yes	Like kind
		2. Aluminum Exterior Storm Windows: Servicable condition	Clean and paint	Yes	Like kind
	B2030 Exterior Doors	1. South 3-Panel Wood Door with Full-Light Top Panel: Outfitted with aluminum screen/storm door, servicable condition	Clean and paint per NPS Preservation Brief 47; add new storm door	Yes	Like kind
		2. East 3-Panel Wood Door with Full-Light Top Panel: Outfitted with wood screen door, servicable condition	Clean and paint per NPS Preservation Brief 47; add new storm door	Yes	Like kind
		3. North 4-Panel Wood Door with Full-Light Top Panel: Servicable condition	Clean and paint per NPS Preservation Brief 47; add new storm door	Yes	Like kind



## HISTORIC RESOURCE PLAN RECOMMENDATIONS

Structure	Red House	Address	500 Washington Street
-----------	-----------	---------	-----------------------

UNIFORMAT Building Element Classification		Summary of Existing Conditions	Recommendations	Under HLC Purview	Justification	
SHELL	B3010 Roof Coverings	1. Asphalt Shingle Main Roof Covering: Requires replacement	Remove asphalt roofing and replace with standing-seam metal roofing; add new gutters and downspouts; add snow guards in eagle style	Yes	Match period of significance	
		2. Metal Standing-Seam Porch Roof Covering: Requires restoration	Restore, seal and paint per NPS Preservation Brief 4	Yes	Like kind	
	B3020 Roof Openings	Brick Masonry Chimneys: Masonry restoration recommended	Surface cleaning, repointing per NPS Preservation Briefs 1 and 2; Parge brick cap and add screening	Yes	Like kind	

## HISTORIC RESOURCE PLAN RECOMMENDATIONS

Structure	Red House	Address	500 Washington Street
-----------	-----------	---------	-----------------------

UNIFORMAT Building Element Classification		Summary of Existing Conditions	Recommendations	Under HLC Purview	Justification	
INTERIORS	C1010 Partitions	1. Interior Brick Walls: Servicable condition	No action	No		
		2. Interior Frame Walls: Servicable condition	Configuration to be determined by architect	No		
	C1020 Interior Doors	Interior Wood Paneled Doors: Servicable condition		Paint existing doors; clean and oil existing hardware per NPS Preservation Brief 18. Install new hardware and hinges to match historic precedent.	No	
	C1030 Fittings	1. Interior Wood Millwork: Servicable condition	Configuration to be determined by architect	No		
		2. Interior Fireplaces and Mantle, First Level West Side: Servicable condition	Clean and paint, adapt with gas-burning logs	No		
		3. Interior Abandoned Fireplaces, First Level East Side: Currently enclosed	Configuration to be determined by architect	No		
		4. Radiators: Servicable condition	Configuration to be determined by architect; repaint	No		
	C2010 Stair Construction	1. Interior Wood Stairs from Basement to Level 1: Servicable condition	Architect to review code compliance; secure first-level access door	No		
		2. Interior Wood Stairs from Level 1 to Level 2: Servicable condition	Extend height of second-floor guard rail to 42"; Architect to review code compliance	No		
		3. Interior Wood Stairs from Level 2 to Attic: Servicable condition	Architect to review code compliance	No		

## HISTORIC RESOURCE PLAN RECOMMENDATIONS

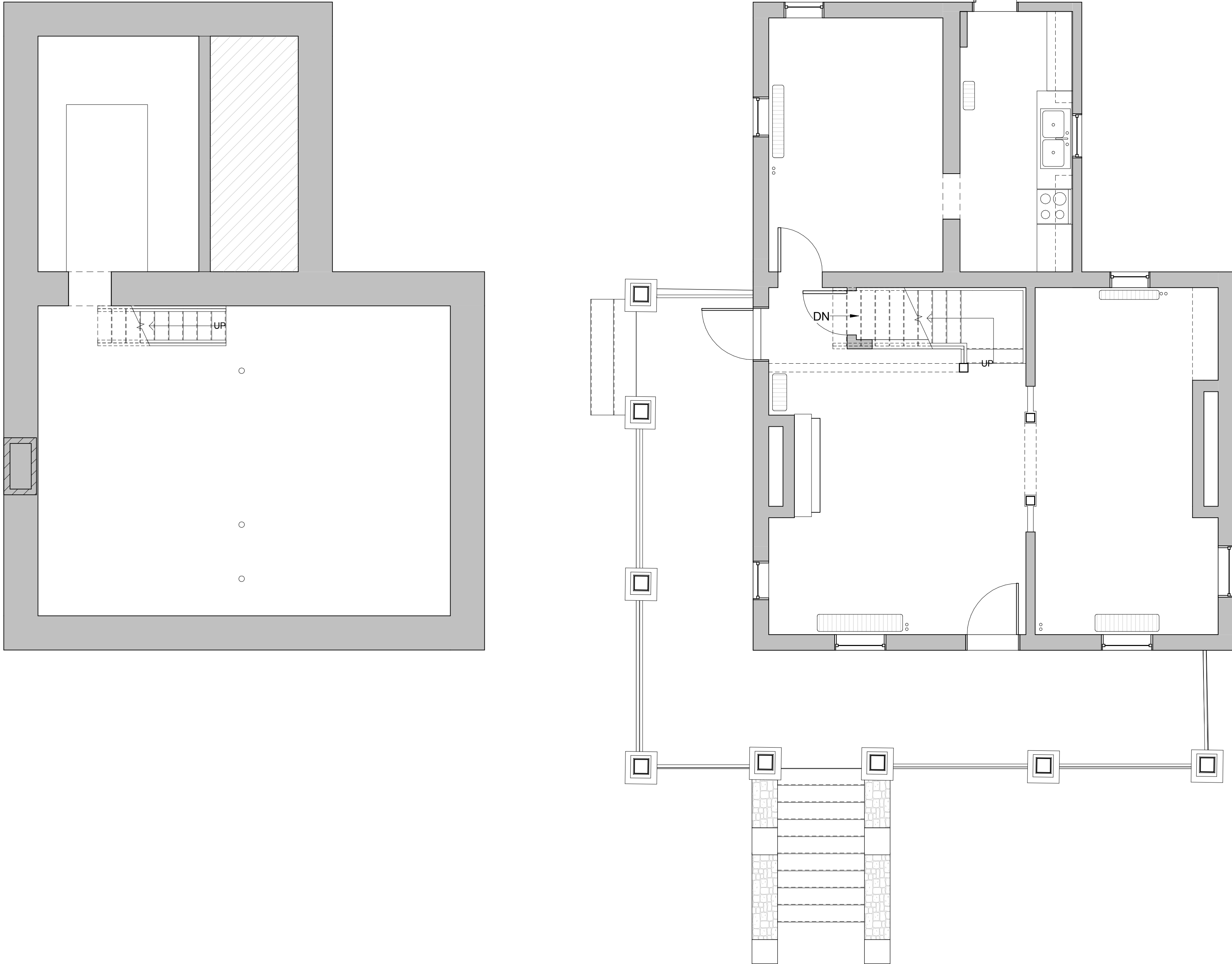
Structure	Red House	Address	500 Washington Street
-----------	-----------	---------	-----------------------

UNIFORMAT Building Element Classification		Summary of Existing Conditions	Recommendations	Under HLC Purview	Justification	
INTERIORS	C2020 Stair Finishes	1. Interior Wood Stairs from Basement to Level 1: Servicable condition	Repaint	No		
		2. Interior Wood Stairs from Level 1 to Level 2: Servicable condition	Refinish natural wood finish	No		
		3. Interior Wood Stairs from Level 2 to Attic: Servicable condition	Repaint	No		
	C3010 Wall Finishes	Interior Plaster Wall Finishes: Servicable condition	Clean and paint, repair any cracking per NPS Preservation Brief 21	No		
	C3020 Floor Finishes	1. Interior Wood Floor Finishes: Servicable condition	Replace missing boards; strip and refinish existing flooring; apply additional clear protective finish per NPS Preservation Brief 18.	No		
		2. Interior Linoleum Floor Finishes: Servicable condition	Replace with material in keeping with period of significance	No		
	C3030 Ceiling Finishes	Interior Plaster Ceiling Finishes: Servicable condition	Clean and paint, repair any cracking per NPS Preservation Brief 21	No		



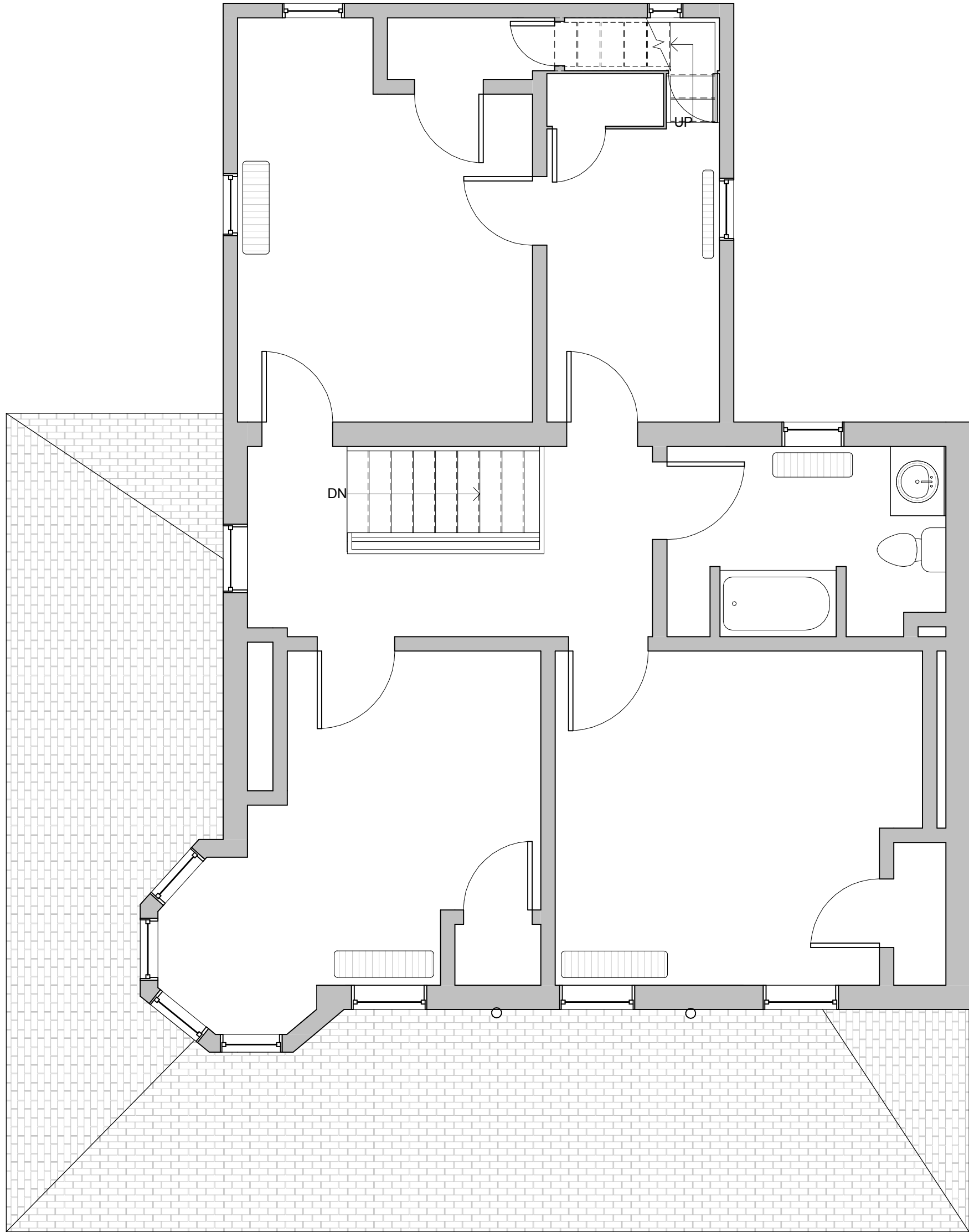
ARCHITECTURE ■ PLANNING ■ PRESERVATION

53 WHARF STREET, SUITE 300	53 14TH STREET, SUITE 607
MORGANTOWN, WV 26501	WHEELING, WV 26003
PH. 304.296.1010	PH. 304.233.0048
WWW.MILLSGROUPONLINE.COM	



③ BASEMENT  
1/4" = 1'-0"

① LEVEL 1  
1/4" = 1'-0"



② LEVEL 2  
1/4" = 1'-0"

PROJECT:

# ARMORY DWELLING 5

500 WASHINGTON STREET, HARPERS FERRY, WV

SWAN INVESTORS - HILL TOP HOTEL

# FLOOR PLANS

Revision Schedule		
No.	Revision Description	Date
INTENDED DRAWING USE:		
EXISTING CONDITIONS		
Project number	17106	
Date	05/03/18	
Drawn by	PLM	
Checked by	MJM	
<h1>A101</h1>		
Scale      1/4" = 1'-0"		
SCALE REFERS TO 24" X 36" PAPER SIZE		





① SOUTH  
1/4" = 1'-0"



② WEST  
1/4" = 1'-0"



③ NORTH  
1/4" = 1'-0"



④ EAST  
1/4" = 1'-0"

PROJECT:  
**ARMORY DWELLING 5**  
500 WASHINGTON STREET, HARPERS FERRY, WV  
SWAN INVESTORS - HILL TOP HOTEL  
**ELEVATIONS**

Revision Schedule		
No.	Revision Description	Date
INTENDED DRAWING USE:		
EXISTING CONDITIONS		
Project number	17106	
Date	05/03/18	
Drawn by	PLM	
Checked by	MJM	
A102		
Scale	1/4" = 1'-0"	
SCALE REFERS TO 24" X 36" PAPER SIZE		

## J. HILL TOP HOTEL BUILDING

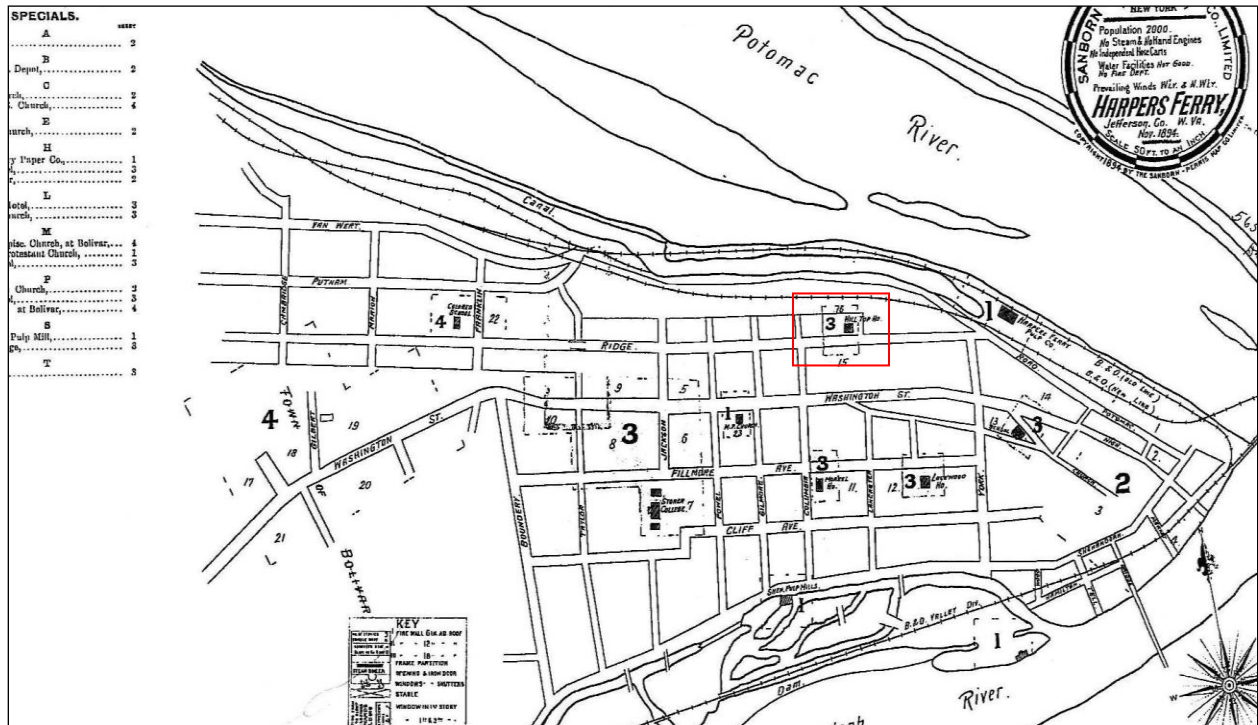
The following Construction History is reprinted from the 2008 Oehrlein & Associates Report.

### SUMMARY CONSTRUCTION HISTORY

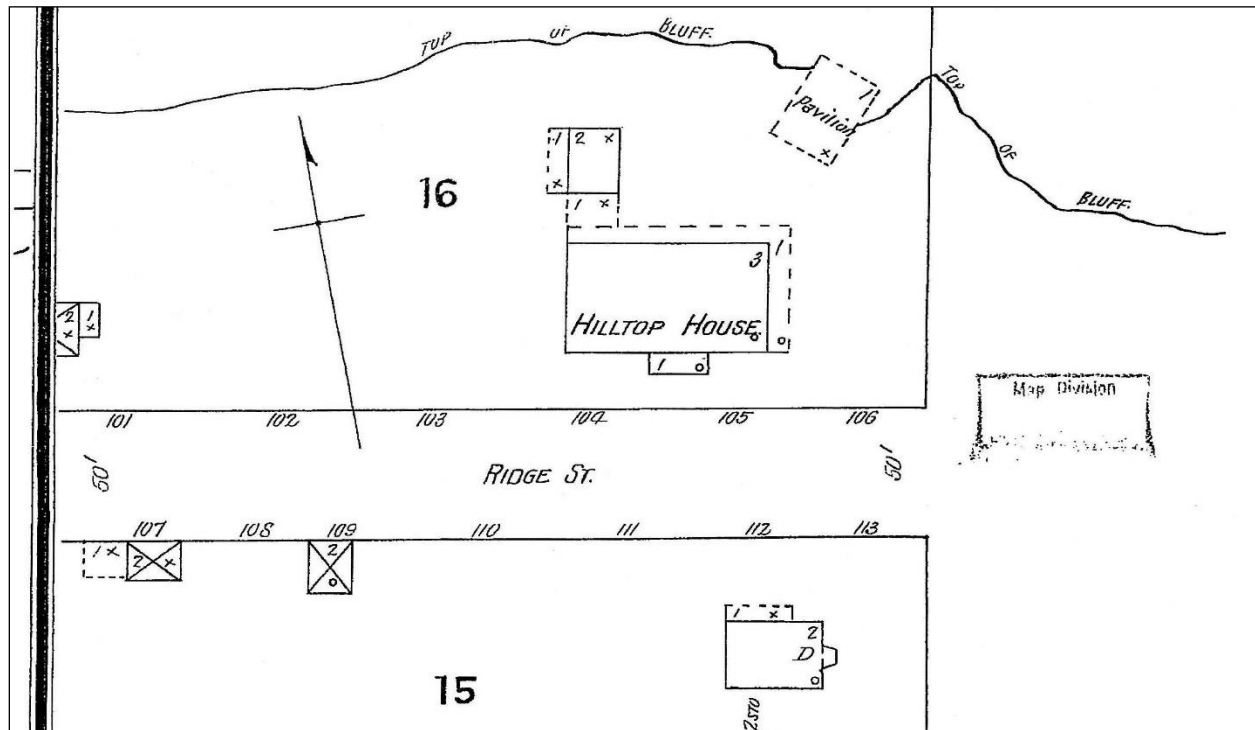
Following is a summary of the construction history of the Hotel based on research completed to date. Text in italics is from archival documents with the source is noted in parentheses.

*Thomas and Lavina Lovett opened the first incarnation of the Hilltop House in June 1890 (HABS documentation, Morrell House, page 26).*

Based on the 1894 Sanborn map, the original Hilltop House consisted of the building shown at the center of the 1908 post card images included following. The hotel is indicated on the Sanborn map as a 3-story frame construction with a slate/tin roof. The main building had a one story frame porch with a slate/tin roof wrapping the north and east sides. There was a 2-story frame building with a shingle roof to the north of the hotel, connected to the hotel by one story porches. The 1894 map also shows a one story open frame pavilion structure with a shingle roof northeast of the hotel at the edge of the bluff.



November 1894 Sanborn Map overview. The map shows the Hilltop House located on Ridge Street.



Detail of the November 1894 Sanborn Map showing the original Hilltop House and pavilion along the bluff.



Detail of a view of the Hill Top House Hotel prior to the 1898 annex construction. (Enlarged area of a card mounted albumen print, Coe & LaRue Photographers and News Dealers, Harpers Ferry, Dan Riss Collection)





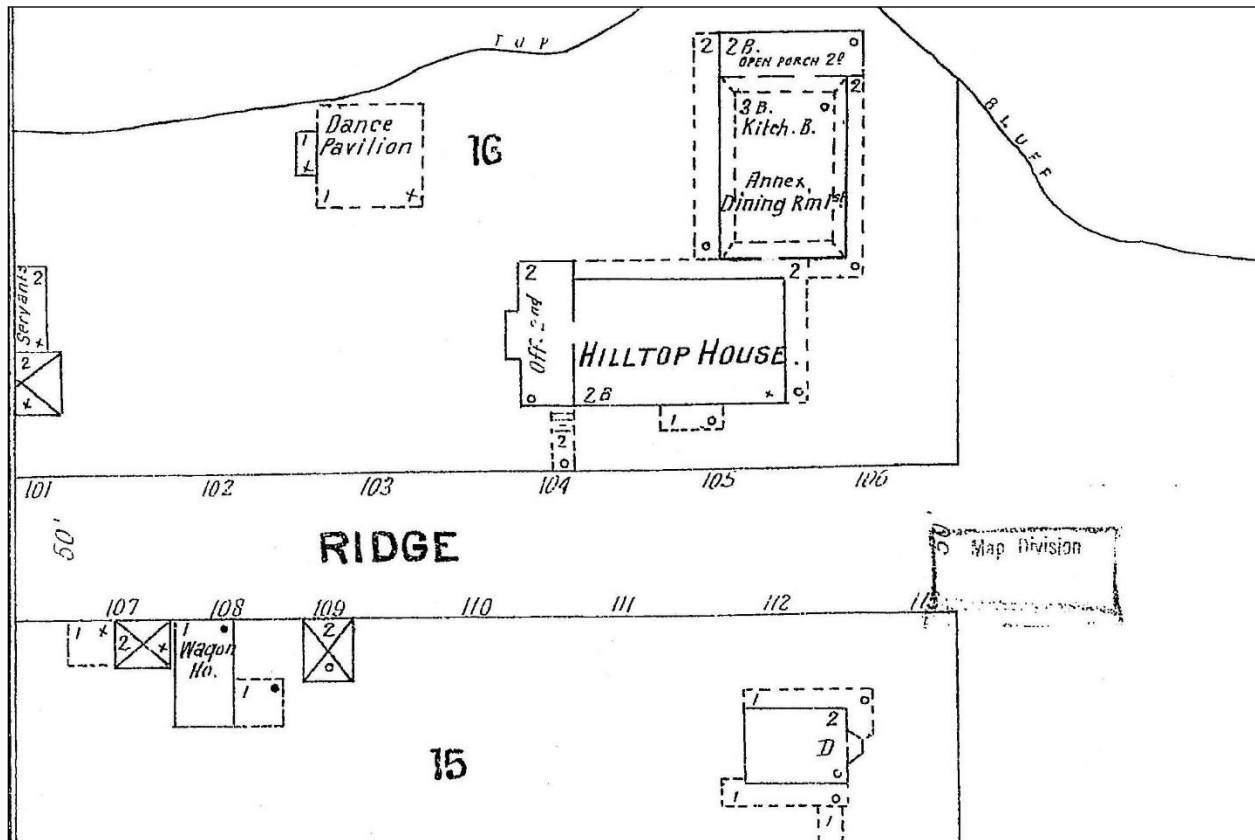
Photo of the pavilion visible at the right in the previous photo. The pavilion, which was located to the northeast of the hotel was demolished when the hotel annex was constructed c.1898. (Harpers Ferry Historic Landmarks Commission Collection)



The 1902 Sanborn map shows the new annex building as a 3-story plus basement structure to the northeast of the original hotel surrounded and connected to the original building by 2-story porches. The notes indicate that the kitchen was in the basement of the annex and the dining room on the first floor. There is a two story and basement portion at the north end of the annex that had an open porch at the second floor. There is also a 2-story addition shown to the west end of the original hotel building with an indication that there were offices on the 2<sup>nd</sup> floor. All of the roofs of the hotel and annex are shown as slate/tin. The annex addition can be seen in the 1908 post card photographs on the following pages.

[illegible]

HILL TOP HOTEL – HOTEL BUILDING  
HISTORIC RESOURCES PLAN – RESOURCE ASSESSMENT



This detail of the 1902 Sanborn Map shows the Hilltop House with a 3 story plus basement annex (c. 1898) that contained approximately 30 additional rooms. A new Dance Pavilion is shown to the west of the hotel building. There is also a two story addition shown at the west end of the original building that does not appear on the earlier maps. The pavilion shown on the 1894 Sanborn Map to the northeast of the hotel is no longer present. It may have been moved to this new location.

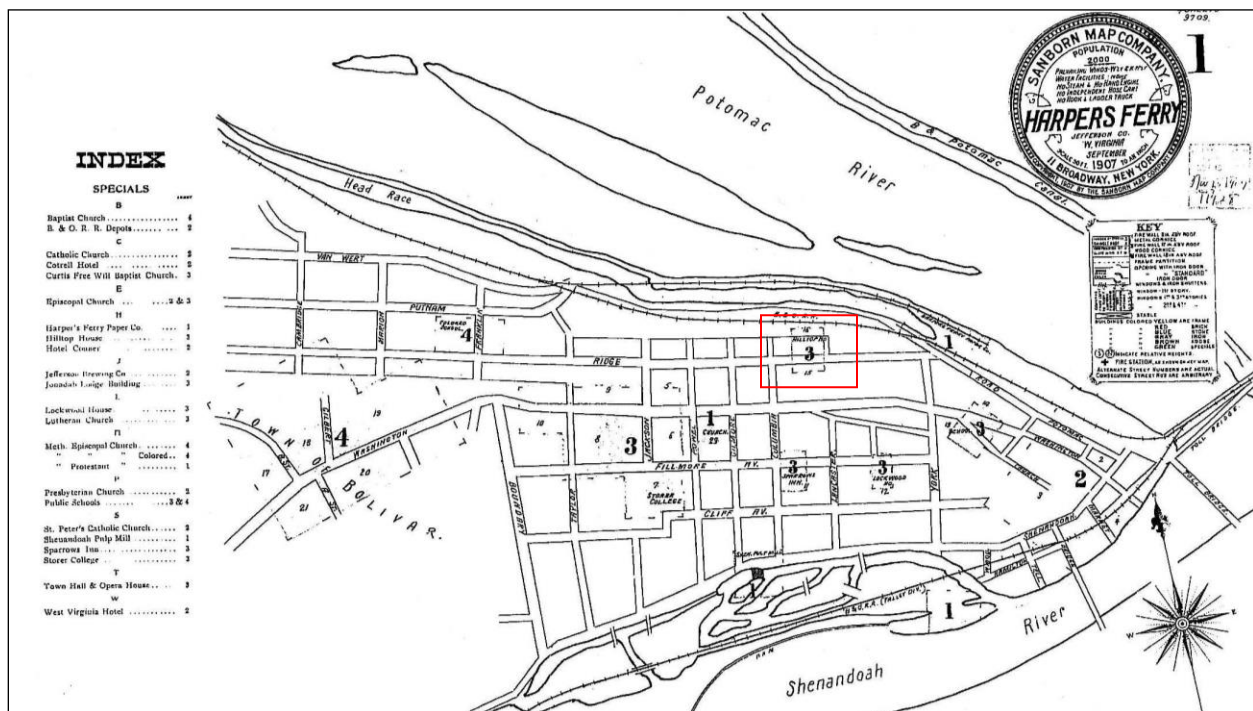


This 1908 post card shows the original hotel building at the center and the annex to the right in the photo. The building at the left appears to have been a private residence located across Ridge Street that was not part of the hotel. (Collection of SWaN Investors)

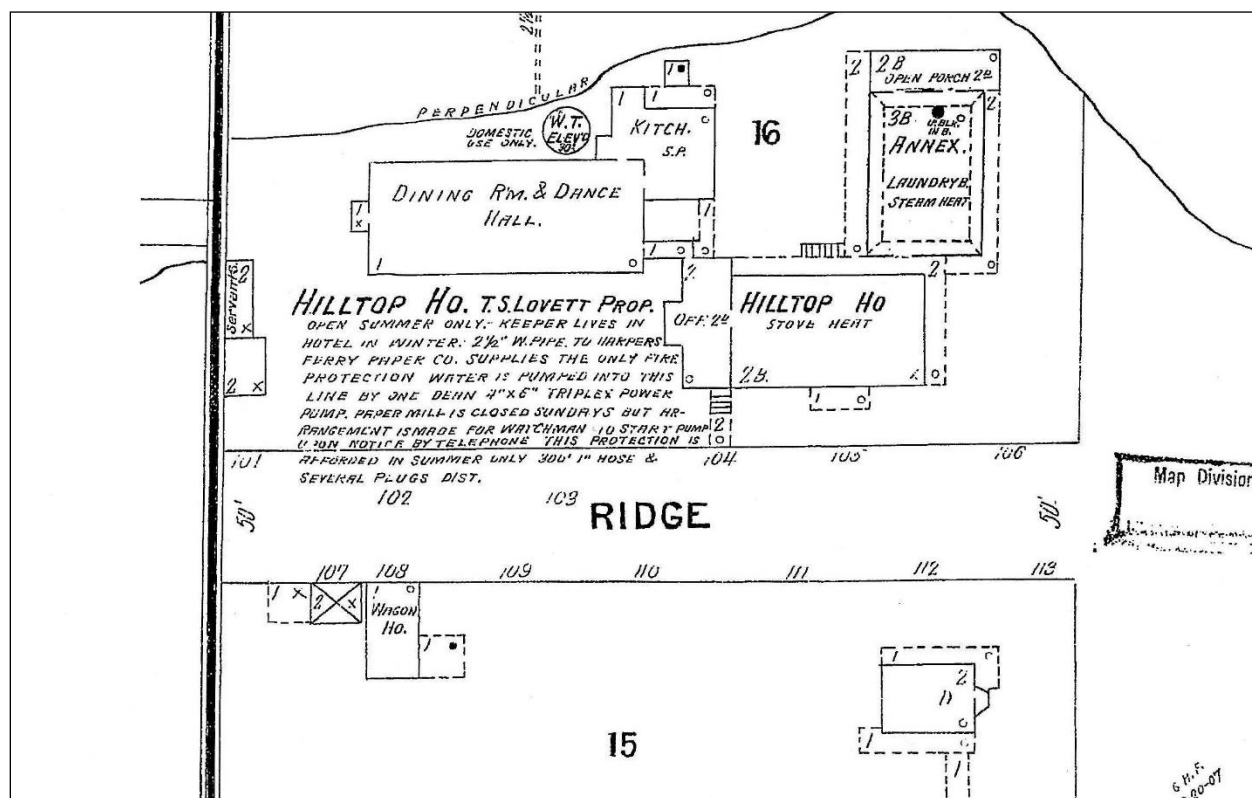
By 1904, Hilltop House had become so successful that a large dining room measuring approximately 40' x 100 was added and the Lovetts decided for the first time to keep the hotel open all winter... The following year, a steam-heating plant was installed... (HABS, Morrell House, 26).

The 1907 Sanborn map shows the new one story Dining Room & Dance Hall addition as a separate structure to the west of the original hotel building along with a new one story Kitchen structure. Both the dining room/dance hall and the kitchen are connected to the hotel with one story covered porches. The former kitchen space in the Annex is now indicated as the Laundry.

The notes on the map indicate that the original hotel building had stove heat and the 1898 Annex was heated by steam. Notes also indicate that water for fire protection was pumped to the hotel via a 2- 1/2" pipe from the Harpers Ferry Paper Co., and that arrangements were in place to have the watchman at the paper mill start the pump on Sundays when the mill was closed, when notified by telephone, but only in the summer. The notes also indicate that the hotel was open in the summer only and that the keeper lives in the hotel in the winter. An elevated water tank is shown just north of the Dining Room & Dance Hall, with a note that indicates it was for domestic use only.

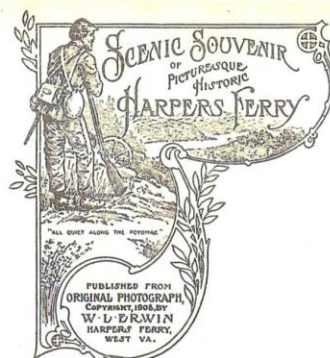
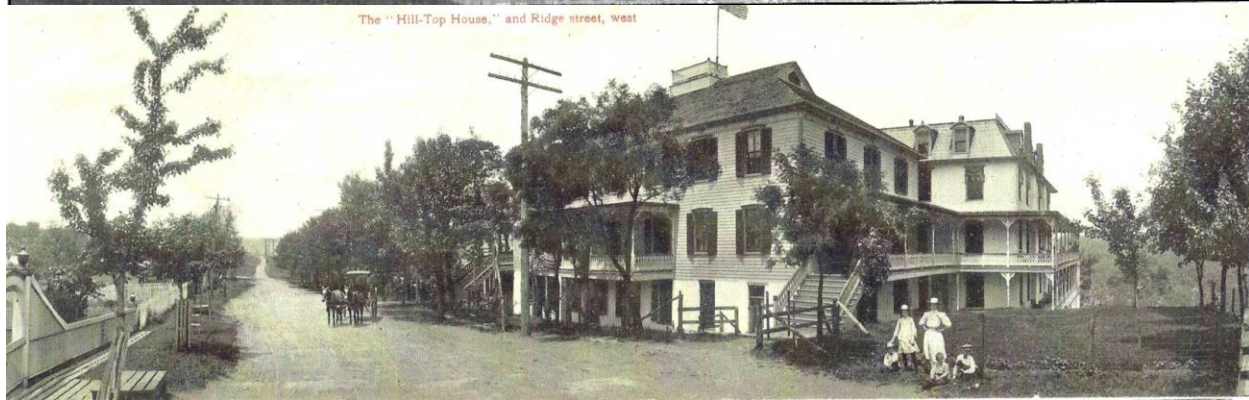
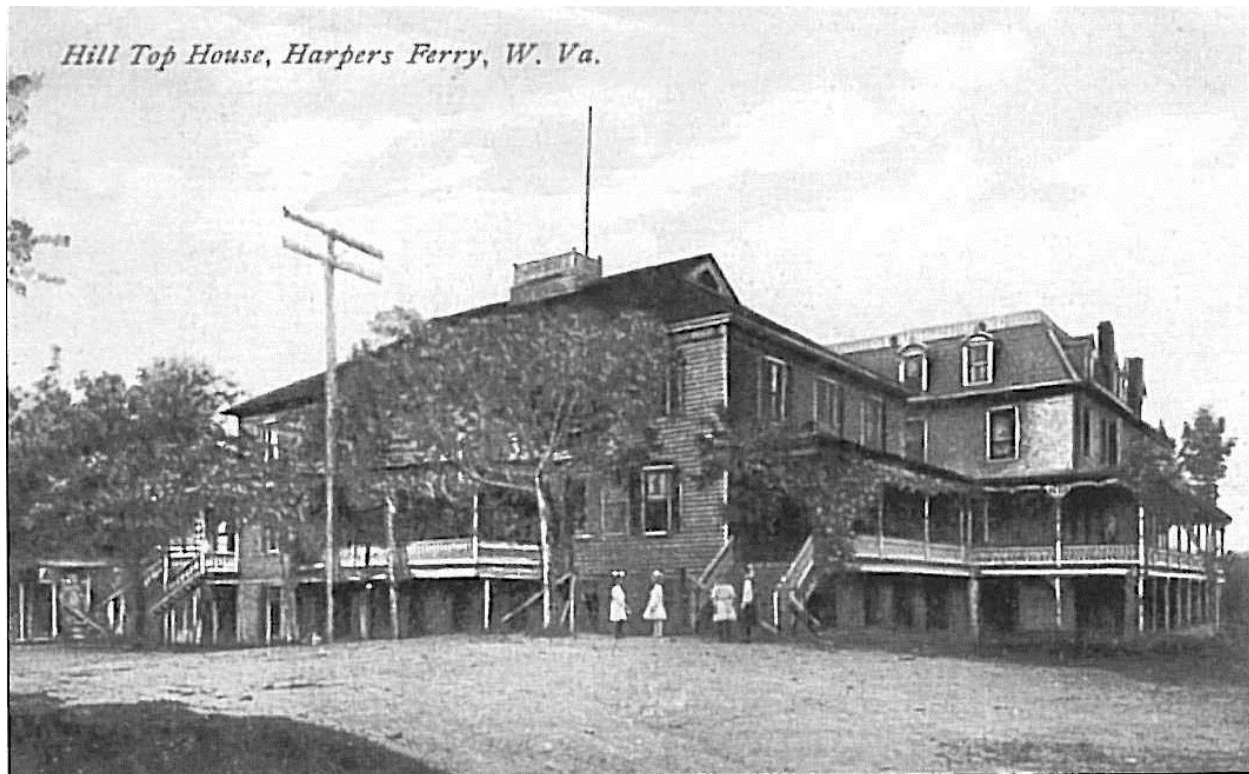


1907 Sanborn Map overview. The map shows the Hilltop House present on Ridge Street.



Detail of the 1907 Sanborn map showing the 1904 dining room and dance hall addition, kitchen addition and connecting porches. Also shown is a water tank for domestic water and a pipe to the Harpers Ferry Paper Co. that provided water for fire protection.



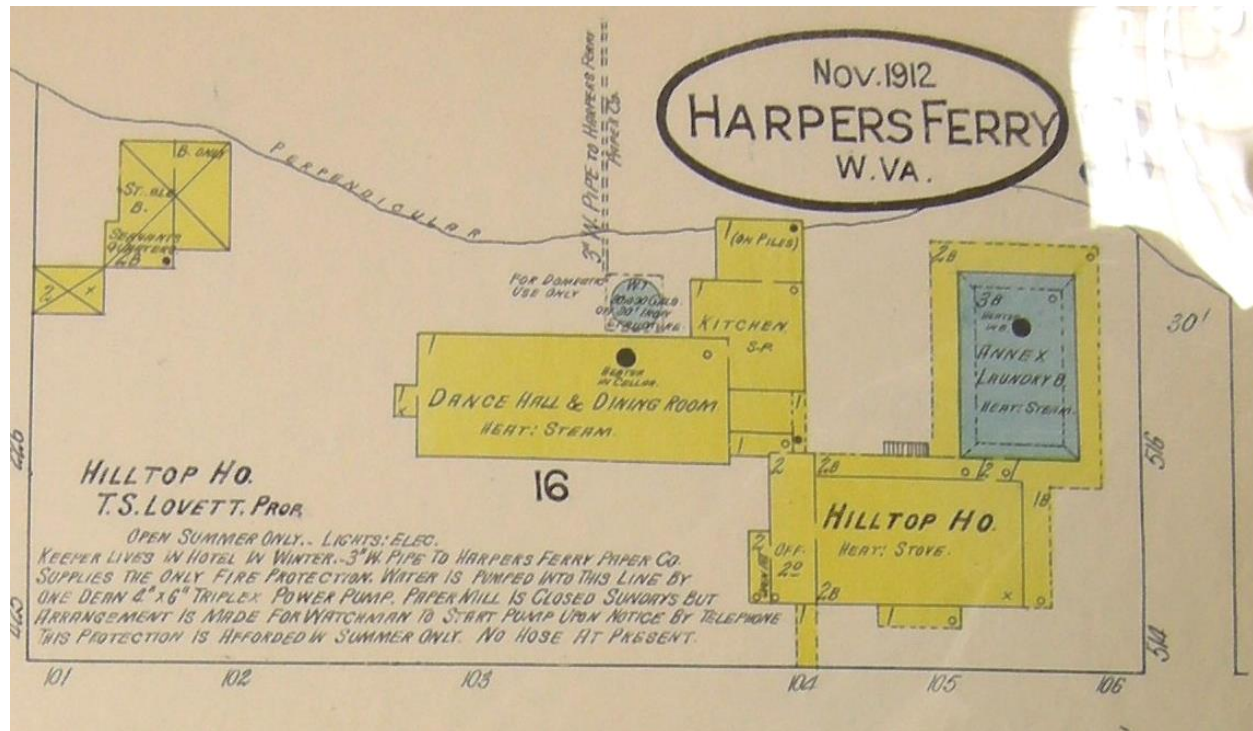


STAMP HERE  
ADDRESS ONLY  
ONE CENT.  
OTHER WRITING  
TWO CENTS

FOR ADDRESS ONLY

Two photo post cards dating from 1908. The building at the center is the original c.1888 hotel; to the right is the c.1898 annex. The stair of the pre-1904 addition to the west end of the original hotel is visible at the left in both photos. (Harpers Ferry Historic Landmarks Commission Collection, catalog # 0468 and 0646.)

The 1912 Sanborn map shows the hotel footprint unchanged except for an addition to the kitchen that was constructed on piles. Notes indicate that the water tank holds 10,000 gallons and that boilers are located in the basements of the Annex and the Dining Room & Dance Hall buildings. The 1912 map also shows a new 2 story frame building labeled as Stables and Servants Quarters located at the western edge of the site.



Detail of the 1912 Sanborn Map showing the wood frame Hilltop House prior to the fire with the one story frame Dance hall/Dining room addition and the three-story stone and frame Annex building. Blue indicates stone and yellow indicates frame construction.



*In December 1912, the western portion of the Hilltop House was destroyed in a fire. Luckily, around three-fourths of the hotel's contents were saved, according to the Virginia Free Press. ....the hotel was rebuilt and received summer guests the following season (HABS, Morrell House, 26).*

This text from the HABS documentation conflicts with a photograph from December 1912 showing the buildings entirely gone, with only a few masonry walls of the annex remaining.

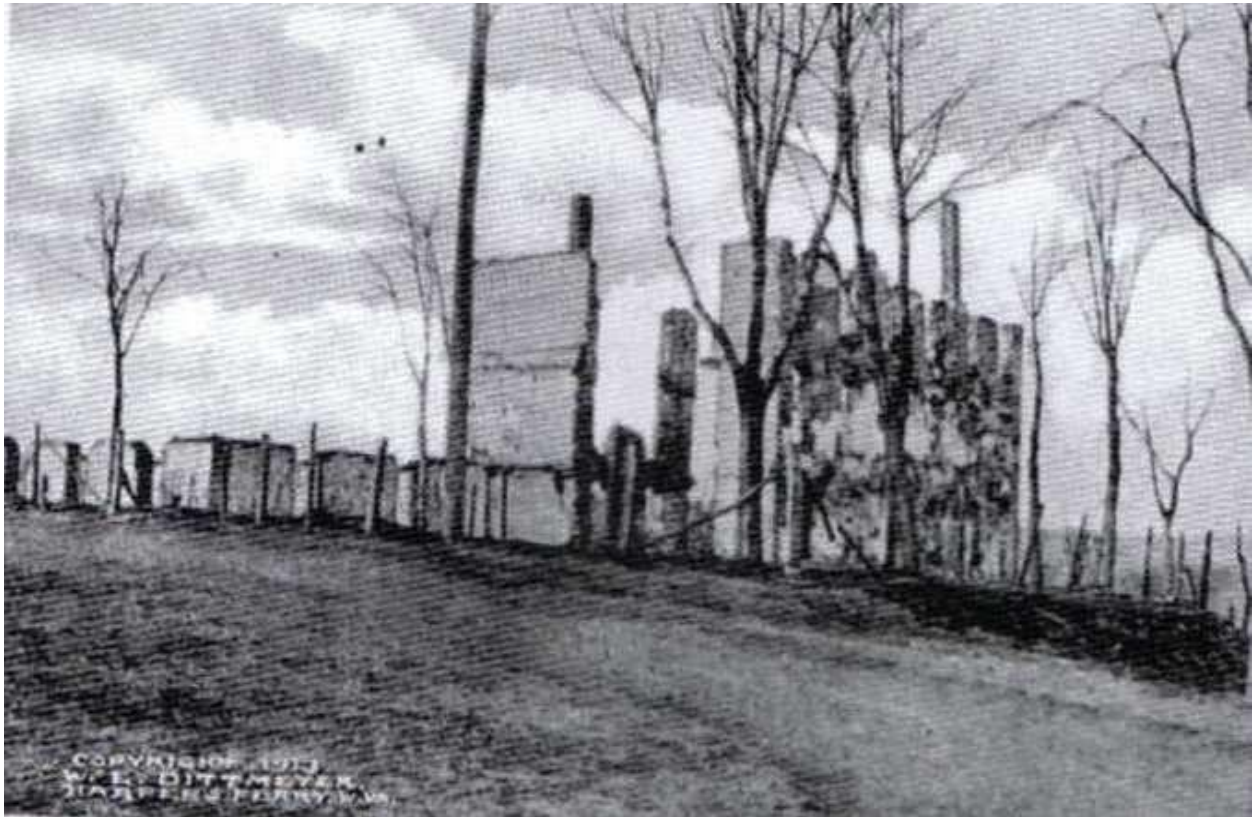
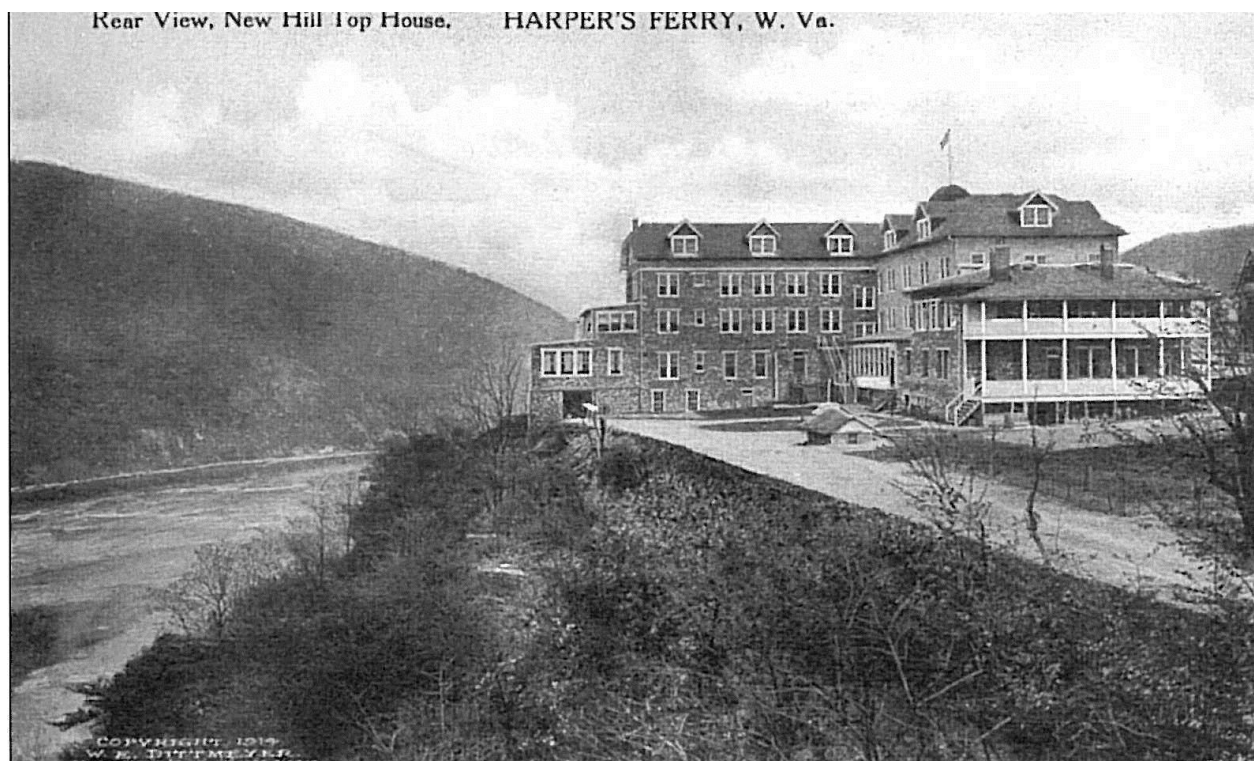


Photo of the hotel after the December 11, 1912 fire. Using the trees and electric pole as markers and comparing to the 1908 post card photographs, the largest sections of remaining wall appear to be a portion of the stone walls of the annex building and the shorter masonry walls at the left appear to be the basement walls of the original hotel building. ( W.E. Dittmeyer photograph, copyright 1913, Harpers Ferry, W. VA. SWaN Investors) Collection)



The south and east elevations of the hotel as reconstructed after the 1912 fire. (SWaN Investors Collection)



West and north elevations of the reconstructed hotel after the 1912 fire. (W.E. Dittmeyer, copyrighted 1914, Harpers Ferry W.VA. SWaN Investors Collection).

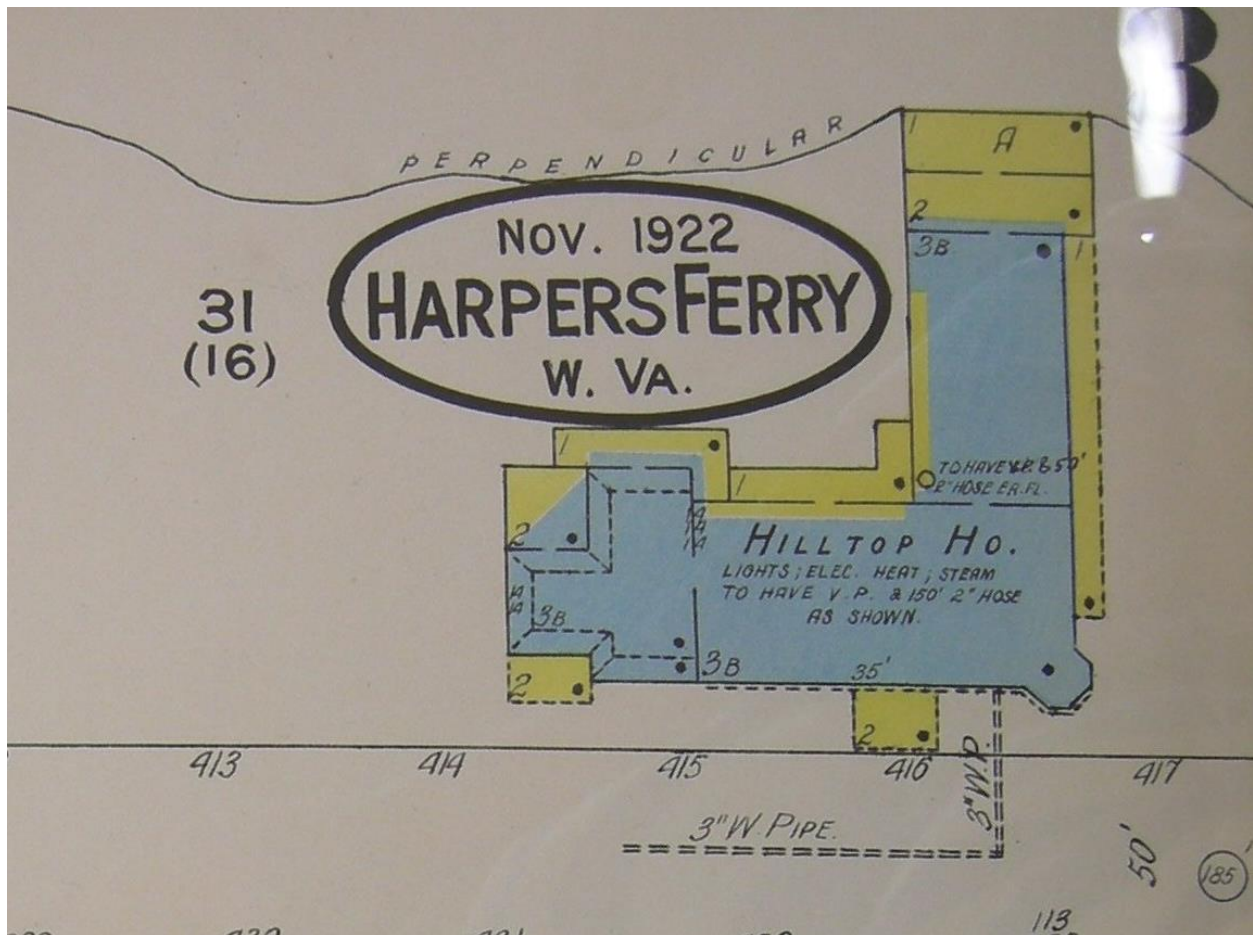


A devastating fire in June 1919 completely destroyed the building and most of its furniture, as reported by the Spirit of Jefferson on June 10. The following month reconstruction of the building began, using the surviving remains of the old stone walls as its foundation. (HABS, Morrell House, 26; "Hilltop House Burned," WP 11 Jun 1919)



Photos of the Hotel after the 1919 fire. (Harpers Ferry Historic Landmarks Commission Collection, Catalog #269 and 270)

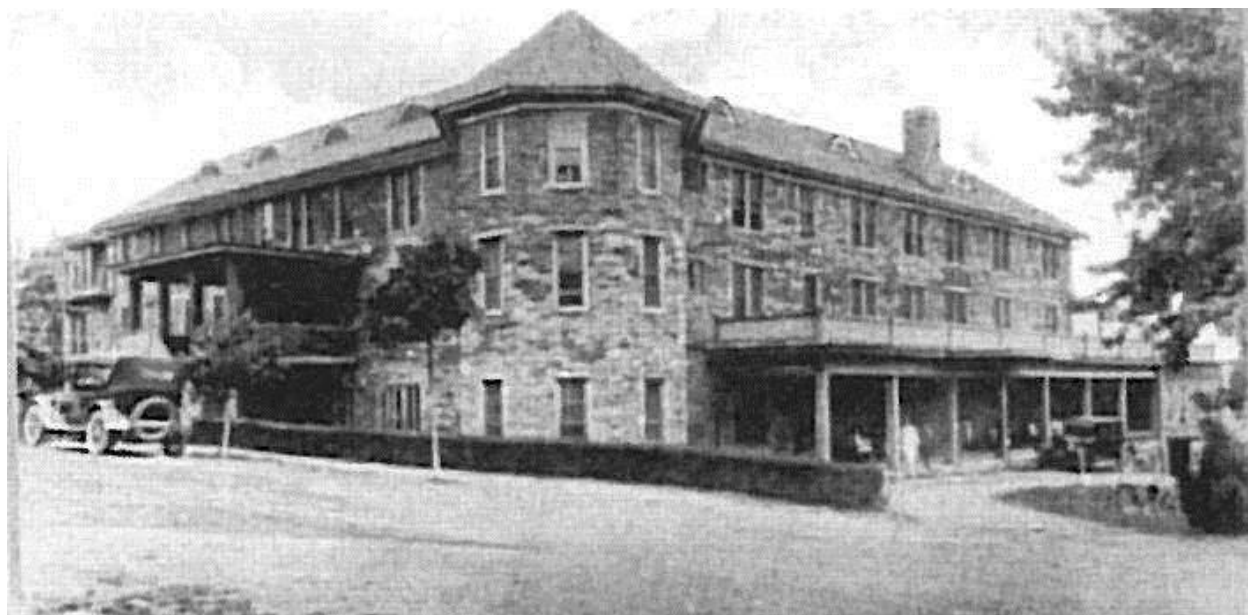
The plan of the hotel after the second reconstruction is shown on the 1922 Sanborn map. The main block of the building is a 3-story plus basement L shaped stone and frame structure. The south and east facing walls are shown as stone, while the north and west facing walls are shown as frame construction. A 3-story plus basement stone building with a mansard shaped roof is appended to the west end of the new west wing. There are 1 and 2-story frame sections located at the north end of the building at the edge of the bluff. One and two story frame appendages existed at the north face of the west wing. There were 1 and 2-story frame porches at the east and south sides of the building. The 2 story frame Stables and Servants building shown on the 1912 map remains at the western edge of the site.



1922 Sanborn Map showing the new plan of the reconstructed Hill Top Hotel. This is the core of the building that exists on-site today but with many subsequent layers of alterations.



Rebuilding of the hotel after the 1919 fire. (Harpers Ferry Historic Landmarks Commission Collection, catalog #1360)



The hotel as reconstructed after the 1919 fire. (SWaN Investors Collection)



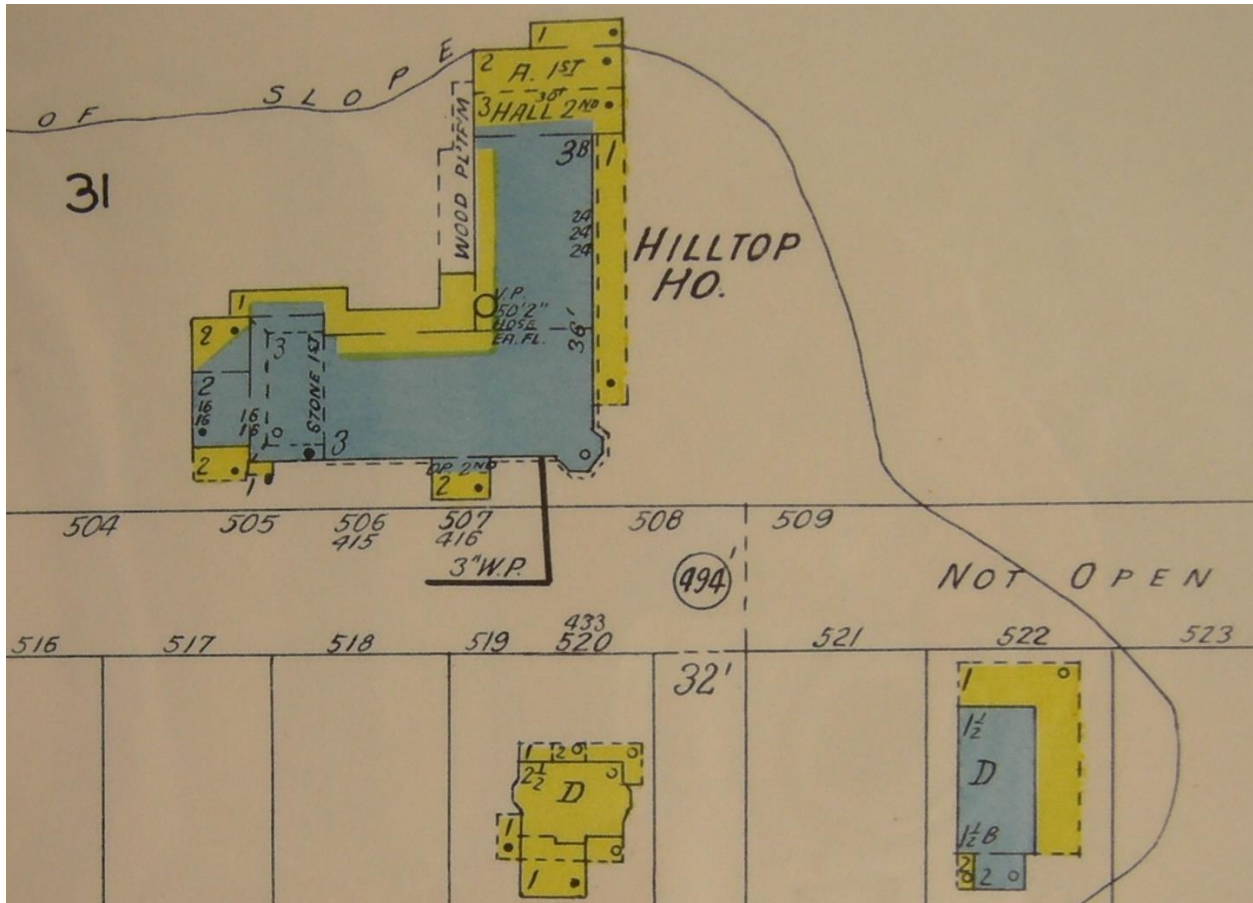


1920's view of the Hotel. (Postcard, postmarked 1926, tinted screen print, series #104, neg#116724, BT pub, Cambridge Mass. Dan Riss Collection)

The 1933 Sanborn map shows the building with a footprint nearly identical to that shown in 1922, however, the frame structures at the north end of the building at the edge of the bluff have been extended and stories added. The mansard roof of the wing to the west is shown reconfigured and a portion of the building is reduced from three to two stories. Roofs in both 1922 and 1933 are noted as being composition material. A structure labeled as a wood platform has been added to the west side of the north wing, and the two story porch at the south side has been enclosed at the first floor, but is still labeled as open at the second floor.

The previously labeled Stables and Servants building at the west is shown reduced in size and is no longer labeled.





1933 Sanborn map showing Hilltop House Hotel and Annex.

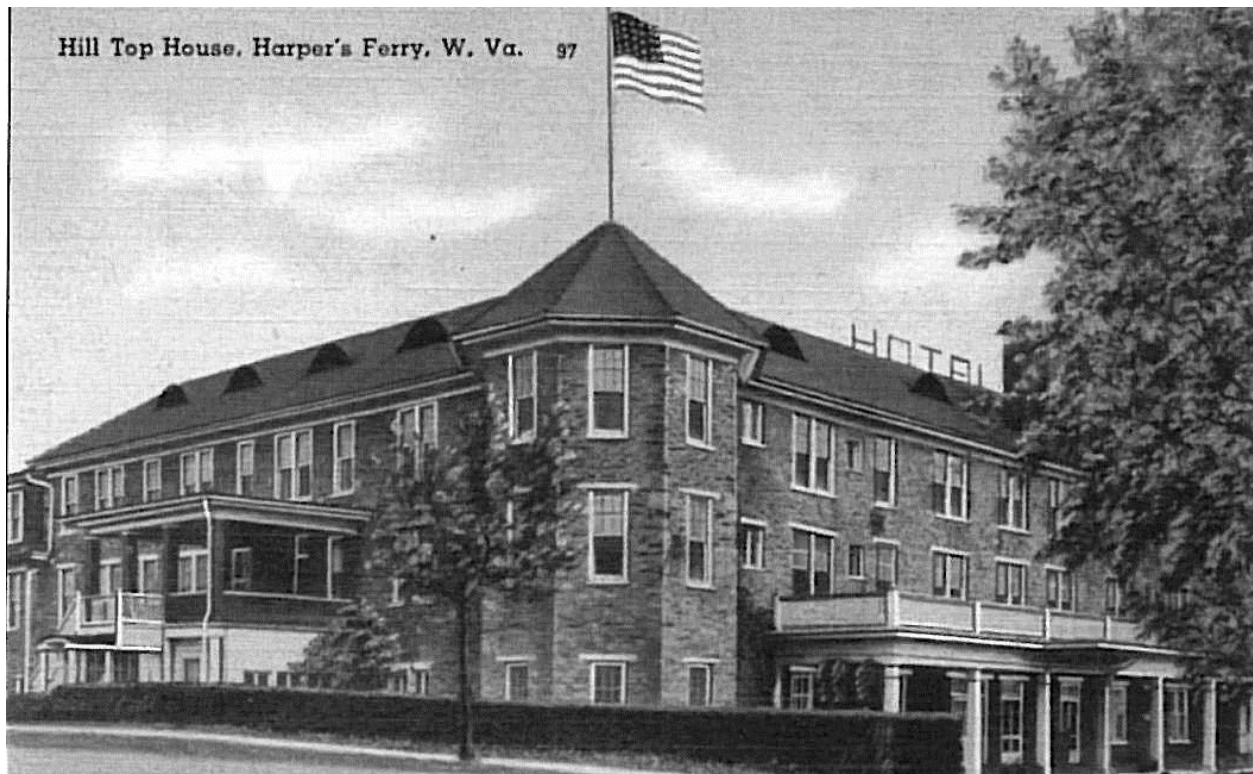


Image of the hotel, probably mid 20<sup>th</sup> century. (SWaN Investors Collection)

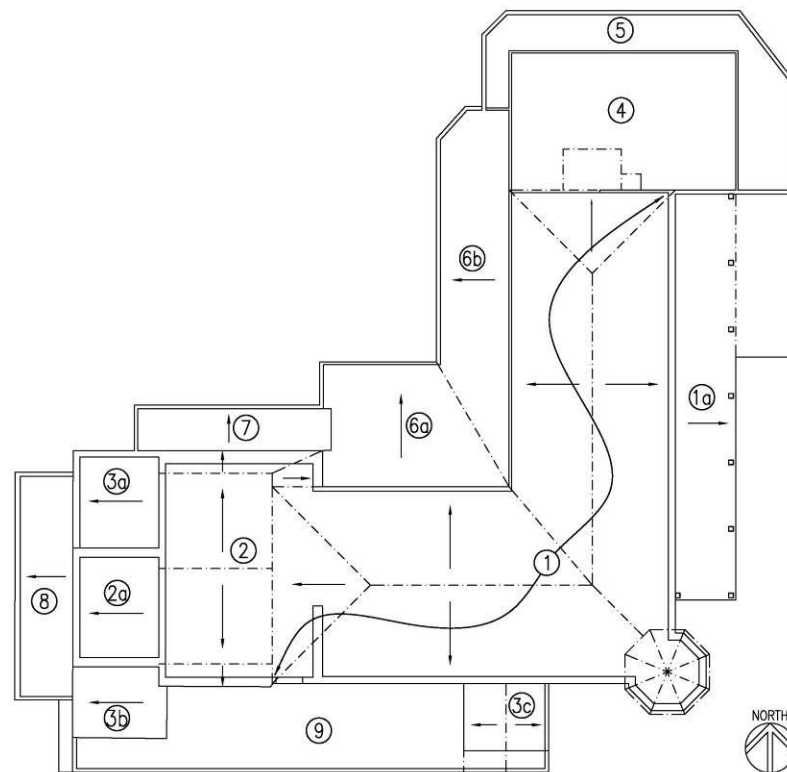
This page intentionally left blank.

## J. HILL TOP HOTEL BUILDING

The following Building Description is reprinted from the 2008 Oehrlein & Associates Report.

### EXTERIOR BUILDING DESCRIPTION

The Hill Top Hotel is perched atop a cliff overlooking the Potomac River and is located within the National Register listed Harpers Ferry Historic District. The hotel is three and four story stone, frame and concrete block bearing wall construction with an interior wood and steel frame. The fabric of the 1920 reconstructed hotel described above remains, at least in part, at the core of the current building. It is possible that remnants of the earlier 1898 annex and the 1913 reconstruction stone walls and foundations also remain. The plan illustration below is used to label and refer to the various parts of the building in the following description, conditions assessment and recommendations.



#### Area 1

The L-shaped portion of the building labeled as Area 1 in the plan illustration appears to be the remains of the main block of the 1920 reconstructed hotel building. The exterior walls of the 3-1/2 story building are a combination of stone and frame construction; the east, south and southeast tower walls are load bearing rubble stone masonry, the east part of the north wall is stone (the NW corner quoins appear in the 1914 photograph), and the west part of the north wall and the west wall are frame. The frame exterior walls were originally covered with asphalt shingles, which remain under the current particleboard lapped siding. The hipped roof is wood frame covered with wood sheathing and red painted, diamond shaped asbestos shingles. Large frame dormers were added to the roof in the mid to late 20<sup>th</sup> century. The interior floors are wood frame and bear on the exterior walls and interior wood stud walls. The second floor framing is partially steel beams and posts to create larger open floor areas at the first floor. There is a one story frame

porch (1a) with a metal roof at the east elevation similar to the one seen in the 1914 photographs. Most of the existing porch construction, however, is late 20<sup>th</sup> material. A small remnant of a roof balustrade remains at the north end of the porch.



Area 1 south elevation stone wall now covered with stucco. The left portion may be from the 1920 reconstruction or earlier; the right three bays have been recently reconstructed. The frame dormers and the majority of the porch construction are late 20<sup>th</sup> century.



Part of the south and corner tower stone walls may date from the 1920 or earlier reconstructions. The roof shape and eyebrow roof vents are similar to those in the post 1919 photographs.



Area 1 west elevation showing the 1920 stone and frame wall construction, recent roof dormers and recent concrete block and frame additions. A portion of the stone wall may date from the 1913 reconstruction. The corner quoins appear similar to those in the 1914 west elevation photograph.



Asphalt shingle siding on the west and north exterior frame wall construction, now covered by pressboard siding.





ABOVE: South Elevation under the porch showing the change the stone construction. The stone to the left in the photo is typical of the character seen in the 1920's photographs. The stone at the right in the photo has been reconstructed. The full height of the wall has been rebuilt but is covered with stucco above the porch roof.

RIGHT: Unaltered 1920's exterior stonework with white painted joint lines.



#### Areas 2 and 2a

The two story rectangular Area 2 is constructed with stone exterior walls, wood floor and roof framing, and has a mansard roof with asphalt shingles. Area 2 along with Area 2a matches the plan and roof configuration shown on the 1933 Sanborn map. This addition to the 1920 reconstructed hotel also appears on the 1922 Sanborn map with a different roof configuration. Although the archival documentation does not support this, the construction joint between Area 1 and Area 2 indicates that the stone of Areas 2 was constructed before the stone of Area 1. The two story Area 2a also has stone exterior walls and interior frame construction. Area 2a now has an added late 20th century third floor, and three story frame additions to the north and south. The 1933 Sanborn map indicates a two story open porch to the south of 2a. Interior door openings in Area 2 and 2a indicate that the interior rooms originally opened onto this porch.



North elevation of Area 2; a two story stone addition with a third story within the mansard roof.



West elevation showing the stone exterior wall of Area 2a. The frame construction at either end (Area 3a and b) and above Area 2a is late 20<sup>th</sup> century construction.



A 1920's exterior door located at the first floor south elevation of Area 2, now concealed by the Area 9 addition.



Construction joint between Area 1 (right) and 2 indicates that Area 2 was constructed prior to Area 1. Much of the stonework of Area 1, however, appears to have been more recently rebuilt.



1920's exterior door at the second floor part of the west wall of Area 2 that entered onto the open porch that once existed. The door now provides access to the bathroom located in Area 3b addition.



### Area 3

Areas 3a, b and c appear on the 1922 Sanborn Map as 2 story wood-framed construction. The existing 3 story frame construction at Areas 3a and 3b and above Area 2a, however, dates from the late 20<sup>th</sup> century. The existing porch labeled Area 3c is also late 20<sup>th</sup> century concrete block and stucco construction.



Existing Area 3c porch is at the approximate location of the 1920 two story open porch. The current "porch" is recent concrete, concrete block, stucco and steel post construction.

### Areas 4, 5, 6, 7, 8 and 9

Construction at Areas 4, 5, 6, 7, 8 and 9 dates from the mid to late 20<sup>th</sup> century and consists primarily of concrete slab construction bearing on concrete block walls at the basement. The first floor levels are partially concrete slab and concrete block and partially wood construction. A steel framed stair tower has been added above 4.



West elevation of the hotel showing the Areas 4, 5 and 6. This late 20<sup>th</sup> century construction is concrete block and wood frame with some steel framing, pressboard siding, and aluminum and steel windows. The stair tower added to the end of the main hotel building is steel frame with corrugated metal siding.



East elevation of Areas 4 and 5. The 1922 Sanborn map shows 1 and 2 story frame additions at this location, but these are more recent construction. The footprint of the existing additions are larger and they are constructed of concrete block and frame walls with some steel shoring, pressboard siding, aluminum windows and steel doors. The site retaining walls are concrete block and the railings are a combination of steel reinforcing bars, steel pipe and late 19<sup>th</sup> century iron fence sections.



West elevation of the hotel showing the one story Area 8 construction. This recent addition is constructed of concrete block with a corrugated metal roof.



West portion of the south elevation showing the one story Area 9 concrete block construction, the south face of the Area 3b three story frame addition and the Area 3c porch. All are mid to late 20<sup>th</sup> century construction.



## INTERIOR BUILDING DESCRIPTION

### Area 1

The first floor of Area 1 contains the hotel lobby at the center of the east leg of the "L", public restrooms, offices and a dining room located in the west leg of the "L". The Lobby area appears to retain a portion of the 1920's configuration and finishes. The columns, reception desk and stair to the second floor could be a part of the 1920 reconstruction. The stair to the basement level, public restrooms, office configurations and all finishes and fixtures are mid to late 20<sup>th</sup> century. The dining room has recent partitions added to create kitchen and service areas. The second floor over the dining room is supported on steel columns and beams and wood framing. The steel beams appear to be a part of the 1920 reconstruction and were originally exposed with plaster ceiling between

The upper floors of Area 1 have center corridor with guest rooms opening on both sides. The corridor/room configuration appears to be original to the 1920 reconstruction, but the rooms have been significantly altered to create private bathrooms and all finishes are recent. Private bathrooms were added by combining rooms and by building partitions within the rooms. The corridors, guestrooms and bathrooms appear to have been constructed/reconstructed/redecorated on an ongoing basis. Each space has unique and very basic finishes, fixtures and furnishings, some more modern than others. The attic space of the Area1 was built out for guest rooms sometime after the mid 20<sup>th</sup> century. Stairs were added and partitions constructed to create several large rooms and bathrooms. The rooms receive daylight and views of the river from the dormer windows that were added to the roof.



The columns, stair and portion of the reception desk in the lobby appear to date from the 1920 reconstruction of the hotel. The stair to the basement level, office configuration, public restrooms and all finishes and fixtures are much more recent.



The Dining Room, shown above, is a single room located at the southeast corner of the first floor of Area 1. The second floor is supported by steel beams and columns with wood framing between. The steel beams were originally exposed at the ceiling of the room with plaster ceiling between. It appears that the space has been altered by the removal and addition of partitions to create kitchen and serving areas. The existing wall, floor, and ceiling finishes are recent.



Corner tower guest room. Finishes are typical of the rooms throughout the building. Original plaster walls and ceilings have been covered with gypboard and modern finishes. There are no cornices moldings or decorative trim, although most rooms have a wood baseboard.



Upper floor corridor at Area 1. The door frames and transoms and some doors may date from the 1920 hotel reconstruction. All finishes and most of the trim are recent. The original plaster walls have generally been removed or covered with gypsum wallboard.

## Areas 2 and 2a

The first floor of Areas 2 and 2a is currently used as kitchen and storage. The upper floors contain guest rooms on either side of a center corridor. Remnants of the 1920 reconstructed hotel remain, but generally the room configurations and finishes are recent.



Second floor guest room in Area 2a showing stone fireplace remaining at east wall. The five panel door at the right in the photo may date from the 1920 reconstruction, but all hardware is recent.

The first floor spaces of these areas are currently used as kitchen and food and equipment storage, laundry and offices. The upper floors at Areas 3a and 3b are guestrooms and bathrooms. All of these areas are late 20<sup>th</sup> century additions to the building and have even less character than the spaces that remain of the 1920 hotel reconstruction.

## Areas 4, 5, 6a and 6b

These one and two story areas contain public meeting rooms, dining rooms and bar at both floors. The basement level of Areas 4 and 5 are combined to create several large meeting rooms. At the first floor, Area 4 is the bar for the hotel which opens onto dining rooms in Areas 5, 6a and 6b. All rooms have modern finishes and fixtures.



Area 6b dining room with views to the river. Finishes are all recent and very basic.

This page intentionally left blank.



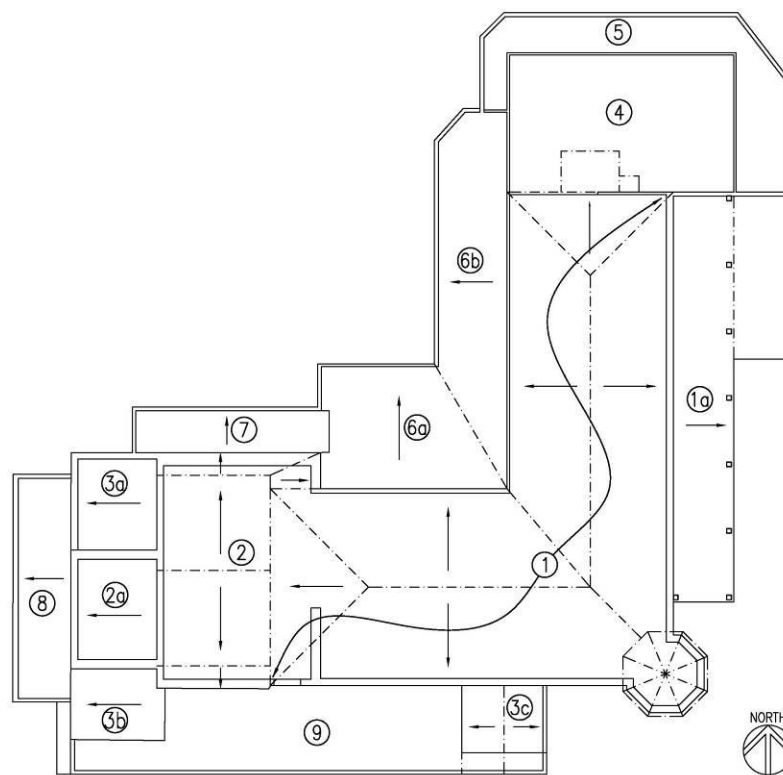
## J. HILL TOP HOTEL BUILDING

The following Condition Assessment is representative of the 2018 scope of study.

### CONDITION ASSESSMENT – 2018 UPDATE

#### SUMMARY

The following describes the current physical condition of the hotel building materials and systems as surveyed by Mills Group in March of 2018. The plan illustration below, reprinted from the 2008 Oehrlein & Associates report, is used to refer to the various parts of the building in the following text.



#### SITE WALLS AND PAVING

A concrete block wall currently retains the soil at the east entrance driveway, resisting the load from both the saturated soil and vehicular traffic above. While weeps exist, it is likely that they are clogged or that there is no drainage course behind the wall to allow rainwater to make its way to the weeps. The wall shows signs of significant deterioration stemming from continued exposure to moisture. Peeling paint, biological growth, spalling concrete, and corroded reinforcement are visible throughout the retaining wall. As of 2018, this deterioration has only grown more severe.

At the southwest corner of the building, settlement and cracking are evident in the exterior slab.

Site drainage and storm water runoff at the north side of the building is undermining the building foundations and contributing to wet conditions in the building.

## EXTERIOR WALLS - STONE

The stone wall of the east elevation of Area 1 is generally in very poor condition. The upper two levels of the southern portion of this wall have collapsed and are missing, likely at least partially due to insufficient window headers. Severe bulging and outward movement of the wall exists at all levels. As a result of the outward movement, there is severe cracking in the stonework at the first floor level. At the interior of this same area the stone wall is separated from the interior finishes upwards of 2".

Vertically, the wall also shows varying relative displacements. At the location of the former entrance vestibule, for example, the wall is leaning inward above the first floor level and is bulging outward above the first floor doors. The lintel above the main door, which was previously rotated and deteriorated as the result of a saturated wall condition, is completely absent. There is currently a large section of stonework missing from the wall above the former entry door, which has been boarded up. The transom and side lights which originally flanked this door are also missing. The southern half of the porch (Area 1a) which once spanned the east facade is now absent, along with the frame entry vestibule which once surrounded the entry door.

Signs of settlement were also observed in other areas of the east facade. Two first floor window lintels slant visibly to one side and diagonal cracking has occurred at several window and door corners. The concrete slab at the entrance has moved significantly, has been patched previously, and is cracking once again.

The Area 1 corner tower stonework also has significant cracking, in particular above window lintels. At some lintels, the masonry above is visibly bulging. This is likely due to a combination of undersized lintels and deterioration of the wood in a saturated wall. Deterioration of this area has been exacerbated by the proliferation of biological growth along the east wall of the tower at all three levels.

The stone at the northwest corner of Area 1 is cracked above the second window lintel similar to what has occurred at other areas of the building. Previous attempts at pointing the cracks were made, however, the mortar was not a good match to the original mortar and the repair failed to fill the cracks.



Deterioration along east elevation (Mills Group, 2018).



Detail of deterioration (Mills Group, 2018).



Interior view of deterioration of east wall (Mills Group, 2018).

## **EXTERIOR WALLS – CONCRETE BLOCK AND STUCCO**

The basement/first floor walls of Areas 3a, 3b, 6, 7, 8, and 9 are constructed of concrete block either painted or with some stucco coating. At the south end of the first floor west concrete block wall of Area 8, there is a vertical crack that extends the full height of the wall. This crack is wider at the top than the bottom, indicating that the crack was likely caused by settlement.

A piece of wood formwork used to build the first floor slab and left in place is severely deteriorated due to termite activity. While this is no longer a structural element, this could be indicative of additional termite damage in nearby structural framing or exterior elements.

At the north walls of the various concrete block additions at Areas 3a, 6a, 7 and 8 various types of masonry deterioration exist. Where a steel beam pockets into the masonry wall, no cover was left at the end of the beam and it has been exposed to the elements. Corrosion of the beam end has caused it to expand in a process called rust jacking, putting pressure on the surrounding masonry and causing diagonal cracking.

Distress was also observed in the masonry jamb at the door leading to the basement entrance at Area 3a. This cracking and spalling is likely due to a combination of water infiltration, the resulting corrosion of embedded steel items, and possibly inadequate detailing of the jamb.

A later one-story concrete block addition with concrete slab construction abuts the earlier stone building at the south elevation. This concrete block is parged or stuccoed; however, some cracking and spalling has occurred in the coating. The roof of this addition also serves as an egress terrace. One bay of the metal pipe railing at the upper edge of the roof is broken.

At the basement door at area 3a, the wood lintel above the door opening was observed to be severely deteriorated. This is likely due to water infiltration. The door in the concrete block wall appears to have been larger at some point in time, as the jamb on the left side has been infilled. This lower half of this door jamb infill is in poor condition.

The basement floor slab at Areas 6a and 6b has been undermined by storm water drainage at the base of the building. Two berms that have been constructed to accommodate sewer piping create a triangular area that does not allow water to drain away from the building. Storm water enters the basement and foundation walls. As of 2018, this deterioration has become more severe.

## **EXTERIOR WALLS - FRAME**

The north and west frame walls of the 1920 L-shaped building (Area 1) are currently clad with pressboard siding over asphalt shingles. The majority of this siding is warped and rotten, allowing moisture to infiltrate into the building. Many areas of the pressboard siding of the Area 5 and 6 additions were observed to be deteriorated, likely due to exposure to extreme weather and a lack of maintenance and painting.

At the northwest corner of Area 3a, rotted wood was observed from the first floor framing level up. The extent of the deterioration vertically could not be discerned because of the existing finishes.

## FOUNDATIONS

The foundations of the oldest, 1920, portion of the building are rubble stone (Areas 1 and 2). It is possible that portions of the existing stonework are from the early c.1900 addition to the original hotel and from the 1913 post fire reconstruction. The foundations of the mid to late 20<sup>th</sup> century additions are a combination of concrete and concrete block. Both the modern and original foundation walls are in poor condition.

At the northwest corner of the Area 5 addition, the proximity to the steep slope has caused the foundations to become undermined. Area 5 is supported on a concrete slab approximately 5" in depth which is supported on a series of steel perimeter beams and perpendicular steel beams which either cantilever out from concrete piers or concrete block walls or are simply supported on concrete piers at the perimeter. The undermining continues along the north side of Area 5, compromising the structural integrity of this area.

The basement is a damp and moldy space, neither comfortable for occupancy nor ideal for the structure and systems of the building. The basement of the 1920 portions of the building was originally a low crawl space. Excavation has been done in many areas to lower the basement floor to allow access to various areas of the basement and to provide space for the installation of mechanical, electrical and plumbing equipment. The result, however, has been to potentially destabilize the foundation walls by not providing solid underpinning or providing the 1:2 rise to run slope ratio recommended by geotechnical engineers for stability. The result can be both lateral instabilities and potential decreases in soil bearing strength.

With many areas of the basement being very wet, with either standing water at the concrete slabs or saturated soil in areas with dirt floors (the majority), rot of the wood framing and mold growth is present throughout. The moisture has resulted in deterioration of the base of many of the wood support posts. Saturated soils can also result in a reduction in bearing capacity of the soil. Continued saturation of masonry foundation walls has also resulted in deterioration of the stonework mortar at most locations within the basement.

One of the key observations in the basement was of lintel and wall distress similar to that present at the first and second floors of the east wall. A wood lintel over what was once an opening in an exterior foundation wall for Area 2 has significant deflections and rotations with masonry cracking and bulging at the supports.

At an adjacent wall opening, the inner and outer faces (wythes) of the stone have separated and the lintel above has rotated, similar to the phenomenon observed at the east façade. Once a portion of the wall has started to rotate, the uneven application of vertical load from above causes further rotation, aggravating the problem. In this instance, the problem was partially mitigated by building a series of concrete block buttresses to support the wall laterally. This was possible due to the location of these walls below grade; however, this type of reinforcement is obviously not viable at the east façade.

In several locations, the foundation walls were observed to have penetrations for piping where no lintel was installed to support the remaining stone above. While these walls generally do not support floor loads, the unsupported stone could be unstable and present a danger to people nearby.



## **FRAMING**

All floor framing in the building is exhibiting a large amount of relative deflection, likely due to the variable foundation conditions and a history of settlement. This phenomenon of "rolling floors" can be unsettling to visitors and employees at a minimum and is a tripping hazard when floors meet hard spots such as supporting walls or columns.

### First Floor Framing

The first floor is supported on wood framing spanning between the stone masonry walls and/or by wood beams on wood posts. At the L shaped portion of the building (Area 1), the framing consists of 2"x10" joists at 16" on center spanning in the short direction between two exterior and one interior stone foundation walls. The interior wall is located approximately at the mid span. At the west end (Area 2) of the basement, the framing geometry is more complex with the joists changing directions and having varying support conditions and sizes. In Area 2 the joists span in the east-west direction between a foundation wall on the west and a triple wood beam at the east. The triple wood beam is supported on wood posts and the joists are also 2"x10" at 16" spacing.

In Area 2a, the joists consist of 2"x12" spanning in the north-south direction between stone foundation walls and an intermediate multiple 2"x12" beam. In Area 3a, the 2"x8" at 16" on center framing switches direction, spanning east-west between concrete block and stone foundation walls and an intermediate wood beam. The wood beam spans north-south between stone walls with an additional wood post for support near mid-span.

An assortment of deteriorated framing conditions was observed, either due to moisture from rainwater or damaged plumbing piping or due to insufficient capacity. At many locations, joists have been notched to accommodate piping and wiring. This has caused localized stresses around the notch as well as reduced the overall capacity of the member.

At the transition between Areas 1 and 2, in the northeast corner of Area 2, the 2"x10" joists span east-west over a double wood beam. Both of these beams are broken at the bottom face near mid-span, indicating that it is overstressed from the loads imposed on it.

In some areas, floorboards and framing have deteriorated due to continued exposure to leaking pipes in the vicinity. In some areas, the floorboards and/or framing have been replaced or reinforced; however, in other areas no repairs have been made.

### Second Floor Framing

The second floor framing was not observed in the Area 2 portion of the building but is assumed to be fairly similar to the first floor framing. However, some of the second framing was observed in the Area 1 portion of the building. On the south side of Area 1, a series of large built-up steel beams span in the north-south direction between the south stone bearing wall and a series of steel columns at the north. The beams appear to consist of top and bottom steel plates riveted to double channels or possibly a wide flange beam. Using steel at this location allowed the dining room to be a large, open space with minimal interior supports. The exception is the easternmost steel beam, which is supported by a column in the center of the room. These steel beams support not only the second floor joists but also the second and third floor corridor walls above which in turn are the bearing walls for the floor joists in the upper levels.

The steel columns which support the built-up beams are out-of-plumb. One column is leaning 2" over an 8.5' height. The out of plumb condition may have been caused by shifting of the foundation walls which support the column bases or by movement of the exterior walls and movement of the floor framing or both.

The second floor framing in Area 1 was observed through a floor probe near the center of the east wall. Floor joists were measured to be 2"x10" spaced at 16" and supporting diagonal subfloor and floor boards. The joists span east-west between the exterior walls and the interior corridor walls or beams. Because of the bowing of the exterior stone wall, the joists are no longer bearing on the wall. Some of the joists have had extensions spliced on, but the bearing condition is still questionable

At the same location, a probe was made at the head of the window, exposing two wood lintels stacked vertically. The lintels contain area of rot.

#### Fourth Floor (Attic) Space / Roof Framing

Fourth floor (attic) and roof framing were observed within Area 1 at limited locations. At both hips in the southwestern portion of the L-shaped building, framing was observed in closets.

Rafters were measured to be 2"x6" members and floor joists 2"x10" members, both spaced at 16" on center.

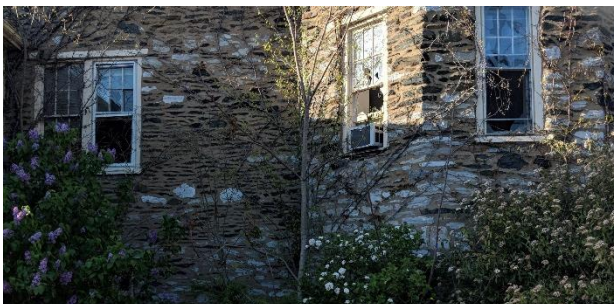
It is possible that some roof framing deterioration may be present in other areas of the building; however these could not be observed because the former attic spaces have been finished for guest rooms. Likely areas of deterioration would occur at the valleys, areas of flashing and intersections of roofs.



Detail of basement foundation walls (Mills Group, 2018).



Overview of south wall of hotel (Mills Group, 2018).



Detail view of stone wall and turret connection, south elevation (Mills Group, 2018).

## ROOFING

The roof coverings of the hotel are a combination of asbestos shingle, asphalt shingles, corrugated metal, standing and flat seam metal, roll roofing, and membrane roofing. The perimeter metal gutters and downspouts are galvanized steel and aluminum; most are missing. All roofing materials are in poor condition.

The Area 1 roof is covered with diamond shaped asbestos shingles, flat seam sheet metal, and sheet metal flashing that has been painted red. Both shingles and metal are in poor condition. The roof valley at the northwest side of the roof ends in a chimney, meaning that water, snow and ice accumulates in this area. The wood eave is significantly damaged and the roofing has biological growth and deterioration. It is likely that the wood roof framing at this area is deteriorated as well.



Asphalt shingle roofing (Mills Group, 2018).



Asbestos shingle roofing (above) and flat seam metal roofing (below) (Mills Group, 2018).



Detail view of deteriorating flat seam metal roofing (Mills Group, 2018).



## WINDOWS, DOORS AND TRIM

The exterior windows and doors of the oldest portions of the building, Areas 1 and 2, are wood. Most of these wood windows are covered with aluminum or steel storm windows, and several at the second floor level have been boarded up or are missing entirely. Several wood doors are also missing or have been boarded up. Remaining wood windows and doors are in poor condition, evidenced by rotting observed at sills, missing glazing, and frames out of plumb. Additionally, given the age of these features, they likely contain lead paint and possibly other hazardous materials. At the newer portions of the building, the windows and doors are a combination of wood, aluminum and steel. The glazing in many of these windows, particularly in Areas 5 and 6, is shattered, allowing for additional water and plant infiltration. The trim at all portions of the building is in poor condition. Leaking roofs and gutters and uncontrolled storm water have resulted in deterioration of much of the wood trim.



Wood windows and missing windows at stone and frame walls (Mills Group, 2018).



## INTERIOR FINISHES

The condition of the interior finishes of the public spaces and guest rooms is uniformly very poor. Wall coverings are peeling, carpets are worn and deteriorated due to water infiltration, and painted ceilings and trim are chipped and peeling. Many interior frame walls are punctuated with large holes where copper wiring was removed by vandals. In many areas, vegetation has begun to enter the building through window openings, while other areas are overgrown with moss due to water infiltration. Floors are sagging and warped; walls, ceilings and tile is cracked, and doors and windows do not close due to the extreme settlement of the building. Bathroom finishes and fixtures are also in poor condition throughout.



Current interior conditions of Hill Top Hotel building (Mills Group, 2018).



## **CONCLUSIONS AND RECOMMENDATIONS – 2018 UPDATE**

The Hill Top Hotel building has served as a landmark in Harpers Ferry for over a century, and is considered a contributing element to the Harpers Ferry Historic District. Nearly completely destroyed by fire in both 1912 and 1919, the oldest portions of the building date to the reconstructions which took place immediately following these disasters. Although the building is indisputably significant, a series of insensitive additions and alterations which took place during the mid- and late-twentieth century have largely obscured its original character and grandeur. Unfortunately, these ill-constructed alterations have also undermined the structural stability of the building and have caused issues leading to the deterioration of both exterior and interior features. The exterior envelope of the hotel building has been compromised, allowing for moisture infiltration which has caused structural deterioration and organic growth. These conditions pose health, welfare, and safety concerns.

Due to the undercutting of the foundation walls and resulting structural settlement, presence of mold and other hazardous materials, and extreme moisture infiltration of the current building, a proposed renovation of the existing building is not realistic. Additionally, extensive interior and exterior alterations that would need to be completed to bring the building up to current code and life safety standards would further obscure and damage the historic character-defining features of the hotel.

As such, the recommendation of this report as to the treatment of the hotel building is in concurrence with the recommendations of the 2008 Oehrlein & Associates Architects report. The existing building should be demolished and replaced with a new building that is in keeping with the historic aesthetic and character-defining features of the hotel prior to the alterations which took place during the latter half of the twentieth century. The new building should be compatible with the site and visual character of the Harpers Ferry Historic District. It is recommended that the owner salvage historic building components such as stone, timber, and millwork during demolition for reuse in the new structure. In constructing a new building in this location, the legacy of the site as a tourist destination can be maintained and carried on for future generations.

## **4. OVERALL SITE ASSESSMENT**

- A. Archaeological Overview
- B. Cultural Landscape Overview



## A. ARCHAEOLOGICAL OVERVIEW

In August of 2008, ECS Mid-Atlantic, LLC (ECS) conducted a Phase 1A archaeological assessment of the Hill Top Hotel site and the adjacent Byrnes Island. The assessment included the area bounded by Potomac Street to the north and Washington Street to the south, situated on city blocks U (partial), F (partial), E, and BB (partial) (Figure 1). The purpose of this study was to assess the archaeological potential of the project area as a whole and to locate areas that retained a high or moderate potential for the location of subsurface cultural resources. In addition, the study aimed to identify previously-recorded archaeological sites in the vicinity. The study consisted of archival review, fieldwork, analysis, and report preparation.

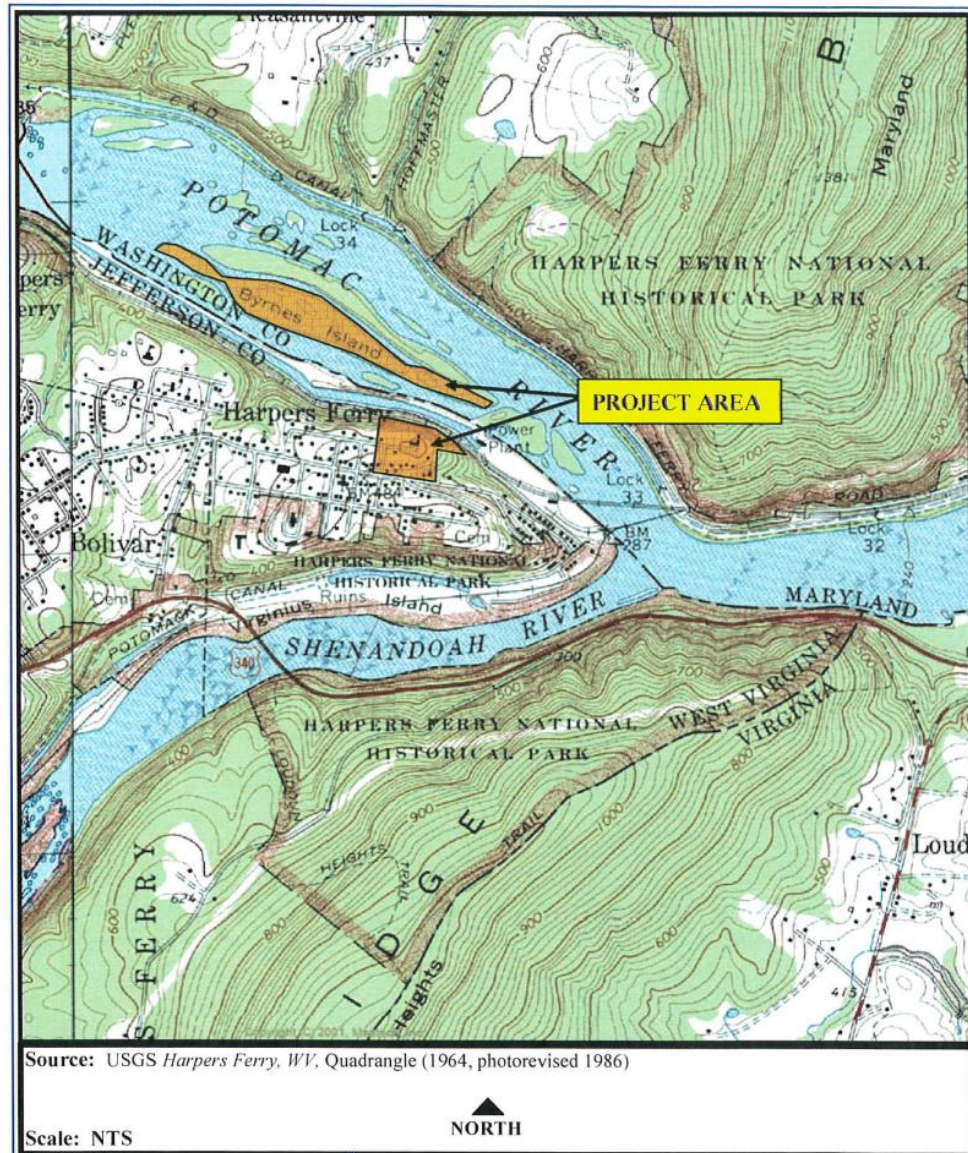


Figure 1. Location of 2008 ECS Project Area.



While no archaeological sites were found to have been previously documented within the project area, the archival review phase of the project identified 38 previously-recorded archaeological sites within a one-mile radius (Table 1). The research also identified 18 archaeological and historical studies conducted within one mile of the project area (Table 2). Most of these were conducted as part of highway improvements, historic stabilization projects, or in conjunction with the Harpers Ferry National Park.

Table 1. Previously recorded archaeological sites in the vicinity of the 2008 project area.

<b>WV SITE NO.</b>	<b>DESCRIPTION</b>	<b>NRHP ELIGIBILITY</b>
46JF6	Archaic Camp	Not Assessed
46JF22	19 <sup>th</sup> century industrial bldg	Not Assessed
46JF70	Civil War encampment	Not Assessed
46JF71	Civil War encampment	Not Assessed
46JF72	Civil War encampment	Not Assessed
46JF73	Civil War encampment	Not Assessed
46JF74	Civil War encampment	Not Assessed
46JF76	Civil War encampment	Not Assessed
46JF77	19 <sup>th</sup> century domestic	Not Assessed
46JF78	19 <sup>th</sup> century domestic	Not Assessed
46JF79	19 <sup>th</sup> century domestic	Not Assessed
46JF80	19 <sup>th</sup> century domestic	Not Assessed
46JF81	19 <sup>th</sup> century hotel	Not Assessed
46JF82	19 <sup>th</sup> century cemetery	Not Assessed
46JF84	Early-Mid 19 <sup>th</sup> century domestic	Not Assessed
46JF85	Late 18 <sup>th</sup> -20 <sup>th</sup> century domestic	Not Assessed
46JF86	19 <sup>th</sup> century domestic	Not Assessed
46JF87	19 <sup>th</sup> century domestic	Not Assessed
46JF88	Early-Late 19 <sup>th</sup> century domestic	Not Assessed
46JF89	Early 19 <sup>th</sup> -20 <sup>th</sup> century domestic	Not Assessed
46JF90	Early 19 <sup>th</sup> -20 <sup>th</sup> century domestic	Not Assessed
46JF91	Early 19 <sup>th</sup> -20 <sup>th</sup> century domestic	Not Assessed
46JF92	Early 19 <sup>th</sup> -20 <sup>th</sup> century domestic	Not Assessed
46JF199	19 <sup>th</sup> -20 <sup>th</sup> century commercial	Not Assessed
46JF200	Early 19 <sup>th</sup> -20 <sup>th</sup> century domestic	Not Assessed
46JF201	Early 19 <sup>th</sup> -20 <sup>th</sup> century domestic	Not Assessed
46JF209	Early 19 <sup>th</sup> -20 <sup>th</sup> century domestic	Not Assessed
46JF210	Early 19 <sup>th</sup> -20 <sup>th</sup> century domestic	Not Assessed
46JF211	Early 19 <sup>th</sup> -20 <sup>th</sup> century domestic	Not Assessed
46JF212	Early 19 <sup>th</sup> -20 <sup>th</sup> century domestic	Not Assessed
46JF221	Civil War encampment	Not Assessed
46JF229	19 <sup>th</sup> century sawmill	Not Assessed
46JF230	19 <sup>th</sup> century domestic	Not Assessed
46JF231	20 <sup>th</sup> century dump	Not Assessed
46JF232	19 <sup>th</sup> -20 <sup>th</sup> century dump	Not eligible

Table 1 continued. Previously recorded archaeological sites in the vicinity of the 2008 project area.

WV SITE NO.	DESCRIPTION	NRHP ELIGIBILITY
46JF237	Early 19 <sup>th</sup> -20 <sup>th</sup> century domestic	Not Assessed
46JF238	African American Church	Not eligible
46JF518	Woodland; Late 18 <sup>th</sup> -20 <sup>th</sup> century industrial, military	Eligible

Table 2. Previous cultural resources projects in the vicinity of the 2008 project area.

REPORT TITLE	AUTHORS	DATE
Loudoun Heights Archaeological and Historical Resources Study	Winter, Susan E. and Dennis E. Frye	1992
Domestic Responses to Nineteenth century industrialization: an Archaeology of Park building 48, harpers Ferry National Historical Park	Shackel, Paul A. et al.	n.d.
Case Report and Determination of Effect: Archaeological Research Ruins Stabilization project, Virginus Island	Unknown	n.d.
Archaeological Investigations at Wernwag's Machine Shop: Site 46JF230 on Virginus Island	Parsons, Mia T.	1995
Historic Structures Report, Architectural Data Section Buildings 10 and 10A	Stevens, Jeffrey L.	n.d.
Virginus Island Ruins Assessment and Stabilization Plan	Unknown	1993
Archaeological Investigations of Lewis Wernwag's Sawmill, 46JF229, Virginus Island, Harpers Ferry, West Virginia	Borden, Alan C.	1995
Archaeological Investigations at Building 37, Wager Lot 52	Halchin, Jill Y. (editor)	1992
Restoration of the Backyards, Lower Town, Harpers Ferry National Historical Park	Unknown	1993
Scope of Archaeological Work and Research Design Package 110, Landscape Restoration of Backyard Area, Wager Block, Lower Town, Harpers Ferry National Historical Park	Carpenter, Scott L.	1980
Building 40 Archaeological Excavations, Harpers Ferry National Historical Park	Ravenhorst, John W.	1993
Resource Management Plan, Harpers Ferry National Historical Park	Hebb, T.W.	1981
Archaeological Investigations at Curtis Freewill Baptist Church	Ravenhorst, John W.	1995
Archaeological Views of the upper Wager Block, a Domestic and Commercial Neighborhood in Harpers Ferry	Halchin, Jill Y.	1994
Interdisciplinary Investigations of Domestic Life in Government Block B: Perspectives on Harpers Ferry's Armory and Commercial District	Shackel, Paul A.	1993
Archaeological Investigations, Wager Lot 48, Harpers Ferry National Historical Park	Hachlin, Jill Y.	1992
Archaeological Investigations on Virginus Island 1977-1981	Seidel, Ellen M.	1986

The fieldwork phase of the project consisted of shovel-test sampling eleven portions of the project area to identify cultural deposits or areas of high artifact density, and to determine the contextual integrity of these areas. Low probability areas, such as disturbed areas, flooded areas, or areas with a ground slope in excess of 15 percent, were visually inspected but not shovel tested. The data from these shovel tests were recorded on standardized forms, and profiles of each test were drawn. Photographs were taken of any historic standing structures, as well as of representative investigated locales. Excavated soils were screened through a ¼-inch mesh. Recovered archaeological materials were noted, identified, and returned to the project area.

Shovel testing in the areas adjacent to the Hill Top Hotel revealed subsurface archaeological deposits associated with nineteenth- and twentieth-century domestic occupation of the project area. These deposits included brick, window glass, milk glass, vessel glass, glass slag, wire and cut nails, coal, ceramics, and oyster shell. Many of these materials were identified as destruction debris from former buildings. No archaeological materials were present on the exposed ground surfaces in this portion of the project area. The report noted that underground features associated with former residences, such as privies and wells, are likely present within the project area, although none were encountered during this assessment. According to the report, the area retains a high potential for unrecorded archaeological resources.

If applicable regulators require additional evaluation of the project area, the completion of a Phase 1 archaeological assessment may determine the extent and location of additional potential archaeological sites on the property. In the event that any unanticipated subsurface cultural remains are encountered during development activities, work in the vicinity should cease immediately, and the SHPO is to be notified. Work may resume upon the recommendation of SHPO. If human remains are encountered, work in the area is to cease, and SHPO, as well as the county sheriff and local or state police, are to be notified immediately. Human remains or associated grave objects are not to be collected, disturbed, or removed, and no photographs of any such objects are to be released to the press. Work is not to resume in the area until SHPO has granted clearance.



## **B. CULTURAL LANDSCAPE OVERVIEW**

According to the National Park Service's Preservation Brief 36, Protecting Cultural Landscapes: Planning, Treatment and Management of Historic Landscapes, a cultural landscape is defined as "a geographic area, including both cultural and natural resources and the wildlife or domestic animals therein, associated with a historic event, activity, or person exhibiting other cultural or aesthetic values." The NPS defines four types of cultural landscapes, including historic sites, historic designed landscapes, historic vernacular landscapes, and ethnographic landscapes. All four types of cultural landscapes are dependent upon the natural resources in an area, including land, air and water, vegetation, and wildlife, that serve to delineate these sites from other cultural resources, such as historic structures.

Historic cultural landscapes include are made up of a variety of character-defining features that, individually or as a whole, contribute to the physical appearance of the landscape as it has evolved over time. Examples of cultural landscapes include residential gardens, community parks, scenic highways, rural communities, institutional grounds, cemeteries, battlefields, and zoological gardens. In addition to vegetation and topography, historic landscapes may include water features, circulation features (paths, roads), buildings, and site furnishings (benches, fences, lighting).

Historic designed landscapes are defined as those landscapes that were designed or laid out by an architect or landscape architect, master gardener, or horticulturist in accordance with design principles. Examples of historic designed landscapes include parks, campuses, and estates. Landscapes designed by an amateur gardener working in a recognized style or pattern may also be considered historic designed landscapes. The aesthetic values of a historic designed landscape are important in determining its overall integrity and significance. The significance of the landscape may be its association with a significant person, trend, or event in landscape architecture; or, it may illustrate a development in the theory and practice of landscape architecture.

Historic vernacular landscapes are defined as those landscapes whose development has evolved through use and activity over time. Examples of historic vernacular landscapes include rural villages, industrial complexes, and agricultural tracts. The functional role of a historic vernacular landscape is important in determining its overall integrity and significance. These landscapes reflect the physical, biological, and cultural character of the individuals, families, and communities that shaped them.

Historic sites are defined as landscapes who share an association with a significant event, activity, or person. Examples of historic sites include president's house properties and battlefields.

Ethnographic landscapes are defined as those landscapes which contain a variety of cultural and natural resources that are considered heritage resources by associated groups. Examples of ethnographic landscapes include geological structures, religious sacred sites, and contemporary settlements. Plant and animal communities, subsistence areas, and ceremonial grounds may be components of a larger ethnographic landscape.

The Hill Top Hotel site contains several landscape features, including asphalt paved walkways, stairs, a lookout constructed of paver stones, benches, a flagpole, planter



beds, fencing, a stone wall, and paved auto circulation routes and parking areas (Figure 2-Figure 5). Historic photographs and postcards indicate that the majority of these features are modern incursions, with the oldest features consisting of the circular drive and stone wall. The stone wall, which is thought to feature fence caps that were salvaged from the nearby armory, appears in historic photographs as early as 1919 (see Chapter 2, Historic Background). Historic aerial photographs indicate the presence of the circular driveway, as well as the adjacent parking area, as early as 1955, and indicate the development of the paved overlook at the end of Ridge Street by 1965 (Figure 6, Figure 7). The remaining non-historic landscape features are typical of most hotel grounds and do not, in and of themselves, warrant individual distinction.

The Armory Dwellings and Barbershop also feature landscape elements such as retaining walls, walkways, and staircases (Figure 8, Figure 9). The exact construction date of these features is unknown; however, they appear to be largely modern incursions that may have replaced original features.



Figure 2. Photograph of overlook, benches, and flagpole (Mills Group 2018).



Figure 3. Photograph of overlook from below (Mills Group 2018).



Figure 4. Photograph of circular drive (Mills Group 2018).





Figure 5. Photograph of historic stone wall adjacent to sidewalk at south side of hotel building (Mills Group 2018).



Figure 6. 1955 aerial photograph of Hill Top Hotel property showing circular drive and parking area (Image courtesy United States Geological Survey).



Figure 7. 1965 aerial photograph of Hill Top Hotel property showing beginning of development of overlook area (Image courtesy United States Geological Survey).



Figure 8. Overview of landscaping, stairs, walkway, and fencing in front of armory dwelling (Mills Group 2018).





Figure 9. Overview of stairs and walkway in front of armory dwelling (Mills Group 2018).

## **5. CONCLUSION AND MANAGEMENT RECOMMENDATIONS**

- A. Conclusion
- B. Armory Dwelling and Barbershop Recommendations
- C. Hill Top Hotel Recommendations
- D. General Site Recommendations
- E. General Approach

## A. CONCLUSION

In March of 2018, SWaN Investors LLC of Leesburg, Virginia contracted the Mills Group to complete a Historic Resources Plan for the Hill Top Hotel located in Harpers Ferry, West Virginia. The Historic Resources Plan provides an overview and evaluation of all contributing resources to the Harpers Ferry Historic District associated with the Hill Top Hotel property. Using the 2008 Oehrlein & Associates Architects building conditions reports as a basis, the Historic Resource Plan identifies all contributing resources in the study area, provides an overall historic context for the site, and identifies past cultural resource investigations in the area.

As previously stated in this report, the Hill Top Hotel site contains many historic assets to the community of Harpers Ferry that should be preserved, maintained, and rehabilitated for continued use. This report recommends the sensitive reconstruction of those features that cannot be preserved or rehabilitated due to excessive deterioration and obscuring of historic character defining features. The Mills Group Historic Resource Plan concurs with the 2008 Oehrlein & Associates recommendation for the demolition of the hotel building, justified by evidence of further deterioration. Management recommendations for the armory dwellings and barbershop, hotel building, and overall site are synthesized below.

## **B. ARMORY DWELLING AND BARBERSHOP RECOMMENDATIONS**

The armory dwellings and barbershop building are contributing resources to the Harpers Ferry Historic District that retain a high level of integrity and character-defining features. Although they have each experienced some level of deterioration and alterations, they are each in fair or better condition and can be rehabilitated for future use. The armory dwellings and barbershop building share a common recommended rehabilitation scope of work, in addition to building-specific items. While the scope items specific to each structure can be found in Chapter 3: Resource Assessments, the general scope, annotated and updated from the 2008 Oehrlein & Associates recommended scope, is as follows:

### **Sitework and Utilities:**

- Repoint, or rebuild if necessary, deteriorated retaining walls with salvaged stone and mortar to match existing.
- Create new storm drainage system.
- Remove non-original site features, along with non-functioning utility lines, conduits, and meters.
- New landscape features may be installed as needed for reprogramming of buildings. This may include exterior lighting, pavers, walkways, site circulation amenities, or plantings.

### **Accessibility:**

- Create ADA-accessible suite space within at least one armory dwelling. Include ramp to rear entry door and first-floor bedroom and bathroom accommodations, or, alternatively, an interior lift for second-floor accommodation access.
- Provide ramp for ADA access to first floor of Barbershop.

### **Masonry:**

- Repair masonry fireplace chimneys and flues.
- Repointing and painting of exterior masonry walls.

### **Wood:**

- Clean, repair, prime and paint interior and exterior woodwork including doors, windows and trim scheduled to remain.
- Remove and discard any non-original interior wall partitions.
- Replace missing porch components.
- Replace or reinstall missing window shutters to match existing stored on-site.
- Replace missing fireplace mantles to match existing.
- Reconstruct interior stairs to meet current code standards as required.



**Thermal and Moisture Protection:**

- Install new gutters and downspouts on all roofs.
- Install new insulation at walls, floors, ceilings and roofs/attics as directed by design architects.

**Doors and Windows:**

- Restore all windows scheduled to remain. Replace all broken glass panes in doors and windows.
- Where original cannot be salvaged and reused, install new hardware on doors, windows, and shutters.
- Install new interior storm window panels and screens.
- Remove non-original window and door openings, in accordance with programmatic requirements, and infill with masonry.
- Install new thermal panel windows to match style and profiles of the period of significance defined for each resource.

**Finishes:**

- Install new interior gypsum board wall finishes and ceilings.
- Patch and repair existing plaster walls as required.
- Repair and refinish wood floorboards when historic material is existing.

**Furnishings:**

- Install new cabinetry in kitchens and bathrooms.

**Mechanical/Plumbing/Electrical and Fire Protection Systems:**

- Install new sump pumps.
- Install new electrical (power and lighting) and plumbing system and fixtures.
- Install new HVAC system and equipment.
- Install new audio-visual, voice/data, security wiring and systems.
- Install new fire detection and suppression systems.

## C. HILL TOP HOTEL RECOMMENDATIONS

The Hill Top Hotel building has served as a landmark in Harpers Ferry for over a century, and is considered a contributing element to the Harpers Ferry Historic District. Nearly completely destroyed by fire in both 1912 and 1919, the oldest portions of the building date to the reconstructions which took place immediately following these disasters. Although the building is indisputably significant, a series of insensitive additions and alterations which took place during the mid- and late-twentieth century have largely obscured its original character and grandeur. Unfortunately, these ill-constructed alterations have also undermined the structural stability of the building and have caused issues leading to the deterioration of both exterior and interior features. The exterior envelope of the hotel building has been compromised, allowing for moisture infiltration which has caused structural deterioration and organic growth. These conditions pose health, welfare, and safety concerns.

Due to the undercutting of the foundation walls and resulting structural settlement, presence of mold and other hazardous materials, and extreme moisture infiltration of the current building, a proposed renovation of the existing building is not realistic. Additionally, extensive interior and exterior alterations that would need to be completed to bring the building up to current code and life safety standards would further obscure and damage the historic character-defining features of the hotel.

As such, the recommendation of this report as to the treatment of the hotel building is in concurrence with the recommendations of the 2008 Oehrlein & Associates Architects report. The existing building should be demolished and replaced with a new building that is in keeping with the historic aesthetic and character-defining features of the hotel prior to the alterations which took place during the latter half of the twentieth century. The new building should be compatible with the site and visual character of the Harpers Ferry Historic District. It is recommended that the owner salvage historic building components such as stone, timber, and millwork during demolition for reuse in the new structure. In constructing a new building in this location, the legacy of the site as a tourist destination can be maintained and carried on for future generations.

## **D. GENERAL SITE RECOMMENDATIONS**

The Hill Top Hotel site contains a limited number of landscape features that are original to the 1920 reconstruction and that contribute to the historic significance of the site. The most significant and oldest of these is the low stone wall located at the south elevation, which is thought to feature stone fence caps salvaged from the dismantled armory buildings in Harpers Ferry. While redevelopment of the site may ultimately necessitate the relocation of this feature, every effort should be made to retain and preserve its original materials for reuse on the site.

In August of 2008, ECS Mid-Atlantic, LLC (ECS) conducted a Phase 1A archaeological assessment of the Hill Top Hotel site and the adjacent Byrnes Island. If applicable regulators require additional evaluation of the project area, the completion of a Phase 1 archaeological assessment may determine the extent and location of additional potential archaeological sites on the property. In the event that any unanticipated subsurface cultural remains are encountered during development activities, work in the vicinity should cease immediately, and the SHPO is to be notified. Work may resume upon the recommendation of SHPO. If human remains are encountered, work in the area is to cease, and SHPO, as well as the county sheriff and local or state police, are to be notified immediately. Human remains or associated grave objects are not to be collected, disturbed, or removed, and no photographs of any such objects are to be released to the press. Work is not to resume in the area until SHPO has granted clearance.

## E. GENERAL APPROACH

Across West Virginia we are challenged with structures that are, or certainly once were, community icons that today require restoration and preservation efforts. These buildings once contributed to the socio-economic and physical dynamics of their respective downtowns, and often bring many memories from the local community of days gone past. These structures all have stories as to why they are in the state of disrepair that they are in; whether it be bank foreclosure, absentee ownership, obsolete infrastructure, hazardous materials, or a number of other situations.

Whether it is the 1500 square foot Stump Hotel in Grantsville, the 100,000 square foot Waldo Hotel in Clarksburg, or the Hill Top Hotel in Harpers Ferry, these structures all play an important role in the legacy of place and have served to shape their respective communities. None of the above mentioned communities can afford to lose these historic structures; it takes some thought and careful planning to "Attack These Landmarks."

In order to be effective, these projects often require a public-private partnership. The public entity, whether it is the city, county, state or federal government, can bring capital that is usually for site infrastructure improvement or a loan to seed the project. The private investment can secure the balance of the needed capital for the project and work to utilize the available tax credits.

SWaN Investors LLC have proceeded down the road with the items identified below and have a plan to execute a successful project.

**The start of the plan:** *a successful project relies on a clear vision of the end goals and how to get there.* A vision is needed that outlines common goals, expectations, and desired results within a set schedule and for a given budget. In dealing with an existing building, one of the largest challenges is to develop a winning building program with the understanding that some uses are more evasive than others. The building configuration and typology is an issue – i.e., the conversion of a train station to market-rate housing is not necessarily the best fit. In planning for the best results, owners must look at precedents both locally and nationally and examine what worked and what did not. It is our hope that this report provides the client the basis for this plan.

How should clients **equip themselves for the challenge?** The right team members and partners are crucial with a composition of technical experts, financial experts, and members with local knowledge. The technical experts will guide the configuration, the infrastructure, the adaptability, the constructability, and the regulatory/approvals process for the project. The financial experts will guide the market studies, cash flow analysis, and capital investments all centered around the return on investment. It is not any one of these team members that make this project successful, but the consolidated efforts of the team that creates a winning solution.



The **first step** is the **strategic approach**: *identify the economic and social incentives to what otherwise may seem like a hopeless project.* The common incentives are State Tax Credit, Federal Tax Credit, and Tax Abatement. It can often be proven to local, state, and federal officials that these projects can be the pivotal projects for larger scale revitalization. Additionally, when executed using the established standards, the Secretary of The Interior's Standards for Rehabilitation as one, the projects can be models bringing a community and its leadership together (both the business community and citizen groups) with pride and a sense of accomplishment.

The **second step** is to establish **funding**: *identify potential funding sources and partnerships for a successful project.* Some mechanisms and sources that have been used in the past:

- TIFF Financing
- State Wide Preservation Grant
- Community Development Block Grants
- Bank Consortium Funding
- HUD funds
- Transportation Enhancement Funding (ISTEA and TEA-21)
- Bank Reinvestment Acts Requirement
- Special bonds or levies and private foundation funding.

Additionally, work with your local banking community to leverage financing for the project based upon future income from federal, private, and corporate user groups.

The **third step** would be the **professional study**: *pull together all the historical documentation on the structure, assess the existing conditions and start the creative process to conceptualize an end result.* Sensitive and responsible preservation and restoration work must be responsive to the category of historical significance of the building. Each building provides a unique set of requirements and conditions; so too, each solution is unique. Realize that the approach will be based on several factors such as size, location, historical significance, available documentation, current and desired uses, existing conditions and project budget. Again, the work provided in this study should provide the client with the basis for this step in the process. This report completes this step.

The **fourth step** could be to **identify partners**: *projects with consensus amongst the community and project members have greater possibilities for success.* Each project can benefit from a developer or facilitator that has experience with historic rehabilitation. Some projects warrant a phased approach and multiple partners/investors to develop a winning solution. With a team actively facilitating

the process, garnering leadership from the local community and conveying the vision consensus on all sides shall be reached.

Note that the order of the strategies can vary slightly depending on the project's constraints and opportunities. It is important to understand that each building calls for a different approach, and that no one solution fits all.