HARPERS FERRY NATIONAL HISTORICAL PARK

HISTORIC STRUCTURES REPORT

ARCHITECTURAL DATA SECTION

Part II- BLDGS. 34,35,and 34A



West Virginia

December 1994

HISTORIC STRUCTURES REPORT

ARCHITECTURAL DATA SECTION:

Package 116, Buildings 34-35 and 34A

Lot 3, Block B
Shenandoah Street
Harpers Ferry National Historical Park
Harpers Ferry, West Virginia

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Preface

Package 116 comprises Buildings 32-33, 33A, 34-35, 34A, and 36 in the lower town of Harpers Ferry National Historical Park. Part II of this Architectural Data Section of the Historic Structures Report details Buildings 34-35 and 34A along with the rear yard which relates to all the buildings in Package 116. The History Section, Archeological Component and Building 34-35 Historic Furnishings Report are being published under separate volumes. Together with the Architectural Data Section Part II and the Historic Furnishings Report, these documents form the Historic Structures Report for Package 116.

The History Section, based on a previous report, has evolved over several drafts to reflect critical internal review at the park, a continued dialogue with the Denver Service Center, Falls Church Branch, and insight shared by the architect/engineer firm during the design phase. The bulk of the Architectural Data Section, Parts I and II, was done in 1991-1992.

These final documents printed in 1994, while essentially complete before the construction documents for the restoration were completed in November 1993, incorporate the latest findings to date regarding the history of the Package 116 buildings. The architecture sections reference the History Section in its final form. Should new data come to light during the construction effort, they will be attached to the Architectural Data Section, Parts I and II as an addendum.

This report provides administrative data, documentary information and references, building history, architectural data and analysis, use alternatives, treatment recommendations, proposed work program, and relevant appendices. Documentary evidence is denoted by footnotes and sources listed in the annotated bibliography.

Appreciation is extended to Historical Architect Randall Copeland, Denver Service Center, Eastern Team for his field investigation, analysis and an early draft with documentation of existing conditions, code review and proposed alternatives. At the Falls Church Branch of the Eastern Team, Denver Service Center Architect Tony Donald, Chief, Design Section I, provided guidance and insight throughout the project. Architect Thomas Fields assisted in final graphic layout. Cartographic specialist Larry Sutphin shared his expertise in the graphic reproduction for this project.

We are grateful for the cooperation from Superintendent Campbell and the Harpers Ferry National Historical Park staff, especially Dennis Frye, Chief of Resource Education and Cultural Resource Management, and Historians Patricia Chickering and Michael Jenkins. Thanks are also extended to the Harpers Ferry Center staff, especially Carol Petravage of the Historic Furnishings Division.

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PART I: Introduction

A. Administrative Data

1. Name, Number and Management Category

Buildings 34, 35 and 34A occupy one half of Lot 3 of Block B on the south side of Shenandoah Street within the Lower Town of Harpers Ferry National Historical Park, Harpers Ferry, West Virginia. (See Figure 1). The period of construction was from 1812 to 1892 with only minor modifications in the twentieth century. Building 34 (L.C.S. No. 00557) and Building 35 (L.C.S. No. 45408) together form a unified structure, while Building 34A (L.C.S. No. 00562) lies to the rear (south) of Building 34. Buildings 34-35 are collectively referred to as the "General Store" and "Provost Marshall's Office", and the "McGraw Post Office Building". On its own, Building 35 is known as the "Old Master Armorer's House."

Buildings 34-35 and 34A all fall within NPS Management Category A: structures that must be preserved and maintained.

2. Statement of Significance

Nomination forms for inclusion of Building 34-35 on the National Register of Historic Places were initially prepared in March, 1978, listing areas of significance as "commerce, industry and military." Subsequently, these structures and Building 34A, as well as those others within Lower Town, were nominated to the National Register as "contributing features" to the Harpers Ferry Historic District. Their primary significance lies within this role as "historical context" structures. These nominations, however, were not approved until the early 1980's.

Originally, Building 35 was a two-and-a-half story residence and apothecary erected in 1812 by Joseph Annin. There are several theories surrounding the dates of construction for the Building 34 addition which range between 1815 to 1884. James McGraw subsequently added a third story and the rear stone wings in 1891-92.

Building 34A is the only historic outbuilding that remains in the rear yard of Building 34-35. The three-story structure probably dates to 1834 when it was described as a one-story stone smokehouse. Apparently, McGraw added its second story in the 1870's. Its present appearance dates to 1891-92 when James McGraw enlarged the structure with a third brick story.

The buildings exhibit a high degree of architectural integrity. The structures retain their essential late nineteenth century materials, form and character. The exterior basically maintains its historic fabric with the exception of the rear wood porch which was removed in 1956 and the shutters that were removed circa 1972. The interior plans remain essentially intact.

Largely, only minor improvements were made after 1891-92. The only major alterations to the historic exterior appearance were: the installation of a cedar-shingled roof in place of the former slate roof in 1963; a new flooring system at the first level; in 1985 new wall plaster and the partition wall to the south of room 101; and, the placement of the exhibits.

The buildings are part of a dwindling number of structures within Lower Town which have yet to undergo rehabilitation for park use. As such, retention of their historic fabric and character is of utmost concern.

3. Proposed Use

Initial park planning and resultant development sought to reflect the park's architectural appearance prior to and during the Civil War, ca. 1859-1864. More recent planning, including the 1980 Development Concept Plan and Interpretive Prospectus, has broadened the park's period of significance to encompass the entire nineteenth century for the park's resource education program as well as the management of historic structures.

The ramp proposed for disabled access to Buildings 33, 34-35, 34A and the rear yard conforms to an accessibility study prepared by Oehrlein and Associates Architects. (See Appendix B-2). The rear yard should be developed according to the 1993 Cultural Landscape Plan for the Lower Town.

The exterior work would include the reconstruction of the rear wood porch at the second floor level. It is assumed that the storefront bay windows that appear in front of Building 34 in a ca. 1910 photograph were constructed during the Doran occupancy and will not be reconstructed. Room 103 functioned as a post office from 1891 to ca. 1900 and bay windows would not have been in keeping with such use. Sidewalk signage will reflect a ca. 1900 appearance along Shenandoah Street.

The interior will be restored to its 1891-92 configuration. This will include the removal of the wall separating rooms 101 and 106 and the reconstruction of a stair that descended from the opening that can be seen in the ceiling of room 106. The partition wall that divides rooms 309 and 310 will also be removed as well as all remnants of the twentieth-century plumbing system that serviced room 311. Millwork and finishes will be restored to their respective periods of construction.

Harpers Ferry National Historical Park and the Harpers Ferry Center have determined the interpretive use of the first and second floor exhibit spaces which predate the period to which the building is being restored in order to focus on the Civil War theme. Since much of complex was constructed after the Civil War, it would have been a significant loss of historic building material to attempt to return Building 34-35 to this period, which would have been in conflict with the planning documents.

Interpretative exhibits on the first and second floors, to be carried out by the Harpers Ferry Center, will vary from the historic uses of the rooms. This is in keeping with the

management plan for the lower town of Harpers Ferry National Historical Park. The exhibits that are not consistent with the historic use of the rooms in which they are being located will not impact the historic fabric. Such a case is with the proposed James E. Taylor exhibit in room 201 which calls for a simulated garret ceiling. A black cloth or some other temporary device will be used to affect the feeling of a garret room. Similarly, the provost marshall exhibit is not consistent with the historic usage of Room l03. The historic furnishings will reflect this Civil War-era exhibit but the historic millwork will be retained.

While the interpretive functions of the buildings will reflect their use immediately prior to and during the Civil War, its exterior appearance will reflect its late-nineteenth century appearance. This will allow visitors to see two historic periods in the lower town of Harpers Ferry overlapped onto each other.

4. Related Planning Documents

Historic Structures Report, Buildings 32, 33 and 33A	September 1994
Historic Furnishings Report	September 1994
Historic Structures Report, History Data Section	September 1994
Task Directive, Package 116	December 1989
Historic Structures Report, Archeological Component	September 1994
Resource Management Plan	December 1987
Statement for Management	January 1986
Development/Study Package Proposal, Package No. 116	April 1982
Interpretive Prospectus	May 1980
Development Concept Plan	March 1980
National Register Nomination	March 1978
Environmental Review of Alternatives	February 1979
Assessment of Alternatives	July 1978
Master Plan, Revised	April 1973

5. Recommendations for Further Action

Upon printing of this report, it is recommended that it not be considered complete, but that additional data related to the buildings' construction be appended as the rehabilitation work proceeds.

Prior to the initiation of construction activities, it is recommended that the architectural objects stored within the building be removed and stored elsewhere to deter inadvertent damage.

It is recommended that the buildings' exhibits be removed and that the building be closed during the preparation of contract documents. Select areas of plaster should be removed to assess the condition of structural members to further refine the level of work required for structural reinforcement and/or replacement.

6. Cooperative Agreements

No such agreements have been made concerning this package.

7. Compliance

Harpers Ferry National Historical Park is included on the National Register of Historic Places as an Historic District and the buildings within the package are all contributing features to the district. All work on these buildings will be carried out in accordance with the Cultural Resources Management Guidelines (NPS-28) and the Secretary of Interior's Standards for Archeology and Historic Preservation. Section 106 of the National Historic Preservation Act of 1966, as amended (16 USC 470, et. seq.) and the implementing regulations (36 CFR 800) require that any undertaking which effects historic fabric or causes earth disturbance be subject to prior review through the cultural compliance process. This process includes consultation with the West Virginia State Historic Preservation Officer as outlined in the Programmatic Agreement of August 15, 1990.

The treatment proposals must comply with the National Park Service procedures for "Floodplain Management" as stated in implementing executive order 11988. Accordingly, Buildings 34-35 and 34A have been reviewed for compliance. Although the structures are within the 50-year floodplain they are listed on the National Register and therefore must be managed in accordance with NPS-28 standards.

A discussion of the life safety and handicapped accessibility code compliance are included in Appendix B.

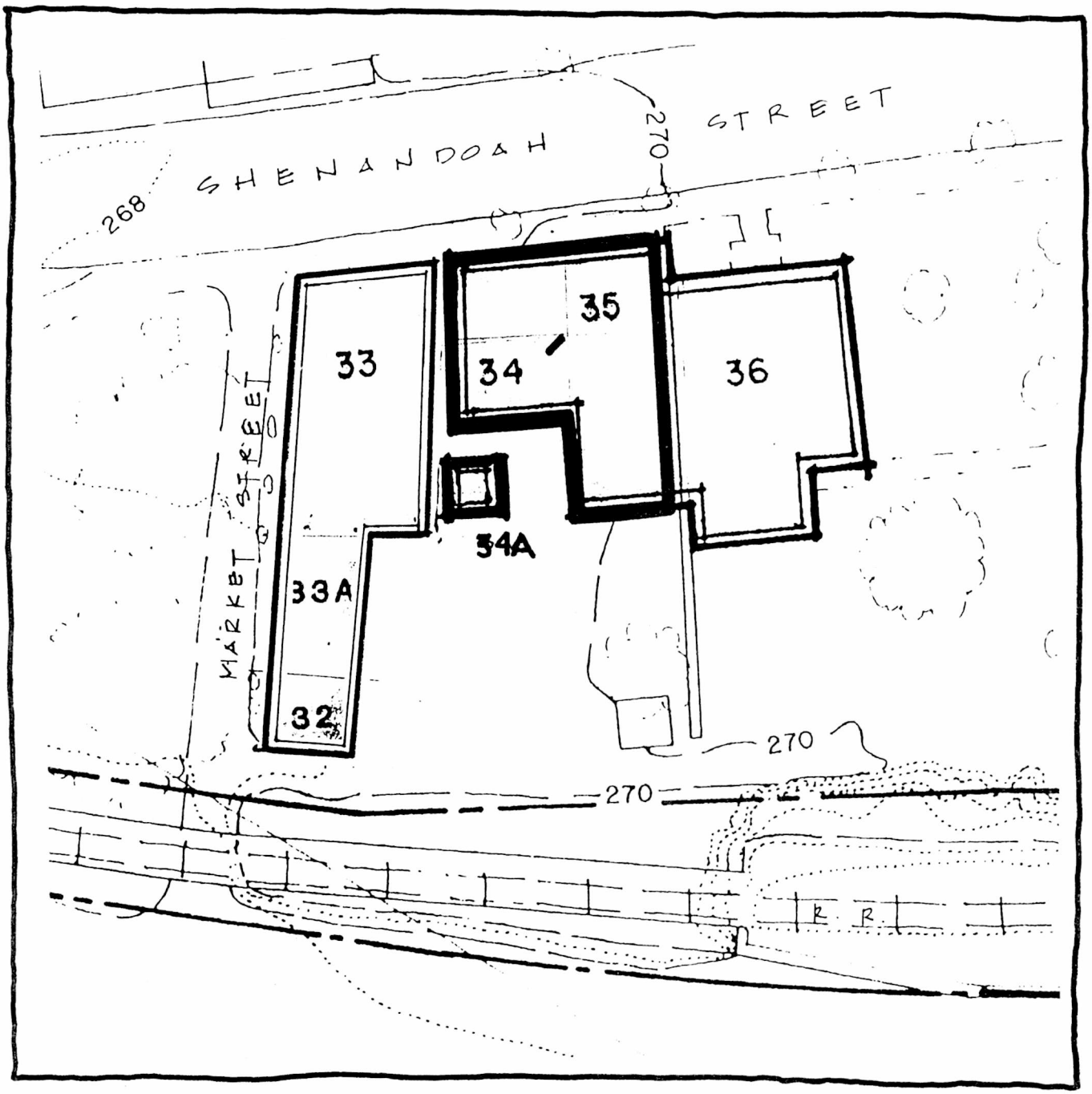


Figure 1 - Site Plan of Package 116

PART II: Physical History and Analysis

A. Summary of Historic Events

1812	Joseph Annin erected Building 35, a 2-1/2 story residence and apothecary on Lot 3, Block B. His father, Samuel Annin, a former U.S. Armory Paymaster, petitioned the Department of War for the property.
1815-1818	Samuel Annin moved in with his son. He was able to block the construction of a tavern that would have impacted his garden and the side porch of the house on the west elevation, where Building 33 is today. The Annins vacated the house and it began to serve as the Master Armorer's house.
1815-1825	The first floor of Building 34 was possibly built at this time as an addition to Building 35. This is based largely on one interpretation dating the extant door and window casings.
1818-30	Building 35 served as the residence of Master Armorer Armistead Beckham.
1827	The construction of a single-story kitchen addition was carried out at the southwest corner of Building 35.
1830-49	Possible construction date for second floor of Building 34 based on one interpretation dating the extant door and window casings; Residence of Master Armorer Benjamin Moor.
1834	Historic map and written reference to outbuildings were noted that may have included a one-story stone smokehouse (Building 34-A), carriage house and stable (Building 32) and a privy.
1837	Six dormer windows and a slate roof were added to Building 35 thereby converting the attic into habitable space. Probable date for first floor of Building 34.
1850	General repairs were carried out by carpenter Jesse Schofield.
1850-54	Residence of Master Armorer James Burton.
1851	Further repairs of Building 35 were noted in Superintendent's Annual Report.
1852	The site of Building 34-35, Lot 4 of Block B was formed by government's subdivision of the Arsenal Tract. These lines were redrawn in 1869 for the government sale, and the lot number was changed to Lot 3.
1854-58	Residence of Master Armorer Samuel Byington.

1854	Further Repairs of Building 35 were noted in Superintendent's Annual Report.
1858-59	New Master Armorer's House (Building 36) was constructed on the lot east of Building 35.
1859	Building 35 was vacated and scheduled for demolition but the Ordinance Department of Washington did not allow its razing[1].
1860-65	Building 35 was intermittently used as a recruiting station, officers' quarters and boarding house during the Civil War.
1864	James E. Taylor, a civil war artist for Frank Leslie's "Illustrated Newspaper", stayed in Mrs. Stipes' boarding house during which time he prepared sketches of the town.
1866-70	The government leased the house to Annie Kirby who used it as a residence.
1869	James McGraw purchased the property in his children's names at a government sale.
1870	The lower town of Harpers Ferry was flooded.
1870-78	James McGraw extensively renovated the buildings and property at a cost of approximately $1600. The house and property initially bid at $5100 was abated to $1200. Probable period for the construction of the second floor of Building 34. Another possible scenario would date the simultaneous construction of both floors of Building 34 to this period. It was also at this time that the outbuildings were probably enlarged in the case of the smokehouse (Building 34-A) and the carriage house (Building 32). Other outbuildings, adjacent to the railroad trestle were probably constructed[2].
1877	The lower town of Harpers Ferry was flooded.
1882-84	Construction of Building 33 which served as his residence and store until the time of his death in 1893. Possible date for construction of Building 34, but physical and historical evidence seems to indicate this is a less likely scenario.

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[1] Snell, Historical Data Section, March 1959, pp. 22-23.

[2] Ibid.

1887	The post office was moved into the first floor of Building 35. The building was referred to as the "McGraw-Post Office Building" until 1902.
1888	Mr. McGraw leased the lower floor of Buildings 34-35 to Cohen and Company, Clothiers.
1889	The lower town of Harpers Ferry was flooded.
1891-92	Mr. McGraw greatly expanded Buildings 34-35 into a 3-1/2 story structure with additions to the rear, creating a large storeroom on the first floor in Building 35 and 30 boarding rooms on the upper floors. The post office was moved into the first floor of Building 34.
1896	Store was leased to I.V. Pentz.
	The lower town of Harpers Ferry was flooded.
1897	Post office was moved out of Buildings 34-35.
1898-99	Bankruptcy of the McGraw family holdings. Buildings 34-35 was purchased by the William Doran family.
1899-1952	The Dorans occupied the buildings for over 50 years. They continued to use the first floor as stores, adding storefront bay windows to Building 34 and apartments above. During this period, they installed electrical and plumbing systems in the buildings (remnants of which remain).
1924	The lower town of Harpers Ferry was flooded.
1926	The first floor of Building 35 probably served as the Jefferson Baking Company, which became known as the Marvel Bakery within the next few years.
1936	The lower town of Harpers Ferry was flooded.
1942	The lower town was again flooded.
1944	Harpers Ferry National Monument was created under 58 Statute 645 for the purpose of commemorating the historical events at or near Harpers Ferry.
1952	Buildings 32-35 deeded to West Virginia Conservation Commission.
1953	Buildings donated by the State of West Virginia to the United States Government.

1956	Front wrought and cast iron balcony was reconstructed.
	Rear cantilevering wood balcony was removed.
1957	New flooring system was put in at the first level to allow public access to Civil War-era exhibits.
	Slate roof was removed and a temporary rolled roofing put in place.
	Exterior work done which included removal of the window shutters.
1963	Monument renamed the Harpers Ferry National Historical Park by Public Law 88-33.
1963	Cedar shingle roof installed, replacing the original slate roof.
1972	The lower town of Harpers Ferry was flooded.
1973	Building 34 was used as an interpretive exhibit of a Civil War recruiting office.
1982	Building 34 became an interpretive exhibit of a Civil War-era provost marshall office.
1985	The lower town was again flooded.
1985-86	Building 35 became an interpretive exhibit of a ca. 1850 general store with a reconstructed fireplace and stove. The southern partition wall separating Rooms 101 and 106 was built without historic precedent.

B. Historical Appearance

1. Building 35: 1812-1818

Building 35 was built in 1812 on Lot 3 of Block B. Samuel Annin had petitioned the Department of War for the property on behalf of his son, Joseph, a druggist. The 2 1/2 story brick residence and apothecary was built atop a stone basement kitchen. The building was divided into four bays facing Shenandoah Street and a bay to either side of the chimneys on the side elevations. It is not possible to determine the number of bays on the rear elevation without removing the plaster that covers the remnants of the original rear wall on the south elevations of rooms 201 and 203 on the second level. The original rear wall was removed at the first level (except in the stairhall) c.1892 and a heavy timber beam installed to support the remaining masonry wall at the second level. (See Figures 2 & 7).

Beyond the time of the original structure, the history is not entirely clear. While several probable chronologies have been developed and accepted, there are certainly areas of question which invite challenge.

The most likely scenario along the streetscape is that there were two entrances, both of which survive today, D103 and D109. Sketches by James Taylor in 1864 and in 1865 by Alfred Waud show D103 in altogether different locations. The Taylor sketch placed the doorway at the second bay from the northwest corner and suggested an awning over the door. He also indicated a window at the first floor, north of the chimney, which is not visible today. The Waud sketch placed the doorway in the extreme northeast bay with no awning. (See historic photos in Appendix A-2). There is no architectural evidence of either of these locations. Instead this evidence suggests that D103 was probably the original doorway. D109 opened onto a porch described in 1815 by Samuel Annin that covered a stair down to the basement kitchen[3]. It is not clear when D102 was added, but it appears likely that it dates to the 1891-92 addition of the top floors and rear wing.

Another theory entertained by historical architect Mike Trostel, FAIA, was that D109 was originally a window. This would imply that D102 was also original, giving way upto the living spaces above the apothecary. This conflicts, however, with the understanding about the side porch on the west side of the building with access to the basement. Also physical evidence including patchwork to make the door frame and a basement light well at grade support that D102 was originally a window. D109 was certainly a door onto Room 103 when Building 34 was constructed. The transom over D109 appears to have been bricked in with this addition. The transom framing suggests that the original door was narrower than what is in place now.

The stairhall from D102 appears to date to no earlier than the 1870's because of the use of a wainstcot, its millwork style, and the use of circular sawn lath in the plaster wall,

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[3] This can be deduced from the architectural remains and a passage quoted on page 4 of Charles Snell's 1959 Historical Data Section for Part II of a Historic Building Report.

which can be seen in holes in the partition wall, mixed in with presumably older salvaged lath. Also, it appears that the fireplace was filled-in when the stair was built; it then follows that the original space was larger to make use of the firebox. There is replacement flooring from the edge of the stair to the north wall, beginning under the newel post. The flooring under the stair appears to be original as evidenced by the width of the boards, the whitewash on their underside visible from the basement, and their rotting condition, as compared with other members.

The fact that the east wall of the stairhall and the stair itself are not original gives credence to the logical conclusion that the first and second floors probably had two rooms each to either side of a central stairhall. Remnants of summer beams within both floors suggest that the stair was set to the back of the hall. Fireplaces opened onto all the rooms with brick hearths. One hearth has since been sealed with the addition of the stair along the west wall (Room 102) and the other three appear to have been modified during this same period. There was also a large cooking fireplace in the basement kitchen which appears to have survived intact.

The eight-over-twelve and twelve-over-twelve windows, W112 and W220, that remain in the west stairhall (Room 102) are most likely original to Building 35. Their proximity to the southwest corner seems to suggest four bays across the original rear wall of the building. The architectural millwork that surrounds these windows matches the millwork around the window openings of the rest of the original portion of Building 35. The two-over-two windows that are typical throughout the structure were probably part of the ca. 1892 enlargement of Buildings 34-35 based on their similarity to Building 33 which dates to 1884. In the attic addition two eight-over-twelve and one twelve-over-twelve windows, W405-07, may have also been original to the structure, or from one of its repair campaigns, and reused in the new window openings.

Building 35 served as the Annin residence and apothecary from 1812-1818 at which time it reverted to the ownership of the Department of War. It became the residence of the Master Armorer and served this purpose until 1858 at which time the new Master Armorer's house, (Building 36) was completed. The residence underwent several modifications during this time.

2. Building 34: 1815-1869

There are essentially three theories to describe the possible construction dates of Building 34:

1) The first floor was built between 1815 and 1825 with the second floor following in 1837.
2) The first floor was built in 1837 and the second in the 1870's or 1882 campaign.
3) The two floors were built simultaneously in either the 1870's or 1882 with window and millwork fabric salvaged from earlier structures.

a. Tax Records:

It was previously believed, based on tax assessments and on McGraw's abatement petition of 1878, that Building 34 was added to Building 35 in 1875, or as late as 1882-84, simultaneous to the construction of Building 33. There are several reasons why these dates could be superseded by theories dating the building to earlier in the century.

In revisiting the documentary evidence, it becomes clear that the buildings cannot be dated by historical documentation alone. The 1878 abatement petition was a specific listing of copious amounts of work done and costs involved in each piece of work. There was no specific reference to construction work of this magnitude, or pieces that would add up to this building.

To be fair, however, it must be considered that McGraw listed all the work for which he held receipts; there was additional work for which he claimed he had no receipts and claimed no abatement. He may have carefully selected which work to record since he was petitioning for reparations based on the slim prospect of success, due to economic conditions in Harpers Ferry and financial set-back resulting from costs required to repair the property. He was in fact prospering, and it would not have served his argument to document the new building which, if built at this time, attested to his prosperity. Then again, this would be a complex and devious deceit; a simple site visit from an inspector would quickly disclose his construction projects entirely. Clearly unlimited possibilities exist and cannot be clarified with the historical documentation.

Jefferson County Tax Records were used to support the construction of Building 34 simultaneous to Building 33 based on the greatly increased assessment of the property in 1883. This assessment was very vague, and no explanation was given for why it increased. It is likely that this increase reflects the work for Building 33, completed in 1884, since it was a well-appointed dwelling and store building. There is no factual evidence to support that the boost in valuation has any connection with Building 34. A more detailed discussion of the abatement petition and tax assessments can be found in the "History Section" by Chickering and Jenkins.

b. Period Sketches:

Several pieces of evidence support the earlier theories. The Waud and Taylor sketches during the Civil War seem to show a structure in the location of Building 34. Though they are not precise in detail, artistic license would seem to allow for the omission of shutters and misplacement of doors sooner than misrepresentation of the volume of a large building. This could corroborate that the building appeared before the 1875 date of the previous theory, and at least by the time of the Civil War.

c. Period Maps:

Another convincing piece of data comes from inspecting an enlarged copy of the Winchester and Potomac Railroad maps from 1835 and 1844. The larger view shows a longer, more rectangular building than would have been the case if the original building was the only portion standing. While it is unknown how accurate these maps were, the government certainly had dimensions available for public knowledge. More important is the relationship between the smokehouse and the southwest corner of the building on the railroad maps. It is nearly identical to the relationship that exists now between Buildings 34 and 34A. If Building 34 was not there, adding it in scale with the kitchen and Building 35 would bring the west elevation of Building 34 far beyond that of Building 34A and into the Building 33 site. Similarly, the juxtaposition of the smokehouse and the kitchen tangent to the corner of the building seems to match better with the current condition assuming Building 34 is included in the railroad maps' depiction. (See Figures 3-6).

d. Millwork Profiles:

The most radical interpretation comes from the analysis by historical architect Michael Trostel, FAIA. His theory dates the first floor of Building 34 to between 1815 and 1825. Original windows W112 and W220 in Building 35 are in his view, typical mid-atlantic casings dating from the mid-eighteenth to early nineteenth century. The original casings in the Building 34 addition Room 103 (all but on the north wall) are similar, but more stylish which dates them as from the early nineteenth century to 1825 period. He surmises that these two construction periods were not far apart. This room, with its footing foundations under the front door in the basement could have been designed by Annin to serve as the entry for his shop which would date it close to 1815.

An addition in this location does not appear to be accounted for in the 1821 "Statement of the number and dimensions of the buildings at the United States Armory..." , but it is plausible that these records were not up to date. While these data seem to add up, it is still very curious that the construction of such a large building could go unrecorded.

According to Trostel, the second floor of Building 34 was built in the 1830's or 1840's based its fully developed Greek Revival door and window casings as well as some of the construction details. The narrow-transomed door on the south wall probably stepped up onto a second story exterior gallery. The 3'-0" setback from the original Building 35 south wall could be an indicator of this.

There is record, supported by secondary source documentation by historian Charles Snell, of a great renovation campaign from 1836 to 1841 to build and improve armory dwellings. Armory records show that in 1837 $313.13 was spent on Master Armorer Benjamin Moor's house, now Building 35. In June a mason, among other work, laid 4,250 bricks and supplied 7 1/4 perches of stone. A

carpenter made back steps, a door and one window. In September the building was extended to 2 1/2 stories with the addition of six dormers in the attic. The secondary evidence implies that 6,875 bricks were involved in this work. Five 9-inch arches were also laid. In December the mason cut out a door, put in cornice and pulled down and filled-in gable ends.

While there is not enough information to draw any conclusions, it is tempting to question what became of all that material. It was certainly not needed for the making of the six dormers. Further, the foundations for Building 34 could have been set with the 7 1/4 perches of stone with roughly an equal amount left over. The three wythe thick brick walls could have been built to a one story height with the total of over 11,000 bricks.

Furthermore, upon investigating the millwork in Building 34 Room 103 it becomes clear that much of it is salvage. Thus, it is not unreasonable to allow that perhaps the casings and mantlepiece predate the room and were used from somewhere else, perhaps even a different building since the work does not match that of the original building. This renders the millwork an unreliable dating tool.

If the first floor was built during the period suggested by Trostel, this work could have been for the second floor, but the question remains what the stone was used for. If the first floor was built in 1837, the second floor could have been in the 1870's during McGraw's prosperous years of expansion, or as late as 1882-1884 simultaneous to the construction of Building 33. This would actually fit the millwork of the second floor and the narrow proportion of the windows on the first floor west elevation and the second floor which, despite Trostel's dating, appear generally more in keeping with late nineteenth century Victorian style. Again, we know that the interior first floor casings were likely salvage material. (See Figures 9 & 10).

Curiously, the 1891-92 addition has windows which seem to match in proportion those windows in the original portion of Building 35, implying that all windows were replaced at some time. These match those in Building 33 as well as those in the armory buildings on Camp Hill built in 1858 in overall proportion.

There is reasonable evidence to theorize that the first and second floors of Building 34 were built simultaneously. The fact that the windows are of similar proportion on both levels could point to this. Also, the brickwork appears to be continuous without obvious starts and stops. This is especially clear looking at the vertical joint between Buildings 34 and 35 on the north elevation where the joints have been laid so the courses meet horizontally at the top of the second floor. Similarly, on the west elevation a change in bond occurs between the second and third floor level with queen closers on the end of the first and second floor courses and none on the third. Because of the apparent later date of the finishes on the second floor and salvaged millwork on the first floor, it could be that the two were constructed together in the 1870's. However, the specific 1875 date offered by an earlier theory cannot be substantiated. (See Figure 11).

3. Brick Kitchen: 1827

An early Building 35 addition was the one-story brick kitchen atop a stone foundation built in 1827. There is no historical evidence that indicates that there was a basement underneath. It was previously theorized that further architectural and archeological investigation would bear out that room 003 served this purpose. With the new understanding that Building 34 may have come first, however, the kitchen could have been located further to the west across what is now the alley and into the Building 33 site. Unfortunately, it is likely that evidence of this has been destroyed with the construction of Building 33 and the excavation of the alley and installation of utility lines by the park in the 1960's.

It has been hypothesized that Building 34 was mistaken for this kitchen, a building of matching dimensions. True north runs through the northeast corner of Building 35 rather than the simplified modern orientation with Shenandoah Street as north. Building 34's location could then be considered southwest of Building 35 as the 1827 kitchen was described historically. This would mean several maps including Winchester and Potomac Railroad maps were showing a building located twenty feet off of its real location which seems unlikely. Since a date for the razing of the kitchen is unknown, this possibility should not be abandoned entirely. (See Figure 8).

4. Improvements by the Government: 1818-1869

There was mention of slate roofs being installed on the offices of the Paymaster and the Superintendent as a means of fire protection in 1833. It appears likely that it was in 1837 that a slate roof replaced a former wood shake roof on Building 35. At this time the attic was modified with the addition of six dormers to create habitable space; three in front and three in back, which is evident in both the Taylor and Waud sketches and appeared in written records of the time.

The first mention of outbuildings was made in 1834. Maps indicated a structure approximately 16' x 14' in size which is likely to have been the original stone portion of the smokehouse, Building 34-A. There also appeared to have been a privy, Building 36-A, since demolished. It was also noted that the "no. 3 carriage house and stable" was moved to permit construction of the railroad in 1835[4].

In July, 1850, Carpenter Jesse Schofield was paid for "renewing upper and lower floors and roof of gallery [possibly the side porch], repairing floor and washboard of kitchen, making and fitting three clothes presses and putting stops and repairing all doors and

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[4] Snell, Historical Data Section, March 1959, p. 9.

windows...(and) for making 47 feet of paling fence base and cap...(and) making and hanging one gate[5]."

Superintendent Symington stated in his 1851 Annual Report that two coats of paint, in oil, had been applied to the exterior walls and that lightning rods had been attached[6].

Major Bell stated in his 1854 Annual Report that general repairs had been made to the structure including painting and plastering[7].

Plans were drawn up for a new Master Armorer's House (Building 36) in 1852 but were not executed until 1858. Building 35 no longer seemed to meet the needs of the second ranking official of the armory. It was described to be in a "dilapidated condition" and in July 1859 Superintendent Alfred M. Barbour recommended it be razed. Building 35 had been reported in the first class of Armory dwelling houses since 1845 and this recommendation was denied by Captain William Maynadier of the Ordinance Department in Washington. Superintendent Barbour countered the Captain by stating that "its value as a dwelling was egregiously exaggerated on the Books, as is self-evident[8]." No action was ever taken by the Ordinance Department. The building was vacated in 1859 and was intermittently used from 1859-65 both as a boarding house and officers' quarters during the Civil War.

5. Improvements by McGraw: 1869-1899

James McGraw, a resident of Harpers Ferry, acquired Building 35 in 1869 at a sale of government property. At the time it was being leased to Mrs. Kirby as a dwelling house which she vacated in 1870. Mr. McGraw made numerous repairs and alterations to the structure to stabilize the deteriorating walls and the sagging floors[9].

Mr. McGraw had bought the house and property for $5100. The house was valued at $450 in the condition it was in at the time of the purchase (the appraisal was conducted in 1879 by Jesse Graham after Mr. McGraw had made the necessary repairs[10]). Mr.

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[5] Chickering, et al., History Data Section, September 1994, p. 11.

[6] Snell, Historical Data Section, March 1959, pp. 9-10.

[7] Ibid, p. 10.

[8] Ibid, pp. 22-23.

[9] A detailed description of the condition and repairs executed on Building 35 can be found in Appendices II and III of the History Data Section by Chickering and Jenkins , September 1994, pp. 73-78.

[10] Ibid., pp. 77-78.

McGraw was asking for an abatement of $4100 on the purchase price. The value arrived at in 1880 was $1200[11].

In the meantime Mr. McGraw had initiated work on Building 35. He added structural columns to support the sagging floors at both levels and filled the cracks in three of the brick walls with mortar. The kitchen was demolished and the bricks probably reused elsewhere, perhaps even in the construction of part of the Building 34. He purchased brick to complete the addition. He noted improvements made to the outbuildings which may have included the enlargement of the smokehouse (Building 34-A).

As previously discussed, it is probable that either the second story, atop an 1837 first floor, or both first and second floors of Building 34 were built by McGraw at this time. (See Figure 11).

In 1882 Mr. McGraw began construction on Building 33 which by 1884 was complete and served as his residence and store until his death in 1893. The post office was moved from Building 36 to Building 35 in 1887 following the sale of Building 36 to Colonel James Garland Hurst. In April 1888 Mr. McGraw had leased the ground floor of his former residence to M. Cohen and Company, Clothiers[12].

Building 34-35 underwent extensive modifications in 1891-92. It was enlarged into a 3-1/2 story structure with additions to the rear completing its present-day appearance. The "massive building fronting Shenandoah Street" had one of the largest storerooms in the town and contained 28 large rooms for hotel or boarding house purposes. The post office was moved into the first floor of Building 34[13].

The stairhall was moved into the southwest corner of Building 35 to make room for the large storeroom. The rear wall of the original structure was in part removed to open up the space for the storeroom and heavy beams were apparently used to support the brick wall above. Further architectural investigation has revealed that the double steel I-beams now in place may very well have been original to the 1891-92 work. They could, however, be part of work done in 1957-63 by the park service; documentation is not conclusive. Mr. McGraw may have reused the window sashes from the original rear wall of the south elevation in W405-07 in the enlarged attic. The girder was flush with the ceiling below but rose above the floor, covered with a threshold board.

He probably added the second-story wrought and cast iron porch facing Shenandoah Street at this time as well as the cantilevering rear wood porch at the same level. Historic photographs from that period verify the porches being in place ca. 1895. (See Appendix A-2).

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[11] Ibid, p. 23.

[12] Ibid, pp. 29-30.

[13] Ibid, pp. 30-31.

The smokehouse, Building 34-A, may have reached its full three-story height at this time.

The foundation walls for the extension of Building 35 appear to overlap what may have been an earlier cellar, perhaps part of the 1870-78 improvements[14]. Room 005 appears to have been created by the new foundation walls. The crawlspace underneath the southernmost portion of Building 35 is inaccessible. Room 006 could have served as additional storage space during the period of 1870-82 when Mr. McGraw operated a thriving store out of the first floor of his residence.

The opening D001 may have been original to the 1812 basement kitchen. It is possible however that the entrance was originally in the southwest corner of the fireplace wall and was later sealed. In that same location, however, is an apparent filled-in opening along that wall which appears to be for a vent or window. The outline of this opening which abuts the south wall, seems too narrow to be a door. This would suggest that D001 was the original opening.

Basement window W007 does appear to be original to the 1812 configuration. It is difficult to determine if W003 and W004 are original as well.

The 1957-63 work done to stabilize the structure has severely impacted the historic fabric of the basement. The brick column was part of the 1870-78 improvements and remnants of an 1812 or 1870's summer beam still exist. Other posts were used to shore up the wall separating the stairhall from the storeroom above. The concrete block walls impede investigation of the original basement walls and a concrete pad has obliterated any evidence of the first descending stairway to the basement and archeological evidence of a side porch.

6. Doran Family: 1899-1944

The Dorans purchased Building 34-35 and its rear yard in 1899 after the McGraw family went bankrupt following the death of their father. The Dorans later purchased Buildings 32-33 in the early 1900's. They made only superficial additions and alterations to the structure during this time. The storefront bay windows added to Building 34 appear in a family photograph taken ca. 1910 and would seem to be one addition they made. (See Appendix A-2 and Figure 13). Otherwise, the Dorans did little in the way of physical improvements to the structure. They did electrify the building and remnants survive of a plumbing system for a second floor kitchen in room 214 and a third floor bathroom in room 311.

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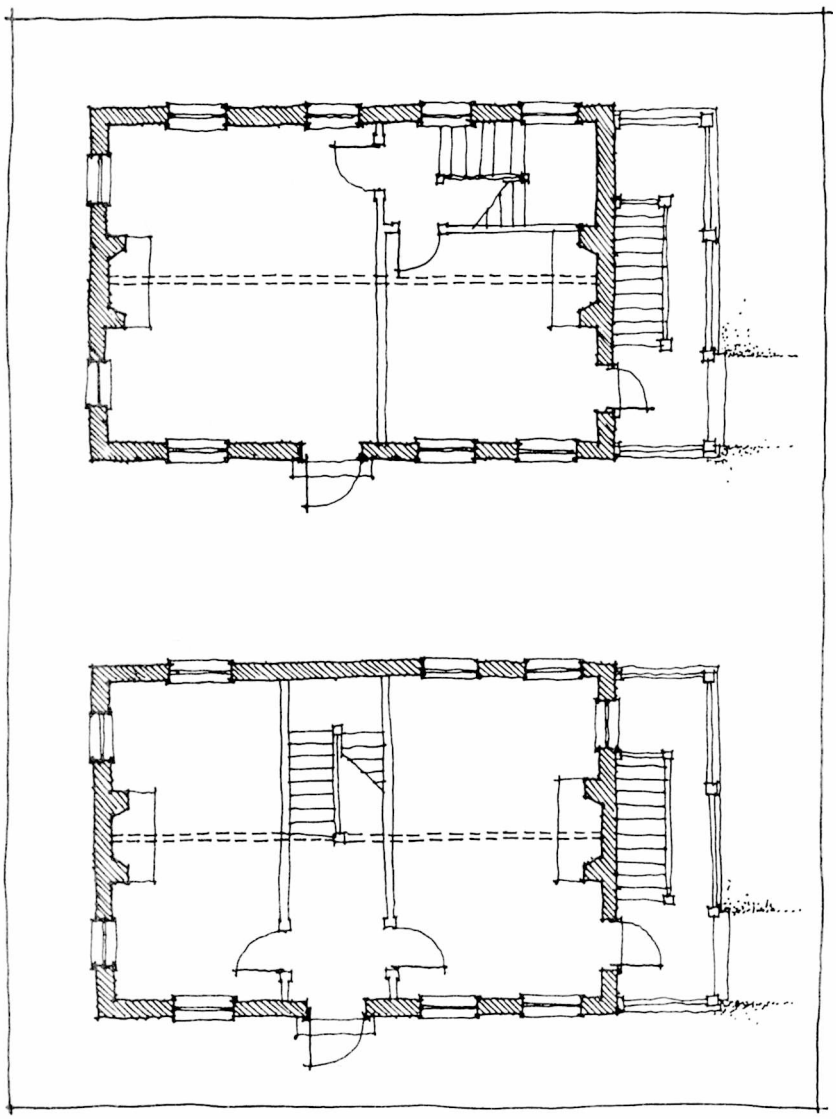
[14] This is evidenced by the parallel stone walls in rooms 005 and 006. Further research and archeological evidence would be needed to support this conjecture.

7. NPS Ownership: 1944-PRESENT

Harpers Ferry National Monument was created in 1944. Buildings 32-35 were deeded to the West Virginia Conservation Committee in 1952 by the descendants of the Doran family. The buildings were subsequently donated to the United States Government in 1953. The Historic American Buildings Survey documented the structure in 1957. The drawings indicated wood shutters on nearly all the windows which have since been removed. There were three principal types of shutters: paneled shutters at the first level and two types of louvered shutters at the other three levels. The shutters probably dated back to 1891-92. Some may have dated to an earlier period but it is difficult to verify this without physical evidence of the shutters. The pintles for the hinges remain in the window frames. Photographs reveal the detail of the rear wood porch and the stair that descended to the ground from the southeast corner of the porch at Building 35. (See Appendix A-2).

Work was done from 1957-63 on Building 34-35 to provide visitor access to the first floor of the building. At this time the flooring system at the first level was replaced with a steel web-joist and pine wood flooring system. Concrete block walls were added to support the web-joists. In 1982 the first floor of Building 34 was made into an interpretive exhibit of a Civil War-era provost marshall office. In 1985-86 the first floor of Building 35 was made over into a ca. 1860 general store exhibit. The first floor ceilings were replastered using metal lath and an interior partition wall was added in Building 35. The shutters were removed. Some of the window panes have been replaced and in three cases sashes removed and louvered vents put in their place, all at the fourth floor garret level. The slate roof was replaced with a cedar shingle roof in 1963 which now shows signs of deterioration. Where the wood porch was removed on the rear wall, concrete was used to chink the parged walls. The front wrought-iron porch was dismantled and reconstructed.

Figure 2 - **Conjectural Plans of 1812 Apothecary and Residence**



Based on historical precedents and physical architectural evidence, the original plan of Building 35 in 1812 probably appearred as either of the two configurations shown. The more probable is the lower plan with the apothecary to the left of the stairhall and the parlor of the residence to the right. There is no architectural evidence for the front door being in either of the locations shown in the Waud and Taylor sketches.

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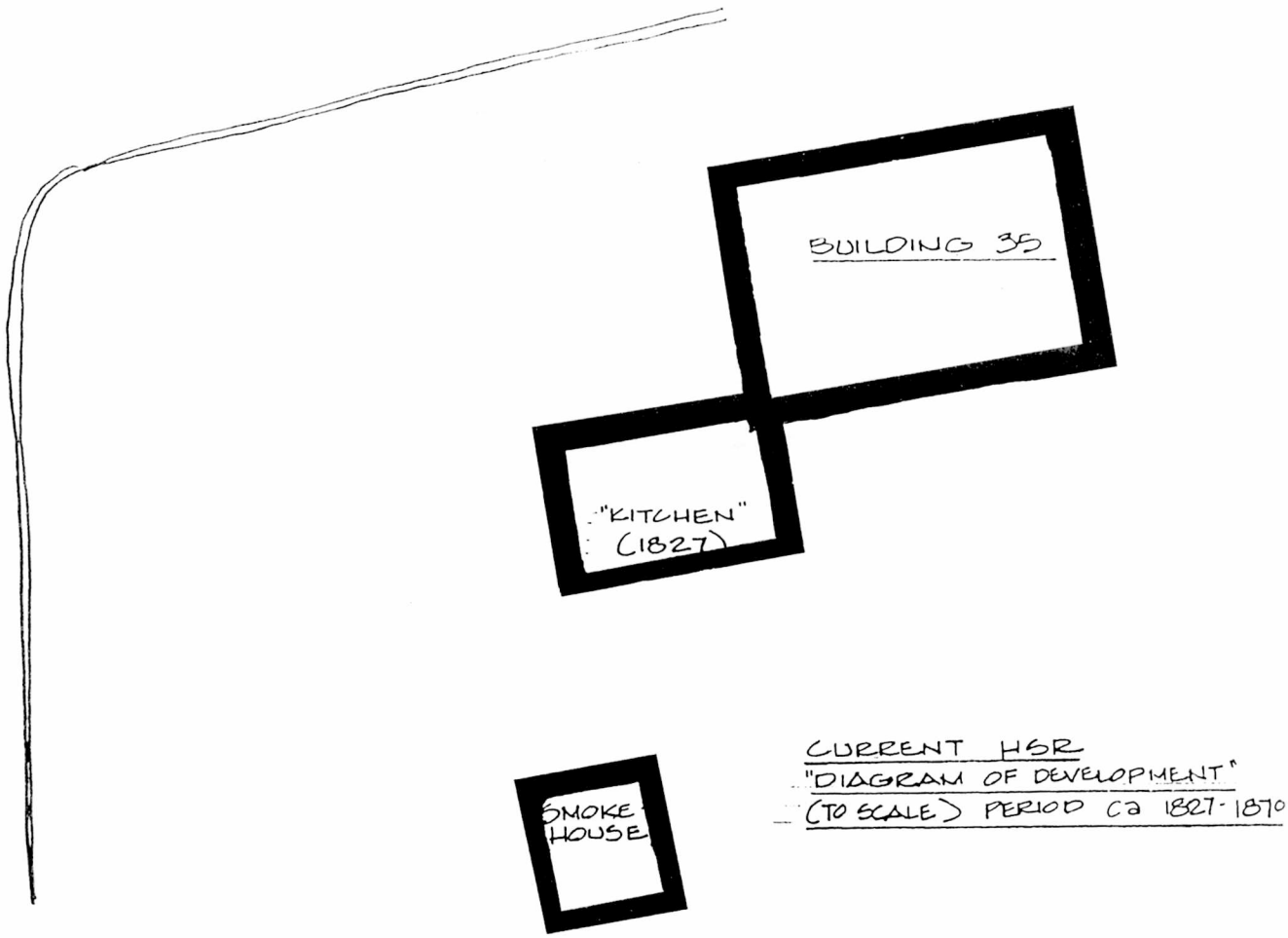


Figure 3 - Diagram of Previous Theory of Footprint Evolution with Building 34 Built in 1875

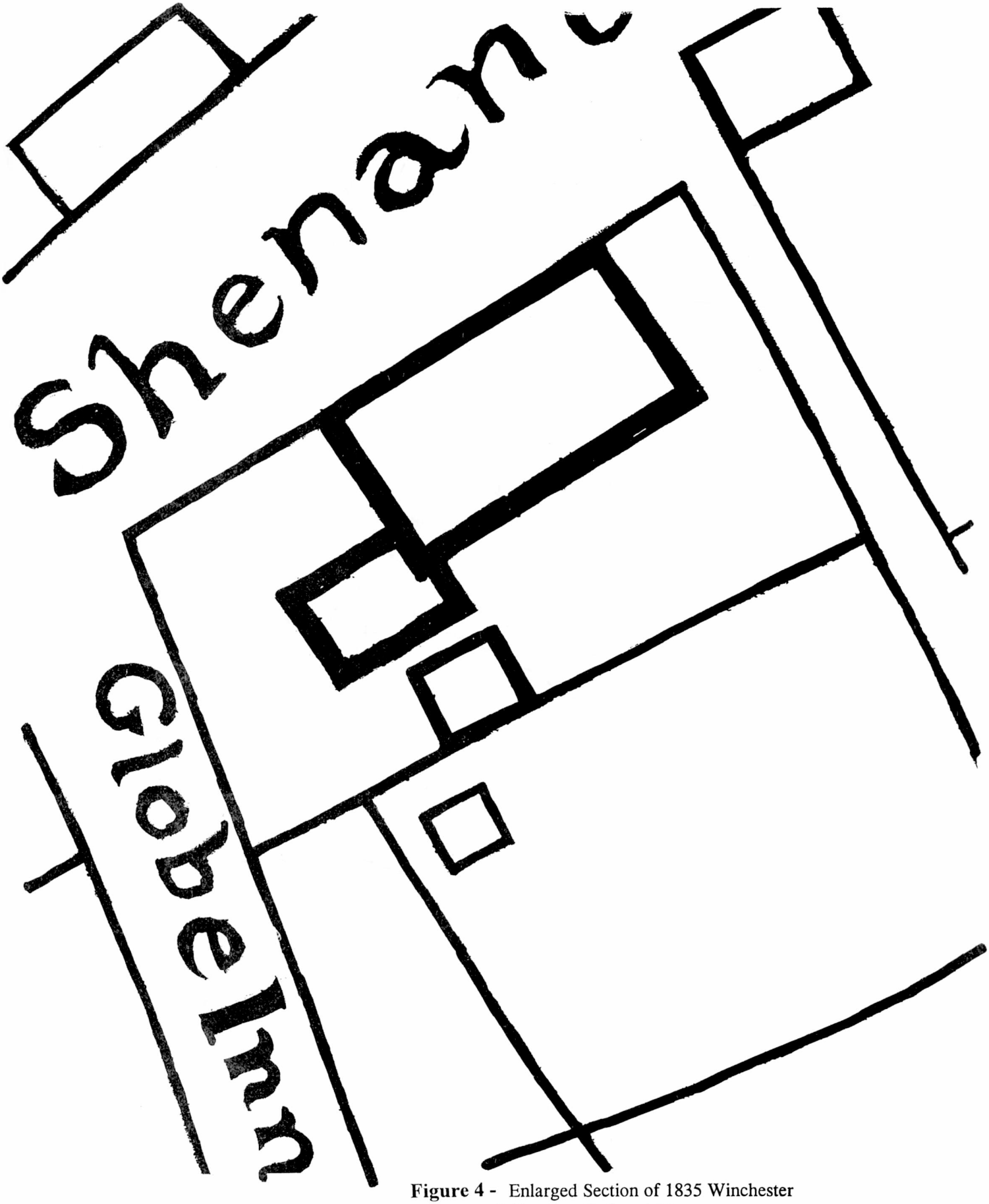


Figure 4 - Enlarged Section of 1835 Winchester & Potomac Railroad Map

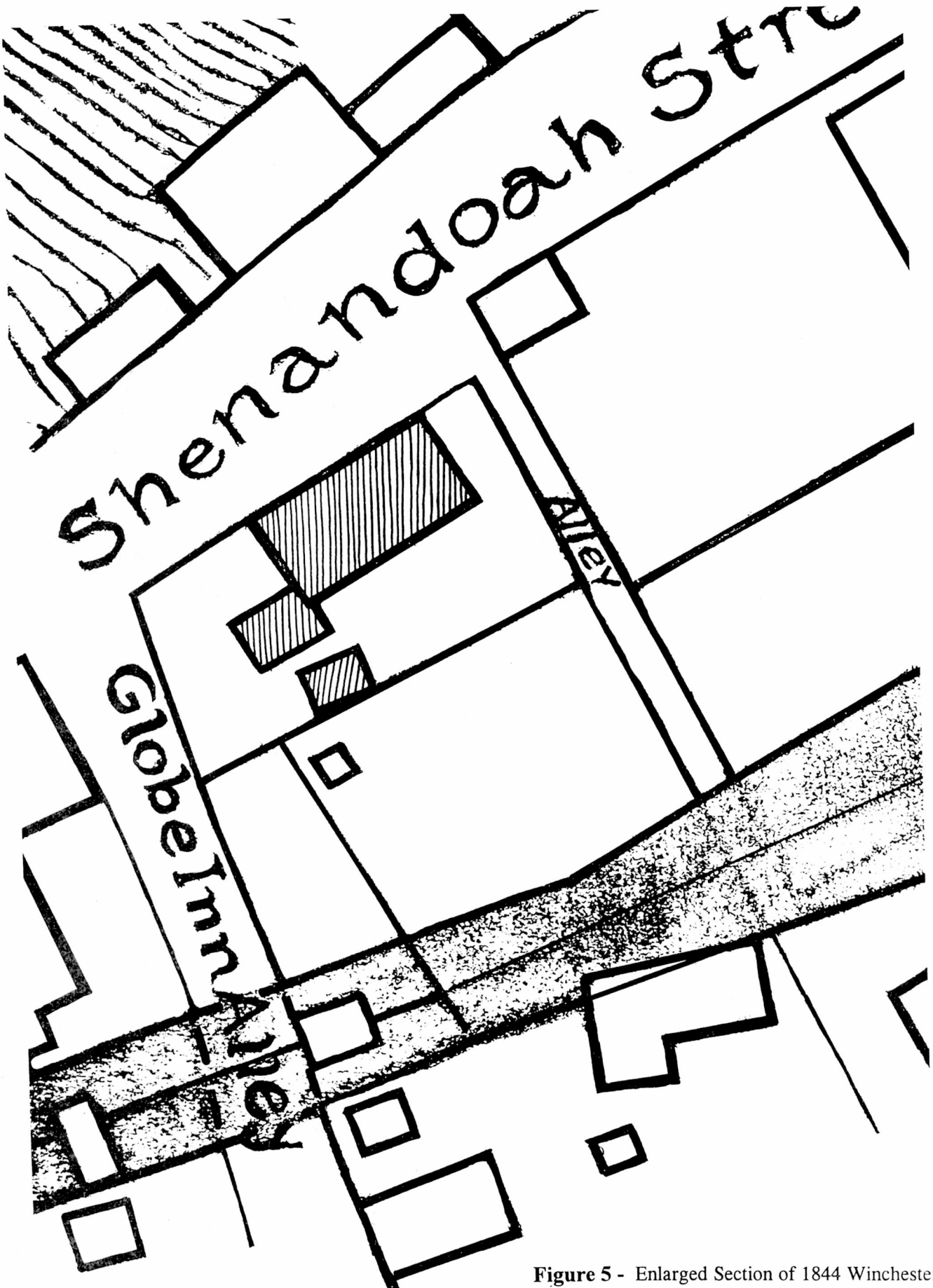


Figure 5 - Enlarged Section of 1844 Winchester & Potomac Railroad Map

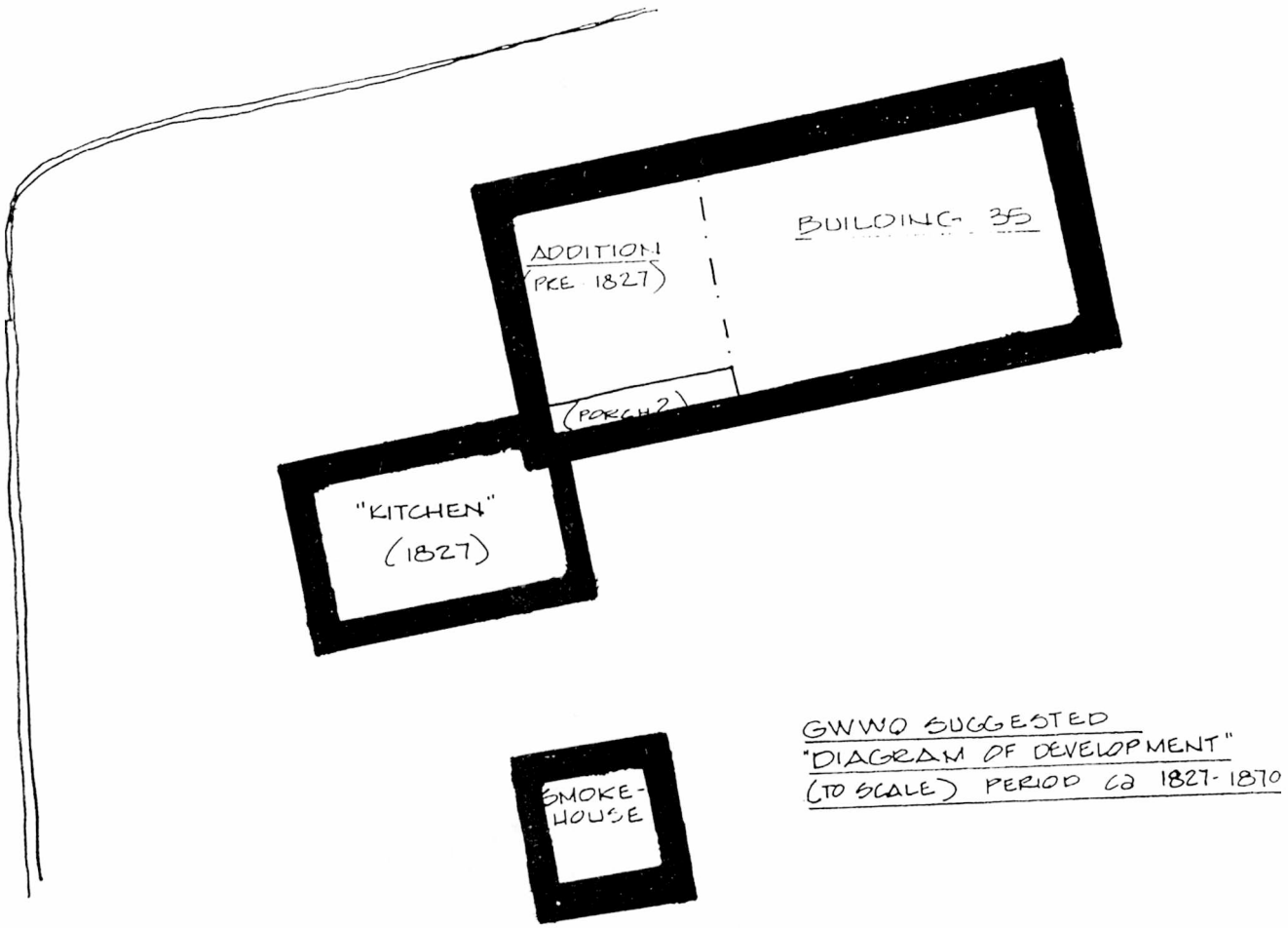
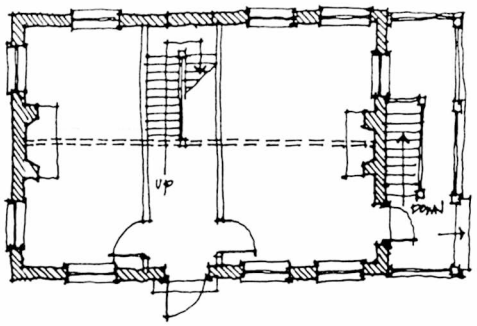
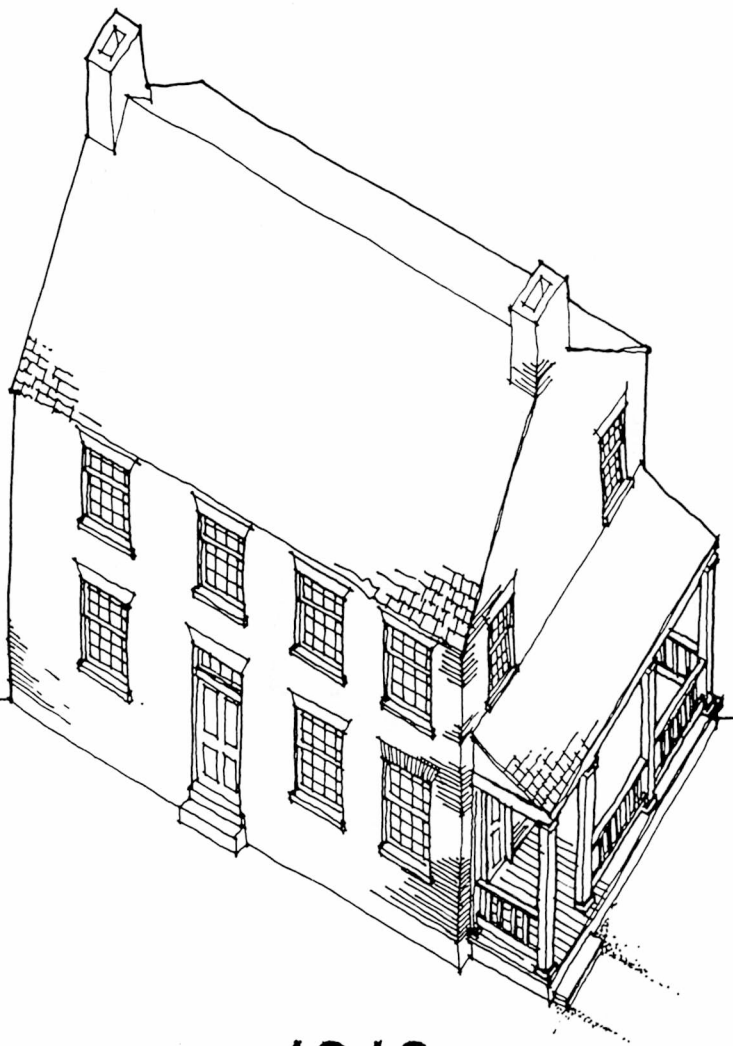


Figure 6 - Diagram of Recent Theory of Footprint Evolution with Building 34 Built in Phases from 1836 to the 1870's

Figure 7 - 1812 Appearance of Building 35

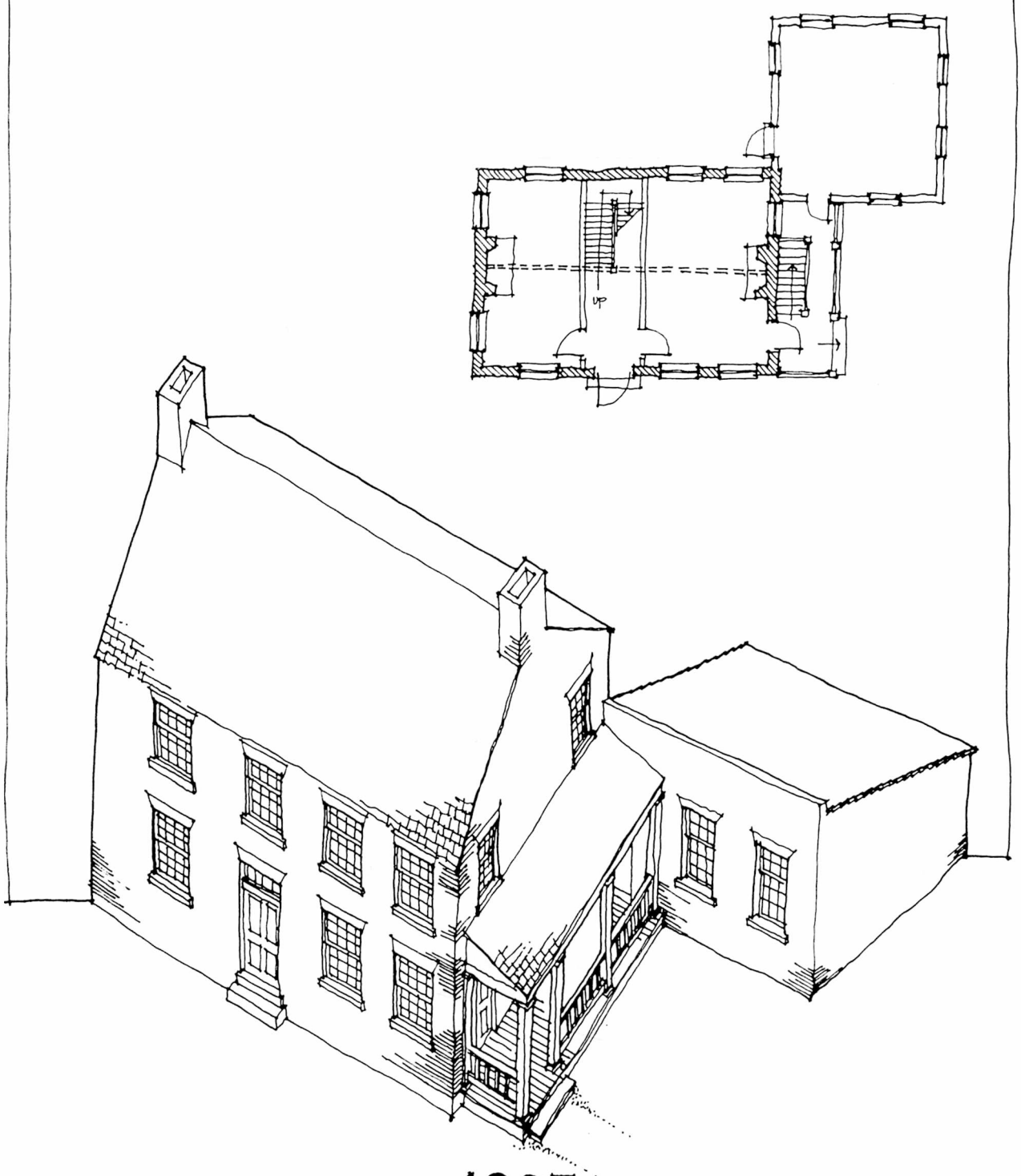




1812

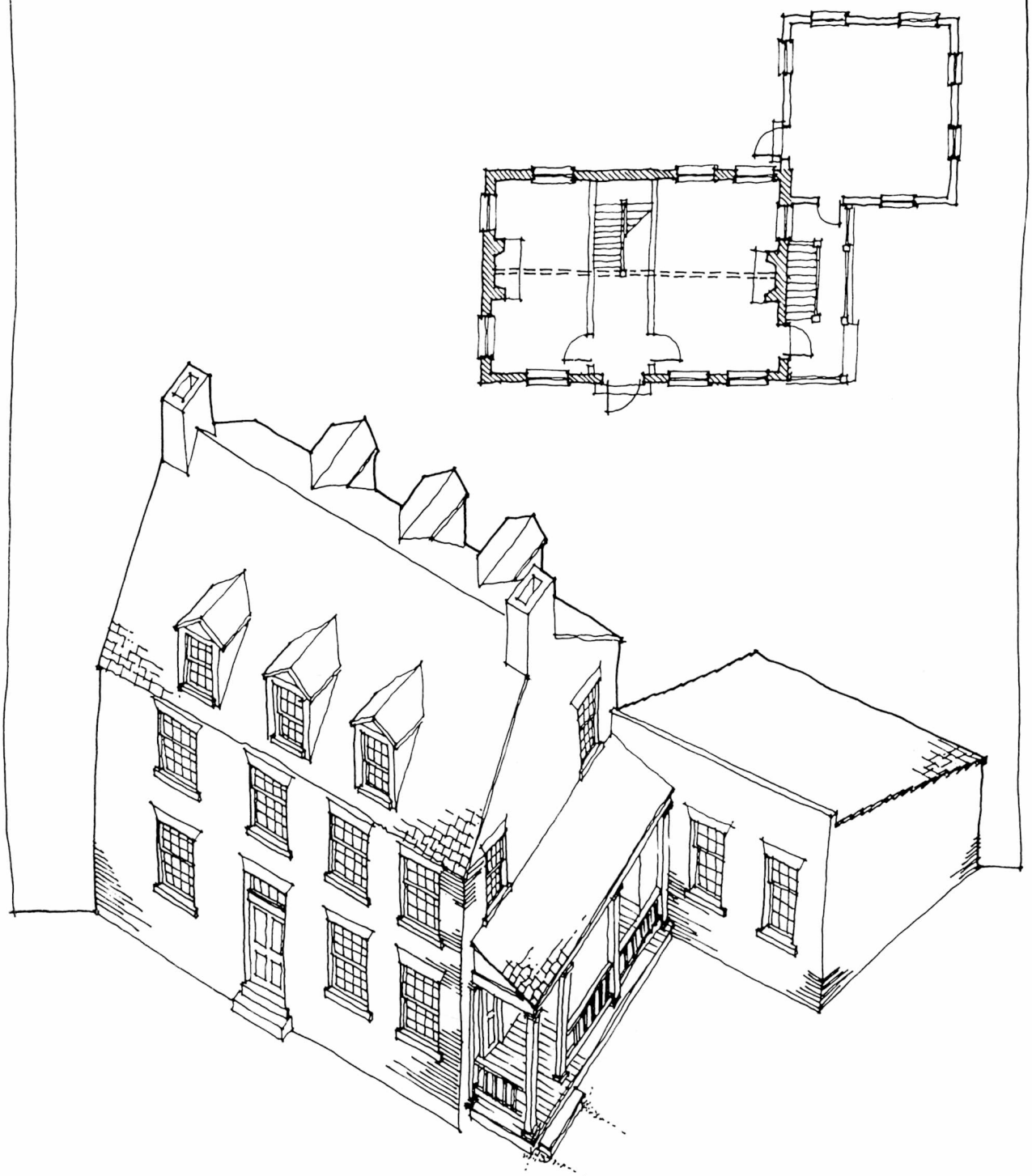
Samuel Annin petitioned the Department of War for the Lot 3, Block B property on behalf of his son. Joseph Annin erected a two-story residence with a gable roof and a basement kitchen. He located an apothecary on the first floor. It is assumed that there was a central stairhall with rooms to either side. In 1815 Samuel Annin moved in with his son upon retiring as the Paymaster for the Armory. He described a side porch facing onto his garden that was in danger of being encroached upon by a proposed tavern (Snell, 1959, p.4). This side porch apparently covered an exterior stair that descended to the basement kitchen.

Figure 8 - 1827 Appearance of Building 35



In 1818 the Annins vacated the house and it became the residence of the Master Armorer. A single-story brick kitchen was added in 1827 to the southwest of the building. The side porch may have become a "gallery" to the kitchen from the residence. However, oriented according to true north, the kitchen may have been sited in the Building 34 location (and could in fact possibly serve as the first floor of the building as it stands today, although historic maps do not support this). This would mean that the porch was razed at this time. There was no mention of the roof type or materials, and evidence is too vague to conclude anything about fenestration. The porch and kitchen are drawn conjecturally here.

Figure 9 - 1837 Appearance of Building 35

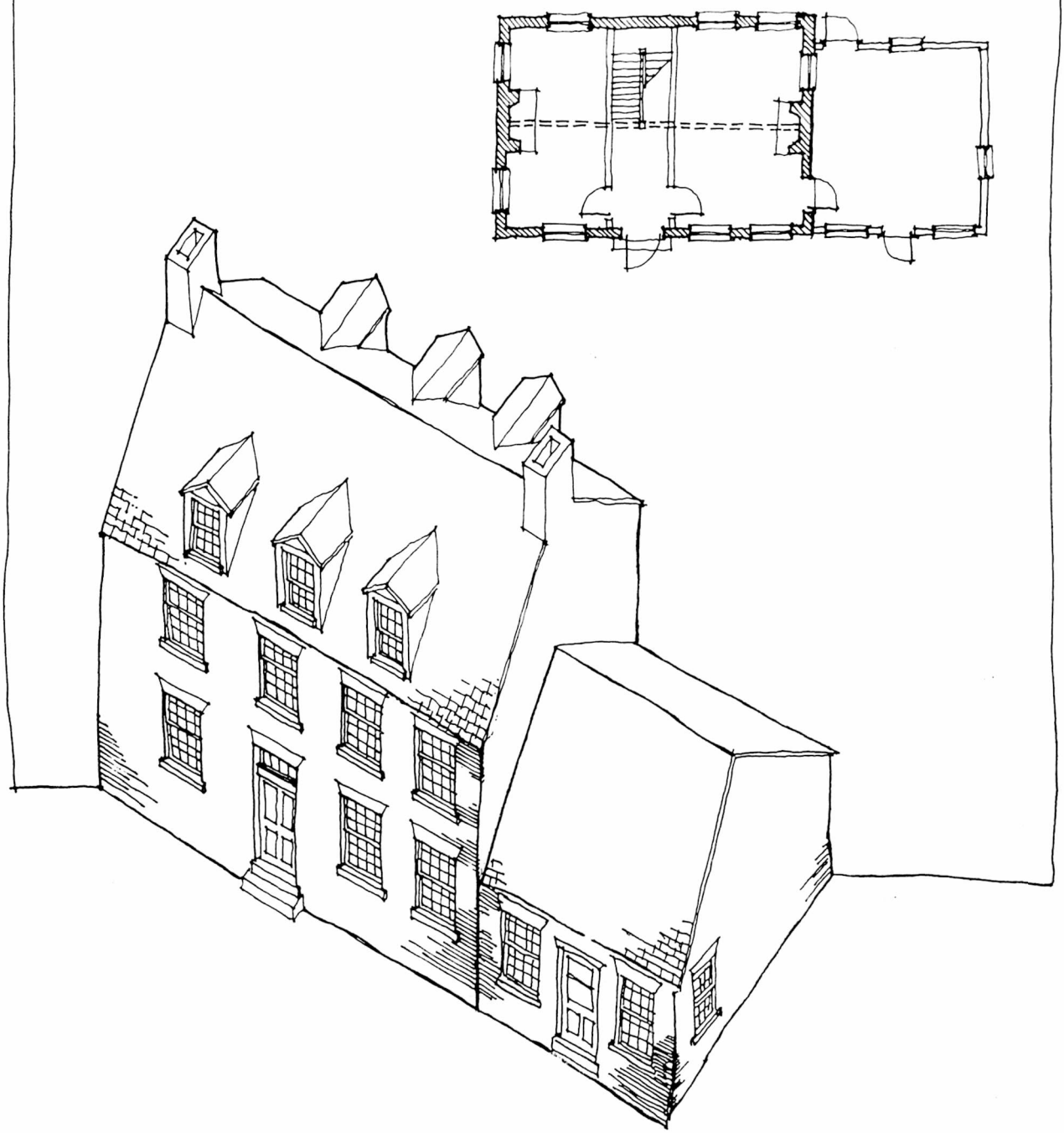


1837

Alternative A:

In 1833 mention was made of slate roofs being installed on the offices of the Paymaster and the Superintendent for fire protection. This was likely done to the Master Armorer's house in 1837 concurrent with the addition of six dormers making habitable space of the attic. The side porch and kitchen may have still remained.

Figure 10 - 1837 Appearance of Building 34-35

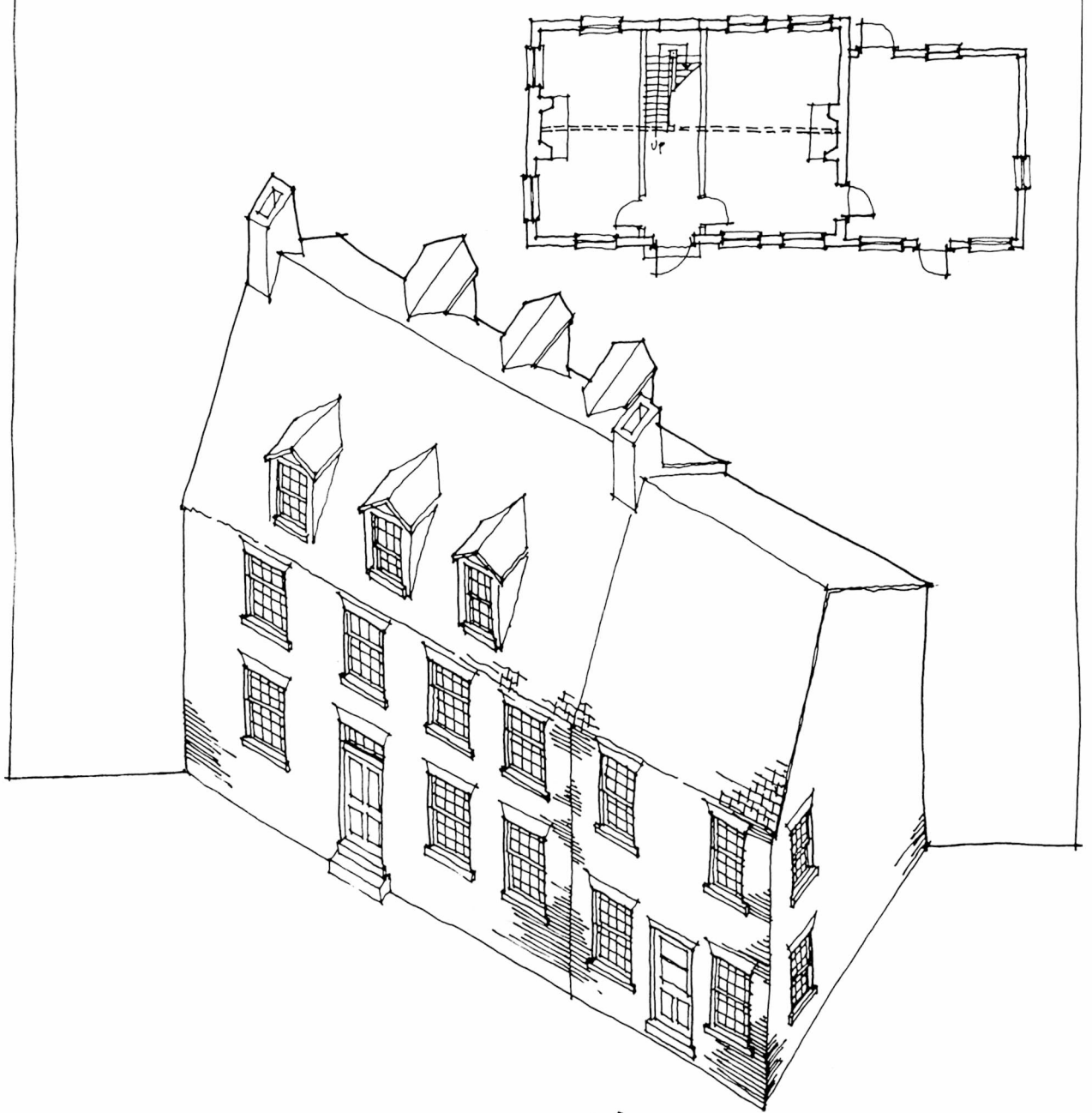


1837

Alternative B:

In 1833 mention was made of slate roofs being installed on the offices of the Paymaster and the Superintendent for fire protection. It was likely done to the Master Armorer's house in 1837 concurrent with the addition of six dormers making habitable space of the attic. As part of this renovation effort, over 7 perches of stone and more than 11,000 bricks were used on this site in June and December of 1836. The work accomplished with this material, however, was never documented. Records seem to imply it was used for the dormers. Clearly, this is more than would be necessary. It would, however, be sufficient brick to build one story of Building 34, and twice the stone needed for its foundations. Millwork in the first floor of Building 34 appears to be salvage, possibly from the 1827 kitchen.

Figure 11 - 1870's Appearance of Building 34-35



The building fell into disrepair after 1859 following the construction of a new Master Armorer's house (Building 36) adjacent to the former residence. Building 35 was used both as officers' quarters and a boarding house during intermittent periods of the Civil War. In 1869 James McGraw purchased the property at a government sale. From 1870-79 McGraw initiated extensive repairs and modifications to the structure and may have, at this time, added either the second story of Building 34 (if the first floor came in 1836) or both the first and second stories as physical evidence seems to suggest. Material salvaged from the kitchen may have been reused in Building 34.

C. Summary of Significant Architectural Features and Fabric

1. Features and Fabric to be Preserved

The following is a list of architectural features and fabric which are significant because of their historic integrity and should be preserved, by receiving either no work or minor repair.

Exterior

Building 34-35:

all two-over-two double hung windows
all doors except D106 (in niche between buildings)
storefront windows
wrought and cast iron balcony on north elevation
chimneys
brick walls (north, west and east elevations)
sawtooth brick cornice

Building 34A:

first story stone walls
upper story brick walls

Interior

Building 34-35:

spatial quality created by level changes which resulted from the series of building campaigns
eight-over-twelve and twelve-over-twelve windows (W112 and W220, formerly exterior south wall) original to 1812 building
window and door casings, baseboards (identified in construction drawings)
doors (identified in construction drawings)
main stair (room 102) probably dating to 1891, including newel post, balusters, handrail, stringer, treads
secondary stair from second to third floor
stair beneath floor in room 208 (to remain concealed below finished floor; should be documented)
exposed mortise and tenon joint supporting third floor joists visible a room 202 ceiling (additionally, any similar details uncovered during construction which date an depict original method of construction; should be documented)
basement kitchen fireplace and associated hardware

Building 34A:

roof structure (smoke stains from original roof date these members to the early one-story configuration)

2. Features and Fabric to be Restored

The following is a list of architectural features and fabric which were original to the building during the interpretive period of significance and should be restored by receiving major repair or replacement to reflect the historic appearance and configuration of the structures.

Exterior

Building 34-35:

- dormer window sashes
- shutters
- slate roofs
- stucco walls
- cantilevered rear porch (south elevation) with stair down to backyard
- stone foundations

Building 34A

- slate roof
- stone pavers around north and east sides (south existing to remain)

Interior

Building 34-35:

- plaster wall and ceiling finishes in upper floors (only sound fabric should be saved)
- wood tongue and groove flooring in upper floors (only sound fabric should be saved)
- rear stair adjacent to new elevator
- structural members (rotten and failed members should be removed, all others reinforced where necessary)

D. Physical Description of Existing Conditions

1. Site Description

Building 34-35 is an L-shaped, 3-1/2 story masonry structure facing Shenandoah Street and bounded by Building 33 to the west and Building 36 to the east. (See Figure 12). Building 34-A is a three-story masonry structure to the rear of the southwest corner of Building 34. (See Figure 13).

A shale flagstone walk with a stone curb runs across the front facade of Building 34-35 with an average width of 12 feet. The sidewalk is separated from the roadbed by a 2'-5" wide cobblestone gutter. Two trees and a light standard rise up from the walk. The stone walk is a modern reconstruction of a ca. 1870 sidewalk. Historical photographs show a walk with larger stones ca. 1910. (See Figure 14). The earliest mention of a stone walk was in 1859. Visitor access is through two doorways 101 and 103 with controlled access for park support staff through D102. Doorways 102 and 103 have intermediate stone steps.

A narrow concrete walk runs between Buildings 33 and 34-35. It varies between three and five feet from north to south. A contemporary gate is a few feet to the south of the location of an historic gate. An iron pintle, wood nailers and a visible ghost identify the earlier location of the gate to the north of the existing gate. The concrete walk changes to wood at Building 34-A and is connected to the porch of Buildings 33 and 33-A. Building 34-35 is separated from Building 36 by a narrow alley that varies in width from 1'-4" to 4' from north to south.

The rear yard is approximately 6000 square feet in area and is the site of recent archeological excavation. The yard is bounded by Building 34-35 to the north, Buildings 32 and 33-A to the west, the railroad trestle to the south and a low stone wall to the east which forms the boundary between the yards of Buildings 34-35 and 36. Notable site features include a concrete-covered cistern and two paved areas that appear to relate to earlier outbuildings. Historic photographs and archeological excavation indicated several outbuildings including a long two-story wood storage building that ran parallel to the railroad trestle. This building survived until shortly after the turn of the century. The various outbuildings are discussed in the Historic Data Section and Archeological Report.

Site drainage appears to be fair with the exception of the poor grading toward Building 34-A and toward the rear inset wall of Building 34-35. (See Figure 15).

2. Building Description

Building 35 originally had a two-story front facade with four bays. The original side elevations had bays to both sides of the chimneys. Building 34 was a two-story addition with three bays to the west side of Building 35. A third story was added in 1891-92 along with additions to the rear of Building 34-35.

The structure consists of both brick and stone masonry bearing walls. The brick walls date to the original 1812 structure (Building 35) the Building 34 addition, and the 1891-92 third story addition (Building 34-35). The stone walls form the rear appendages to Building 34-35, constructed 1891-92. The roofing system is a combination of a half-hip roof over the front portion of Building 34-35 and a shed roof over the extension of Building 35. The entire structure is built upon stone foundations with basement rooms formed under portions of the structure. The foundation walls rest on bedrock. The overall building envelope encloses 8630 gross square feet and 67,700 net cubic feet, excluding the basement rooms.

The basement consists of three rooms, two anterooms and two crawlspaces. Room 001 is the original kitchen of the 1812 residence and apothecary with a fireplace in the west wall. There are four window openings and one doorway. Room 006 may have predated the 1891-92 addition and served as a root cellar in the 1870's for James McGraw. This suggestion however, is purely conjecture based on the apparent room within a room. There is a stone pad in the north wall of crawlspace 002 which might indicate a recessed doorway prior to the present doorway (D101). A concrete floor obliterates any remnants of a stairway that may have descended along the west wall of the original 1812 kitchen. Crawlspace 007 is inaccessible due to the concrete block wall in anteroom 005. The concrete block bearing walls throughout the basement were installed in 1957 to support the steel web joists which in turn support the reconstructed flooring above.

The first floor consists of a central stairhall built in 1891-92 within Building 35. To either side are rooms 101 and 103 which are presently used as the general store and provost marshall exhibits. The wall separating rooms 101 and 106 was added in 1986. In the ceiling above room 106 a stairwell opening can be seen which probably dated back to the 1891-92 addition. Room 104 was also part of the 1891-92 addition. Room 105 is a modern addition which is used as storage and access to the basement below. Remnants of a stair to the second floor exist in room 105. These stairs appear on the 1957 HABS drawings and were probably installed during the Doran occupation. There is evidence under the floor boards in room 208 of this stair. Much question surrounds it since there is no area boxed-out in the room below for the stair to cut through the ceiling on its descent.

The second floor consists of two rooms, R201-02, and a stairwell (R203) in the original portion of Building 35, one room in the Building 34 addition and four rooms with two hallways and a stair in the 1891-92 addition. The wall that separates room 201 from 202 is by all appearances original to the 1812 plan. Doorway 219 may also be original. Its millwork has been modified at the base. The fireplaces have been altered several times over the years. An ancillary stair from the intermediate landing of the stairwell in Building 35 leads into room 204. This probably dates to the 1891-92 addition or later, since the proximity of the original stove location so close to the stair implies that was not the original layout. The stair in hallway 209 serves the third floor only.

The small space in R211 served as a yet another stairwell to the first level. Two doorways, D202-03, led onto the rear wood porch which was removed in 1956. There is a metal girder under the masonry wall that divides Building 35 from its addition allowing the removal of the original south exterior wall at the time of the 1891-92 addition.

The girder causes a rise in the floor between rooms 201 and 210 and between the stairwell (D203) and hallway 209.

The third floor was entirely constructed in 1891-92. At this time the roof was removed to create the spaces over the original portions of Building 34-35. Part of the original gable of Building 35 can be seen on the exterior wall of room 304. The stair in hallway 306 completes its ascent at this level where as the stairwell in hallway 305 continues on up to the fourth floor attic spaces. There are four rooms, R301-304, over the original portions of Building 34-35 but evidence shows that room 304 was divided into two rooms at one time. There are seven rooms, R307-314, in the rear portion of the floor, however, room 310 has only a particle-board partition separating it from room 309. There are indications, including remains of plumbing, that room 311 served as a bathroom at one time, probably during the Doran occupation (1899-1952).

The fourth floor has seven habitable spaces and a hallway with dormer windows serving five of the rooms plus the hallway and windows within the east wall serving the two remaining rooms. The construction dates back to 1891-92. The chimneys rise up through the "L" shaped hallway (onto which the stairway lands) and room 405 with flue openings for coal-burning stoves.

a. Exterior Walls

The original brick walls of Building 35 have a thickness of three wythe with a Flemish bond on the north elevation and common bond on the original portion of the east elevation. The brick walls of Building 34 have a thickness of three wythe with matching Flemish bond on the north elevation and common bond on the west elevation. Former exterior south walls at both 35 and 34 which were incorporated into the interior of the structure after additions are three wythe.

The brick walls of the 1812 footprint and the brick Building 34 addition walls rest on 1'-8" thick shale foundation walls with a portion of these walls exposed to the exterior. There is a full basement under the original portion of Building 35 and a crawlspace under the original portion of Building 34.

The 1891-92 third story addition to Building 34-35 matches the brick in thickness and bond. The original gable end of Building 35 is visible on the east elevation at the third story.

The actual brick sizes across the front elevation are fairly consistent and measure 2 1/2" x 8 1/2" x 4". On the other walls bricks vary from 2 1/4" x 8 1/2" x 3 7/8" to 2 1/2" x 9 1/4" x 4 1/4". Mortar joints were struck with a slight recess and vary from 1/8" to 3/4" in thickness. Tests indicate a 3:5 (lime:sand) original mortar mix. On the front facade where the two sections of Buildings 34-35 meet a 2 1/8" queen closer was required on both buildings to end the courses, which do not match up horizontally. There is a vertical mortar joint between the two building edges since the courses could not be interlaced. A small amount of extra

mortar was added to each joint in Building 34 in order to make up for the difference. The courses are even at the top of the second story level.

The doorways and window openings on the first floor of the north elevation have been modified several times. Its present configuration dates back to a ca. 1910 appearance with the exception of two storefront bay windows that were removed in 1957. Whitewash and ghosting reveal the location of these bay windows in front of windows W101 and W102. (See Figure 16). Storefront windows W103 and W104 appear to date back to 1891-92 with the enlargement of Building 35. It is suspected that D101, W117 and W118 are not original to the structure because of the lack of built-in lintels. The other windows and doorways in the original portions of Building 34-35 have exterior jack arches. The doorway 201 at the second level onto the wrought-iron balcony appears to be a converted window.

There is a three-course sawtooth brick cornice that wraps around the building with the exception of the east and south elevations of Building 35 along the shed roof.

The 1891-92 rear addition was constructed of local Harpers shale in a rough pattern approximately 1'-8" in thickness. These walls were then parged with stucco averaging 1" in thickness and scored to simulate approximate 14" x 24" stone blocks with 3/16" joints. The composition of the parging is 1 part lime to 2 parts of sand with a hair binder. At the window openings the parging has a sharp beveled edge and is splayed inward at the jambs. The lintels vary between heavy timber and steel and the sills vary between heavy timber and shale. Due to rising ground water at the first floor level the parging has given way at varying degrees and allowed moisture to enter the walls causing exfoliation on the interior plaster walls. Where the cantilevering wood porch was removed in 1956 the exposed portions of the walls were covered over with a cement-based stucco with no effort made to match the ocher color or scoring of the original parging.

The heavy timber beam over the opening forming a passageway between Buildings 34 and 35 (since converted into a storage room 105) has given way and caused a crack in the wall above. (See Figures 17 & 18).

Two sets of tie-rods were installed running east-west in the rear addition of Building 35 at second and third floor levels (probably in the early 1900's) to alleviate movement in the walls. Cracks over lintels on this elevation indicate stress especially in the case of heavy timber lintels.

It is difficult to understand why there seems to be a random use of steel and heavy timber lintels. One supposition would be that William Doran saw movement in the walls and weakness in some of the heavy timber lintels of the 1891-92 construction and replaced various lintels while at the same time installing the metal tie-rods. At that time he may have reparged the walls to give them a uniform appearance.

In general the brick and stone masonry appears to be sound. There is some spalling that is occurring in the northwest corner of Building 34, probably the result of past repointing with hard cement-based mortar. The mortar throughout appears to be visually sound although 10% of the areas tested revealed a surface crust over a loose mortar body. (See Appendix D-1).

b. Floor and Interior Wall Framing

The historic floor and wall framing was of sawn lumber with varied dimensions. The majority of the first floor framing was removed in 1957; only that portion under the 1891-92 stairhall remains intact. The historic floor framing was replaced with steel web joists. A portion of a historic summer beam remains that once supported the floor framing of the stairhall which may date back to 1812. The brick column in room 001 was added by James McGraw ca. 1875 to provide additional support to the sagging first floor. For the most part the joists were slotted into the masonry walls. This can be noted in the basement where remnants of the historic floor joist sockets can be seen. (See Appendix F-2).

At the second floor level of the original portion of Building 35, channel beams were installed ca. 1957 to act as a summer beam. The adjacent steel girder may also have been added at this time to support the remaining section of the original exterior masonry wall of Building 35. This girder may have replaced a heavy timber girder put in by James McGraw in 1891-92 at the time of the rear addition. Investigation by a structural engineer indicates that it is also a strong possibility that this steel beam was installed by McGraw himself in 1891-1892.

The interior wall framing is for the most part inaccessible and no destructive investigation was carried out. Those areas that were accessible revealed circular sawn studs that measured approximately 2 1/8" x 4 1/4" except for the exposed studs of the wall separating rooms 101 and 102 which measured 4" x 5 5/8". The studs in the wall separating rooms 309 and 310 measure 1 3/4" x 3 3/4" with particle-board attached to only one side. The sill plate of this wall rests directly atop the wood flooring.

There has been considerable floor deflection at the second through fourth floor levels which has caused movement in the walls. This is in large part due to excessive floor spans and deteriorating bearing connections. (See Appendix C-1).

c. Porches

A wrought and cast iron porch is appended onto the north facade at the second level. It is supported by 11 wrought-iron and 1 cast-iron scrolled brackets at irregular intervals. The porch extends 3'-10" out from the wall. The present porch is a 1956 reconstruction of the 1891-92 porch. The 35" high decorative railing is additionally supported by diagonal members perpendicular to the plane

of the railing. The deck is composed of 4 1/4" tongue and groove decking with a flat-seam metal capping. A 1" x 6" skirting conceals the joist ends. The porch appears to be in good condition.

In 1956 the rear cantilevering wood porch was removed because of its badly deteriorated condition. The floor joist ends are visible on the exterior and ghosting shows where the decking met the parged walls. The ends of the porch on Building 34-35 can be seen where they met the parged walls. Its construction can be discerned from photographs taken from the time of its removal (See Figure 19).

The cantilevering floor joists extended three feet past the walls of Building 35 and four feet past the rear wall of Building 34. It appears that it had roughly a 32" high wood rail supported by 5" x 5" posts and 1" wood pickets at 5" on center. The decking was 4 1/4" tongue and groove with copper flashing at the walls. A 10" wood skirting concealed the joist ends. There was an intermediate wood member notched into the cantilevering joists that ran the length of the porch to provide additional support for the decking. (See Figure 20).

The photographs also revealed temporary posts used to support the sagging porch. A stair descended from the southeast corner of Building 35 which can be seen in photographs taken at the time of the porch's removal. The porch probably dates back to 1891-92. Historic photographs and maps indicate it was there at the turn of the century. (See Figure 21).

d. Roof

A half-hip roof covers the majority of the structure. A shed roof covers the extension of Building 35. The slopes are 5/12 and 3/12 respectively. The present wood shingle roof was installed in 1963 replacing the badly deteriorated slate roof that dated back to 1891-92.

A 1956 photograph shows the original roof as having 39 courses on the front gable, making for an approximate exposure of 9" with an average width of approximately 10". (See Figure 22). On the dormers, roof exposure was similar but with 10" exposure on the sidewalls. Valleys are and were closed.

The present shingle roof has widths varying from 4" to 7" with a 5 1/2" exposure. Like the original, all valleys are closed. The substrate is solid 1" butt sheathing which replaced the original spaced slate lath. Approximately 30% of the existing sheathing appears to have been recycled from the previous installation. Separating the sheathing from the shingles is a layer of tar paper. Laboratory analysis revealed the presence of chrysotile asbestos fibers within 30-60% of the material. (See Appendix D-4). The roof shows extensive wear with deteriorated, cupped, loose and cracked shingles. (See Figures 23 & 24). A number of leaks have occurred where flashing around chimneys, dormers and along the eaves has pulled

away. Flashing along the eave of the shed roof of the east elevation is non-existent.

Roof framing is a combination of 2 3/4" x 6" and 3" x 7 1/2" rafters at 24" on center with a 2 3/4" x 6" ridge beam. A rafter plate exists atop the brick walls but not on the stone walls. (See Figure 25). While this material appears to be sound, structural analysis has identified that this framing design transfers undue loading to the interior partitions. The design is deficient for live (snow) loading and would not be able to support a reconstructed slate roof. It lacks adequate cross and end-bearing ties to function as an overall system. Particular attention was called to the valley member between rooms 403 and 406. Deflection within the framing members has caused considerable cracking in the fourth floor plaster ceiling. (See Appendix C-1).

There are six gable dormers and six chimneys that intersect the planes of the roof. The dormer roofs have a 3/12 pitch with projected eaves and decorative trim. Framing consists of 2 1/2" x 4 1/2" rafters with similar stud sizes. While framing appears sound, deterioration has occurred around the fascia, trim and sheathing. The decorative base scrolls seem to trap moisture resulting in a number of deteriorated and loose conditions. The sills have metal flashing.

Two of the chimneys date back to 1812 but were extended with the 1891-92 enlargement of the structure. The other four chimneys correspond to the 1891-92 additions. Only chimney no. 2 still retains its corbelled cap. A ca. 1895 photograph showed all chimneys as being capped in this fashion at the time. The flues are exposed bricks with the exception of chimney no. 5. Each chimney has metal step flashing. Chimneys no. 5 and no. 6 have several relief courses. Repointing has been done in some cases but tends to be of inferior workmanship (See Figure 26). Chimney no. 6 shows a degree of vertical displacement. At the base of chimney no. 1 is a fiber mastic sealant that contains asbestos. (See Appendix D-4).

A single 1" x 5 3/8" snowboard runs along the north, south and gabled portions of the west elevations. The 1957 HABS drawings and historic photographs show a second snowboard along portions of the north and west elevation at the approximate halfway points of the slopes. (See Appendix F-1). The metal anchors for the existing snowboards are in good condition but the snowboards are showing signs of deterioration.

e. Rainwater Control

The present drainage system was installed in 1980 and roughly follows the lines of the historic drainage system. The gutters are 6 1/2" in diameter and anchored to the eaves at approximate 4' intervals. Three downspouts exist. At the northwest corner of Building 34, the downspout is 3" in diameter and drains into a subgrade cast-iron line. A second downspout is located in the rear interior corner of building 34-35 and travels along the west elevation of the Building 35 addition at a slight slope where it is connected to a downspout at the southwest

corner of the Building 35 addition. The two downspouts follow a single path at a slight pitch along the south facade of the Building 35 addition before travelling downward to grade. The drainage system breaks down at this point. The rainwater is not properly shed away from the building causing an overflow to occur at the base of the structure. The drainage system appears to be in very poor condition.

f. Exterior Doors and Windows

Doors

There are twelve exterior doorways on the first level, four of which have been subsumed in the interior of additions to the structure, and three exterior doorways on the second level, one onto the front porch and two that opened onto the former rear porch. The doorways that puncture the brick walls have jack-arched lintels, stone sills and wood frames with the exception of D101 which has no lintel. It is assumed the door frame is supporting the masonry. The doorways in the 1891-92 addition have heavy timber lintels, stone sills and wood frames. All doorways have mortised-wood thresholds.

Basement doorways have a combination of hewn, built-up, and log lintels, all of which are in various states of decay. No doors remain at these original locations.

Doorways 101 and 110 service the Building 34 addition. Doorway 110 became incorporated into the interior in 1891-92. Door 101 is a single-leaf, 2 panel/2 lite type.

Doorways 102, 103 and 109 service the original portion of Building 35. Doorways 103 and 109 appear to be original to the structure. Doorway 102 was probably added in 1891-92. (See Room Schedule, Appendix F-2). Door 102 is a single-leaf, 2 panel/2 vertical lite type with a single lite transom above. Door 103 is a two-leaf, 1 panel/2 vertical lite type with a four-lite transom overhead.

Doorways 104, 105 and 112 service the 1891-92 addition to Building 35. Doorway 112 has been subsumed into the interior with the addition of storage room 105. Door 104 is a two-leaf, two-panel type with a transom overhead that has been boarded with plywood. Door 105 is a single-leaf, 2 panel/2 vertical lite type with a single-lite transom above. Door 112 is a single-leaf, eight-panel door with a two-lite transom overhead.

Doorways 107, 108 and 111 service the 1891-92 addition to Building 34. Doorway 111 has been incorporated into the interior with the addition of storage room 105. Doors 107 and 108 are single-leaf, 2 panel/4 lite types. Door 111 is a single-leaf, vertical board door.

Doorway 106 services room 105 which was created by erecting a plywood wall that enclosed the former passageway between the additions to Building 34-35. It is a modern four-panel door.

Doorway 201 was originally a window. This alteration was probably done in 1891-92 with the addition of the wrought-iron porch. Door 201 is a two-leaf, 2 panel/2 vertical lite type.

Doorways 202 and 203 serviced the rear wood porch prior to its removal. Door 202 is a single-leaf, four-panel type with a single-lite transom above, and door 203 is a single-leaf, 2 panel/2 lite type with a filled single-lite transom overhead.

All doors have steel-butt hinges, Doors 101 and 103 have historic thumblatches and D101 has a mailslot which may relate to the first floor of Building 34 being used as a post office. With the exception of D202, all other exterior doors have a mortise lockset with ceramic knobs.

Windows

The two principal window types are a 1892 two-over-two sash design and a pre-1891 multi-pane sash design. The most prevalent of the two types is the 2/2 sash design. In addition there are the storefront windows at the first floor of Building 35: W103, W103A, W104, and W104A. These windows, unique to the building but typical to the period, probably date to 1891-92.

There are four variations of the two-over-two sash design which can be seen in windows 205, 106, 401 and 201. These windows are referred to as types A1, A2, A3 and A4 respectively in the existing condition drawings. (See Appendix F-2). Most of the sashes have spring balances, few of which are workable. The sashes W106 - W111 have pulleys but are missing their cords. A significant number of sash locks and pulls remain.

The multi-pane sashes appear to date back to the pre-Civil War era. Windows 112 (twelve-over-twelve) and 220 (eight-over-twelve) may be original to the 1812 residence and apothecary. With this in mind, windows W405 - W407 appear to be perfect matches and may have been at one time a part of the original construction. The 6/6 and 6/9 (in some cases reversed) sashes may date back to the 1827 kitchen addition or the first floor addition of Building 34. Such sashes include W114, W115 and W408.

However, Jesse Graham's 1879 affidavit filed in support of McGraw's abatement petition said the "one-story kitchen" had no windows. Provided he did not mean the smokehouse, this could mean there never were any in that building, or that McGraw took them out (perhaps unbeknownst to Graham), stored them and reused them some twelve years later. It could mean simply that they had been destroyed by the time of Graham's assessment. The later seems to be Graham's

implication.[15] Since there is no corroborating evidence, this theory of the window reuse must be treated as speculation.

Window 404 had a 9/9 sash in 1957 at the time of the HABS documentation work but it has since been removed and replaced with a sheet of plywood. These sash types are referred to as B1 - B5 in the existing condition drawings. (See Appendix F-2). Sash pulleys and cords are either non-existent or in poor condition. Locks and pulls remain in most cases.

The storefront windows in Building 35 were probably put in place no earlier than 1891 and may have been an early twentieth century addition by William Doran. Windows 103 and 104 are fixed, four-lite windows and windows 103A and 104A have a double hung 8/8 sash. The parallel sashes form an exhibit space between them which may have been reconstructed in 1986 when the first floor of Building 35 was made into the present general store exhibit.

All the windows had shutters with the exception of the storefront windows at the first level and the dormer windows at the fourth level. There were three principal types of shutters: paneled shutters at the first level and two types of louvered shutters at the other three levels. These shutters were removed sometime after the 1957 HABS documentation work but the pintle portion of the hinges remain.

Fabric appears to remain from the original basement kitchen grilles, W002-04. These grilles had a lambstongue chamfered frame with mortised vertical hexagonal slats cut from 1 1/8" stock (a number of which remain). Frames and lintels are in various states of decay. Masonry overhead is loose or has given way due to the deteriorated supports.

Window glazing is a combination of modern plate, "florentine" and historic cylinder glass. Whether the cylinder glass is original or modern reproduction glass is unknown. Sash putty is in fair condition.

g. Interior Doors and Windows

Doors

There are 55 doorways within the interior of the building, four of which were originally exterior doorways incorporated into the interior with the additions to Building 34-35 (which have been called out under exterior doors). In the basement all doors and frames are missing but evidence of the nailers imbedded in the stone remains. All existing doors are mortised with raised panels and steel-butt hinges. Twenty-three (23) of the doorways have transoms, only a few of which still have hold-open hardware.

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[15] Chickering et al, pp. 21-23 and 77-78.

The doors are called out in the existing condition drawings. However, several doors are worth noting. Door 218 has a boxlock while all the others have mortise locksets with ceramic knobs. Florentine glass is set into doors 218, 219, and 303. Frosted glass is set into doors 207 and 216 with a surviving decorative "hanging basket" motif, typical of the period, in one of the leaves of door 207. The lites in door 206 and one leaf in 207 are missing.

The doors are generally in good condition. The finishes are worn. Hardware appears to be in fair condition but with excessive paint build-up. Many doors have decorative pattern hinges dating to McGraw's decade of improvements.

Windows

There are five interior windows in addition to windows 112 and 220 (which were originally exterior windows). They have four lites and are fixed to pivots within the frames. These windows (W218, 315-18) are noted as type C3 in the existing condition drawings and were installed as means of receiving additional light into rooms 210, 307 and 308.

h. Interior Finishes

The rooms throughout the structure have hardwood floors, probably pine, with plaster-on-wood-lathe walls and ceilings. The exception to this is the first floor which was remodelled in the 1970's and 80's and has pine floors with dry-wall and plaster walls and ceilings. Various traces of paint and wallpaper remain but are in poor condition. (See Appendices D-2 & D-3).

The architectural millwork around the doors and windows conforms to at least four distinct periods of construction. The original 1812 portion of the building has a type "J" molding around the window and door frames at the second level. The molding on the second level of the addition of Building 34 are called out as type "B" in the existing conditions drawings. (See Appendix F-2).

The molding also varies between the west and east halves of the 1891-92 rear addition at the second level between type "H" and type "A" respectively. This may indicate that the rear addition to Building 34 was built before the wing added onto Building 35). The architectural millwork also varies at the third level of the rear addition between types "H" and "A".

Architectural millwork varies in the front portion of the third level as well, with type "M" surrounding the windows and doors in rooms 301 and 302 in the Building 34 portion, and type "A" around the windows and doors in rooms 303, 304 and 305 in the Building 35 portion.

The moldings around the windows and doors in the fourth floor garret seem to be miscellaneous varieties and are called out in the window and door schedules of the existing conditions drawings. (See Appendix F-2).

The moldings at the first level all appear to be reconstructed with the exception of the molding around window 112 which is type "J".

i. Stairways

There are two stairways in the structure, both of which appear to date to 1891-92. The original stair in Building 35 was removed at the time of the 1891-92 additions. It would take destructive investigation to locate evidence of the stair between the first floor ceiling and second floor. There is evidence of two additional stairs having been located in rooms 208 and 211. The boarded stairwell in room 211 may date back to 1891-92 but the concealed stairwell in room 208 was probably installed in the twentieth century. In addition, there is a set of stone steps that lead down to the basement via a trap door in room 105. It seems likely that these steps date to the 1891-92 addition.

The stairway that emanates from the entrance hall 102 at the first level is the only stairway to rise through all four floors. (See Figure 27). The riser and tread heights vary from floor to floor but are consistent in the use of a 1" thick bullnose cap. The undersides of the stringers are plastered. The guardrail consists of a 3-1/2" decorative handrail with turned balusters and beveled 5" square posts at the junctures of the stairs and landings. There are conical caps on the undersides of the stringers at the visible junctures of posts and landings. There is a decorative newel post at the landing of the entry hall.

The stair in hallway 209 is similar in construction to the principal stairway but is only one flight and services the second and third floors. (See Figure 28).

Treads have a protective grated metal covering which overlays an earlier jute-black rubber material. Treads, skirts, handrails, balusters and posts are stained whereas the risers are painted. The finishes are worn but the stairs appear in good condition. In some cases the stairways have begun to pull away from the walls and cracks in the ceiling plaster underneath the landings indicates problems occurring at these points as well.

j. Specialties

Fireplace mantels are the only specialties within the structure. Those on the second floor appear to date back to 1891-92 where as those on the first floor were reconstructed in 1986.

The mantel in room 202 is contiguous with the pilasters and is set into the wall. There is a brick hearth in front of the fireplace. The fireplace was bricked over and a radiating gas grill placed in front of it. The grill has since been removed.

A ghosting of the mantel and pilasters remains over the fireplace in room 201, as do guidelines on the masonry for the installation of the original mantel. The brick hearth has also been removed. The fireplace was probably also fitted with a gas

grill but was reopened when architectural investigation was carried out in the 1950's.

There is a fake fireplace in room 210. The mantel and pilasters are still in place. A radiating gas grill probably sat in front of the fireplace.

The fireplace in room 103 does not appear consistent with any historical evidence. There was probably a fireplace on the opposite side of the chimney in the original 1812 configuration of Building 35. James McGraw probably installed a coal-burning stove in room 103 and used the flue of the former fireplace which he bricked over with the addition of the 1891-92 stairway entry he created in room 102. The wood-burning stove is a replica of a Civil War-era stove in keeping with the theme of the provost marshall exhibit.

The mantel over the fireplace in room 101 is also a reconstruction but the location of the fireplace is in keeping with the 1812 configuration. The wood-burning stove is a replica and is in keeping with the ca. 1850 theme of the general store exhibit.

Various thimble-covered openings for flues can be seen throughout the rooms on all levels. The coal-burning stoves are no longer present from the time the upper levels of Building 34-35 served as boarding rooms or apartments after 1892.

There was a boiler in basement room 003 with a vertical stack on the outside wall that ran up through the second floor wood porch. There is residual evidence of smoke stains on the exterior wall indicating that the stack did not rise for the entire height of the wall. This boiler was in service as late as 1940.

k. Mechanical and Electrical Systems

Historically, the Dorans fitted a bathroom into room 311. Evidence of this can be seen in openings in the floors for various drains. There is also evidence of a pipe in room 310 that may have served a bathroom in room 408. Plumbing also seems to have serviced room 214 which may have been a kitchen. There appears to have been radiating gas grills throughout the rooms in the twentieth century, replacing the coal-burning stoves from the McGraw era. Currently, there is only a small air conditioner in room 105 that is visible from the rear yard.

There is evidence of historic lighting in the building. The Dorans apparently electrified the structure in the early twentieth century. Ceramic spools and insulated copper wires can be found throughout the rooms. Currently, there is a temporary series of lights in rooms on the second and third floor serviced by a transformer and related panels in room 204. There are electric baseboard heaters in rooms 202 and 204 and a portable heater in room 202.

l. Pest Control

The wood floors and masonry walls may have been brush-treated for protection from insect damage. There is some evidence of termite damage in rooms 001 and 204. There are extensive mud dauber nests within the roof framing. Pigeons at one time were able to enter the fourth floor as is evident in the droppings on the floor. They continue to roost on exterior window sills and nest in the chimney flues.

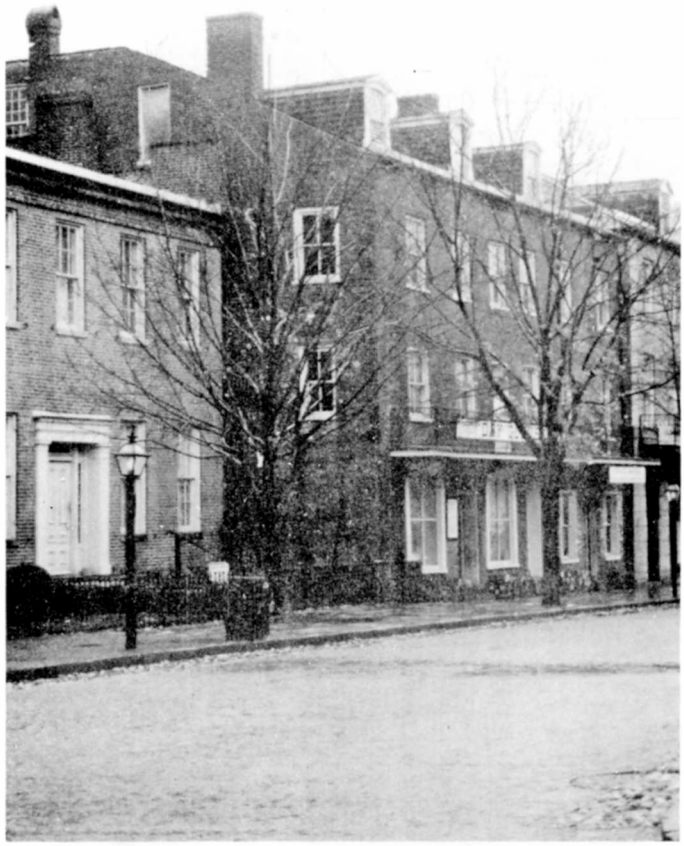


Figure 12 - Photographic View of Building 34-35 (1991)

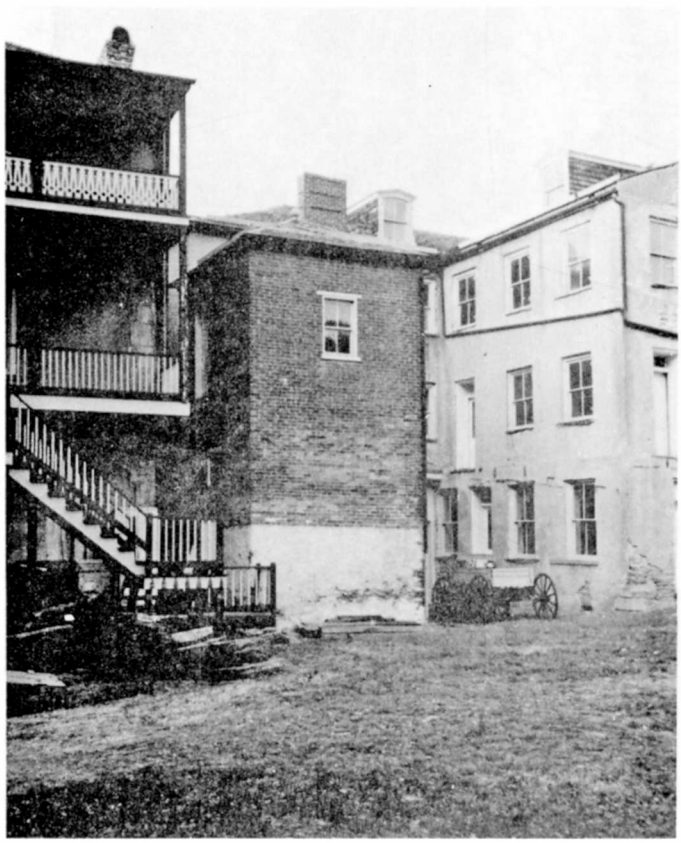


Figure 13 - Photographic View of Buildings 34-35 and 34A (1991)



Figure 14 - Historic Photograph of Building 34-35 Storefront (ca. 1910)

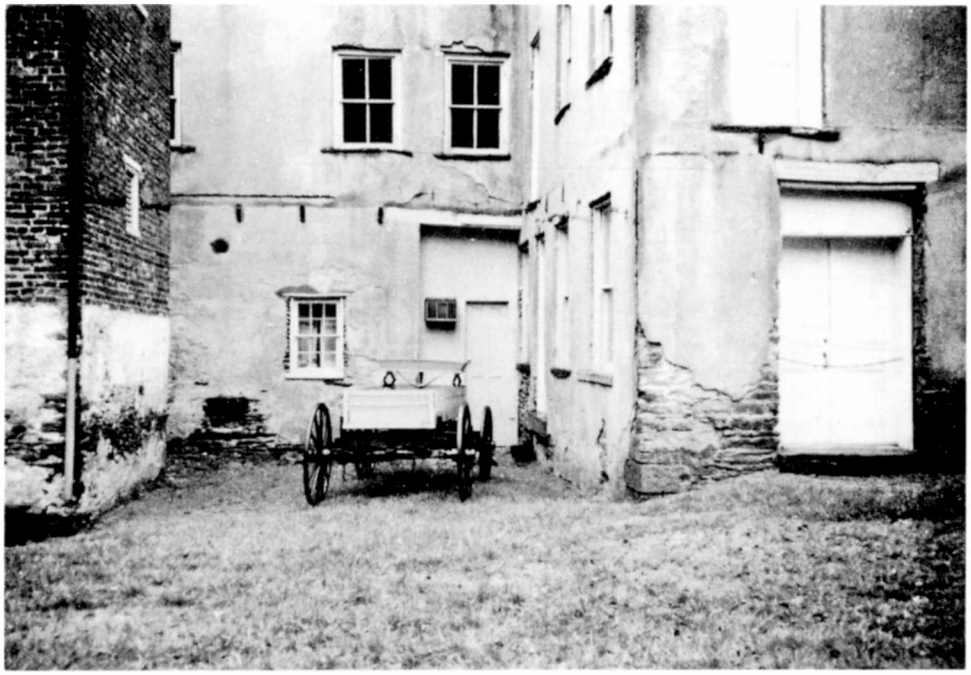


Figure 15 - Photographic View of
Building 34-35 (1991)

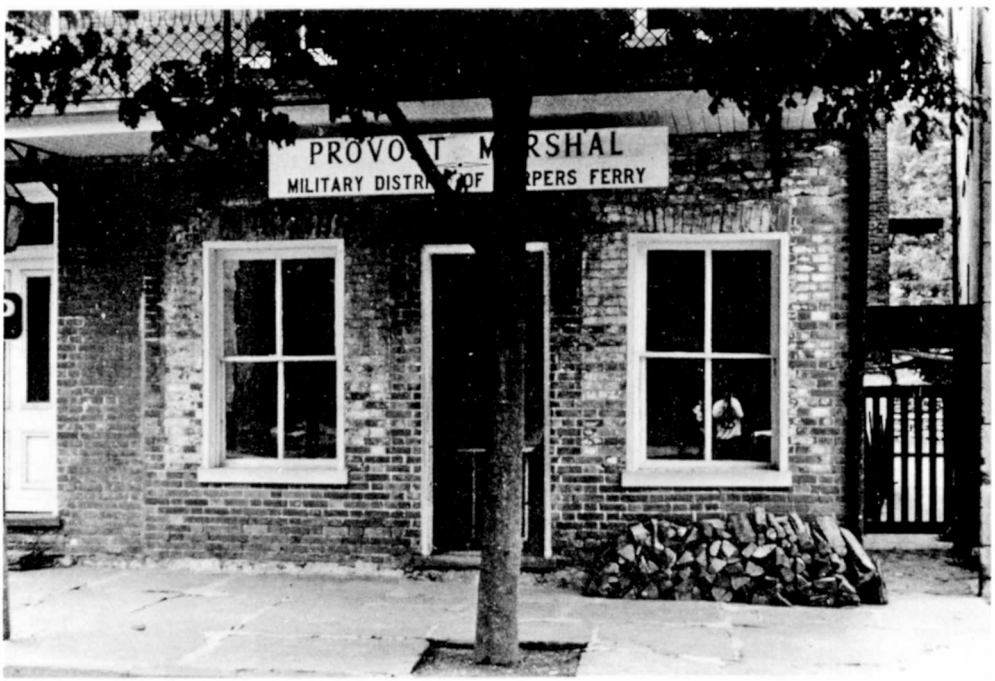


Figure 16 - Photographic View of
Building 34-35 (1991)

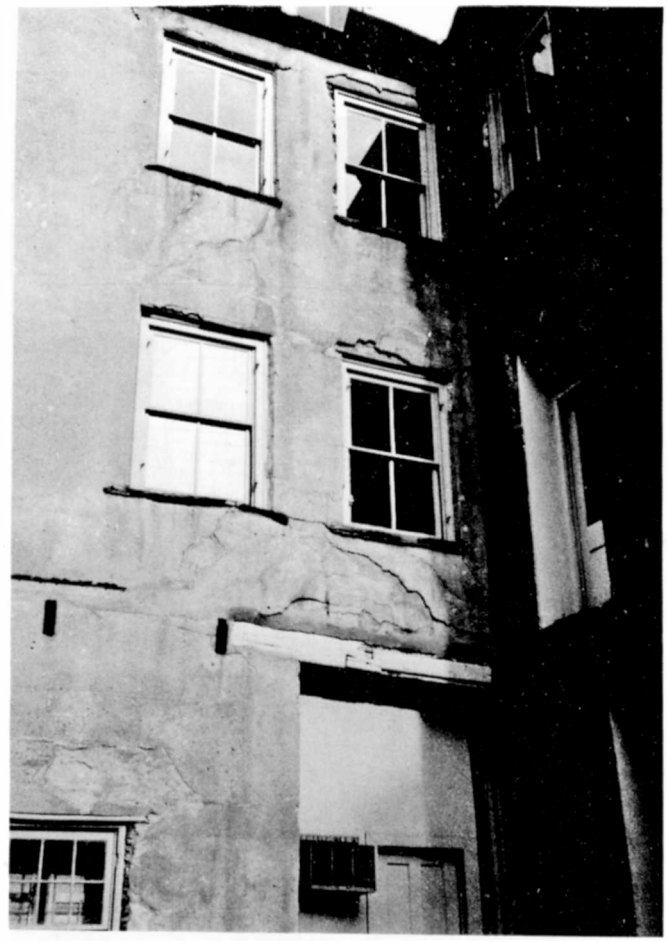


Figure 17 - Photographic Views of Damaged Lintel over Passageway (1991)

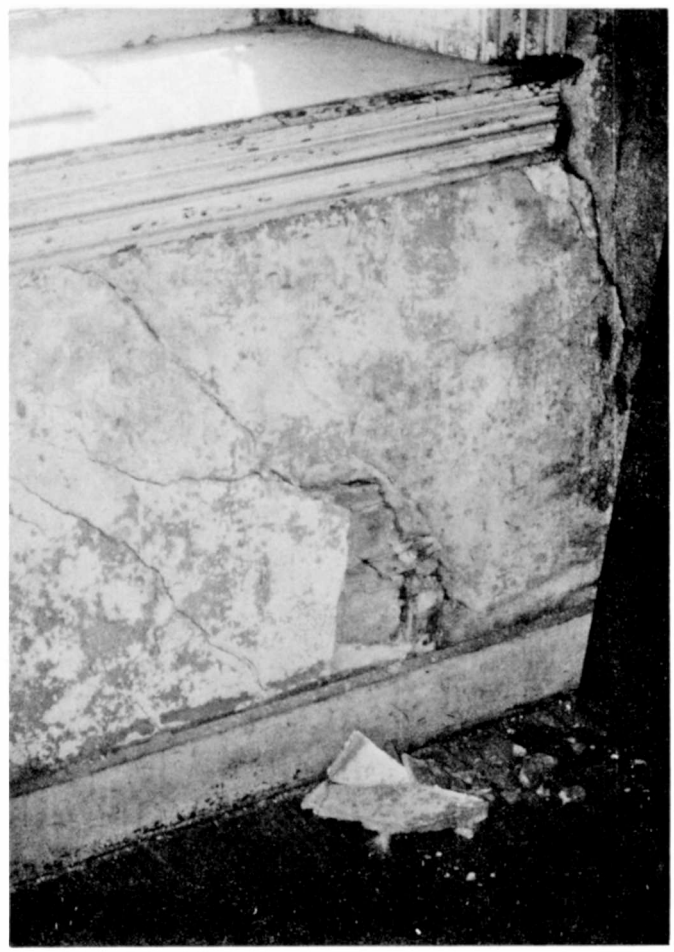
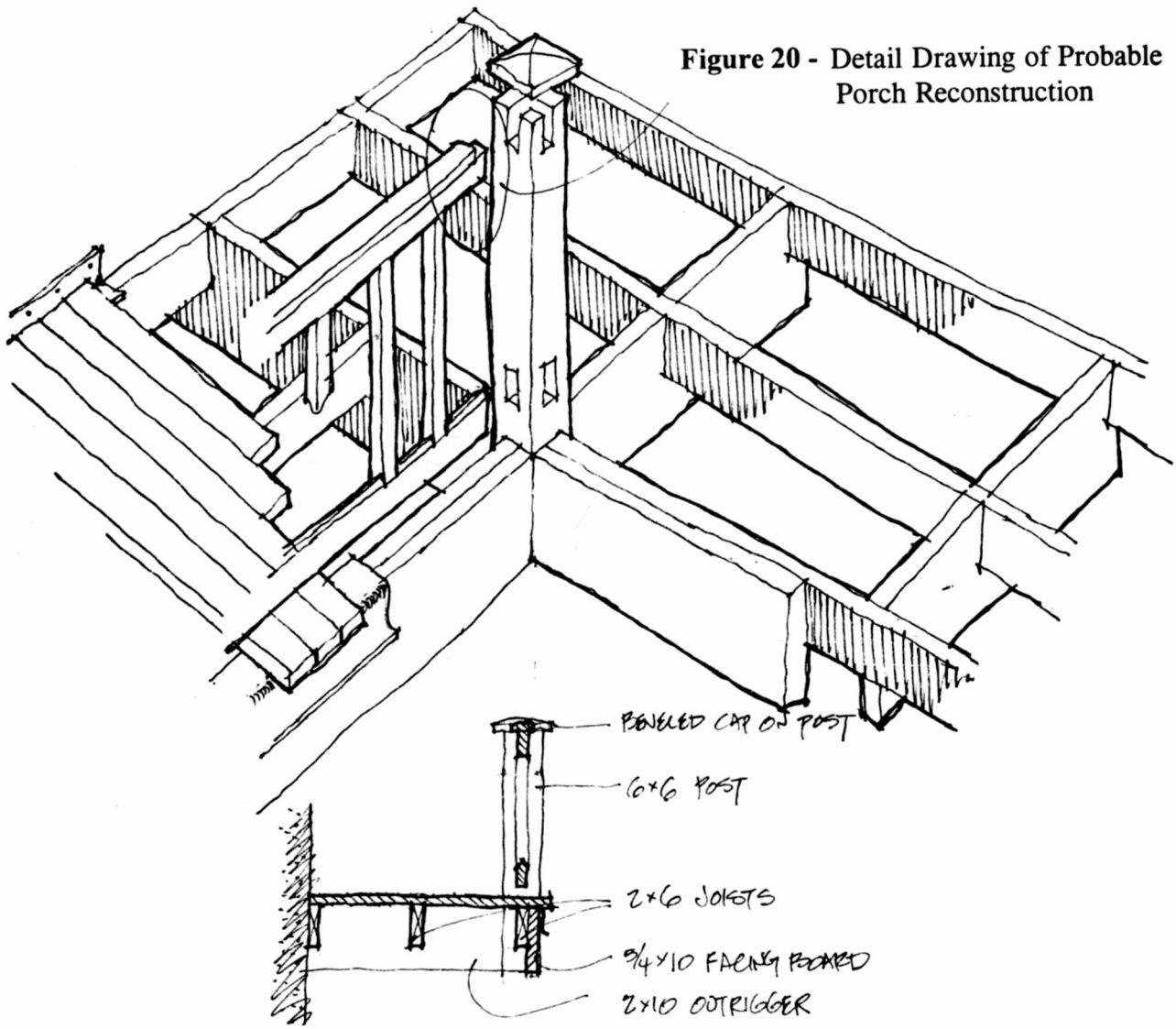


Figure 18 - Photographic View of Crack in Interior of Room 208, Building 34



Figure 19 - Photographic View of Dilapidated Rear Porch (1956)

Figure 20 - Detail Drawing of Probable Porch Reconstruction



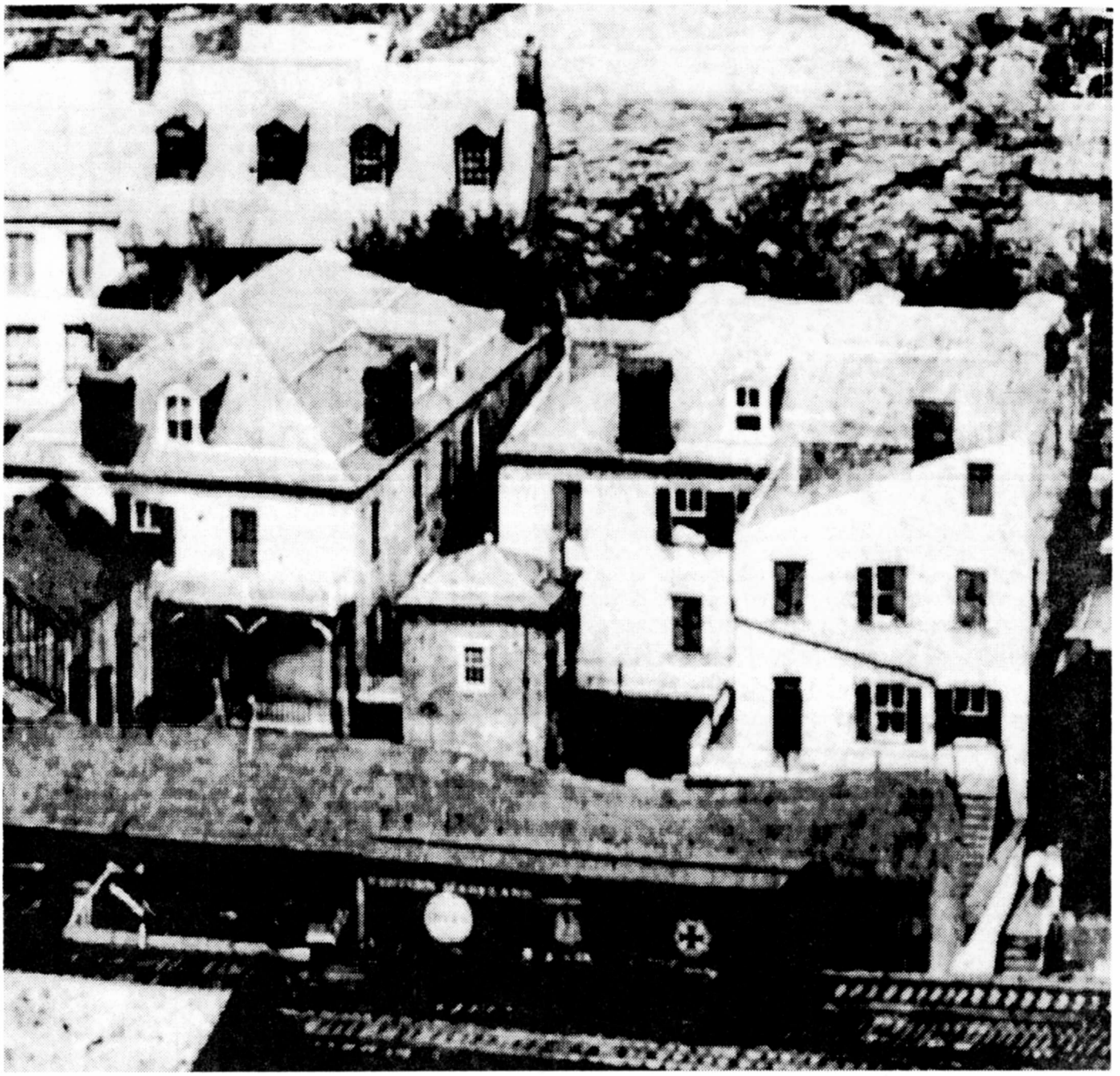


Figure 21 - Historic Photograph of
Rear of Building 34-35
(ca. 1895)

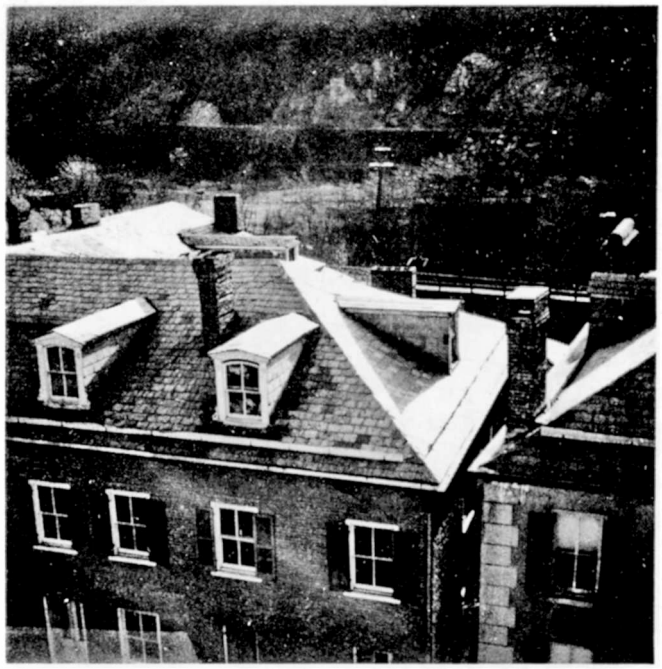


Figure 22 - Photographic View of roof (1956)

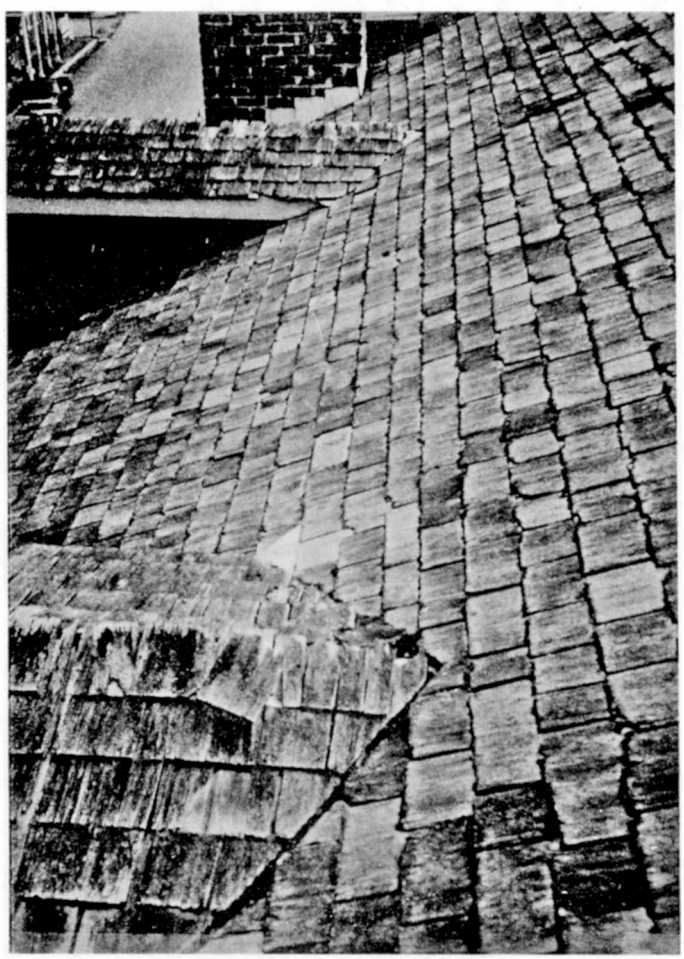


Figure 23 - Photographic View of Existing Wood Shingle Roof (1991)



Figure 24 - Photographic View of Existing Wood Shingle Roof (1991)

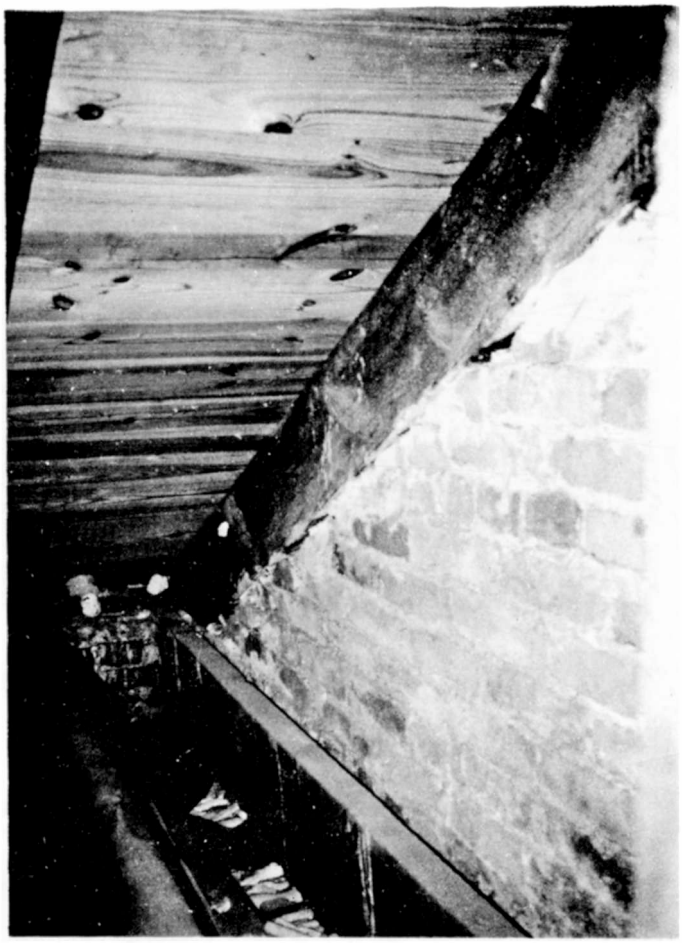


Figure 25 - Photographic View of Rafter Plate (1991)

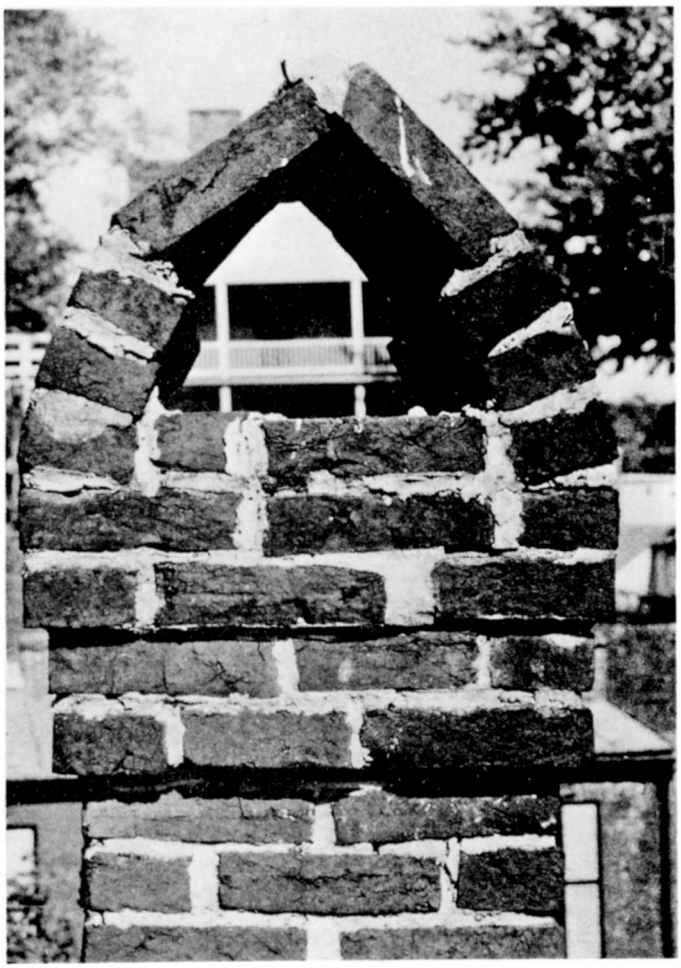


Figure 26 - Photographic View of Chimney (1991)

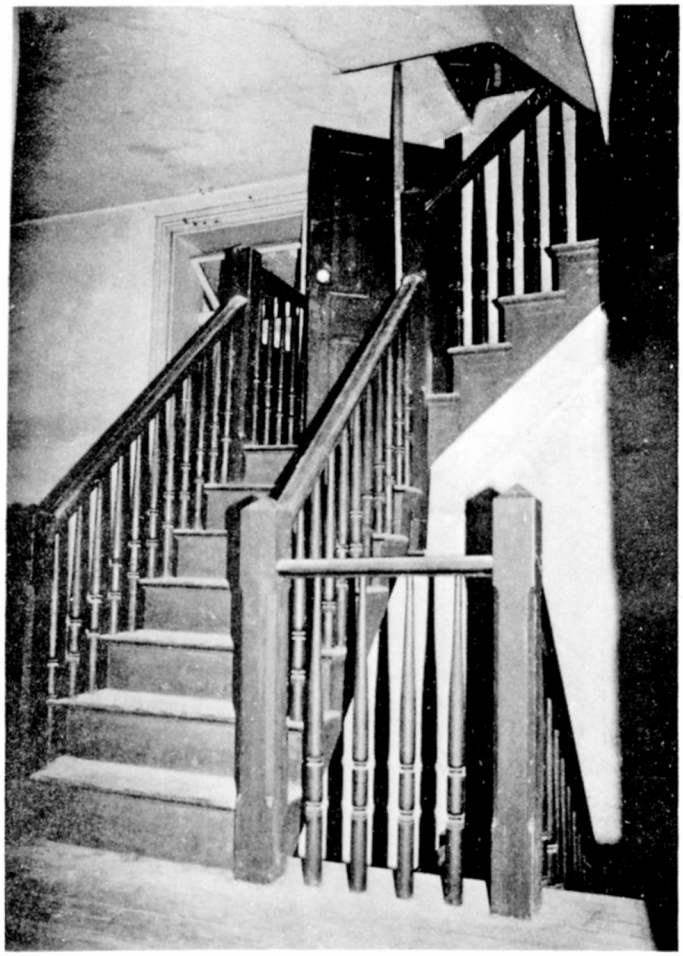


Figure 27 - Photographic View of Interior Stair (1991)

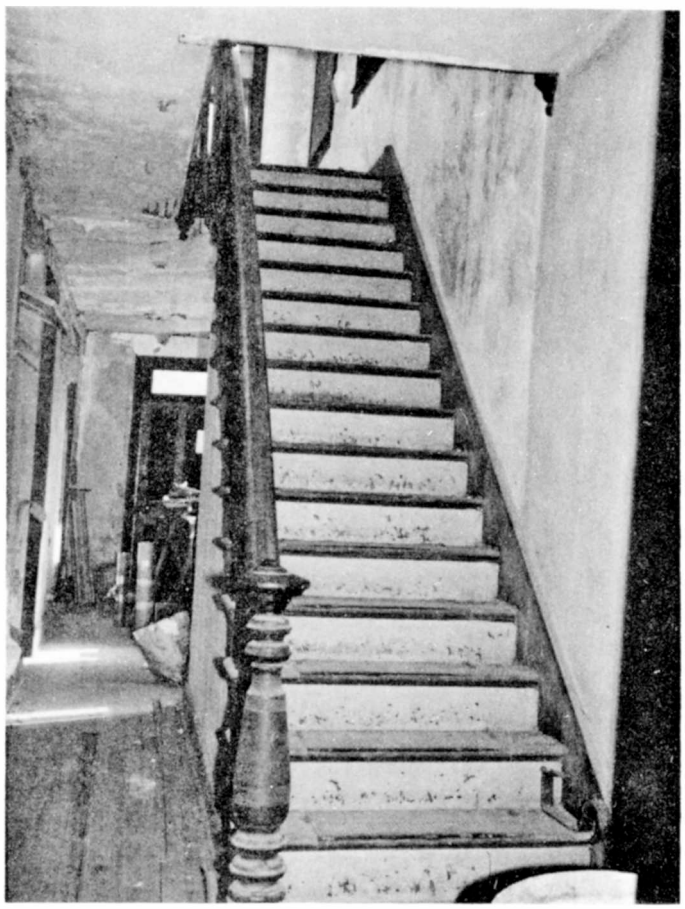
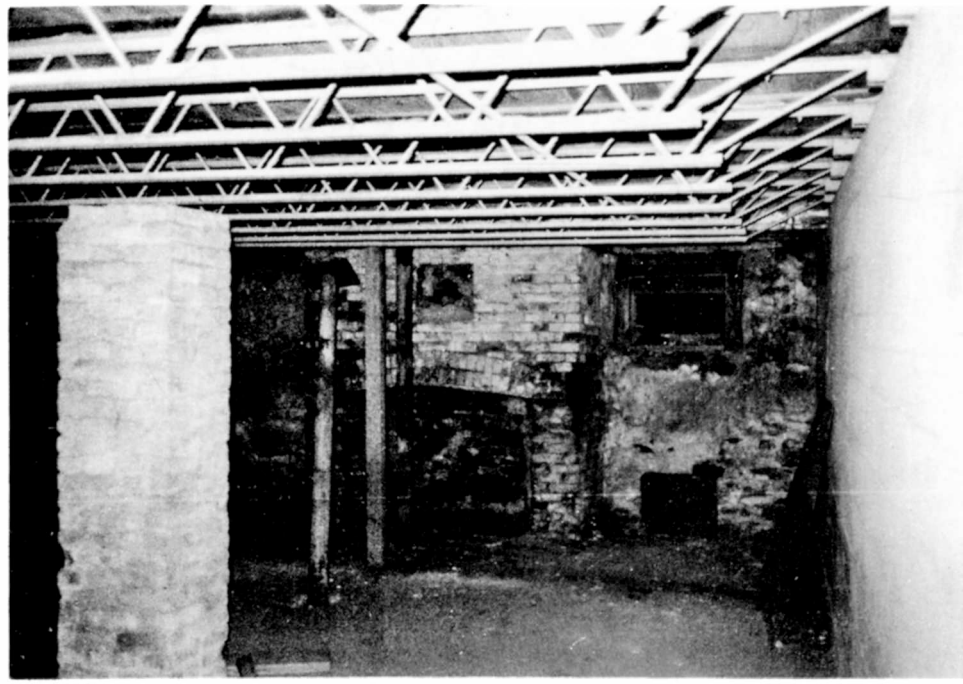


Figure 28 - Photographic View of Interior Stair (1991)

E. ROOM SCHEDULE

BASEMENT
Room No. 001
Size: 445 s.f.
Floor:
Material - Concrete.
Comments -Installed in 1957.
Walls:
Material -Plastered stone and C.M.U.
Finish: -Whitewash (on stone.)
Baseboard - None.
Comments - C.M.U. installed in 1957.
Ceiling:
Material - Exposed flooring on steel web joists.
- Original mortise-and-tenon floor joists
w/ exposed flooring (under Room 102.)
Finish - Whitewash on original joists/flooring.
Comments - Joists installed in 1957.
-Flooring installed in 1986.
-Temporary supports installed @ original floor joists.
Features:
- Brick fireplace (whitewashed) w/ cooking crane; hinge pintle remains.
-Metal flue opening into chimney flue above.
-Original central brick column.
-Remains of original summer beam.
Photos:
(1) Shows ca. 1875 column in foreground and 1812 hearth in background.
(2) View of historic summer beam.



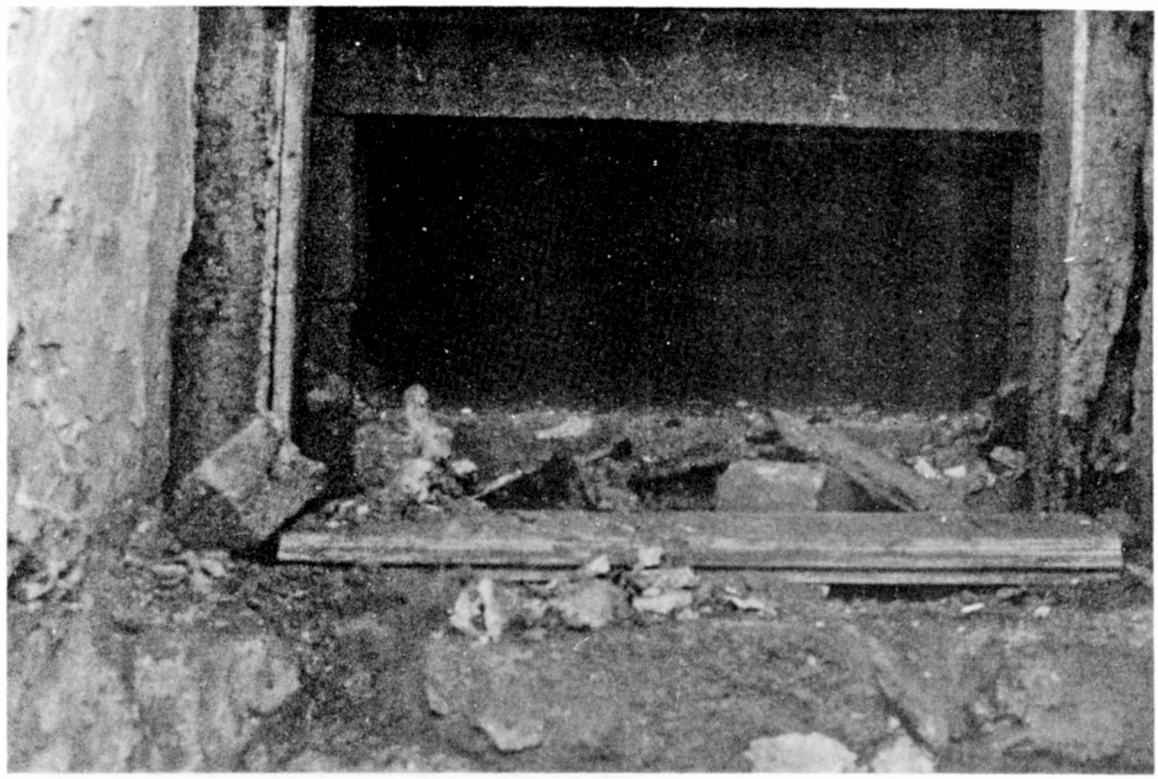
Room 001



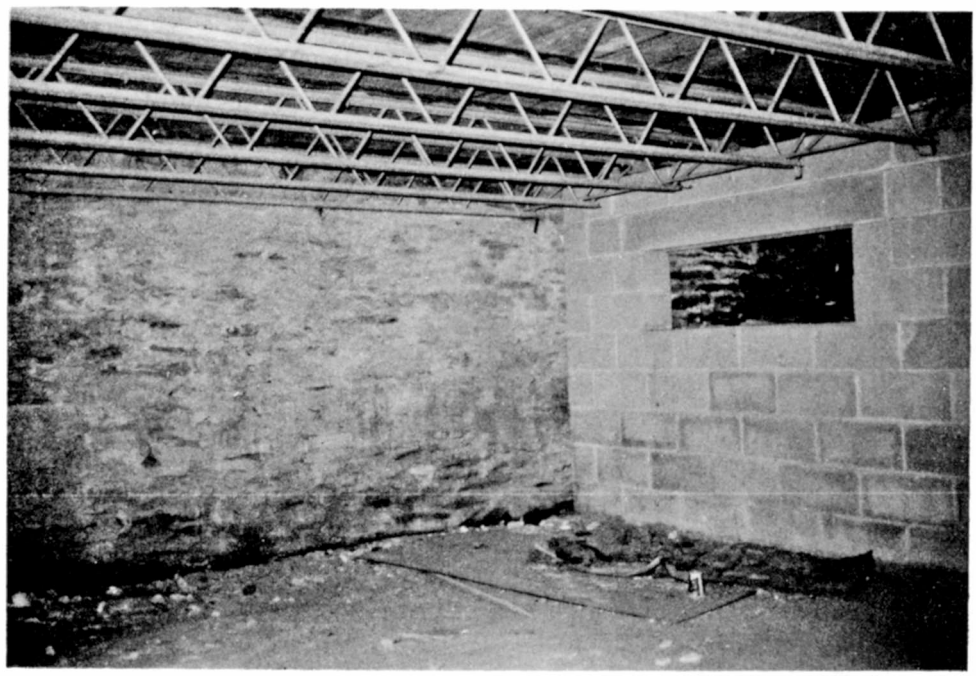
Room 001

ROOM NO. 002
Size: 234 s.f.
Floor:
Material Concrete.
Comments - Installed in 1957.
Walls:
Material - Stone and C.M.U.
Finish - None.
Baseboard - None.
Comments - C.M.U. installed in 1957.
Ceiling:
Material - Exposed flooring on steel web joists.
Comments - Joists installed in 1957.
- Flooring installed in 1986.
Features:
- Crawlspace
- Remains of original central stone pier footing.
- Electrical service into building in southwest corner.
Photo:
View from room 001 into darkened crawlspace.

Room No. 003
Size: 254 s.f.
Floor:
Material - Concrete.
Comments - Installed in 1957.
Walls:
Material - Stone and C.M.U.
Finish - Whitewash (on stone.)
Baseboard - None.
Comments - C.M.U. installed in 1957.
Ceiling:
Material - Exposed flooring on steel web joists.
Comments - Joists installed in 1957.
- Flooring installed in 1986.
Features:
- Remains of former plumbing drain in southeast and southwest corners.
Photo:
Shows CMU wall and 1812 stone masonry wall.



Room 002



Room 003

Room No. 004
Size: 27 s.f.
Floor:
Material - Concrete.
Comments - Installed in 1957.
Walls:
Material - Stone.
Finish - East wall painted scored plaster over earlier whitewash.
Baseboard - None.
Ceiling:
Material - Exposed flooring on wood joists.
Comments - Installed in 1986.
- Trapdoor to first floor.
Features: - Stone steps that may date to 1891.
Photo:
Shows new framing for floor above and historic stone steps.

Room No. 005
Size: 41 s.f.
Floor:
Material - Concrete.
Comments - Installed in 1957.
Walls:
Material - Stone.
Finish - Whitewash.
Baseboard - None.
Ceiling:
Material - Exposed flooring on steel web joists.
Comments - Joists installed in 1957.
- Flooring installed in 1986.
Features: - Remains of former plumbing drain.

Photo:
View looking south towards end of long, narrow space at modern plumbing and concrete masonry unit block wall.



Room 004

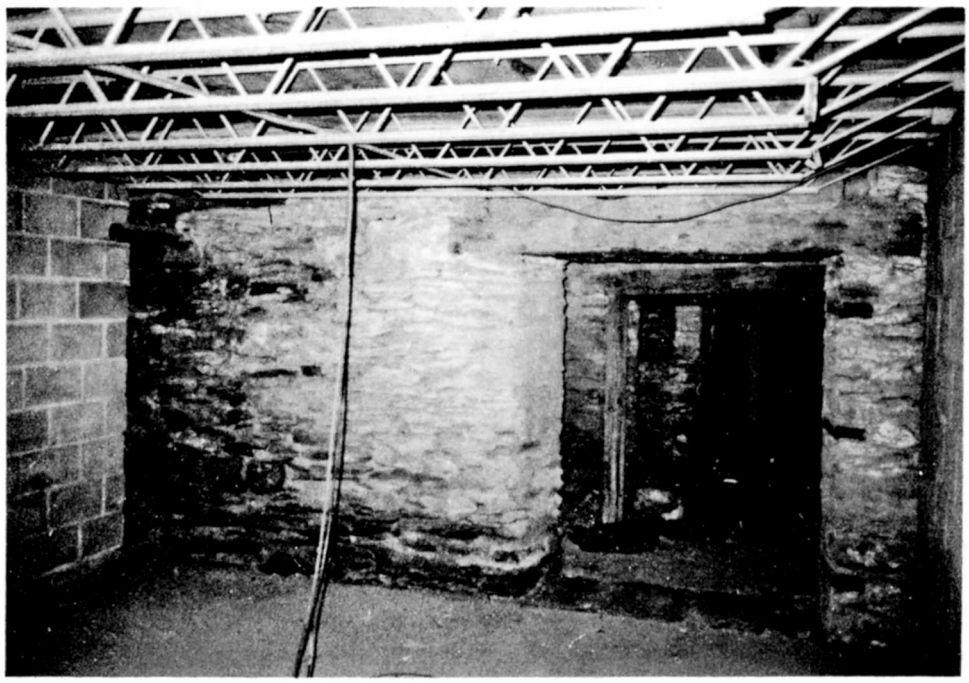


Room 005

Room No. 006
Size: 232 s.f.
Floor:
Material - Concrete.
Comments - Installed in 1957.
Walls:
Material - Stone and C.M.U.
Finish - Whitewash (on stone.)
Baseboard - None.
Comments - C.M.U. installed in 1957.
Ceiling:
Material - Exposed flooring on steel web joists.
Comments - Joists installed in 1957.
- Flooring installed in 1986.
Features: - Remains of former plumbing drain.
- Remains of original joists.
Photo:
Shows parallel doorways in rooms 005 and 006 in background.

Room No. 007
Size: 486 s.f.

Crawlspace is inaccessible due to sealed CMU walls. 1957 Report by Archie Franzen indicates that sleepers were laid on concrete slab to support floor.



Room 006

FIRST FLOOR
Room No. 101
Size: 789 s.f.
Floor:
Material - 1 1/2" x random width T&G: 3" - 6 3/4."
Comments - Installed in 1986.
Walls:
Material - Cement plaster on brick and plasterboard.
Finish - Whitewash.
Baseboard - Skirt, cap w/ bead & quirk[16].
Comments - New plaster installed in 1957.
- South wall installed in 1986.
- Furred out wall across rear of east wall.

Ceiling:
Material - Cement plaster on metal lath.
Finish - Whitewash.
Comments - Installed in 1957.
Features: - Room furnished as general store exhibit.
- Stove with metal flue into east wall chimney flue.
- Support column on west wall @ removed original rear wall.

Photo:
(1)View toward south wall showing c. 1892 stair and, in background, 1812 window.
(2)View of filled-in previous transom over door 109 from stairhall into room 103.

Room No. 102
Size: 141 s.f.
Floor:
Material - 1" x 2 1/2" T&G.
- Plywood.

Walls:
Material - Lime plaster on brick and wood lath.
- 1 7/8" beaded wainscot, 48 7/8" high.

Finish - Paint.
Baseboard - None.
Comments - Painted rinceau motif stenciling @ stairway landing.
Ceiling:
Material - Lime plaster on wood lath.
Finish - Paint.
Photo:
View of stair and newel post.

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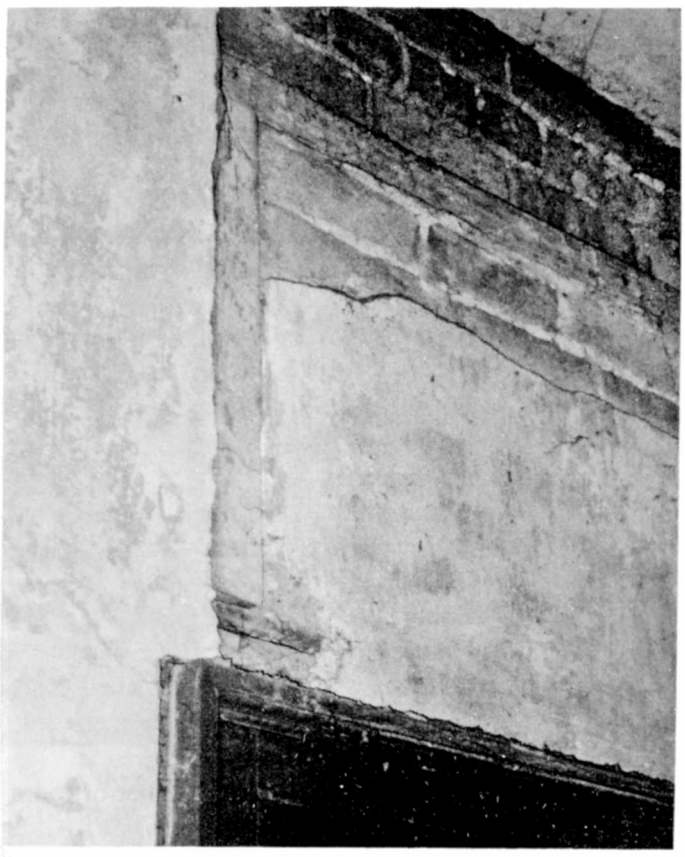
[16] A small channel or groove separating bead or other molding from the adjoining members (Webster's Unabridged).



Room 101



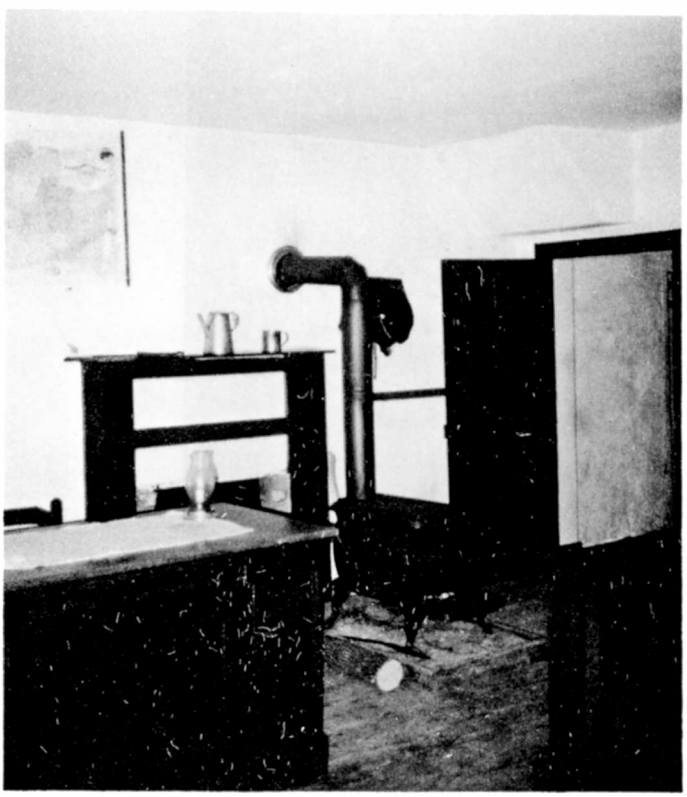
Room 102



Room 102

Room No. 102A
Size: 40 s.f.
Floor:
Material - 1" x random width , 5" - 7".
Comments - Believed to be original flooring.
Walls:
Material - Lime plaster on brick
and wood lath.
Finish - Paint.
Baseboard - Skirt, cap w/ bead & quirk.
Ceiling:
Material - Lime plaster on wood lath.
Finish - Paint.
Features: - Area was part of original B-35 central room.
Photo:
None

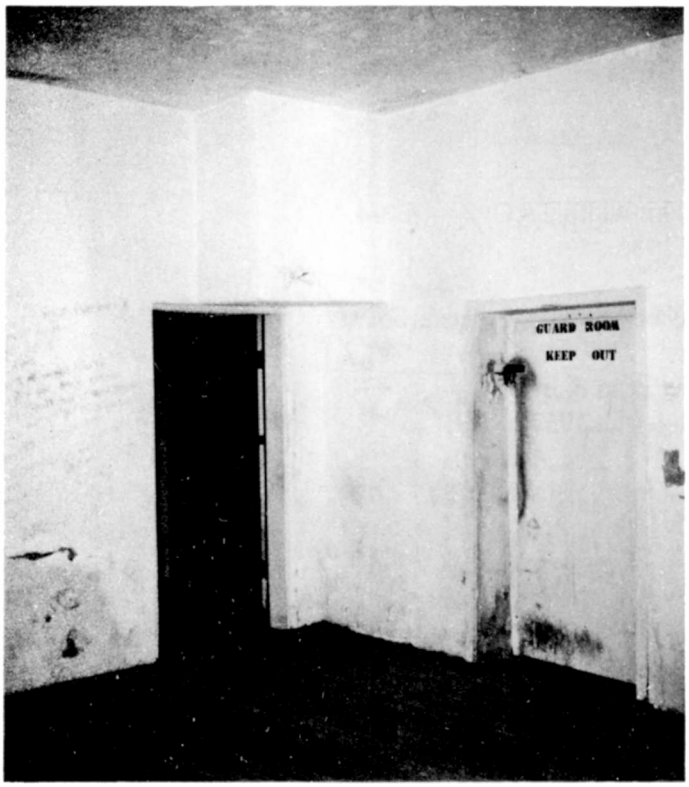
Room No. 103
Size: 316 s.f.
Floor:
Material - 1 1/2" x random width T&G: 3" - 6 3/4."
Comments - Installed in 1986.
Walls:
Material - Cement plaster on
brick.
Finish - Whitewash.
Baseboard - None.
Ceiling:
Material - Cement plaster on
metal lath.
Finish - Whitewash.
Comments - Installed in 1957.
Features: - Room furnished as provost
marshall's office exhibit.
- Stove with metal flue into east wall chimney flue.
Photo:
View toward southeast corner of room



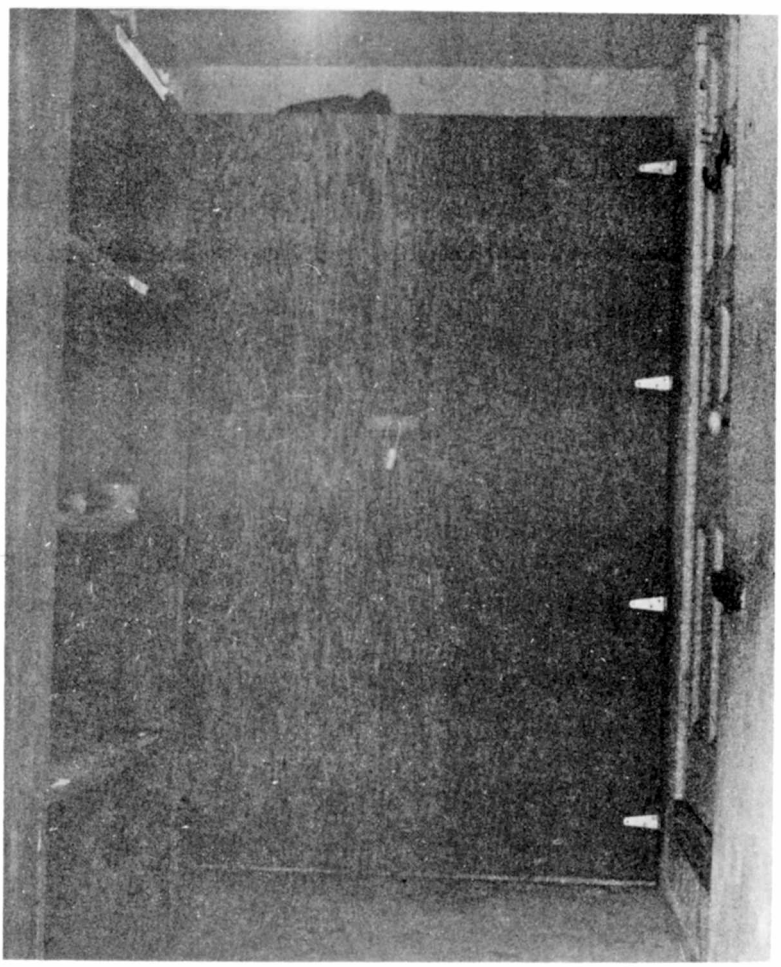
Room 103

Room No. 104
Size: 287 s.f.
Floor:
Material - 1 1/2" x random width T&G: 3" - 6-3/4."
Comments - Installed in 1986.
Walls:
Material - Cement plaster on stone and plasterboard.
Finish - Whitewash.
Baseboard - None.
Comments - Plaster installed in 1957.
Ceiling:
Material - Cement plaster on metal lath.
Finish - Whitewash.
Comments - Installed in 1957.
Features: - Room furnished as provost marshall's holding area exhibit.
Photo:
View toward southeast corner of room showing drop in ceiling where stairs once descended to room 105.

Room No. 105
Size: 80 s.f.
Floor:
Material - 3/4" x 5 1/2" T&G.
Comments - Installed in 1986.
Walls:
Material - Gypsum plaster on stone.
- Exterior wall added 1986 to enclose room.
Finish - Paint.
Baseboard - None.
Ceiling:
Material - Plywood.
Finish - Paint.
Features: - Miscellaneous storage shelves for interpretive media.
- Electrical panel.
- Hatch to basement.
Photo:
View from exterior doorway in toward north cabinet against former Building 35 south exterior wall.

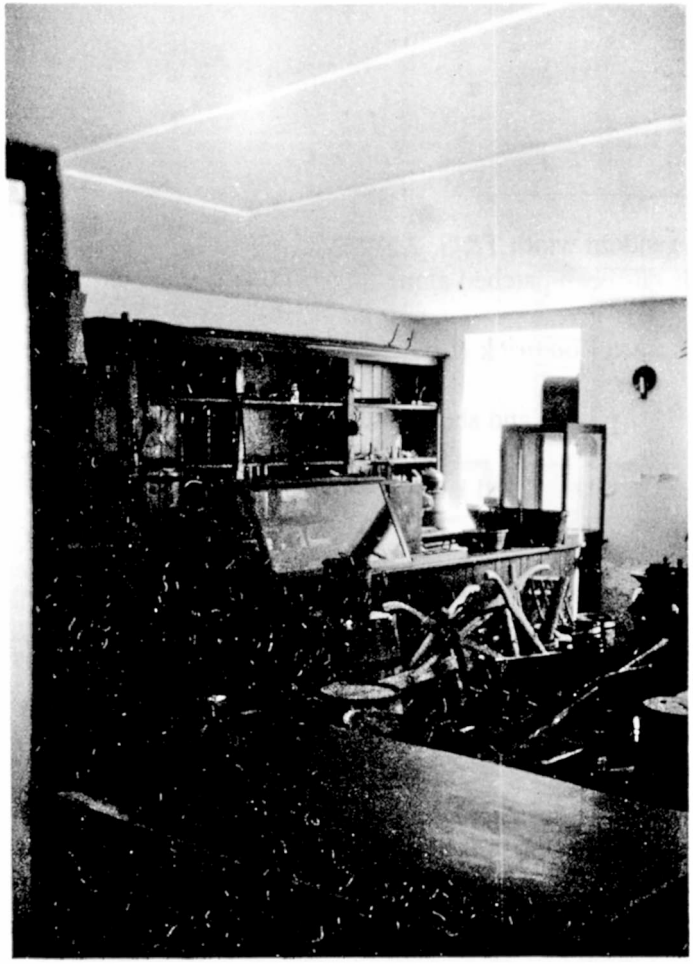


Room 104



Room 105

Room No. 106
Size: 566 s.f.
Floor:
Material - 1 1/2" random width T&G: 3" - 6-3/4."
Comments - Installed in 1986.
Walls:
Material - Cement plaster on stone & plasterboard.
Finish - Whitewash.
Baseboard - Skirt, cap w/ bead & quirk.
Comments - Plaster installed in 1957.
Ceiling:
Material - Cement plaster on metal lath.
Finish - Whitewash.
Comments - Installed in 1957.
- Plywood cover enclosing former stairway from Room 211.
Features: - Room furnished as general store exhibit.
Photo:
View of southeast corner of room showing storeroom exhibit.



Room 106

SECOND FLOOR

Room No. 201

Size: 350 s.f.

Floor:

Material - 1" x random width T&G: 2 1/2" - 3 1/2"

Comments - Floor has been patched along the east wall.

Walls:

Material - Lime plaster on brick & wood lath.

Finish - Wallpaper.

Baseboard - Wood w/ profile and shoemold.

Ceiling:

Material - Lime plaster on wood lath.

Finish - Wallpaper.

Comments: - south wall is original to 1812 structure.
- west wall may also be original.

Features: - Fireplace mantle missing; excellent ghost remains.
- Plywood infill @ hearth.
- Metal flue opening above mantle into chimney flue.
- Non-original ceiling joist support at west wall.
- Evidence of former radiator @ N.W. corner.
- Step at D207.

Photo:

View toward southwest corner of room

Room No. 202

Size: 179 s.f.

Floor:

Material - 1" x random width T&G: 3" - 6 5/8"

Comments - Evidence of three generations of flooring.

Walls:

Material - Lime plaster on brick & wood lath.

Finish - Wallpaper.

Baseboard - Wood w/ profile and shoemold.

Ceiling:

Material - Lime plaster on wood lath.

Finish - Wallpaper.

Features: - Fireplace mantle and brick hearth intact.
- Metal grille at firebox opening.
- Evidence of former radiator @ N.E. corner.
- Firebox appears to not be original.
- Metal flue opening above mantle into chimney flue.
- Step at D204.

Photo:

View of southwest corner.



Room 201



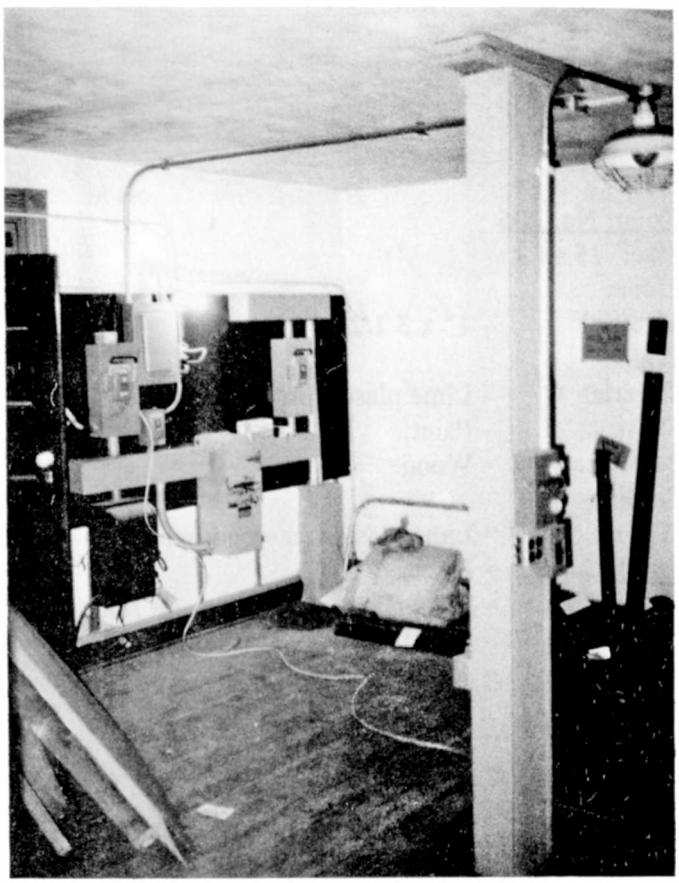
Room 202

Room No. 203
Size: 34 s.f.
Floor:
Material - 1" x random width T&G: 2 1/2" - 3 1/2."
Comments - Patch at base of stairs.
Walls:
Material - Lime plaster on brick & wood lath.
Finish - Paint.
Baseboard - Wood.
Comments - Wall stenciling above stairway to 1st floor.
Ceiling:
Material - Lime plaster on wood lath.
Finish - Paint.
Photo:
View of stair newel and step at door.

Room No. 204
Size: 321 s.f.
Floor:
Material - 1" x random width T&G: 4 7/8" - 6 1/4"
Comments - Ghost of former floor overlay.
- Evidence of former radiator @ N.E. corner.
Walls:
Material - Lime plaster on brick & wood lath.
Finish - Paint.
Baseboard - Wood.
Ceiling:
Material - Lime plaster on wood lath.
Finish - Paint.
Features: - Metal flue opening into east wall chimney flue.
- Only room in building with door and window entablature corner blocks and decorative door hinges.
-Steps at D204 and 224.
Photo:
View of southwest corner and panel boxes. Column in foreground.



Room 203



Room 204

Room No. 205
Size: 154 s.f.
Floor:
Material - 1" x 3 1/2" T&G.
Comments - 2'-11" wide ghost of former floor overlay running between D217 and D223.
Walls:
Material - Lime plaster on brick & wood lath.
Finish - Paint.
Baseboard - Skirt, cap w/ bead & quirk.
Ceiling:
Material - Lime plaster on wood lath.
Finish - Paint.
Photo:
View of hallway, looking toward west window

Room No. 206
Size: 15 s.f.
Floor:
Material - 1" x 3 1/2" T&G.
Walls:
Material - Lime plaster on brick & wood lath.
Finish - Paint.
Baseboard - Wood.
Ceiling:
Material - Lime plaster on wood lath.
Finish - Paint.
Features: - Shelf above stairway to 1st floor.
- Board mounted coat hooks.
Photo:
None.



Room 205

Room No. 207
Size: 95 s.f.
Floor:
Material - 1" x 3 1/2" T&G.
Comments - Evidence of earlier floor overlay.
Walls:
Material - Lime plaster on brick & wood lath.
Finish - Paint.
Baseboard - Wood w/ quirk.
Ceiling:
Material - Lime plaster on wood lath.
Finish - Paint.
Features: - Metal flue opening into south wall chimney flue.
Photo:
View of southwest corner from hall room 205 into room 207 and window 227. Historic fabric of other buildings against walls.

Room No. 208
Size: 118 s.f.
Floor:
Material - 1" x 3 1/2" T&G.
Comments - Evidence of earlier floor overlay.
Walls:
Material - Lime plaster on brick & wood lath.
Finish - Paint.
Baseboard - Wood.
Ceiling:
Material - Lime plaster on wood lath.
Finish - Paint.
Features: - Remains of earlier stairway to 1st floor w/ 2 treads intact.
- Metal flue opening into south wall chimney flue.
Photo:
View of northeast corner.



Room 207



Room 208

Room No. 209
Size: 204 s.f.
Floor:
Material - 7/8" x random width T&G: 2 3/4" - 3 1/8."
Walls:
Material - Lime plaster on brick & wood lath.
Finish - Wallpaper.
Baseboard - Wood w/ shoemold.
Ceiling:
Material - Lime plaster on wood lath.
Finish - Wallpaper.
Features:
- Evidence of former radiator along west wall.
- Stairway.

Photo:
View of hallway looking north toward underside of stair.

Room No. 210
Size: 323 s.f.
Floor:
Material - 7/8" x random width T&G: 2 1/2" - 3 1/8"
Walls:
Material - Lime plaster on brick & wood lath.
Finish - Wallpaper.
Baseboard - Wood.
Ceiling:
Material - Lime plaster on wood lath.
Finish - Wallpaper.
Features:
- Metal flue opening into east wall chimney flue.
- Fireplace mantle on south wall.

Photo:
View of northwest corner. Mantel pieces from other buildings against wall.



Room 209



Room 210

Room No. 211
Size: 28 s.f.
Floor:
Material - Plywood.
Walls:
Material - Lime plaster on brick & wood lath.
- 2 3/8" beaded wainscot.
Finish - Wallpaper.
- Paint.
Baseboard - None.
Ceiling:
Material - Lime plaster on wood lath.
Finish - Wallpaper.
Features: - Former stairway to Room 106.
- Board mounted coat hooks.
Photo:
View of historic stairwell.

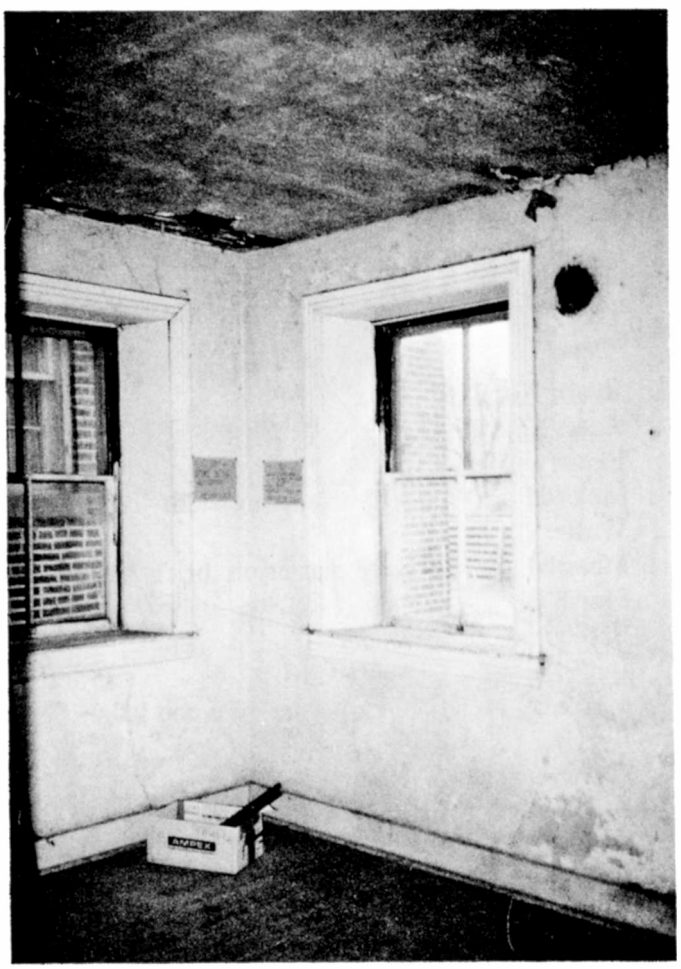
Room No. 212
Size: 20 s.f.
Floor:
Material - 7/8" x random width T&G: 2 1/2" - 3 1/8"
Walls:
Material - Lime plaster on brick & wood lath.
Finish - Paint.
Baseboard - Wood.
Ceiling:
Material - Lime plaster on wood lath.
Finish - Paint.
Photo:
None



Room 211

Room No. 213
Size: 10 s.f.
Floor:
Material - 7/8" x random width T&G: 2 1/2" - 3 1/4."
Walls:
Material - Lime plaster on brick & wood lath w/
2 3/8" beaded wainscot.
Finish - Paint.
Baseboard - Wood.
Ceiling:
Material - Lime plaster on wood lath.
Finish - Paint.
Features: - Wood shelving across width.
Photo: None

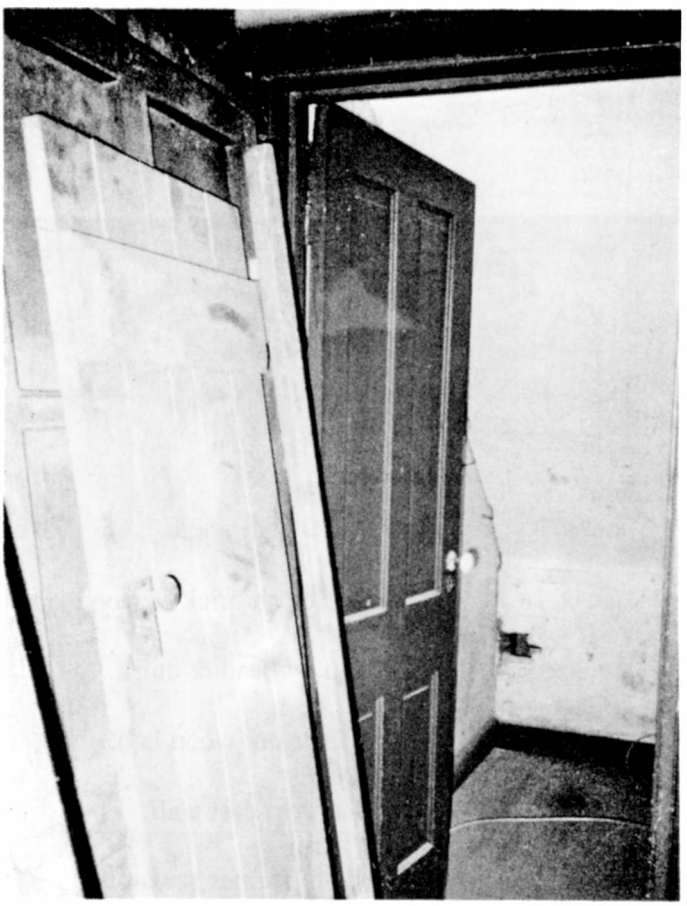
Room No. 214
Size: 188 s.f.
Floor:
Material - 7/8" x random width T&G: 2 1/2" - 3 1/8"
Walls:
Material - Lime plaster on brick & wood lath.
Finish - Paint.
Baseboard - Wood w/ shoemold.
Ceiling:
Material - Lime plaster on wood lath.
Finish - Paint.
Features - Metal flue opening into south wall chimney flue.
- Cabinet enclosure of earlier plumbing to Room 311.
- Evidence of earlier floor
overlay.
Comments:
Appears to have served as kitchen.
Photo:
View of southeast corner.



Room 214

Room No. 215
Size: 27 s.f.
Floor:
Material - 7/8" x random width T&G: 2 1/2" - 3 1/8"
Walls:
Material - Lime plaster on brick & wood lath.
Finish - Paint.
Baseboard - Wood.
Ceiling:
Material - Lime plaster on wood lath.
Finish - Paint.
Features: - Wood shelving.
- Box-out at west wall stairway.
Photo:
None

Room No. 216
Size: 27 s.f.
Floor:
Material - 7/8" x random width T&G: 2 3/4" - 3 1/8"
Walls:
Material - Lime plaster on brick & wood lath.
Finish - Paint.
Baseboard - Wood.
Ceiling:
Material - Lime plaster on wood lath.
Finish - Paint.
Comment:
Closet under stairway.
Photo:
View toward underside of stair.



Room 216

THIRD FLOOR
Room No. 301
Size: 153 s.f.
Floor:
Material - 1 1/8" x random width T&G: 3 1/2" - 6 1/4."
Walls:
Material - Lime plaster on brick & wood lath.
Finish - Wallpaper.
Baseboard - Wood w/ quirk & shoemold.
Ceiling:
Material - Lime plaster on wood lath.
Finish - Wallpaper.
Features: - Step at D320.
Photo:
View toward southwest corner showing step at doorway.

Room No. 302
Size: 153 s.f.
Floor:
Material - 1 1/8" x random width T&G: 3 1/2" - 6 1/4."
Walls:
Material - Lime plaster on brick & wood lath.
Finish - Wallpaper.
Baseboard - Skirt, cap w/ bead & quirk.
Ceiling:
Material - Lime plaster on wood lath.
Finish - Wallpaper.
Features: - Metal flue into east wall chimney flue.
- Evidence of former radiator at northeast corner.
Photo:
View toward northeast corner.



Room 301



Room 302

Room No. 303
Size: 82 s.f.
Floor:
Material - 1" x random width T&G: 2 1/2" - 3 1/8."
Walls:
Material - Lime plaster on brick & wood lath.
Finish - Paint.
Baseboard - Wood w/ shoemold.
Ceiling:
Material - Lime plaster on wood lath.
Finish - Paint.
Photo:
View toward southeast corner of ceiling.

Room No. 304
Size: 363 s.f.
Floor:
Material -1" x random width T&G:2 1/2"- 3 1/8."
Walls:
Material - Lime plaster on brick & wood lath.
Finish - Paint.
Baseboard - Wood w/ shoemold.
Ceiling:
Material - Lime plaster on wood lath.
Finish - Paint.
Features: - Two metal flues into each east wall chimney flue.
- Evidence of formerly being two rooms.
- Evidence of former radiator in northeast corner.
- Shelf/closet in southeast corner.
Photo:
View toward northeast corner.



Room 303



Room 304

Room No. 305
Size: 225 s.f.
Floor:
Material - 1" x random width
T&G: 2 1/2" - 3-1/8."
Walls:
Material - Lime plaster on
brick & wood lath.
Finish - Paint.
Baseboard - Wood.
Ceiling:
Material - Lime plaster on
wood lath.
Finish - Paint.
Features: - Metal flue into west wall
chimney flue.
- Stairway.
- Step at D307.
Photo:
View toward southwest turn in hall with stairway to garret.

Room No. 306
Size: 175 s.f.
Floor:
Material - 1" x random width T&G: 2 1/2" - 3 1/8."
Walls:
Material - Lime plaster on brick & wood lath.
Finish - Wallpaper.
Baseboard - Wood.
Ceiling:
Material - Lime plaster on wood lath.
Finish - Wallpaper.
Features: - Evidence of former radiator at southwest corner.
- Stairway and guardrail.
- Step at D307.
Photo:
View toward south end of hall.



Room 305



Room 306

Room No. 307
Size: 150 s.f.
Floor:
Material - 1" x random width T&G: 2 1/2" - 3 1/8."
Comments - Ghost at D308.
Walls:
Material - Lime plaster on brick & wood lath.
Finish - Paint.
Baseboard - Wood w/ shoemold.
Ceiling:
Material - Lime plaster on wood lath.
Finish - Paint.
Features:
- Metal flue opening into east wall chimney.

Photo:
View toward southeast corner.

Room No. 308
Size: 139 s.f.
Floor:
Material - 1" x random width T&G: 2 1/2" - 3 1/8."
Comments - Evidence of earlier floor overlay.
Walls:
Material - Lime plaster on brick & wood lath.
Finish - Paint.
Baseboard - Wood w/ shoemold.
Ceiling:
Material - Lime plaster on wood lath.
Finish - Paint.
Features: - Evidence of earlier wall.
- Metal flue opening into east wall chimney.

Photo:
View toward northwest corner; note deterioration in ceiling.



Room 307



Room 308

Room No. 309
Size: 164 s.f.
Floor:
Material - 1" x random width T&G: 2 1/2" - 3 1/8."
Comments - Evidence of earlier floor overlay.
Walls:
Material - Lime plaster on brick & wood lath.
- Particle board on studs (south wall.)
Finish - Paint.
Baseboard - Wood w/ shoemold.
Ceiling:
Material - Lime plaster on wood lath.
Finish - Paint.
Features: - Evidence of earlier wall.
Photo:
View toward southeast corner.

Room No. 310
Size: 86 s.f.
Floor:
Material - 1" x random width T&G: 2 1/2" - 3 1/8."
Walls:
Material - Lime plaster on brick & wood lath.
- Particle board (north wall)
Finish - Paint.
Baseboard - Wood w/ shoemold.
Ceiling:
Material - Lime plaster on wood lath.
Finish - Paint.
Features: - Metal flue opening into south wall chimney flue and into Room 311.
- Evidence of former sink at south wall.
- Evidence of shelves in southeast corner.
Photo:
View toward southwest corner.



Room 309



Room 310

Room No. 311
Size: 70 s.f.
Floor:
Material - 1" x random width T&G: 2 1/2" - 3 1/8."
Walls:
Material - Lime plaster on brick & wood lath.
Finish - Paper to 4'-6" (north and east walls.)
- Paint.
Baseboard - Wood.
Ceiling:
Material - Lime plaster on wood lath.
Finish - Paint.
Features: - Metal flue opening into east wall.
- Remains of former restroom function.
- Evidence of former radiator in northeast corner.
Photo:
View toward southwest corner.

Room No. 312
Size: 138 s.f.
Floor:
Material - 1" x 3 1/2" T&G.
- 1" x random width beaded T&G: 2 1/4" - 4."
Walls:
Material - Lime plaster on brick & wood lath.
Finish - Paint.
Baseboard - Wood.
Comments - Two tone paint scheme.
Ceiling:
Material - Lime plaster on wood lath.
Finish - Paint.
Features: - Step at D312.
Photo:
View toward west end of hall.



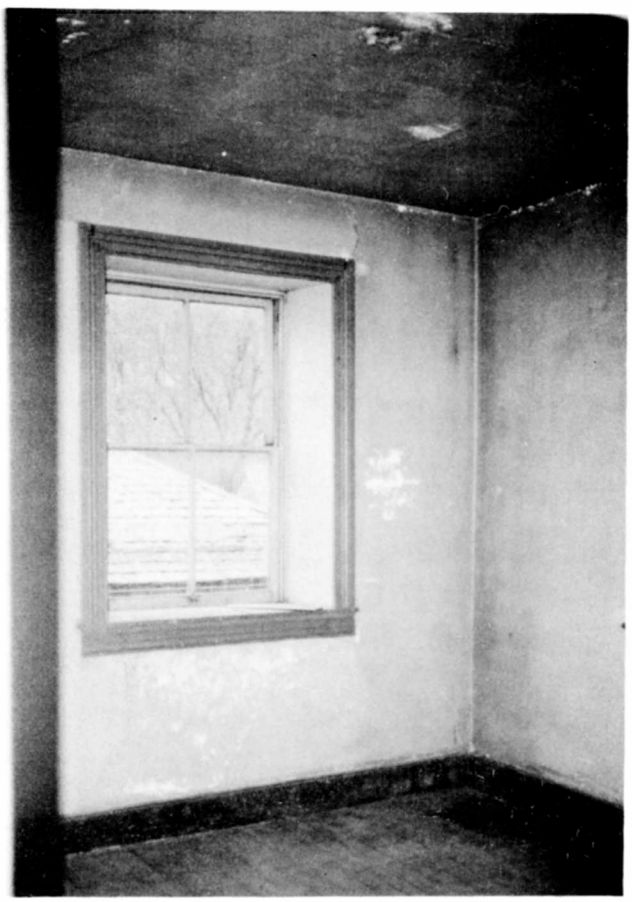
Room 311



Room 312

Room No. 313
Size: 26 s.f.
Floor:
Material - 1" x 3 1/2" T&G.
- 1" x random width beaded T&G: 2 1/4" - 4."
Walls:
Material - Lime plaster on brick & wood lath.
Finish - Paint.
Baseboard - Wood.
Ceiling:
Material - Lime plaster on wood lath.
Finish - Paint.
Features: - Shelves.
- Coat rack.
Photo:
None

Room No. 314
Size: 127 s.f.
Floor:
Material - 1" x random width beaded T&G: 2 1/2" - 4."
Walls:
Material - Lime plaster on brick & wood lath.
Finish - Paint.
Baseboard - Wood w/ quirk.
Comments - Two tone paint scheme.
Ceiling:
Material - Lime plaster on wood lath.
Finish - Paint.
Features:
- Metal flue opening into south wall chimney.
Photo:
View toward southwest corner.



Room 314

Room No. 315
Size: 120 s.f.
Floor:
Material - 1" x 3 1/2" T&G.
Walls:
Material - Lime plaster on brick & wood lath.
Finish - Paint.
Baseboard - Wood.
Comments - Two tone paint scheme.
Ceiling:
Material - Lime plaster on wood lath.
Finish - Paint.
Features: - Metal flue opening into south wall chimney flue.
- Evidence of former radiator at south wall.

Photo:
View toward southeast corner; note missing casing around W325.



Room 315

FOURTH FLOOR

Room No. 401

Size: 108 s.f.

Floor:

Material - 7/8" x random width beaded T&G: 3" - 5 1/8".

Walls:

Material - Lime plaster on brick & wood lath.

Finish - Paint.

Baseboard - Wood.

Ceiling:

Material - Lime plaster on wood lath.

Finish - Paint.

Photo:

View toward northwest corner.

Room No. 402

Size: 163 s.f.

Floor:

Material - 7/8" x random width beaded T&G: 3 5/8" - 5 1/8"

Walls:

Material - Lime plaster on brick & wood lath.

Finish - Paint.

Baseboard - Wood.

Ceiling:

Material - Lime plaster on wood lath.

Finish - Paint.

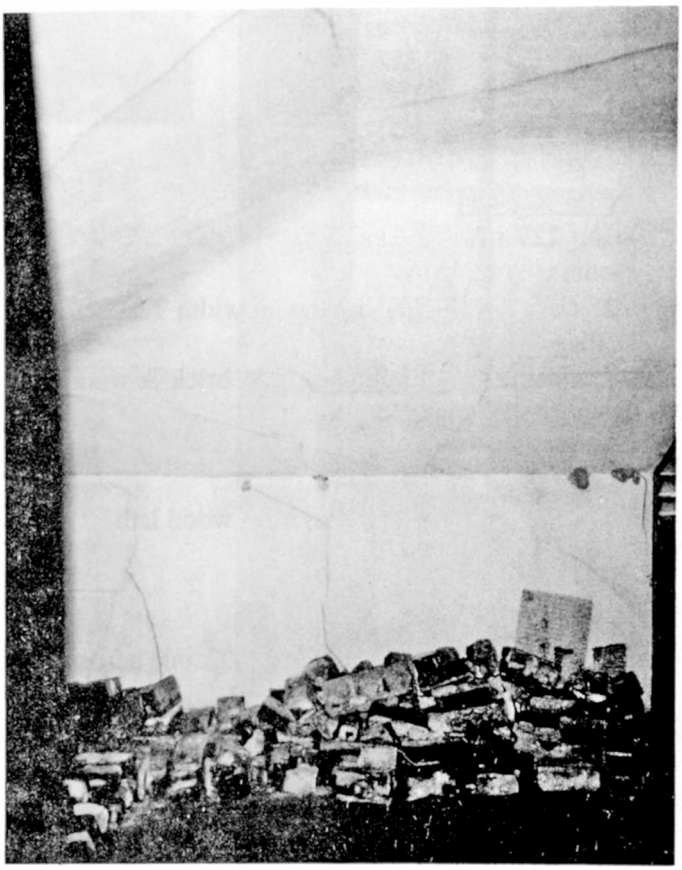
Features: -Brick for B33 chimney stored in space.

Photo:

View toward southwest corner.



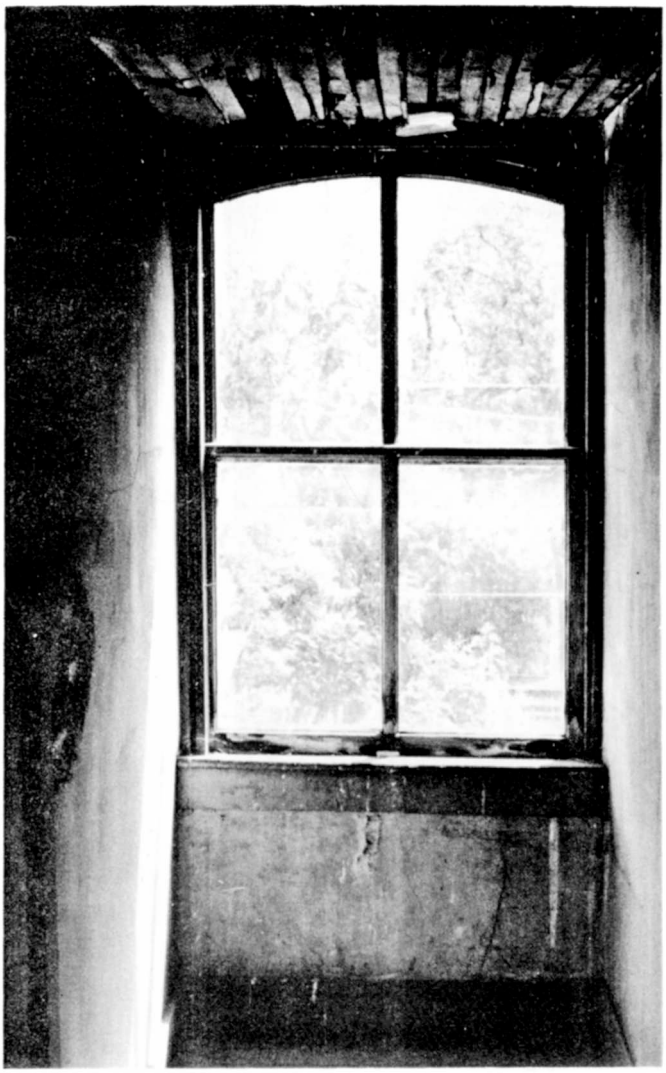
Room 401



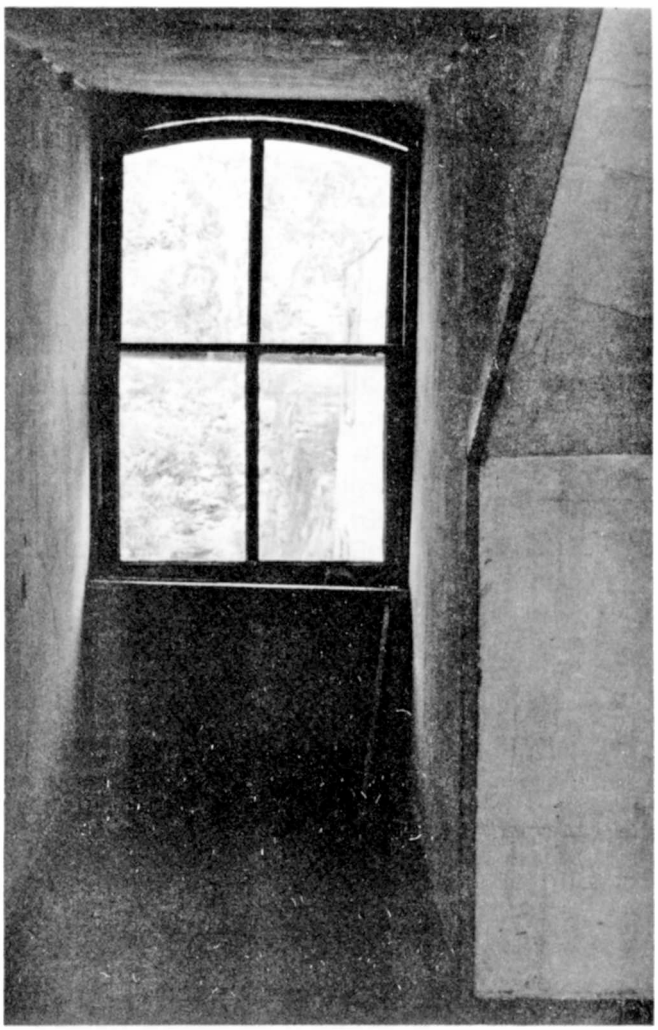
Room 402

Room No. 403
Size: 220 s.f.
Floor:
Material - 7/8" x random width T&G: 2 7/8" - 6 3/4"
Walls:
Material - Lime plaster on brick & wood lath.
Finish - Paint.
Baseboard - Wood.
Ceiling:
Material - Lime plaster on wood lath.
Finish - Paint.
Features: - Stairway and guardrail.
Photo:
View through dormer window 410. Note condition of ceiling plaster.

Room No. 404
Size: 229 s.f.
Floor:
Material - 7/8" x random width T&G: 2 1/2" - 3 1/8"
Walls:
Material - Lime plaster on brick & wood lath.
Finish - Paint.
Baseboard - Wood.
Ceiling:
Material - Lime plaster on wood lath.
Finish - Paint.
Features: -Dormer window.
Photo:
View through dormer window 402 out across Shenandoah Street. Note loose fit of window sash.



Room 403



Room 404

Room No. 405
Size: 163 s.f.
Floor:
Material - 7/8" x random width T&G: 2 1/2" - 3 1/8"
Walls:
Material - Lime plaster on brick & wood lath.
Finish - Paint.
Baseboard - Wood.
Ceiling:
Material - Lime plaster on wood lath.
Finish - Paint.
Photo:
View toward north wall and dormer.

Room No. 406
Size: 212 s.f.
Floor:
Material - 1" x random width T&G: 5 3/4" - 16 1/4."
Walls:
Material - Lime plaster on brick & wood lath.
Finish - Paint.
Baseboard - Wood.
Ceiling:
Material - Lime plaster on wood lath.
Finish - Paint.
Photo:
View toward north wall.



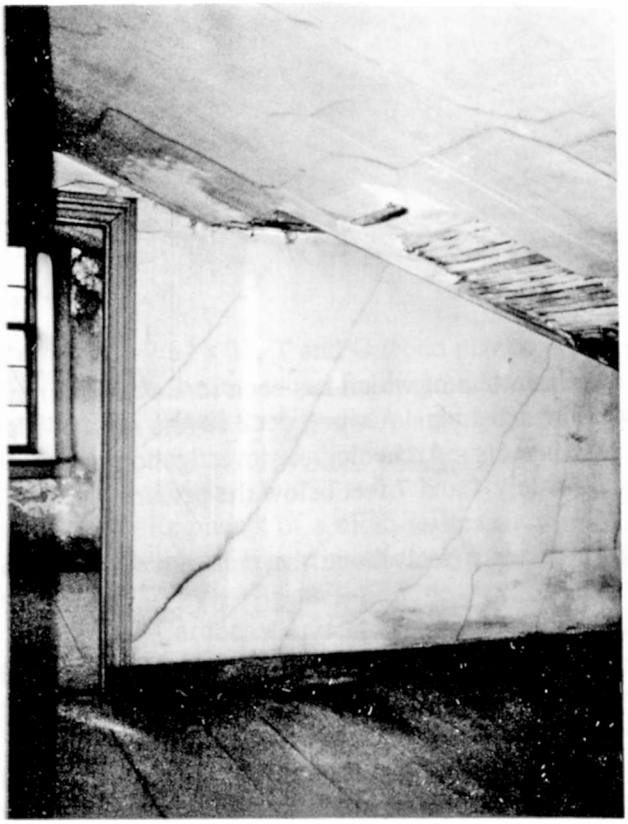
Room 405



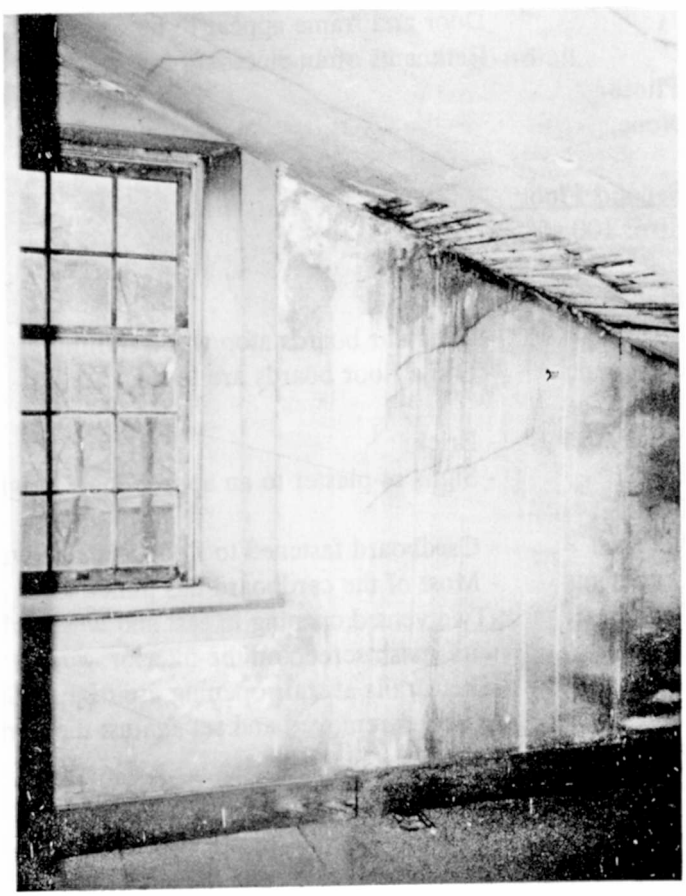
Room 406

Room No. 407
Size: 172 s.f.
Floor:
Material - 1" x random width T&G: 5 3/4" - 16 1/4"
Walls:
Material - Lime plaster on brick & wood lath.
Finish - Paint.
Baseboard - Wood.
Ceiling:
Material - Lime plaster on wood lath.
Finish - Paint.
Photo:
View toward south wall: window of R408 in distance.

Room No. 408
Size: 103 s.f.
Floor:
Material - 1" x random width T&G: 5 3/4" - 16 1/4"
Walls:
Material - Lime plaster on brick & wood lath.
Finish - Paint.
Baseboard - Wood.
Ceiling:
Material - Lime plaster on wood lath.
Finish - Paint.
Photo:
View toward south wall and W408.



Room 407



Room 408

Building 34A

First Floor
Size: 100 sf

Floor:
Material - Concrete; three-quarters of which has been removed for archeological investigation of the substrata. A wood deck covers most of the opening in the floor. Comments - Archeological investigation has revealed two levels at approximately 4 and 7 feet below the present concrete level.

Walls:
Material - Stone to a height of 6 feet above the concrete floor and brick the remaining 1'-6".
Finish - Plaster with evidence of some whitewash.
Comments - Two vent openings approximately 2'-5" square have been sealed in the east and west stone walls. Remnants of floor joist or roof beam ends, running east-west at a height of 4 feet above the concrete floor.

Ceiling:
Material - Exposed second floor framing with mortise and tenon connection and boards.
Comments - Opening for stair appears to be a the century addition.
Features: - Stair appears to be a 20th century addition
Door and frame appear to be original to opening.
Remnants of an electrical conduit.

Photo:
None.

Second Floor
Size: 100 sf

Floor:
Material - Irregular boards atop wood framing.
Comments - Some floor boards are loose.

Walls:
Material - Brick.
Finish - Signs of plaster to an approximate height of 1'-9" above floor level.

Ceiling:
Material - Cardboard fastened to floor joists above with tape used to seal edges.
Comments - Most of the cardboard has pulled away.
Features: -Two vented opening in east and west walls with fixed wood louvers and wire-mesh screen on the interior.
-Guardrails at stair opening are of a modern 2" x 4" construction; hatch has been removed and set against the north wall.

Photo:
None.

Third Floor
Size: 125 sf

Floor:

Material	- 7/8" x 3", T and G wood planks with a rough weave carpet covered in chipboard; wood framing underneath.
Comments	- Wood framing and planking in good condition.

Walls:

Material	- Brick.
Finish	- Remnants of a cloth-wallpaper wainscot with plaster underneath to a height of approximately 4'-6"; the remainder of the wall has a silver paint.

Ceiling:

Material	- Cardboard fastened to the overhead beams.
Comments	- The cardboard has pulled away to reveal the roof framing above; the underside of the roof boards can be seen; extensive mud dauber nests throughout the attic space.

Features:
- Flue opening in east wall.
- Remnants of historic shelving at a height of 5 feet above floor.
window frames in north, east and west walls appear to be recently refitted; sashes appear to be original.
- Remnants of original hardware on historic 4-panel, 2-lite door. Frame also appears to be original.
- Hatch covering stair opening with modern 2" x 4" guardrail.

Photo:
None.

PART III: Treatment Recommendations and Proposed Work

A. Treatment Recommendations

Three alternatives were presented to Harpers Ferry National Historical Park during the drafting of this document. Recommendations based on the preferred alternative are presented in this section and reflected in the proposed work program. Each of the proposals endeavored to make the least impact on the structure while meeting the accessibility and safety requirements for the proposed interpretive and office uses of Building 34-35 programmed by management. The other proposals which were not selected can be found in Appendix E.

The intent of the work for Building 34-35 is to restore the exterior to its 1892 appearance and to rehabilitate the interior for offices and exhibits.

Plaster, paint and wallpaper analysis has revealed the age of the finishes in the rooms which date to several periods, most notably 1891-92. (See Appendix D-3). The architectural millwork around the windows and doors appears to date to at least four distinctive periods of construction. These periods were outlined in the physical description of the building. Every effort should be made to retain the architectural millwork since it is an immediately recognizable indicator of the evolution of the building. The plaster, paint and wallpaper, however, are in generally poor condition. While efforts should be made to retain sections of the original wall fabric much will probably need to be replaced. Further analysis will determine key sections which are worthy of retaining.

The floor and roof framing does not meet present code requirements for the desired uses of the building; further reinforcing will need to be done to meet the necessary load requirements. The tongue-and-groove hardwood floors are generally in good condition and should be retained. The ceilings are generally in poor condition and will need to be removed to install the additional floor and roof framing needed to meet loading requirements. Sections should be retained for interpretive purposes and again, further analysis will determine these sections.

It was decided in meetings held during the months of March through May, 1992, that the second floor would be accessible to the public as well as the first. This necessitated the addition of an elevator for disabled access. An initial alternative proposed the elevator in the 1892 rear addition (Room 106) of Building 35 but this not only made an impact on the first floor ruling out early interpretive options, even though this is mostly new fabric, but would have meant the construction of a service well in the crawlspace (007) below and the elimination of potential interpretive and office uses of rooms 214 and 309 which were under consideration.

A second alternative was investigated. In locating the elevator in the rear addition (Room 104) of Building 34 not only did basement room 003 have the desired depth for a service well but the rooms that the elevator would be travelling through (Rooms 104, 207 and 314) were, as it seemed at the time, of less spatial significance. In fact, the masonry enclosure of the Building 34 addition appeared to make an ideal service quarter for the entire building with bathrooms and mechanical/electrical chases located within the enclosure as well. Drawings of this alternative can be found in Appendix E.

In developing this alternative it was discovered that there would not be enough space for the elevator override. New evidence was simultaneously found in the millwork which suggested that portion of the building dated to the first half of the century. A stair down from Room 208 to Room 105 was discovered below the Room 208 floor. It was agreed that abandoning this alternative was warranted since there was potential for destruction of fabric more significant than we originally had understood in trying to make it work. Additionally, floor height differentials and resultant accessibility problems played in the decision to relinquish this idea. The original location was revisited and used in the proposed alternative as the basis for the design phase.

There will be at least one bathroom located in the building. Room 208 will function in this capacity and possibly room 315 if a second bathroom is needed. Room 311 historically functioned as a bathroom during the Doran occupancy and would be an alternative selection. However, it would be best if mechanical functions were zoned in one section of the building.

Rooms 407 or 408 in the attic or the second floor of 34A could function as the mechanical/electrical rooms. Basement room 007 could function as the mechanical room for the hydraulic mechanisms of the elevator.

Access to the Building 34-35 basement would be through a reconstructed floor trap door leading down the stone steps where room 105 is presently located. This access down the stone steps probably dates to 1892.

Ramping for accessibility of disabled persons will occur in the alley between Buildings 34-35 and 32-33. It would continue around the rear of Building 34-35 and culminate at door 105 which opens onto room 101, the ca. 1860 dry goods store exhibit.

Fill is needed in the rear yard as well as appropriate contouring to allow for better rainwater drainage away from the building. A stair from the reconstructed rear porch would descend onto the rear yard.

Since these buildings are subject to flooding on a regular basis, the design should utilize materials, assemblies and equipment which are easy to maintain in damp conditions, easy to clean, are either resistant to water damage or can be readily removed to a dry location in the event of a flood.

B. Proposed Work Program

The restoration of Buildings 34-35 and 34A will cover the following areas of proposed work:

1. Sitework -- the work needed to restore the rear yard for interpretive purposes as well as proper rainwater drainage away from the building;

2. Exterior Restoration -- the work required to preserve and restore the exterior of Buildings 34-35 and 34A to their 1891-92 appearance including the reconstruction of a slate roof on Building 34-35;

3. Structural Repairs -- the work necessary to the floors to meet loading requirements as stated in the code review, stabilization of key areas of the exterior walls and additional framing needed for a slate roof;

4. Preservation -- the work required to restore the architectural millwork and the historic finishes that will be retained;

5. Adaptive Use -- the work needed to meet accessibility requirements on the three major levels which will include an elevator in the rear portion of Building 35 and allow for offices and interpretive exhibits.

1. Sitework

Temporary shoring and underpinning as well as excavation of the basement walls for the installation of a moisture and vapor barrier on the outside of the stone walls will be executed.

The grade should be established at reference height of approximately 270' or the level of the doorway at Building 34A. It will slope away from Buildings 34-35 and 34A toward the southwest corner of the yard. This will involve:

Backfill of the northern half of the yard.

The wood stoop that services Building 36 but overlaps onto the yard of Building 34-35 will be removed.

The historic cistern which is partially concealed by the wood stoop will be restored to its original outward appearance.

The cable access for power, light and telephone services will be concealed.

The gate in the alleyway between Buildings 34-35 and 32-33 will be removed.

The backfilled portion of the rear yard will form the base for a disabled access ramp which will also include the following work:

The ramping of the alleyway between Buildings 34-35 and 32-33 to reference height of approximately 270';

The ramping of the yard adjacent to the south wall of Building 34 to reference height of approximately 271' at the sill of door at north elevation.

The introduction of brick pavers on a sand base to form the surface of the disabled access ramp.

An underground drainage pipe will connect the downspouts to the present storm drain in the rear yard.

A brick pad will be constructed for the stairs that will service the reconstructed rear porch.

The underground storm drainage pipe that services the downspouts on the north elevation of Building 34-35, facing onto Shenandoah Street will be investigated and cleaned or replaced as necessary.

Signage and graphics on the Shenandoah Street elevation will be removed and more appropriate signage and graphics installed as recommended in the landscape plan for lower town.

2. Exterior Restoration

The masonry walls will be investigated for signs of deteriorating mortar, spalling, and fallen jack arches over the windows and doors in the brick portions of the building. Restoration will be carried out where necessary. A mortar study revealed that 10% of the selected areas of study were in badly deteriorated condition (see appendix D-1).

The south basement stone walls are badly deteriorated due to rainwater intrusion. Seepage is occurring in all the basement walls and the introduction of a moisture barrier on the outer surface is necessary. Those portions which are badly deteriorated will have to be relaid.

The parging on the stone walls will be removed to allow for a thorough investigation of the stonework.

The steel and timber lintels over the windows and doors will also be investigated for signs of deterioration and replaced as necessary.

The timber beam over the passageway between Building 34 and 35 will be replaced and the walls above the fallen beam stabilized. Temporary shoring of the wall will be necessary.

The stone walls will be newly parged in a material that matches the former parging in color and texture, including the scoring that simulates a cut-stone appearance.

The brick walls will be cleaned following the restorative work that is necessary.

The cantilevered, rear wood porch that appeared on historic photographs and was removed in 1956 will be reconstructed to its historic appearance. The stair that descended to the rear yard will be similarly reconstructed.

The front wrought-iron porch will be refinished and all signage removed.

Shutters and their connections will be restored and/or reconstructed based on the amount of historic fabric that exists. There are several different conditions and the HABS drawings and historic photographs should be consulted as to the different conditions that exist. (See Appendix F-1).

The cedar shingle roof on Building 34-35 will be removed and a new slate roof which matches the appearance of the original slate roof installed.

This will involve the structural reinforcing of the historic wood framing based on the recommendations in the structural survey in appendix C-1.

The introduction of a moisture-retarding membrane and an insulating layer within the roof framing.

All six dormers will be similarly treated.

New fascias, metal flashing and snowboards will be needed.

The six chimneys will have to be restored and new caps reconstructed on all but one of the chimneys. The flues should be screened as to deter any further occupation by birds. (See proposed work drawings, Appendix F-2).

3. Structural Repairs

Consult the structural survey (Appendix C-1) for the following repairs.

Work in the basement will include:

The addition of a moisture and vapor barrier on the exterior of all the surfaces;

Room 007 will likely serve in part as a mechanical room for the elevator in Building 35. Steel channel beams will serve as the floor framing above.

The modern storage room at the first level will be removed and the stone basement steps restored. A hatch will service the steps from the rear yard.

Floor framing at all levels will have to be reinforced to meet loading requirements as dictated by the National Park Service for public access. This will involve:

The removal of the plaster and lath ceilings but not the historic wood floors;

The introduction of reinforcing floor members as recommended in the structural survey (See Appendix C-1);

The introduction of a thermal insulation layer within the floor framing;

New plaster and lath ceilings at all levels.

As previously mentioned, the roof framing will have to be reinforced to meet the loading requirements of a slate roof.

4. Adaptive Use

An elevator will be installed in the rear half of Building 35. It will be a hydraulic type with mechanical room in basement room 007 and ascending through rooms 106, 214, 309 and 310, servicing each level.

The wall separating rooms 101 and 106 will be removed and a stairway reconstructed in the opening that exists in room 211. New walls will be constructed that encase the stair and serve as the partition between rooms 101 and 106.

The wood column will be removed in room 204 with the introduction of new floor members above. This room will have to be made accessible for disabled persons which will mean the introduction of a raised walkway from door 224 to 204 atop the historic floor. The materials should be light in construction and not be fastened in any way to the historic floor.

5. Preservation

The intent is to save as much of the historic millwork, floor and wall finishes as possible that date back to the nineteenth century. It is important to note that the window and door frames as well as the millwork are unique to their location. There is very little in the way of "typical construction" and each door and window condition should be treated individually.

The following work is necessary:

The removal of door and window frames and sashes for the reconstruction of lintels and sills as necessary;

Each set of frame and sashes should be catalogued;

The window frames and sashes will be restored to working condition. Please note that some windows are spring mounted and others operated by pulleys;

The exterior door frames will be restored, including all transom openings;

Existing panel doors will be refinished and hardware restored and/or reconstructed;

New panel doors will be installed where doors are not found to match the frame;

Window and door glazing will be replaced as necessary;

All architectural millwork will be removed, catalogued and restored to its appropriate nineteenth century appearance;

In some cases new millwork will have to be fabricated to match the conditions as presented;

All floors will be stripped and refinished as to their appropriate nineteenth century appearance;

All stairway treads, risers and handrails will be restored and structural repairs made where necessary;

As much as possible historic wall finishes will be retained and restored to their appropriate nineteenth century appearance;

Badly deteriorated wall finishes will be removed and new finishes will match the former finishes in appearance.

C. Cost Estimate (Class "B")

DIVISION 2 - SITE WORK	UNIT ($)	QUANTITY	TOTAL ($)
DEMOLITION: Excavate exterior walls to install vapor-moisture barrier and underpin foundation, B34-35.	150.00	270 l.f.	40,500.00
Remove non-historic gate between Bldgs. 32/33 and 34/35.	500.00		500.00
Remove timber beam over interior passageway between B34-35 (Temporarily shore).	1,500.00	5.5 l.f.	8,250.00
Remove damaged exterior parging (approx. 33%) B34-35.	5.00	1,750 s.f.	8,750.00
Remove shake roof, Bldgs. 34-35 and 34A	2.00	3,050 s.f.	6,100.00
Remove snow boards and fascia, Bldgs. 34-35 and 34A.	2.00	600 l.f.	1,200.00
Remove badly damaged, non-restorable doors, Bldgs. 34-35 and 34A	5.00	860 l.f.	4,300.00
Remove badly damaged, non-restorable window frames, Bldgs. 34-35 and 34A.	3.00	1,600 l.f.	4,800.00
Remove all broken and cracked glazing from Bldgs. 34-35 and 34A (approx. 30%).	30.00	445 s.f.	13,350.00
Remove signage at north elevation (three signs) of B34-35.	15.00	50 s.f.	750.00

Remove all plaster and lath ceilings, B34-35.	1.00	7,860 s.f.	7,860.00
Remove all badly damaged, non-restorable wall finishes (approx. 33%), Bldgs. 34-35 and 34A.	1.00	5,115 s.f.	5,115.00
Remove wall between Rms. 101 and 106.	5.00	250 s.f.	1,250.00
Remove wooden post in R204, (when floor members are installed above).	250.00		250.00
Remove 20th-century plumbing from R311.	2.00	100 l.f.	200.00
PAVING AND SURFACING: Pave alleyway for disabled access ramp (#1) between B32-33 & B34-35 in brick on a sand base.	12.00	300 s.f.	3,600.00
Pave disabled access ramp (#2) at rear of B34-35 in brick on a sand base.	12.00	160 s.f.	1,920.00
Construct brick pad at base of reconstructed rear porch stair.	12.00	80 s.f.	960.00
ASBESTOS ABATEMENT: Remove chrysotile asbestos-containing roof tar paper.	9.00	8,000 s.f.	72,000.00
Remove asbestos-containing mastic.	8.00	75 s.f.	600.00
LANDSCAPING: Service drainage pipe below sidewalk from downspouts along Shenandoah St.	10.00	50 l.f.	500.00
Ramp alleyway between B32-33 and B34-35 to a ref. ht. of approx. 270' for #1 disabled access ramp.	12.00	300 s.f.	3,600.00

Backfill northern half of rear yard for base of disabled access ramp (#2).	12.00	160 s.f.	1,960.00
Slope grade of rear yard to direct drainage away from buildings. Establish grade at ref. ht. of approx. 270' or ht. of door sill at B34A.	2.00	3,300 s.f.	6,600.00
Ramp yard adjacent to the south wall of B34-35 to a ref. ht. of approx. 271'.	3.00	400 s.f.	1,200.00
Reseed rear yard after excavation and construction.	1,500.00		1,500.00
Lay crushed shale walks as indicated in landscape plan for Lower Town.	2.00	2,250 s.f.	4,500.00

DIVISION 3 - CONCRETE

Construct concrete base for handicapped ramps (#1 and #2).	12.00	2,800 l.f.	33,600.00
Construct fire-rated CMU elevator enclosure in basement R007, R106, R214, R309 and R310.	20,000.00	1 elevator enclosure	20,000.00

DIVISION 4 - MASONRY

Repoint all stone walls after parging is removed (approx. 33%), B34-35.	8.00	1,750 s.f.	14,000.00
Repair stone walls (approx. 20%), B34-35.	8.00	1,060 s.f.	8,480.00
Reparge all stone walls to match.			
historic (approx. 33%) (scored to simulate cut stone), B34-35.	5.00	1,750 s.f.	8,750.00

Repair fallen brick jack arches, B34-35.	3.00	2,250 brks.	6,750.00
Restore brick chimneys, B34-35.	40.00	75 c.f.	3,000.00
Restore brick chimney caps, B34-35.	40.00	85 c.f.	3,400.00
Repair and repoint all exterior brick, Bldgs. 34-35 and 34A.	8.00	3,000 s.f.	24,000.00
Clean all brick after restoration, Bldgs. 34-35 and 34A.	3.00	3,000 s.f.	9,000.00
Restore brick column in basement R001.	40.00	16 c.f.	640.00
Restore stone steps from basement to rear yard, B34-35.	5,000.00	1 flight	5,000.00
Restore fireplace in R202.	20.00	80 c.f.	1,600.00
Restore kitchen hearth in basement R001.	20.00	80 c.f.	1,600.00

DIVISION 5 - METAL

Refinish metal work on wrought-iron balcony on north elevation, of B34-35	25.00	60 l.f.	1,500.00
Restore all existing shutter fittings (approx. 20%), B34-35.	100.00	160	16,000.00

DIVISION 6 -
WOOD AND PLASTIC

Reconstruct rear porch and stair, B34-35.	75.00	390 s.f.	29,250.00
Restore historic cistern concealed by wooden stoop between Bldgs. 34-35 and 36.	rem. cncr.: 25.00 repl. brick: 25.00 rpnt. brick: 8.00	20 s.f. 10 s.f. 25 s.f.	500.00 250.00 200.00
Restore or reconstruct historic shutters as indicated, B34-35.	recnstr: 200.00 restore: 70.00	20 60	4,000.00 4,200.00
Replace timber beam over interior passageway of B34-35.	1,500.00	5 l.f.	7,500.00
Reinforce historic roof and dormer framing to bear slate and its own weight, Bldgs. 34-35 and 34A.	51,000.00	1.7 M.B.F.	86,700.00
Replace wood fascia at roof, Bldgs. 34-35 and 34A.	35.00	300 l.f.	10,500.00
Replace snow boards on roof, B34-35.	35.00	130 l.f.	4,550.00
Structurally reinforce framing at all floors to meet loading req'ts., B34-35.	273,000.00		273,000.00
Refinish all wood floors to a 19th-century appearance, B34-35.	5.00	9,800 s.f.	49,000.00
Structurally reinforce all existing interior stairs to a 19th-century appearance, B34-35.	3,000.00	12 flights	36,000.00

Construct storage room in R104.	2,500.00		2,500.00
Reconstruct stair opening at ceiling of R106.	3,000.00	1 flight	3,000.00
Reconstruct stair at restored in R106, leading to R211.	5,000.00	1 flight	5,000.00
Encase stair constructed in R211, (new walls will serve as partition between R101 & 106).	30.00	575 s.f.	17,250.00
Construct raised walkway for disabled access between Rms. 204 and 205.	20.00	80 s.f.	1,600.00
Restore millwork of fireplace in R202.	40.00	15 l.f.	600.00
Restore or replace all damaged, non-restorable architectural millwork (approx. 33%).	restore: 30.00 replace: 30.00	5,000 l.f. 2,500 l.f.	150,000.00 100,000.00

DIVISION 7 - THERMAL AND MOISTURE PROTECTION

Install exterior perimeter vapor- moisture barrier at foundation walls.	30.00	270 l.f.	7,500.00
Install new slate roof and dormers, Bldgs. 34-35 and 34A	1,000.00	3,000 s.f.	3,000.00
Install a moisture-retarding membrane and an insulation layer within roof and dormer framing, Bldgs. 34-35 and 34A			

	3.00	3,000 s.f.	9,000.00
Replace gutters, downspouts and their connections as required, Bldgs. 34- 35 and 34A (approx 20%).	gutters: 10.00 dwnspouts: 10.00	55 l.f.	550.00
		155 l.f.	1,550.00
Install weather-stripping on all exterior doors, Bldgs. 34-35 and 34A	5.00	140 l.f.	700.00
Install weather-stripping on all windows, Bldgs. 34- 35 and 34A.	5.00	1,650 s.f.	8,250.00
Install a layer of insulation within floor framing, B34- 35.	3.00	9,800 s.f.	29,400.00
Restore vents in basement crawl space, B34-35.	150.00	4 vents	600.00
Replace all metal flashing, Bldgs. 34- 35 and 34A.	10.00	125 s.f.	1,250.00

DIVISION 8 -
DOORS AND WINDOWS

Replace all damaged door and window glazing with restoration glass, Bldgs. 34-35 and 34A	30.00	445 s.f.	13,350.00
Restore or replace all historic exterior doors and transoms to match historic form and finish, Bldgs. 34- 35 and 34A.	restore: 600.00 replace: 500.00	5	3,000.00

		2	1,000.00
Restore exterior basement hatch door, B34-35.	500.00	16.5 s.f.	8,250.00
Restore or replace all historic int. panel doors and hardware to match historic form and finish, Bldgs. 34- 35 and 34A.	restore: 600.00 replace: 400.00	34	20,400.00
		20	8,000.00
Restore all windows to operable historic form, (spring-mounted and pulley).	50.00	81	4,050.00
Restore or reconstruct all damaged door lintels and sills, Bldgs. 34-35 and 34A.	restore: 200.00 recnstr.: 175.00	60	12,000.00
		21	3,675.00
Catalogue all historic window frames and sashes, Bldgs. 34-35 and 34A	2,500.00		2,500.00
Restore window grilles in basement R001.	150.00	2	300.00

DIVISION 9 - FINISHES

Replace all damaged wall finishes to a 19th-century appearance, B34-35.	6.00	5,115 s.f.	30,690.00
Replace all plaster and lath ceilings to a 19th-century appearance, B34-35.	7.00	7,860 s.f.	55,020.00

DIVISION 14 - CONVEYING SYSTEMS			
Install disabled access passenger elevator in rear addition of B34-35.	75,000.00	3 stories	75,000.00
DIVISION 15 - MECHANICAL			
Install fire-protection system (detection and suppression), B34-35.	6.00	12,200 s.f.	73,200.00
Install all new plumbing, B34-35.	8.00	9,800 s.f.	78,400.00
Install fixtures in new bathrooms on floors 2 and 3, B34-35.	1,000.00	8 fixtures	8,000.00
Install all new HVAC system for all conditioned spaces, B34-35.	10.00	9,800 s.f.	98,000.00
DIVISION 16 - ELECTRICAL			
Conceal cable access in rear yard.	25.00	200 l.f.	5,000.00
Install intrusion detection system, B34-35.	3.00		36,600.00
Install all new HVAC system for all conditioned spaces, B34-35.	6.00	12,200 s.f.	76,200.00

Sub-total	**$1,817,770.00**
General Conditions (15%)	**272,665.50**
Net Total	**2,090,436.00**
Contingencies and Construction Supervision (31%)	**648,034.50**
Gross Total (minus optional work)	**2,738,471.00**

Part IV: Sources Consulted-Annotated Bibliography

Historic Structures Report Components:

"Asbestos Survey, Bldgs. 34-35 and 34A", Oehrlein & Associates Architects and Dewberry & Davis Risk Management, Inc., Contract No. CX-2000-0-0011, Work Order No.3, September 19, 1990.

> The purpose of the inspection was to determine if asbestos-containing materials are present in the roof materials of each building. Laboratory analysis revealed asbestos in the tar paper and roof mastic in Building 34 and in the tar paper of Building 35. This survey can be found in appendix D-4.

"Task Directive, Package 116, Harpers Ferry National Historical Park, Restoration of Buildings 32, 33, 33A, 34, 34A, 35 and 36, Historic Structure Report, Construction Documents, Construction, Post Construction, Preservation Guides", Denver Service Center, National Park Service, April 1989. Approvals 4/17/89 -- 12/14/89.

"Handicapped Accessibility Study, Pkg. 116 Bldgs.", Oehrlein & Associates Architects and Shefferman & Bigelson, Contract No. CX-2000-0-0011, Work Order No. 5, February 14, 1991.

> An Accessibility Review was prepared by Oehrlein and Associates, Architects, which referenced "Uniform Federal Accessibility Standards", including applicable section reference. In particular, this review investigated handicap accessibility, recommending the location of ramping in the rear yard. This accessibility review can be found in Appendix B-2.

"Historic Structures Report: Archeological Component, Package 116, Block B, Lot 3, Buildings 32, 33A, 33, 34, 34A, 35, Shenandoah Street, Harpers Ferry National Historical Park, Harpers Ferry, West Virginia", Paul A. Shackel, Research Archeologist, Harpers Ferry National Historical Park, National Park Service, September 1994. With "Addendum, Bldgs. 32 & 34A", Ellen Armbruster.

> The archeological investigation was carried out between May, 1989, and December, 1989, in three phases. The first phase focused on answering questions related to the architectural and landscape history of the site. Second, the investigation checked the results of a geophysical survey conducted in April, 1989. Third, the investigation randomly sampled the site for an overview of material culture and stratigraphy.

"Historic Structures Report, Package 116, History Section, 1865-1952, Lots 2 and 3, Block B, Shenandoah Street, Park Buildings 32, 33, 33A, 34-35, 34A and 36, Harpers Ferry National Historical Park, Harpers Ferry, West Virginia", by Patricia Chickering, with Michael A. Jenkins, September 1994, National Park Service/University of Maryland Cooperative Agreement, Historic Research Project.

A study was made during the course of research for this document concerning visitor access to the second floor and the installation of exhibits at this level. The Falls Church Branch of the DSC-EAF, the National Capital Region, the Harpers Ferry Center and the Harpers Ferry National Historic Park explored various alternatives for the restoration and interpretation of Building 34-35. Copies of these proposals can be found in Appendix E.

"Mechanical/Electrical/Plumbing Survey, Bldgs. 34-35 and 34A", Oehrlein & Associates Architects and Shefferman & Bigelson, Contract No. CX-2000-0-0011, Work Order 3, September 20, 1990.

The report includes a description of existing service and equipment along with an analysis and recommendations of service and equipment that is necessary for the proposed restoration of the building. This survey can be found in Appendix C-2.

"Mortar, Plaster and Stucco Analysis, Pkg. 116 Bldgs.", Peggy Albee, Cultural Resource Center, Building Conservation Branch, North Atlantic Region, for Denver Service Center, Eastern Team, September 1990.

This analysis can be found in appendix D-1.

"Wallpaper Analysis, Pkg. 116, Buildings 34, 35 and 34A" . Peggy Albee, Cultural Resource Center, Building Conservation Branch, North Atlantic Region, for Denver Service Center, Eastern Team, November, 1991.

The wallpaper was analyzed as to its materials, colors and adhesives. A copy of this report can be found in Appendix D-3.

"Paint Analysis, Bldgs. 34-35 and 34A", Oehrlein & Associates Architects, Contract No. CX-2000-0-0011, Work Order No. 3, July 22, 1991.

The purpose of the study was to record and determine the color and finish of the painted surfaces on the exterior and interior of the buildings and to test for the presence of lead. This analysis can be found in appendix D-2.

"Structural Survey, Bldgs. 34-35 and 34A", Oehrlein & Associates Architects and James Madison Cutts, Consulting Structural Engineers, Contract No. CX-2000-0-0011, April 11, 1991.

An addendum was prepared by Patrick MacDonald, Structural Engineer for the Falls Church Branch of the Denver Service Center. The study included the observation of bearing conditions and analysis of those conditions which were found to be irregular or questionable; bending stress analysis; shear stress analysis; deflection analysis and general building stability. Anticipated loading requirements were provided by the National Park Service in terms of occupancy and use. This survey can be found in Appendix C-1.

Additional Reports Consulted:

"Cultural Landscape Report: Lower Town, Harpers Ferry National Historical Park", Harpers Ferry National Historical Park and the National Capital Region: Cathy Gilbert, Maureen De Lay Joseph and Perry Carpenter Wheelock, 1993.

"Historic Building Report, Master Armorer's House", Herbert Kissling, Harpers Ferry National Historical Park, October 10, 1957.

"Historic Building Report, Master Armorer's House", Charles Snell, Eastern Office of Design and Construction, for Harpers Ferry National Historical Park, March 4, 1959.

Drawings:

There are construction drawings for the buildings completed by Greives Worrall Wright and O'Hatnick in November of 1993.

In 1957 the Historic American Buildings Survey documented Building 34-35. These drawings are located in Appendix F-1.

Existing Conditions Drawings, prepared by Denver Service Center, Eastern Team, Falls Church, November, 1992 ar in the Falls Church Branch office.

Proposed Alternatives Drawings, prepared by Denver Service Center, Eastern Team, Falls Church, June 1, 1992.

Maps:

The earliest known maps of the lot are Winchester and Potomac Railroad maps dated to 1835.

A variety of historical base maps, including a compilation by Charles Snell in 1959 and the "Cultural Landscape Report" researchers in 1991, are available in the park library.

The Sanborn Fire Insurance Maps chronicle the development of the site periodically from 1894 to 1933. The 1894 Sanborn Fire Insurance Map to show the interior central stairhall and rear balcony and stair, which were not to scale. A set of color negatives are in the park library, copied from the Library of Congress in the summer of 1994. These are reproduced in Appendix A-1.

Photographs:

A large number of historic and modern photographs were found in the park library concerning Building 34-35 as well as photo-reproductions of historic sketches prepared during the time of the Civil War. The photographs date to the 1870's but the clearest views of Building 34-35 date to 1891-92 and continue through the twentieth century. Reproductions of these photographs can be found in Appendix A-2.

Photographic Surveys were done between 1957 and 1963 which provided clear evidence of what remained of the historic fabric on the exterior of the building before subsequent restoration work was carried out.

Project Related Planning Documents:

"Assessment of Alternatives", National Capital Region, July 1978.

"Environmental Review of Alternatives", National Capital Region, February 1979.

"Development Concept Plan", National Capital Region, March 1980.

"Interpretive Prospectus", National Capital Region, May 1980.

"Statement for Management", Harpers Ferry National Historical Park, January 1986.

"Resource Management Plan", National Capital Region, December 1987.

Project Related Policies and Guidelines:

NPS Management Policies, National Park Service, Washington Office, Dec. 1988.

NPS-28, Cultural Resources Management Guidelines, National Park Service, Washington Office, Ed. 3, Aug.1985.

Uniform Federal Accessibility Standards, General Services Administration, Dept. of Defense, Housing & Urban Dev., U.S. Postal Service. April 1988.

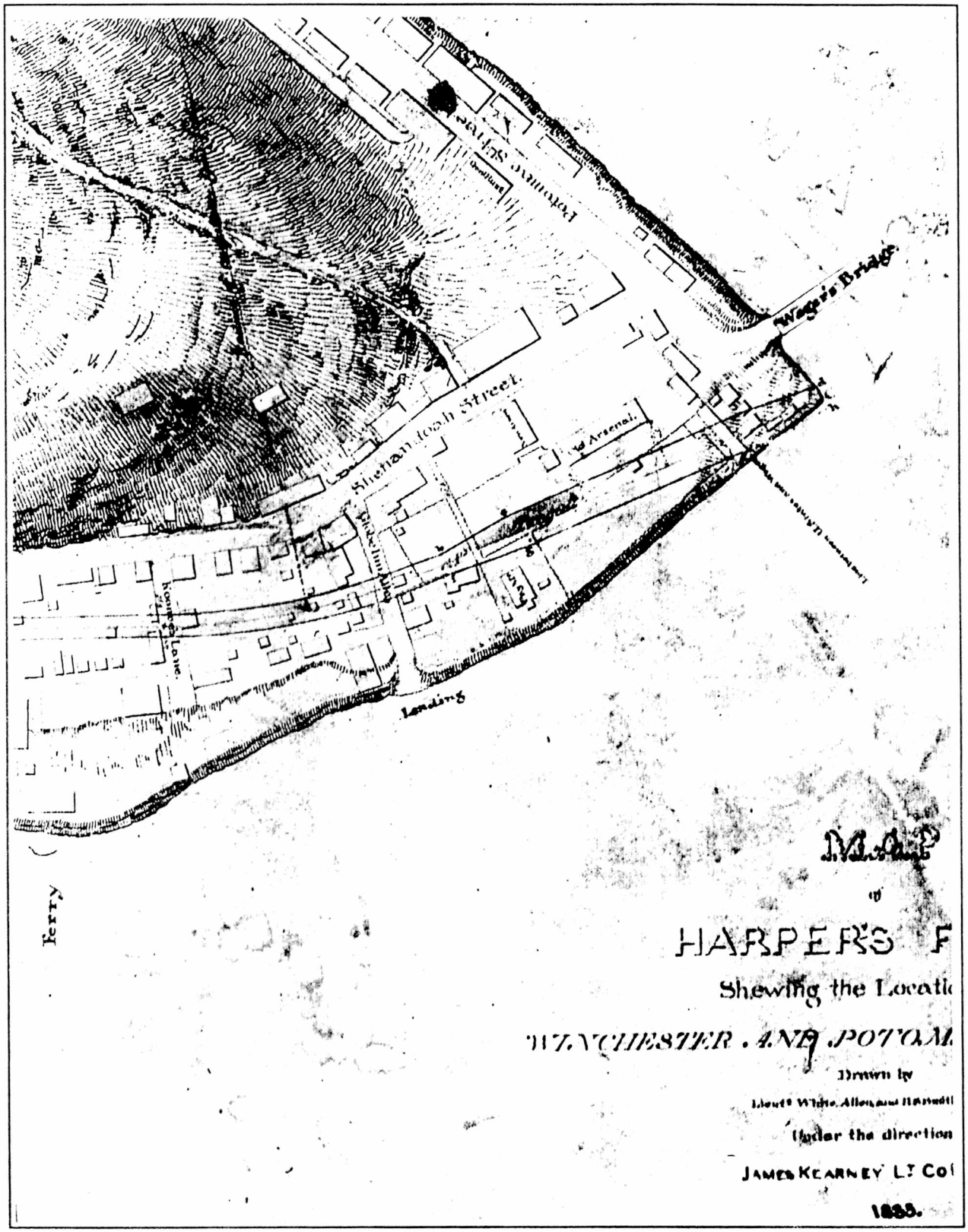
BOCA National Building Code/1990, Building Officials & Code Administrators Int'l., Inc. Country Club Hills, IL. March 1990.

Uniform Building Code, 1991 Edition. International Conference of Building Officials. Whittier, CA, May 1, 1991.

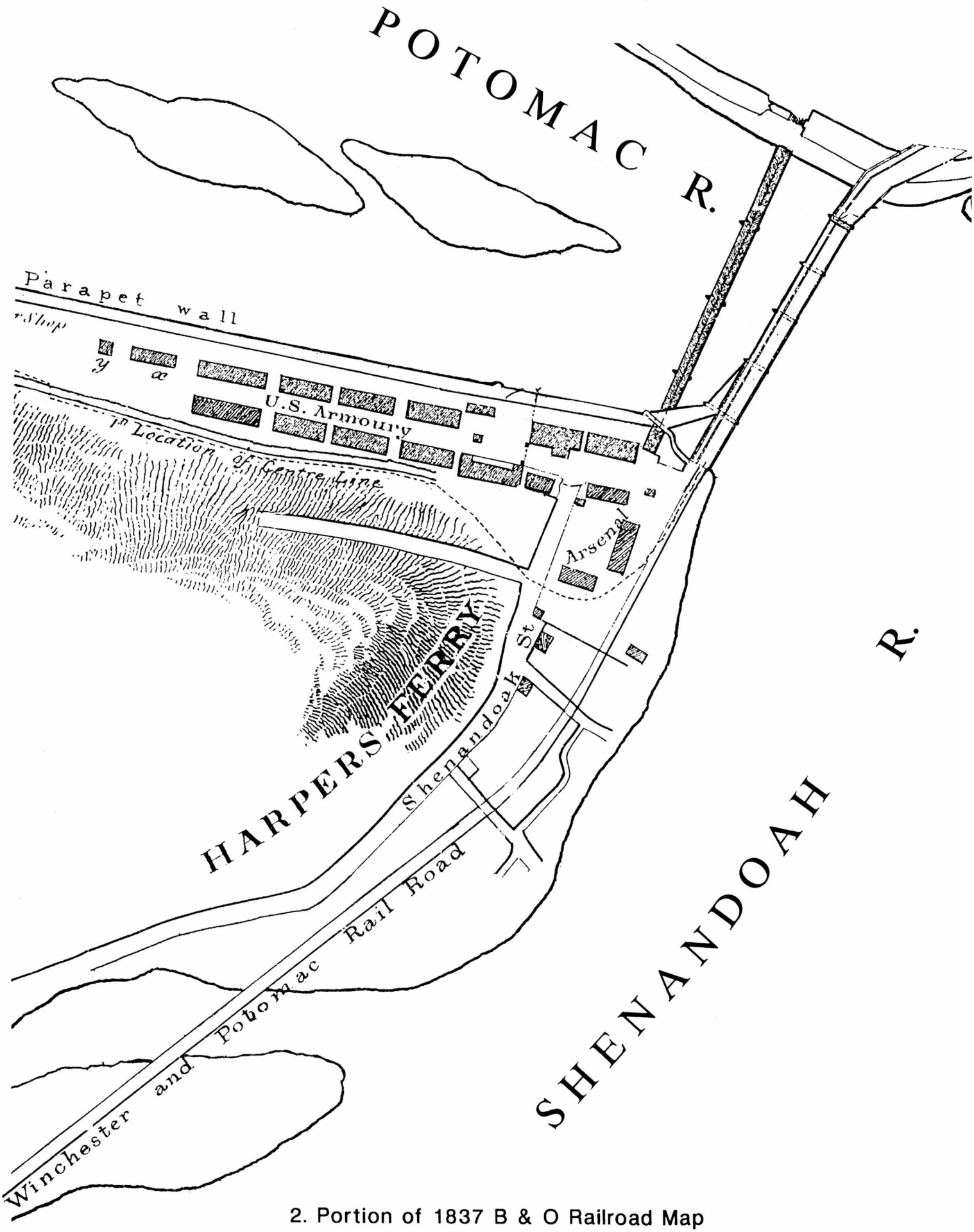
Life Safety Code, NFPA-101,1991 Edition. National Fire Protection Association. Quincy, MA. Feb.8, 1991.

A Code Review was prepared by Randall Copeland, Historical Architect, DSC, that researched applicable building and life safety codes of The BOCA National Building Code, 1990, and the Life Safety Code, NFPA 101, National Fire Protection Association. This code review can be found in Appendix B-1.

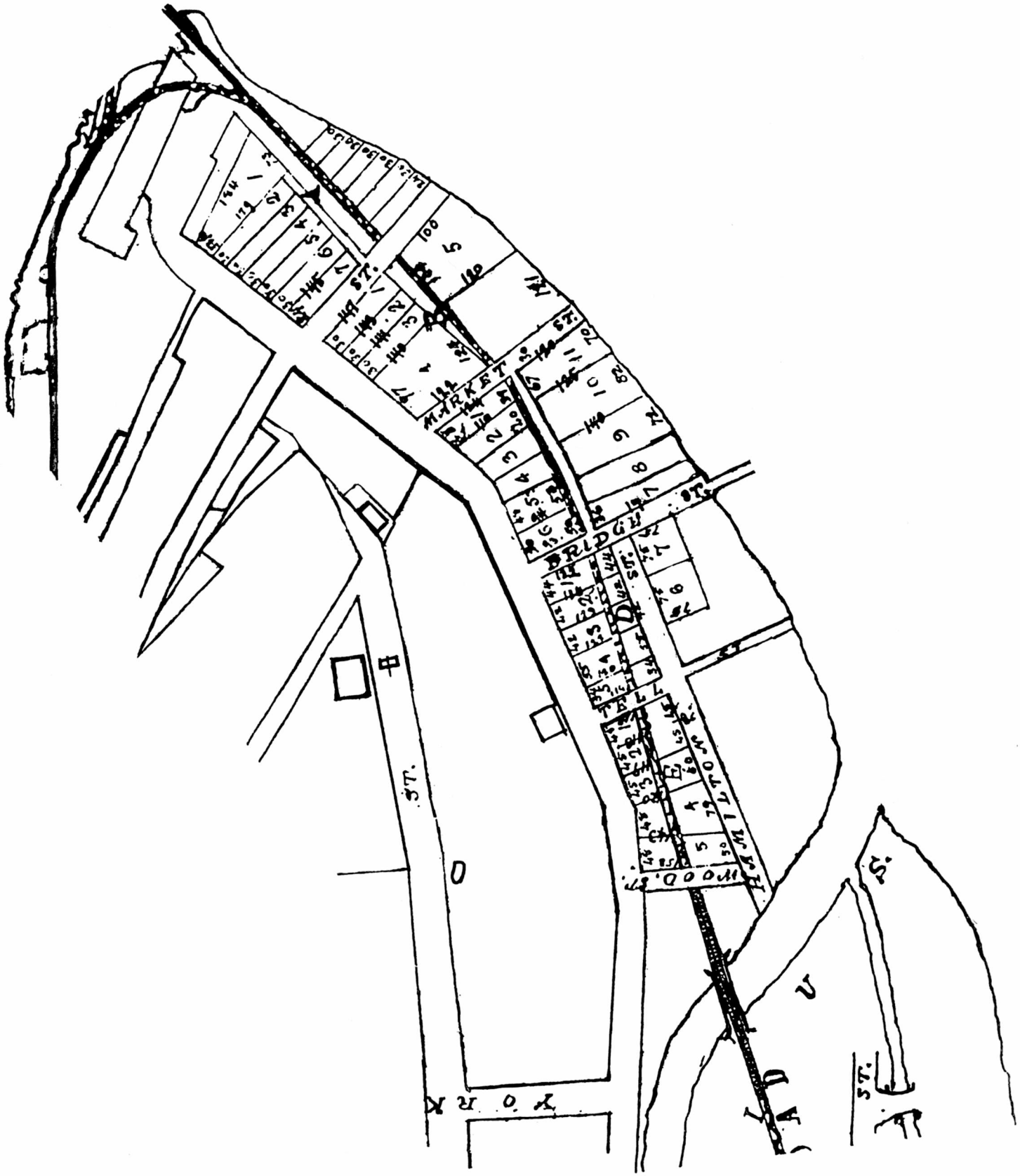
Appendix A. Historic Documentation



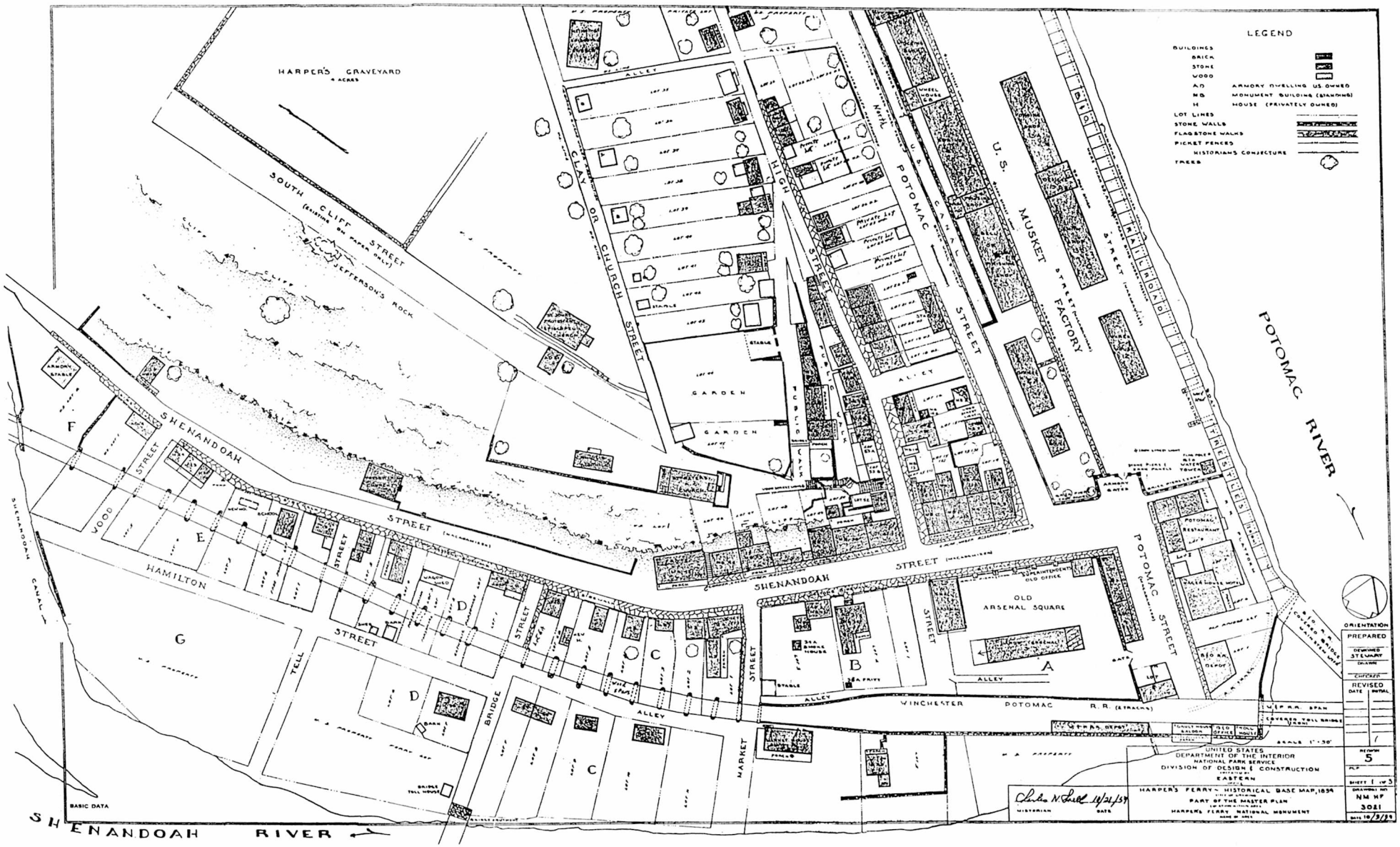
1. 1835 Winchester and Potomac Railroad Map



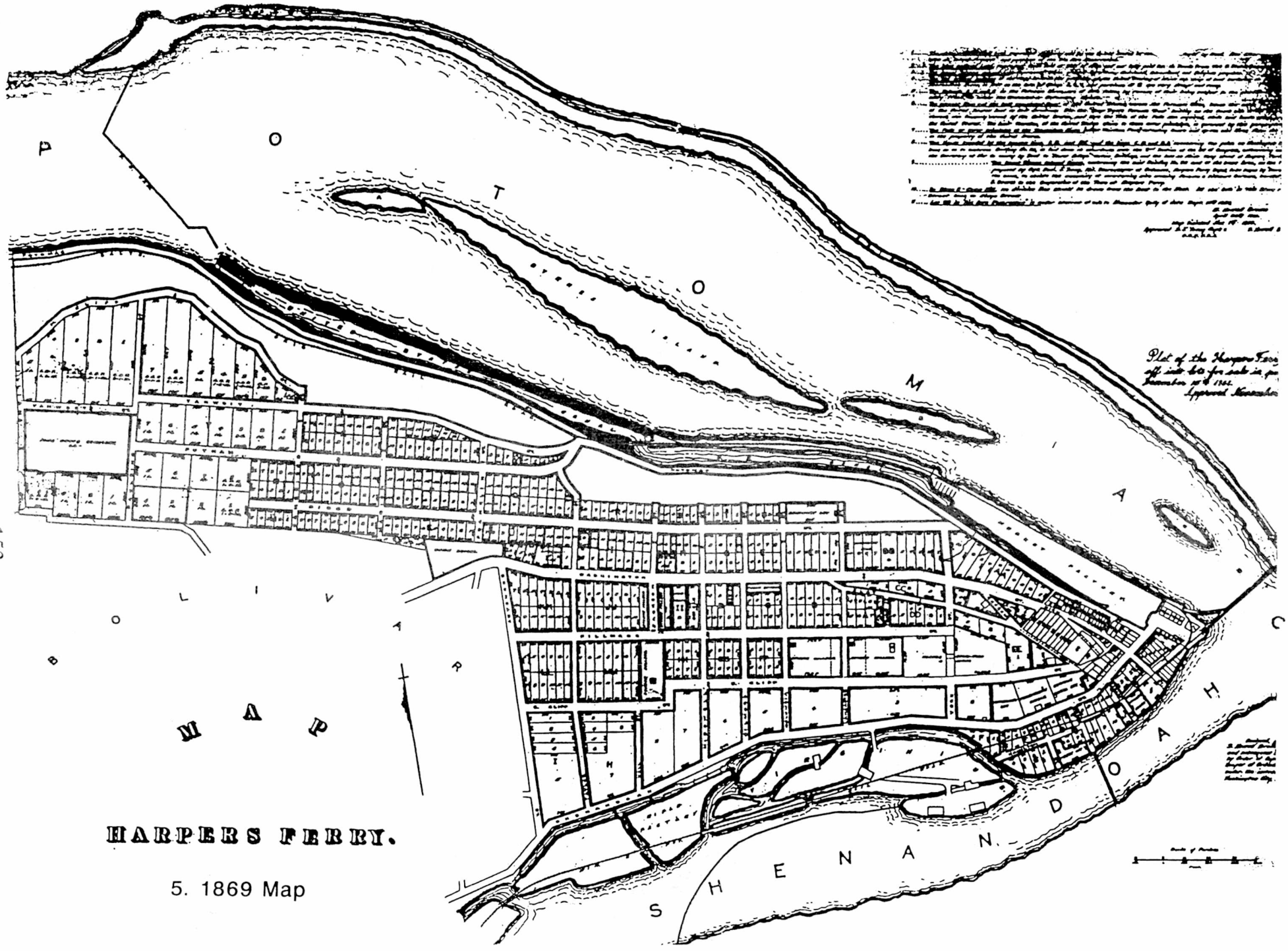
2. Portion of 1837 B & O Railroad Map



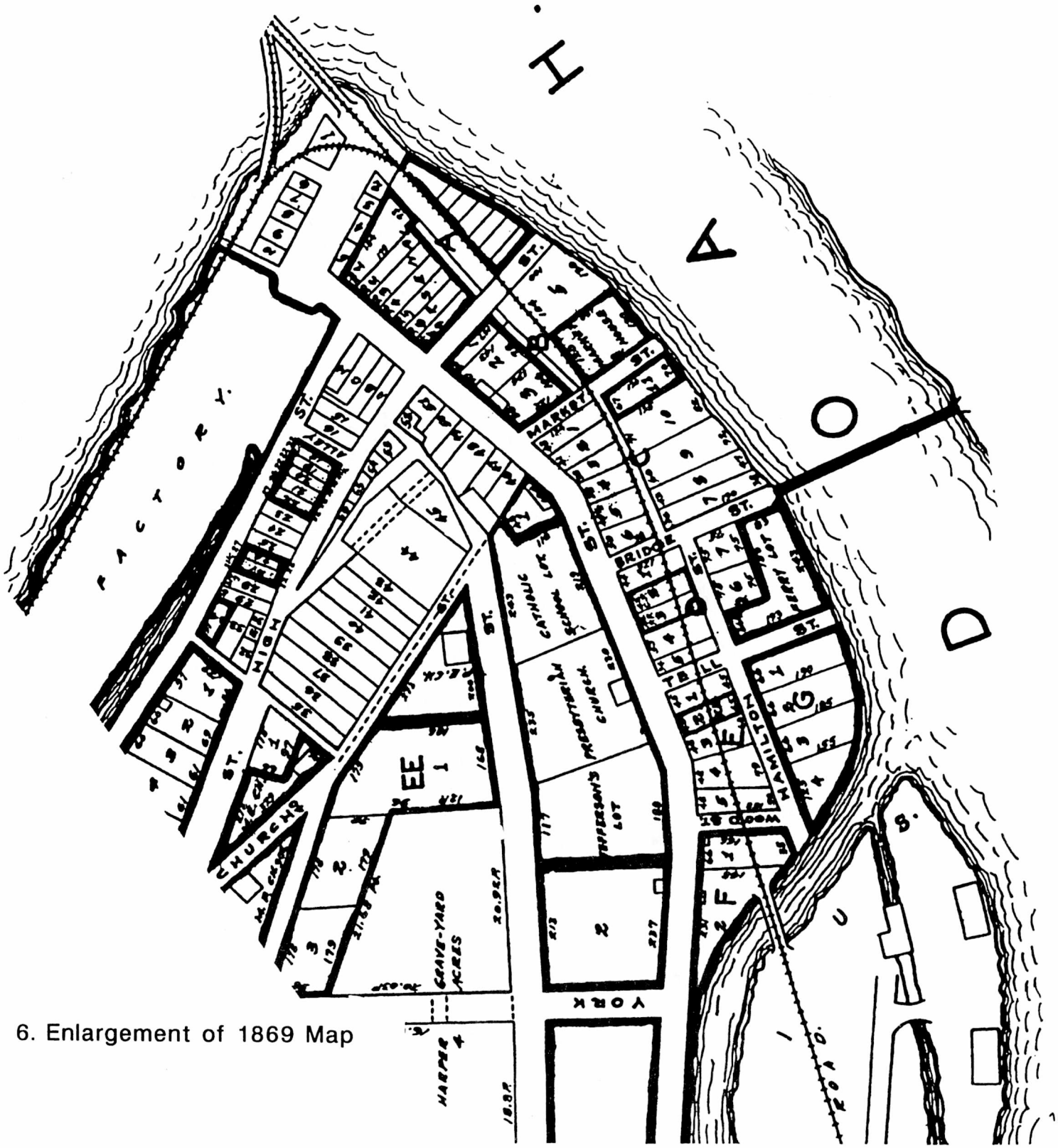
3. Portion of 1852 Map



4. Sheet 1 of 3 of Charles Snell's 1859 Base Map



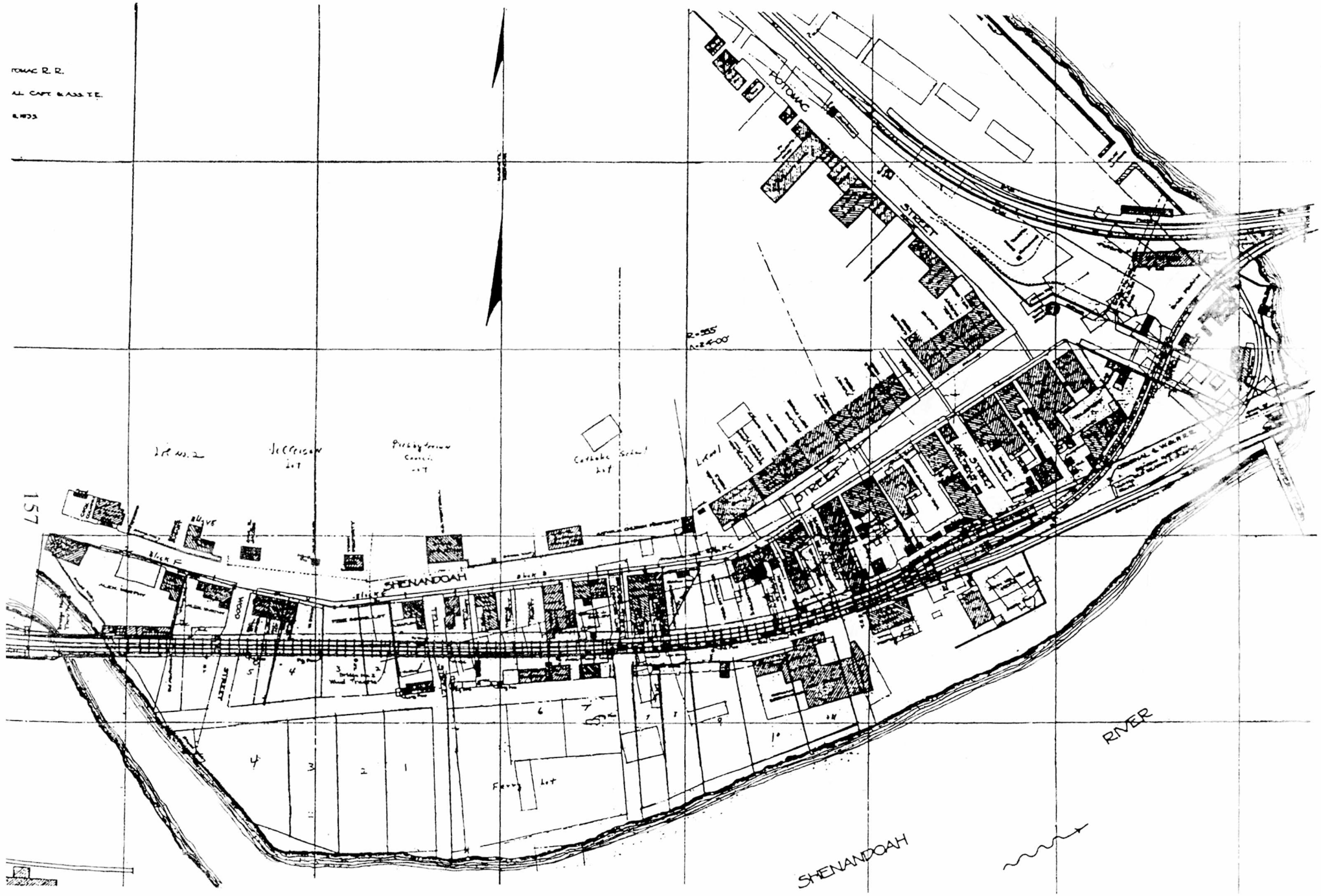
5. 1869 Map



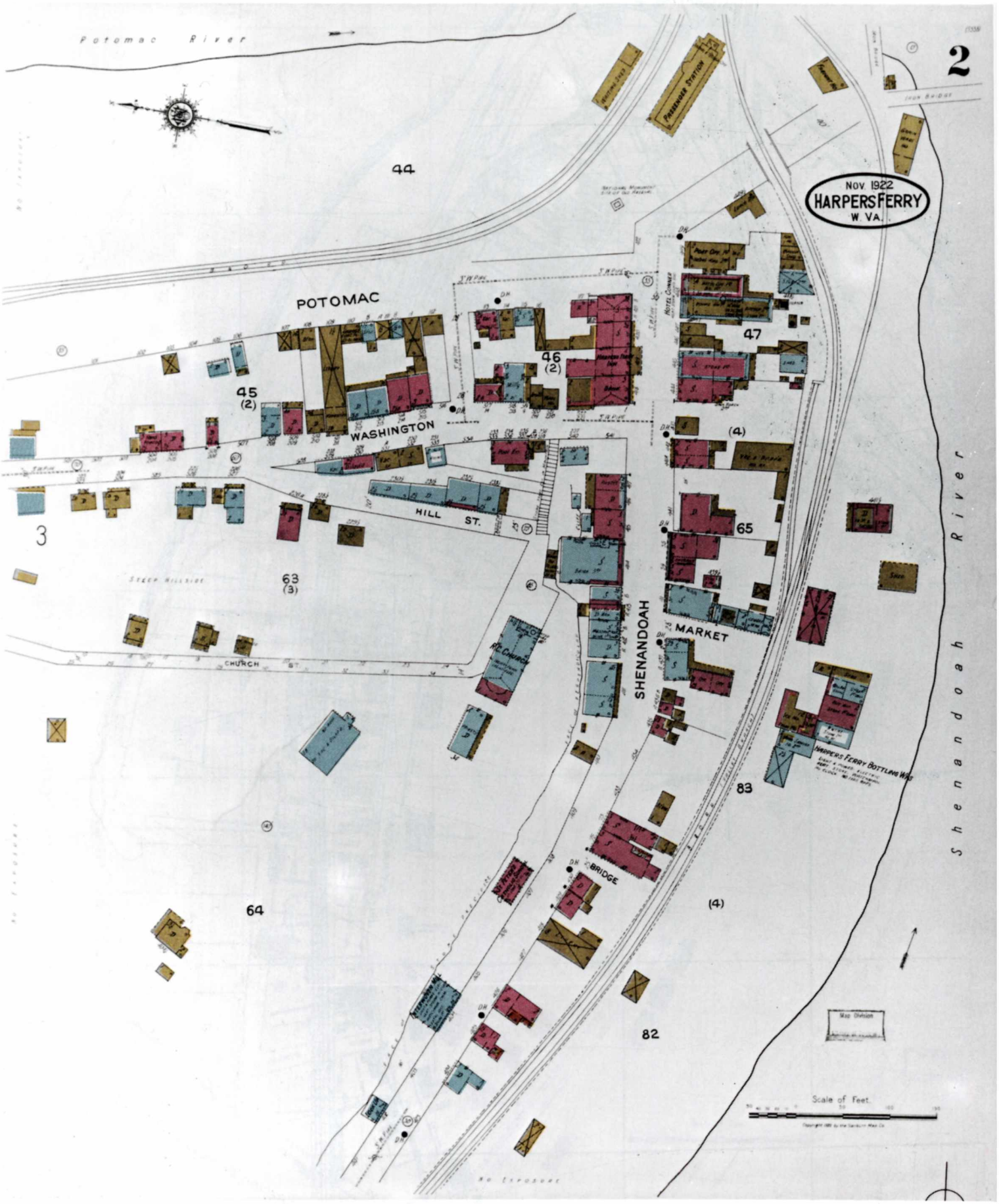
6. Enlargement of 1869 Map

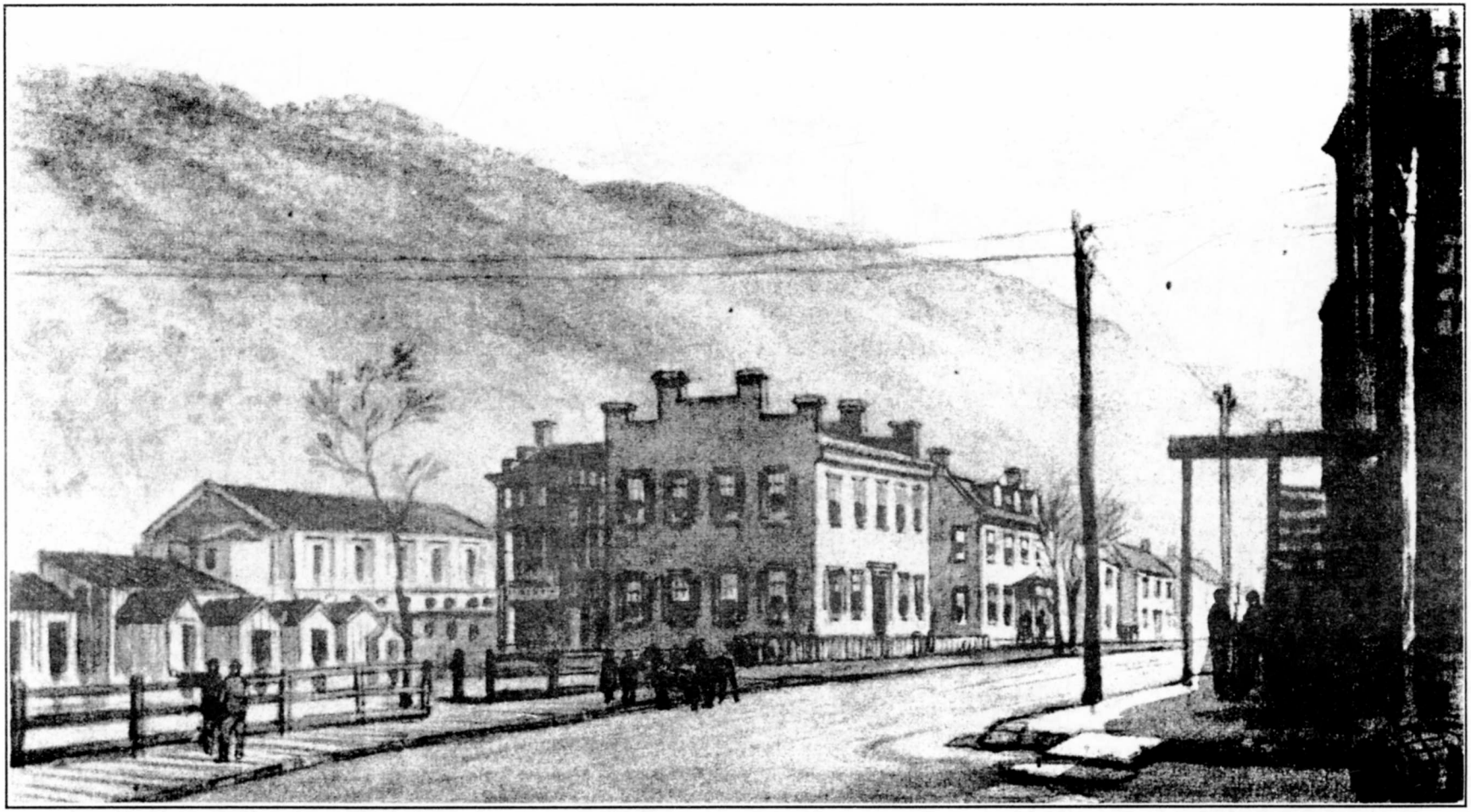

Potomac River.
2
Nov. 1894
HARPERS FERRY
W. VA.
POTOMAC
HIGH
ALLEY.
SHENANDOAH
HOTEL CONNER
P.O.
CATHO. CHURCH
EPISC. CHURCH
PRESB. CHURCH
17 CHURCH
24 ST.
R.V.R.R. (VALLEY BRANCH)
Shenandoah River
Scale of Feet


Potomac River
2
SEPT. 1907
HARPERS FERRY
W. VA.
POTOMAC
WASHINGTON
ALLEY
SHENANDOAH
MARKET
CHURCH ST.
EPIS CHURCH
CATH. CHURCH
JEFFERSON BREWING CO.
BRIDGE
SHENANDOAH
River
Scale of Feet



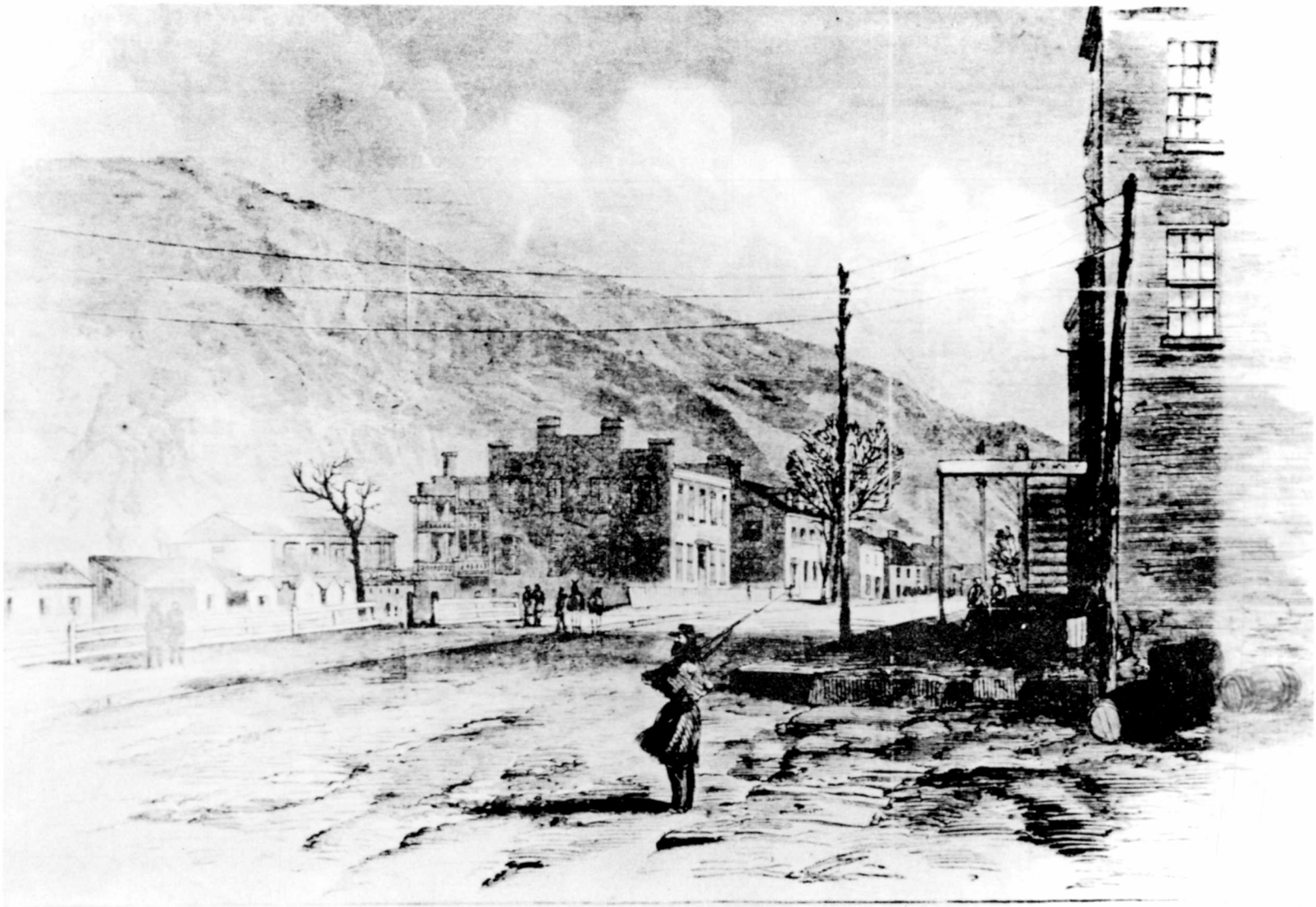
9. Portion of 1913 Map


Potomac River
2
Nov. 1922
HARPERS FERRY
W. VA.
POTOMAC
WASHINGTON
HILL ST.
CHURCH ST.
MARKET
SHENANDOAH
BRIDGE
Shenandoah River
Scale of Feet
44
45
(2)
46
(2)
47
(4)
65
63
(3)
64
83
(4)
82
3

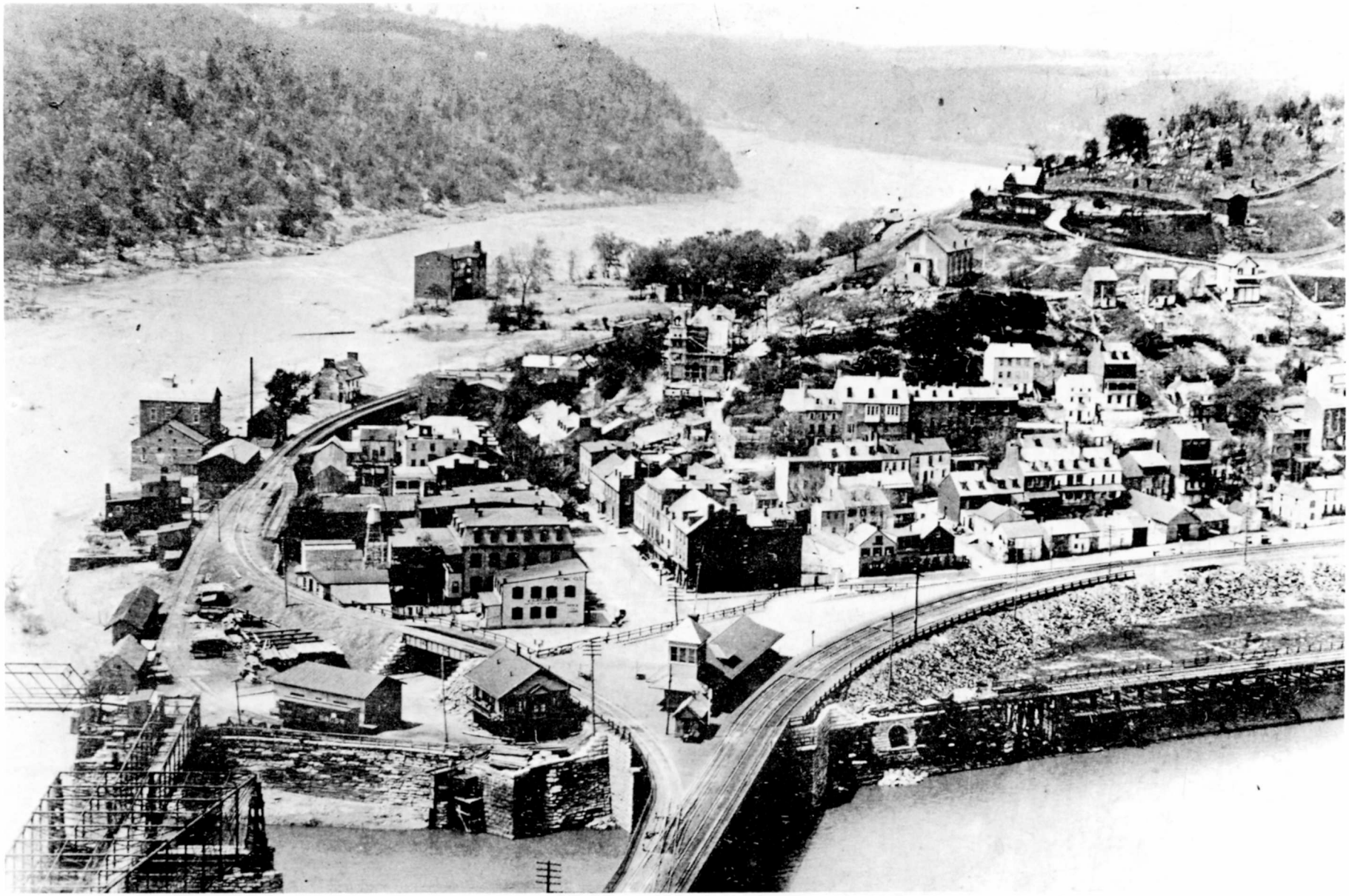


"Harpers Ferry - looking south on Shenandoah Street"

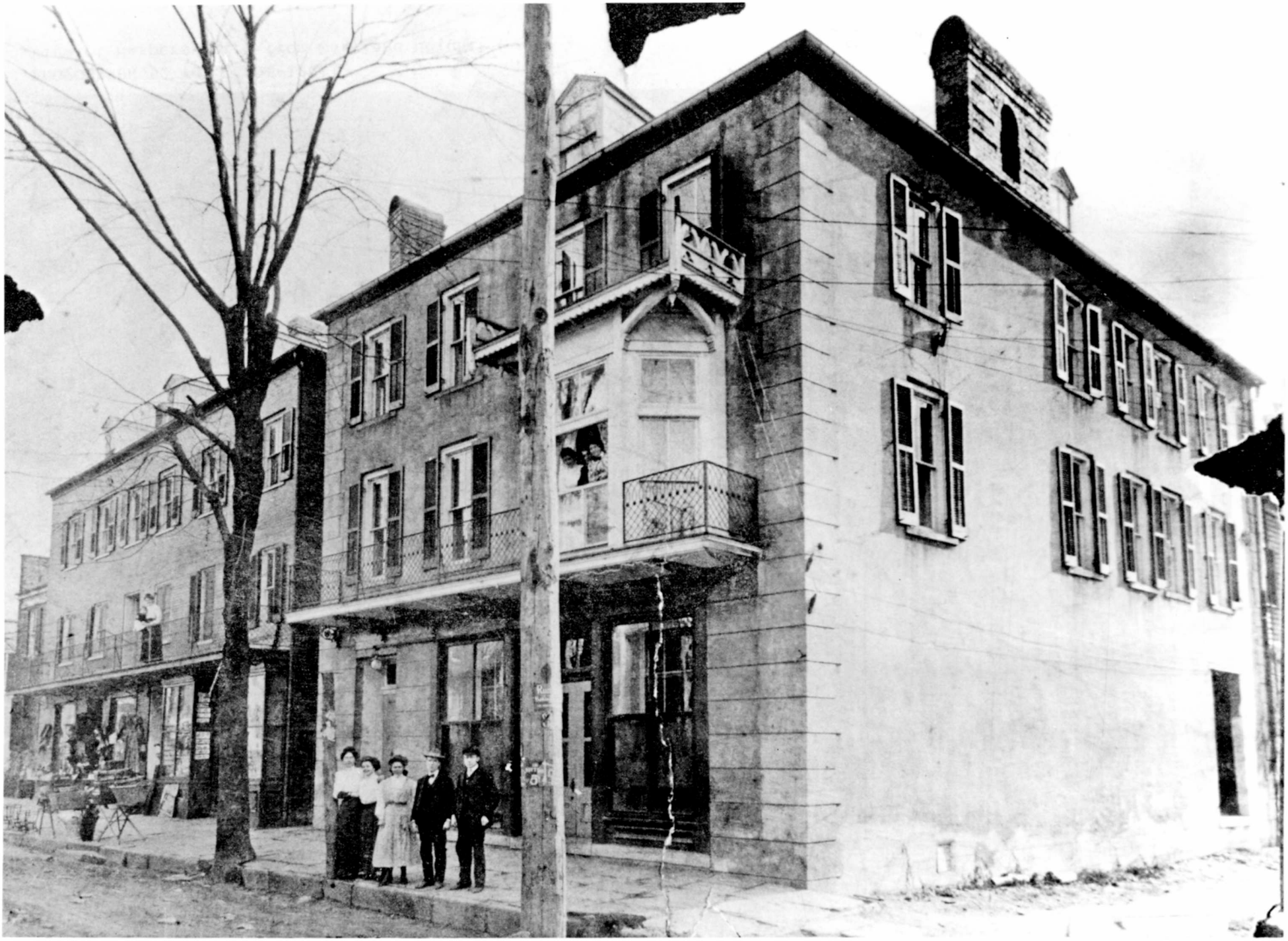
Source: James E. Taylor. The James E. Taylor Sketchbook. "With Sheridan Up The Shenandoah Valley. Leaves from a Special Artist's Sketch Book and Diary." Morningside House, Inc. Dayton, Ohio 1989. Pages 30, 580.



VIEW IN HARPERS FERRY.—GENERAL STEVENSON'S HEAD-QUARTERS, LOUDON HEIGHTS IN THE DISTANCE.—[SKETCHED BY A. R. W.]



PHOTOGRAPH 52 (ca. 1896-1901)
View of Harpers Ferry from Maryland Heights



Doran Family photo, ca. 1910, note bay windows on B34.



Shenandoah Street, ca. 1955, B34-35 on left side.



Shenandoah Street, ca. 1895, B34-35 in background.



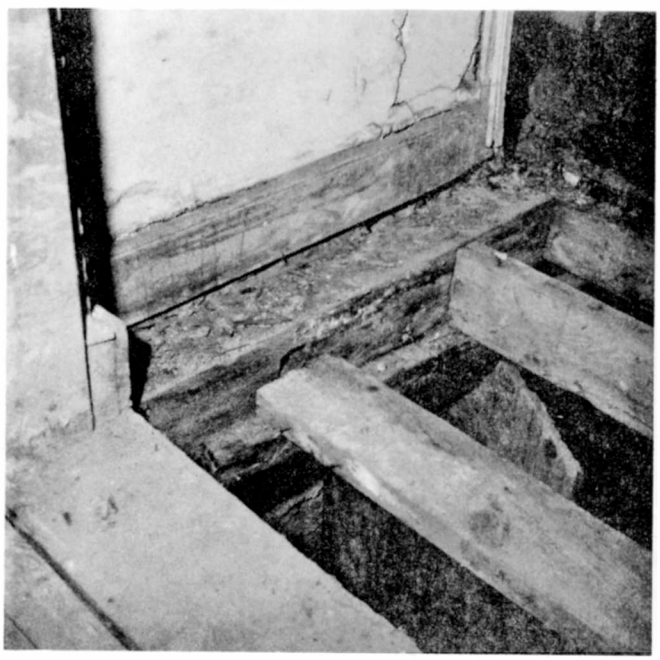




Views of the rear yard, Jan. 1955, note stair descending from second story porch, outbuildings and wood fence (NHF 410, 412-13).

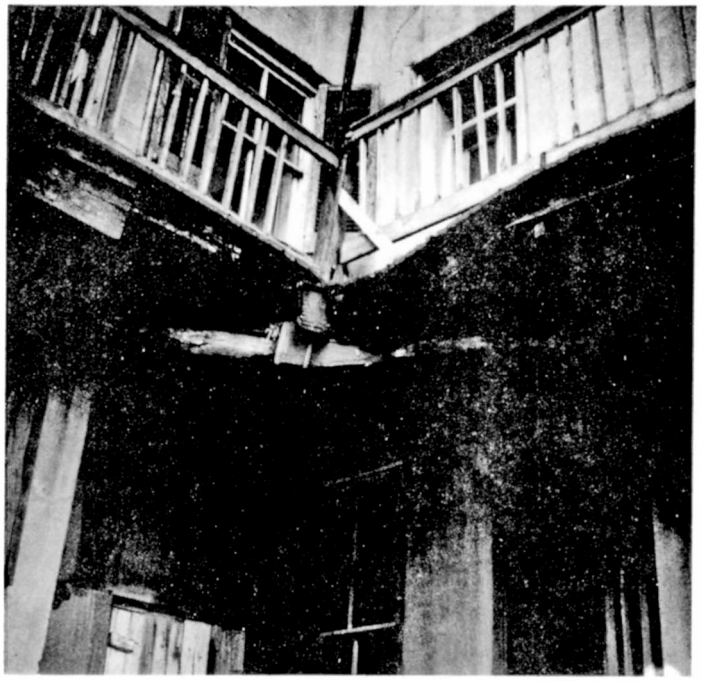








Views of first floor wood framing prior to removal in 1956 (NHF 416-19).





(top) View of deteriorated porch in 1956 (NHF 875) (bottom) view with porch removed in 1956 (NHF 877).

Appendix B. Building Use and Occupancy Reviews

SECTION 3206.0 SAFETY SCORES

3206.1 General: The values in Table 3206.1 are the required mandatory safety scores for the evaluation process listed in Section 3204.2.

Table 3206.1
MANDATORY SAFETY SCORES

Use groups	Fire safety (MFS)	Means of egress (MME)	General safety (MGS)
A-1	10	24	24
A-2	5	19	19
A-3	9	21	21
A-4, E	17	29	29
B	28	40	40
F, S-1	26	53	53
M, R	23	35	35
S-2	38	65	65

SECTION 3207.0 EVALUATION OF BUILDING SAFETY

3207.1 General: The mandatory safety score in Table 3206.1 shall be subtracted from the building score in Table 3205.1 for each category. Where the final score for any category equals zero or more, the building is in compliance with the requirements of this article for that category. Where the final score for any category is less than zero, the building is not in compliance with the requirements of this article.

Table 3207.1
EVALUATION FORMULAS

Formula	Table 3205.1	Table 3206.1	Score	Pass	Fail
FS-MFS ≥ 0	35 (FS)	- 28 (MFS) =	7	✓	
ME-MME ≥ 0	51 (ME)	- 40 (MME) =	11	✓	
GS-MGS ≥ 0	49 (GS)	- 40 (MGS) =	9	✓	

FS = Fire Safety
ME = Means of Egress
GS = General Safety
MFS = Mandatory Fire Safety
MME= Mandatory Means of Egress
MGS = Mandatory General Safety

3207.2 Mixed uses: For mixed uses, the following provisions shall apply:

1. Where the uses are not separated by a *fire separation assembly* or a *fire wall* as required by Section 313.1.2 or 313.1.3, the mandatory safety scores for the use with the lowest general safety score in Table 3206.1 shall be used.
2. Where the uses are separated as required by Section 313.1.2, the mandatory safety scores for each use shall be placed against the evaluation scores for the appropriate use and the most restrictive *height* and *area* limitations in this code shall be used in the calculation of the *height* value in Section 3204.2.1 and the *area* value in Section 3204.2.2 and the values so determined shall apply to both uses.

1.2 **BOCA National Building Code, 1990, Article 32 Review**
1st floor - Public Assembly
2nd floor - Park Offices
3rd floor - Park Offices
4th floor - No Use
No Elevator

REPAIR, ALTERATION, ADDITION TO AND CHANGE OF USE OF EXISTING BUILDINGS

Table 3205.1
SUMMARY SHEET - BUILDING SCORE

Existing use ASSEMBLY/STORAGE Proposed use MIXED
Year building was constructed 1812/82/91 No. of stories 4 Height in ft. 43
Type of construction 3A Area per floor 2,640 (GROSS)
Percentage of open perimeter 22 % Percentage of height reduction ____ %
Completely suppressed: Yes ✓ No ___ Corridor wall rating 1 HR.
Compartmentation: Yes ✓ No ___ Required door closers: Yes ___ No ✓
Fireresistance rating of vertical opening enclosures ____
Type of HVAC system Hot/CHILLED WATER serving number of floors 4
Automatic fire detection: Yes ✓ No ___, type and location THRUOUT
Fire protective signaling system: Yes ✓ No ___, type ____
Smoke control: Yes ___ No ✓, type ____
Adequate exit routes: Yes ✓ No ___ Dead ends: Yes ___ No ___
Maximum exit access travel distance ____ Elevator controls: Yes ___ No ✓
Means of egress emergency lighting: Yes ✓ No ___ Mixed uses: Yes ✓ No ___

category	Safety parameters	Fire safety (FS)	Means of egress (ME)	General safety (GS)
	3204.2.1 Building height	2.16	2.16	2.16
	3204.2.2 Building area	15.13	15.13	15.13
d	3204.2.3 Fire area	3	3	3
a	3204.2.4 Space division	0	0	0
c	3204.2.5 Corridor walls	0	0	0
N/A	3204.2.6 Vertical openings	—	—	—
d	3204.2.7 HVAC systems	5	5	5
f	3204.2.8 Automatic fire detection	6	6	6
d	3204.2.9 Fire protective signaling system	5	5	5
d	3204.2.10 Smoke control	....	-3	-3
d	3204.2.11 Exit capacity	....	0	0
b	3204.2.12 Dead ends	....	5	5
c	3204.2.13 Max. exit access travel distance	....	10	10
a	3204.2.14 Elevator control	-7	-7	-7
c	3204.2.15 Means of egress emergency lighting	....	2	2
b	3204.2.16 Mixed uses	0	....	0
b	3204.2.17 Automatic sprinklers	6	6+2=8	6
	Building score — total value	35.29	51.29	49.29

.... No applicable value to be inserted.

1.3 BOCA National Building Code, 1990, Article 32 Review

1st floor - Public Assembly
2nd floor - Park Offices
3rd floor - Park Offices
4th floor - No Use
With Elevator

REPAIR, ALTERATION, ADDITION TO AND CHANGE OF USE OF EXISTING BUILDINGS

Table 3205.1
SUMMARY SHEET - BUILDING SCORE

Existing use ASSEMBLY/STORAGE — Proposed use MIXED
Year building was constructed 1812/82/91 — No. of stories 4 — Height in ft. 43
Type of construction 3A — Area per floor 2,640 (GROSS)
Percentage of open perimeter 22 % — Percentage of height reduction ____ %
Completely suppressed: Yes ✓ No ___ — Corridor wall rating 1 HR.
Compartmentation: Yes ✓ No ___ — Required door closers: Yes ___ No ✓
Fireresistance rating of vertical opening enclosures ____
Type of HVAC system ____, serving number of floors 4
Automatic fire detection: Yes ✓ No ___, type and location THROUT
Fire protective signaling system: Yes ✓ No ___, type ____
Smoke control: Yes ___ No ✓, type ____
Adequate exit routes: Yes ✓ No ___ — Dead ends: Yes ___ No ___
Maximum exit access travel distance ____ — Elevator controls: Yes ✓ No ___
Means of egress emergency lighting: Yes ✓ No ___ — Mixed uses: Yes ✓ No ___

category	Safety parameters	Fire safety (FS)	Means of egress (ME)	General safety (GS)
	3204.2.1 Building height	2.16	2.16	2.16
	3204.2.2 Building area	15.13	15.13	15.13
c	3204.2.3 Fire area	2	2	2
a	3204.2.4 Space division	0	0	0
c	3204.2.5 Corridor walls	0	0	0
N/A	3204.2.6 Vertical openings	—	—	—
d	3204.2.7 HVAC systems	5	5	5
f	3204.2.8 Automatic fire detection	6	6	6
d	3204.2.9 Fire protective signaling system	5	5	5
d	3204.2.10 Smoke control	....	-3	-3
a	3204.2.11 Exit capacity	....	0	0
b	3204.2.12 Dead ends	....	5	5
c	3204.2.13 Max. exit access travel distance	....	10	10
d	3204.2.14 Elevator control	6	6	6
c	3204.2.15 Means of egress emergency lighting	....	2	2
b	3204.2.16 Mixed uses	0	....	0
	3204.2.17 Automatic sprinklers	6	6+2=8	6
	Building score — total value	47.29	63.29	61.29

.... No applicable value to be inserted.

SECTION 3206.0 SAFETY SCORES

3206.1 General: The values in Table 3206.1 are the required mandatory safety scores for the evaluation process listed in Section 3204.2.

Table 3206.1
MANDATORY SAFETY SCORES

Use groups	Fire safety (MFS)	Means of egress (MME)	General safety (MGS)
A-1	10	24	24
A-2	5	19	19
A-3	9	21	21
A-4, E	17	29	29
B	28	40	40
F, S-1	26	53	53
M, R	23	35	35
S-2	38	65	65

SECTION 3207.0 EVALUATION OF BUILDING SAFETY

3207.1 General: The mandatory safety score in Table 3206.1 shall be subtracted from the building score in Table 3205.1 for each category. Where the final score for any category equals zero or more, the building is in compliance with the requirements of this article for that category. Where the final score for any category is less than zero, the building is not in compliance with the requirements of this article.

Table 3207.1
EVALUATION FORMULAS

Formula	Table 3205.1		Table 3206.1		Score	Pass	Fail
FS-MFS ≥ 0	35 (FS)	-	28 (MFS)	=	7	✓	
ME-MME ≥ 0	51 (ME)	-	40 (MME)	=	11	✓	
GS-MGS ≥ 0	49 (GS)	-	40 (MGS)	=	9	✓	

FS = Fire Safety
ME = Means of Egress
GS = General Safety
MFS = Mandatory Fire Safety
MME= Mandatory Means of Egress
MGS = Mandatory General Safety

3207.2 Mixed uses: For mixed uses, the following provisions shall apply:

1. Where the uses are not separated by a *fire separation assembly* or a *fire wall* as required by Section 313.1.2 or 313.1.3, the mandatory safety scores for the use with the lowest general safety score in Table 3206.1 shall be used.
2. Where the uses are separated as required by Section 313.1.2, the mandatory safety scores for each use shall be placed against the evaluation scores for the appropriate use and the most restrictive *height* and *area* limitations in this code shall be used in the calculation of the *height* value in Section 3204.2.1 and the *area* value in Section 3204.2.2 and the values so determined shall apply to both uses.

F DETERMINE SAFETY PARAMETER VALUES — USE TABLE 7-1.

ct and circle the safety value for each parameter in Table 7-1 that best describes the conditions in the facility. Choose only one value for each of the 13 parameters. If two or more values appear to apply, choose the one with the lowest point value.

Table 7-1. Safety Parameters

Safety Parameters	Parameter Values								
1. Construction	Noncombustible			Combustible					
Evaluation System	Fire Resistive	Protected	Unprotected	Ordinary		Heavy Timber	Wood Frame		
NFPA 220 Bldg. Const. Types	Type I	Type II	Type II	Type III		Type IV	Type V		
	443 or 332	222 or 111	000	211	200	2HH	111	000	
1 story	0	0	0	0	-1	0	0	-1	
2 stories	2	2	-4	0	-2	0	0	-4	
3 stories	2	2	-6	0	-6	0	0	-12	
4-5 stories	2	2	-12	0	-12	0	0	-12	
6 stories or more	2	0	NP	0	NP	0	-6	NP	

2. Segregation of hazards	Expose exit system		Segregated from exit routes		None or no deficiencies
	Dbl. def.	Single def.	Dbl. def.	Single def.	
	-7	-4	-4	0	0

3. Vertical openings	Open (or incomplete enclosure)				Enclosed	
	Connects 5 or more floors	4 flrs.	3 flrs.	2 flrs.	<30 min.	30 min.-1 hr
	-10	-7	-4	-2	-1(0)[A]	0

4. Sprinklers	None	Corridors only	All but corrs. and lobbies		Total Bldg.	
			Std.	Fast	Std.	Fast
	0	0	4	6	10	12

5. Manual Fire fighting appliance	None	Fire Exts. only	Standpipes only		Standpipes &exts.	
			≤3 sty.	≥4 sty.	≤3 sty	≥4 sty.
	0		0	1	1	2

6. Manual fire alarm system	None	w/o fire dept. notification	w/fire dept. notification	
			off-station	on-station
	0	1		2

7. Smoke detection & alarm	None	Corridors or special haz.	Rooms	Zone	Total Bldg.
	0	1	2	4	5

8. Interior finish exit routes rooms suites	Flame spread ratings[B]					
	>75≤200		>25≤75		≤25	
	>75≤200	≤75	>75≤200	≤75	>25≤200	≤25
	-3	-1	0	1	1	2

9. Smoke control	None	Smoke partitions	
		Passive	Active
	0	3	4

10. Exit access	Max. dead end		No dead end > 50 ft. & travel is:			
	>75'≤100'	>50'≤75'	>200'[C]	100'-200'[C]	50'-100'	≤50'
	-2[D]	-1[D]	-1	0	1	3

11. Exit system	Single	Multiple routes		Direct Exits
		Deficient	≥2	
	-6	-2	0	5

12. Corridor/room separation (Compartmentation)	Separation exists and level of protection is:						
	Incomp.	Smoke resistive[E]		>20 min.[E]		1 hr or more[E]	No separation
		w/o door closers	w/door closers	w/o door closers	w/door closers	w/door closer	
	-6 to 0	0	1(2)[F]		2(3)[F]	3(4)[F]	0

13. Emergency preparedness	Unfamiliar occupants		Familiar staff	
	None	Coordinated	None	Coordinated
	-2	0	0	

A. Use 0 if building is one level

B. In any sprinkler protected spaces consider flame spread rating to be 25 or 75 if the interior finish material flame spread does not exceed 75 or 200, respectively.

C. Increase 200-300 if parameter 4 is 10 or more.

D. Use 0 if parameter 11 is -6.

E. Rate separation 20 min. (or actual if greater) if parameter 4 is 10 or more. * Smoke resisting if parameter is based on unprotected construction.

F. Use ( ) if separation between rooms also meets criteria.

(Dated 1/88, 1988 *Life Safety Code*)

SECTION 3206.0 SAFETY SCORES

3206.1 General: The values in Table 3206.1 are the required mandatory safety scores for the evaluation process listed in Section 3204.2.

Table 3206.1
MANDATORY SAFETY SCORES

Use groups	Fire safety (MFS)	Means of egress (MME)	General safety (MGS)
A-1	10	24	24
A-2	5	19	19
A-3	9	21	21
A-4, E	17	29	29
B	28	40	40
F, S-1	26	53	53
M, R	23	35	35
S-2	38	65	65

SECTION 3207.0 EVALUATION OF BUILDING SAFETY

3207.1 General: The mandatory safety score in Table 3206.1 shall be subtracted from the building score in Table 3205.1 for each category. Where the final score for any category equals zero or more, the building is in compliance with the requirements of this article for that category. Where the final score for any category is less than zero, the building is not in compliance with the requirements of this article.

Table 3207.1
EVALUATION FORMULAS

Formula	Table 3205.1		Table 3206.1		Score	Pass	Fail
FS-MFS ≥ 0	47 (FS)	-	28 (MFS)	=	19	✓	
ME-MME ≥ 0	63 (ME)	-	40 (MME)	=	23	✓	
GS-MGS ≥ 0	61 (GS)	-	40 (MGS)	=	21	✓	

FS = Fire Safety
ME = Means of Egress
GS = General Safety
MFS = Mandatory Fire Safety
MME= Mandatory Means of Egress
MGS = Mandatory General Safety

3207.2 Mixed uses: For mixed uses, the following provisions shall apply:

1. Where the uses are not separated by a *fire separation assembly* or a *fire wall* as required by Section 313.1.2 or 313.1.3, the mandatory safety scores for the use with the lowest general safety score in Table 3206.1 shall be used.
2. Where the uses are separated as required by Section 313.1.2, the mandatory safety scores for each use shall be placed against the evaluation scores for the appropriate use and the most restrictive *height* and *area* limitations in this code shall be used in the calculation of the *height* value in Section 3204.2.1 and the *area* value in Section 3204.2.2 and the values so determined shall apply to both uses.

Part B. COMPUTE INDIVIDUAL SAFETY EVALUATIONS – USE TABLE 7-2.

1. Transfer each of 13 circled safety parameter values on Table 1 to every unshaded block in the line with the corresponding safety parameter in Table 7-2. Where the block is indicated (÷ 2) enter only one-half the value shown in Table 1.
2. Add the four columns, keeping in mind that any negative numbers deduct.
3. Transfer the resulting values for S_1, S_2, and S_3 on page 4 of this worksheet.

Table 7-2 Individual Safety Evaluation

Safety Parameter	Fire Control (S_1)	Egress Provided (S_2)	General Firesafety Provided (S_3)
1. Construction	0		0
2. Hazardous areas	0	0	0
3. Vertical openings	−7 ÷2 = (−3.5)	(−7)	(−7)
4. Sprinklers	10	10 ÷2 = 5	10
5. Manual fire fighting equipment	1		1
6. Manual fire alarm system	1 ÷2 = .5	1	1
7. Smoke detection and alarm	5 ÷2 = 2.5	5	5
8. Interior finish	0 ÷2 = 0		0
9. Smoke control		0 ÷2 = 0	0
10. Exit access		0	0
11. Exit system		(−2)	(−2)
12. Corridor separation	1 ÷2 = .5	1 ÷2 = .5	1
13. Emergency preparedness		1	1
Total	S_1 = 11	S_2 = 3.5	S_3 = 10

(Dated 1/88, 1988 *Life Safety Code*)

Part C. DETERMINE MANDATORY REQUIREMENTS — USE TABLE 7-3.

Transfer the circled values from Table 7-3 to the blanks marked S_a, S_b, S_c and S_d in Table 7-4.

Table 7-3 Mandatory Requirements

Building Height	Control Requirement (S_a)	Egress Requirement (S_b)	General Firesafety Requirement (S_c)
1 Story	2	2	3
2-5 Story	2	2	3
≥ 6 Story	11	4	9

(Dated 1/88, 1988 *Life Safety Code*)

Table 7-4 Equivalency Evaluation

							YES	NO
Control Provided	(S_1)	minus	Required Control	(S_a)	≥0	S_1 11 − S_a 2 = 9	✓	
Egress Provided	(S_2)	minus	Required Egress	(S_b)	≥0	S_2 3.5 − S_b 2 = 1.5	✓	
General Firesafety	(S_3)	minus	Required Gen. Firesafety	(S_c)	≥0	S_3 10 − S_c 3 = 7	✓	

Part D. EQUIVALENCY EVALUATION

1. Perform the indicated subtractions in Table 7-5. Enter the differences in the appropriate answer blocks.
2. For each row check "YES" if the value in the answer block is zero or greater. Check "NO" if the value in the answer block is a negative number.

Table 7-5 Facility Fire Safety Requirements Worksheet

	Considerations	(WILL) Met	Not Met	Not Applic.
A.	Building utilities conform to the requirements of Section 7-1 of NFPA 101, *Life Safety Code*.	✓		
B.	The air conditioning, heating, and ventilating systems conform with Section 7-2 of NFPA 101, *Life Safety Code*.	✓		
C.	Elevator installations are made in accordance with the requirements of Section 7-4 of NFPA 101, *Life Safety Code*.			✓
D.	Rubbish chutes, incinerators, and laundry chutes are installed in accordance with Section 7-5 of NFPA 101, *Life Safety Code*.			✓

(Dated 1/88, 1988 *Life Safety Code)*

Part E. EQUIVALENCY CONCLUSIONS

Complete Tables 7-1 through 7-5 before doing this part.

1. [✓] All of the checks in Table 7-4 are in the "YES" column. The level of firesafety is at least equivalent to that prescribed for general purpose buildings.*
2. [ ] One or more of the checks in Table 7-4 are in the "NO" column. The level of firesafety is not shown by this system to be equivalent to the life safety requirements prescribed by NFPA 101, *Life Safety Code*.

*The equivalency covered by this worksheet includes the majority of considerations involved. There are however, a few considerations that are not evaluated by this method. These must be separately considered. These additional considerations are covered in Table 7-5.

3. BOCA Code Review

The following material provides data on existing conditions vs. requirements for code compliance including applicable section reference. Those items preceeded by * indicate a deficiency requiring correction or an agreed-upon waiver during design development.

ARTICLE 3 - USE GROUP CLASSIFICATION
Use Group A-3, Assembly - First floor.
Use Group B, Business - Second and Third floors.
Use Group S-1, Storage - Fourth floor or no use group.

For the following review, Section 313.0 "Mixed Use and Occupancy" applies; classified as Nonseparated uses (Section 313.1.1).

ARTICLE 4 - TYPES OF CONSTRUCTION CLASSIFICATION
Existing - (Protected) Type 3A

ARTICLE 5 - GENERAL BUILDING LIMITATIONS

Section 501.1 - General Height and Area Limitation
Height Allowed: 50 ft.
Height Existing: 43 ft.
Area Allowed: 15,120 s.f./fl.
Area Existing: 2,640 s.f./fl.

Section 507.0 - Permissible Street Projections
* 507.7 - Maximum balcony projection: 3'-0"
Existing balcony projection: 3'-6"

Section 513.0 - Special Historic Buildings and Districts. Provides for the non-compliance with code when judges to be safe and in the interest of public health, safety and welfare.

ARTICLE 8 - MEANS OF EGRESS
Section 806.0 - Occupant Load
806.1.2- Allowable number by table:
1st floor: 130
2nd floor: 20
3rd floor: 20
4th floor: N/A
806.1.3- Number by combination: 40 (2nd and 3rd floors.)

Section 807.0 - Types and Locations of Means of Egress
807.4.1- Remoteness:
Required:
Existing:
807.5 - Length of travel:
Maximum: 250'
Existing: 90'

```
Section 808.0  - Capacity of Egress Components
        808.2  - Minimum width
     Stairways:  See Section 810.0
     Doors:      See Section 810.0

Section 809.0  - Number of Exits
        809.2  - Minimum number: 2

Section 810.0  - Exit Access Passageways and Corridors
        810.2  - Dead ends.
     Maximum:    20 ft.
     Existing:
        810.3  - Width
     Required:   36"
     Existing:
        810.4  - Enclosure
     Required:   0 w/ sprinkler system

Section 813.0  - Means of Egress Doorways (1st floor only reqd.)
        813.3  - Size of Doors
     Required:   32" clear
     Existing:   32", 34", and 36"
*       813.4  - Door Hardware

Section 817.0  - Stairways
        817.3  - Width
     Required:   36" min. width
     Existing:   36" & 38"
        817.4  - Headroom
     Required:   6'-8" minimum
     Existing:   6'-5 1/2"min.
        817.6  - Treads and Risers
     Max./min allowable riser:  7"/4"
     Existing riser:  10 1/4"/7 3/8"
     Min. allowable tread:  11"
     Existing tread:  9 3/4"
     Existing stairways are allowable exception.
        817.6.1- Dimensional uniformity
     Allowed:    3/16" adjacent tread or riser
     Existing:
     Allowed:    3/8" tread or riser within flight
     Existing:
        817.7  - Stairway guards and handrails
     Required:   On both sides except for stairways < 44" in
                    width.
     Existing:   One side only at rear stairse (36" - 38")
        817.8.2- Direction of swing
     Required:   In direction of travel when 2 doors are reqd.
*    Existing:   Interior swing
        817.11 - Interior stairway enclosures
     Required:   1 hour
     Existing:   1 hour with new fire sprinkler system.
```

Section 825.0 - Handrails

825.2.1- Projection

Required: 3 1/2" max.

Existing: 2 1/2"

825.2.2- Height

Required: 34" min./38" max.

Existing: 34"

825.2.3- Handrail ends

Required: 12" extension beyond top riser and 12" + tread width beyond bottom riser.

* Existing: Butt into newel.

825.2.4- Handrail grip size

Required: 1 1/4" - 2"

Existing:

ARTICLE 11 - STRUCTURAL LOADS

Section 1106.0 - Uniformly Distributed Live Loads

Table 1106.1 - Minimum Uniformly Distributred Live Loads

Assembly Areas	100 psf
Corridors	100 psf
Offices	50 psf
Office Corridors above first floor	80 psf
Light Storage	125 psf

First floor - Room 101, which contains 35% of the floor area has a 25% deficiency below required public assembly loading. However, since there is no finish ceiling below, this is considered acceptable.

Room 106, which contains 26% of the floor area has an unknown floor loading. No apparent deficiencies exist.

Second floor - Approximately 76% of the floor area has a deficient floor loading below that required for office or office corridor loading. No analysis was undertaken of the stair framing.

Third floor - Approximately 72% of the floor area has a deficient floor loading below that required for office or office corridor loading. No analysis was undertaken of the stair framing.

Fourth floor - Irregardless of this floor's requirements for additional work to comply with code and life-safety requirements, approximately 39% of the floor area has a deficient floor loading below that required for office or office corridor loading; 100% deficiency for storage loading.

E. Accessibility Review

The following provides an evaluation of B-34/35's significant existing condition features vs. requirements as prescribed by the "Uniform Federal Accessibility Standards" (UFAS), including applicable section reference. Those items preceeded by * indicate a deficiency requiring correction or an agreed-upon waiver during design development. "N/A" refers to a requirement beyond the scope of this building-specific report and/or a requirement currently non-existent (i.e. elevator.) Incorporation of new services or facilities within the structure shall comply with appropriate requirements as set forth in Article 4.1 - Minimum Requirements, to the extent possible.

Article 4.1.7, "Accessible Buildings: Historic Preservation" allows the Advisory Council on Historic Preservation the authority of determination as to whether compliance would threaten or destroy the historic significance of the building.

Article 4.3 - Accessible Route.
* The building is currently inaccessible at all exterior doorways (See attached drawings.) A site accessibility study has been developed which addresses and upon implementation, will correct this condition.

Article 4.4 - Protruding Objects.
Building currently in compliance.

Article 4.5 - Ground and Floor Surfaces.
* Assumming the building and each interior floor level were accessible, the building does not fully comply at each level because of interior floor level changes:
1st floor - Separate exterior entry is required.
2nd floor - Floor levels vary between original B-34 and B-35 and their 1891 addition. Attached drawings identify areas of floor level changes with potential mitigation measures through "removal of step."
3rd floor - Floor levels vary between original B-34 and B-35 and their 1891 addition. No mitigation measures identified or proposed.

Article 4.6 - Parking and Passenger Loading Zones. N/A.

Article 4.7 - Curb Ramps. N/A.

Article 4.8 - Ramps. N/A.

Article 4.9 - Stairs.
4.9.2 - Treads and Risers. (Note: UFAS does not define "uniform" within the context of existing structures. For the purposes of this evaluation and in accordance with BOCA, + 3/16" between adjacent treads or risers is considered to be uniform.)

Room 102 to Landing:
Treads uniform and required width.
Risers uniform.
Landing to Room 103:
Treads uniform and required width.
Risers uniform.
Landing to Room 204:
* Treads non uniform and too narrow.
* Risers non uniform.
Note: This section of stairway proposed for closure through locking its access door at Room 204 and the installation of a continuous handrail across its access.
Room 203 to Landing:
Treads uniform and required width.
* Risers non uniform.
Landing to Room 305:
* Treads non uniform and too narrow.
* Risers non uniform.
Room 305 to Landing:
* Treads uniform but too narrow.
* Risers non uniform.
Landing to Landing:
* Treads uniform but too narrow.
* Risers non uniform.
Landing to Landing:
* Treads (1 only) too narrow.
* Risers non uniform.
Landing to Room 403:
* Treads uniform but too narrow.
* Risers non uniform.
Room 209 to Room 306:
* Treads non uniform and too narrow.
* Risers non uniform.

4.9.3 - Nosings
* All undersides of nosings intersect riser at 90 .

4.9.4 - Handrails
* Handrails are not continuous, do not have required extensions at top and bottom of stairs, and do not have required termination.

Article 4.10 - Elevators. N/A.

Article 4.11 - Platform Lifts. N/A.

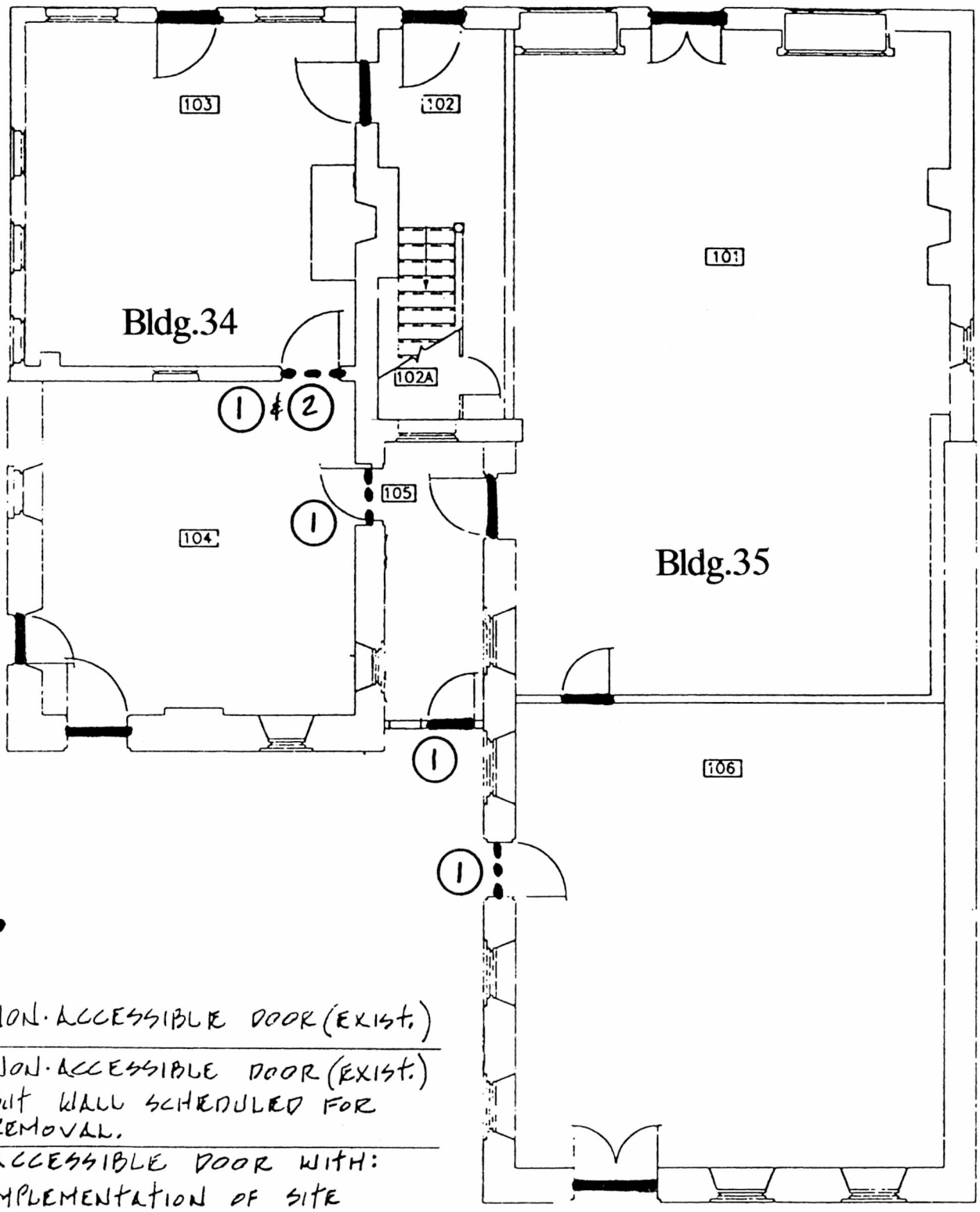
Article 4.12 - Windows. N/A.

Article 4.13 - Doors.
4.13.4 - Double-Leaf Doorways, 4.13.5 - Clear Width, and
4.13.8 - Thresholds at Doorways:
* All doorways in compliance except as noted in attached drawings.

4.13.9 - Door Hardware.
* Existing knobs and thumblatches not in compliance.

Article 4.14 - Entrances. See Article 4.3.

Articles 4.15 - 4.34 and Articles 5 - 9. N/A.



•KEY•

NON-ACCESSIBLE DOOR (EXIST.)

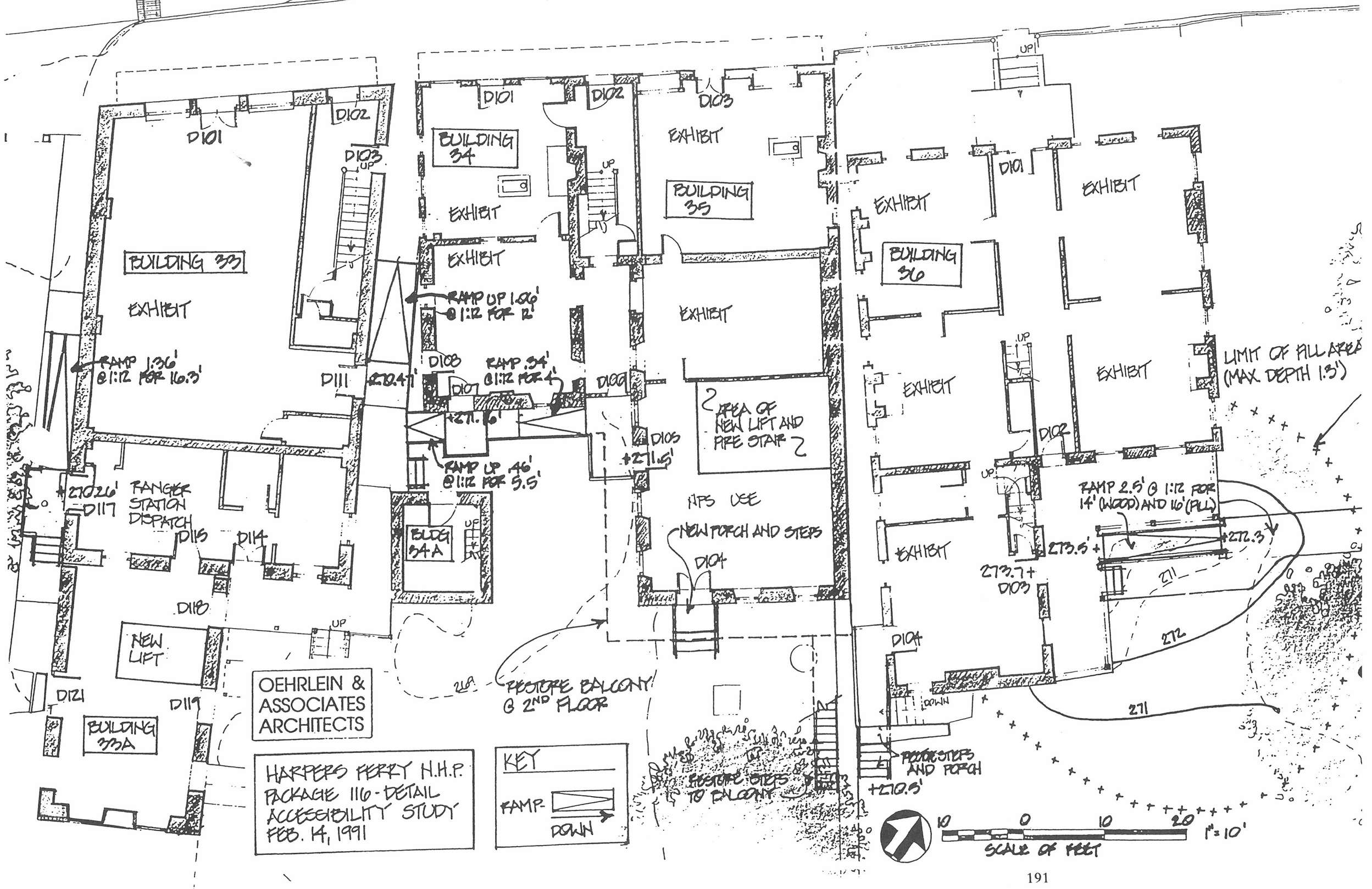
(1) NON-ACCESSIBLE DOOR (EXIST.) BUT WALL SCHEDULED FOR REMOVAL.

ACCESSIBLE DOOR WITH:

(1) IMPLEMENTATION OF SITE DEVELOPMENT PLAN.

(2) LESSENING OF THRESHOLD HEIGHT.

FIRST FLOOR PLAN (1)


BUILDING 33
EXHIBIT
D101
D102
D103
UP
RAMP 1.36' @ 1:12 FOR 16.3'
D111
+270.4'
D108
RAMP .34' @ 1:12 FOR 4'
D107
+271.6'
RAMP UP .46' @ 1:12 FOR 5.5'
+270.26'
D117
RANGER STATION DISPATCH
D115
D114
D118
NEW LIFT
D121
D119
BUILDING 33A
BUILDING 34
EXHIBIT
RAMP UP 1.06' @ 1:12 FOR 12'
D109
BUILDING 34A
BUILDING 35
D105
+271.5'
2 AREA OF NEW LIFT AND FIRE STAIR 2
NPS USE
NEW PORCH AND STEPS
D104
2 RESTORE BALCONY @ 2ND FLOOR
RESTORE STEPS TO BALCONY
BUILDING 36
LIMIT OF FILL AREA (MAX. DEPTH 1.3')
RAMP 2.5' @ 1:12 FOR 14' (WOOD) AND 16' (FILL)
+272.3
273.5'+
273.7+
271
272
FOOTSTEPS AND PORCH
+270.5'
OEHRLEIN & ASSOCIATES ARCHITECTS
HARPERS FERRY H.H.P. PACKAGE 116 - DETAIL ACCESSIBILITY STUDY FEB. 14, 1991
KEY
RAMP
DOWN
10 0 10 20
1" = 10'
SCALE OF FEET



BUILDINGS 32, 33, 33A, 34, 34A AND 35

CIRCULATION AND ACCESSIBILITY STUDY

PACKAGE NO. 116 • HARPERS FERRY NATIONAL HISTORIC PARK

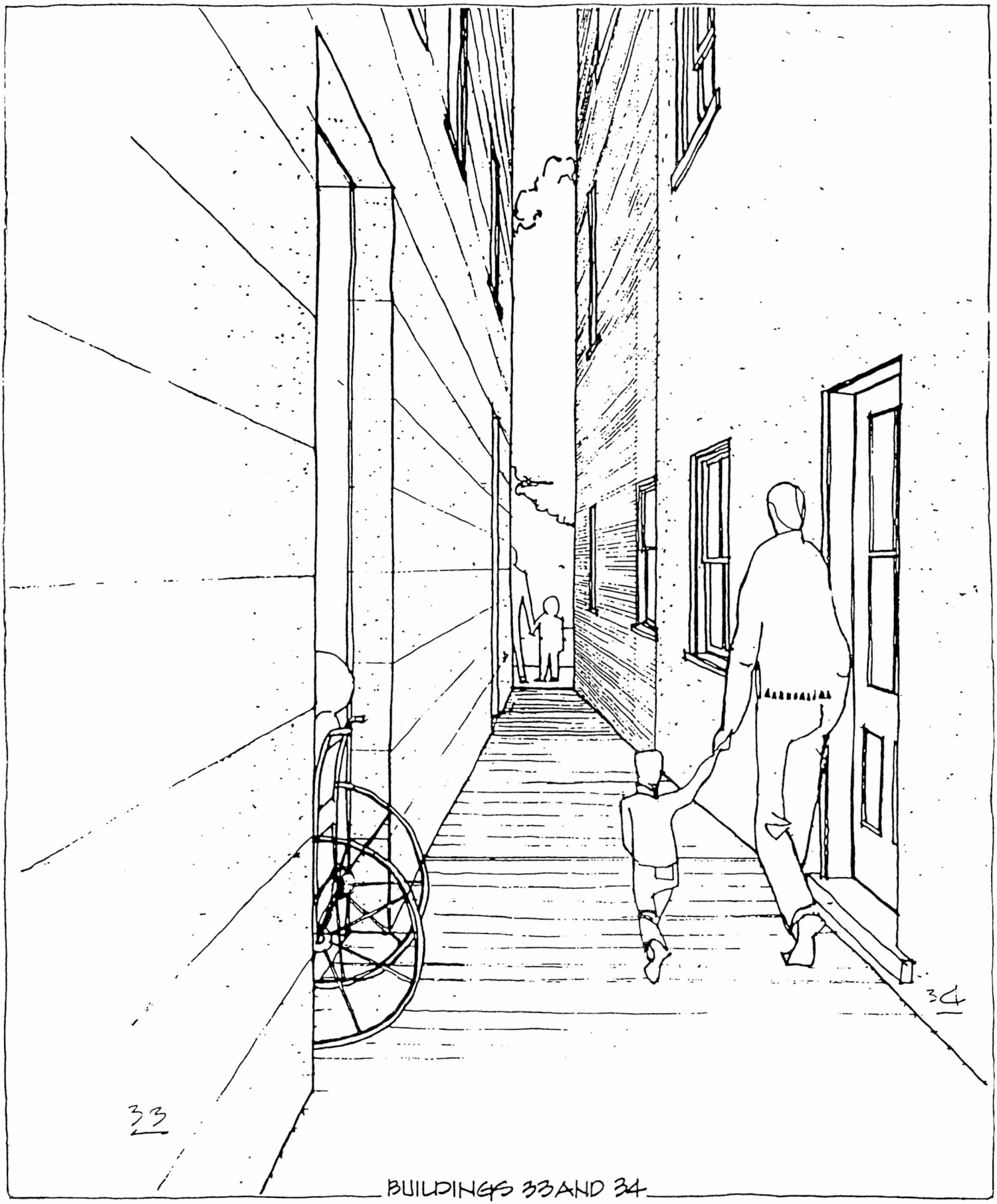
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CIRCULATION AND ACCESSIBILITY STUDY

PACKAGE NO. 116 • HARPERS FERRY NATIONAL HISTORIC PARK

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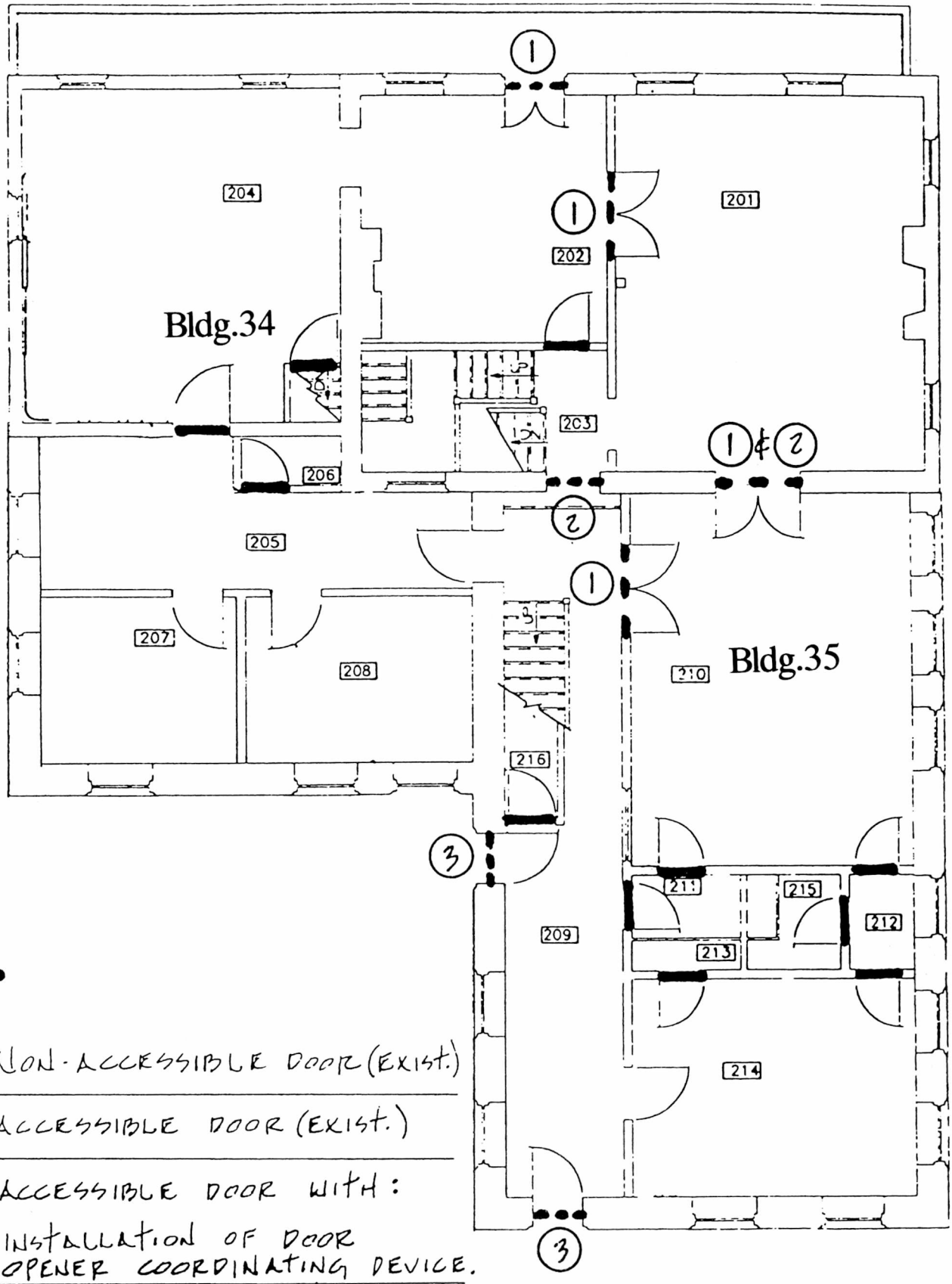


BUILDINGS 33 AND 34

CIRCULATION AND ACCESSIBILITY STUDY

PACKAGE NO. 116 • HARPERS FERRY NATIONAL HISTORIC PARK

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· KEY ·

NON-ACCESSIBLE DOOR (EXIST.)

ACCESSIBLE DOOR (EXIST.)

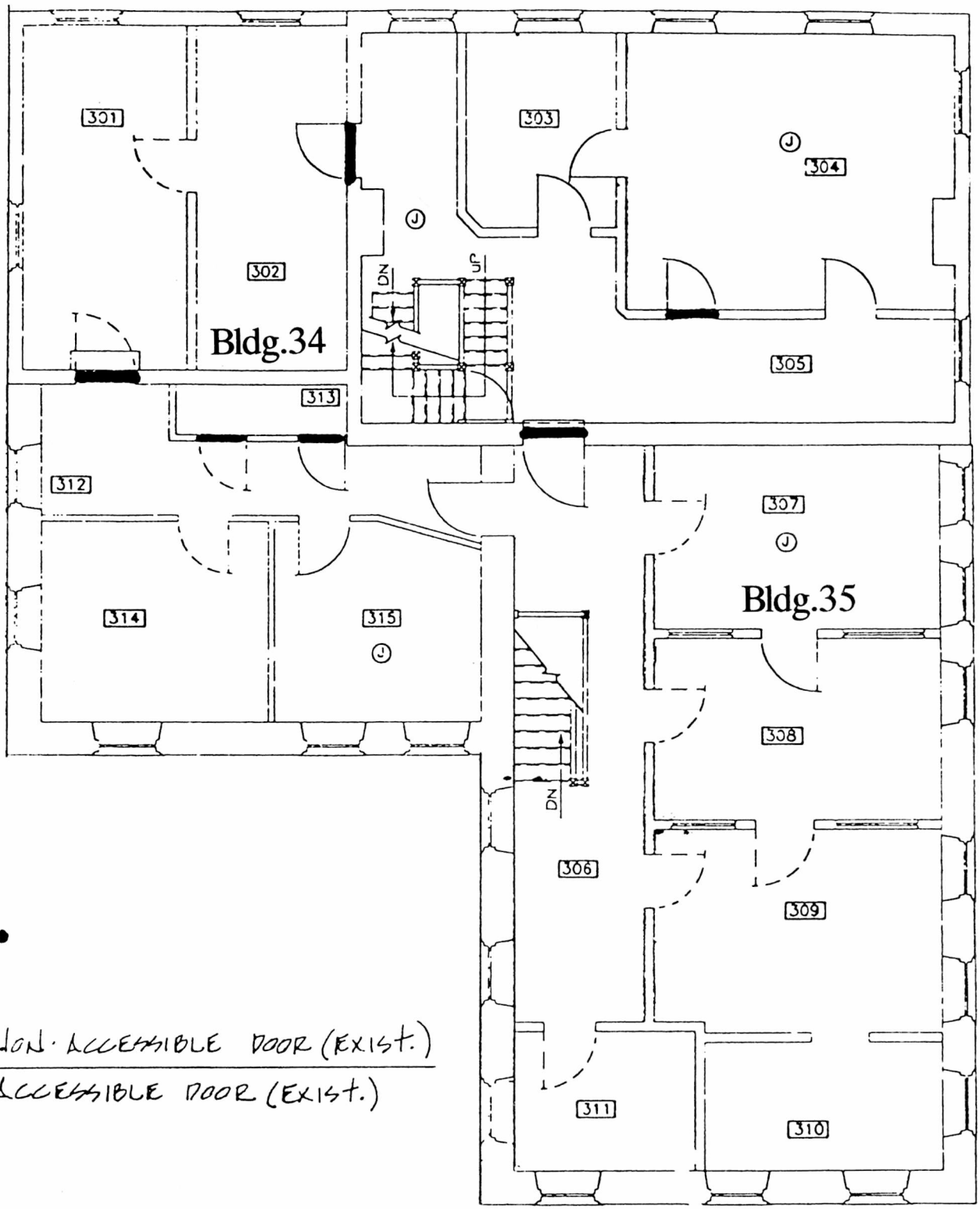
ACCESSIBLE DOOR WITH:

(1) INSTALLATION OF DOOR OPENER COORDINATING DEVICE.

(2) RESTORATION OF 1st FLOOR BEARING WALL & REMOVAL OF STEP.

(3) LESSENING OF (FRAME) DOOR STOP DIMENSION & THRESHOLD HEIGHT.

SECOND FLOOR PLAN (1)

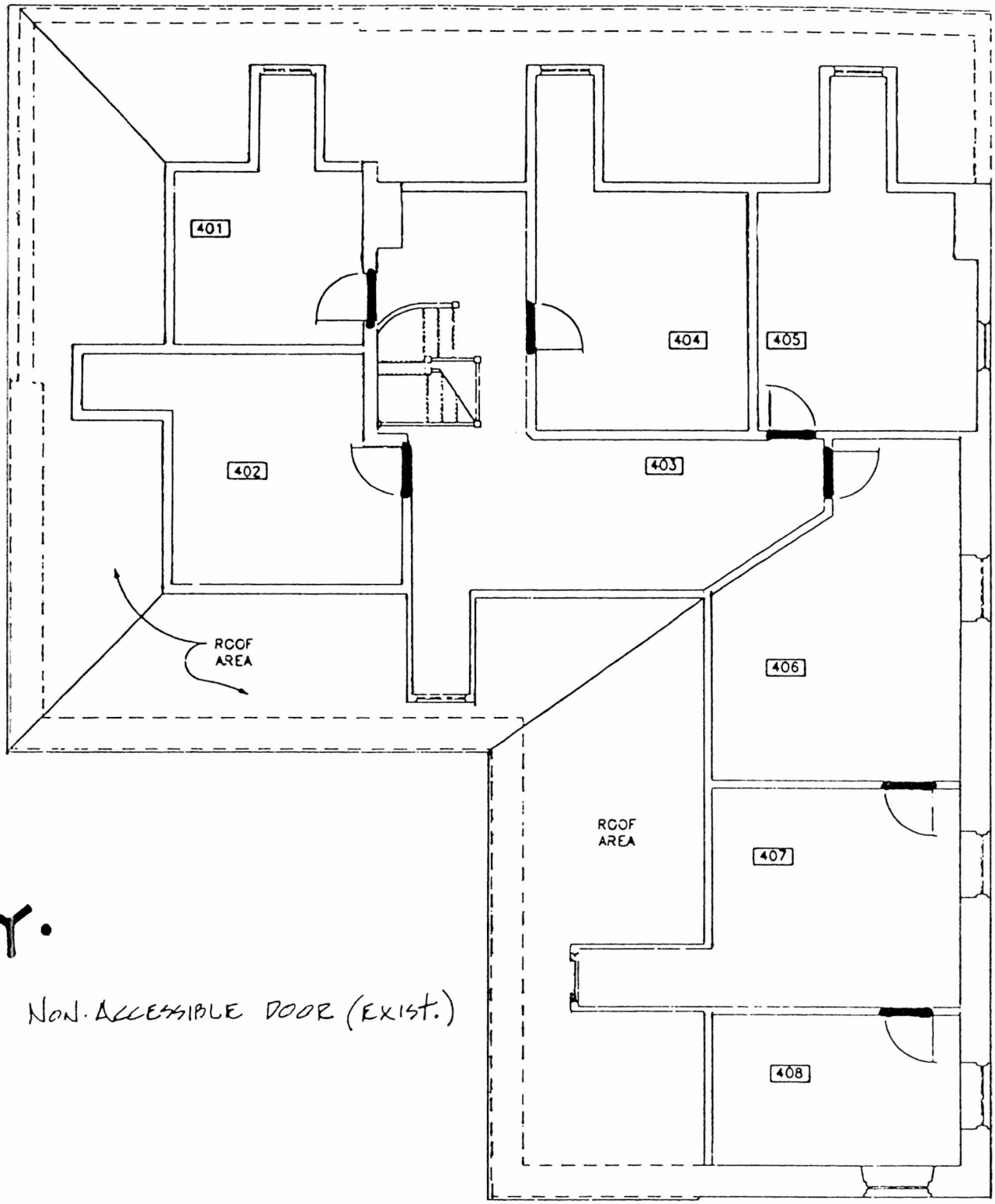


· KEY ·

NON-ACCESSIBLE DOOR (EXIST.)

ACCESSIBLE DOOR (EXIST.)

THIRD FLOOR PLAN 1



·KEY·

— NON-ACCESSIBLE DOOR (EXIST.)

FOURTH FLOOR PLAN 1

STRUCTURAL SURVEY

BUILDINGS 34, 34A AND 35

HARPERS FERRY NATIONAL HISTORIC PARK

HARPERS FERRY, WEST VIRGINIA

Contract No. CX-2000-0-0011

Work Order No. 3

April 11, 1991

Oehrlein & Associates Architects
1702 Connecticut Avenue, NW
Washington, DC 20009

James Madison Cutts
Consulting Structural Engineers
1147 20th Street, NW
Washington, DC

INTRODUCTION

The structures reviewed in this study have been observed by professional engineers with regard to structural integrity. Observations were limited to elements which could be observed without demolition of the existing buildings. The study included

- observation of bearing conditions and analysis of any found irregular or questionable
- bending stress analysis
- shear stress analysis
- deflection analysis
- general building stability

Wood samples were taken from several locations within the buildings. Although their species were identified (see Appendix), the exact bending stress or shear stress capacities were not determined. These capacities would be of little value since the allowable stresses for wood are as dependent on the amount of checks, knots and other defects, as well as grain direction, as they are on wood species. Therefore, engineering judgement was used, based on experience with many other structures of this age, and the following allowables were used in the analysis:

f_b = 1400 psi
f_v = 70 psi
E = 1,400,000 psi

When modifications are suggested, it is assumed new lumber will be used. For new lumber, (or what appears as recently installed existing framing) the following allowables were used:

f_b = 1200 psi
f_v = 70 psi
E = 1,100,000 psi

When member sizes are quoted for existing framing, the sizes represent actual dimensions. For proposed new lumber, nominal dimensions are given.

Please refer to the appendix for detailed calculations.

Anticipated loadings were provided by the National Park Service in terms of occupancy/use. The following floor design loadings were assigned:

Open to public	100 psf
Office	50 psf
Storage	125 psf
Heavy Storage	250 psf
Utilities	125 psf
Roof	35 psf
Corridors	80 psf

BUILDING 34

EXISTING CONDITION

SEE NOTE 'A' OF NPS COMMEN-TARY.

Building 34 is structurally an addition to the east of Building 35. It is in itself two different structures built at different times, separated by a brick bearing wall. The north portion is a brick masonry bearing wall structure while the south portion is a stone bearing wall structure. They share a common roof system and both have wood framed floors.

The roof rafters are not adequate to support design snow loads nor the possible additional loading of a proposed slate roof. After efforts to justify the roof by assigning load to the floors below, it appears most practical to reinforce the roof rafters themselves.

The fourth floor in the north and south portions are framed with 2" by 12" floor joists at 16" centers, implying that this level of the north portion was reframed when the south portion was added. Both areas are structurally adequate for office loading but are deficient for storage loading.

The north and south portion of the third floor are very different. The south portion, being framed with 2" by 12" joists on 16" centers, proves to be inadequate for office and corridor loading. The north portion is very bouncy and is far short of the capacity to carry office or storage loadings.

SEE NOTE 'OF NPS COMMEN-TARY

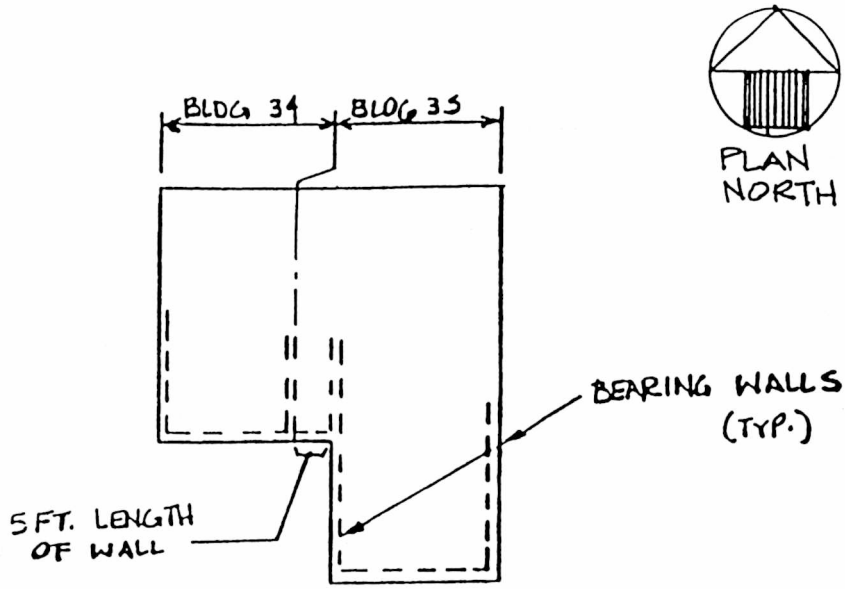
The vertical crack between the interior partition and the west wall of the south portion is probably due to the normal deflection in the floor joists. As the floor deflects, the interior partition rotates with it, causing the gap. This is not believed to be structurally significant.

A vertical crack exists along the side of the window in the west wall of the north portion. By studying the crack from inside and out, it appears this crack is due to settlement of the building foundations. It is not believed that the crack poses any risk to the structure at this time.

The intended use of the second floor is public access and both the south and north portions fail to be acceptable. The balcony at the north elevation of both Buildings 34 & 35 is supported by wrought iron brackets attached to the brick wall.

The first floor in both portions is constructed of a 1-1/2" thick tongue and groove flooring supported on bar joists which bear on CMU walls built off of the slab on grade in the basement. This construction is relatively new. Most of this floor is adequate for public usage, including room 105 (framed in wood). Room 101 does not meet /360 criteria for deflection. Room 106 is inaccessible and therefore, the structure is unknown.

There is significant cracking apparent at the interface of Building 34 and Building 35 at the south wall. It appears that the five foot long piece of wall indicated below is supported on a lintel spanning from Building 34 to Building 35 at the second floor level and that its bearing failed at Building 35. Repairs have been made, but further movement is present.



PLAN VIEW OF BUILDINGS 34 & 35

RECOMMENDATIONS

The roof rafters require the addition of new 2 x 8's to each rafter. Additionally, the bottom ends of the rafters should be tied to the fourth floor joists to resist outward thrusts.

In the third floor south, present framing should be replaced with 1¾" x 14" MicroLam beams at 12" on center if it is to be used for corridor or office loading. Note that this lowers the existing ceiling height. To achieve office load capacity in the north portion, new 2 x 12's with solid bearing on the masonry walls must be added to each existing joist. New 2 x 12's in the north portion would lower the existing ceiling; however, to keep the present ceiling height, new 2 x 10's at 6" on center would be necessary to meet deflection criteria. This would not be economical. The west wall should be strapped to the first 4 or 5 joists with 2" by 1/8" strap steel to tie the wall to the floor diaphragm.

New 2 x 12's must be added at 16" centers in the south portion of the second floor to attain public loading capability. In the north portion, new 2 x 12's at 12" on center are required to achieve the same load capacity. Adding new 2 x 12's would lower the existing ceiling; however, using new 2 x 10 framing would not be economical since the new joists would need to be spaced 6" on center to meet deflection limits. The wrought iron brackets supporting the second floor balcony must be studied further for the connection capacity at the wall. Public access to the balcony should be prohibited until it is analyzed properly.

Room 101 bar joists do not meet the deflection criteria set by the B.O.C.A. Code for floor construction, /360. Using this space for public access would probably be acceptable since there is crawl space below and therefore no plaster ceiling. Room 106 needs to be further investigated to determine the sizes and condition of the framing.

The bearing condition of the lintel between Buildings 34 and 35, as mentioned above, should be more thoroughly investigated. The exterior stucco will probably have to be removed and possibly other destructive testing is warranted. This work could be performed at the time of refurbishment.

BUILDING 34A

EXISTING CONDITIONS

Building 34A is a brick and stone bearing wall building with wood framed roof and floors.

The roof structure cannot be justified analytically. The roof rafters are satisfactory by themselves, but the overall system is not tied together at the base and is therefore inadequate.

The second and third floors are framed in wood and have a superimposed load carrying capacity of 83 psf and 102 psf respectively. Given the small space within the building, normal mechanical loading of 125 psf is not likely to be imposed on these floors. Thus, it is not realistic to accept or condemn the floors without more exact information about the imposed loads.

The first floor is part slab on grade and part wood framed. The framed floor calculates to a capacity of 97 psf but the slab on grade is questionable, since it consists of stone aggregate in mortar and there is a large excavation adjacent to the soils supporting it. Caving of the hole would undermine the slab on grade and render it unstable. If the excavation is properly backfilled and compacted, the existing slab on grade could support 100 psf with no risk to the public. The exact live load can not be determined without a load test because of the slab's composition and the inability to measure the contact surface area with the supporting soils below.

The walls of the structure are solid and reasonably plumb. Given its stout dimensions, it will adequately resist flood loadings.

RECOMMENDATIONS

The roof structure can be supported by posting down to the ceiling joists below with 2 x 4's at the mid-point of the four ridge rafters. Doubling up of the ceiling joists will be required.

If the design live load on the second and third floors is to be 125 psf, new 2 x 8's can be scabbed onto the existing framing to sufficiently reinforce it.

At the first floor it is recommended that the excavation be filled with compacted soils and that the entire floor be slab on grade. To achieve more than 100 pounds per square foot, it is recommended that the existing slab be removed and replaced with a new 6" concrete slab on grade poured over 6 mil polyethylene on 6" crushed stone.

BUILDING 35

EXISTING CONDITIONS

Building 35 is structurally a building with an addition. The original building (northern portion) is a brick bearing wall building with wood framed floors and roof, except for the first floor which is wood on steel bar joists. The addition is similar but has stone bearing walls in lieu of brick.

The roof structure over the entire building is inadequate to support design loads. In both portions of the building, the roofs work by imposing loads on the interior partitions which distribute loads to the floors below. Careful analysis of the floors indicate that they only marginally support their own design loads and therefore have no excess capacity to support roof loads. The roof rafters need reinforcing and the valley member framing over the partition between rooms 403 and 406 is particularly in need of help.

As mentioned above, the fourth floor is marginal. Technically, it is just adequate to support design loads for office use, but inadequate for storage.

At the third floor, the north portion is inadequate to support the intended office loading. While the south portion is capable of supporting office loading in most areas, the framing around the stair opening was inaccessible, but is probably framed in the way most stairs of that time were framed. The common fashion of framing stairs was to provide only double joists on all sides, regardless of the size or shape of the stair. In this instance, if such framing was used, it would be insufficient to carry the loads. Presently, the floor sags significantly.

SEE NOTE 'C' OF NPS COMMENTARY

The second floor is not capable of carrying public access loading. In both the north and south portions, the floors sag dramatically.

SEE NOTE 'D'

An interesting feature of the second floor is that the masonry bearing wall dividing the north and south portions and supporting parts of the second, third, and fourth floors stops at this level. Unfortunately, after a fair amount of effort, the beam supporting the wall could not be exposed. The beam creates a clear opening twenty-three foot wide at the first floor. Since there is no evidence of settlement, we conclude that it is adequately sized.

SEE NOTE 'E'

The first floor can be broken into three areas. The first area is in the northwest corner and serves as an entry hall to the stairs leading to the second floor. This area is framed in wood. Although the wood sizes are adequate to support design loads, it is badly rotten.

The second area of the first floor, is in the front and middle area of the building and is framed with 10" deep bar joists on CMU bearing walls and is adequate to support the design loads.

The third area of the first floor is at the south end of the building. This area was inaccessible but the local park personnel indicated that this area is also supported on bar joists. The floors capacity cannot be determined.

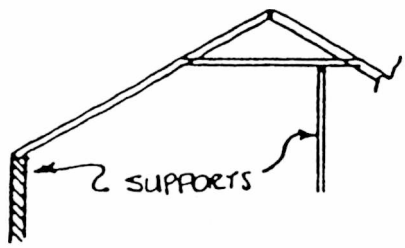
The basements have concrete slabs on grade and relatively new CMU walls supporting the bar joists of the first floor. It should be noted that the joists are beginning to show early signs of rusting.

SEE NOTE 'F'

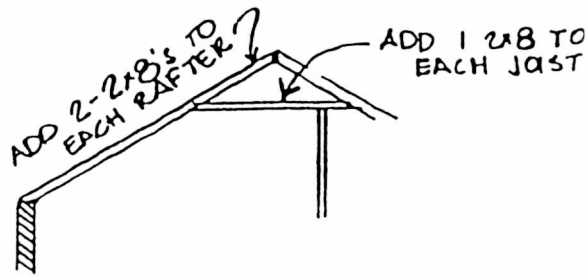
Another significant feature of Building 35 is the rear wall which is moving out or south. The greatest displacement is at the third or fourth floor at about the middle of the length of the wall. This movement is likely to be caused by normal settlement and not pose long-term problems for the building. Movement can be abated by tieing the wall to the floor diaphragms at the second, third and fourth floor levels.

RECOMMENDATIONS

To reinforce the roof rafters in the south portion of the building, new 2 x 12's could be added on 12" centers. This new framing would lower the present ceiling height. New members of smaller depth would not be adequate. In the north portion, the framing is slightly unusual and could be reinforced as below:



EXISTING



PROPOSED FIX

Note that the framing proposed would lower the existing ceiling height.

To reinforce the valley beam, it would probably be easiest to double the joists in the fourth floor under the partition supporting the valley.

At the third and fourth floor levels of the south portion, the floors have sagged significantly and probably aren't adequate at the stairs. It is recommended that new 2 x 12's be scabbed onto the existing floor joists and that a more extensive study be made at the stair opening.

The north portion of the third floor also requires (2) new 2 x 12's at each existing joist to achieve the desired office loading and to meet deflection criteria. This framing would lower existing the ceiling height below. Lowering the ceiling is unavoidable in this area.

SEE NOTE G' OF NPS COMMENTARY

The north portion of the second floor would not be adequate for either office loading or public access due to its inability to meet deflection criteria. It is recommended that (1) 2 x 12 be placed at existing joists, in addition to 2-2 x 12's between the existing. This new framing would lower the ceiling height; this cannot be avoided.

The rotten wood framing at the northwest corner of the first floor may be replaced with new 2 x 8's at 12" on center.

SEE NOTE "H"

To stabilize the rear wall, star anchors could be located at the third points along the wall at the second, third and fourth floors with tie-rods or straps tying them to the floor diaphragms.

Jim - For your review - my Calcs not included here !

STRUCTURAL SURVEY
Buildings 34, 34A, and 35
Harpers Ferry National Historical Park

The following comments and calculations are provided as commentary and back-up to the report submitted by Oehrlein & Associates Architects/James Madison Cutts, April 11, 1991 under Work Order No. 3 of Contract No. CX-2000-0-0011.

Building 34

Note "A" Modify to read "Building 34 is structurally an addition to the west of Building 35."

Note "B" This should not imply that the floor supporting the mentioned interior partition is structurally adequate. As determined by NPS and JMC calculations and stated on sheet 1.1, Live Load Capacities, the wood joists which constitute the structural framing for the floors in Rooms 205, 206, 207, and 208 are not sufficient to support the proposed loads.

Building 35

Note "C" The calculations by JMC to determine live load capacity for the floor of Room 201 were based on an incorrect assumption regarding the framing layout. As shown on sheet 5 of NPS calculations, the floor joists are supported by double 8" channel sections which run east to west across the approximate midsection of the room. This reduces the joist span from 20.5 feet to 9.5 feet. Based on this layout, the wood joists of the floor of Room 201 would support the proposed live load. However, the double channel sections, although adequate in bending, do not meet the deflection criteria of /360 set by the BOCA code.

Note "D" Upon further investigation, one side of the steel beam supporting the mentioned brick wall was exposed. Although not visible to the investigators, it is conjectured based on information obtained using probes (and the location of the visible beam in relation to the wall) that there is an adjacent, matching beam running parallel to the visible one. These double beams are for NPS calculation purposes assumed to be American Standard beam S15x42.9 and have been calculated to be inadequate to support the existing dead loads and proposed live loads for bending as well as deflection.

Note "E" Wood "Summer" beam (12"x8") dating to pre-1960s restoration effort supporting the floor joists in this entry room bears on rotted wood sill and has only 1" of bearing. See HSR drawings. In addition, the 1-1/2"x7-

1/4" wood sill (lying flat) below the framed partition is not adequately supported to carry the existing loads.

Note "F" The separation which occurs between the interior partitions and south masonry wall on the second, third, and fourth floors is most probably due to the deflection of the floor joists which support these partitions and not outward movement of the rear wall as here stated. No evidence was found to substantiate the theory of settlement of the rear wall. All floors, however, do display evidence of excessive deflection and have been determined by JMC calculations to be inadequate to support the proposed loads. It is also probable, although not verified, that a support system for these partitions existed at the first floor level prior to the 1960s restoration.

Note "G" This recommendation should be reconsidered based on the new evidence discussed in Note "C".

Note "H" This recommendation should be reconsidered based on the discussion presented in Note "F".

Calculations, Live Load Capacities, Sheet 1-1 (Rev. #1)

Note "I" These figures do not account for the information presented in Note "C". Assuming the smallest section possible in the channel class which matches known dimensions, the live load capacity (for bending) is 117.9 PSF. The live load capacity for deflection, however, does not satisfy the loading/use requirements established by the park. See Note "K".

Note "J" These figures are based on calculations which incorrectly assumed the floor framing system. They should be revised per NPS calculations (Sheets 1 and 2) to reflect a live load capacity of 76.5 PSF (governed by shear) and a deficiency of 23.5 PSF.

CALCULATIONS, DEFLECTIONS, Sheet 2-1 (Rev. #1)

Note "K" These figures should be revised to reflect new evidence discussed in Note "C". NPS calculation have determined that the critical "weak" links structurally are the double 8" channels which are inadequate to satisfy the deflection code requirement.

Note "L" These figures are based on calculations which incorrectly assumed the floor framing system. See Note "J". Total load maximum deflection should be modified per NPS calculations to read 0.69"; I to read 270 in^4.

Miscellaneous Comments and Concerns:

The following conditions relating to the exterior of Buildings 34,

34A, and 35 should be addressed during the next phase work:

Several types of door and window lintels can be found throughout these buildings. Although they are generally assumed to be in satisfactory condition, several of these members are most likely contributing to undesired loading on their respective window/door frames. Most critical is the door lintel mentioned by JMC located on the south side of Building 34, where it butts Building 35. Decay of this wooden member has already resulted in localized failure of the masonry wall it supports as well as racking of the adjacent window. Several other windows have also been stressed to the point that their frames are no longer square or plumb. In addition, where wooden lintels have been replaced with steel members, rusting has already occurred in most areas to the extent that the parging which originally was applied over the metal surface, presumably to obscure it from view, can no longer adhering to it.

The exfoliation of parging along the base of most exterior walls accompanied by very soft mortar and, when used, severely weathered brick indicates a problem of rising damp. This condition should be corrected by a combination of methods including improving the sub-surface drainage characteristics of the site, restoring gutters and downspouts and storm drainage lines, and grading. Other more drastic corrective measures which could be considered if the above mentioned methods are not sufficient include introducing a moisture barrier between the foundation and the wall it supports or waterproofing the buried exterior sides of the buildings' foundation walls.

MECHANICAL/ELECTRICAL/PLUMBING SURVEY

BUILDINGS 34, 34A AND 35

HARPERS FERRY NATIONAL HISTORIC PARK

HARPERS FERRY, WEST VIRGINIA

Contract No. CX-2000-0-0011

Work Order No. 3

September 20, 1990

Oehrlein & Associates Architects
1702 Connecticut Avenue NW
Washington, DC 20009

Shefferman & Bigelson
8455 Colesville Road
Silver Spring, MD 20910

DESCRIPTION OF EXISTING SERVICE AND EQUIPMENT

MECHANICAL

Buildings 34 and 35

Building 34 is equipped with a window air conditioning unit serving a first floor storage area. The unit is a 9,500 BTU Crosely air conditioning unit (Model CA10R4). No heat is provided.

Building 35 does not have mechanical systems.

Building 34A

Building 34A does not have mechanical systems.

PLUMBING

Buildings 34 and 35

Building 34 does not have a plumbing system.

Building 35 has an abandoned bathroom in Room 311 with abandoned piping which terminates below in Room 214. This piping appears not to be re-usable. The incoming service connections of the abandoned piping to sanitary and water lines could not be determined.

Building 34A

Building 34A does not have a plumbing system.

ELECTRICAL

Buildings 34 and 35

Buildings 34 and 35 have one incoming power service of 120/208 volts, three phase, four wire. The service terminates into a 100 amp main safety switch at 480 volts and then stepped down to 120/208 volts via a 25 KVA dry type transformer. A 125 panelboard with 120/208 volts serves the two buildings. The panelboard is a Square D type Q0 equipment rated at 125 amps. This equipment is installed in Room No. 204 at the second floor of Building 34.

A separate panelboard is installed in Room 105 of Building 35. The panelboard is a Square D equipment type QOC.

Power distribution in the building is utilizing a combination of rigid steel conduits, flexible conduits and BX cables in Room 105 of Building 35 and Room 203 in Building 34. Ceiling mounted junction boxes are observed throughout the buildings.

Illumination in the two buildings is provided with ceiling mounted outlets in Room 105 of Building 35 and Room 204 in Building 34.

Building 34A

The building has only one incandescent lamp and light switch in Room 101.

ANALYSIS AND RECOMMENDATIONS

MECHANICAL

Buildings 34 and 35

The window air conditioner in Building 34 appears to be in fair condition with no obvious repairs noted, but would not adequately serve a public or office use. New mechanical systems will be needed to serve the anticipated occupancy. It would appear that areas open to the public or used as office space should be equipped with split system heat pumps. Areas dedicated to storage only should be equipped with ventilation air and heat unless there are climate sensitive storage requirements requiring conditioned air.

Building 34A

The mechanical requirements will be determined by the utilities ultimately located in this building.

PLUMBING

Buildings 34 and 35

The piping associated with the abandoned bathroom in Building 35 should be removed, with the former serivce connections identified and capped. New plumbing fixtures and water service will be required to service new occupancy.

Building 34A

Plumbing systems are not anticipated in the future, unless water service and drainage is required by the new mechanical equipment to be installed.

ELECTRICAL

Buildings 34 and 35

The electrical system installation in the building is in fair condition, but the integrity of the service equipment installation is questionable as the service equipment has noticeably been affected by neglect, temperature extremes, corrosion and the lack of proper monitoring. The

remaining useful life of the electrical system is approximately ten to fifteen years with more than usual maintenance and downtime anticipated. The existing electrical service is not adequate to handle any additional loads.

The two buildings are not provided with any fire alarm detection, telephone or security systems. They also are not provided with a complete power and lighting wiring distribution system or interior illumination.

The electrical equipment (i.e. panelboard, dry type transformers, disconnect switches, etc.) require vacuum cleaning of the interior to remove the accumulated dust. The integrity of the grounding system installed for the existing electrical system should be reviewed due to loose connections and corroded conduits.

Various electrical code violations exist in the building as listed below.

1. Tags and identification on disconnecting means, feeders and branch circuit in equipment rooms are not provided.

2. Covers are not provided on numerous pull and junction boxes.

3. Wires and cables are installed without proper supports.

4. Tie wires have been installed inside the panelboard for connecting the multiple pole circuit breakers.

5. Exit lights are not provided.

6. Conductors and ceiling light outlets have been abandoned.

7. Wiring terminations and splices without junction boxes and conductors are left hanging.

8. Junction boxes and disconnect switches have missing plugs and unused knock-outs.

Recommendations to correct existing deficiencies and improve electrical service are as follows.

1. The main service to the building should be upgraded to handle the anticipated occupancy and the new HVAC equipment loads.

2. The existing main service equipment serving the buildings should be cleaned, corroded parts touch-up painted and all connections torqued.

3. Panelboard directories should be provided.

4. Install a new power, lighting, fire alarm, security and telephone system to serve the anticipated occupancy.

5. Install the code required exit lights and emergency lighting system throughout the two buildings.

6. Provide identification of existing electrical equipment (disconnects, motor starters, panels, etc.)

7. Provide wiring identification on the existing panelboards and pull/junction boxes.

8. Identify circuits, update and type panelboard directories and remove unused circuit conductors.

9. Clean and touch-up paint the existing panelboards, dry type transformer and disconnect switches; tighten all loose terminations; check operation of circuit breakers, terminal discoloration and replace defective breakers.

10. Replace the tie-wires inside the panelboard.

11. Provide the code required exit lights and emergency lighting.

12. Remove all the abandoned conductors and wiring devices.

13. Cover all open pull and junction boxes to remove danger of exposed conductors.

14. Review the existing grounding system integrity

Building 34A

A new power, lighting fire alarm, security and telephone system to serve the anticipated occupancy will be required and should include exit lights and emergency lighting systems. New electric service to the building will be required to feed the requirements of this and adjacent buildings.

Appendix D. Building Fabric Analyses

United States Department of the Interior
NATIONAL PARK SERVICE
North Atlantic Region
15 State Street
Boston, Massachusetts 02109-3572

IN REPLY REFER TO:

TAKE PRIDE IN AMERICA

NATIONAL PARK SERVICE
RECEIVED
SEP 17 1990
DENVER SERVICE CENTER
EASTERN TEAM
FALLS CHURCH, VA

September 10, 1990

H30 (NAR-CRC)

Memorandum

To: Architect, DSC-EAF

Through: Manager, Eastern Team, DSC

From: Manager, Cultural Resources Center, NARO

Subject: Mortar, Plaster, and Stucco Analysis, Harpers Ferry, Pkg. 116, Park General, Restoration of Buildings 32 thru 36, Project Type 35

Enclosed you will find a copy of the Mortar, Plaster, and Stucco Analysis for Buildings 32 through 35 at Harpers Ferry. This report was prepared by Architectural Conservator Peggy Albee, of the Cultural Resources Center's Building Conservation Branch. Also enclosed are samples of the four kinds of sands found in this study.

I hope you will find this report satisfactory. If you have any questions, please telephone Peggy or Stephen Spaulding, Supervisor of the Building Conservation Branch at (617) 242-1977, or FTS 835-8500.

Myra Harrison

Myra Harrison

Enclosures

cc: Chief, Cultural Resources Management Division, NARO
Supervisor, Building Conservation Branch, CRC, NARO
Architectural Conservator, BCB-CRC, NARO

MORTAR, PLASTER, AND STUCCO ANALYSIS
PACKAGE 116

Block B, Shenandoah Street
Park Buildings 32, 32A, 33, 34-35, and 34A
Harpers Ferry National Historical Park
Harpers Ferry, West Virginia

In Conjunction with Denver Service Center
Eastern Team

September 1990

Prepared by:

Peggy A. Albee
Historic Preservation Conservator
Cultural Resources Center, Building Conservation Branch
North Atlantic Region
National Park Service

MORTAR, PLASTER AND STUCCO ANALYSIS

A total of 26 mortar, plaster, and stucco samples were removed from five buildings located in Harpers Ferry National Historical Park on August 17, 1990. These samples represent materials from two different groupings of buildings, with Buildings 32, 33, and 33A representing one grouping, and Buildings 34-35 and 34A representing the second. Denver Service Center requested that these two groupings be dealt with separately, but if comparisons existed between the two, that they should be noted. Historical data was drawn from the draft copy of the Historic Structures Report for Package 116, 1865-1910, prepared by Perry G. Fisher in July of 1989.

Twelve samples were removed from the first group of buildings. Two mortar samples were taken from Building 32, and labelled HAFE 32 M01 through HAFE 32 M02; one mortar and two stucco samples were removed from Building 33A, and labelled HAFE 33A M01 through HAFE 33A M03; and five stucco and two interior plaster samples were taken from Building 33, and labelled HAFE 33 M01 through HAFE 33 M07.

Fourteen samples were removed from the second group of buildings. One interior stucco and three mortar samples were taken from Building 34A, and labelled HAFE 34A M01 through HAFE 34A M04; two mortar, three stucco, and one interior plaster samples were removed from Building 34 and labelled HAFE 34 M01 through HAFE 34 M06; and two mortar and two interior plaster samples were taken from Building 35 and labelled HAFE 35 M01 through HAFE 35 M04. It should be noted that Buildings 34 and 35 are currently combined into one structure.

The samples were removed from the site and returned to the Building Conservation Branch of the North Atlantic Region's Cultural Resources Center laboratory for analysis. The sample numbers (the corresponding building numbers are reflected within the sample number), descriptions of their locations, their resultant mixes expressed in Parts/Volume, and their sand types based on comparisons only within this study are listed below (the sand types were labelled based on all 26 samples, so comparisons could be drawn, if necessary, between the two groups of buildings):

Sample No.	Location	Resultant Mix	Sand Type
HAFE 32 M01	W. facade shale pointing, near N. end, mid-section	5 Sand 3 Lime	A
HAFE 32 M02	N. facade scored pointing, bottom section, mid-height, near E. corner	5 Sand 3 Lime	A

Sample No.	Location	Resultant Mix	Sand Type
HAFE 33A M01	W. facade at N. corner, shale pointing	3 Sand 2 Lime	A
HAFE 33A M02	W. facade at N. corner, thin stucco wrapping around corner	2 Sand 1 Lime	B
HAFE 33A M03	Thin stucco on N. wall between Bldgs. 33 and 33A	2 Sand 1 Lime	B
HAFE 33 M01	N. facade, stucco at base of E. doorway	2 Nat. Cement 3 Sand 1 Lime or 1 Sand 1 Lime	A
HAFE 33 M02	S. facade stucco, 1st floor level, bet. door and window near E. corner, outer scored layer	3 Sand 2 Lime (hair)	A
HAFE 33 M03	S. facade stucco, 1st floor level, bet. door and window near E. corner, under scored layer	3 Sand 2 lime (hair)	A
HAFE 33 M04	S. facade stucco at W. corner bet. Bldgs. 33 and 33A (currently attached to 33 but looks like delaminated from 33A)	1 Nat. Cement 2 Sand trace of Lime or 5 Sand 3 Lime	A
HAFE 33 M05	W. facade, 3rd floor level, stucco at S. side of 2nd window from N. corner	2 Sand 1 Lime (hair)	A
HAFE 33 M06	Interior plaster, Room 306, W. wall under N. window behind baseboard	3 Sand 2 Lime (hair & fiber)	A
HAFE 33 M07	Interior plaster, stairwell bet. 3rd and 4th floors, E. wall from between plaster keys	4 Sand 5 Lime (hair & fiber)	A

Sample No.	Location	Resultant Mix	Sand Type
HAFE 34A M01	Interior stucco, E. wall at base of stair, lower rubble section	1 Clay 1.5 Sand 1 Lime (hair)	D
HAFE 34A M02	Interior mortar, 2nd floor, S. wall, upper wall section	2 Sand 1 Lime	A
HAFE 34A M03	Interior mortar, 2nd floor, W. wall, lower wall section	3 Sand 4 Lime	D
HAFE 34A M04	Interior mortar, 3rd floor, E. wall, near N. corner	5 Sand 3 Lime	D
HAFE 34 M01	W. facade, 1st floor level, near N. corner, brick joint	5 Sand 3 Lime	C
HAFE 34 M02	S. facade, 1st floor level, near W. corner stucco	2 Sand 1 Lime (hair)	A
HAFE 34 M03	Rear wing of Bldg. 35, W. facade, top layer of stucco, 1st floor level	2 Sand 1 Lime (hair)	A
HAFE 34 M04	Rear wing of Bldg. 35, W. facade, bottom layer of stucco, 1st floor level	2 Sand 1 Lime (hair)	A
HAFE 34 M05	Room 104, interior plaster, top jamb of W. doorway in S. corner	Gypsum	None
HAFE 34 M06	Room 204, interior mortar under existing plaster, E. wall, former end wall of Bldg. 35	5 Sand 4 Lime	C
HAFE 35 M01	E. facade, 1st floor level, mortar joint	5 Sand 3 Lime	C
HAFE 35 M02	E. facade, 3rd floor level, mortar joint from 1891 addition	2 Sand 1 Lime	C

HAFE 35 M03	Room 102, interior plaster, W. wall over door to Bldg. 34	5 Sand 3 Lime (hair)	C
HAFE 35 M04	Room 102, interior plaster, E. wall	5 Sand 3 Lime (hair)	C

Four different types of sands were found among the 26 samples, with only type "A" being shared between the two building groups. This similarity suggests that only the same sand source was used during various building periods, and does not necessarily indicate that those building periods were contemporary to one another.

Observations and Conclusions

Group I - Buildings 32, 33A, and 33

Documentation suggests that Building 32 was constructed within the decade after the 1870 flood. Both samples removed from the exterior pointing of this structure indicate that their installations are contemporary to one another and could date to the original construction of the building or to some later repointing. Their mixes approximate 5 parts/volume type "A" sand to 3 parts/volume lime. Since portland cement would have been widely used by the beginning of the twentieth century, especially in an area that frequently flooded, the pointing found in this building most likely predates ca. 1900.

Building 33A was constructed in 1888. The one pointing sample (HAFE 33A M01) removed from this structure reflects the same sands and fines as the two samples removed from Building 32, and a similar, but not exactly alike resultant mix. These similarities suggest that the two installations could have been contemporary, and therefore Building 32 could have been repointed ca. 1888 when Building 33A was constructed. This is only a hypothesis, since sample HAFE 33A M01's resultant mix was 3 parts/volume type "A" sand to 2 parts volume lime, and type "A" sand was apparently used through several different building phases among the five standing structures studied.

The remaining two samples removed from Building 33A represent the thin stucco that remains on only sections of the structure. Both of these samples are alike in sands, fines, and resultant mixes, and therefore represent contemporary installations. Because the sands from these two samples are unique to this study, they indicate that this stucco was applied at some time after the initial construction period of the building, and at some time other than the installation of stucco on other buildings within this study. The resultant mix of 2 parts/volume type "B" sand to 1 part/volume lime suggests that the stucco was applied sometime prior to ca. 1900, since it is not a portland cement mix.

The samples removed from the exterior of Building 33 appear to represent a variety of installations, but again all prior to ca. 1900 since no portland cement was found. All of the samples reflect type "A" sand. Samples HAFE 33 M01 and M04 also reflect the same color of fines, neither with resultant hair used as a binder. Since Building 33 was constructed in 1882-83, Building 33A was constructed in 1888, and the buildings were constructed no more than six inches apart, sample HAFE 33 M04 has to represent an installation between that time period, since it was removed from between the buildings.

The texture of the stucco on the front or north facade of the building (or that represented by sample HAFE 33 M01) is very different from the stucco found on other facades, and was probably designed as such, to give the front facade a more refined finish. It is therefore possible that its original mix was purposely different from the mix of the stucco originally applied to other parts of the building. It is therefore also possible that samples HAFE 33 M01 and M04 represent contempory, original installations, dating to 1882-83, even though their mixes are slightly different.

The stucco sample removed from the west facade of the building (HAFE 33 M05) had a minor amount of hair found with the resultant fines, and represented only one layer of stucco. On the other hand, the two samples (HAFE 33 M02 and M03) removed from the exposed south facade of the building each had a great deal of hair found with their respective resultant fines, and represented two layers of stucco. While the fines of the latter two samples were similar in color, they were darker than the fines found in sample M05. By comparing this data, along with the resultant mixes of each sample, it can be concluded that samples M02 and M03 were installed at the same time, with 3 parts/volume sand to 2 parts/volume lime. Sample M05 was installed at a different time, using a ratio of 2 to 1 parts/volume of sand to lime.

Building 33 apparently reflects at least three different installation periods of stucco. While samples HAFE 33 M01 and M04 may represent the original construction period, samples HAFE 33 M02 and M03 represent a second installation period, and sample HAFE 33 M05 represents a third. Unfortunately, there is no way to determine which of the latter two installations came first, except that they both probably occurred sometime prior to ca. 1900.

The results of analysis of the two interior plaster samples reflect similar fines, but have very different mixes. While sample HAFE 33 M06 from the third floor reflects a fairly strong mix of 3 parts/volume sand to 2 parts/volume lime, sample HAFE 33 M07 from the staircase between the third and fourth floor reflects a weaker mix of 4 parts sand to 5 parts lime. The difference in these two mixes suggests that they were installed at different times. If sample M06 represents 1882-3 plaster, then sample M07 represents

a later plaster, possibly installed if and when renovations were made to the fourth floor. More sampling would confirm or deny this hypothesis.

Group II - Buildings 34A and 34-35

Building 34A probably represents at least three building phases and possibly four, based on mortar and stucco analysis. The first or possibly first two phases may be catagorized by samples HAFE 34A M01 and M03. Although their resultant mixes are different, their sands and fines are the same, except that sample M01 reflects hair as a binder while sample M03 does not. Since sample M01 represents an interior stucco in which it was normal to use hair, sample M03 represents a mortar, where hair is less frequently found. Sample M01 also has a clay base, also common in early stuccos, while M03 does not. The similarities and differences between these two samples is not enough to establish that they were contemporary or different installations. However, a mortar sample removed from underneath the stucco at the first floor level would confirm this. Whatever the case, samples M01 and M03 could possibly represent the 1830 original construction period, or sample M01 represents original construction and sample M03 represents 1870 alterations.

Sample HAFE 34A M02 represents the next construction period reflected in the mortar of the upper wall section on the second floor. Its sand, fines, and resultant mix are different from the other three samples removed from the interior of this building. It could reflect documented renovations to the building made in either 1870 or 1891. It is the only sample removed from the building to reflect type "A" sand, while the other three samples reflected type "D" sand.

The remaining sample, HAFE 34A M04, represents the last building phase of the structure. Its sands are like those found in the samples taken from the two lower sections of the building, but its mix is different, and its location is separated from the other two by a separate building phase. The documentation suggests that the upper section of this structure may have been added to in 1891, at the same time that Building 34-35 was enlarged and increased in height. The mortar analysis suggests that it was not part of the same building campaign, since the sand from sample M04 is different from any sand found in the samples taken from the 1891 renovation areas of Building 34-35. However, the second last phase of construction of Building 34A could have been contemporary to the 1891 renovations of Building 34-35, as sample comparisons will prove in the following paragraphs. If these comparisons are accurate, then the most-upper section of Building 34A was probably added between 1891 and ca. 1900.

Building 34-35 represents a continuum of building periods between 1812 and the present, with the majority of construction ending in 1891. Samples HAFE 34 M06 and HAFE 35 M01 are the only samples

that could represent original 1812 mortar. While their sands are the same and their resultant fines and mixes are similar, sample HAFE 34 M06 was such a small sample that it probably was not representative of the area from which it was taken. In addition, sample HAFE 34 M01 was taken from a mortar joint in the west wall of the structure, and reflects the same sand and mix, and similar fines as sample HAFE 35 M01. The sample from the west wall could date no earlier than the documented 1882-83 renovation. All three samples could therefore represent pointing and repointing that occurred in 1882-83, rather than any original 1812 mortar, but the evidence is inconclusive.

Sample HAFE 35 M02 is the only one that could represent the 1891 renovation mortar, when the height of the building was raised. The probable mix at that time was 2 parts/volume type "C" sand to 1 part/volume lime. The similarities between it and a sample from the second last building campaign of Building 34A suggest that the two were done at the same time.

Although the two interior plaster samples from Room 102 (HAFE 35 M03 and M04) reflect the exact same mix, fines, and sand characteristics, suggesting a contemporary installation period, they also show similarities to the 1891 mortar mix used on the building. Even though the plaster mix may be slightly weaker than the mortar mix, which is to be expected, the plaster may also date to the 1891 renovation of the building, when the center hall staircase was constructed to access the rooming house on the upper floors.

Samples HAFE 34 M02, M03, and M04 represent stucco installations at the rear end of the structure. While they all have similar sands, fines, and resultant mixes, sample M02, from the south facade at the west corner of the building, contains fewer fines and a great deal more hair used as a binder. It also represents a single layer of stucco. Since samples M03 and M04 reflect two layers of stucco on the west face of the rear ell of the structure, with M03 being the outer layer, and are alike in all characteristics, these latter two samples represent a single installation period, probably different from that which is represented by sample M02. Since the sands from these three samples are different from those found in the mortar samples, they all may be post-1891 installations.

Sample HAFE 34 M05 was taken from plaster in Room 104. It is gypsum plaster and represents a modern addition.

Similarities Between the Two Building Groups

Only one significant similarity exists between the two building groups. It is found between the two layered stucco samples from Building 34 (HAFE 34 M03 and M04) and the third floor stucco sample found on Building 33 (HAFE 33 M05). While a difference does exist

in application (two layers of stucco versus one), all characteristics between the two groups are exactly the same, suggesting the same installation period, probably post-1891.

Recommendations

Recommendations for repointing, replastering, or restuccoing should be based on the resultant mixes found as a result of this study. Since the philosophy for restoration of these buildings is unknown to this conservator, it would be unprofessional to make a blanket assumption about individual structures. However, if restoration is to be based on the continuum development of these structures, then the results of the analysis, as presented in the previous sections, should be followed. It is often important to add some portland cement to modern mixes meant to replicate lime mortars or stuccos (plasters should be restored using only lime and sand). The best method for producing reproduction mortars or stuccos under this hypothesis is to keep the parts/volume of sand the same, and manipulate the matrix of the other ingredients. Since lime mortars and stuccos were almost exclusively found in this study, only the parts/volume of the lime need be manipulated. The general rule should be to use 1/2 part/volume of portland cement, and the remainder parts/volume should be made up with lime, so that the total parts/volume of historic lime would equal the new combination of portland cement and lime. In all cases, test mixes should be prepared (using white portland cement or combinations of white and gray portland cement), so that texture and color can be compared to the existing mortars and stuccos.

Samples of the four different kinds of sands found in this study are being forwarded with this report. The appropriate sand type should be used with the respective restoration mix, again to insure a proper match.

PAINT ANALYSIS

BUILDINGS 34, 34A AND 35

HARPERS FERRY NATIONAL HISTORIC PARK

HARPERS FERRY, WEST VIRGINIA

Contract No. CX-2000-0-0011

Work Order No. 3

July 22, 1991

Oehrlein & Associates Architects
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PURPOSE AND METHODOLOGY

The purpose of this paint analysis study was to determine and record the color and finish of the painted surfaces on the exterior and interior of the buildings and to test for the presence of lead. This work involved on-site examination of surfaces, taking samples from the building and performing further examination and testing in the office.

The on-site investigation involved cutting a shallow bevel through all layers of paint with a scalpel blade. Each layer was then examined with a hand held 7X lense under 3200 degree Kelvin illumination. Numerous samples of each repetitive element were examined to ensure that complete sequences were found and recorded, as well as determining that all similar elements in a room have the same finishes.

After exposing the paint layers to the fullest extent possible, each layer was described using common color names (National Bureau of Standards nomenclature), recorded chronologically on the attached charts, and matched to the Munsell System of Color Notation, glossy edition. Each vertical column on the charts corresponds to a specific sample or samples with identical layering sequences, with the location indicated at the top. The original layers appear at the top of the column and the most recent near the bottom. All layers are aligned horizontally so that by reading across the chart, the decorative scheme for a room at any particular period may be discerned.

Samples were also taken from the buildings for further study and color matching under stereoscopic magnification with 3200 degree Kelvin illumination. These samples were also tested for lead content by wetting the surface with a 10% solution of sodium sulfide, which turns any lead present on the sample black. Samples determined to contain lead are recorded at the top of the column by a "L" in a circle with a "T" suffix for "test." Samples which were tested with negative results are marked with only a "T". Surfaces which were not tested, but are suspected of containing lead are marked by a "L" in a circle.

The scope of work for this report does not include identifying types of finishes such as wallpapers, limewashes, oil paints, varnishes or shellacs, however this was noted where it was readily identifiable. Where there are limewashes listed, it is often difficult to determine the exact ordering of the layers and the presence of all colors due to their instability. These finishes are often worn or washed away before a new finish is applied. Wall surfaces which do not have many finishes listed either have been covered with a finish which is now removed, (such as limewash, other waterbased paint, or wallpaper) or have been replastered.

Room, door, and window numbers in this report and on the charts correspond to plans provided by the National Park Service that are dated November 1990.

BUILDINGS 34 AND 35

While these buildings were originally built as two buildings, they have later extensive additions that tie them together as one structure. It is interesting to note that the historic evidence found relating to finishes does not clearly explain their evolution. It would be expected that the finishes in buildings built in stages over a period of many years would vary greatly in number, helping to clarify the age of certain sections or elements. While the number of finish layers does vary, the extent of this variation is not that great. This is perhaps due to the extensive damage to the buildings over the years as a result of neglect and flooding.

The exterior of the buildings demonstrates the lack of any evolutionary data as most of the doors and windows, that are not recent additions, have approximately the same number of finishes. Perhaps all of the exterior doors and windows were replaced at the same time as the 1891 addition. The 2/2 light configuration of the window sash would be appropriate for that time period, although window frames vary somewhat in detail. As the finish layering on the frames seems to be consistent, this variation can perhaps be explained by variations in the rough openings due to different periods of construction. This is a topic for more extensive investigation.

The first floor is a mix of historic materials and replacement elements which is evident by the information recorded on the paint charts. The wall between Rooms 101 and 106 is a recent replacement as well as most of the floor. Evidence of paint finishes in Building 35 of the original 1812 building is not readily apparent, and it is assumed that little of that building other that structural elements still remains. Recent alterations have also contributed to obscure early evidence.

The stairhall (Room 102), however, does not seem to have been altered in recent years. The finishes relate closely to the remainder of the stairway as it continues up and is assumed to be from the time of the 1891 addition, although it is located in a portion of the 1812 building.

Most rooms on the second and third floor have their own individual paint schemes, making it exteremely difficult (other than by simply counting finish layers) to align finishes on the paint charts with certainty. A possible clue to this puzzle may be the doors and their grained finishes, although it will take further investigation to determine this. Unfortunately the "57 doors elegantly grained in walnut and other items to correspond" that is described in 1892 were not found. [Historic Structures Report, Draft, Package 116, HAFE, July 1989, p. 28]

Grained doors, trim, baseboards and window sash were found extensively in the areas of the 1891 addition and in other areas of the building, but it does not appear to be walnut. These doors look more closely resemble red oak. (See D214) There could have been 57 doors in the entire building, but many are not grained in the same manner. It is difficult to determine the exact grained appearance of doors that have been overpainted, without removing large areas of overpaint, but the base coat color is an indication of the grained appearance and this varies throughout the building. It is interesting to note that doors 224, 316, and 318 have graining exposed on the surface and look like walnut.

With a severalexceptions, the third floor has relatively little paint with only a few layers on most surfaces. The trim in Rooms 301 and 302 could possibly be another clue in understanding the complete chronology of the building. The building was described as a two and a half story structure before the addition of the third floor in 1891 and it may be possible that this trim was reused from the former attic space or another location. (Similar reused trim also appears at D104 on the fourth floor.)

Most of the doors on the third floor have also been grained and relate to the doors in the same area of the building on the second floor. Walls have been covered extensively with multiple layers of colored limewash. Wallpaper is not evident on this floor, except where it is noted in the older sections of the building.

The fourth floor has only one or two finishes on the surfaces that appear to be original finishes. The finishes in the stairhall area relate to the finishes in the remainder of the stair below.

BUILDING 34A

As this building was used primarily for utilitarian purposes, there are few finishes on any of the surfaces. Most of the doors and windows are recent replacements, making it difficult to determine the exterior color scheme for these elements. The base of the building was painted with white limewash as was the interior of the first and second floors. The third floor appears to have been used at one time as a living space, although there are elements such as a cardboard ceiling that appear to be temporary. The elements that remain that appear to have relevent painted surfaces have been sampled and are recorded on the paint charts.

PAINT ANALYSIS CHARTS

BUILDINGS 34 AND 35

EXTERIOR (Storefront) BUILDINGS 34 + 35

WALLS		FRAME-D101		D101		FRAME+SASH-W101 + W102		FRAME + TRANSOM SASH D102	
BRICK*	(L)T	WOOD	(L)T	WOOD	(L)T	WOOD	(L)T	WOOD	(L)T
Y. white	5Y 9/1	yellowish white	2.5Y 9/2	primer Y. white graining	5Y 9/2	yellowish white	2.5Y 9/2	Y. white	2.5Y 9/2
light brown	5YR 6/4	dk. gray olive green	10GY 2/2	—		yellowish white	2.5Y 9/2	—	
reddish brown	10R 7/6	Y. white	2.5Y 9/2	—		—		—	
Y. white	5Y 9/1	—		—		—		—	
reddish brown	10R 4/6	—		yellow brown	10YR 7/6	—		—	
Y. white	5Y 9/1	—		—		—		gray	
grayish brown	7.5R 4/6	dk. olive green	10GY 2/4	brown	5YR 3/4	dk. olive green	10GY 2/4	[illegible]	
—		Y. white	2.5Y 9/2	Y. white	2.5Y 9/2	Y. white	2.5Y 9/2	Y. white	2.5Y
—		Y. white	2.5Y 9/2	Y. white	2.5Y 9/2	Y. white	2.5Y 9/2	Y. white	2.5Y
* paint is very deteriorated.									
[illegible]									
[illegible]									

EXTERIOR (Storefront) BUILDINGS 34 + 35

D102		FRAME + SASH W102 + W104		FRAME + TRANSOM SASH D103		D103		FRAME - D104 D104 + D105	
WOOD	(L)	WOOD	(L)	WOOD	(L)	WOOD	(L)	WOOD	
primer	7.5YR 8/2	Yellowish white	2.5Y 9/2	Y. white	2.5Y 9/2	primer	5Y 9/2	—	
graining						graining			
—		—		—		—		—	
—		—		—		—		—	
—		—		—		light brown	7.5YR 7/6	—	
yellow brown	10YR 7/6	—		—		yellow brown	10YR 7/6	—	
—		gray	N7	gray	N7	—		—	
brown	5YR 3/4	dk. olive green	10GY 2/4	dk. olive green	10GY 2/4	—		—	
Y. white	2.5Y 9/2	Y. white	2.5Y 9/2	Y. white	2.5Y 9/2	Y. white	2.5Y 9/2	Y. white	2.5Y 9/2
Y. white	2.5Y 9/2	Y. white	2.5Y 9/2	Y. white	2.5Y 9/2	Y. white	2.5Y 9/2	Y. white	2.5Y 9/2

FRAME-D105		FRAME·D107 D107		FRAME·D103		D103		WINDOW FRAMES SASH + DOORS	
WOOD	(L)	WOOD	(L)	WOOD	(L)	WOOD	(L)	WOOD	$(L)_T$
yellowish white	2.5Y 9/2		7.5YR 3/2	yellowish white	2.5Y 9/2	primer y. white graining	5Y 9/1	Y. white	2.5Y 9/2
—		—		yellowish white	2.5Y 9/2	—		Y. white	2.5Y 9/2
—		—		—		—		—	
Paint layers are extremely deteriorated. More layers may be present but no other colors are evident.									
—		—		—		—		—	
—		—		—		yellow brown	10YR 7/6	—	
—		—		—		---		—	
—		—		—		White	??	—	
[illegible]	2.5Y 9/2	Y. white	2.5Y 9/2	Y. white	2.5Y 9/2	Y. white	2.5Y 9/2	H. blue gray	10B 5/1
[illegible]	2.5Y 9/2	Y. white	2.5Y 9/2	white	2.5Y 9/2	Y. white	[illegible]	H. blue gray	[illegible]

FRAME · D101		D201		FRAME - D202 + D203		D202		D203	
WOOD		WOOD		WOOD		WOOD	L_T	WOOD	L_T
yellowish white	2.5Y 9/2	Y. white	2.5Y 9/2	Y. white	5Y 9/1	Y. white	5Y 9/1	Y. white	5Y 9/1
—		primer	5YR 6/4	—		—		—	
		graining							
—		—		—		—		—	
Paint layers are extremely deteriorated. More layers may be present, but no other colors are evident.									
—		—		—		light brown	7.5YR 5/6	—	
—		yellow brown	10YR 7/6	—		yellow brown	10YR 7/6	yellow brown	10YR 7/6
[illegible]	[illegible]	—		—		—		[illegible]	[illegible]
—		—		—		—		—	
Y. white	2.5Y 9/2	—		Y. white	2.5Y 7/2	—		—	
Y. white	2.5Y 9/2	light blue gray	10B 8/1	Y. white	[illegible]	Y. white	2.5Y 9/2	Y. white	

FIRST FLOOR
RM 101

BUILDINGS 34+35

WALLS		CEILING		FLOOR		BASE		TRIM-DIOS DIOS	
PLASTER		PLASTER		WOOD		WOOD		WOOD	(L)
limewash Y. White	5Y 9/1	—		bare		—		primer	5Y [illegible]
								grain [illegible]	
limewash pale blue	2.5B 7/2	—				—		primer	10YR 7/6
								[illegible]	
limewash lt. green gray	5G 9/1	—				—		Yellowish gray	2.5Y 3.5/2
—		—				—		Y. gray	[illegible]
—		—				—		Yellow [illegible]	10YR [illegible]
—		—				—		—	
Y white	5Y 9/1	—				—		Y [illegible]	
Y white	5Y 9/1	—				—		—	
—		—				—		[illegible] gray	[illegible]
plaster	chini	plaster	chini						
light gray	N8.5	lt gray	N8.5			lt. gray	N8.5	lt. gray	[illegible]

TRANSOM SASH - D103 SASH - W105		TRIM - D112		D112		TRIM - D113 D113			
WOOD	(L)T	WOOD	(L)	WOOD	(L)	WOOD	(L)		
Yellowish white	5Y 9/2	primer y.white graining	2.5Y 9/2	primer y.white graining	2.5Y 9/2	primer y.white graining	2.5Y 9/2		
Yellowish gray	2.5Y 8.5/2	—		—		—			
Y. gray	2.5Y 8.5/2	—		—		—			
Y. gray	2.5Y 8.5/2	—		—		—			
—		Yellow brown	10YR 7/6	—		—			
—		Y. white	2.5Y 7/2	—		—			
Y. white	5Y 9/1	Y. white	5Y 9/1	—		—			
—		White	N9	—		—			
H. olive gray	5Y 6/2	H. olive gray	5Y 6/2	H. olive gray	5Y 6/2	—			
H. gray	N8.75	H. gray	N8.75	H. gray	N8.75	H. gray	N8.75		
H. gray	N8.75								

WINDOW SPLAY W103 + W104 (Exterior side)		WINDOW SPLAY W103 + W104 (Interior side)		SASH W103+ W104 (Exterior sash)		SASH W103 + W104 (Interior sash)		TRIM - W105	
WOOD	Ⓛ	WOOD	Ⓛ	WOOD	Ⓛ	WOOD	Ⓛ	WOOD	Ⓛ
Yellowish white	5Y 9/2	Y white	5Y 9/2	Y white	5Y 9/2	Y white	5Y 9/2	Y white	5Y 9/2
—		Y white	5Y 9/2	—		Y white	5Y 9/2	—	
—		—		—		—		—	
—		—		H. gray brown	7.5YR 6/2	—		H. gray brown	7.5YR 6/2
lt. yellow brown	10YR 7/6	—		grayish brown	7.5YR 4/2	lt. yellow brown	10YR 7/6	grayish brown	7.5YR 4/2
—		—		Y white	2.5Y 9/2	—		[illegible]	[illegible]
Y white	5Y 9/1	Y white	5Y 9/1	Y white	5Y 9/1	Y white	5Y 9/1	Y white	[illegible]
Y white	5Y 9/1	Y white	5Y 9/1	Y white	5Y 9/1	Y white	5Y 9/1	[illegible]	5Y 9/1
lt. olive gray	5Y 6/2	lt. olive gray	5Y 6/2	lt. olive gray	5Y 6/2	lt. olive gray	5Y 6/2	[illegible]	5Y 6/2
lt. gray	N8.75	lt. gray	N8.75	lt. gray	N8.75	lt. gray	N8.75	lt. gray	N8.75
sampling at W103 - east side				sampling at W103 →				window sill to trim color	

RM 102 BUILDINGS 34+35

WALLS + CEILING		FLOOR		WAINSCOT (Beaded board)		TRIM - D102 + D109 TRANSOM - D102 STAIR STRINGER		D102 + D109	
PLASTER		WOOD		WOOD	(L)*	WOOD	(L)T	WOOD	(L)
—		—		—		—		—	
—		—		—		—		—	
—		—		—		—		—	
linoleum pale or yellow/ stenciled border dark-ened	10YR 8/4	—		primer y. white graining	2.5YR 9/2	y. white primer y. white graining	2.5YR 9/2	y. white	2.5YR 9/2
	5R 2/3	—		—			2.5YR 9/2	—	
—		yellow linoleum	7.5YR 5/10	H. brown	7.5R 6/6	H. brown	7.5R 9/6	—	7.5R
Note: Charts for Rm 102 do not align chronologically with the remainder of the first floor; they align with the third floor.									
				* Did not test paint for lead; assumed.					

FRAME-W1/2		SASH W1/2							
WOOD	(L)T	WOOD	(L)						
lt. gray yellow brown	10YR 6/2	—							
moderate yellow	2.5Y 7/6	—							
yellowish gray	10YR 8/2	y. gray	10YR 8/2						
yellowish gray	10YR 8/2								
primer y. white graining	2.5Y 9/2	primer y. white graining	2.5Y 9/2						
—		—							
lt. [illegible]	7.5YR 5/6	—							

RM. 103 BUILDINGS 34+35

WALLS		CEILING		FLOOR		TRIM - D101		D101	
PLASTER		PLASTER		WOOD		WOOD	(L)	WOOD	(L)T
limewash pale green	10G 9/2	—		bare		yellowish white	5Y 9/1	primer y. white graining	2.5Y 9/2
limewash lt green blue	7.5B 8/4	—				—		—	
limewash y. white	5Y 9/1	—				—		—	
—		—				—		—	
—		—				y. white	2.5Y 9/2	—	
—		—				y. white	[illegible]	[illegible]	[illegible]
y. white	5Y 9/1	y. white	5Y 9/1			lt. brown	5YR 5/6	lt. brown	[illegible]
y. white	5Y 9/1	y. white	5Y 9/1			gray red brown	2.5YR 3/4	gray red brown	2.5YR [illegible]
								gray red brown	2.5YR [illegible]

TRIM - D109 D109		D110		TRIM - W101 + W102		SASH - W101 + W102		TRIM - W117, W113 + W119	
WOOD	(L)T	WOOD	(L)T	WOOD	(L)T	WOOD	(L)	WOOD	(L)T
primer gray yellow graining	2.5Y 8/4	primer lt.y.brown graining	7.5YR 7/4	Y. white	5Y 9/1	Y. white	5Y 9/1	pale yellow	2.5Y 8.5/4
—		—		Y. white	2.5Y 9/2	—		Y. gray	10YR 3/2
—		—		—		—		Y. gray	10YR 3/2
lt. gray red brown	7.5YR 6/2	lt. gray red brown Varnish	7.5YR 6/2	—		—		lt. gray red brown	7.5YR 7/2
gray red brown	7.5YR 4/2	gray red brown	7.5YR 4/2	—		—		lt. olive brown	2.5Y 6/4
pale yellow	2.5Y 9/4	pale yellow	2.5Y 9/4	pale yellow	2.5Y 8/2	pale yellow	2.5Y 8/2	[illegible]	[illegible]
lt brown	5YR 5/6	lt brown	5YR 5/6	lt brown	5YR 5/6	lt brown	5YR 5/6	lt brown	[illegible]
red brown	2.5YR 3/4	red brown	2.5YR 3/4	red brown	2.5YR 3/4	red brown	2.5YR 3/4	red brown	2.5YR 3/4
red brown	2.5YR 3/4	red brown	2.5YR 3/4						
		TRIM - D110 - see window schd W117 - W119		sampling at W101		sampling at W101		sampling	at W119

SASH - W117, W118 + W119		MANTEL							
WOOD	(L)	WOOD	$(L)_T$						
v. white	5Y 9/1	varnish							
—		—							
—		—							
—		pale yellow	2.5Y 9/4						
—		lt brown	7.5YR 5/6						
pale yellow	2.5Y 9/2	white	N9.5						
brown	5YR 5/6	lt brown	5YR 5/6						
red brown	2.5YR 3/4	red brown	2.5YR 3/4						
sampling at W119									

RM 104 BUILDINGS 34+35

WALLS + CEILING		FLOOR		D107		TRIM - D110		D110	
PLASTER		WOOD		WOOD	(L)T	WOOD	(L)	WOOD	(L)T
—		bare		greenish black	5G 2/1	yellowish gray	10YR 8/2	greenish black	5G 2/1
—				—		y. gray	10YR 8/2	—	
linoleum LIC	2.5PB 7/2			—		y. gray	10YR 8/2	—	
white	N9.5			H. gray red brown	7.5YR 6/2	y. gray	10YR 8/2	H. gray red brown	7.5YR 6/2
—				grayish brown	7.5YR 4/2	grayish brown	7.5YR 4/2	grayish brown	10YR 4/2
				y. white	5Y 9/1	—		pale yellow	5Y 9/1
—				H. olive gray	5Y 6/2	pale green	2.5G 9/2	pale green	2.5G 8/2
H. gray	N8.75			y. white	10Y 9/1	y. white	10Y 9/1	red brown	2.5YR 8/4
				Also - window trim between Rms. 103 + 104.					

SASH - WINDOW BETWEEN RMS. 103+104		TRIM - W114 + W115		SASH - W114 + W115		TRIM - DIOT			
WOOD		WOOD		WOOD		WOOD	(L)T		
—		—		inaccessible for		—			
				sampling					
—		—				—			
—		—				—			
—		—				lt. gray red brown	7.5YR 5/2		
—		—				gray (red brown)	7.5YR 4/2		
Yellowish	5Y 9/1	—				Yellowish			
lt. olive gray	5Y 6/2	—				—			
Yellowish	10Y 9/1	lt. gray	N8.75			lt. gray	N8.75		

RM 105

BUILDINGS 34 + 35

WALLS		CEILING		TRIM - D111		D111		TRIM - [illegible]	
CONCRETE BLOCK		PLYWD		WOOD		WOOD		WOOD	L
—		—		primer		—		—	
				varnish					
—		—		—		—		—	
—		—		—		—		—	
—		—		—		—		light [illegible]	5YR [illegible]
—		—		—		—		yellowish gray	10YR [illegible]
—		—		—		—		[illegible]	[illegible]
								[illegible]	
lt. olive gray	5Y 6/2	—		lt. olive gray	5Y 6/2	—		lt. olive gray	5Y [illegible]
						primer			
Y. White	10Y 9/1	Y. White	10Y 9/1	light gray	N8.75	light gray	N8.75	light [illegible]	N8.75
CEILING PAINT	10Y 9/1								
								[illegible]	

RM 106 BUILDINGS 34 + 35

WALLS		CEILING		FLOOR		TRIM- D104 + D105		D104 + D105	
PLASTER		PLASTER		WOOD		WOOD	(L)T	[illegible]	
limewash	5Y 7/2	—		bare		gray yellow varnish	2.5Y 8/4	—	
						varnish	10R 3/4		
—		—				F. yellow (Lacq.)	10YR 7/4	—	
						varnish	7.5YR 4/6		
—		—				yellow gray	5Y 5/2	—	
—		—				—		—	
—		—				—		—	
—		—				Y white	2.5Y 7/2	—	
—		—				white	5Y 8/1	[illegible]	[illegible]
—		—				White,	N9	—	
—		—				lt oli 12 gray	5Y 6/2	lt ol. 12 gray	[illegible]
plaster	skim								
light gray	N8.75	lt. gray	N8.75			lt. gray	N3.75	lt gray	N3.75

TRIM - DOOR FRAME		WINDOW SASH + TRIM							
WOOD	(L)	WOOD	$(L)_T$						
Primer graining	2.5Y 9/2	Yellowish White	5Y 9/1						
—		—							
—		—							
—		—							
—		—							
—		—							
—		—							
—		White	N9						
—			5Y 6/2						
H. gray	N8.75	H. gray	V3.75						
		Sampling #113							

SECOND FLOOR
RM 201

BUILDINGS 34+

WALLS + CEILING		FLOOR		BASE		BASE CAP + SHOEMOLD		TRIM - DOORS WINDOWS SA	
PLASTER		WOOD	(L)T	WOOD	(L)T	WOOD		WOOD.	
Intermix white	N9	—		grayish reddish brown	2.5YR 4/2	—		—	
—		—		H. olive	5Y 5/1	—		—	
—		deep brown	7.5YR 6/2	—		—		—	
—		—		—		—		—	
—		varnish brown	7.5YR 3/4	—		—		—	
wallpaper		—		Y. white	5Y 8.5/2	Y. white	5Y 8.5/2	Y. white	5Y 8.5/2
		—		Y. white	5Y 8.5/2	Y. white	5Y 8.5/2	Y. white	5Y 8.5/2
		Alignment unknown							

TRIM - WINDOWS		D206, D207 + D219							
WOOD	(L) T	WOOD							
lt. yellow brown	7.5YR 7/4	—							
moderate yellow pink	2.5YR 7/4	—							
—		—							
—		—							
—		[illegible] y. white [illegible]	5Y 9/1						
		[illegible]							
y. white	[illegible]	[illegible]	[illegible] 5/4						
		[illegible]							
y. white	5Y 9.5/1	—							

RM 202 BUILDINGS 34+35

WALLS + CEILING		FLOOR		BASE		MANTEL		TRIM - DOOR + WINDOW	
PLASTER		WOOD		WOOD	(L)T	WOOD	(L)T	WOOD	(L)T
limewash white	N9	—		black	N1	—		—	
—		—		yellowish white	5Y 9/1	—		—	
—		deep brown	7.5YR 6/2	—		deep brown	7.5YR 6/2	deep brown	7.5YR 6/2
—		—		black	N1	black	N1	—	
				reddish brown	2.5YR 4/4				
wallpaper		varnish brown	7.5YR 3/4	primer y.white varnish	5Y 9/1 graining	primer y.white varnish	5Y 9/1 graining	—	
—				y.white	5Y 3.5/2	primer y.white varnish	5Y 9/1 graining	y.white	5Y 3.5/2
—				y.white	5Y 3.5/2	—		y.white	5Y 3.5/2

TRIM - DOOR BETWEEN RMS 02 + 204		TRIM - D206 + D220 WINDOW SASH		D201, D206 + D220					
WOOD	(L)	WOOD	(L)	WOOD	(L)+				
yellowish white	2.5Y 9/2	Y white	2.5Y 9/2						
yellowish gray	5Y 8.5/2	—							
deep brown	7.5YR 6/2	deep brown	7.5YR 6/2						
yellowish gray	2.5Y 8/2	—							
—		—		primer w. white graining	5Y 9/1				
yellowish white	5Y 8.5/2	yellowish white	5Y 8.5/2	primer graining	7.5YR 6/4				
Y white	5Y 8.5/2	Y white	5Y 8.5/2						

RM 203 BUILDINGS 34+35

WALLS + CEILING		FLOOR		BASE		TREAD		TRIM UNDER NOSING	
PLASTER		WOOD		WOOD	(L)T	WOOD	(L)T	WOOD	(L)T
limewash lt. gray	N7.75	deep brown	7.5YR 6/2	yellowish white	5Y 9/1	varnish		—	
		varnish	7.5YR 3/4						
wallpaper				pale o. yellow	7.5YR 8/4	primer y. white graining	5Y 9/1	primer y. white graining	5Y 9/1
limewash grayish yellow	2.5Y 8/4			yellowish brown	10YR 7/6	brown	7.5YR 4-5/6	—	

PIER		BALUSTRADE		TRIM		DOOR + DECO		DOOR	
WOOD		WOOD		WOOD	(L)T	WOOD	(L)T	WOOD	
—		varnish		lt. white	5Y 9/1	yellowish pink	5YR 9/4		
primer lt. white	5Y 9/1	—		pale or. yellow	7.5YR 9/4	lt. olive brown	2.5Y 5/2		
graining									
—		—		yellowish brown	10YR 7/6	primer	5YR 9/4		
				graining		varnish			
—		—		—		primer	10YR 9/2		
						varnish			
[illegible]	2.5Y 9/4	—		graining yellow	2.5Y 9/4	graining [illegible]	2.5Y 9/4		

RM 204 BUILDINGS 34 + 35

WALLS (N+E only)		CEILING		FLOOR		BASE + SHOEMOLD		BASE CAP	
PLASTER	(WHS bare)	PLASTER		WOOD		WOOD	(L)T	WOOD	(L)T
—		—		dk. red brown	5R 3/2	yellowish gray	10YR 3/1	—	
—		—		brown	5YR 4/6	dk grayish yellowish brown	10YR 2/2	—	
—		—				H. yellow brown	10YR 7/6	—	
—		yellowish pink	2.5YR 8/4			yellowish gray	5Y 3/1	—	
—		—				light brown	7.5YR 6/6	—	
—		—				dk gray brown	5YR 2/2	—	
limewash Y. gray	7.5Y 8.5/2	—				dk. red brown	7.5R 2/4	pale yellow (2 coats)	2.5Y 3.5/4
—		—				yellowish brown	7.5YR 5/10	very pale yellow	2.5YR [illegible]
—		—				dk. red brown	5R 3/2	H. yellow [illegible]	10YR [illegible]
← Alignment of finishes varies →									

TRIM - D224 + WINDOWS		D224		TRIM - D205		D205		TRANSOM D224	
WOOD		WOOD	(L)	WOOD	(L)	WOOD		WOOD	(L)
lt. yellow brown	10YR 7/4	brownish gray	10YR 5/1	yellowish gray	10YR 8/1			y. gray	10YR [illegible]
pale or. yellow	10YR 9/4	primer pale yellow gray	2.5Y 9/4	y. white	5Y 8/1			y. white	5Y 8/1
lt. red brown	2.5YR 6/6-4			y. white	5Y 8/1			y. white	5Y 8/1
yellowish gray	2.5Y 7/2			pale or. yellow	10YR 9/4			y. gray	2.5Y 7/2
—				—				—	
dk gray yellow	2.5Y 6/4			—				—	
pale yellow	2.5Y 8/4			pale yellow	2.5Y 8/4			—	
lt. brown	5YR 6/4			lt. brown	5YR 6/4			—	
pale yellow	[illegible] 8/4			pale yellow	2.5Y 8/4			—	
				[illegible]	N9			[illegible]	
				[illegible] y. gray	7.5Y 8.5/2			[illegible]	7.5Y 8/2

WINDOW SASH		COLUMN							
WOOD	Ⓛ	WOOD	Ⓛ						
Yi gray	2.5Y 8.5/2	—							
Yi gray	5Y 7/1	—							
Yi white	5Y 9/1	yellowish brown	10YR 7/6						
—		Yi brown	10YR 7/6						
—		—							
—		—							
—		—							
—		—							
—		—							
		White	N9						
—		Limewash Yi. gray	7.5Y 8.5/2						

RM 205 BUILDINGS 34 + 35

WALLS + CEILING		FLOOR		BASE		EASE CAP		TRIM - DOORS TRANSOM - D222 + D223	
PLASTER	T	WOOD		WOOD	L T	WOOD	L T	WOOD	L T
—		—		—		black	N1	grayish yellow	2.5Y 3/4
—		—		H. reddish brown	2.5YR 5/4	H. reddish brown	2.5YR 5/4	H. olive brown	2.5Y 6/6
—		—		grayish yellow	2.5Y 3/4	grayish yellow	2.5Y 3/4	grayish yellow	2.5Y 3/4
—		varnish dk brown	5YR 2/4 *	H. yellow brown	10YR 7/6	H. yellow brown	10YR 7/6	—	
		yellowed coating	clear						
—		—		grayish yellow	2.5Y 3/4	grayish yellow	2.5Y 3/4	grayish yellow	[illegible]
dk. gray brown	10YR 3/4	—		dk. gray brown	5YR 2/2	—		[illegible]	[illegible]
yellow									

D222 + L224 D217		TRIM + SPLAY W224		SASH W224					
WOOD		WOOD	(L)T	WOOD	(L)T				
[illegible] graining	2.5Y 9/4	light yellow	2.5Y 8.5/6	yellowish gray	10YR 8/1				
		light yellow	2.5Y 8.5/6	gray	N7.5				
		light yellow	2.5Y 8.5/6	light gray	N8.5				

RM 206 BUILDINGS 34+35

WALLS + CEILING		FLOOR		BASE		TRIM			
PLASTER		WOOD		WOOD	(L)T	WOOD	(L)T		
Intermix pale yellow	5Y 9/4	—		black	N1	—			
—		—		H. reddish brown	2.5YR 5/4	—			
—		—		—		—			
Intermix pale or. yellow	7.5YR 8/4	Varnish dk brown yellowed coating	5YR 2/4 * clear	H. yellow brown	10YR 7/2	L brown	7.5YR 5/4		
				yellowish gray	10YR 8/2	pale yellow	2.5Y 8.5/4		

RM 207 BUILDINGS 34+35

WALLS + CEILING		FLOOR		BASE		BASE CAP		TRIM - D253, W222 + W223	
PLASTER		WOOD		WOOD	(L)T	WOOD	(L)T	WOOD	(L)
				—		lt. gray red brown	2.5YR 6/2	—	
limewash white	5Y 9/1	—		dk gray olive green	5GY 2/1	dk gray olive green	5GY 2/1	—	
limewash gray	N7.75	—		grayish brown	5YR 3/2	—		—	
limewash pale or yellow	10YR 9/4	—		lt. reddish brown	2.5YR 5/4	—		—	
—		varnish lt brown	5YR 2/4	lt. gray red brown	2.5YR 6/2	—		yellowish gray	10Y
		yellowed coating	clear						
—		—		dark yellow	2.5Y 6/6	dark yellow	2.5Y 6/6	lt. olive brown	
—		—		grayish yellow	2.5Y 8/4	grayish yellow	2.5Y 8/4		
pale yellow	2.5Y 9/4	—		grayish yellow	2.5Y 8/4	grayish yellow	2.5Y 8/4	—	
grayish yellow	5GY 6/2	—		dk. yellow green	10GY 2/4	grayish yellow	5GY 6/2	—	

SASH

WOOD	(L)								
—									
—									
—									
Yellowish White	5Y 9/1								
H. drive tray	5Y 6/1								
[illegible]	N9.5								
—									
—									

RM 208 BUILDINGS 34+35

WALLS + CEILING		FLOOR		BASE		SHOEMOLD		TRIM-DECK, W219+W221 SASH	
PLASTER	(L)T	WOOD		WOOD	(L)T	WOOD	(L)T	WOOD	(L)
limewash yellow white	10YR 9/2	—		lt. gray red brown	2.5YR 6/2	yellowish white (2 coats)	2.5Y 9/2	yellowish gray	10YR 7/2
limewash lt.y.brown	10YR 7/6	—		yellowish brown	10YR 5/6	yellowish brown	10YR 5/6	grayish y. brown	10YR 4/2
limewash lt.green yellow	7.5Y 9/6	—		grayish red brown	2.5YR 3/2	—		pale o. yellow	10YR 8/4
gray	N7.75	varnish dk brown yellowed coating	5YR 2/4 clear	grayish olive green	7.5GY 3/2	dark grayish green.	10GY 2/1	pale o. yellow	10YR 8/4
pale yellow	2.5Y 8.5/4	—		light yellow	2.5Y 8.5/6	—		yellowish white	5Y 9/1
lt. yellow brown	10YR 7/4	—		grayish red brown	2.5YR 3/2	grayish red brown	2.5YR 3/2	yellowish white	5Y 9/1
grayish y. green	7.5GY 7/2	—		grayish y. green	7.5GY 2/4	grayish y. green	7.5GY 2/4	White	N9.5

RM 209

BUILDINGS 34 + 35

WALLS + CEILING		FLOOR		BASE, TRIM, SASH + TRANSOMS D214, D216 + D216 STAIR STRINGER		D202 + D203 PANELS		D202 + D203 RAILS	
PLASTER		WOOD	T	WOOD	T	WOOD	(L)	WOOD	(L)
Tinsmith	2.5Y 3.5/6	reddish black	10R 2/1	primer y. white graining	10YR 9/2	y. white	5Y 9/1	y. white	5Y 9/1
Wallpaper						brown	5YR 4-5/4	brown	5YR 4-5/4
						y. white	5Y 9/1	lt. brown	7.5YR 5/6

RM 210 BUILDINGS 34 + 35

WALLS + CEILING		FLOOR		BASE		TRIM-DOOR + WDWS		SASH WDWS	
PLASTER		WOOD	(L)	WOOD	$(L)_T$	WOOD	$(L)_T$	WOOD	(L)
[illegible] lt. gray	N7.75	lt. brown	7.5YR 5/6	grayish red brown	2.5YR 4/2	[illegible] white	[illegible] 9/2	—	
Wallpaper (2 layers)		yellow brown	10YR 4/6	—		yellowish gray	2.5Y 7/2	—	
				yellowish gray	5Y 9/2	yellowish white	5Y 9/2	—	
				—		—		—	
				—		—		—	
				—		Y. [illegible]	2.5Y 9/2	Y. [illegible]	
				yellowish gray	5Y 8/2	Y. white	2.5Y 9/2	Y. [illegible]	

D207 + D216

WOOD									
—									
—									
—									
—									
	EY 9/1								
	TEYK								
—									

UPPER WALLS + CEILING		LOWER WALLS, CHAIRRAIL, + TRIM D214		D214					
PLASTER		WOOD	(L)T	WOOD	(L)				
Timewash gray	N7.75	Yellowish White	5Y 9/2	primer Y. White graining	10YR 9/2				
Timewash lt. blue		—							
Wallpaper		—							

RM 212 BUILDINGS 34 + 35

WALLS + CEILING		FLOOR		BASE		TRIM-D210		D210	
PLASTER		WOOD	(L)	WOOD	(L)	WOOD	(L)	WOOD	
Timewash gray	N7.75	light brown	7.5YR 5/6	primer	2.5YR 6/2	yellowish white	5Y 9/1	[illegible]	
				graining					
		yellowish brown	10YR 4/6			pale yellow	2.5Y 8.5/4		
						lt olive gray	7.5Y 6/2		
						lt brown	7.5YR 6/6		
						dk red brown	10R 2/4		
						grayish brown	7.5YR 3/2		

RM 212A

BUILDINGS 34+35

WALLS + CEILING		FLOOR		BASE + TRIM		DOORS D210 + D211		SASH	
PLASTER	(L)T	WOOD	(L)	WOOD	(L)	WOOD	(L)	WOOD	(L)
Y. gray	7.5Y 7/2	Lt. brown	7.5YR 5/6	Y. white	2.5Y 9/2	primer	2.5YR 6/2	Y. white	2.5Y 9/2
						graining			
pale orange yellow	10YR 8/4	yellow brown	10YR 4/6	Lt. olive gray	7.5Y 6/2	—		Lt olive gray	7.5Y 6/2
pale orange yellow	7.5YR 7/3			—		—		Lt brown	7.5YR 6/6
orange yellow	7.5YR 7/3			Lt. brown	7.5YR 6/6	Lt. brown	7.5YR 6/6	Lt brown	7.5YR 5/6
greenish white	5BG 9/1			dk red brown	10R 2/4	dk red brown	10R 2/4 *	dk red brown	10R 2/4
				grayish brown	7.5YR 3/2	grayish brown	7.5YR 3/2 *	pale yellow	5Y 8/4
								greenish white	5BG 9/1
						* @ rails only			
						panels - 5Y 9/1			

NORTH WALL		EAST, SOUTH + WEST WALLS + CEILING		TRIM D212		D212		SHELVES	
WOOD BEADED	(L)T	PLASTER	(L)T	WOOD	(L)	WOOD	(L)	WOOD	(L)
—		—		Y. White	5Y 9/1	primer lt. gr. brown graining	2.5YR 6/2	—	
—		—		lt. olive gray	7.5Y 6/2	—		—	
—		—		—		—		—	
—		—		lt. brown	7.5YR 6/6			—	
—		—		dk red brown	10R 2/4	dk red brown	10R 2/4*	—	
[illegible]	5Y [illegible]	pale yellow	2.5Y 7/4	grayish [illegible]	7.5YR [illegible]	grayish [illegible]	[illegible]*	[illegible]	[illegible]
						*at rails only.			
FLMK- see rm 214									

RM 214 BUILDINGS 34+35

WALLS + CEILING		FLOOR		BASE		SHOEMOLD		TRIM	
PLASTER	(L) T	WOOD	(L) T	WOOD	(L) T	WOOD	T	WOOD	(L)
yellowish gray	10YR 3/2	lt brown	7.5YR 5/6	Y. gray	10YR 6/2			Y. white	2.5Y 9/2
						—			
pale orange yellow	7.5YR 8/4	yellow brown	10YR 4/6	gray Y. brown	10YR 5/2	—		lt olive gray	10Y 5/1
lt. brown	7.5YR 6/6			Y. white	5Y 9/2.	—		—	
lt. brown	7.5YR 6/6			lt. brown	7.5YR 6/6	—		lt brown	7.5YR
lt brown	7.5YR 6/4			dk red brown	10R 2/4	—		dk red brown	10R 2/4
pale [illegible]	2.5Y 7/4			gray brown	7.5YR 5/2	gray brown	7.5YR 5/2	[illegible]	[illegible]
pale yellow green	7.5GY 9/2			Y. white	5Y 9/1	Y. white	5Y 9/1	Y. white	5Y 9/1
		[illegible]							

D211, D212 D213		SASH							
WOOD	(L)	WOOD	(L)						
primer lt. gr. brown	2.5YR 6/2	yellowish white	2.5Y 9/2						
graining									
—		lt. olive gray	10Y 5/1						
—		—							
lt. brown	7.5YR 6/6	lt. brown	7.5YR 6/6						
dk red brown	10R 2/4	—							
grayish [illegible]	7.5YR 3/2	—							
yellowish white	5Y 9/1	Y. white	5Y 9/1						

THIRD FLOOR
RM 301

BUILDINGS 34 + 35

WALLS + CEILING		FLOOR		BASE (@ west, north + south walls)		BASE CAP (@ west, north + south walls)		SHOEMOLD (all walls)	
PLASTER		WOOD		WOOD	(L)+	WOOD	(L)+	WOOD	(L)
Tinewash white	N9	—		yellowish gray	5Y 7-8/2	grayish red	7.5R 4/6	—	
						black	N0.5		
Tinewash pale blue	10B 8/2	—		mod. olive green	7.5GY 3-4/4	greenish gray	5G 5/1	—	
						black	N0.5		
Tinewash grayish greenish	7.5Y 7/4 yellow	—		dark gr. blue	2.5B 2/4	H. red brown	2.5YR 5/4	—	
Tinewash pale yellow	5Y 8.5/4-6	—		H. yellow brown	10YR 7/4	H. yellow brown	10YR 7/4	—	
wallpaper		—		H. grayish brown	5YR 6/2	H. grayish brown	5YR 6/2	—	
		—		H. grayish brown	7.5YR 6/2	H. grayish brown	7.5YR 6/2		
		reddish black *	10R 2/1	reddish black *	10R 2/1	reddish black *	10R 2/1		
Alignment of wall colors with other buildings unknown.		* Concrete		Base + baseboard may predate other elements in the room.					

BASE + BASE CAP @ ext wall)		TRIM - D301 + D303 FRAME, SASH + APRON W301 + W330		TRIM - W301 + W330					
WOOD	(L)	WOOD	(L)	WOOD	$(L)_T$				
—		—		yellowish gray	*				
—		—		yellowish gray	*				
—		—		yellowish white	*				
				backband removed					
lt. yellow brown	10YR 7/4	yellowish gray	2.5Y 7/2	yellowish gray	2.5Y 7/2				
lt. grayish brown	5YR 6/2	lt. orange brown	7.5YR 6/6	lt. orange brown	7.5YR 6/6				
lt. [illegible]	5YR 6/2	pale yellow	2.5Y 9/4	pale yellow	2.5Y 9/4				
reddish black*	10R 2/1	yellowish white	5Y 9/1	yellowish white	5Y 9/1				
				* not present at backband area.					
* [illegible]				Trim may also include					

RM 302 BUILDINGS 34+35

WALLS + CEILING		FLOOR		BASE, SHOEMOLD, + DOOR		TRIM + TRANSOM + D201 + D202		TRIM - DOOR	
PLASTER		WOOD		WOOD		WOOD		WOOD	(L)
see Rm	301	—		primer U. White	5Y 8/1	primer U. White	5Y 8/1	grain	*
				graining		graining			
		—				—		grain paint	*
		—				—		grain paint	*
		—				—		back paint	remove
		—				—		grain paint	*
		—				—			
		reddish black *	10R 2/1			Y white	5Y 8/1		
								*	
		*							

CACH - WIRE									
WOOD	(L)								
—									
—									
—									
—									
—									
[illegible]	[illegible]								
yellow/white	5V 3/1								

RM 303 BUILDINGS 34 + 35

WALLS + CEILING		FLOOR		BASE + SHOEMOLD		TRIM-D303+ D306, W304 SASH-W304		DOOR	
PLASTER	(L)T	WOOD	T	WOOD	(L)T	WOOD	D306 (L)T	WOOD	(L)
—		—		—		—		—	
—		—		—		—		—	
—		—		—		—		—	
—		—		—		—		—	
—		—		—		—		—	
[illegible]	10R 6/4	yellow brown	7.5YR 5/10	[illegible] brown	5YR 5.5/4	yellowish gray	10YR 7/2	[illegible]	[illegible]
								[illegible]	
[illegible]	10GY 6/4	—		dk reddish gray	10R 5/1	gray	N8.5		
						white	N9.5		

RM 304 BUILDINGS 34 + 35

WALLS + CEILING		FLOOR		BASE		TRIM - DOORS + WINDOWS		DOOR	
PLASTER		WOOD		WOOD	(L)	WOOD	(L)	WOOD	(L)T
—		—		—		—		—	
—		—		—		—		—	
—		—		—		—		—	
—		—		—		—		—	
—		—		—		—		—	
painted white	N7	—		H gray cream	5YR 5-6/4	yellowish gray	10YR 7/2	painted	—
painted white	10B 8/2	reddish black *	10R 2/1	dk reddish gray	10R 3/1	white	N9.5		
wallpaper									
		*shellac							

D505		D506							
WOOD	(L)	WOOD	(L)						
—		—							
—		—							
—		—							
—		—							
primer (yellow)	10YR 8/4	—							
primer (yellow)	5YR 8/4	yellowish gray	10YR 7/2						
		gray	N9.25						
		white	N9.5						

RM 305 STRINGER + RISERS BUILDINGS 34 + 35

WALLS + CEILING		FLOOR		BASE/D302 TRIM-D302+W305 SASH-W305		TRIM-D303, D304, D305, D307 + W308		SASH-W303	
PLASTER		WOOD		WOOD	Ⓛ	WOOD	Ⓛ	WOOD	Ⓛ
—		—		—		—		—	
—		—		—		—		—	
—		—		—		—		—	
limewash white	N9	dk. gray yellowish brown	10R 2/2 *	primer y.white graining	5Y 8.5/1	yellowish gray	2.5Y 7/2	—	
—		reddish black	10R 2/1 *			lt. orange brown	7.5YR 6/6	—	
limewash pale yellow	10Y 9/4 *	—				pale yellow	2.5Y 9/4	—	
								Y white	5Y 8/1
* not present at west wall at stair- 1st layer is —								Y white	5Y 8/1
limewash lt. yellow	2.5Y 8.5/6								
		* white or [illegible]							
Note: See Rms. 205 + 403 for stair elevations.									

RM 305 (con't)

RAILING									
WOOD									
—									
—									
—									
VARIES									

RM 306 BUILDINGS 34 + 35

WALLS + CEILING		FLOOR		BASE		TRIM - DOORS + WINDOWS + WINDOW SPLAY		WINDOW SASH	
PLASTER		WOOD	(L)	WOOD	(L)	WOOD	(L)	WOOD	(L)
—		See Rm 307.		—		—		—	
—				—		—		—	
—				—		—		—	
limewash pale lilac	10B 9/2			primer y.white graining	5Y 8.5/1	primer y.white graining	5Y 8.5/1	primer y.white graining	5Y 8.5/1 7.5YR 6/6
limewash pale yellow	5Y 9/4								
Sampling Wall	at west			Sampling Wall	at west	Sampling + file 24	at base	Sampling	at head

RM 306 (con't)

RAILING									
WOOD									
—									
—									
—									
[illegible]									

WALLS + CEILING		FLOOR		BASE		TRIM- D314 TRIM + SASH - W309 + W310		D314	
PLASTER		WOOD	(L)T	WOOD	(L)	WOOD	(L)	WOOD	(L)
—		—		—		—		—	
—		—		—		—		—	
—		—		—		—		—	
—		dk. gray red brown	10R 2/2	yellowish white	2.5Y 9/2	Y. white	2.5Y 8/2	primer white to	5Y [illegible]
								gray[illegible]	
—		—		lt. grayish reddish	5YR 5/2	—			
				brown					
—		—		[illegible]	N/5	yellowish white	10YR [illegible]		
pale or. yellow	10R 3/4	primer Y. white	5Y 9/2	pale or. yellow	10YR 9/4	yellowish gray	5Y 7/1		
		dk. orange	10YR 6/8						
yellowish gray	2.5Y 8.5/2	yellow		dk. gray brown	5YR 2/2	yellowish gray	5Y 8/1		

[illegible] for D308, W317 + W318

D308		TRIM + SASH- W317 + W318 D308							
WOOD (not original)		WOOD (not original)							
—		—							
—		—							
—		—							
—		—							
—		—							
—		—							
—		—							
VARNISH		—							
ORANGE ENAMEL	7.5YR 6/6	WHITE	N9.5						
WHITE	N9.5	WHITE	N9.5						

WALLS + CEILING		FLOOR		BASE		TRIM - D313 + W311 SASH - W311		TRIM + SASH - W315 + W316	
PLASTER		WOOD	(L)	WOOD	(L)	WOOD	(L)	WOOD	
—		—		—		—		See W317 + W313 RM 307.	
—		—		—		—			
—		—		—		—			
limewash pale yellow	2.5Y 9/4	dk gray red brown	10R 2/2	yellowish white	2.5Y 9/2	Y. white	2.5Y 9/2		
limewash Y. white	2.5Y 9/2								
—		—		dk. gray red brown	5YR 5/2	—			
[illegible] yellow	2.5Y 9/4								
[illegible]	5G 7/2	—		Y. white	5Y 9/1	Y. white	5Y 9/1		
[illegible]	5GPB 7/6								
limewash white	N9	primer Y. white	5Y 9/2	Y. white	5Y 9/1	Y. white	5Y 9/1		
		dk. gray yellow	10YR 6/3						
Y. white	10YR 9/2			dk. gray brown	5YR 3/2	—			

RM 309 BUILDINGS 34 + 35

WALLS + CEILING		FLOOR		BASE		TRIM: D309 TRIM + SASH - W312 + W313		TRIM: D309 TRIM + SASH - W315 + W316	
PLASTER		WOOD		WOOD	L T	WOOD	L T	WOOD	
—		See Rm 307.		—		—		See W317 + W313 Rm 307.	
—				—		—			
—				—		—			
—				lt. gray red brown	5YR 5/2	Y. white	2.5Y 3/2		
—				—		—			
brown lt. yellow	5Y 8.5/3			Y. white	5Y 9/1	—			
				Y. white	5Y 9/1				
brown gray	2.5G 7/2			olive green	7.5GY 3/4	yellowish white	5Y 9/1		
				light brown	5YR 6/4				
				dk gray brown	5YR 3/2	lt. orange brown	7.5YR 7/6		
						white	N9.5		

RM 310 BUILDINGS 34+35

WALLS + CEILING		FLOOR		BASE		SHOEMOLD		WIN. CON TRIM + SASH	
PLASTER		WOOD		WOOD	(L)	WOOD	(L)	WOOD	(L)
—		See Rm 307.		—		—		—	
—				—		—		—	
—				—		—		—	
limewash; lt. yellow	5Y 9/6			lt. gray brown	5YR 5/2	—		y. white	5Y 3/1
limewash gray	N7.5								
limewash; lt. blue	2.5PB 7/6			—		—		y. white	5Y 3/1
limewash pale green	5G 7/4								
limewash pale yellow	2.5Y 9.5/4			y. white	5Y 9/1	y. white	5Y 9/1	—	
				y. white	5Y 9/1	olive gray	10Y 4/1	lt. gray	N 9.5
pale or. yellow	10YR 9/4								
gray green wash	7.5G 5/2			dk gray brown	5YR 2/1	dk gray brown	5YR 2/1	y. white	5Y 9/2
								*	

WALLS + CEILING		FLOOR		BASE		TRIM - DSI WINDOW TRIM + SASH			
PLASTER		WOOD		WOOD	(L)T	WOOD	(L)		
—		See Rm 307		—		—			
—				—		—			
—				—		—			
Limerick H. green olive	7.5B 7/6			Y. White	2.5Y 9/2	Yellowish gray	7.5Y 7/2		
Limerick H. yellow	2.5Y 3.5/4-6			dk gray olive	10Y 2/1	—			
—				light brown	5YR 5/6	Yellowish gray	7.5Y 7/2		
—				dk yellow green	10GY 4/4	green	10GY 5/4		
pale green	5G 7-9/12			light brown	7.5YR 6/4	light brown	7.5 YR 5/4		
Interior walls are covered w/ canvas + painted:									
primary layer yellow	5GY 6/2								

RM 312

BUILDINGS 34+35

WALLS + CEILING		FLOOR		BASE		TRIM - DOORS + WINDOW		[illegible] + DOOR	
PLASTER		WOOD	(L)T	WOOD	(L)	WOOD	(L)T	WOOD	(L)T
—		—		—		—		—	
—		—		—		—		—	
—		—		—		—		—	
—		Yellowish gray	10YR 7/2	brownish pink	5YR 7/2	lt. olive brown	2.5Y 6/6	primer or yellow graining	7.5YR 3/2
lt. yellow brown	7.5YR 7/4	dk. gray y. brown	10YR 2/1	—		—			
—				moderate yellow	2.5Y 7/6	—			
—				graining		lt. yellow brown	7.5YR 7/6		
						White	NT		

D515		SASH-WOOD							
WOOD	(L)	WOOD	(L)						
primer		—							
graining									
		—							
primer									
graining	(quarter sawn oak)	—							
		yellowish white	2.5Y 9/2						
		yellowish white	5Y 9/1						
		moderate yellow	2.5Y 7/6						
		lt. yellow brown	7.5YR 7/6						
		White	N7						
Door latch bolt [illegible]									
another location Alignment with other elements unknown									

RM 313 BUILDINGS 34 + 35

WALLS + CEILINGS		FLOOR		BASE + TRIM		SHELVES			
PLASTER		WOOD	Ⓛ	WOOD	Ⓛ$_T$	WOOD			
—		—		—		—			
—		—		—		—			
—		—		—		—			
linen white pale yellow	2.5Y 9/2-9/4	yellowish gray	10YR 7/2	Y. white	2.5Y 9/2	—			
—		dk gray Y. brown	10YR 2/1	Y. white	2.5Y 9/2	—			
—				—		—			
—				yellow brown	10YR 5/4	yellow brown	10YR 5/4		

RM 314 BUILDINGS 34+35

WALLS + CEILING		FLOOR		BASE + CAP		SPLAY + CASH W327 + W328		TRIM - D319, W321, + W323 SILL + APRON - W321 + W323	
PLASTER		WOOD	Ⓛ	WOOD	$Ⓛ_T$	WOOD	Ⓛ	WOOD	$Ⓛ_T$
—		—		strong brown	7.5YR 4/6	—		—	
				black	N0.5				
—		—		green gray	5G 5/1	—		—	
				black	N0.5				
—		—		lt. red brown	2.5YR 5/4	—		—	
—		yellowish gray	10YR 7/2	lt. olive brown	2.5Y 6/2	yellowish gray	2.5Y 8/2	light brown gray	10YR 7/1
lt. yellow brown	7.5YR 7/4	dk gray y. brown	10YR 2/1	lt. gray red brown	2.5YR 5/2	yellowish gray	2.5Y 8/2	—	
				lt. yellow brown gray	10YR 7/6	—			
						light brown	7.5YR 5/6		
						y. gray	5Y 8/2		

FOURTH FLOOR
RMS. 401, 402, 404, 405, 406, 407, + 408 BUILDINGS 34+35

WALLS + CEILING		FLOOR		BASE		DOOR TRIM*		DOORS	
PLASTER		WOOD		WOOD	(L)	WOOD	(L)	WOOD	(L)
								(primer)	
limewash white	N9.5	bare	—	grayish brown	5YR 5/2	limewash white	10Y 8.5/1	grayish pink	10R 6/2
								graining	5YR 7/4 5YR 2/1
						*Trim @ plat varies - 1 on other trim in profile. 2-3 coats of paint exist under limewash + are not present at backband area.			

RM 315 BUILDINGS 34 + 35

WALLS + CEILING		FLOOR		BASE		TRIM WINDOW SILL + SASH		DOOR	
		WOOD	Ⓛ	WOOD	Ⓛ	WOOD	Ⓛ	WOOD	Ⓛ
—		—		—		—		—	
—		—		—		—		—	
—		—		—		—		—	
limewash yellow	5Y 9/6	yellowish gray	10YR 7/2	gray red brown	2.5YR 4/2	yellowish gray	2.5Y 7/2	primer or yellow	7.5YR 3/4
limewash or. yellow	7.5YR 8/4	primer?						gray	
limewash lt. gr. blue	7.5B 7/6	dk gray y. brown	10YR 2/1			—			
yellow gray	2.5Y 8.5/2			yellow brown	10YR 7/4	yellow brown	10YR 7/4		
pale or. yellow	7.5YR 8/6			pale or. yellow	10R 9/4	pale or. yellow	10R 9/4		
yellowish gray	10YR 7/2			white	N9	white	N9		

RM. 403 (See Rm. 401 for surfaces not listed) BUILDINGS 34 + 35

WALLS		RAILING @ STAIR		RISERS + BEAD BOARD @ STAIR		BASE @ STAIR			
PLASTER		WOOD		WOOD		WOOD	(L)		
Universal grayish yellow	7.5Y 8/4	primer		primer yellowish gray graining	10YR 7/2	primer yellowish gray graining	10YR 7/2		
		varnish							
* East + south @ stair only. Remainder of walls + ceiling see Rm 401, etc.									

PAINT ANALYSIS CHARTS

BUILDING 34A

FRAME - D101 D101		FRAME - D301		D301		WINDOW TRIM + SASH			
WOOD	(L)T	WOOD	(L)T	WOOD	(L)T	WOOD			
—		Y. white	2.5Y 9/2	—		—			
Y. white	2.5Y 9/2	Y. white	2.5Y 9/2	Y. white	2.5Y 9/2	pale blue	2.5B 7/2		

FIRST FLOOR
RM 101

SECOND FLOOR
RM 202

BUILDING 34A

WALLS		FRAME - D101 D101		TRIM + STAIR STRINGER					
PLASTER		WOOD	(L)	WOOD					
limewash y. white	5Y 9/1			limewash y. white (traces)	5Y 9/1				
limewash y. white	5Y 9/1								
limewash y. white	5Y 9/1	yellowish white	2.5Y 9/2						
remaining surfaces - exposed wood framing + concrete - no paint				Windows are not historic + were not sampled.					

THIRD FLOOR
RM 301

BUILDING 34A

WALLS		TRIM - D301		D301		[illegible] WINDOW SASH			
PLASTER		WOOD	(L)T	WOOD	(L)	WOOD	(L)		
wallpaper		Y white	5Y 9/1	dark gray green	5G 2/1	red	7.5R 3/8		
		—		light brown	5YR 5/6	lt. Y. gray	5Y 9/1		
		white	N9.5	White	N9.5	varnish			
						Y White	5Y [illegible]		
Windows [illegible] historic [illegible] not sampled						[illegible]	10YR [illegible]		
[illegible]									
						[illegible]			
						lt. [illegible]	[illegible]		
						tan	10YR 7/4		
						Y [illegible]	5Y [illegible]		
						Y [illegible]	5Y 9/1		
						[illegible]	5Y 9/1		
						[illegible]	5Y 3/2		

Copeland

H2215 (DSC-TEA)
HAFE-116A-06

NOV 06 1991

Memorandum

To: Regional Director, North Atlantic Region

From: Manager, Eastern Team, Denver Service Center

Reference: Harpers Ferry National Historical Park, Package 116A, Preservation of Buildings 34, 34A and 35, Project Type 06

Subject: Transmittal of Wallpaper Samples

Under separate cover, we have forwarded wallpaper samples to Peggy Albee of your office. As discussed with Randall Copeland of this office, on October 28, 1991, these are being assessed for their possible date of manufacture. This data is required to assist the project's historic structure report. These samples were taken from fallen material within the respective buildings. While limited areas remain intact, it is anticipated that none of this material will remain in-place following the buildings' rehabilitation. You may find that additional samples are multiple layer beyond those identified below. "Typical" refers to the fact that the paper existed on all wall and/or ceiling surfaces.

Samples:

Room 201 - Typical ceiling.
Room configuration suspected to date to original construction in 1812; no definitive historical reference to room use, but undoubtedly used as quarters.

Room 209 - Typical wall with border at ceiling.
Room layout as hallway created in major 1891 addition.

Room 210 - Ceiling (2 layers).
Room layout created in major 1891 addition; suspected use as dining hall for boarding house.

Room 210 - Typical wall (3 layers).
See Room 210 above.

Room 211 - Ceiling with border on wall plane.
Room configuration as stairway created in major 1891 addition; stairs now removed. Most recent wall finish design consisted of papered walls with wood wainscot below.

Room 211 - Typical wall (2 layers).
See Room 211 above.

Room 301 - Typical wall (2 layers).
Room configuration suspected to date to major 1891 addition, but possibly as early as 1882; no definitive historical reference to room use, but undoubtedly used as quarters.

Room 302 - Ceiling.
See Room 301 above.

Room 302 - Typical wall with border at ceiling (2 layers).
See Room 301 above.

Room 306 - Typical wall with border at ceiling.
Room configuration as hallway created in major 1891 addition.

If we can provide any additional information, please do not hesitate to contact Randall Copeland at FTS 327-2459.

Under a separate memorandum, we are authorizing a cross-charge account for this work.

Thank you for your assistance.

/S/ JOHN ALBRIGHT, ACTING FOR

Robert J. Shelley

Under Separate Cover

cc:
Reg. Dir., National Capital Region
NAR-PHP-Cliver
NAR-PHP-Albee
Supt., Harpers Ferry NHP

bcc:
DSC-EAF-Donald
DSC-TEA-Tegeder
DSC-TEA-LaFleur
~~DSC-TEA-Copeland~~

TEA:RWCopeland:tm:10/30/91:2496

United States Department of the Interior
NATIONAL PARK SERVICE
North Atlantic Region
15 State Street
Boston, Massachusetts 02109-3572

IN REPLY REFER TO:

TAKE PRIDE IN AMERICA

November 19, 1991

H30(NAR-CRC)

Memorandum

To: Historical Architect, DSC-TEA

Through: Manager, Eastern Team, Denver Service Center

From: Manager, Cultural Resources Center, NARO

Reference: Harpers Ferry National Historical Park, Package 116A, Preservation of Buildings 34, 34A, and 35, Project Type 06

Subject: Transmittal of Analyzed and Encapsulated Wallpaper Samples and Related Report

The attached report represents the findings from ten analyzed wallpaper samples collected from Harpers Ferry, buildings 34, 34A, and 35. Also included are the individual and encapsulated samples. If you have any questions, please contact the architectural conservator who analyzed the samples, Peggy Albee, or the supervisor of the Building Conservation Branch, Steve Spaulding, at (617) 242-1977.

The separate memorandum authorizing the cross-charge account for the above work has not been received. If you could expedite this paperwork, it would be appreciated.

Lupa F. Harrison

Enclosures

cc: Supervisor, CRC-BCB
Architectural Conservator, CRC-BCB

WALLPAPER ANALYSIS
Harpers Ferry National Historical Park
Preservation of Buildings 34, 34A, and 35
Denver Service Center, Package 116A

Ten samples of wallpaper, some with multiple layers, were removed from Harpers Ferry's buildings 34, 34A, and 35 by Randall Copeland of the Denver Service Center and sent to the Cultural Resources Center's Building Conservation Branch of the North Atlantic Region for analysis. Each sample was assigned an identification number ranging from HAFE 34/35 WP001 through HAFE 34/35 WP010, noting which layer or which layer's border the sample represented. In this project, no one sample had more than two layers, and the paper borders were included with their corresponding layer. Layer one was assigned to the layer attached to the substrate, and layer two to the surface layer if more than one existed.

The majority of those samples with multiple layers were separated using only a metal spatula, in that the wallpaper paste was dry enough to break its bond without tearing the paper on either side. Other multiple-layered samples were moistened with a spray bottle filled with water, allowed to slightly dry, and then separated. All of the samples' layers were tested using the Barrow's Groundwood Test, a chemical test that positively identifies mechanical wood pulp paper. Macro and microscopic examination of the printed matter was employed to identify the printing method that was used. Individual layers were encapsulated and labelled, and then photographed.

With the exception of one paper, all of the papers tested to be mechanical wood pulp, a type of paper produced by a method of manufacturing that came into use after 1860. The exception, a ceiling paper found in room 211 (HAFE 34/35 WP005), appears to be a chemical wood pulp paper, a type of paper manufactured with significantly reduced acidity, and which came into use after 1880. All of the papers were machine printed, a printing method used since the 1840's.

All of the papers probably date to the twentieth century, but there is a possibility that some might represent the 1891 period of building alteration. It is difficult to date mechanical wood pulp papers from the time period between 1860 and 1940, in that they are almost always machine printed and their major differences lie only in the printed design. Definitive stylistic design characteristics are sometimes more distinguishable from the Victorian period between 1860 and 1890, the Art Nouveau and Craftsman periods in the first two decades of the twentieth century, and the Art Deco period in the 1920's and 1930's. Unfortunately, only one border paper falls within any of these distinct stylistic periods, that found with sample HAFE 34/35 WP005. While design characteristics found

in other sampled papers may be suggestive of certain decades in the early twentieth century, they are less distinct. No manufacturer's marks were found on any selvage edges, which also might pinpoint a date of production. In addition, the papers on a whole represent inexpensive stock that no doubt was mass produced for millions of Americans, and is quite unremarkable.

Several ceiling papers are found with this collection of papers removed from buildings 34, 34A, and 35. While ceiling papers were used in the eighteenth century, they often depicted architectural ornament into the nineteenth century.[1] By the 1870's and 1880's, the Victorian period was in full bloom and two uses of ceiling decoration were promoted: one, to only calcimine the ceiling because papers were hard to hang; and two, to install ceiling borders and centers to match the dramatic and eclectic papers found on the walls. Less patterned and lighter colored papers were recommended for the spaces in between the ceiling borders and center designs.[2] Among other recommended designs, "meandering lines resembling nothing more than worms,...and unidentifiable amoebalike shapes were strewn in disjointed combinations over ceiling papers."[3] "Shiny metallic colorings" were also popular.[4] At the turn of the twentieth century, "ceilings were usually papered.... Many of the ceilings papers were decorated with faint, nebulous patterning printed in creamy tones or in shining mica on off-white."[5] This practice could easily have continued into the following decades, especially in a locale that would not necessarily be privy to the newest fashions. Lynn's book supports the theory that the majority of ceiling papers analyzed for this project date to the early part of the twentieth century.

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[1]Lynn, Catherine, Wallpaper in America, From the Seventeenth Century to World War I. New York: The Barra Foundation (W. W. Norton and Company, Inc.), 1980, pp. 151, 232-234.

[2]Ibid, p. 427.

[3]Ibid.

[4]Ibid.

[5]Ibid, p. 469.

The following provides a brief synopsis of all of the sampled wallpapers.

Sample Number Location

HAFE 34/35 WP001 Room 201, Ceiling

Layer 1 of 1 - 7-1/2" long by 3-1/2" high

Paper printed in white with mica in free-form pattern, on off-white or light gray ground. Appears to have had another paper pasted on top that has not survived. Paint is evident at edges of sample. Dates to first half of twentieth century.

HAFE 34/35 WP002 Room 209, Upper wall

Layer 1 of 1 (with border, and layer sandwiched in between) - 11" long by 15" high

Paper printed in white and light blue/green in landscape vignette pattern, on tan ground. Dates to first half of twentieth century.

Border (Layer 1) - 9" long by 2-1/2" high

Paper printed in brown, tan, turquoise, and light blue in geometric pattern, on tan ground. Dates to first half of twentieth century.

Sandwich (Between Layer 1 and border) - 6-1/2" long by 1-1/4" high

Paper printed in white with mica in free-form pattern, on white or off-white ground. Appears to have been ceiling paper installed simultaneously with layer 1 and border. Dates to first half of twentieth century. Similar to WP3001 Layer 1, WP008 Layer 1, and WP010 Layer 1.

HAFE 34/35 WP003 Room 210, Ceiling

Layer 1 of 2 - 11-1/2" long by 15" high

Paper printed in white with mica in free-form pattern, on white or off-white ground. Dates to first half of twentieth century. Similar to WP002 Sandwich layer, WP008 Layer 1, and WP010 Layer 1.

Layer 2 of 2 - 8-1/2" long by 8" high

Paper printed in white with mica in free-form brush stroke pattern, on white or off-white ground. Dates to

first half of twentieth century.

HAFE 34/35 WP004 Room 210, Wall

Layer 1 of 2 - 6" long by 9-1/2" high and 10" long by 17" high

Paper printed in black, tan, green, orange, and yellow in foliated pattern, on cream or white ground. Dates to first half of twentieth century.

Layer 2 of 2 - 6" long by 9" high

Paper printed in green, black, red, blue, purple, and white with mica in foliated pattern on stripes, on tan ground. Dates to first half of twentieth century.

HAFE 34/35 WP005 Room 211, Ceiling

Layer 1 of 1 (with border) - 9-1/2" long by 9-1/2" high

Chemical wood pulp paper printed in white with mica and yellow in foliated pattern, on off-white ground. Dates to first half of twentieth century.

Border (Layer 1) - 4-1/2" long by 3-1/4" high and 5" long by 1-1/2" high

Ridged paper printed in red, pink, green, black, and gray or white in Art Nouveau-style pattern, on off-white? ground. Dates to first half of twentieth century.

HAFE 34/35 WP006 Room 211, Wall

Layer 1 of 1 (with large seam) - 11" long with 10-1/2" high

Paper printed in white with mica and yellow in foliated pattern, on yellow ground. Dates to first half of twentieth century.

HAFE 34/35 WP007 Room 301, Wall

Layer 1 of 2 - 6-1/2" long by 11" high

Waffled paper printed in gold, brown, and green in foliated pattern, on tan ground. Dates to first half of twentieth century. Similar to sample WP009 Layer 1.

Layer 2 of 2 - 6" long by 10" high

Paper printed in white with mica, white, black, light gold, light green, light blue, blue, and gray in foliated pattern, on tan ground. Probably dates to second quarter

of twentieth century.

HAFE 34/35 WP008 Room 302, Ceiling

Layer 1 of 1 - 11-1/2" long by 4-1/2" high

Slightly waffle-textured paper printed in white with mica in free-form pattern, on white ground. Evidence of similarly-printed, earlier paper on reverse side. Dates to first half of twentieth century. Similar to sample WP002 Sandwich, WP003 Layer 1, and WP010 Layer 1.

HAFE 34/35 WP009 Room 302, Upper wall

Layer 1 of 2 - 11-1/2" long by 12" high

Paper printed in gold, brown, and green in foliated pattern on tan ground. Dates to first half of twentieth century. Similar to WP007 Layer 1.

Layer 2 of 2 (with border) - 13" long by 13" high

Paper printed in white with mica, white, pink, light blue, and blue in foliated pattern, on light blue ground. Probably dates to second quarter of twentieth century.

Border (Layer 2) - 5-1/2" long by 2-1/2" high

Paper printed in white with mica, white, pink, light blue, and blue in foliated pattern, on light blue? ground. Probably dates to second quarter of twentieth century.

HAFE 34/35 WP010 Room 306, Upper wall

Layer 1 of 2 - 11" long by 1-1/2" high

Paper printed in white with mica in free-form pattern, on white ground. Probably ceiling paper with rough edge installed on wall plane. Dates to first half of twentieth century. Similar to WP002 Sandwich, WP003 Layer 1, and WP008 Layer 1.

Layer 2 of 2 (with border) - 11-1/2" long by 6" high

Paper painted over with off-white paint. Former pattern, visible under section where border was located, appears to be very similar to WP002, including colors. Dates to first half of twentieth century.

Border (Layer 2) - 10" long by 2-1/4" high

Paper painted over with off-white paint, and former pattern either bleeding through paint or traced over paint. Pattern appears to be very similar to border pattern found in WP002. May have been installed over earlier paper, the pattern of which is faintly visible on the reverse side. Dates to first half of twentieth century.

November 19, 1991

Peggy A. Albee
Architectural Conservator

ASBESTOS SURVEY

BUILDINGS 34, 34A, AND 35

HARPERS FERRY NATIONAL HISTORIC PARK

HARPERS FERRY, WEST VIRGINIA

Contract No. CX-2000-0-0011

Work Order 3, Title II Services

September 19, 1990

Oehrlein & Associates Architects
1702 Connecticut Avenue, NW
Washington, DC 20009

Dewberry & Davis Risk Management, INc.
8401 Arlington Boulevard
Fairfax, VA 22031

SUMMARY

On May 31, 1990, Dewberry & Davis Risk Management Inc. (D&DRM), inspected and sampled roofing materials from National Park Service Buildings 34, 34A and 35 in Harpers Ferry, West Virginia. The purpose of the inspection was to determine if asbestos-containing materials (ACMs) are present in the roofing materials from each building. Samples were taken of suspect tar paper, mastic, and flashing materials. Laboratory analysis identified asbestos in tar paper and roof mastic in Building 34, and tar paper in Building 35.

The roof of Building 34A contained no tar paper or other suspect roofing materials. No samples were taken from this building.

Representative samples were also taken of deteriorated plaster in Buildings 34 and 35. All plaster samples tested negative for asbestos, however further sampling is recommended prior to work which would disturb the existing plaster.

BACKGROUND

There has been a growing public awareness of the link between the inhalation of asbestos fibers and various diseases such as asbestosis, mesothelioma, lung and other cancers. As a result, the Federal and state governments have, or are in the process of enacting legislation on the handling of asbestos-containing materials (ACMs). While this legislation varies greatly from state to state, all entities regard the building owners responsible for asbestos in their buildings.

ON-SITE SURVEY

The limited asbestos survey was performed on the roof of each subject building. The survey entailed a visual inspection by an EPA accredited asbestos inspector and management planner. (See **Appendix A** for inspector's certification.)

Bulk samples were taken from each suspect homogeneous material. A Homogeneous Material is defined as a material that is uniform in color, appearance, and texture. In the event a material could not be tested because of a constraint, it was noted as an assumed suspect asbestos-containing material. The locations of bulk samples extracted during this survey are noted on building sketches included in **Appendix C.**

Bulk samples were analyzed by a laboratory accredited by the American Industrial Hygiene Association and the United States Department of Commerce, National Institute of Standards and Technology. A sample is considered positive if it contains more than one percent (1%) asbestos by volume when measured by visual estimation using polarized light microscopy (PLM). The laboratory certification is included in **Appendix B.**

SURVEY FINDINGS

The survey findings are divided into three sections: Homogeneous areas testing positive for asbestos, homogeneous areas assumed to contain asbestos or inaccessible areas, and homogeneous areas that are negative for asbestos. Laboratory reports are included in Appendix D.

Homogeneous Areas Testing Positive for Asbestos

Sample No.	Description	Location	%/Type
BUILDING 34			
34-2	Tar paper	Roof peak	30-35% Chrysotile
34-3	Roof mastic	Chimney at north corner	2-5% Chrysotile
BUILDING 35			
35-1	Tar paper	Northeast dormer	60-65% Chrysotile
35-2	Tar paper	Northeast corner of the building	40-45% Chrysotile

Assumed Asbestos-Containing Materials

All suspect materials were sampled. No materials were assumed to contain asbestos.

Homogeneous Areas Testing Negative for Asbestos

Sample No.	Description	Location
BUILDING 34		
34-1	Tar paper	South dormer
34-4	Ceiling plaster	South dormer, 4th floor
34-5	Wall plaster	South wall, 2nd floor
BUILDING 35		
35-3	Wall plaster	South corner, 3rd floor
35-4	Wall plaster	Interior wall, 2nd floor

ANALYSIS AND RECOMMENDATIONS

The purpose of the limited survey was to determine if ACMs are present in the roofing materials of the subject buildings and if they are in a harmful condition. The findings at each inspection site are provided below:

BUILDINGS 34 AND 35

Five samples of roofing material were taken from the roof of Buildings 34 and 35. Tar paper from three locations tested positive for asbestos. Roof mastic from the chimney at the north corner of the building also tested positive for asbestos. One sample of tar paper from the south dormer tested negative for asbestos. All tar paper in Buildings 34 and 35 should be considered ACM unless further testing is accomplished to identify distinct areas of non-ACM tar paper.

Representative samples of deteriorated plaster were taken from the second, third, and fourth floors of Buildings 34 and 35. The plaster tested negative for asbestos.

BUILDING 34A

The roof of Building 34A was inspected from the underside because the top surface was inaccessible. The visual inspection revealed that no tar paper was used beneath the slate shingles. No other suspect materials were observed on the roof of Building 34A, and no samples were taken.

CONCLUSIONS

Samples of interior plaster were taken only to provide preliminary information on the possible use of asbestos in this material. While laboratory analysis of these samples detected no asbestos, additional sampling and analysis must be accomplished provide conclusive results.

The ACMs identified in this report do not present a hazard under the conditions noted at the time of the survey. The condition of these materials should be monitored through an Operations & Maintenance (O&M) program to ensure that they remain intact. It is also advisable to notify construction and maintenance personnel of the location of ACMs to prevent the accidental release of asbestos fibers during normal maintenance and repair work.

As major repair or re-roofing projects for the subject buildings are scheduled, the ACMs in the affected areas should be removed. If allowed to remain, the ACMs must be protected so that they are not damaged during the project. If ACMs remain after the project, O&M procedures should remain in place until the ACM is finally removed.

We recommend the following procedures be followed prior to asbestos abatement:

1. Protective equipment should be required for anyone working with or around asbestos-containing materials.

2. Contract a licensed asbestos abatement contractor to do abatement work.

3. Written records should be kept on all actions and/or personnel affecting ACM's.

APPENDIX A

Inspectors Certification

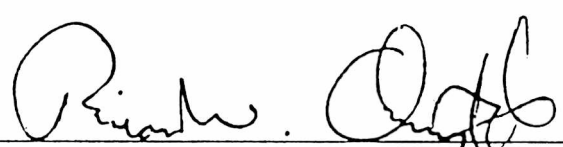
Alice Hamilton Occupational Health Center

This is to Certify that

Tom Kuepper

has met the Attendance Requirements
and successfully completed the Exam in
the Course entitled

Asbestos Inspector/Management Planner Refresher



Course Director

June 28, 1990
Date

Approval by:

Environmental Protection Agency (EPA)
Virginia Department of Commerce
Maryland Department of the Environment

Registered Certificate

No: IMP-R-158

Expires on: June 28, 1991

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APPENDIX B

Laboratory Certification

United States Department of Commerce
National Institute of Standards and Technology

NVLAP

Certificate of Accreditation

BIOSPHERICS INCORPORATED
BELTSVILLE, MD

is recognized under the National Voluntary Laboratory Accreditation Program for satisfactory compliance with criteria established in Title 15, Part 7 Code of Federal Regulations. Accreditation is awarded for specific services, listed on the Scope of Accreditation, for:

ASBESTOS FIBER ANALYSIS

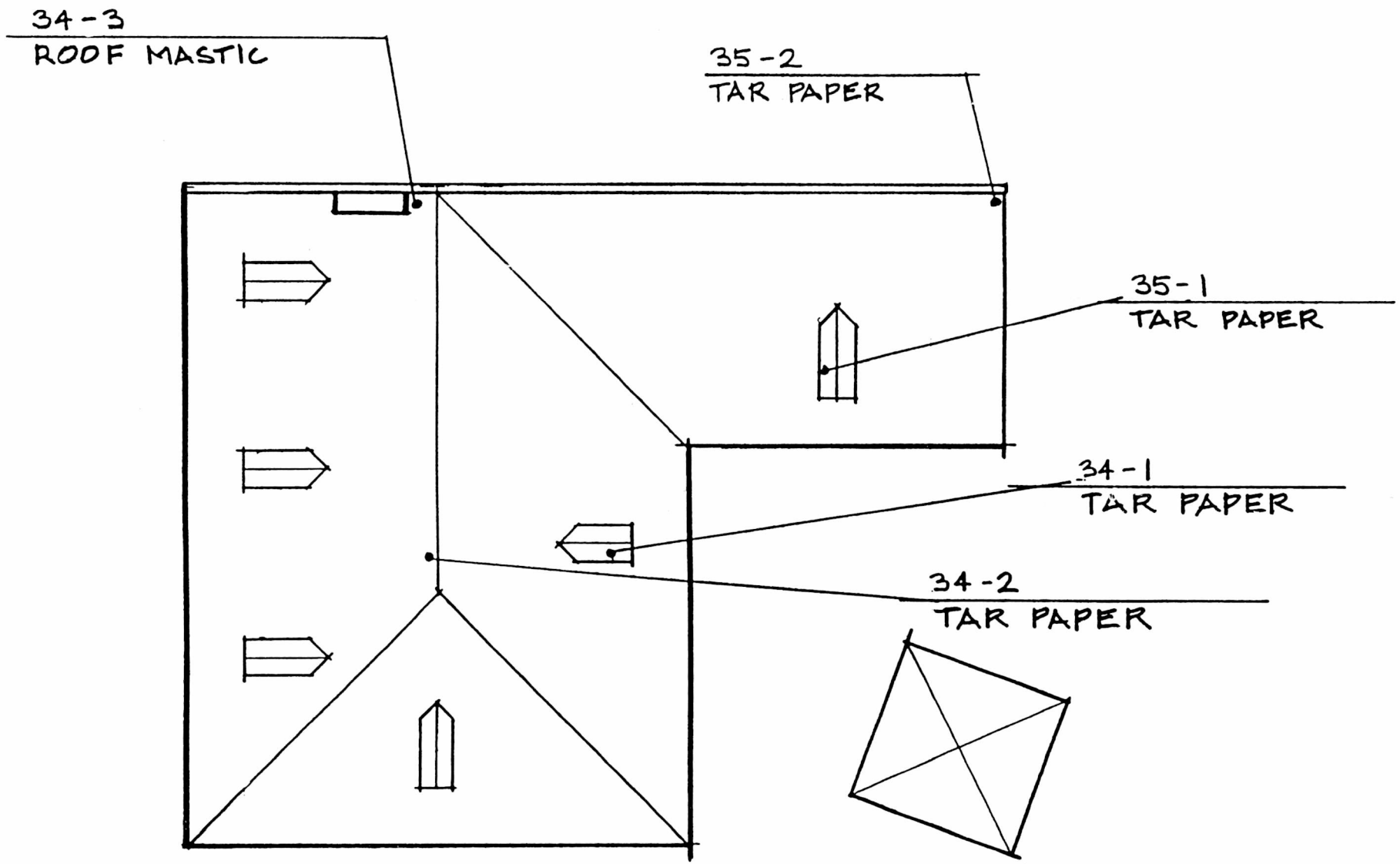
April 1, 1990
Effective until

DEPARTMENT OF COMMERCE • UNITED STATES OF AMERICA •

For the National Institute of Standards and Technology

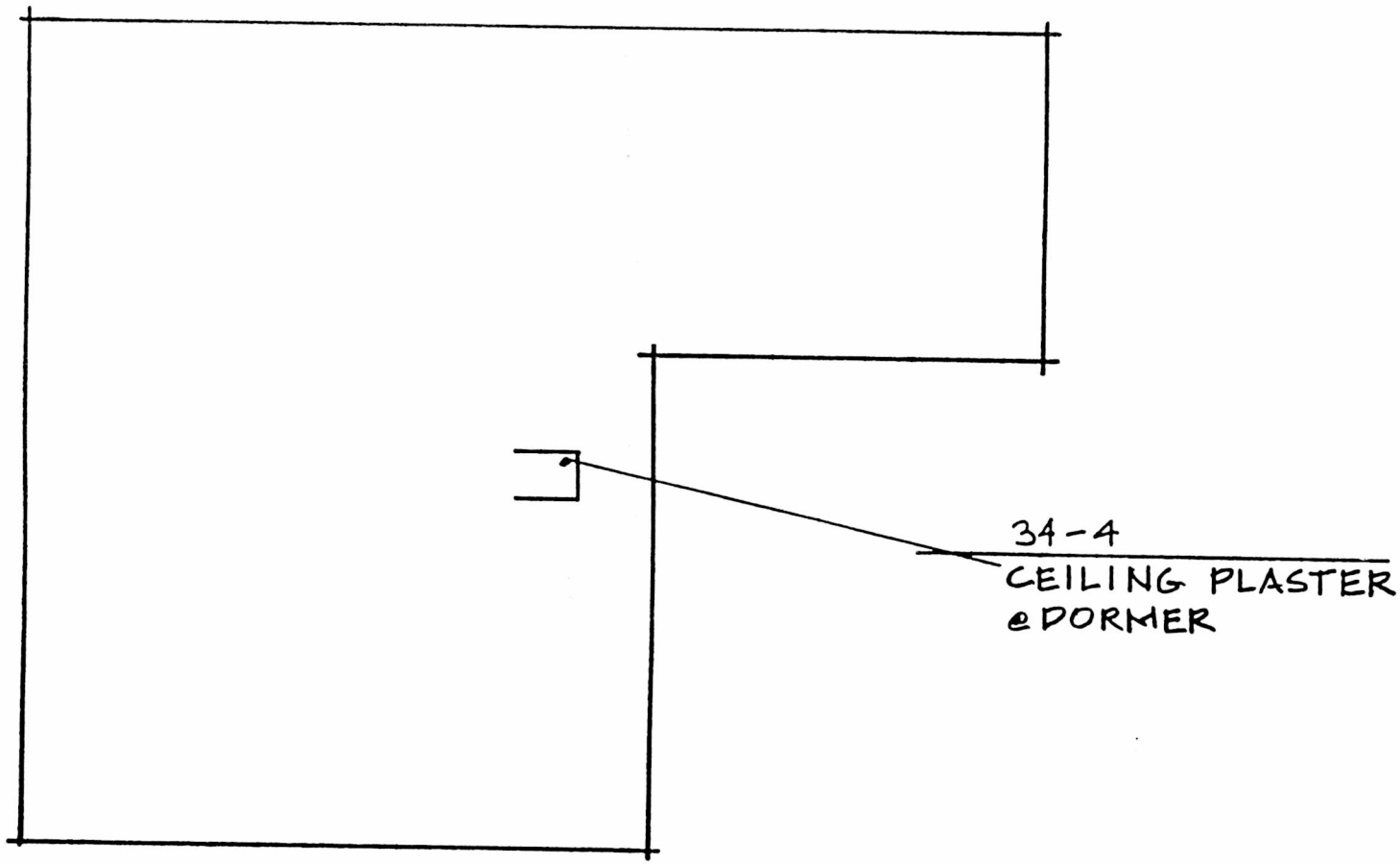
APPENDIX C

Building Sketches

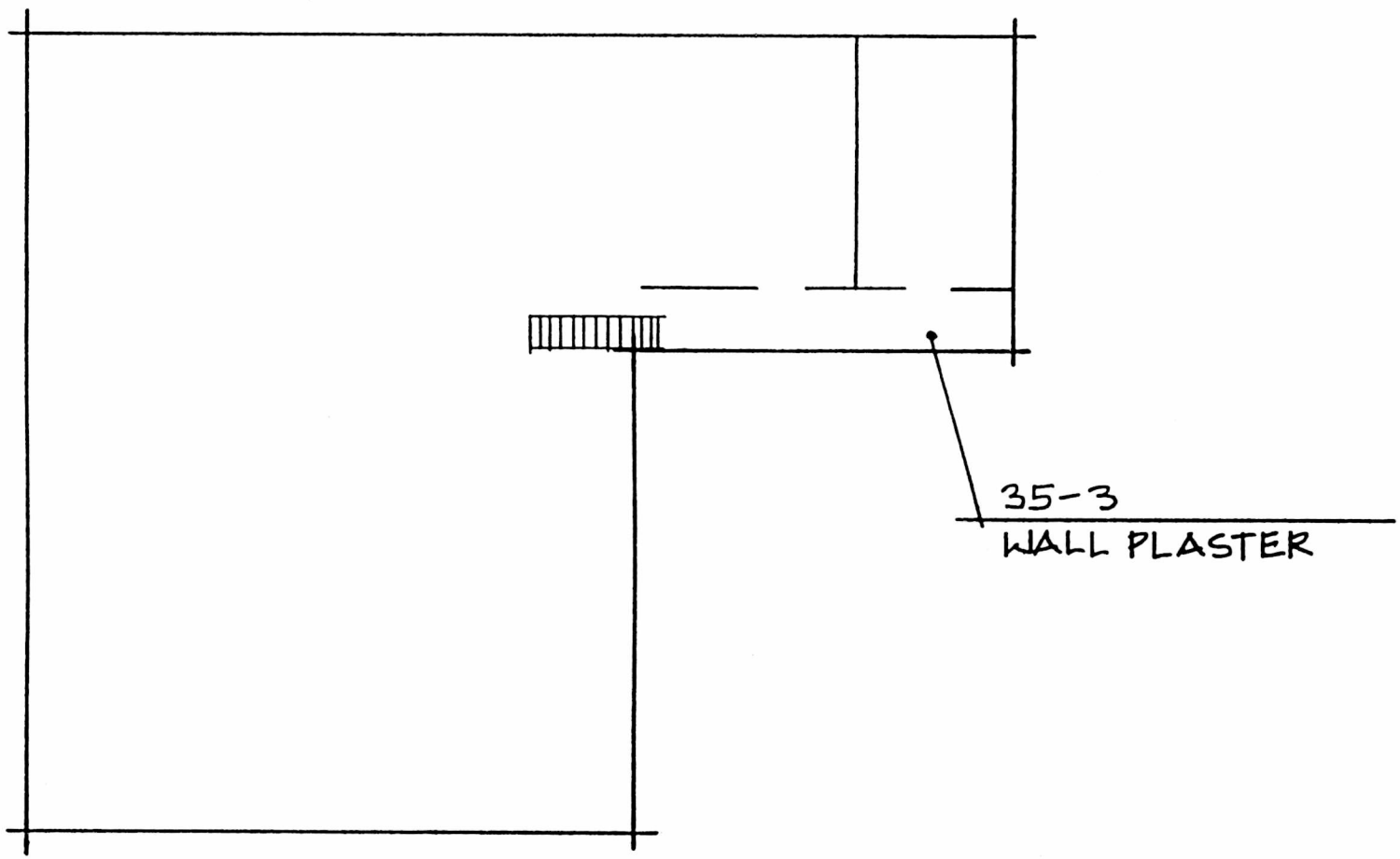


BUILDING #34/35
N.T.S.

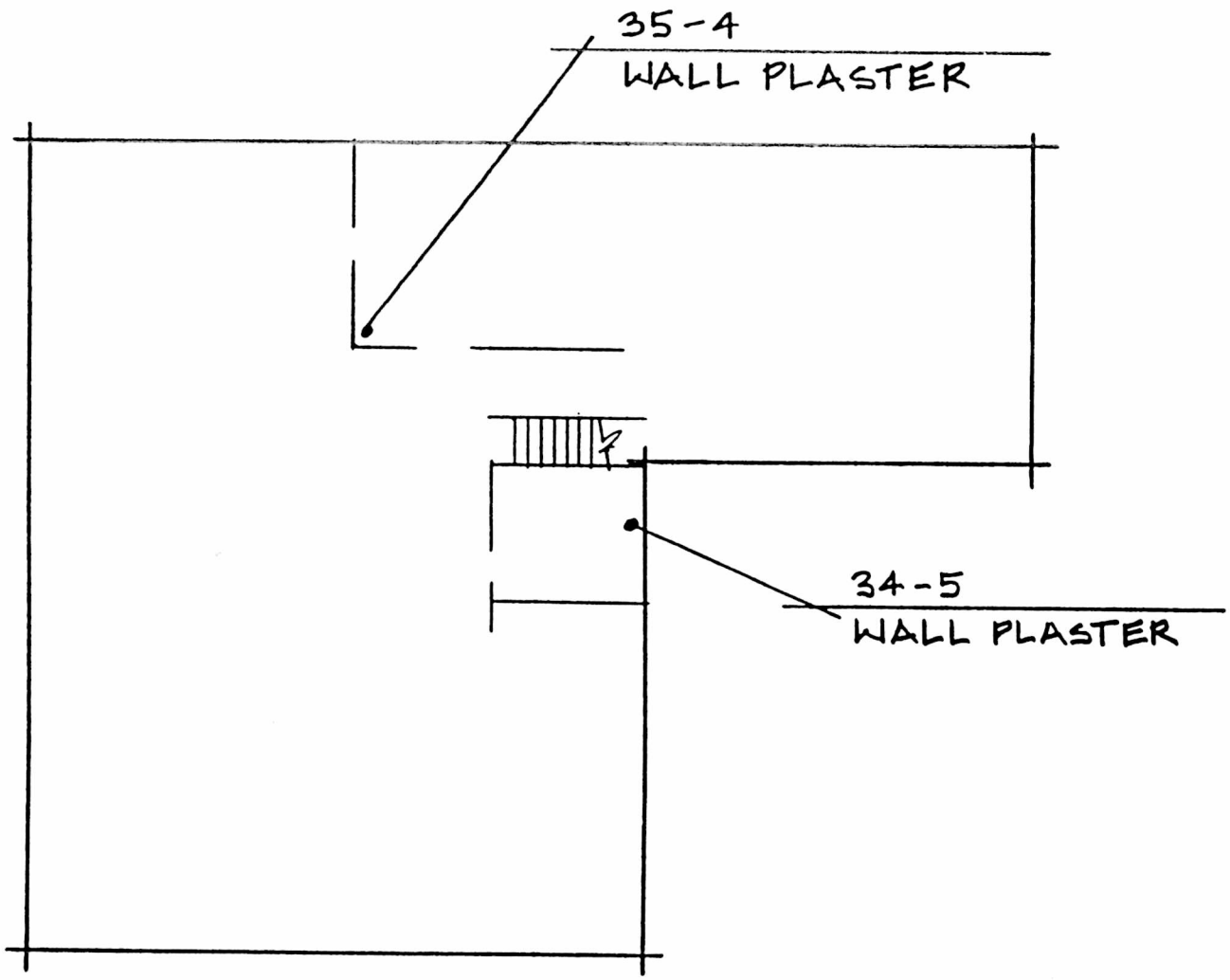
BLDG #34A
N.T.S.



BUILDING #34/35 - 4TH FLOOR
N.T.S.



BUILDING #34/35 - 3RD FLOOR
N.T.S.



BUILDING #34/35 - 2ND FLOOR
NTS

APPENDIX D

Laboratory Reports

Homogeneous Areas/Sample Summary

SAMPLE DESIGNATION FOR SUSPECT ACBMs

BUILDING # HARPER'S FERRY - N.P.S.

HOMOG ID	MTL	TYPE	QUANTITY	UNIT	SIZE	DESCRIPTION/COMMENTS	SAMPLE #
	R	TR				TAR PAPER	34-1
	R	TR				TAR PAPER	34-2
	R	MA				ROOF MASTIC	34-3
	R	TR				TAR PAPER	35-1
	R	TR				TAR PAPER	35-2

Chain of Custody

Batched by: ANDY EURY Date: 6/4/90

Sent in good condition by: [signature] Date: 6/4/90

Received in good condition by: [signature] Date: 6-4 90

Organization:. BIOSPHERICS

Please return original with results to: 8401 Arlington Blvd., Fairfax, VA 22031-4666

Homogeneous Areas/Sample Summary

SAMPLE DESIGNATION FOR SUSPECT ACBMs

BUILDING # N.P.S. HARPERS FERRY

HOMOG ID		MTL	TYPE	QUANTITY	UNIT	SIZE	DESCRIPTION/COMMENTS	SAMPLE #
		C	PL				CEILING PLASTER	34-4
		W	PL				WALL PLASTER	34-5
		W	PL				WALL PLASTER	35-3
		W	PL				WALL PLASTER	35-4

CHAIN OF CUSTODY

- BATCHED BY: TOM KUEPPER DATE: 7/3/90
- SENT IN GOOD CONDITION BY: Tom Kuepper DATE: 7/3/90
- RECEIVED IN GOOD CONDITION BY: [illegible] DATE: 7/3/90
- ORGANIZATION: BIOSPHERICS

PLEASE RETURN ORIGINAL WITH RESULTS TO
8401 ARLINGTON BLVD.
FAIRFAX, VIRGINIA, 22031-4666

Receive 06/05/90 06/14/9 :51:48

REPORT TO: DEWBERRY & DAVIS
8401 ARLINGTON BOULEVARD
FAIRFAX, VA 22031-4666

ATTEN: ANDY EURY

CLIENT: DEWBERRY2 SAMPLES 21
COMPANY: DEWBERRY & DAVIS
FACILITY: 8401 ARLINGTON BOULEVARD
FAIRFAX, VA 22031-4666

WORK ID: HARPER'S FERRY - N.P.S.
TAKEN: ANDY EURY
TRANS: COURIER
TYPE: ENVIRONMENTAL SERVICE
P.O. #:
INVOICE: under separate cover

PREPARED BY: BIOSPHERICS INCORPORATED
12051 INDIAN CREEK COURT
BELTSVILLE, MARYLAND
20705
ATTEN: LABORATORY DIVISION
PHONE: (301) 369-3900

MB Watson
CERTIFIED BY

CONTACT WATSON

BULK ASBESTOS ANALYSIS PERFORMED USING POLARIZED LIGHT MICROSCOPY IN CONJUNCTION WITH DISPERSION STAINING

SAMPLE IDENTIFICATION

TEST CODES and NAMES used on this report
ASBULK BULK ASBESTOS ANALYSIS

334

10 SAMPLE #34-1
11 SAMPLE #34-2
12 SAMPLE #34-3
13 SAMPLE #35-1
14 SAMPLE #35-2
15 SAMPLE #36-1
16 SAMPLE #36-2
17 SAMPLE #36-3
18 SAMPLE #36-4
19 SAMPLE #36-6
20 SAMPLE #36-7
21 SAMPLE #36-8

335

SAMPLE ID SAMPLE #34-1 FRACTION 10A TEST CODE ASBULK NAME BULK ASBESTOS ANALYSIS
Date & Time Collected 06/04/90 Category BULK

DATE ANALYZED 06/08/90 ANALYST KUNDICH VERIFIED BY RMC

ASBESTOS	RESULT
% Chrysotile	NAD
% Amosite	
% Crocidolite	
% Tremolite	

NON-ASBESTOS	RESULT
CELLULOSE FIBER	70-75%
NANF	20-25%

Definitions of Reporting Terms.
NAD = No Asbestos Detected. * = Presence Noted.
NANF = Non-asbestos Non-fibrous.
Trace = Trace Amounts Noted; less than 1%
Sample Information:
HARPER'S FERRY - N.P.S.; TAR PAPER

SAMPLE ID SAMPLE #34-2 FRACTION 11A TEST CODE ASBULK NAME BULK ASBESTOS ANALYSIS
Date & Time Collected 06/04/90 Category BULK

DATE ANALYZED 06/08/90 ANALYST KUNDICH VERIFIED BY RMC

ASBESTOS	RESULT
% Chrysotile	30-35%
% Amosite	
% Crocidolite	
% Tremolite	

NON-ASBESTOS	RESULT
CELLULOSE FIBER	40-45%
NANF	15-20%

Definitions of Reporting Terms.
NAD = No Asbestos Detected. * = Presence Noted.
NANF = Non-asbestos Non-fibrous.
Trace = Trace Amounts Noted; less than 1%
Sample Information:
HARPER'S FERRY - N.P.S.; TAR PAPER

336

SAMPLE ID SAMPLE #34-3 FRACTION 12A TEST CODE ASBULK NAME BULK ASBESTOS ANALYSIS
Date & Time Collected 06/04/90 Category BULK

DATE ANALYZED 06/08/90 ANALYST KUNDICH VERIFIED BY RMC

ASBESTOS	RESULT
% Chrysotile	2-5%
% Amosite	
% Crocidolite	
% Tremolite	

NON-ASBESTOS	RESULT
CELLULOSE FIBER	TRACE
NANF	98+%

Definitions of Reporting Terms.
NAD = No Asbestos Detected. * = Presence Noted.
NANF = Non-asbestos Non-fibrous.
Trace = Trace Amount's Noted; less than 1%
Sample Information:
HARPER'S FERRY - N.P.S.; ROOF MASTIC

SAMPLE ID SAMPLE #35-1 FRACTION 13A TEST CODE ASBULK NAME BULK ASBESTOS ANALYSIS
Date & Time Collected 06/04/90 Category BULK

DATE ANALYZED 06/08/90 ANALYST KUNDICH VERIFIED BY RMC

ASBESTOS	RESULT
% Chrysotile	60-65%
% Amosite	
% Crocidolite	
% Tremolite	

NON-ASBESTOS	RESULT
CELLULOSE FIBER	2-5%
NANF	25-30%

Definitions of Reporting Terms.
NAD = No Asbestos Detected. * = Presence Noted.
NANF = Non-asbestos Non-fibrous.
Trace = Trace Amounts Noted; less than 1%
Sample Information:
HARPER'S FERRY - N.P.S.; TAR PAPER; WET SAMPLE

337

SAMPLE ID SAMPLE #35-2 FRACTION 14A TEST CODE ASBULK NAME BULK ASBESTOS ANALYSIS
Date & Time Collected 06/04/90 Category BULK

DATE ANALYZED 06/08/90 ANALYST KUNDICH VERIFIED BY RMC

ASBESTOS	RESULT
% Chrysotile	40-45%
% Amosite	
% Crocidolite	
% Tremolite	

NON-ASBESTOS	RESULT
CELLULOSE FIBER	30-35%
NANF	15-20%

Definitions of Reporting Terms.
NAD = No Asbestos Detected. * = Presence Noted.
NANF = Non-asbestos Non-fibrous.
Trace = Trace Amounts Noted; less than 1%
Sample Information:
HARPER'S FERRY - N.P.S.; TAR PAPER

Receive 7/02/90 07/11/9(:17:48

REPORT TO: DEWBERRY & DAVIS
ARCHITECTS ENGIN. PLAN. SURV.
8401 ARLINGTON BOULEVARD
FAIRFAX, VIRGINIA 22301-4666
ATTEN: THOMAS E. KUEPPER

PREPARED BY: BIOSPHERICS INCORPORATED
12051 INDIAN CREEK COURT
BELTSVILLE, MARYLAND 20705
ATTEN: LABORATORY DIVISION
PHONE: (301) 369-3900

CERTIFIED BY

CONTACT WATSON

CLIENT: DEWBERRY4 SAMPLES: 9
COMPANY: DEWBERRY & DAVIS
FACILITY: 8401 ARLINGTON BOULEVARD
FAIRFAX, VIRGINIA 22301-4666

BULK ASBESTOS ANALYSIS PERFORMED USING POLARIZED LIGHT MICROSCOPY IN CONJUNCTION WITH DISPERSION STAINING

WORK ID: HARPER'S FERRY
TAKEN:
TRANS: U. S. MAIL
TYPE: ENVIRONMENTAL SERVICE
P.O. #:
INVOICE: under separate cover

SAMPLE IDENTIFICATION

TEST CODES and NAMES used on this report
ASBULK BULK ASBESTOS ANALYSIS

338

05 SAMPLE #34-4
06 SAMPLE #34-5
07 SAMPLE #35-3
08 SAMPLE #35-4
09 SAMPLE #36-5

SAMPLE ID SAMPLE #34-4 FRACTION 05A TEST CODE ASBULK NAME BULK ASBESTOS ANALYSIS
Date & Time Collected 07/03/90 Category BULK

DATE ANALYZED 07/05/90 ANALYST KUNDICH VERIFIED BY RMC

ASBESTOS	RESULT
% Chrysotile	NAD
% Amosite	
% Crocidolite	
% Tremolite	

NON-ASBESTOS	RESULT
CELLULOSE FIBER	1-2%
SYNTHETIC FIBER	TRACE
HAIR	TRACE
NANF	98+%

Definitions of Reporting Terms.
NAD = No Asbestos Detected. * = Presence Noted.
NANF = Non-asbestos Non-fibrous.
Trace = Trace Amounts Noted; less than 1%
Sample Information:
N.P.S. HARPER'S FERRY; CEILING PLASTER

SAMPLE ID SAMPLE #34-5 FRACTION 06A TEST CODE ASBULK NAME BULK ASBESTOS ANALYSIS
Date & Time Collected 07/03/90 Category BULK

DATE ANALYZED 07/05/90 ANALYST KUNDICH VERIFIED BY RMC

ASBESTOS	RESULT
% Chrysotile	NAD
% Amosite	
% Crocidolite	
% Tremolite	

NON-ASBESTOS	RESULT
CELLULOSE FIBER	1-2%
FIBROUS GLASS	TRACE
SYNTHETIC FIBER	TRACE
NANF	98+%

Definitions of Reporting Terms.
NAD = No Asbestos Detected. * = Presence Noted.
NANF = Non-asbestos Non-fibrous.
Trace = Trace Amounts Noted; less than 1%
Sample Information:
N.P.S. HARPER'S FERRY; WALL PLASTER

SAMPLE ID SAMPLE #35-3 FRACTION 07A TEST CODE ASBULK NAME BULK ASBESTOS ANALYSIS
Date & Time Collected 07/03/90 Category BULK

DATE ANALYZED 07/05/90 ANALYST KUNDICH VERIFIED BY RMC

ASBESTOS	RESULT
% Chrysotile	NAD
% Amosite	
% Crocidolite	
% Tremolite	

NON-ASBESTOS	RESULT
CELLULOSE FIBER	1-2%
SYNTHETIC FIBER	2-5%
NANF	90-95%

Definitions of Reporting Terms.
NAD = No Asbestos Detected. * = Presence Noted.
NANF = Non-asbestos Non-fibrous.
Trace = Trace Amounts Noted; less than 1%
Sample Information:
N.P.S. HARPER'S FERRY; WALL PLASTER

SAMPLE ID SAMPLE #35-4 FRACTION 08A TEST CODE ASBULK NAME BULK ASBESTOS ANALYSIS
Date & Time Collected 07/03/90 Category BULK

DATE ANALYZED 07/05/90 ANALYST KUNDICH VERIFIED BY RMC

ASBESTOS	RESULT
% Chrysotile	NAD
% Amosite	
% Crocidolite	
% Tremolite	

NON-ASBESTOS	RESULT
CELLULOSE FIBER	1-2%
FIBROUS GLASS	TRACE
SYNTHETIC FIBER	1-2%
NANF	95+%

Definitions of Reporting Terms.
NAD = No Asbestos Detected. * = Presence Noted.
NANF = Non-asbestos Non-fibrous.
Trace = Trace Amounts Noted; less than 1%
Sample Information:
N.P.S. HARPER'S FERRY; WALL PLASTER

Preferred Preliminary Design Alternative

Building 34-35 is one of the few structures in the lower town that dates to four significant periods in the history of Harpers Ferry. Its interpretation should reflect the growth of the building from a two-and-a-half story brick residence and apothecary (1812-18) to its use as a master armorer's residence (1818-58) to its roll in the Civil War (1861-65) to the additions that significantly altered its appearance after the war (1870-92).

Presently, only the first floor is being interpreted. The general store and provost marshall exhibits date to ca. 1850 and 1861-65 respectively. This is in keeping with an earlier interpretive prospectus of the Harpers Ferry National Historic Park that determined that 1865 would be the latest date of interpretation. The interpretive prospectus has since been modified to include all of the nineteenth century.

Neither of these exhibits functioned in the building as they are portrayed but it was the feeling of the park that these exhibits filled a void in the interpretation of a Civil War-era lower town. Current interpretive proposals for the restored building 34-35 also establish 1865 as a final date of interpretation.

Since the majority of the building dates to 1870-92 and those portions of the original 1812 structure have been altered significantly it would seem that the interpretation of this building needs to be re-evaluated.

The first floor of building 35 was significantly modified in 1891-92 with the addition of a wing that created a large store. James McGraw leased this store to various entrepreneurs over a seven-year period. It continued to function in this capacity well into the twentieth century. To the west of the center stairway in building 34 was a post office. The post office was originally in building 35 prior to 1891 and was moved to building 34 after 1892. The building was named the McGraw-Post Office building well into the twentieth century despite its change in ownership. It is the feeling of the Denver Service Center that this is how the first floor should be interpreted.

The second floor becomes accessible with the introduction of an elevator in the rear addition to building 34. The millwork around the windows and doors in the original portion of building 35 appear to date to 1850 when Jesse Schofield was hired to make general repairs to the master armorer's house. The two rooms could be interpreted to a pre-Civil War period with several options arising out of this interpretation.

Joseph and Samuel Annin are known to have constructed the initial building in 1812. Samuel Annin was a former paymaster at the armory and his son, Joseph, was a druggist. There was an apothecary on the first level and probably a parlor. On the second level there would have been two bedrooms. One of the two rooms could be interpreted as the Annin room.

From 1818-58 the building served as a master armorer's residence. It was modified to include a garret in the attic and a one-story kitchen was added to the southwest corner of the building. In 1859 the new master armorer's house (building 36) was built and the former residence was vacated. One of the two rooms could reflect this occupation.

During the Civil War (1861-65) building 35 was used both as a boarding house and officers' quarters. From 1861-64 the building served as officers' quarters for both the North and the South during the various occupancies. One of the rooms could reflect this usage.

In 1864 James Taylor, a correspondent for "Harper's Weekly" stayed in a garret room of what was described as Mrs. Snipes boarding house. The garret was removed in 1891-92 with the addition of a third story but one of the second floor rooms could function as an exhibit for the correspondent who produced a sketchbook that contained 24 views of the lower town of Harpers Ferry.

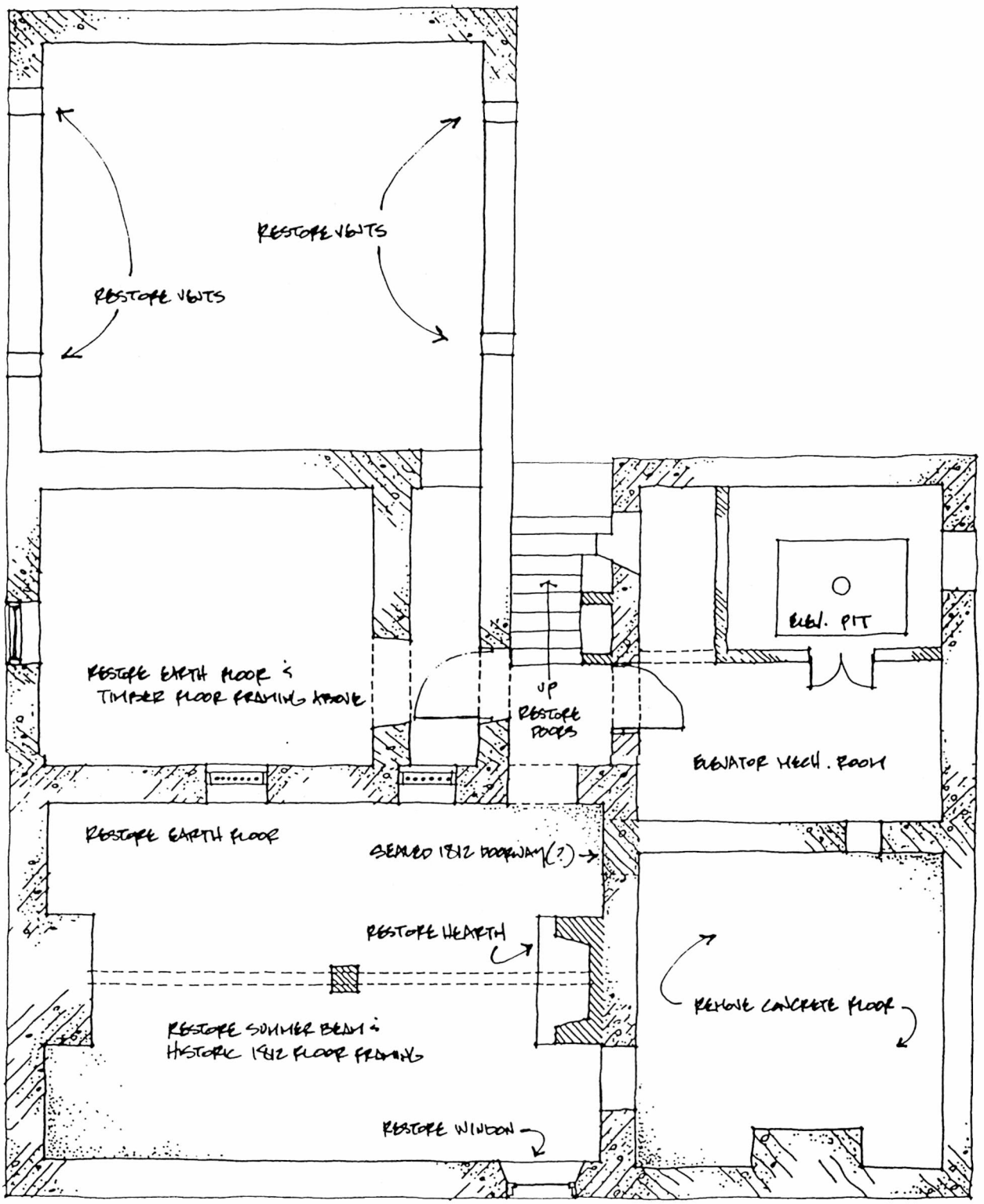
The second floor room in building 34 probably dates to ca. 1875 but could be used for one of the above exhibits because of its relationship to the two rooms of building 35.

The rear rooms that are part of the 1891-92 addition could also serve interpretive purposes but should reflect a post-Civil War use of the building.

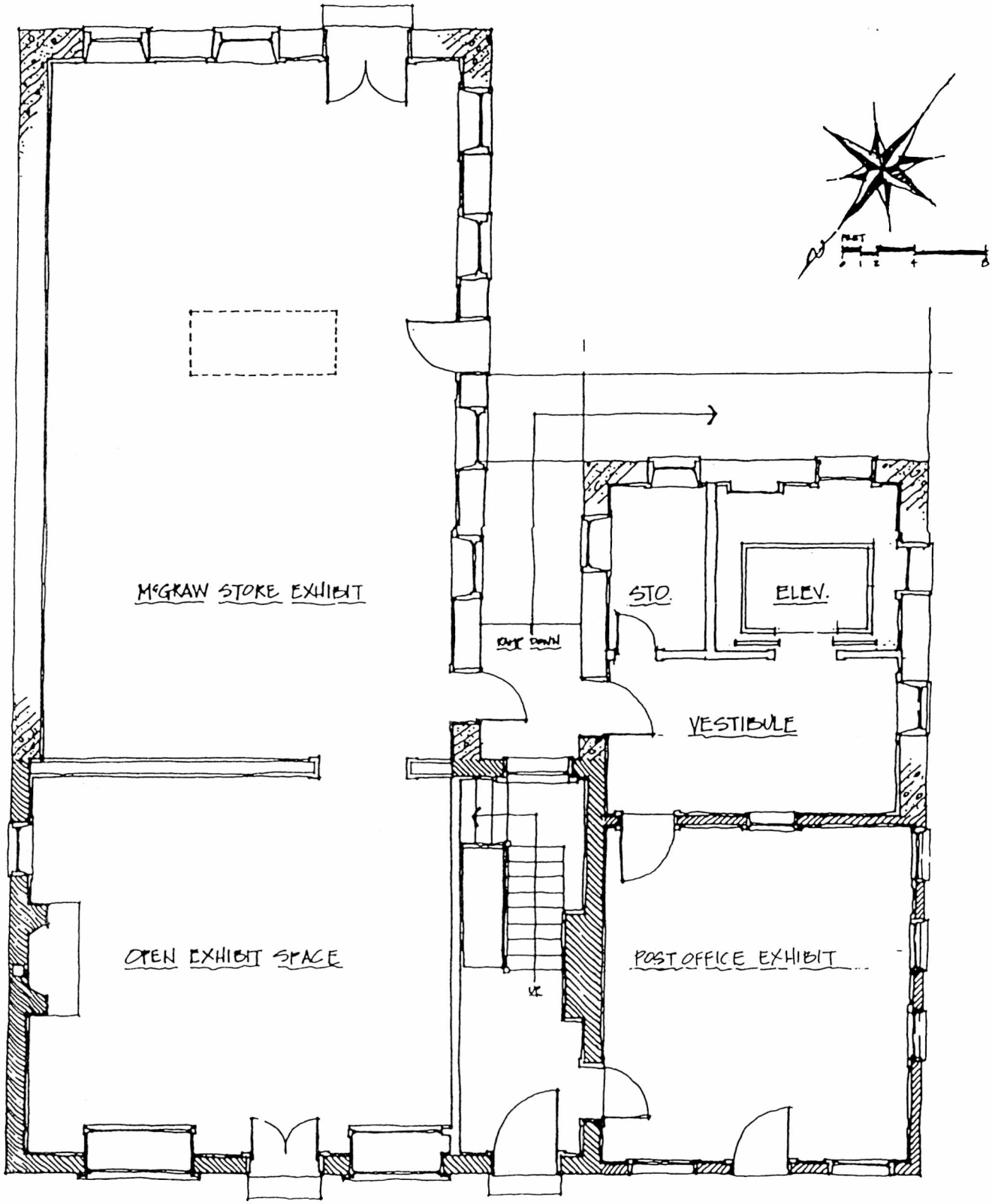
The third floor would not be accessible to visitors and will serve as support rooms for the park personnel. The fourth floor garret would only serve as a storage area with the possible inclusion of a mechanical room above the elevator.

The rear yard should also be interpreted. During James McGraw's occupancy it was an extremely active space serving the entire block of buildings in package 116. Only the three-story smokehouse remains of the outbuildings that once dominated the rear yard. The footprints of the former buildings should be demarcated and brick pavers laid in the yard itself. The rear yard would be accessible from several points but the store exhibit in building 35 would be the principal point of visitor access.

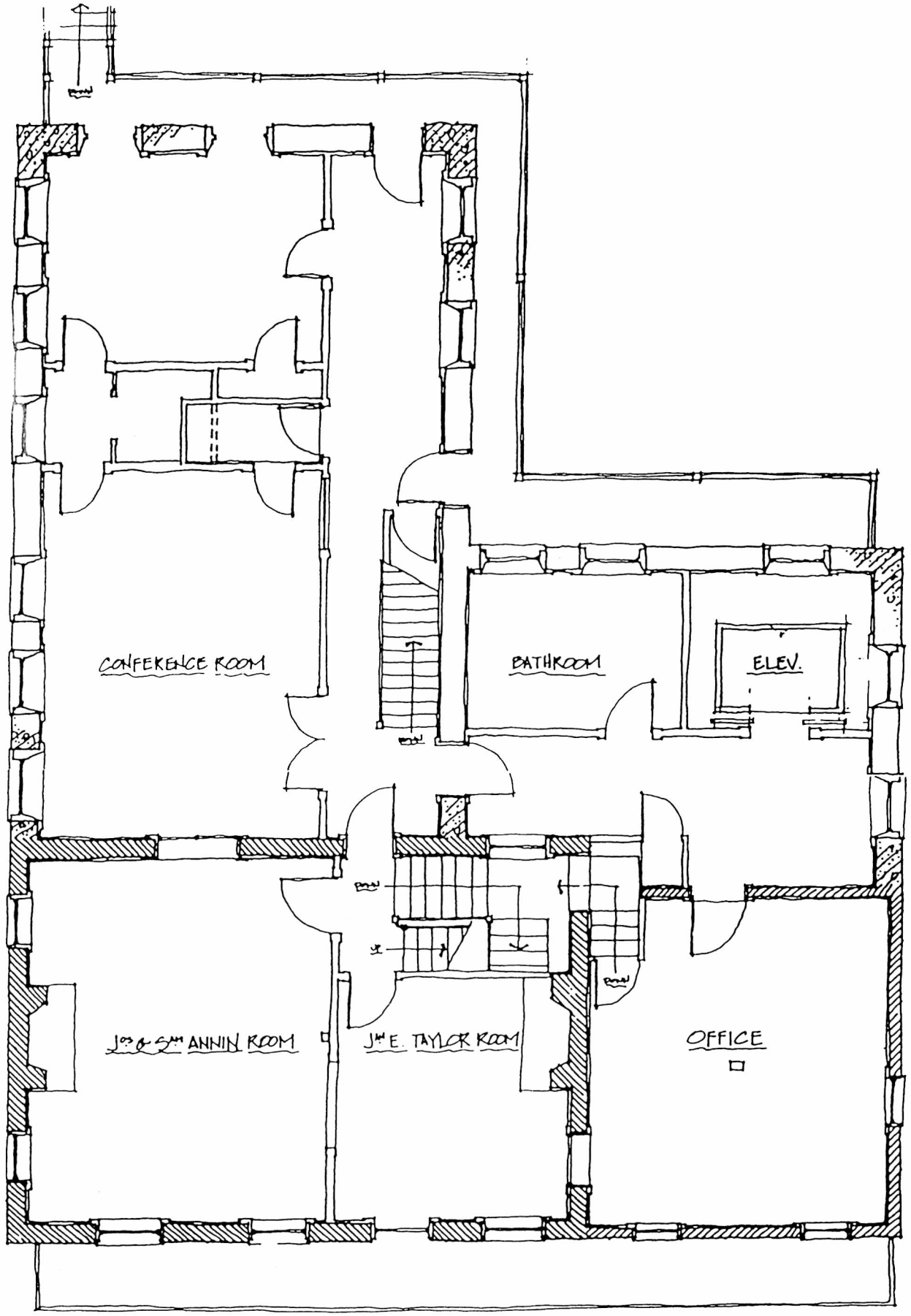
Along the sidewalk of Shenandoah street signage should be reintroduced that is in keeping with a late nineteenth century appearance. The bay windows which were probably added to building 34 during the Doran occupancy should not be reconstructed since they would not be in keeping with a post office exhibit.



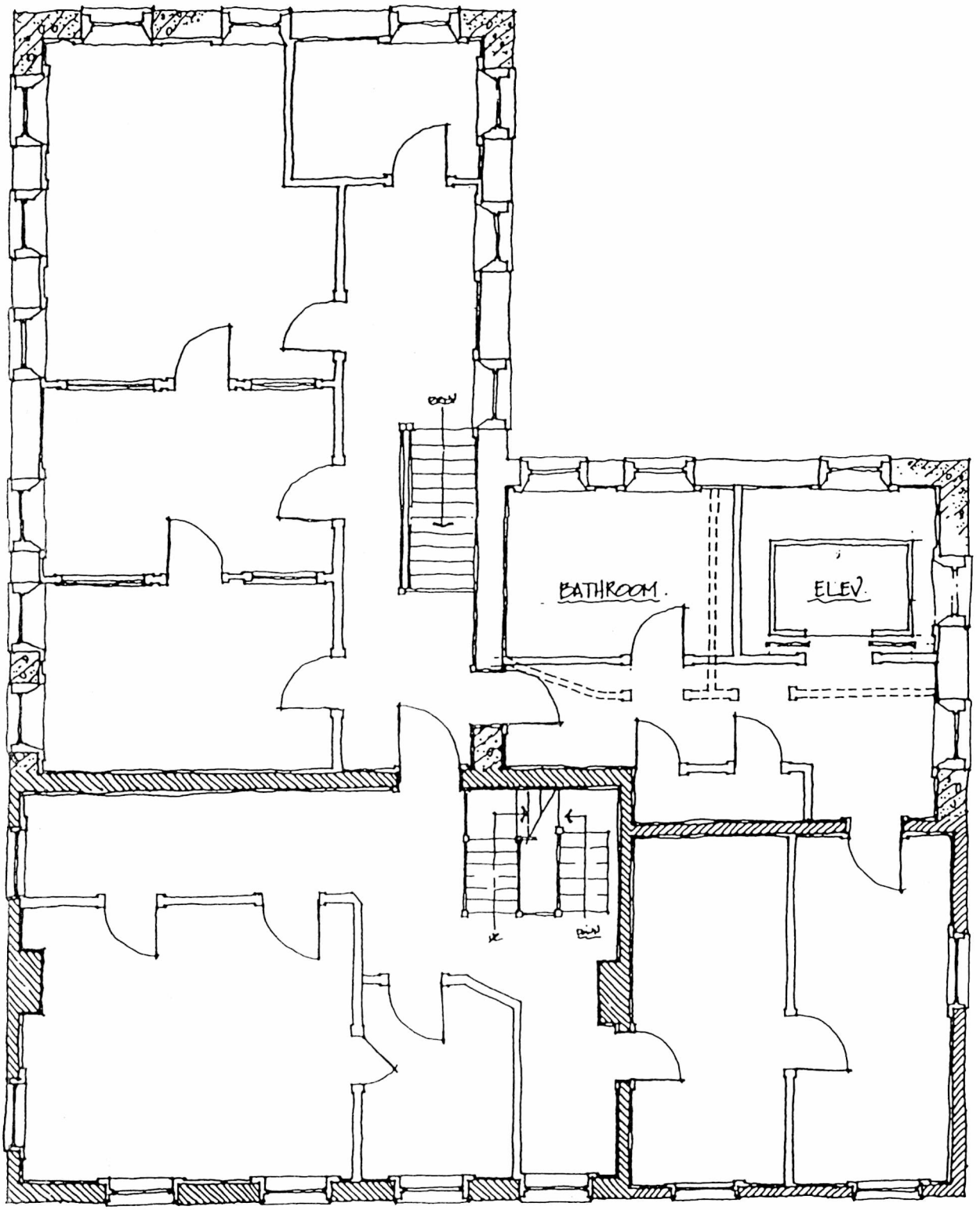
BASEMENT PLAN



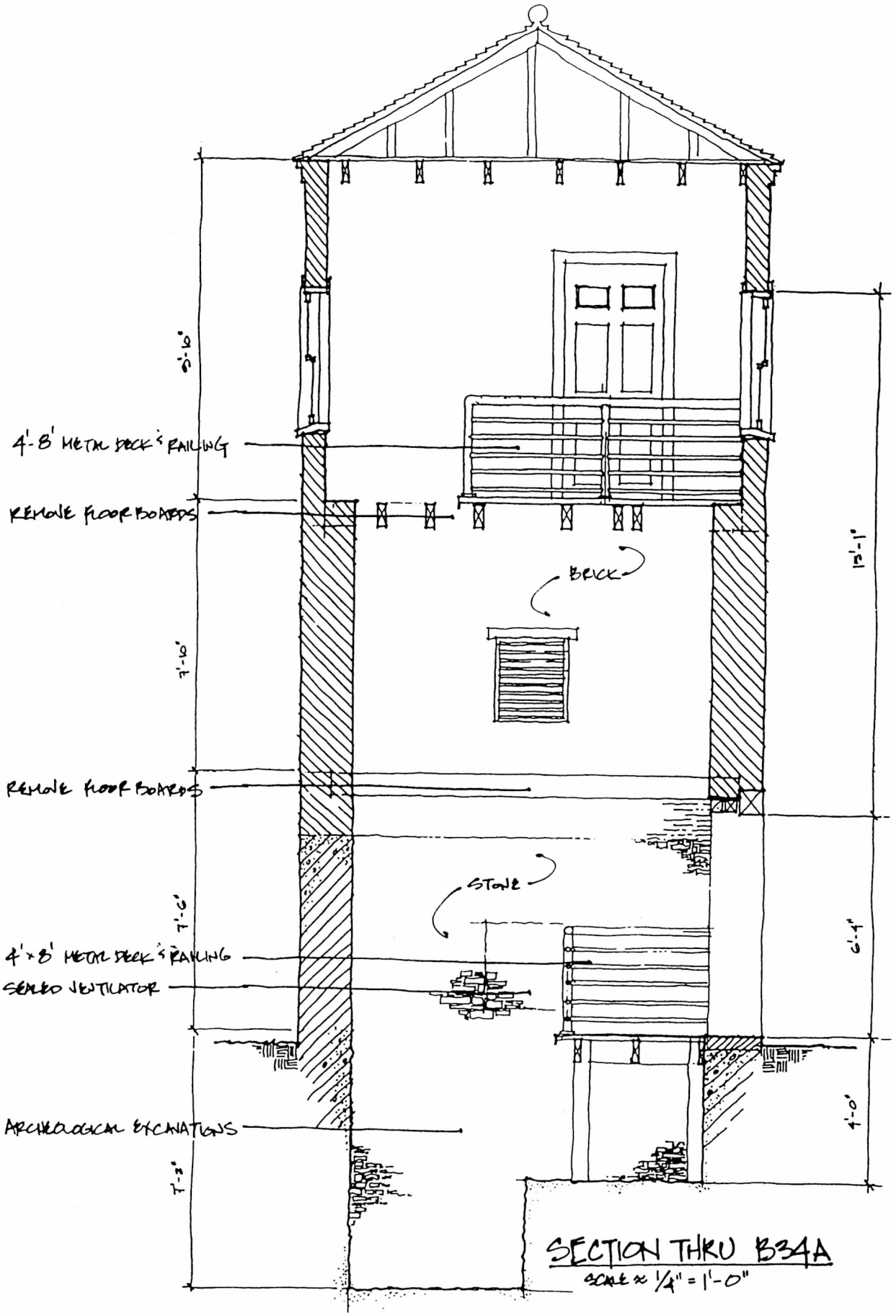
FIRST FLOOR PLAN



SECOND FLOOR PLAN



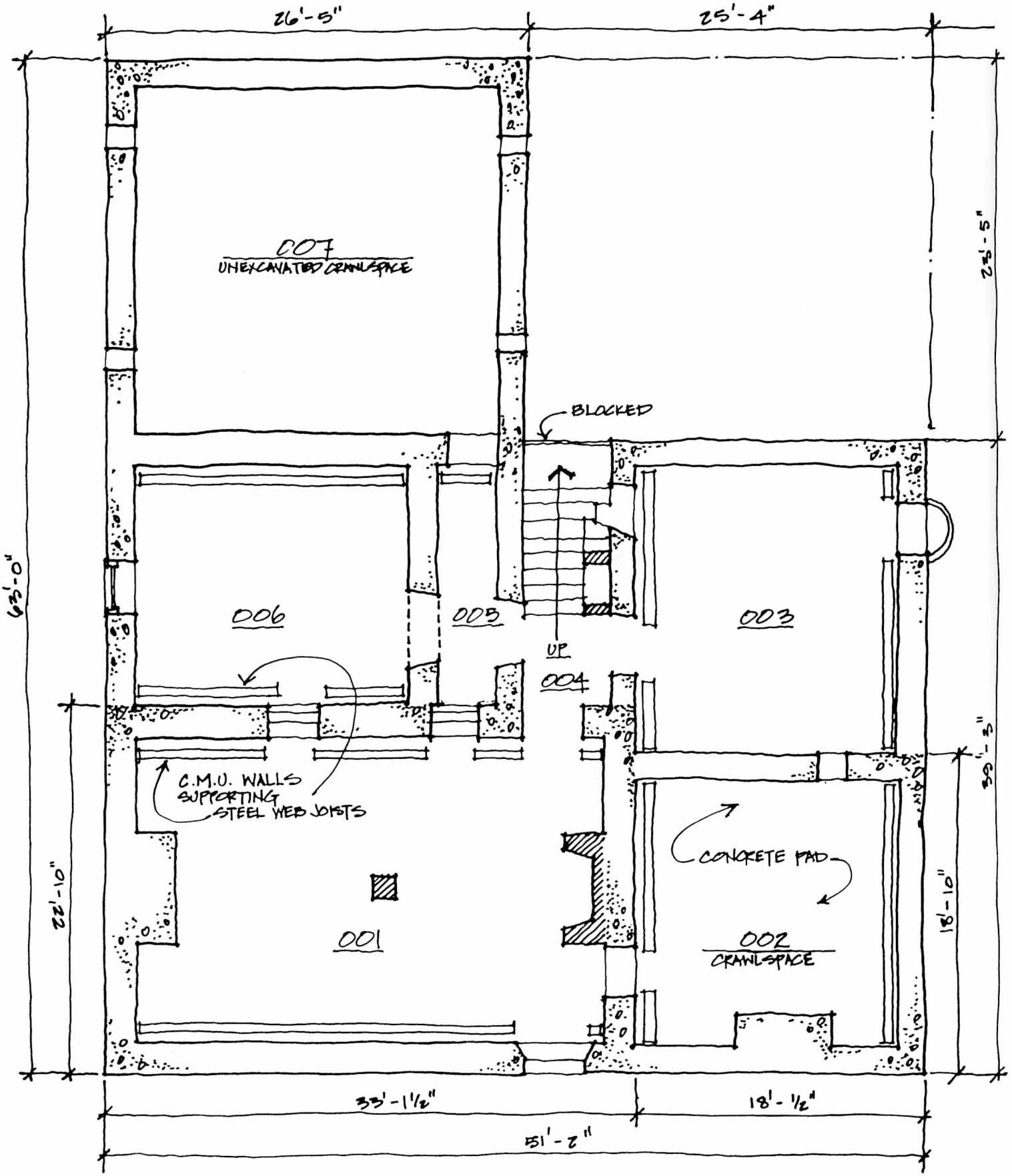
THIRD FLOOR PLAN



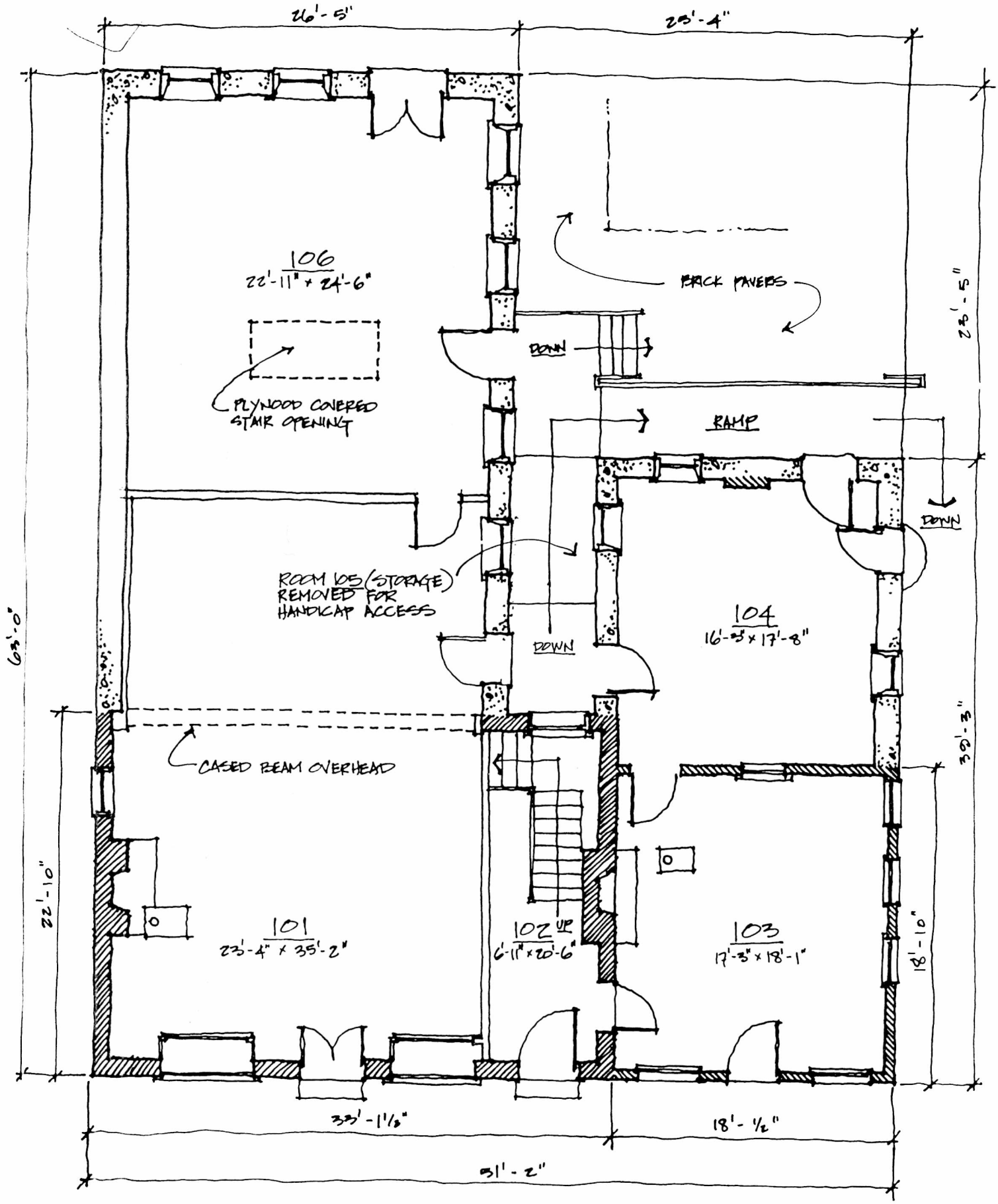
SECTION THRU B34A

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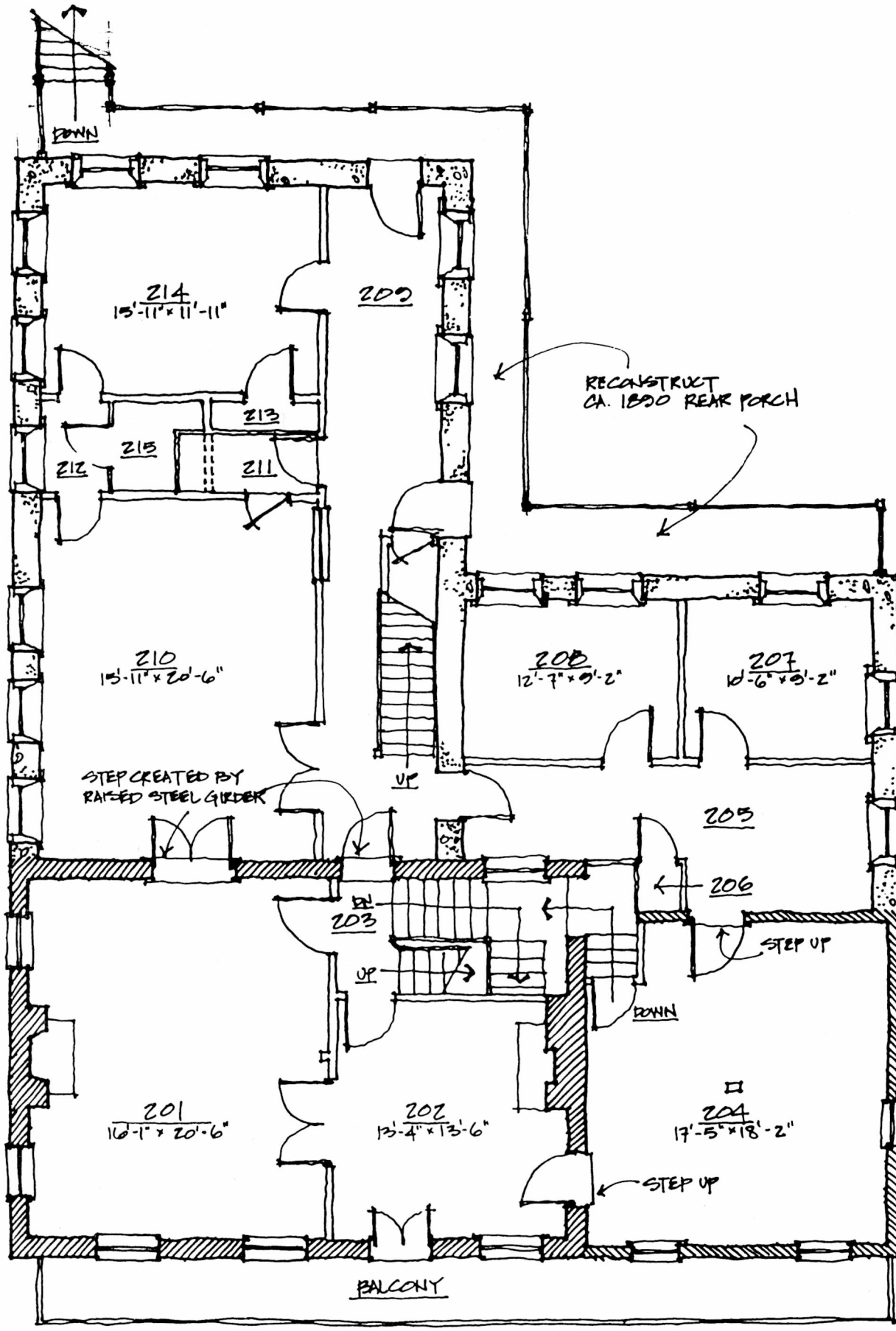
Early Preliminary Design Alternatives



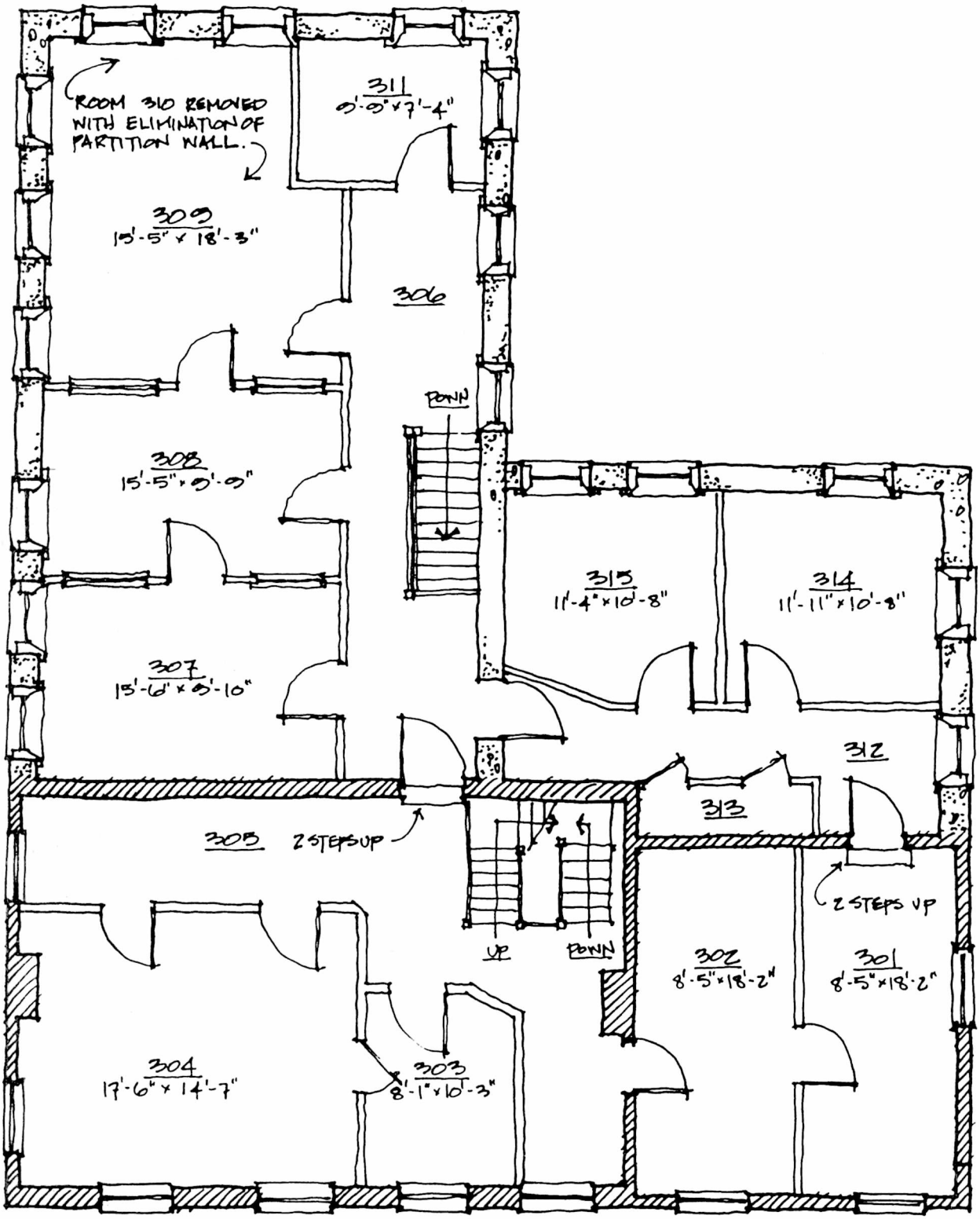
BASEMENT PLAN



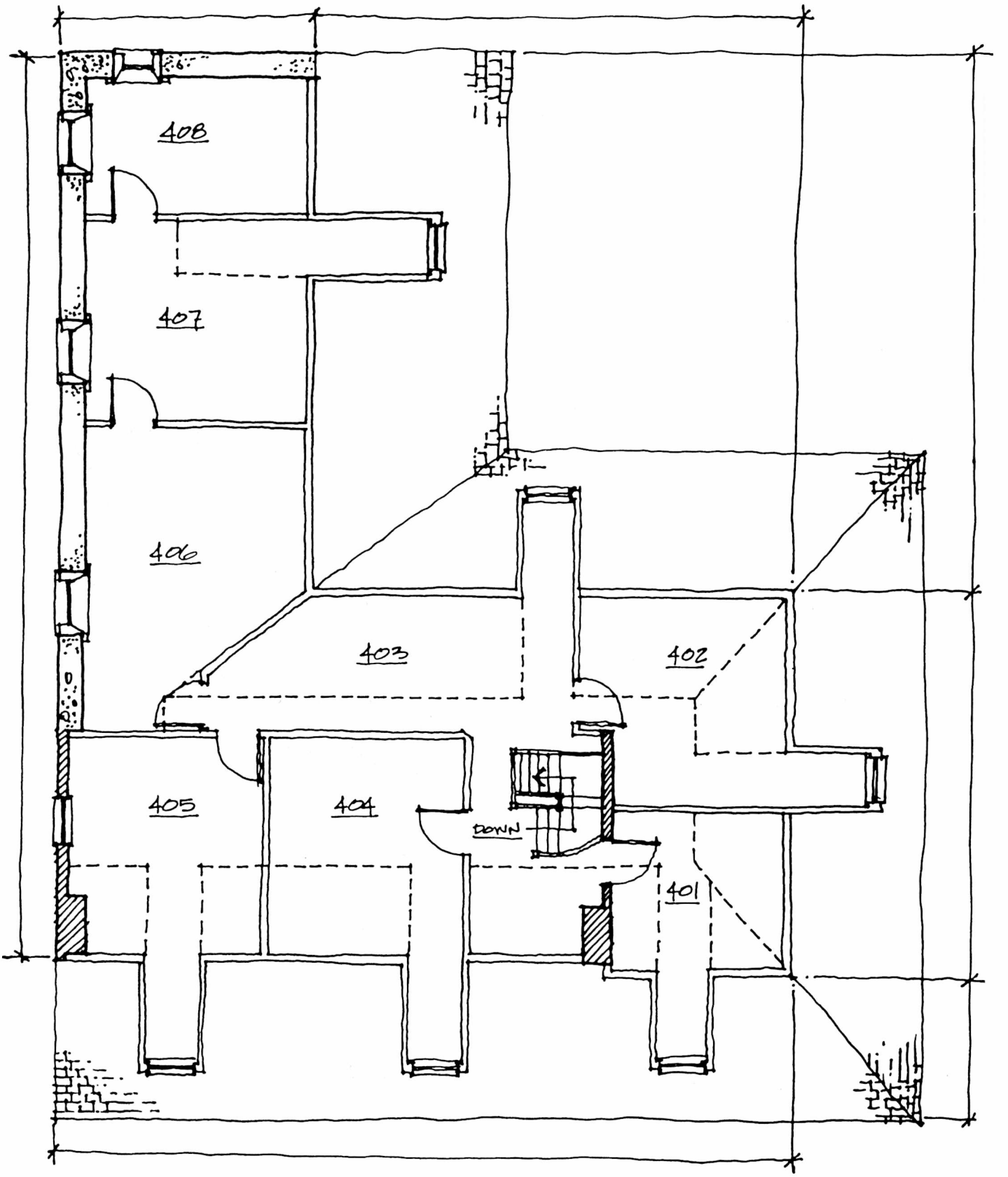
FIRST FLOOR PLAN
ALTERNATNE A



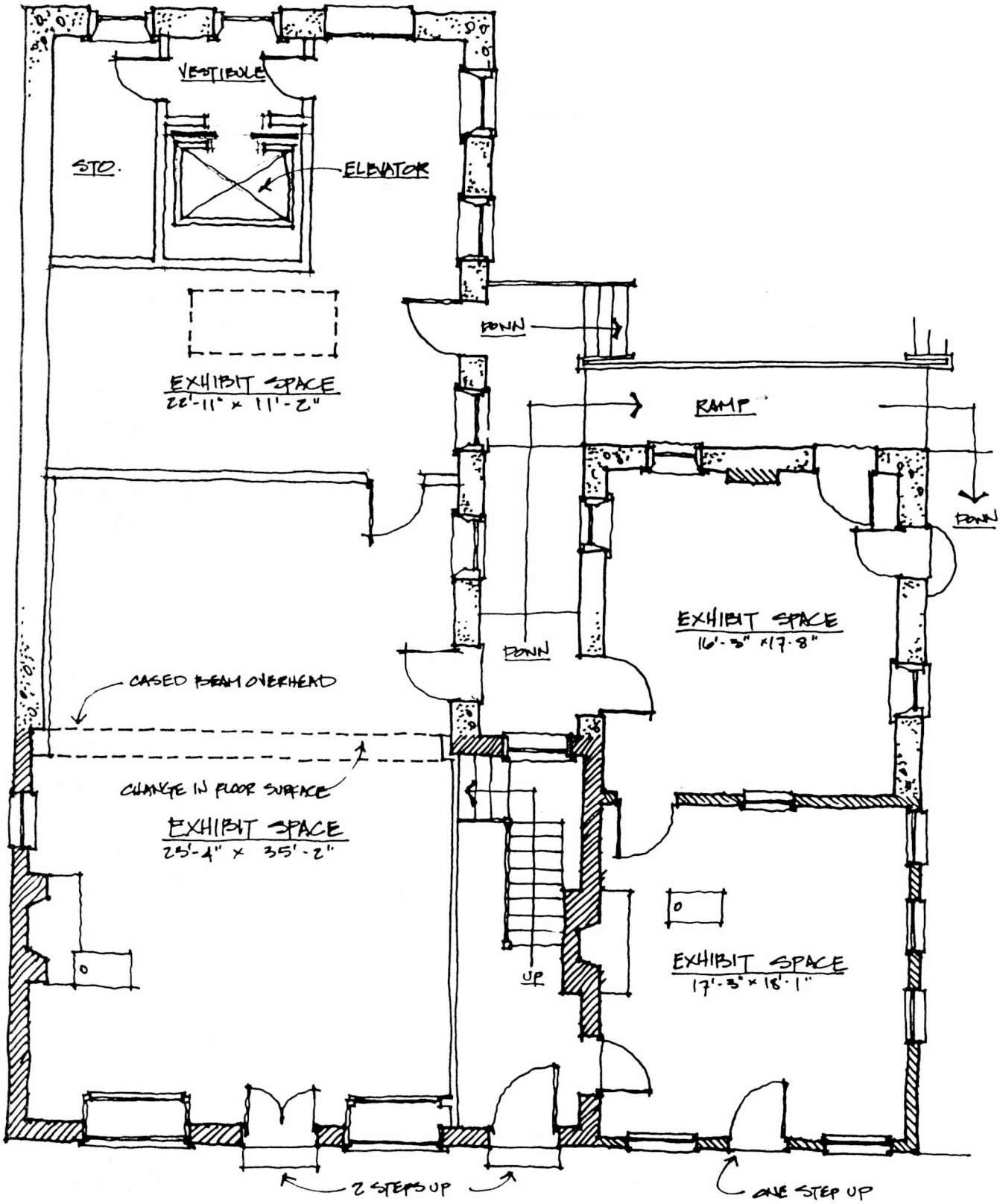
SECOND FLOOR PLAN
ALTERNATIVE A



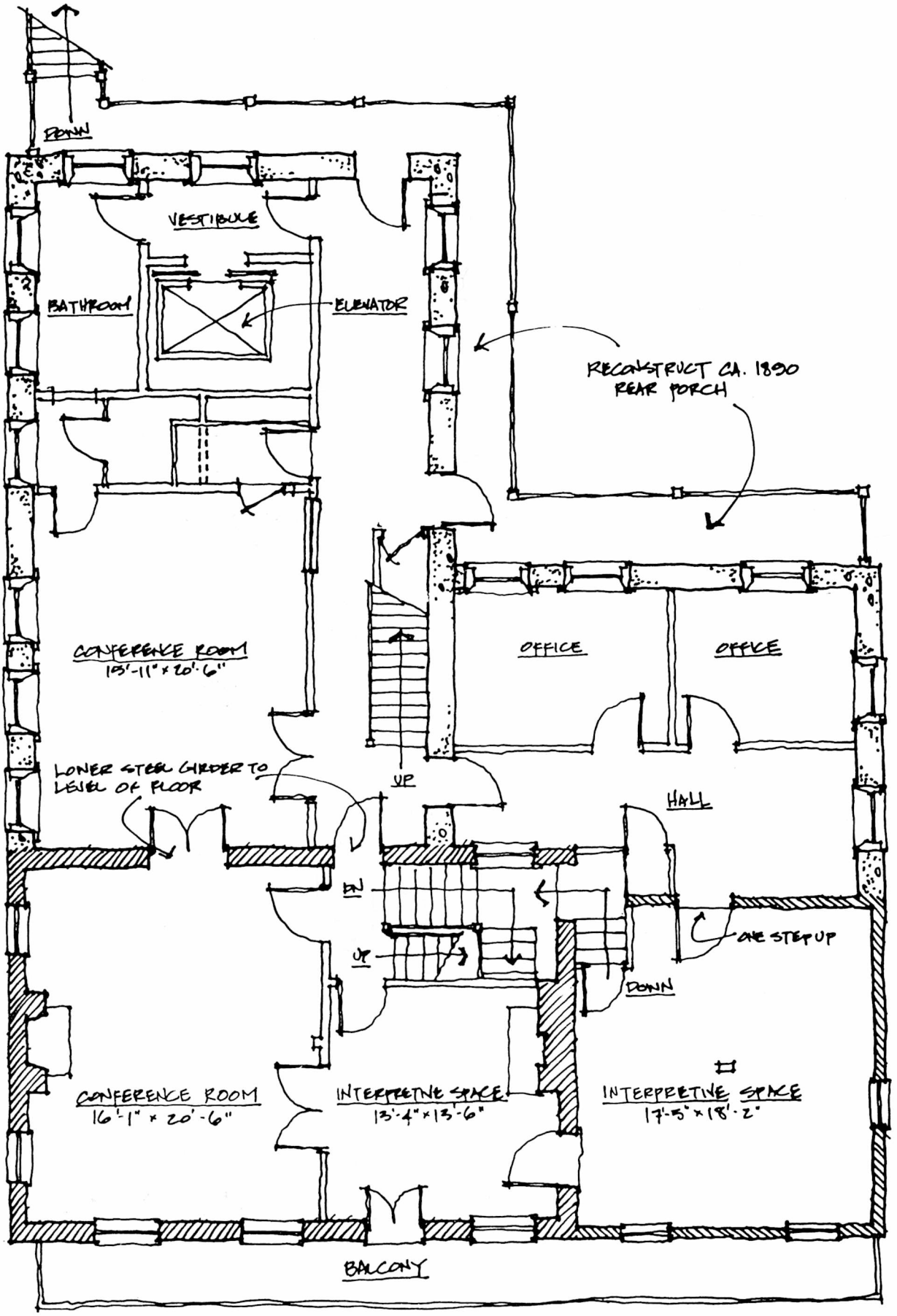
THIRD FLOOR PLAN
ALTERNATIVE A



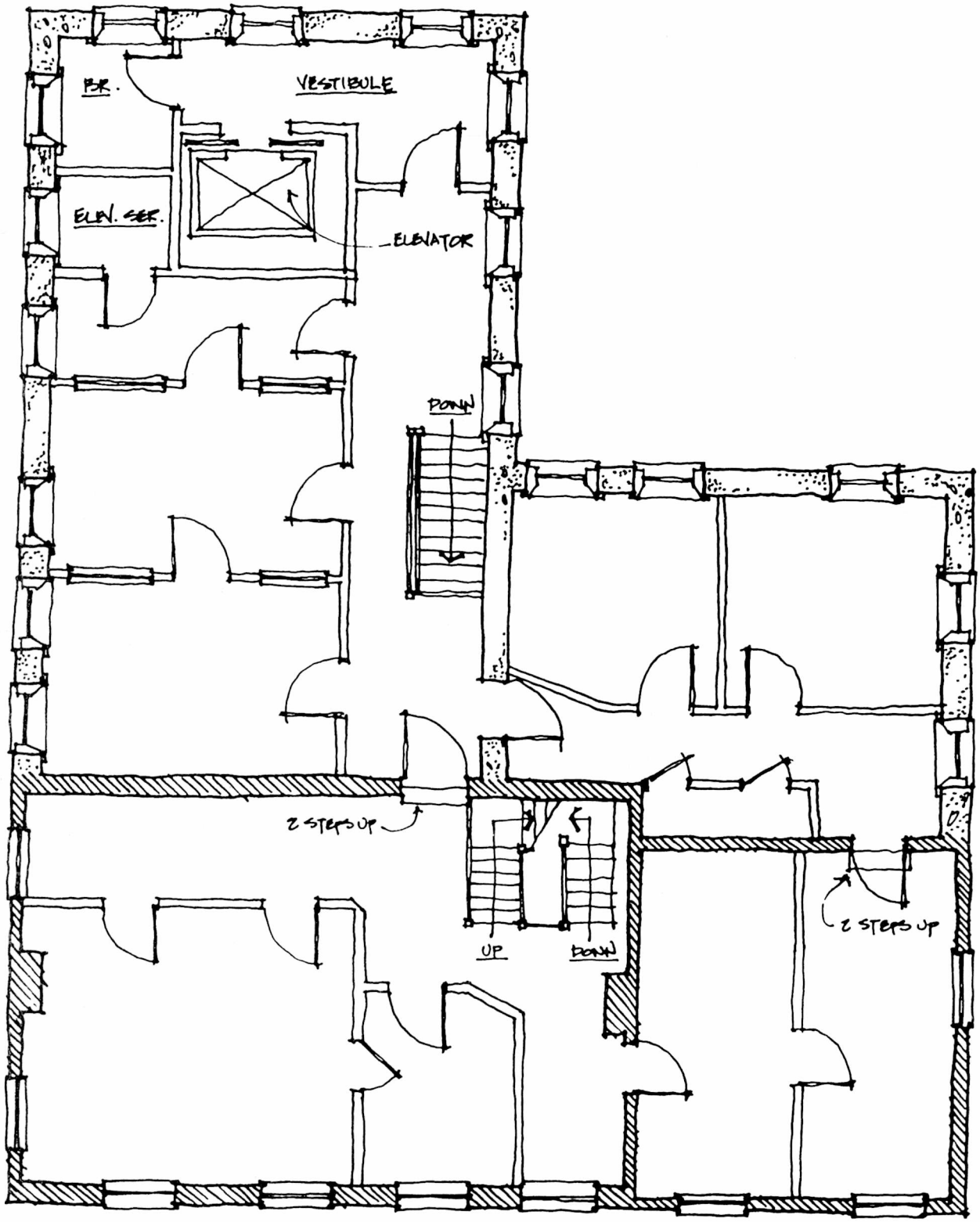
GARRET PLAN



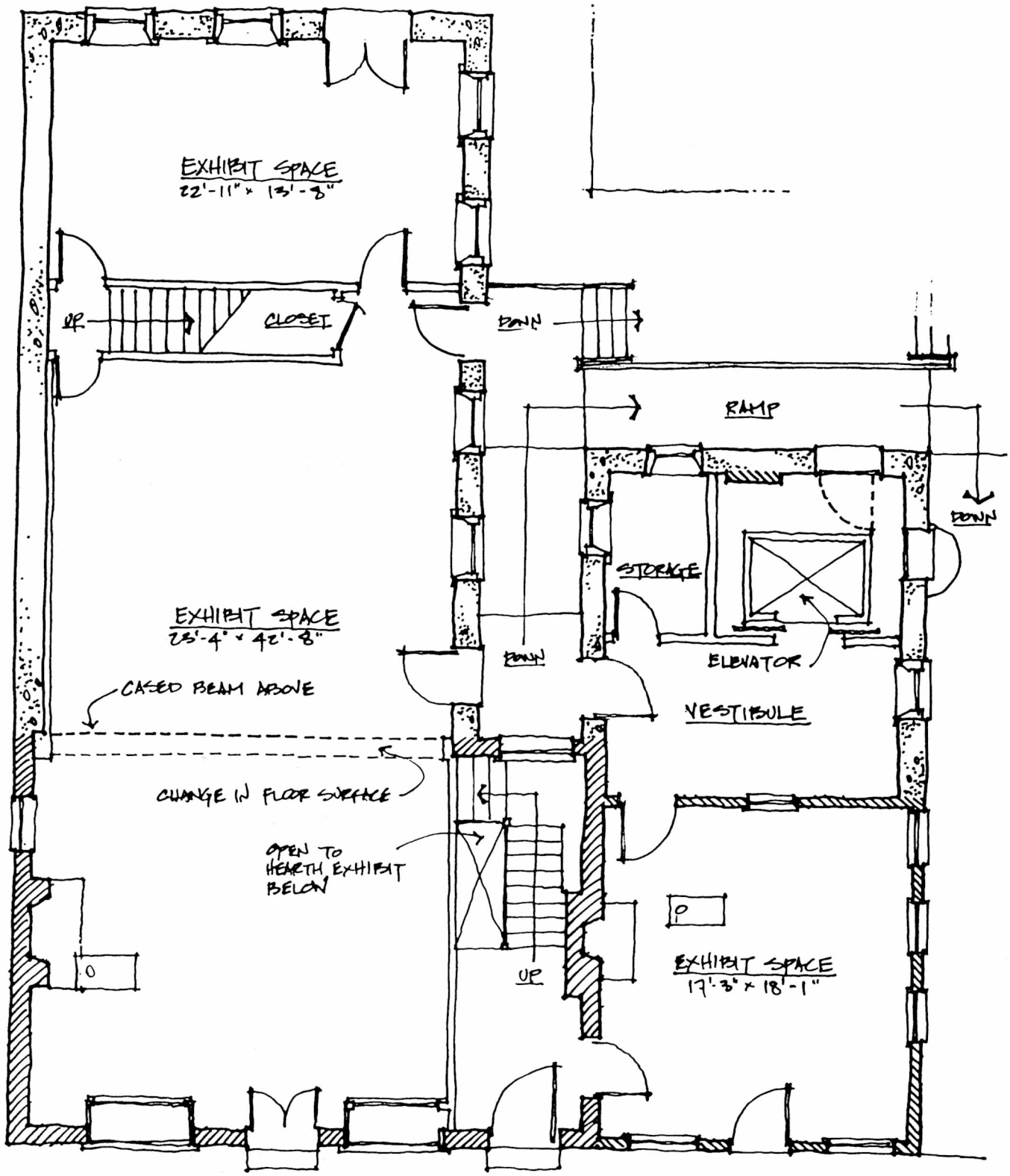
FIRST FLOOR PLAN
ALTERNATIVE B



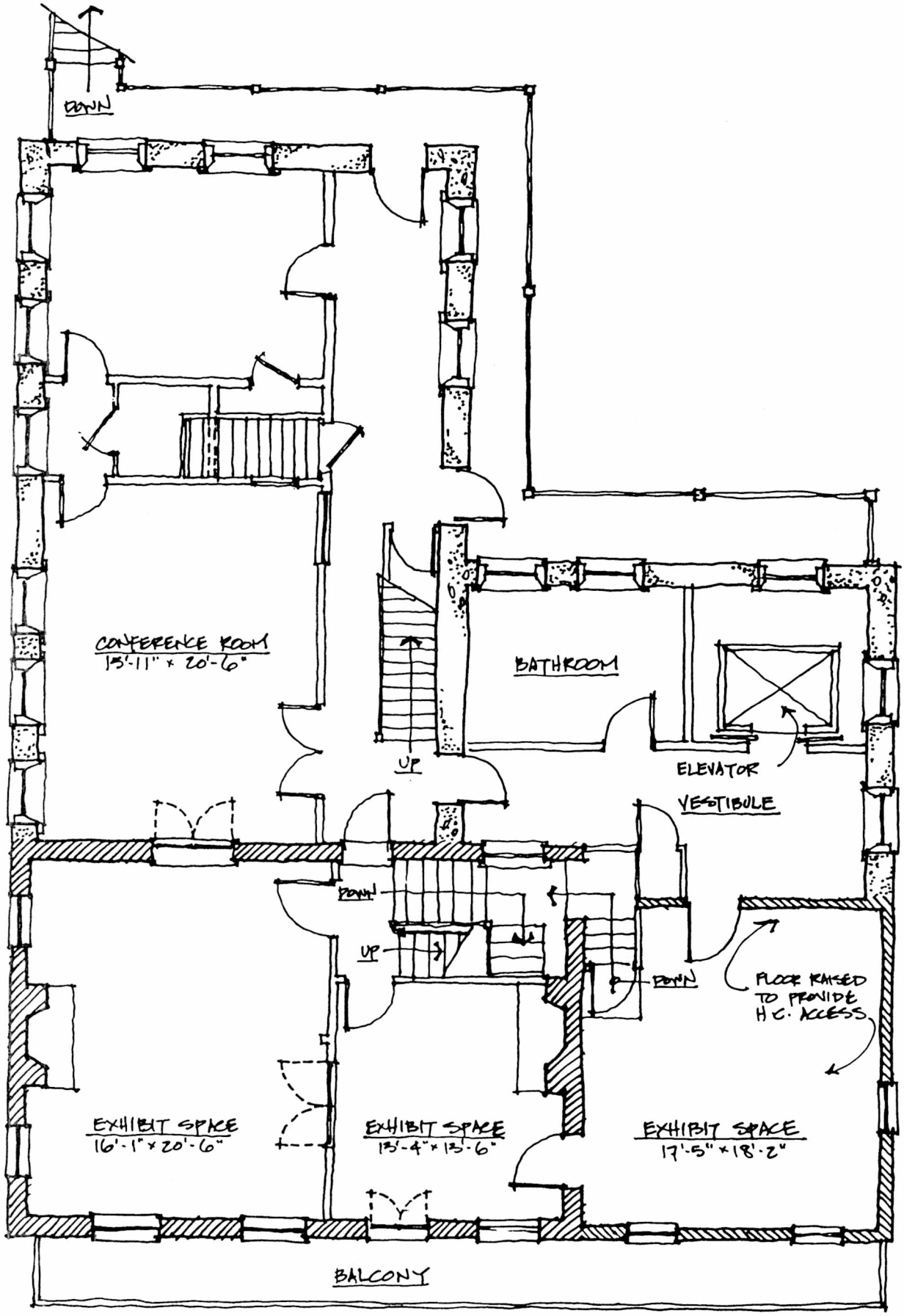
SECOND FLOOR PLAN
ALTERNATIVE B



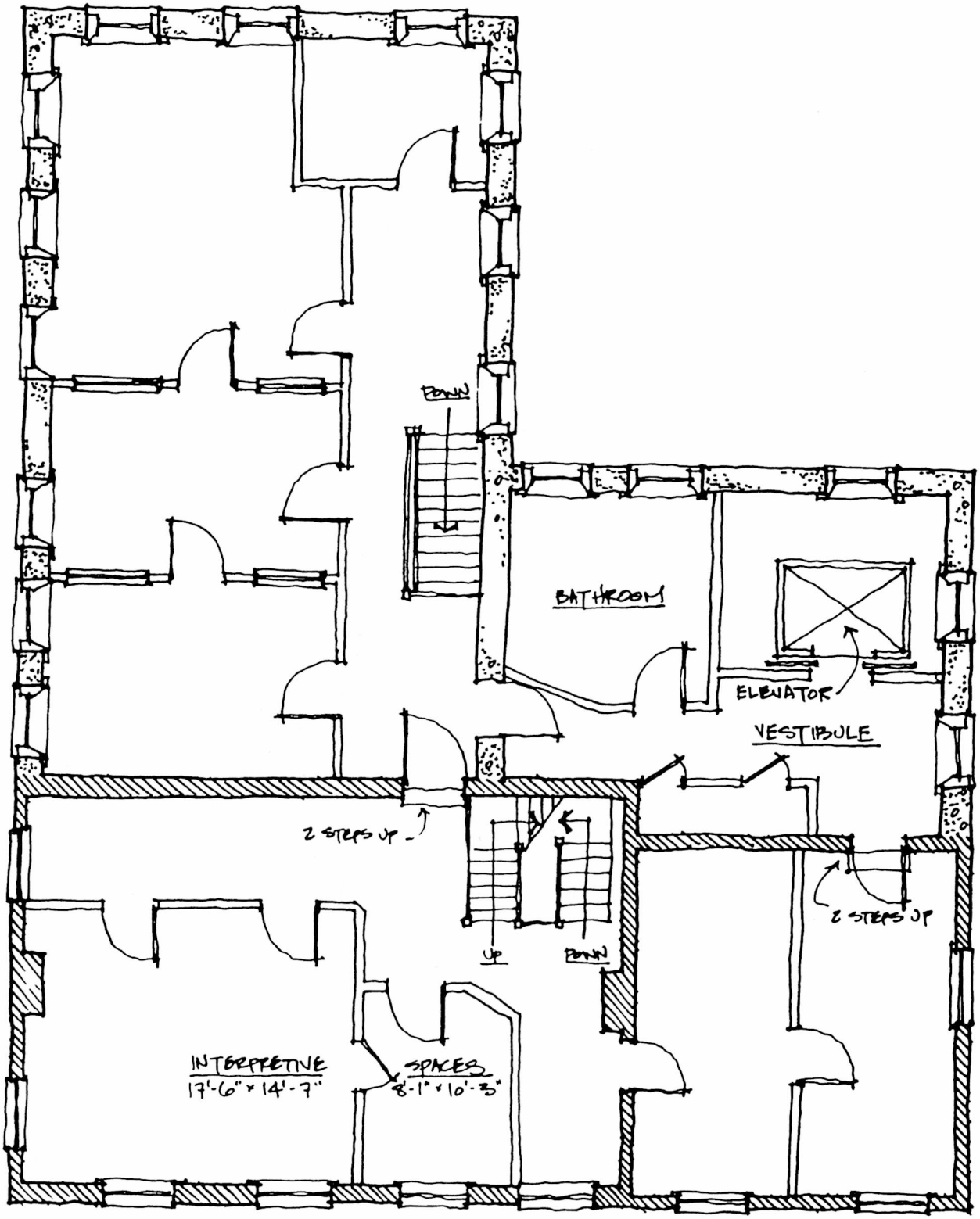
THIRD FLOOR PLAN
ALTERNATIVE B



FIRST FLOOR PLAN
ALTERNATNE C



SECOND FLOOR PLAN
ALTERNATNE C



THIRD FLOOR PLAN
ALTERNATIVE C

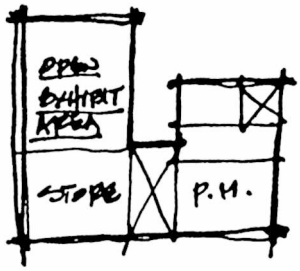
United States Department of the Interior
NATIONAL PARK SERVICE
Harpers Ferry Center
HARPERS FERRY, WEST VIRGINIA 25425

TAKE PRIDE IN AMERICA

IN REPLY REFER TO

H3019 (HFC-HF)
HAFE

April 10, 1992



OFFICERS' EXHIBIT UPSTAIRS.

RECEIVED
1992 APR 14 PM 1:03
HARPERS FERRY, WV

Memorandum

To: Superintendent, Harpers Ferry National Historical Park

From: Staff Curator, Historic Furnishings Division, HFC

Subject: Interpretive Alternatives for Building 34/35

During a meeting between representatives from Harpers Ferry NHP, Denver Service Center, and Harpers Ferry Center on April 7, 1992, a number of new interpretive alternatives for Building 34/35 were explored. This memorandum summarizes these alternatives and outlines the pros and cons for each.

DSC has proposed moving the present partition wall in building 35 closer to the rear wall to a position believed to be historic. This move increases the length of the front room and aggravates the disjointed quality of the current general store. One of the greatest obstacles in furnishing building 35 as a general store is the large number of windows and doors along the side walls which decrease the amount of space that can be used for shelves and counters. The distribution of these openings creates the need to place the front counter at quite a distance from the rear counters, resulting in a room arrangement unlike any seen in documentation for stores in the nineteenth century. Moving the wall will add still more unusable space along the west wall. This disadvantage can be mitigated by concentrating the general store exhibit along the east and south walls. This would have the advantage of providing a focal point for the interpretation of the general store, and would free up the rest of this large space for a variety of other activities. The Park expressed a need for a large space for interpreting to large groups of people. This space would fulfill that function. The disadvantage of this approach is that one would be sacrificing the ambience of a fully historically furnished interior. Unfortunately, the ambience currently provided gives the visitor a false and undocumented impression of the size and layout of a mid-nineteenth century general store. Therefore, we think that the increase in accuracy would offset the decrease in ambience.

Another alternative would be to replace the original rear wall of the earliest structure. This would provide a smaller front room to be used as a general store. The rear portion of the building could be divided into two rooms by replacing the 1892 staircase and wall or could be left as one large room. In the first case, the middle room could be used for the Taylor exhibit. This room would be large enough to seat a small audience and it would have direct access to the outside, which would be useful for evening performances. The rear room could be used as a sales area and could be easily closed off if necessary. There would not need to be communication between the store and the Taylor exhibit, thus eliminating an awkward juxtaposition of the two functions. The disadvantage of this approach is that the amount of space to accommodate visitors in the general store is greatly reduced, although the smaller store is probably closer to the average size of stores in pre-Civil War Harpers Ferry. However, this need for space could be addressed by omitting the 1892 staircase and wall and leaving the rear room as one large multi-use space, with the Taylor exhibit at one end. This would allow room for a large audience to sit on chairs that could be taken away at other times when the park needed a large open space for other interpretive programs. The other drawback to adding this early wall is that doing so creates a floor plan in building 35 that never actually existed at any point in history.

The group briefly discussed an idea to move the provost marshal's office to building 35 and install the general store in 34. We do not see any advantages to this plan, since the architectural layout of building 34 is similar to the floor plan of the original provost marshal and building 34 would not be easily usable as a general store because of the number of windows in the side walls.

The Taylor exhibit was proposed for a number of other locations. Since the exhibit requires a minimum of 13' x 18', if it is placed in the rear room of 35 behind the rebuilt staircase, there will be scarcely enough room for the exhibit, much less any kind of an audience if a performance were to take place. The same is true if the Taylor exhibit is placed in any of the upstairs rooms.

Other suggestions for the upstairs rooms included interpreting one as an officer's quarters and using another to interpret Samuel Annin and the evolution of the building. Documentation indicates that building 35 was operated as a hotel or boarding house during part of the Civil War and that officers probably stayed on the upper floors. Although we have no primary, site-specific documentation, there is visual documentation (photographs and sketches) of other officer's quarters elsewhere during this period. Therefore, a historically furnished officer's quarters would be feasible for one of these upstairs rooms. We do not think that there is sufficient documentation, site-specific or comparative, to historically furnish a room dating to the Annin period. Additionally, the information that needs to be conveyed about the early Armory officials and the building would be better covered in an exhibit. The drawback for the placement of any public spaces on the upstairs floor, either exhibits or furnished rooms, is the tendency for upper floor exhibits to be neglected by the public.

Everyone agreed that the location of the elevator should be moved to the rear of building 34. This change displaces the rear furnished room in the provost marshal's office. There was some discussion of trying to squeeze this room into the area currently labeled "Vestibule" on the drawings. Besides being inadequate in size for carrying out this function, this space is needed for circulation around the elevator.

However, we believe that the front room of the provost marshal's office can stand alone. The clerks, who had day-to-day contact with the citizens, worked in the front room. A historic railing will be installed that will help keep visitors in the front portion of the room. A sign indicating that the rear room is the office of the Provost Marshal himself can be placed on the door to the rear room. Eliminating the rear room actually simplifies the visitor flow of this exhibit, because it would have been difficult to exercise tight control over the objects if the visitors had to walk through the front room to view the rear one.

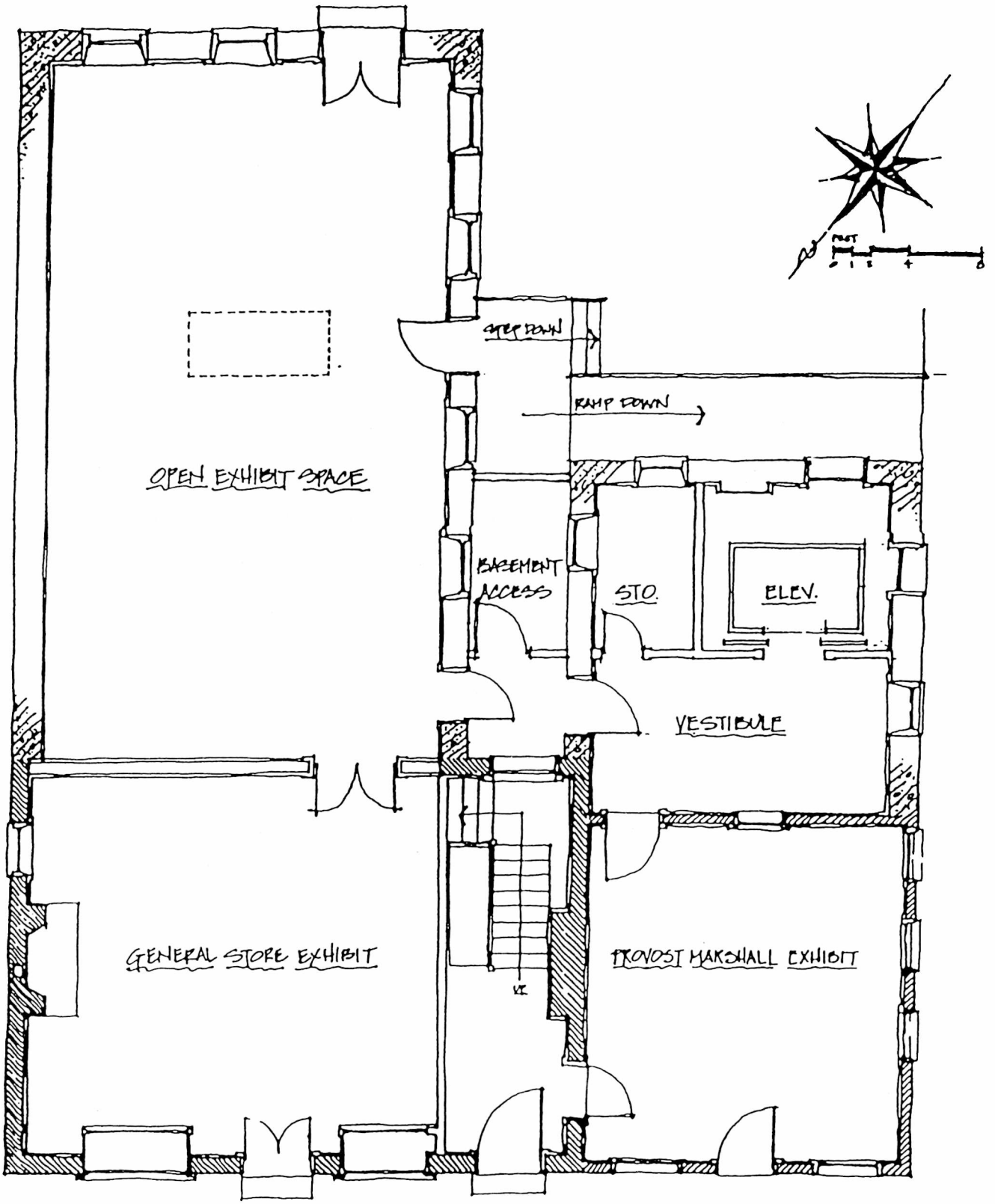
We recommend that a wall be dropped at the site of the original rear wall of the earliest structure. This wall would provide the support for the upper floors that is lacking now, and would enable the elimination of the step on the second floor that currently hampers handicapped access. This wall would divide the first floor of building 35 into two rooms. The smaller front room could be used for the general store. This would provide the park with the furnished exhibit fronting on Shenandoah Street that they feel is important to the interpretation of that area of the park. The smaller space will also more accurately portray the size and ambience of a mid-nineteenth century general store. The rear room would be quite large and could easily contain the Taylor exhibit at one end and provide plenty of multi-use space for dramatic presentations, interpretive programs, or other needs. We recommend that the provost marshal's office consist of one furnished room in the front of building 34. We do not recommend furnishing rooms on the second floor of building 34/35 since we do not feel that these rooms will get much visitor use. However, if the Park feels that exhibits on the second floor are desireable, we recommend that one room be historically furnished as an officer's quarters.

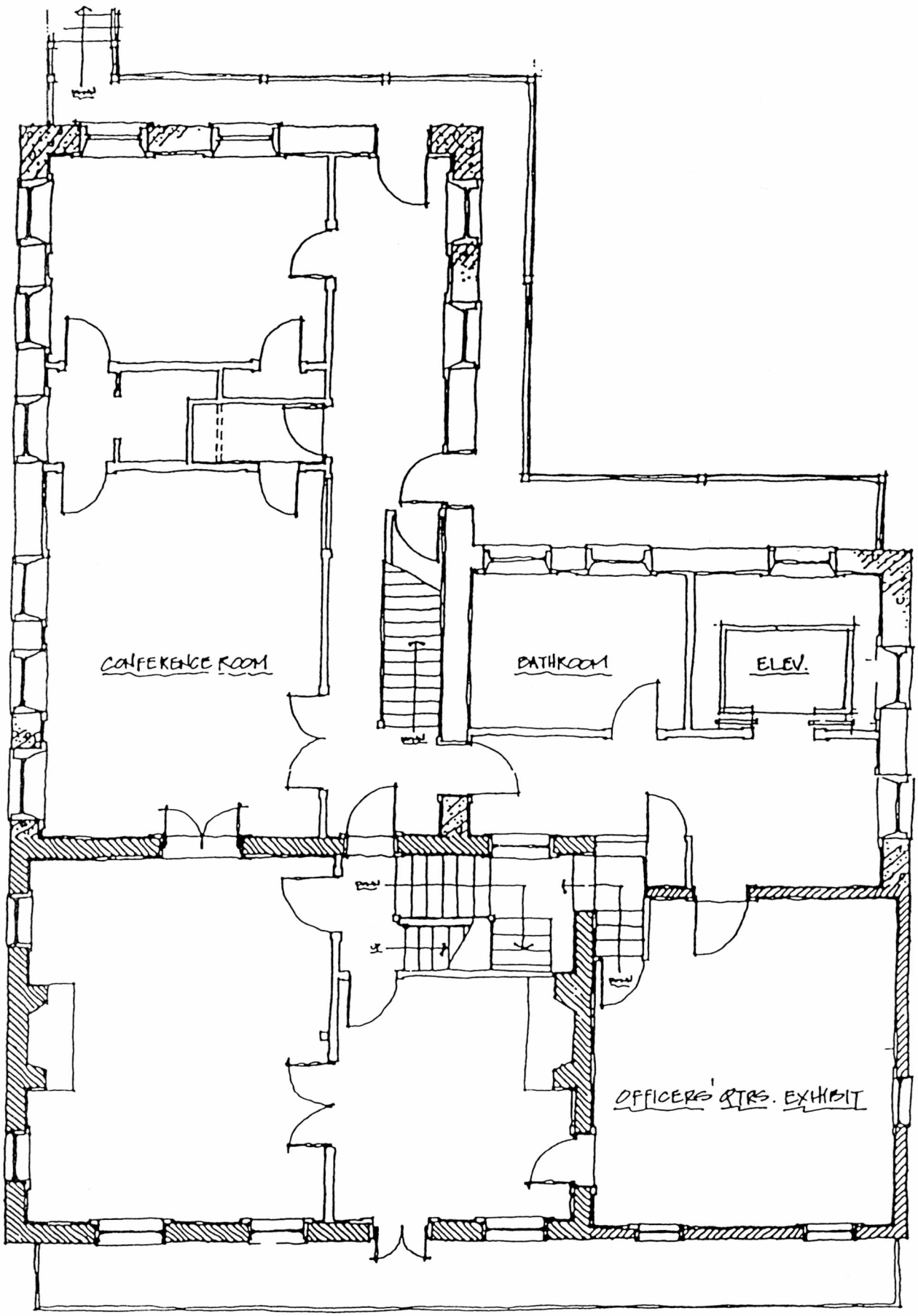
All of these options will be discussed further at a meeting scheduled for Friday, April 17th, at 9:30 a.m. in the Brackett House Conference Room.

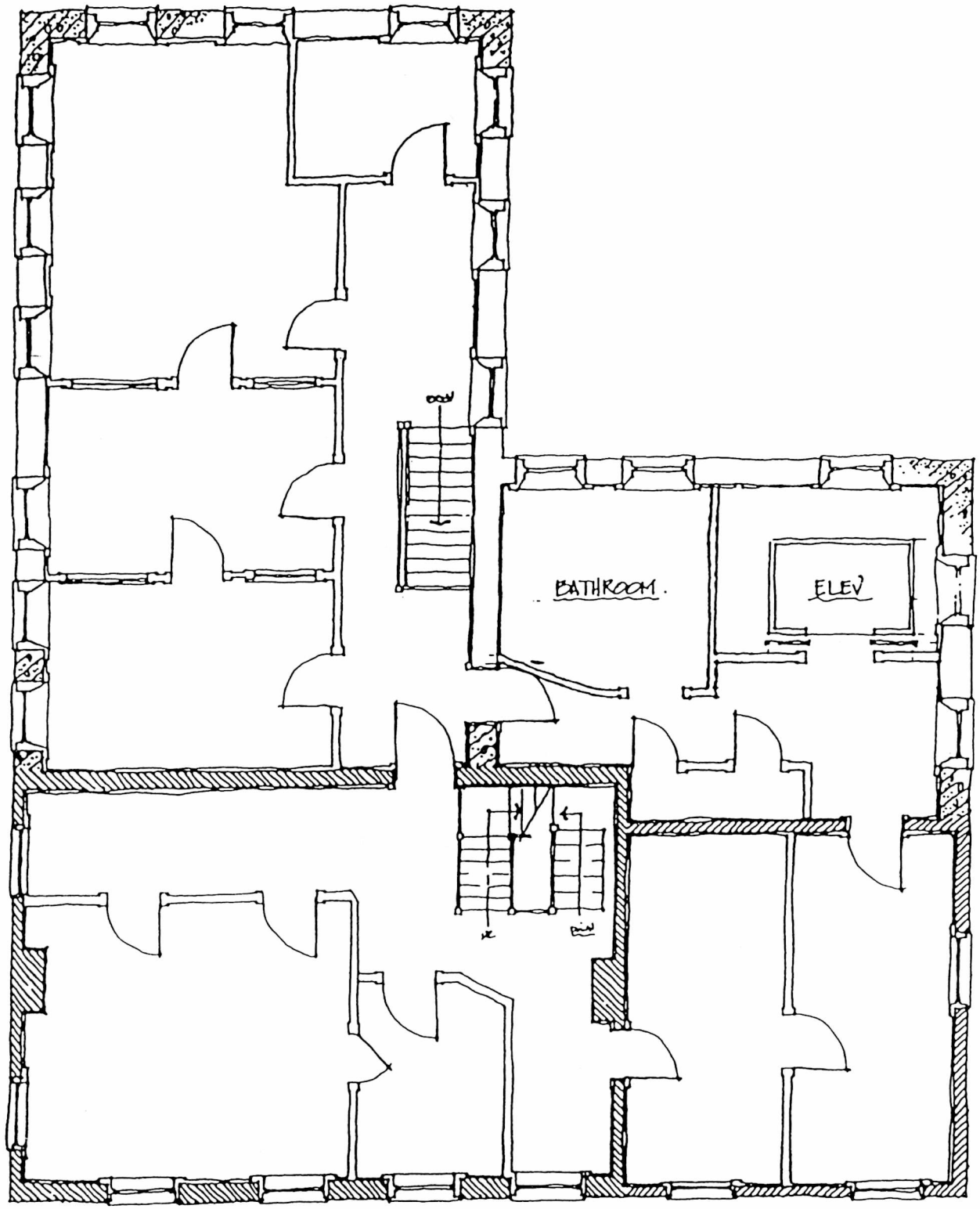
Carol A. Petravage

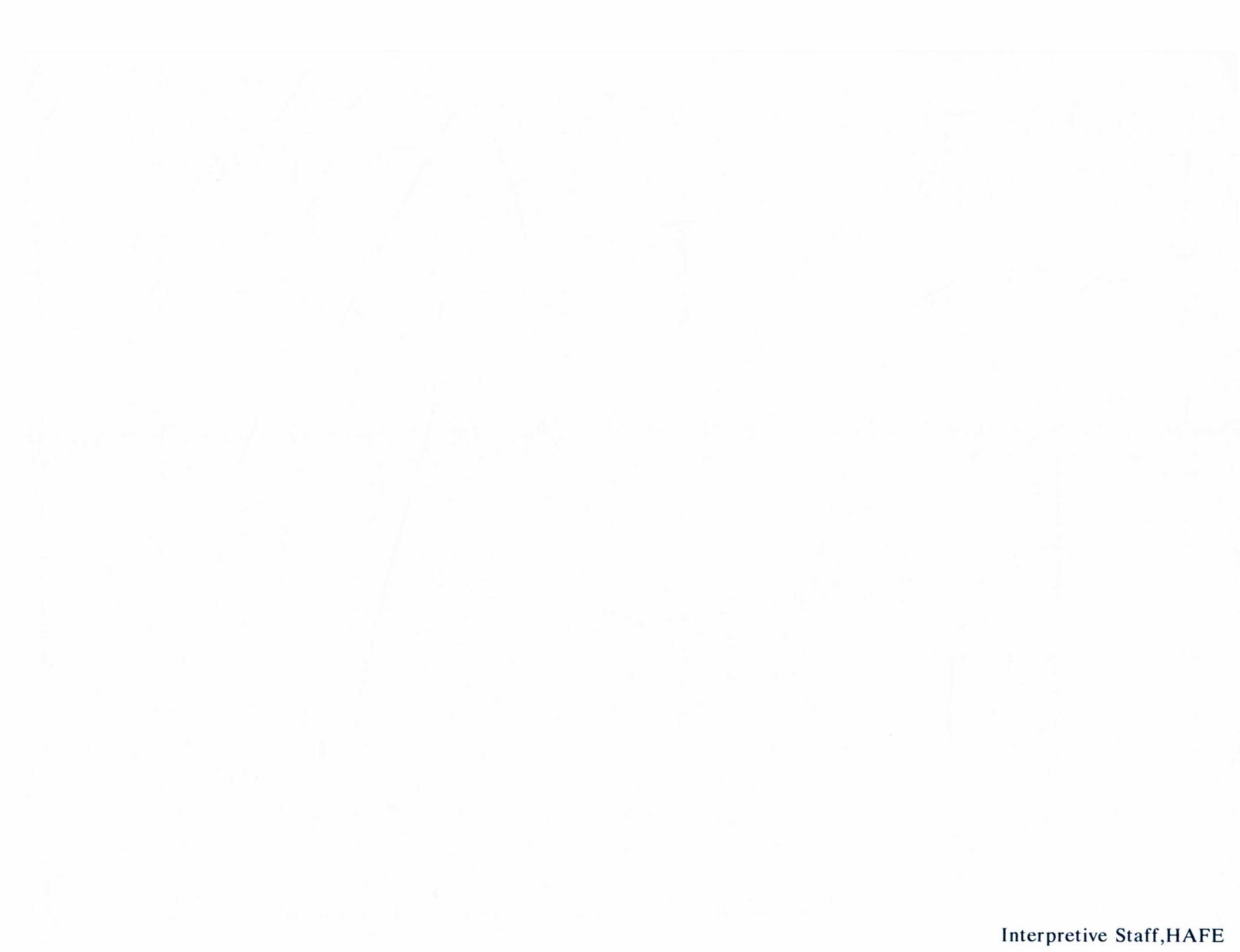
Carol A. Petravage

cc: Regional Director, NCR
Vasjuta, NCR
Pitcaithley, NCR
Frye, HAFE
Donald, DSC-FC
Ferguson, DSC-FC
Smith, DSC-FC


NOT
STEP DOWN
RAMP DOWN
OPEN EXHIBIT SPACE
BASEMENT ACCESS
STO.
ELEV.
VESTIBULE
GENERAL STORE EXHIBIT
PROVOST MARSHALL EXHIBIT


CONFERENCE ROOM
BATHROOM
ELEV.
OFFICERS' QTRS. EXHIBIT


BATHROOM
ELEV



Interpretive Staff,HAFE

MEMO

April 15, 1992

TO: Superintendent Campbell

FROM: Dennis Frye and Interpretive Staff

SUBJECT: Interpretive Use of Package 116

+ CLOTH BACKDROP FOR TAYLOR

+ MOVABLE PARTITION WALL FOR LOWER STORE EXHIBIT

INTERPRETIVE CONCERNS

INTERPRETIVE PROSPECTUS

As you stated in the meeting concerning the interpretive use of Buildings 34 and 35 on April 7, 1992, the role of interpretation is to convert the public to a greater appreciation of the park's four nationally significant themes rather than obscure that message. Your statement is supported by what is arguably the over-riding directive of the **Interpretive Prospectus, "The media described in this plan are intended to present a series of strong images which a visitor will easily understand and remember. The images correspond to major themes and should be limited for maximum impact, rather than diluted by multiple subthemes."** (p. 6) Both statements call for interpretive exhibits that provide a clear focus on the four themes and discourage media and information that may eclipse the mission. The following paper addresses: 1) the overall role of Buildings 34 and 35; 2) a statement of the park's logistical needs; 3) the interpretive staff's recommendations regarding the use of these buildings; and 4) an analysis of suggested interpretive uses of Buildings 34 and 35. These components each address the principle stated above.

OVERALL ROLE OF BUILDINGS 34 AND 35

Buildings 34 and 35 are crucial to the success of the park's interpretive mission. Situated on Shenandoah Street, they help provide the visitor with their <u>first</u> impressions of lower town. These impressions set the tone for the rest of the visitor's exploration and are essential to the park's interpretive mission. Buildings 34 and 35 act on the visitor at two levels: 1) visually; and 2) presentation of the park's four themes.

<u>Visual Impact</u>

In concert with the other buildings on the street, Buildings 34 and 35 immerse the visitor in a 19th century environment with few 20th century distractions. Park planning has done well in preventing even modern exhibits from intruding on the scene. Buildings 34 and 35, as well Building 40s' furnished exhibits, also provide a dynamism to the street that adds to the 19th century aura. Visitors are engaged and provoked by this atmosphere. They have the opportunity to contemplate the physical past. We believe it important that any exhibits in Buildings 34 and 35 protect and add to the visual and "living" impression of lower town.

Theme Impact

Buildings 34 and 35 are also very important to the interpretation of the four themes. The exhibits in these buildings are highly accessible and the most visited in the park. Buildings 34, 35, 43, and 40 provide visitors with their first in-depth exposure to the park themes in the lower town. Most visitors encounter these exhibits early in their visit and are receptive to their content mission. The Living History/Costumed Interpretation context of these exhibits immerse visitors in an especially intriguing way. Costumed interpreters staff these buildings on the weekends seven months of the year and seven days a week for three months in the summer. Interpreters in these exhibits are able to provoke visitors into a greater appreciation of the park's four themes and are able to address the specific needs and questions of individuals. These furnished exhibits also play a crucial role in the park's living history/costumed interpretation special events. While all of these exhibits interpret all of the themes, the industry theme is most heavily addressed. Building 43's machine shop and industry exhibit, the Ready Made Clothing Store, the Dry Goods Store, and the Master Armorer's House, most directly and easily present the industrial theme. The role of the Provost Marshal's Office is crucial in conveying the Civil War story. The Dry Goods Store, by far the most useful exhibit for interpreting all of the themes, is essential for presenting the John Brown and African-American themes.

Because of Buildings 34 and 35's easy access, their placement on Shenandoah Street, their living living history/costumed interpretation content, and their ability to balance and present all four themes, we believe that any alteration of these exhibits must continue to fulfill these functions.

PARK PROGRAM AND LOGISTICAL NEEDS

Decisions regarding the interpretive content of Buildings 34 and 35 will have impact on the park's interpretive programming and logistical needs. Probably the greatest programming need is sufficient space to gather large groups for educational, rain, and special interpretive programs. The Dry Goods Store, in its current configuration, performs this function. Another programming need is the desire to draw more visitors into the backyards of package 116. Indeed this "discovery" area is, and will be with the proposed restoration, a wonderful 19th century environment that provokes the visitor. Presently, this area is underutilized. Interpretation is also expanding its volunteer living history/costumed interpretive program. Often, this involves large volunteer groups. The availability of furnished exhibits is essential for attracting these groups and utilizing their potential contribution to the overall program. The Dry Goods Store and Provost Marshal's Office now play this role. Finally, the Historical Association, with the support of the interpretive staff, is looking for space to sell reproduction objects. The profits from such a venture will benefit the interpretive program. An operating store will also help defray the costs incurred by the new machine shop exhibit. Items like gunstocks turned on the Blanchard lathe, might be sold there. As you know, no such site currently exists.

Each of the following proposed uses for Buildings 34 and 35 includes analysis in terms of programming needs.

RECOMMENDATIONS

BUILDING 35 - FIRST FLOOR
Large Dry Goods Store (front room, middle room), Association Sales Area (rear room)

A large dry goods store (front room including the stairs) provides for visual integrity on High Street, a dynamic and interactive presence of costumed interpreters, and is essential for a balanced and successful interpretation of all park themes at this crucial location. A large amount and variety of merchandise selected (according to historic evidence) to illustrate various aspects of 19th century life is the vehicle by which our four themes are effectively presented. The Dry Goods Store is especially important in its role as it provides a comfortable, non-threatening environment that presents all four themes. A large store is also the best way to provide for an increased congregating area. Indeed, all of the other proposals decrease this space. This proposed dry goods store will also maintain the park's appeal to large living history/costumed interpretation volunteer groups. We further propose that the rear room become a sales area for the Historic Association. We believe sales here will please the visitor and benefit the interpretive program. A separation of the exhibit and sales, while maintaining close proximity, will increase profit as well as maintain the quality of interpretation. This proposal best addresses clarity of theme as visitors will be exposed to the single concept of a store, rather than mixed themes presented by a variety of exhibits. A sales area also fulfills the park's desire to attract visitors to the backyards better than other proposals.

BUILDING 34 - FIRST FLOOR
Provost Office (front room, rear room)

The Provost Marshal's Office is a proven entity that provides for visual integrity on the street as well as an important presentation of the Civil War theme on Shenandoah Street. This is important as the weight of interpretive exhibits in the area concentrate on the industrial theme. We would like the rear room to be walled off from the elevator so that this space might be used to enhance interpretation in the front room. We view the Provost exhibit as an anchor that provides clarity of theme for our proposed Civil War exhibits on the second floor. Finally, the Provost is an important attraction for our large volunteer groups.

RECOMMENDATIONS

BUILDING 34 and 35 - SECOND FLOOR
Taylor Exhibit (northeast room), Boarding House Room (middle room), Officers' Quarters (northwest room)

We believe the second floor will enhance, clarify, and focus the Civil War theme in a number of ways. We propose that the northeast room of Building 35 contain the Taylor exhibit, the middle room become an eating area or sitting room for the officers who stayed in Stipes Boarding House, and the large room in Building 34 portray officers' quarters. With these exhibits in place, and viewed in concert with the Provost Marshal's Office, visitors have the opportunity to experience a whole section of the building in its war-time context. By leaving the hall door open in the Provost, visitors entering the hallway from the street will encounter the Provost and the upstairs exhibits as a unit and will likely be provoked as to the large scale of the military presence during the war (Likewise, visitors could enter the hallway from the Provost.). Such a configuration will also act as a discovery area and allow visitors access to areas they are curious about and do not generally expect to visit.

The large front room on the second floor of Building 34 is most appropriate for use as an officers' quarters. There is historic evidence to support this use. The room and its function is also most useful for living history/costumed interpretation because of its large size and its association with the Provost Marshal's Office directly below. Visitors will be able to follow first person vignettes that travel from one location to the next. Likewise, interpreters in third person will be able to take visitors from one room to the next as they interpret the military presence. This room is especially important when considering large volunteer groups as the rear room on the first floor accommodated many of their efforts. With this room gone, an officers' quarters on the second floor can provide many of the same functions.

The middle room, sparsely furnished as a place to eat or sitting room, adds to the "completeness" of the experience. Because it is small, its function will be to maintain the integrity of the historical environment and provide a transition between the completely furnished Officer's Quarters and the partially furnished Taylor exhibit. The room has doors that provide access to both the Officers' Quarters and the Taylor room and will thus allow visitors to see all three rooms without returning to the stairs.

The northeast room of Building 35 is most appropriate for the Taylor exhibit as it is close to Taylor's original quarters. Ascending the stairs will give visitors a more accurate "feel" for the physical context of the exhibit. Likewise the view from the second story window will engage the visitors and make the exhibit seem more real. Visitors will thus be able to more directly associate a real historic figure with their own presence in that part of the building.

The interpretive staff believes that the above recommendations most adequately fulfill the needs of the visitor, fulfill the needs of the park, and most directly follow the directive of yourself and the Interpretive Prospectus to effectively present our message to the visitor with clarity and coordination.

EVALUATION OF PROPOSED IDEAS

USE OF SECOND FLOOR

The front three rooms on the second floor have great interpretive value for two reasons. First, the second floor will provide a "discovery" area that will provoke the visitor. Second, some of the following specific proposals address the Interpretive Prospectus and will enhance the clarity of a specific theme. We believe all exhibits on the second floor should deal primarily with a single theme in order to focus the overall interpretive program. Specifically, all the second floor exhibits should address the Civil War. Civil War exhibits will provide a stronger impression of the large impact of the Civil War on the town. By walking from room to room, visitors will better perceive the all encompassing role of the military. This will provide a balance to the exhibits that most directly interpret the pre-War town and the industrial theme. We will describe the ability of each of the following proposals to achieve this effect. We also present what we believe to be the most effective means of achieving this goal in our final recommendations.

SPECIFIC PROPOSALS: Second Floor

Building 34

1. Officers' Quarters

Pros:

- historic evidence indicates the room may have been used this way
- addresses and enhances the Civil War theme
- provides clarity of theme by creating a greater impression of the military influence on Civil War town
- can be used in conjunction with the Provost Marshal's Office (access through hall door of Provost reenforces clarity of theme.)
- provides an opportunity to more clearly interpret Mrs. Stipes and the impact of the War on civilians
- enhances volunteer program
- provides discovery area
- HFC seems to feel it is appropriate and doable
- enhances the visual impact of Shen. St.
- provides dynamic impression on Shen. St.
- size of room appropriate to function
- no impact on architectural concerns

Cons:

- no furnishing plan currently exists

SPECIFIC PROPOSALS: Second Floor

Building 34

2. Congregation Space

Pros:

- some congregation space would be provided

Cons:

- space not adequate to meet most programming needs
- dynamic appearance from Shenadoah Street would be compromised
- space will not enhance volunteer program
- opportunity to enhance the Civil War theme will be missed
- handicapped access through elevator will be time consuming

Building 34 and 35

1. Boarding House Room - Civil War period eating room or sitting room - furnished exhibit

Pros:

- historic evidence indicates the room may have been used this way
- addresses and enhances the Civil War theme
- provides clarity of theme by creating a greater impression of the military influence on Civil War town
- can be used in conjunction with the Provost Marshal's Office (access through hall door of Provost reenforces clarity of theme.)
- provides an opportunity to more clearly interpret Mrs. Stipes and the impact of the War on civilians
- size and configuration of room support the exhibit's function
- doors allow access to exhibits on both sides and create a logical visitor and thematic flow
- room provides access to northeast and northwest room without requiring visitors to return to the steps
- enhances volunteer program
- provides discovery area
- enhances the visual impact of Shen. St.
- provides dynamic impression on Shen. St.
- size of room appropriate to function
- no impact on architectural concerns

Cons:

- no furnishing plan currently exists

SPECIFIC PROPOSALS: Second Floor

Building 34 and 35

2. James Taylor exhibit in middle room

Pros:

- placed closer to its original location
- addresses and enhances the Civil War theme
- provides clarity of theme by creating a greater impression of the military influence on Civil War town
- can be used in conjunction with the Provost Marshal's Office (access through hall door of Provost reenforces clarity of theme.)
- provides an opportunity to more clearly interpret Mrs. Stipes and the impact of the War on civilians
- enhances volunteer program
- provides discovery area
- HFC seems to feel it is appropriate and doable
- enhances the visual impact of Shen. St.
- provides dynamic impression on Shen. St.
- no impact on architectural concerns

Cons:

- size and configuration of the room are not appropriate to the exhibit's function
- furnishing plan must be altered
- altered furnishing plan dilutes the intent of the exhibit and detracts from the clarity of the theme

3. Annin, Armistead Beckham, or Benjamin Moore exhibit in middle room

Pros:

- each of these men lived in this building
- the industrial theme can be addressed in a manner not previously done
- the original architecture of the building can be addressed
- architectural evidence could be displayed in a modern exhibit
- a furnished exhibit would enhance the volunteer program
- provides a discovery area
- enhances the visual impact of Shen. St.
- provides dynamic impression on Shen. St.
- no impact on architectural concerns

Cons:

- detracts from clarity of theme (sandwiched between Civil War exhibits would break the interpretive flow.)
- the industrial theme is directly presented in a number of other exhibits
- size and configuration (too many windows, doors, and a hearth in a small room) of the room are not appropriate to the exhibit's function
- no furnishing evidence exists for any of the three
- the town's architectural changes will be addressed in Building 33
- no furnishing plan currently exists

SPECIFIC PROPOSALS: Second Floor

Building 35

1. James Taylor exhibit - northeast room

Pros:

- placed closer to its original location
- addresses and enhances the Civil War theme
- provides clarity of theme by creating a greater impression of the military influence on Civil War town
- can be used in conjunction with the Provost Marshal's Office (access through hall door of Provost reenforces clarity of theme.)
- provides an opportunity to more clearly interpret Mrs. Stipes and the impact of the War on civilians
- outstanding historical evidence supports the exhibit
- size and configuration of room are appropriate for function
- enhances volunteer program
- provides discovery area
- HFC seems to feel it is appropriate and doable
- enhances the visual impact of Shen. St.
- provides dynamic impression on Shen. St.
- no impact on architectural concerns

Cons:

- None to speak of

2. Annin, Beckham, Moore exhibit - Northeast room

Pros:

- each of these men lived in this building
- the industrial theme can be addressed in a manner not previously done
- the original architecture of the building can be addressed
- architectural evidence could be displayed in a modern exhibit
- the size of the room is appropriate for the function
- a furnished exhibit would enhance the volunteer program
- provides a discovery area
- enhances the visual impact of Shen. St.
- provides dynamic impression on Shen. St.
- no impact on architectural concerns

Cons:

- detracts from clarity of theme (sandwiched between Civil War exhibits would break the interpretive flow.)
- the industrial theme is directly presented in a number of other exhibits
- no furnishing evidence exists for any of the three
- the town's architectural changes will be addressed in Building 33
- no furnishing plan currently exists

SPECIFIC PROPOSALS: First Floor

Building 34

1. Provost Marshal's Office in front room

Pros:

- addresses the Civil War theme
- provides clarity of theme
- enhances the visual impact of Shen. St.
- provides dynamic and interactive living history/costumed interpretation on Shen. St.
- proven track record
- size of room appropriate to function
- enhances volunteer program
- no impact on architectural concerns
- existing furnishing plan
- access through hall door to stairway and proposed upstairs exhibits. (If these exhibits address the Civil War, a continuity of theme is provided.)
- the exhibit is currently identified in this location in the Interpretive Prospectus

Cons:

- location presents the Civil War theme out of chronological order for many visitors

2. Dry Goods Store in front room

Pros:

- addresses the pre-War themes
- provides clarity of theme
- enhances the visual impact of Shen. St.
- provides dynamic impression on Shen. St.
- no impact on architectural concerns
- location presents pre-War themes in chronological order to many visitors

Cons:

- size of room is not appropriate to interpretive function (**We view this as most important. The Dry Goods Store is the most useful exhibit for interpreting all the park themes. Space is critical as the large number and variety of objects provide the vehicle by which themes are interpreted. This is especially important in regard to the John Brown and African American themes. The Dry Goods Store is crucial for presenting these stories on the first block of Shenandoah Street.**)
- large congregating area is lost (Moving the Provost to Building 35 necessitates dividing the large area into two rooms. Therefore an additional crucial interpretive need would be created.)
- access through hall door to upstairs proposed Civil War exhibits detracts from clarity of theme
- no furnishing plan currently exists for this function in this room
- the room configuration (windows and doors) deny useful store display space

SPECIFIC PROPOSALS: First Floor

Building 34

3. Provost support area in small rear room

Pros:

- visual impact through door allows visitors to refer to a rear office believably
- sound from elevator reduced
- living history vignettes can be more easily performed i.e. putting prisoners in back, going to the rear room for props, etc.

Cons:

- some alteration such as a two doored elevator is required
- a full partition is required

Building 35

1. Sales area in rear room

Pros:

- provides space for sales
- will attract visitors to backyards (This sales room could be operated at any time of year. When the Dry Goods Store is closed, access would be from the backyards. When the Dry Goods Store is operating, the vast majority of visitors will visit the store and many will likely venture into the back. This proposal probably addresses this interpretive need better than any other.)
- a separate sales area will not detract from the interpretation of the Dry Goods Store (Mixing the two areas is likely to confuse the clarity of theme. Visitors will not be sure of the function of the space. Not all items included in the Dry Goods Store could be sold, thus, some separation is necessary of museum items from sales items is necessary. If the sales area exists in the same space as the exhibit, salespeople and interpreters will have to put much effort into distinguishing between the two. Placing them in separate rooms allows for independent operation but maintains the conceptual connection. Interpreters will be able to concentrate on interpretation instead of money and merchandise. Indeed, we believe, good interpretation will enhance sales in the rear room.)
- will enhance clarity of theme
- some visitors will be more likely to visit the Dry Goods Store in order to visit the operating store

Cons:

- some visitors will ignore the Dry Goods Store on their way to the sales area
- interpreters will have more questions regarding items for sale (To some degree, this might also be viewed as a pro.)

SPECIFIC PROPOSALS: First Floor

Building 35

2. James Taylor exhibit in rear room

Pros:

- the exhibit might have greater visitation attached to the Dry Goods Store than situated on the second floor
- the exhibit will attract some visitors into the backyards

Cons:

- the exhibit detracts from clarity of theme (A single partition does not provide the visitor with enough transition from the store to the Civil War. **This will have a major detrimental impact on interpretation in the Dry Goods Store.)**
- Taylor was originally located on the upper floor
- the exhibit will have more impact in an appropriate theme context

3. Dry Goods Store in enlarged room (including the stairs) with sales area in rear room

Pros: Dry Goods Store

- addresses all four park themes
- provides clarity of theme with a single unified concept (the proposed sales area in the rear can enhance this theme. In both the exhibit and the shop, visitors are dealing with the single concept of a store.
- is very comfortable for and popular with visitors
- enhances the visual impact of Shen. St.
- provides dynamic and interactive living history/costumed interpretation on Shen. .ß
- provides greatest access to John Brown and African American themes
- proven track record
- size of room appropriate to function (We have evidence of three of the town's 1850s dry goods stores being larger than this one. This space is essential as it allows for lots of objects to act as vehicles for theme interpretation.)
- **size of room provides maximum congregation area** even with its function as a dry goods store
- allows for maximum flexibility of staffing
- enhances volunteer program
- preserves the integrity of the architectural space
- currently identified in this location in the Interpretive Prospectus
- will dovetail nicely with proposed use of rear room as sales area

Cons: Dry Goods Store

- increased size will require modifications to existing furnishing plan (We have several suggestions, based on historical evidence, that will alleviate this problem.)
- configuration of room (windows, doors, etc.) is not optimally suited for store display

SPECIFIC PROPOSALS: First Floor

Building 35

4. Dry Goods Store in second half of large front room (including the stairs) with empty space in front area and sales area in rear room

Pros:

- Congregating space is enhanced

Cons:

- the size of the store area will not support the interpretive mission of the Dry Goods Store and clarity of theme will be compromised (Again, the variety and numbers of items are crucial for interpreting the four themes.)
- the accuracy of the store is not increased as there never was a dry goods store in the proposed space
- the broken nature of the room risks diluting clarity of theme (We risk implying that stores actually looked like this. More importantly, we lose much of the comfortable and engaging environment created by the Dry Goods Store. This proposal forces the visitor to understand the reason for empty space, or the juxtaposition of modern exhibitry with a staffed furnished exhibit. Many visitors will not be sure if they should approach the store section and the interpreter will be forced to spend much effort explaining the arrangement.)
- the integrity of the historical visual impact on Shenandoah Street will be compromised.
- the dynamic and interactive living history/costumed interpretive presence will be compromised.
- will detract from the volunteer program
- when large groups use the space many visitors will not have access to the furnishings
- the congregating space gained is not substantial enough to justify the loss of the problems it creates

SPECIFIC PROPOSALS: First Floor

Building 35

The following proposals suggest that a partition be placed along the lines of the original 1812 structure. This would divide the current space into three smaller rooms or one small front room and one large rear room. These spaces will be referred to as the front, middle, and rear rooms.

1. Dry Goods Store in front room, open middle room, sales area in rear room
   Pros:
   - an open congregating space would be created in middle room
   - a sales area would be created in rear room

   Cons:
   - the size of the room will not support the interpretive mission of the Dry Goods Store and clarity of theme will be compromised (Again, the variety and numbers of items are crucial for interpreting the four themes.)
   - the broken nature of the rooms risks diluting clarity of theme
   - the accuracy of the store is not increased as there never was a dry goods store in the proposed space
   - the historical integrity of the architectural space will be compromised
   - the created congregating space is not adequate for most interpretive needs and indeed reduces current usable congregating space
   - the separation of these rooms will cause a problem for handicapped access (As the second congregating room will not be staffed but will provide access to the handicapped, a special burden will be placed on the disabled to notify staff in the front room that access is required.)

2. Open front room, Dry Goods Store in middle room, sales area in rear room
   Pros:
   - an open congregating space would be created in second room

   Cons:
   - the dynamic and interactive living history/costumed interpretive presence will be compromised. (An empty front room is confusing to the visitor. We had this problem years ago when the "Military Office" had an empty front room. Many visitors will not make it to the second two rooms or second large room.)
   - the size of the room will not support the interpretive mission of the Dry Goods Store and clarity of theme will be compromised
   - the accuracy of the store is not increased as there never was a dry goods store in the proposed space
   - the broken nature of the rooms risks diluting clarity of theme
   - the historical integrity of the architectural space will be compromised
   - the created congregating space is not adequate for most interpretive needs and indeed reduces current usable congregating space
   - the integrity of the historical visual impact on Shenandoah Street will be compromised.

SPECIFIC PROPOSALS: First Floor

Building 35

3. Dry Goods Store in front room with large rear room without partition or stairs

Pros:

- a large congregating area would be created

Cons:

- the separation of these rooms will cause a problem for handicapped access (As the congregating room will not be staffed but will provide access to the handicapped, a special burden will be placed on the disabled to notify staff in the front room that access is required.)
- no incentive is produced for visitors to move into the backyards
- sales area is lost
- the size of the room will not support the interpretive mission of the Dry Goods Store and clarity of theme will be compromised
- the accuracy of the store is not increased as there never was a dry goods store in the proposed space
- the broken nature of the rooms risks diluting clarity of theme
- the historical integrity of the architectural space will be compromised

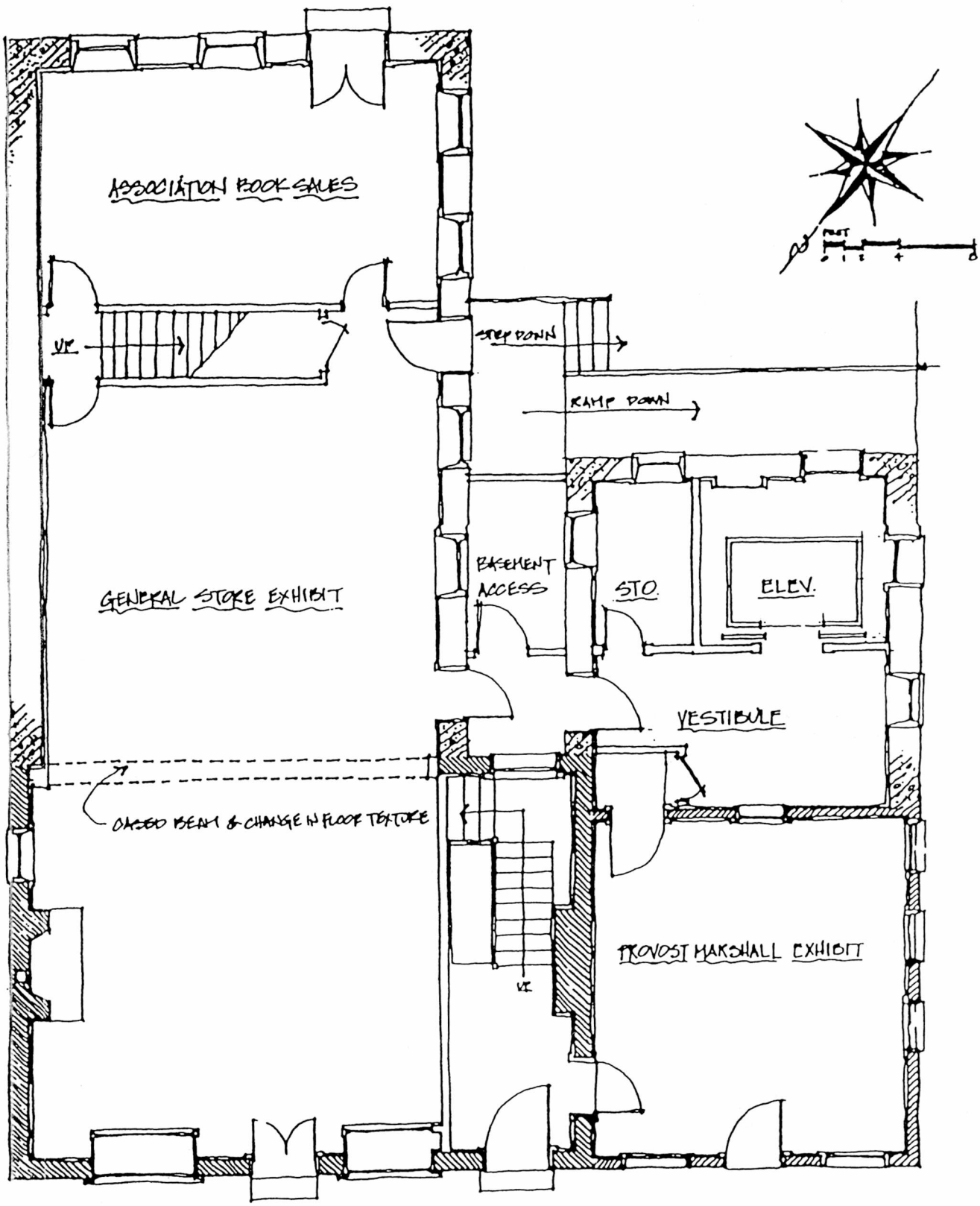
4. Provost Marshal's Office in front room and middle room with either a sales area or the Taylor exhibit in the rear room

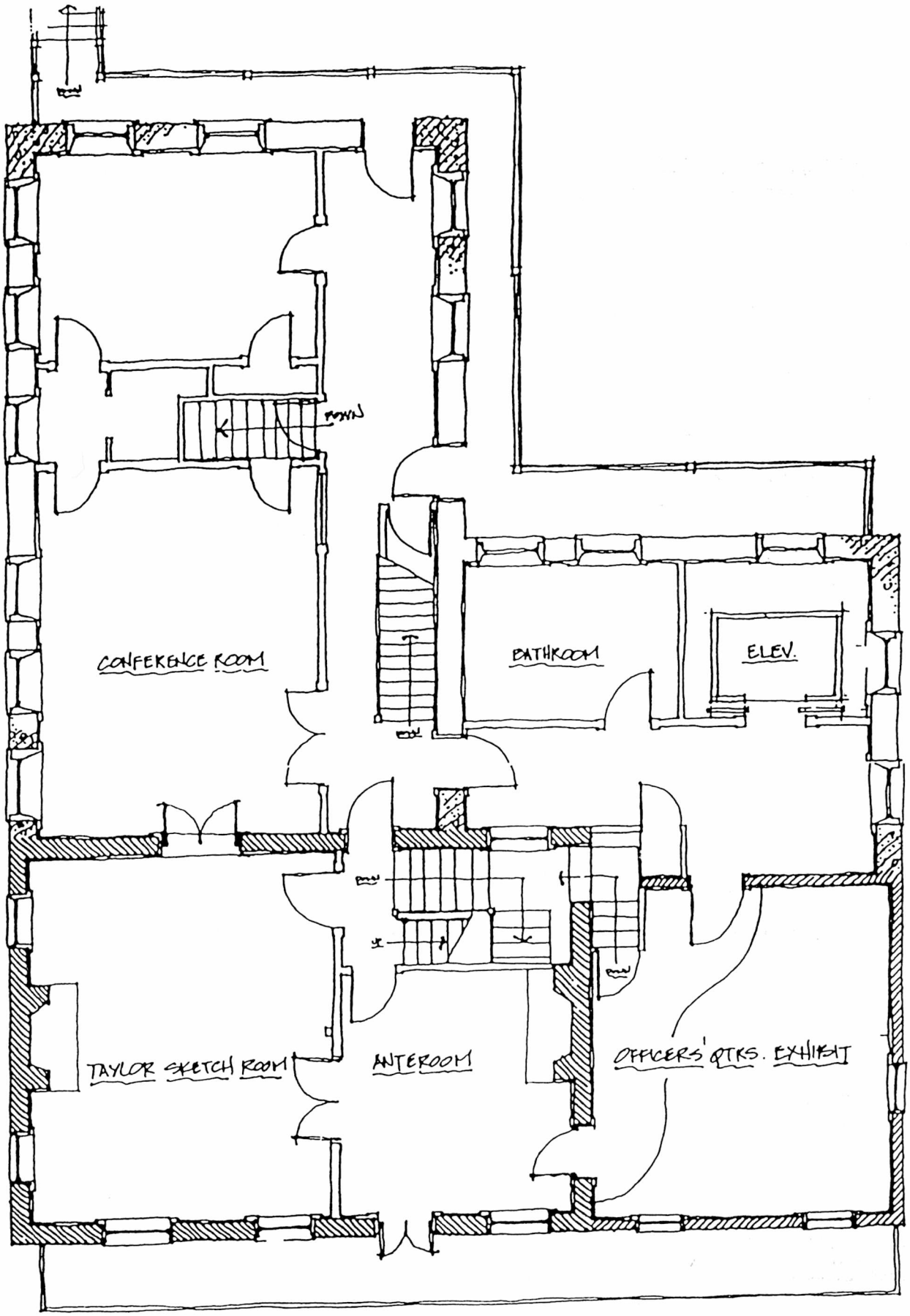
Pros:

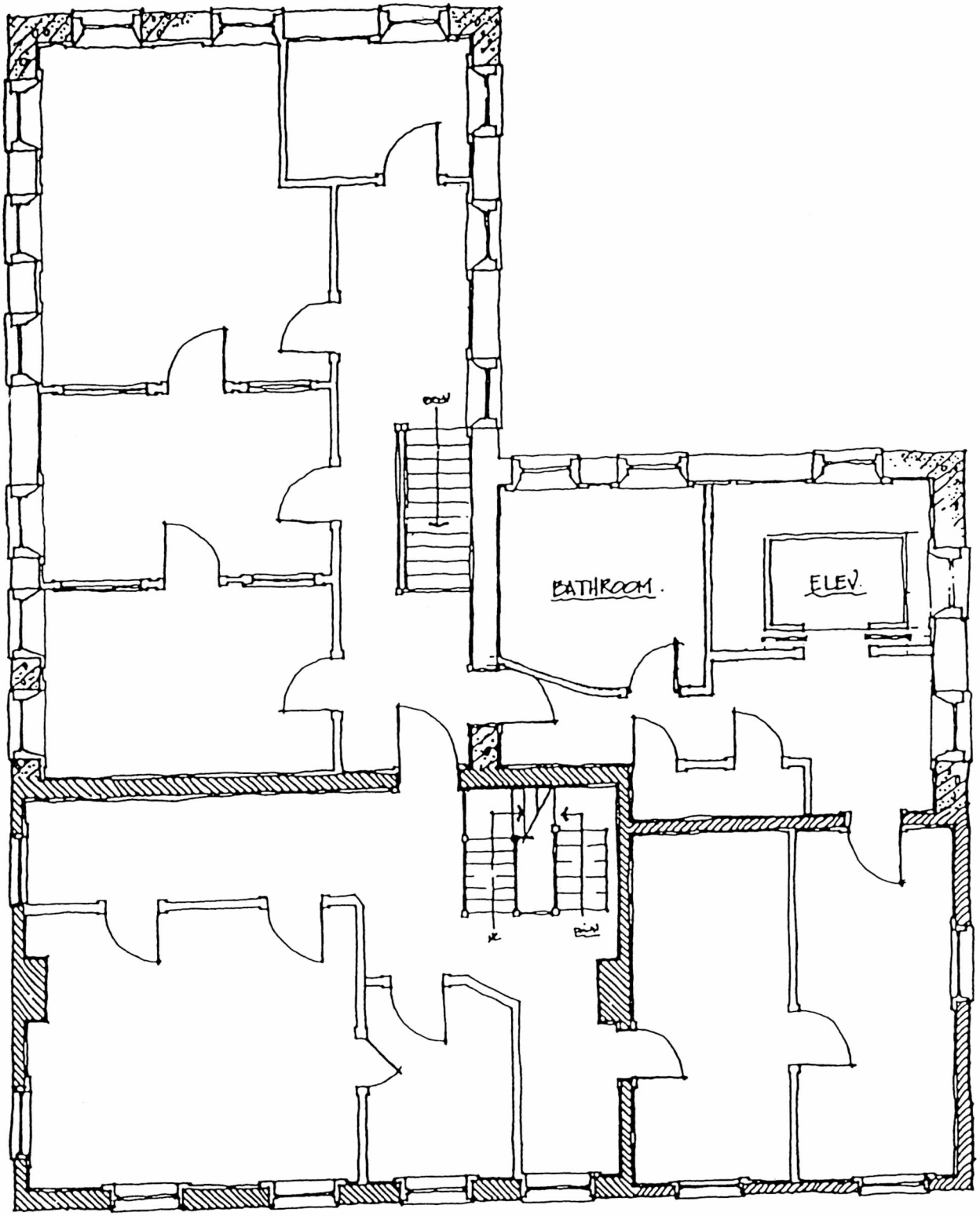
- the configuration of the offices match historical evidence
- the location presents the Civil War theme in chronological order for many visitors

Cons:

- the Dry Goods Store would have to move to 34 (Building 34 is inappropriate for the interpretive functions of the Dry Goods Store.)
- continuity of theme would be compromised for either the sales area or Taylor exhibit in the rear room (While the Provost Marshal's Office and Taylor are both Civil War, access from the rear room of the Provost Marshal's Office destroys the historical integrity gained by having a front and rear office. Such an arrangement would also force the interpreter to explain the transition. This dilutes and obscures the interpretive message of both exhibits. Such a transition to a sales area would be even more difficult.)

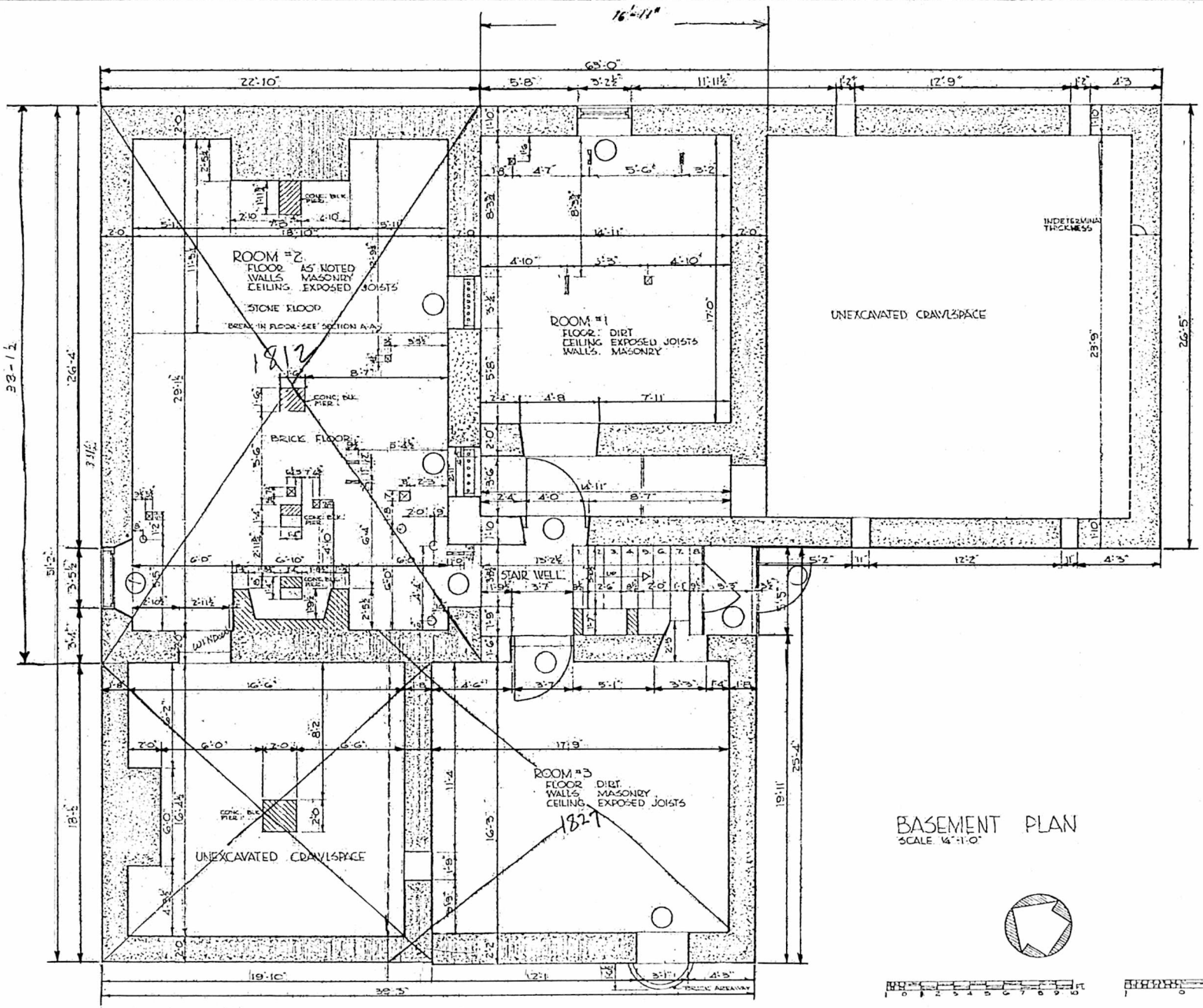

ASSOCIATION BOOK SALES
VP
STEP DOWN
RAMP DOWN
GENERAL STORE EXHIBIT
BASEMENT ACCESS
STO.
ELEV.
VESTIBULE
CASED BEAM & CHANGE IN FLOOR TEXTURE
PROVOST MARSHALL EXHIBIT
VP


CONFERENCE ROOM
BATHROOM
ELEV.
TAYLOR SKETCH ROOM
ANTEROOM
OFFICERS' QTRS. EXHIBIT


BATHROOM.
ELEV.

Appendix F. Half-size Reproductions of Large Format Drawings

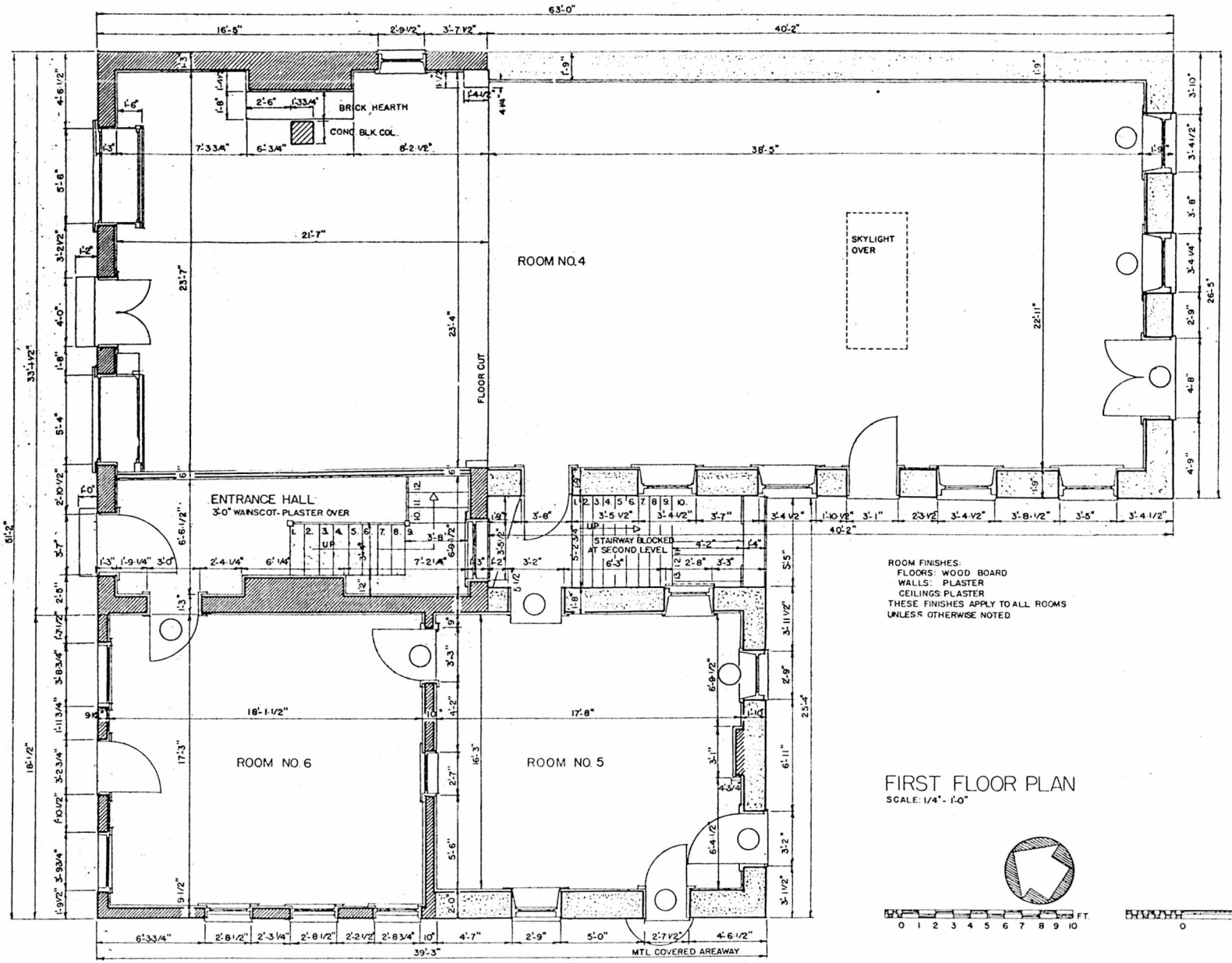
HABS Drawings (1957)



D.F. SCHROEDER W.A. WISNER - DELS.

NAME OF STRUCTURE		SURVEY NO.	HISTORIC AMERICAN BUILDINGS SURVEY	NMHF
BUILDINGS NUMBER 34 & 35			SHEET OF SHEETS	3077
HARPERS FERRY	JEFFERSON COUNTY WEST VIRGINIA			

395



ROOM FINISHES:
FLOORS: WOOD BOARD
WALLS: PLASTER
CEILINGS: PLASTER
THESE FINISHES APPLY TO ALL ROOMS UNLESS OTHERWISE NOTED

FIRST FLOOR PLAN

SCALE: 1/4"- 1'-0"

0 1 2 3 4 5 6 7 8 9 10 FT.

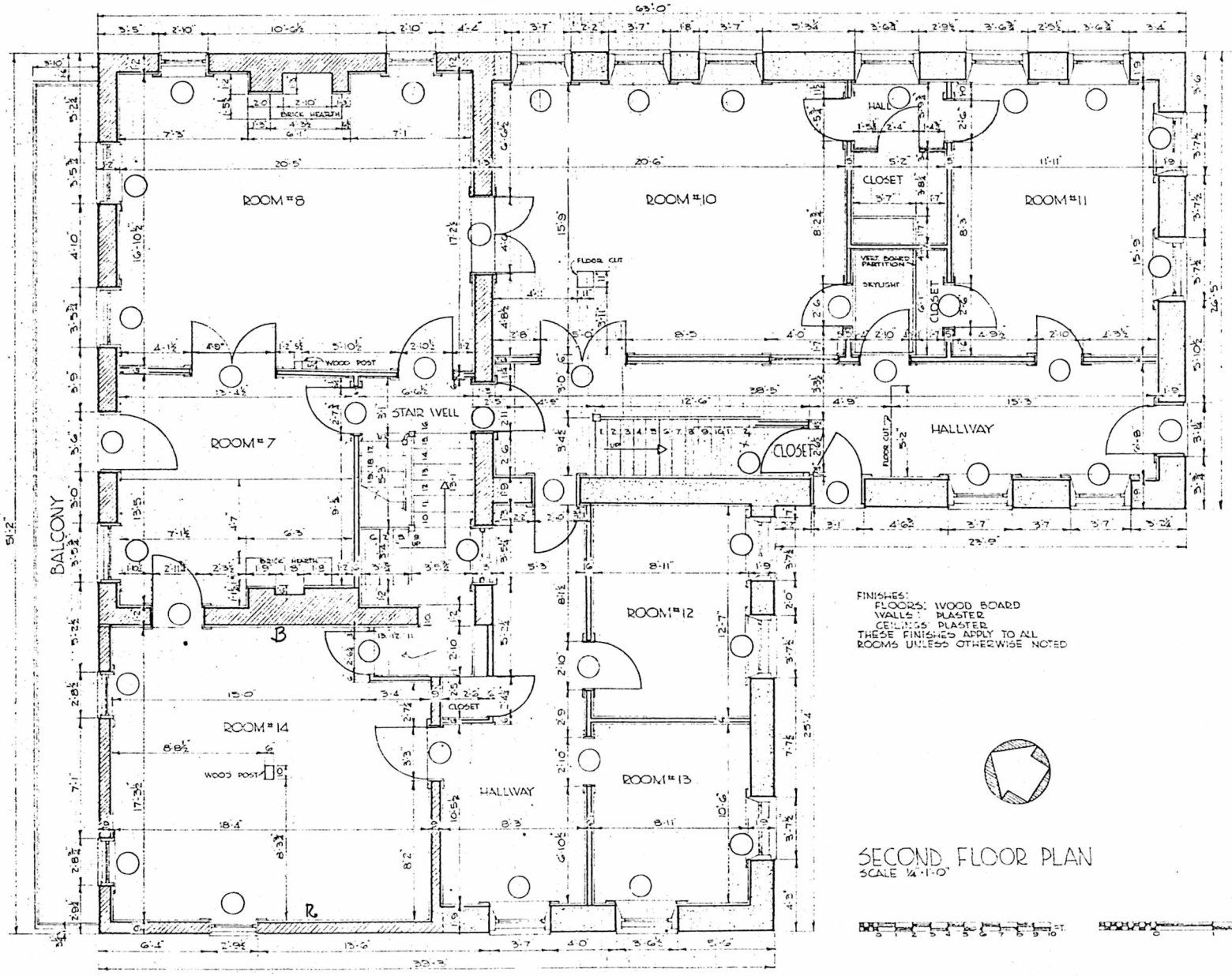
0 1 2 M.

D.F. SCHROEDER W.A. WISNER DELS.

UNDER DIRECTION OF UNITED STATES DEPARTMENT OF THE INTERIOR NATIONAL PARK SERVICE, BRANCH OF PLANS AND DESIGN	NAME OF STRUCTURE: Building 34-35 - Harper's Ferry	SURVEY NO.	HISTORIC AMERICAN BUILDINGS SURVEY SHEET OF SHEETS

396

WV-510

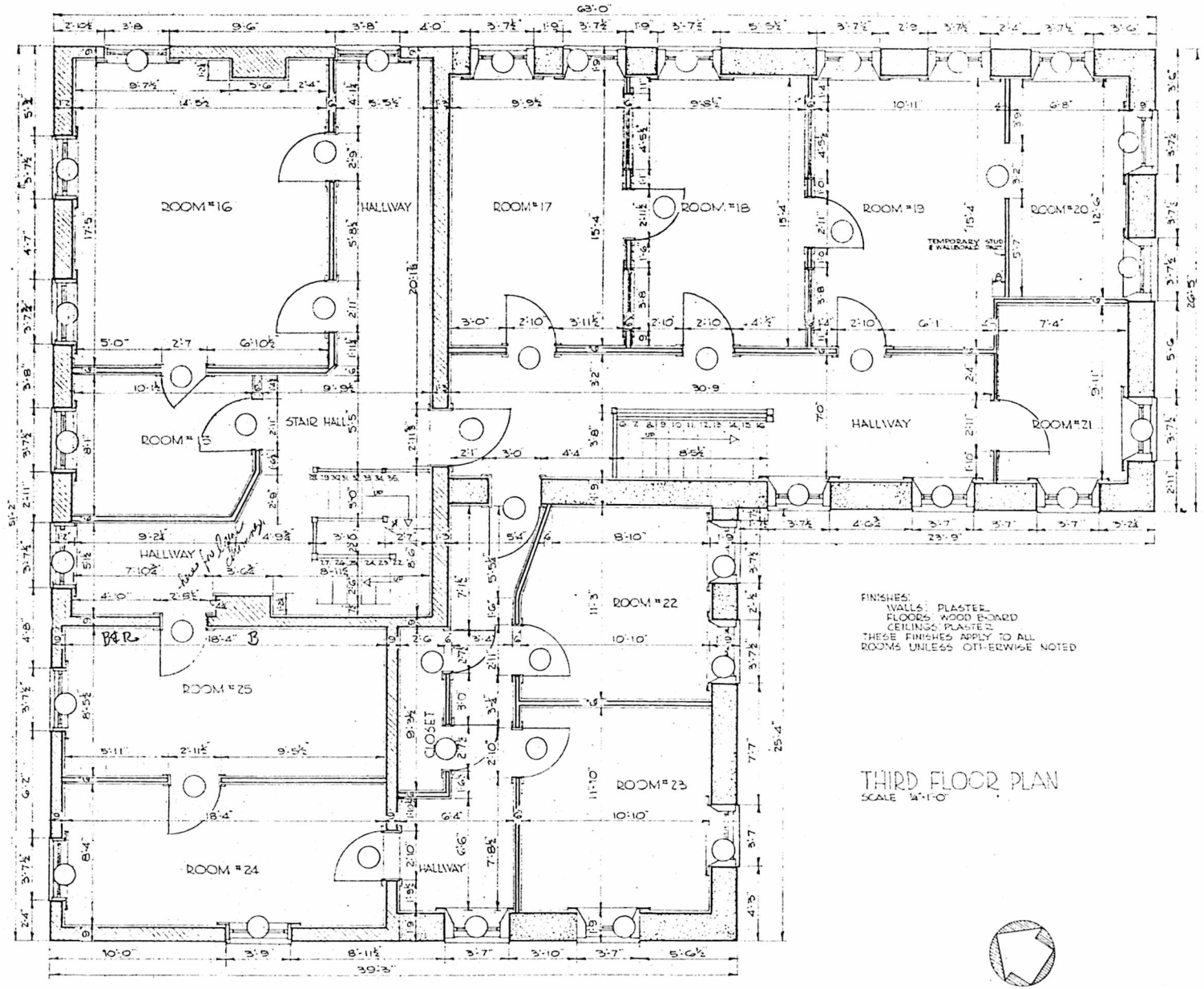


SECOND FLOOR PLAN

SCALE 1/4"-1'-0"

D.F. SCHROEDER W.A. WISNER - DELS.

NAME OF STRUCTURE		SURVEY NO.	HISTORIC AMERICAN BUILDINGS SURVEY	NMHF 3077
BUILDINGS NUMBER 34 & 35			SHEET OF SHEETS	
HARPERS FERRY	JEFFERSON COUNTY WEST VIRGINIA			



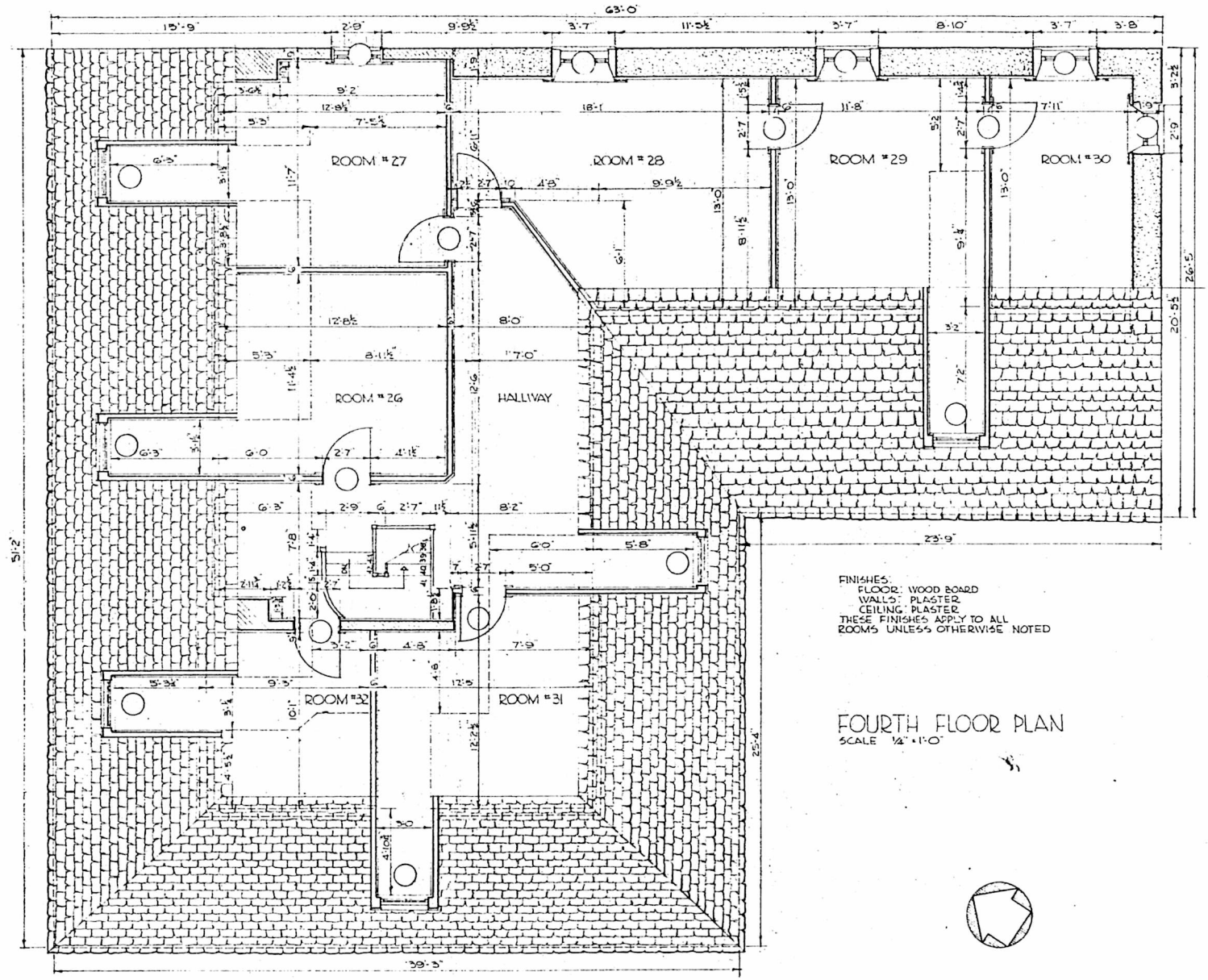
FINISHES:
WALLS: PLASTER
FLOORS: WOOD BOARD
CEILINGS: PLASTER
THESE FINISHES APPLY TO ALL ROOMS UNLESS OTHERWISE NOTED

THIRD FLOOR PLAN

SCALE 1/4"-1'-0"

D.F. SCHROEDER W.A. WIESNER - DELS.

NAME OF STRUCTURE		SURVEY NO.	HISTORIC AMERICAN BUILDINGS SURVEY	
BUILDINGS NUMBER 34 & 35			SHEET OF SHEETS	NHHF 3077
HARPERS FERRY	JEFFERSON COUNTY WEST VIRGINIA			



FINISHES:
FLOOR: WOOD BOARD
WALLS: PLASTER
CEILING: PLASTER
THESE FINISHES APPLY TO ALL ROOMS UNLESS OTHERWISE NOTED

FOURTH FLOOR PLAN

SCALE ½" = 1'-0"

D.F. SCHROEDER W.A. WISNER - DELS.

	NAME OF STRUCTURE	SURVEY NO.	HISTORIC AMERICAN BUILDINGS SURVEY	
	BUILDINGS NUMBER 34 & 35		SHEET OF SHEETS	NMHF 3077
	HARPERS FERRY — JEFFERSON COUNTY — WEST VIRGINIA			



SOUTHWEST ELEVATION

SCALE: 1/4"=1'-0"

0 1 2 3 4 5 6 7 8 9 10 FT.

0 1 2 M.

W.A. WISNER, D.F. SCHROEDER, -- DELS.

UNDER DIRECTION OF UNITED STATES DEPARTMENT OF THE INTERIOR NATIONAL PARK SERVICE, BRANCH OF PLANS AND DESIGN	NAME OF STRUCTURE	SURVEY NO.	HISTORIC AMERICAN BUILDINGS SURVEY SHEET OF SHEETS	LIBRARY OF CONGRESS INDEX NUMBER

401



NORTHWEST ELEVATION

SCALE: 1/4"=1'-0"

0 1 2 3 4 5 6 7 8 9 10 FT.

0 1 2 M.

W.A. WISNER D.F. SCHROEDER H.A. NELSON DELS.

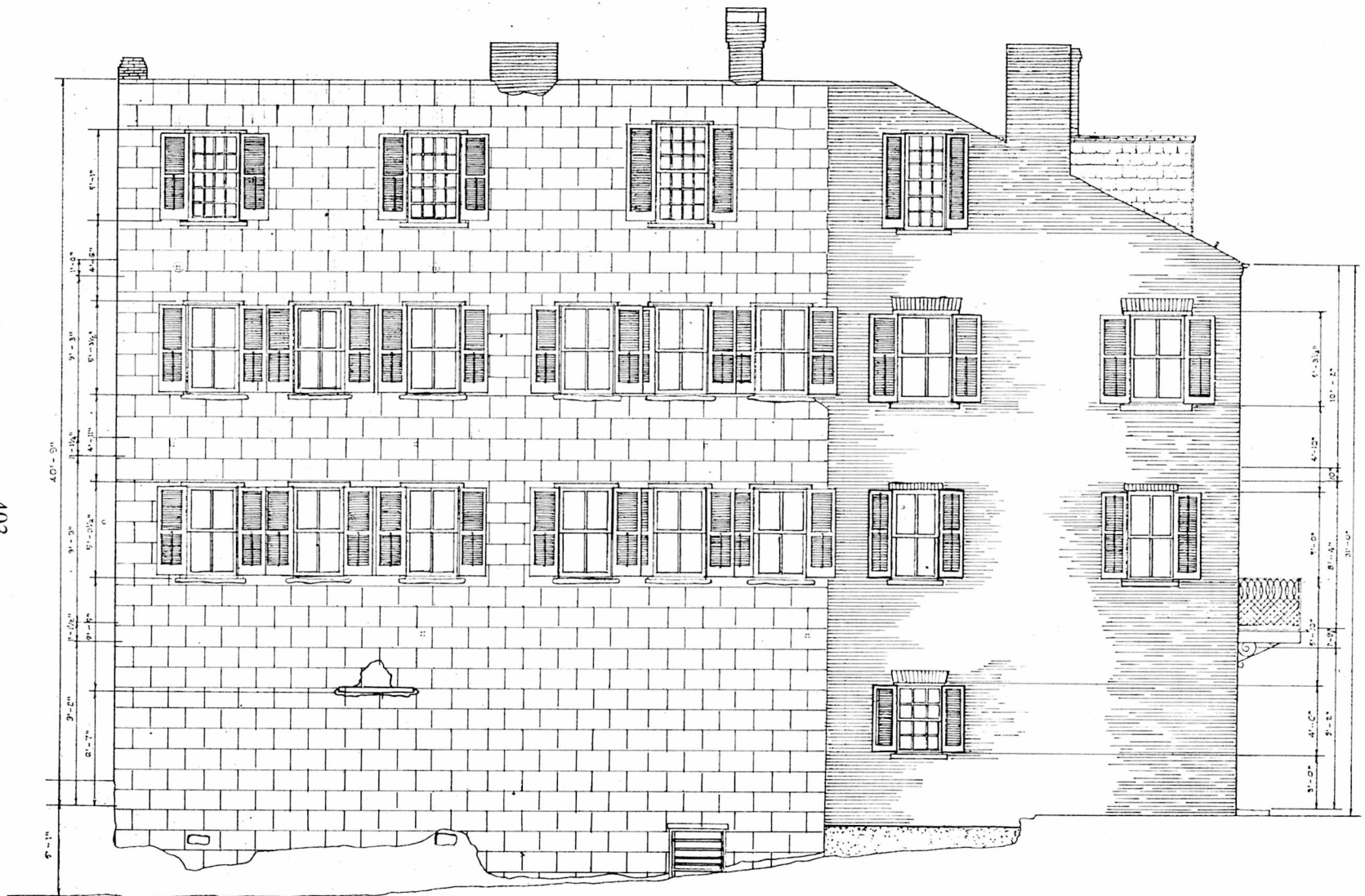
UNDER DIRECTION OF UNITED STATES DEPARTMENT OF THE INTERIOR NATIONAL PARK SERVICE, BRANCH OF PLANS AND DESIGN	NAME OF STRUCTURE	SURVEY NO.	HISTORIC AMERICAN BUILDINGS SURVEY SHEET OF SHEETS



SOUTHEAST ELEVATION
SCALE 1/4"=1'-0"

W.A.WISNER D.F.SCHROEDER-DELS

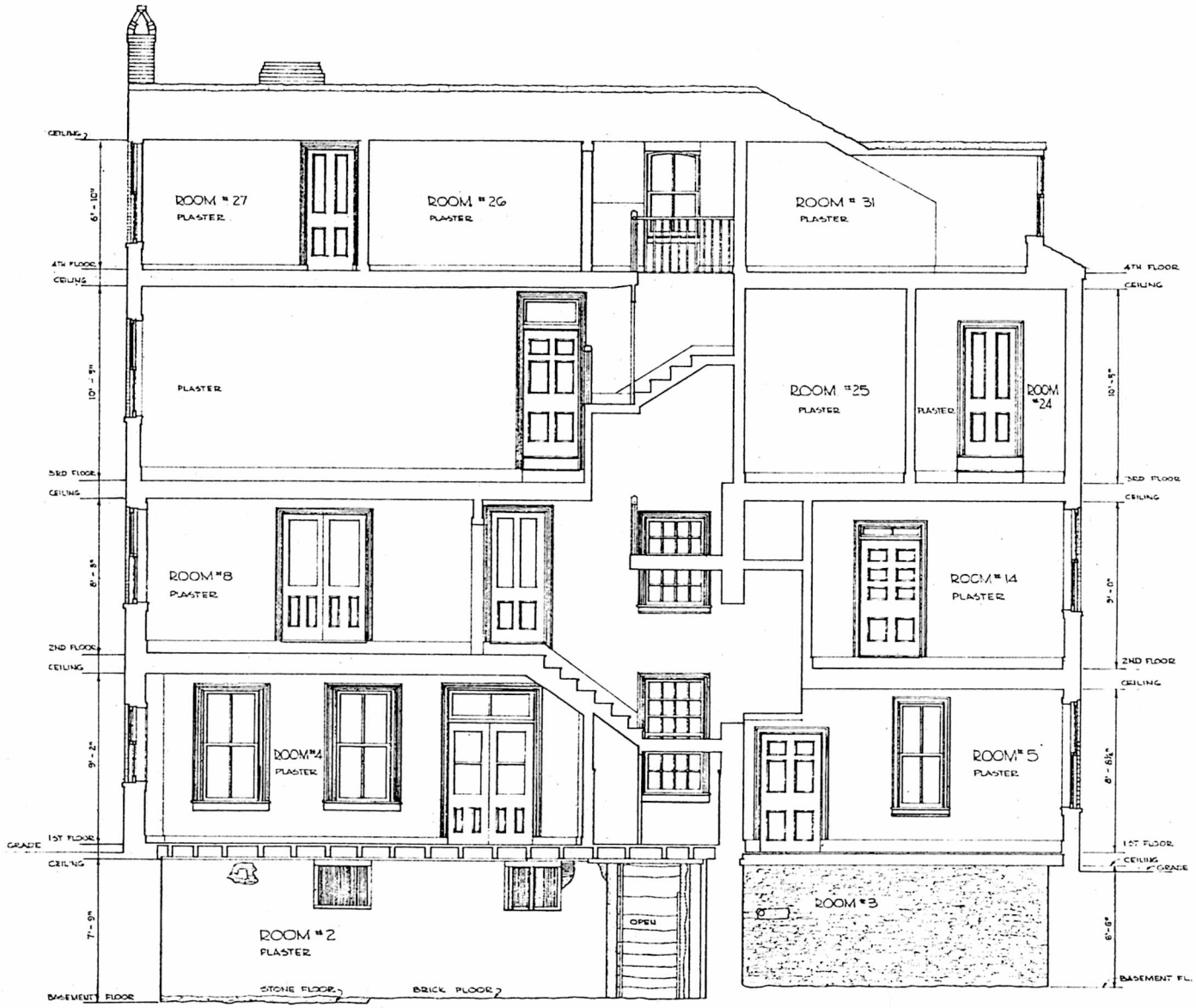
	NAME OF STRUCTURE	SURVEY NO.		
	BUILDINGS NUMBER 34 & 35		HISTORIC AMERICAN BUILDINGS SURVEY	NMHF 3077.
HARPERS FERRY	JEFFERSON COUNTY WEST VIRGINIA		SHEET OF SHEETS	



NORTHEAST ELEVATION
SCALE 1/4"=1'-0"

W.A. WISNER D.F. SCHROEDER - DELS.

NAME OF STRUCTURE		SURVEY NO.		
BUILDINGS NUMBER 34 & 35			HISTORIC AMERICAN BUILDINGS SURVEY	NMHF 3077
HARPERS FERRY	JEFFERSON COUNTY WEST VIRGINIA		SHEET OF SHEETS	



SECTION A-A
SCALE ¼" = 1'-0"

W. A. WISNER D. F. SCHROEDER - DELS.

NAME OF STRUCTURE		SURVEY NO.		
BUILDINGS NUMBER 34 & 35			HISTORIC AMERICAN BUILDINGS SURVEY	NMHF 3077
HARPERS FERRY	JEFFERSON COUNTY WEST VIRGINIA		SHEET OF SHEETS	



SECTION B-B
SCALE ½" = 1'-0"

W.A.WISNER D.F.SCHROEDER

	NAME OF STRUCTURE BUILDINGS NUMBER 34 & 35 HARPERS FERRY — JEFFERSON COUNTY — WEST VIRGINIA	SURVEY NO	HISTORIC AMERICAN BUILDINGS SURVEY SHEET OF SHEETS	NMHF 3077

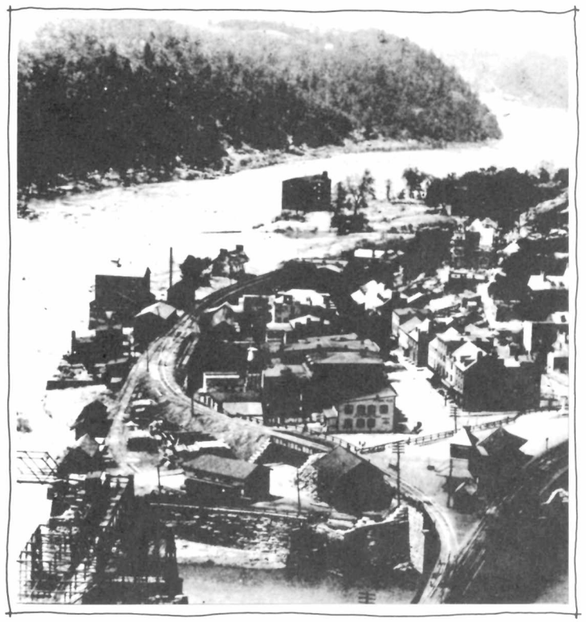
Existing Conditions and Proposed Restoration Drawings - 1992

HARPERS FERRY

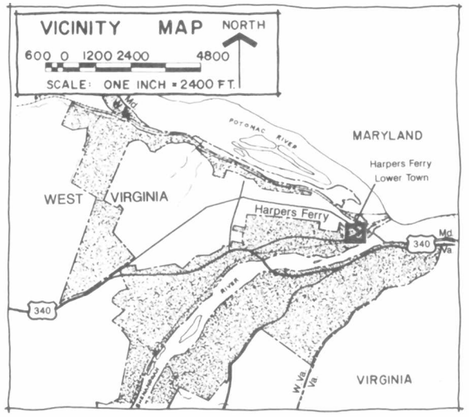
NATIONAL HISTORICAL PARK

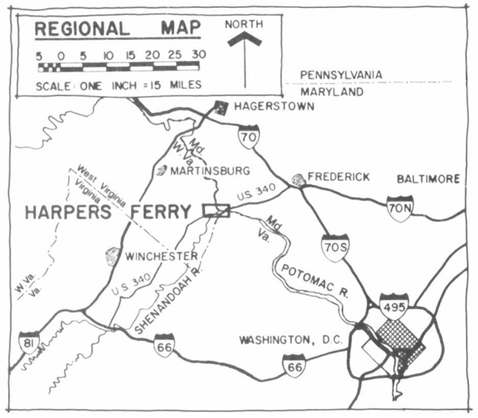
DRAWINGS
FOR THE
HISTORIC STRUCTURES REPORT

THE MC GRAW/DORAN BUILDING
AND
STORAGE BUILDING
(BUILDINGS 34-35 & 34A)









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DRAWINGS FOR HSR UNITED STATES DEPARTMENT OF THE INTERIOR NATIONAL PARK SERVICE DENVER SERVICE CENTER	DESIGNED: JNF DRAWN: – TECH. REVIEW: ASD DATE: 11/92	TITLE OF DRAWING RESTORATION/REHABILITATION LOCATION WITHIN PARK BUILDINGS 34-35 AND 34A NAME OF PARK HARPERS FERRY N.H.P. REGION: NATIONAL CAPITAL COUNTY: STATE: WEST VIRGINIA	DRAWING NO. 385 / 25,029 PKG. NO. 116 SHEET 1 OF 69

ABBREVIATIONS

AGGR	AGGREGATE	FT	FOOT/ FEET
ADJ	ADJACENT	FRM'G	FRAMING
AHU	AIR HANDLING UNIT	GALV	GALVANIZED
ALT	ALTERNATE	GA.	GAGE
ALUM	ALUMINUM	GPM	GALLONS PER MINUTE
APPROX	APPROXIMATELY	HT.	HEIGHT
@	AT	HDG	HOT DIPPED GALVANIZED
BITUM.	BITUMINOUS	HORIZ.	HORIZONTAL
BLDG	BUILDING	HP	HORSEPOWER
BOT.	BOTTOM	HWH	HOT WATER HEATER
B.R.	BACKING ROD	I.D.	INSIDE DIAMETER
B.W.	BOTH WAYS	I.J.	ISOLATION JOINT
BTWN	BETWEEN	JB	JUNCTION BOX
CFM	CUBIC FEET PER MINUTE	JT	JOINT
C.-C.	CENTER TO CENTER	LBS	POUNDS
C.I.	CAST IRON	LP	LIGHT/LAMP POLE
CJ	CONSTRUCTION JOINT	MAX.	MAXIMUM
℄	CENTERLINE	MAT.	MATERIAL
CL	CLOSET	MIN.	MINUTE
CLR	CLEAR	MH	MANHOLE
CMU	CONCRETE MASONRY UNIT	NS	NO SCALE
COL	COLUMN	NTS	NOT TO SCALE
CONC	CONCRETE	NOM.	NOMINAL
COND	CONDITION	NO.	NUMBER
CONT	CONTINUOUS	O.C.	ON CENTER
COMP	COMPACTED	O.D.	OUTSIDE DIAMETER
CU.FT.	CUBIC FEET	OPNG	OPENING
DET.	DETAIL	PL.	PLATE
DIA.	DIAMETER	PSF	POUNDS PER SQUARE FOOT
D.I.P.	DUCTILE IRON PIPE	PSI	POUNDS PER SQUARE INCH
DTL	DETAIL	PVC	POLYVINYL CHLORIDE (PIPE)
DWGS	DRAWINGS	R	RADIUS
DWL'D	DOWELED	REBAR	REINFORCING BAR
EA.	EACH	REQ'D	REQUIRED
EL./ELEV.	ELEVATION	REINF	REINFORCING REINFORCED
E.M.C.	ELECTRIC METAL CONDUIT	RPM	REVOLUTIONS PER MINUTE
E.C.	ELECTRICAL CONDUIT	SCHD	SCHEDULE
E.W.	EACH WAY	SECT.	SECTION
EXIST.	EXISTING	SF	SQUARE FOOT/ FEET
EJ	EXPANSION JOINT	SHT.	SHEET
EQ	EQUAL	SPECS	SPECIFICATIONS
EQUIP.	EQUIPMENT	STL	STEEL
EXT	EXTERIOR	STD	STANDARD
F&B	FRONT AND BACK	STRUCT.	STRUCTURAL
FIN.GR.	FINISH GRADE	TEL	TELEPHONE
FD	FLOOR DRAIN	THK	THICKNESS
FNDTN	FOUNDATION	TYP.	TYPICAL
FS	FULL SIZE	W/	WITH
F.H.	FIRE HYDRANT	WWF	WELDED WIRE FABRIC
		W.I.	WROUGHT IRON
		Y.D.	YARD DRAIN

SYMBOLS

- LP — LIGHT POLE
- WF — WATER FOUNTAIN
- WMH — WATER MANHOLE
- WV — WATER VALVE
- F.H. — FIRE HYDRANT
- EXISTING FENCE
- --268-- EXISTING CONTOUR
- 269 — NEW CONTOUR
- SMH — SANITARY SEWER MANHOLE
- EMH — ELECTRIC MANHOLE
- CB — CATCH BASIN INLET
- EXISTING TREE TO REMAIN
- TREE TO BE REMOVED
- NEW TREE
- 267€3 — EXISTING SPOT ELEVATION
- 27042 — PROPOSED SPOT ELEVATION
- AREA OF VISIBLE CRACKS RELEASE OF PLASTER
- AREAS OF LOOSE RELEASING PLASTER
- AREAS OF EXPOSED WOOD LATH OVER JOISTS
- AREAS OF EXPOSED BRICK
- AREAS OF EXPOSED STONE
- PLYWOOD

- ROOM CALLOUT
- WINDOW CALLOUT : SEE SCHEDULE
- DOOR CALLOUT : SEE SCHEDULE
- CONCRETE BLOCK WALL (IN PLAN AND SECTION)
- STONE (IN SECTION)
- BRICK WALL
- STUD WALL
- COMPACTED OR EXISTING SOIL
- CONCRETE (IN SECTION)
- BITUMINOUS PAVING (IN SECTION)
- AREAS TO BE SEEDED OR SODDED
- CONCRETE WALK OR RAMP (IN PLAN)
- AGGREGATE BASE (IN SECTION)
- WOOD (IN PLAN)
- GRAVEL (IN PLAN)
- —W— WATER LINE (SIZE)
- —S— SAITARY SEWER LINE
- —UE— UNDERGROUND ELECTRIC
- —UT— UNDERGROUND TELEPHONE
- VALVE (TYPE OF LINE)
- —ST— STORM SEWER LINE
- —C— CABLE LINES
- —J— JUNCTION BOX

DESIGNED: —	SUB SHEET NO.	TITLE OF SHEET: ABBREVIATIONS AND LEGEND — BUILDINGS 34, 35 & 34A — HARPERS FERRY N.H.P.	DRAWING NO. 385 25,024
DRAWN: AR STEELE			PKG. NO. 116
TECH. REVIEW: ASD			SHEET 2 OF 88
DATE: 11/92			

SHENANDOAH STREET

6" GRANITE CURB

ACCESS TO 2ND TO 4TH FLOORS BUILDING 33

269.40

BOLLARDS

268.61

WF

WOODEN SWING GATE

CONC. WALK

BLDG. 35

BLDG. 34

BLDG. 36

BLDG. 33
(DORAN)

ACCESSIBLE ROUTE

CONC.

WOOD

BLDG. 34A

MARKET STREET

267.82

269.65

CABLE ACCESS

C

CONC PAD BENEATH WOOD STAIRS

BLDG. 33A

E

ACCESS TO UE

T

ACCESS TO UT

EXISTING STONE WALL

ACCESS TO BASEMENT BUILDING 33A

266.99

267.92

266.79

268.00

BLDG. 32

265.95

267.63

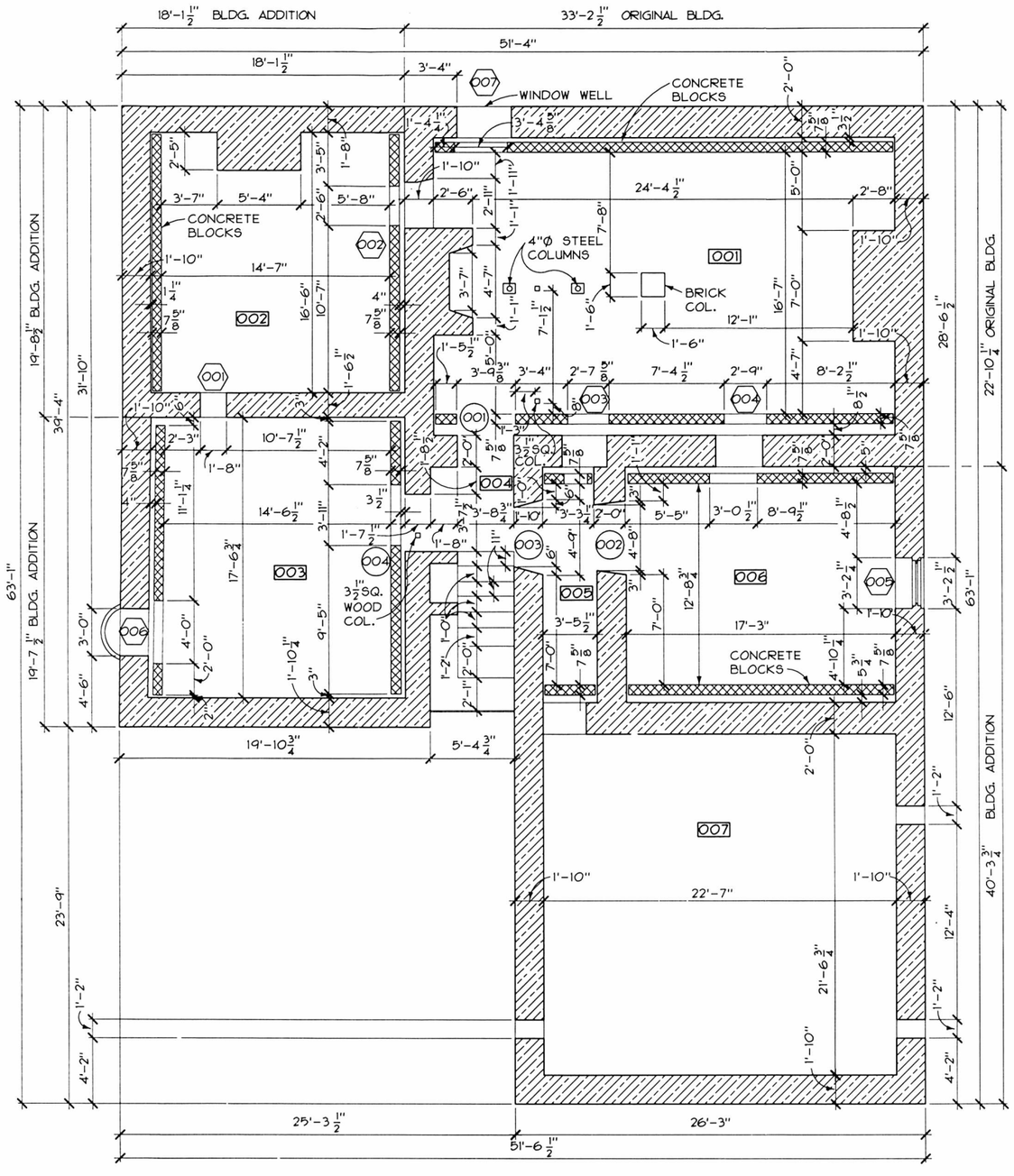
EXISTING STONE ABUTMENT TO RAILROAD TRESTLE

8 0 8 16
SCALE OF FEET

BASED ON JANUARY, 1991, SURVEYED SITE PLAN BY:
DEWBERRY AND DAVIS
ARCHITECTS, ENGINEERS, PLANNERS AND SURVEYORS

1/3 SITE PLAN

DESIGNED: —	SUB SHEET NO.	TITLE OF SHEET: SITE PLAN	DRAWING NO. 385 25,024
CADD: J. NAHODYL		BUILDINGS 34, 35 & 34A	PKG. NO. 116
TECH. REVIEW: ASD		HARPERS FERRY N.H.P.	SHEET 3 OF 69
DATE: 11/92			

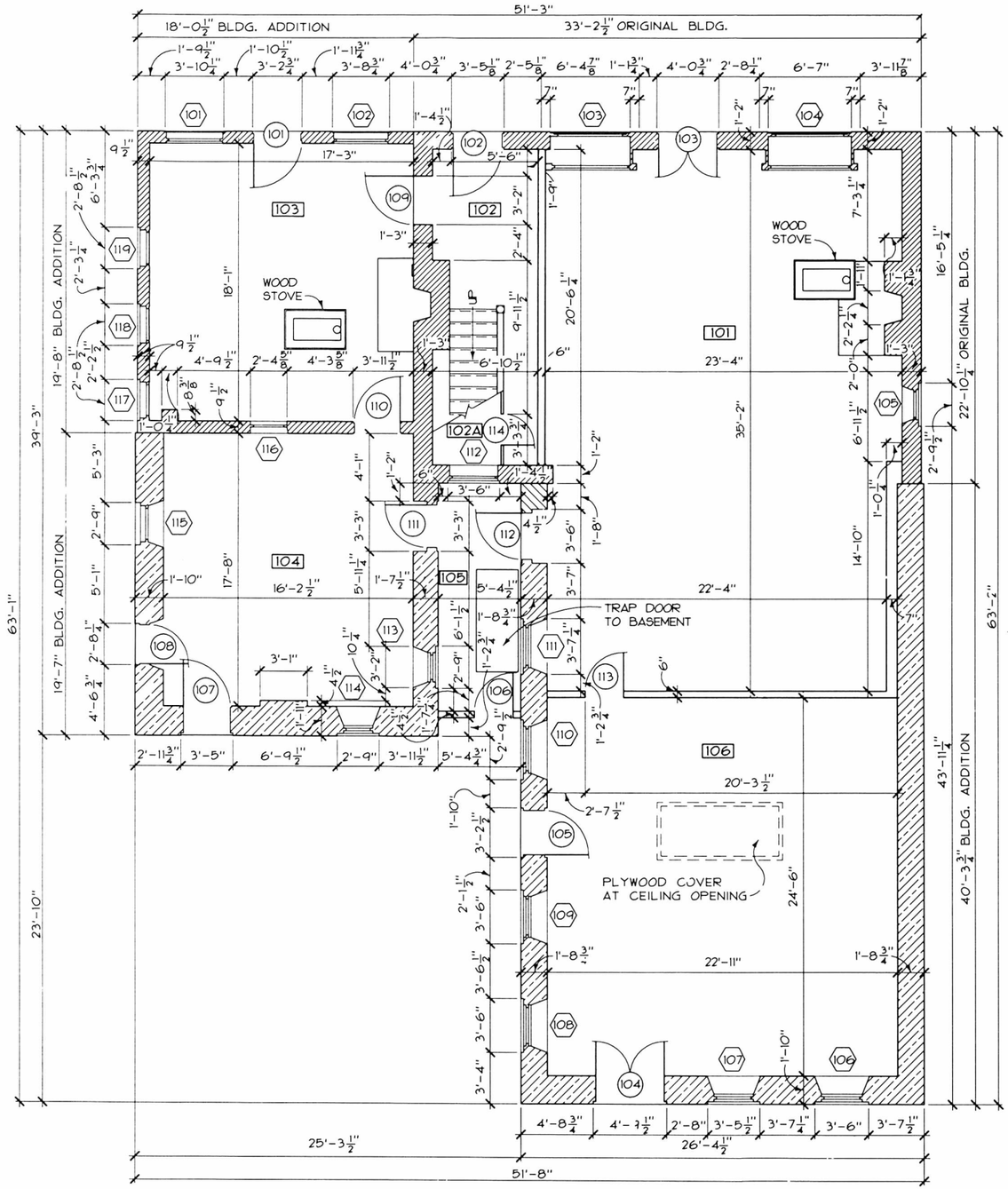


1/4 BASEMENT FLOOR PLAN

SCALE OF METERS 1 0 1 2 3

SCALE OF FEET 4 0 4 8

DESIGNED: —	SUB SHEET NO.	TITLE OF SHEET: BASEMENT FLOOR PLAN	DRAWING NO. 385 25.024
DRAWN: J.B. L.FARKASH		BUILDING 34 & 35 HARPERS FERRY N.H.P.	PKG. NO. 116 — —
TECH. REVIEW: ASD			SHEET 4 69
DATE: 11/92			

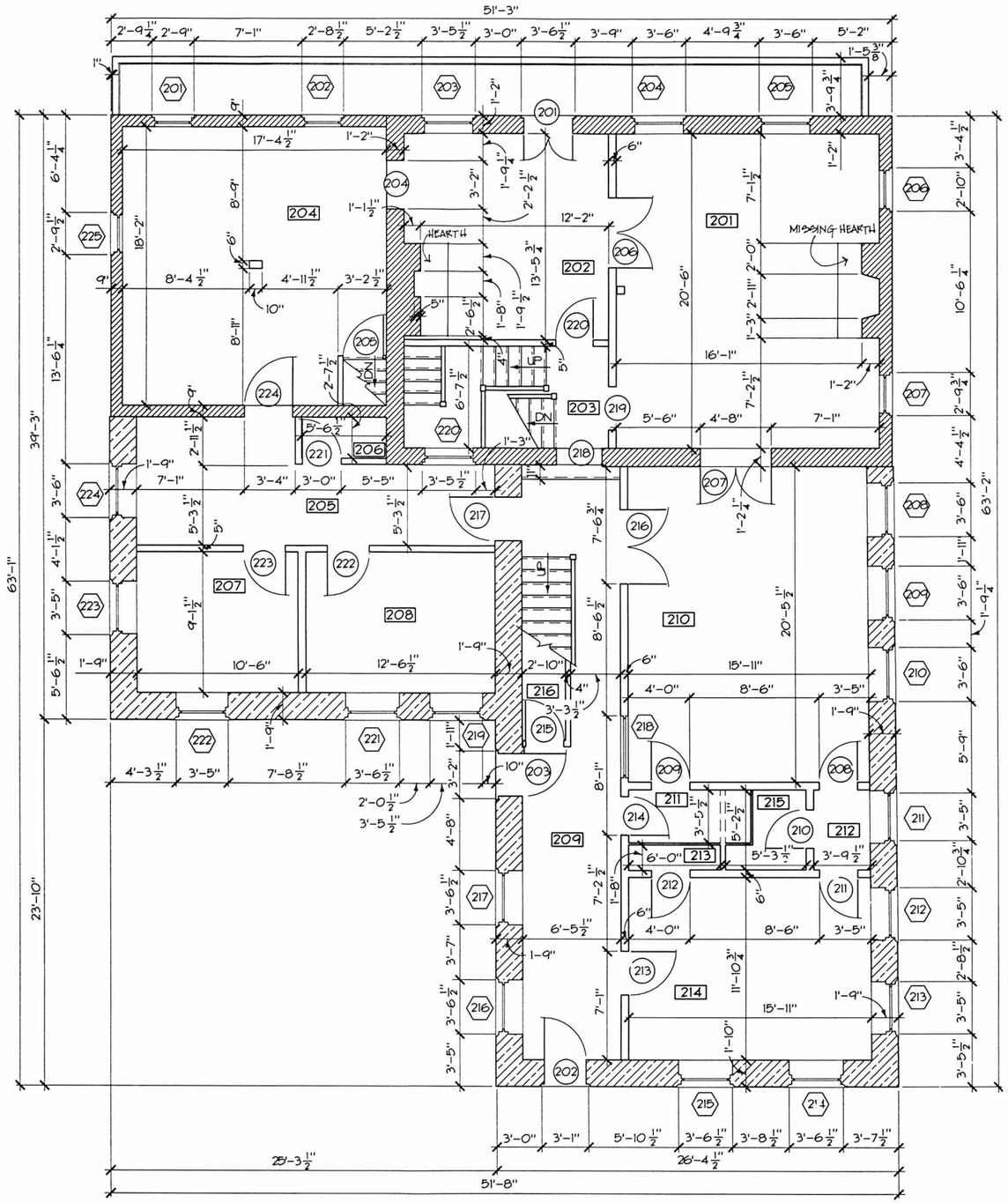


1/5 FIRST FLOOR PLAN

1 0 1 2 3
SCALE OF METERS

4 0 4 8
SCALE OF FEET

DESIGNED: GADD L.F. INTERPRETER TECH. REVIEW: ASD DATE: 11/92	SUB SHEET NO.	TITLE OF SHEET FIRST FLOOR PLAN BUILDING 34 & 35 HARPERS FERRY N.H.P.	DRAWING NO. 385 25,024 PKG. NO. 116 5 69

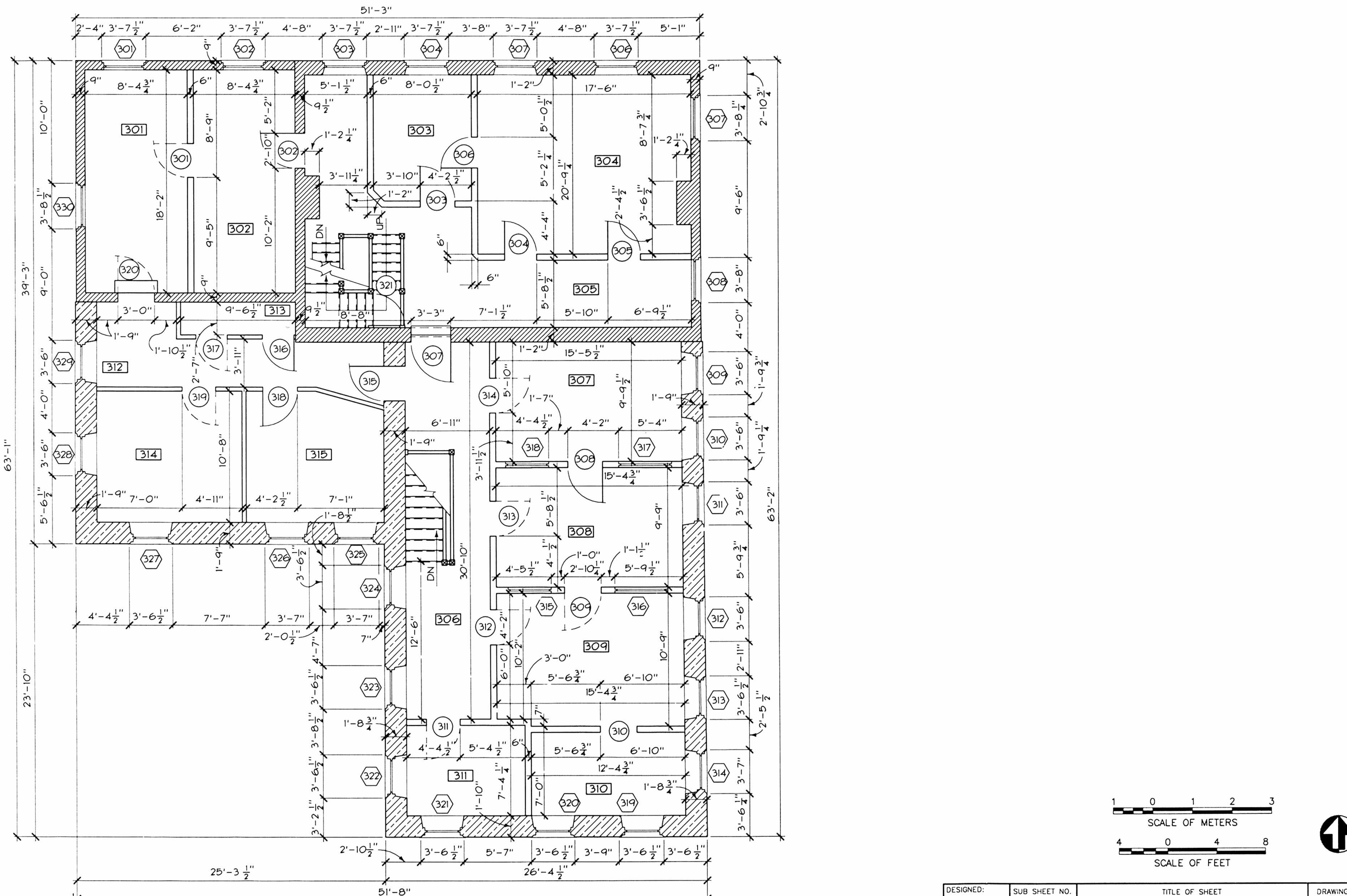


1/6 SECOND FLOOR PLAN

SCALE OF METERS 1 0 1 2 3

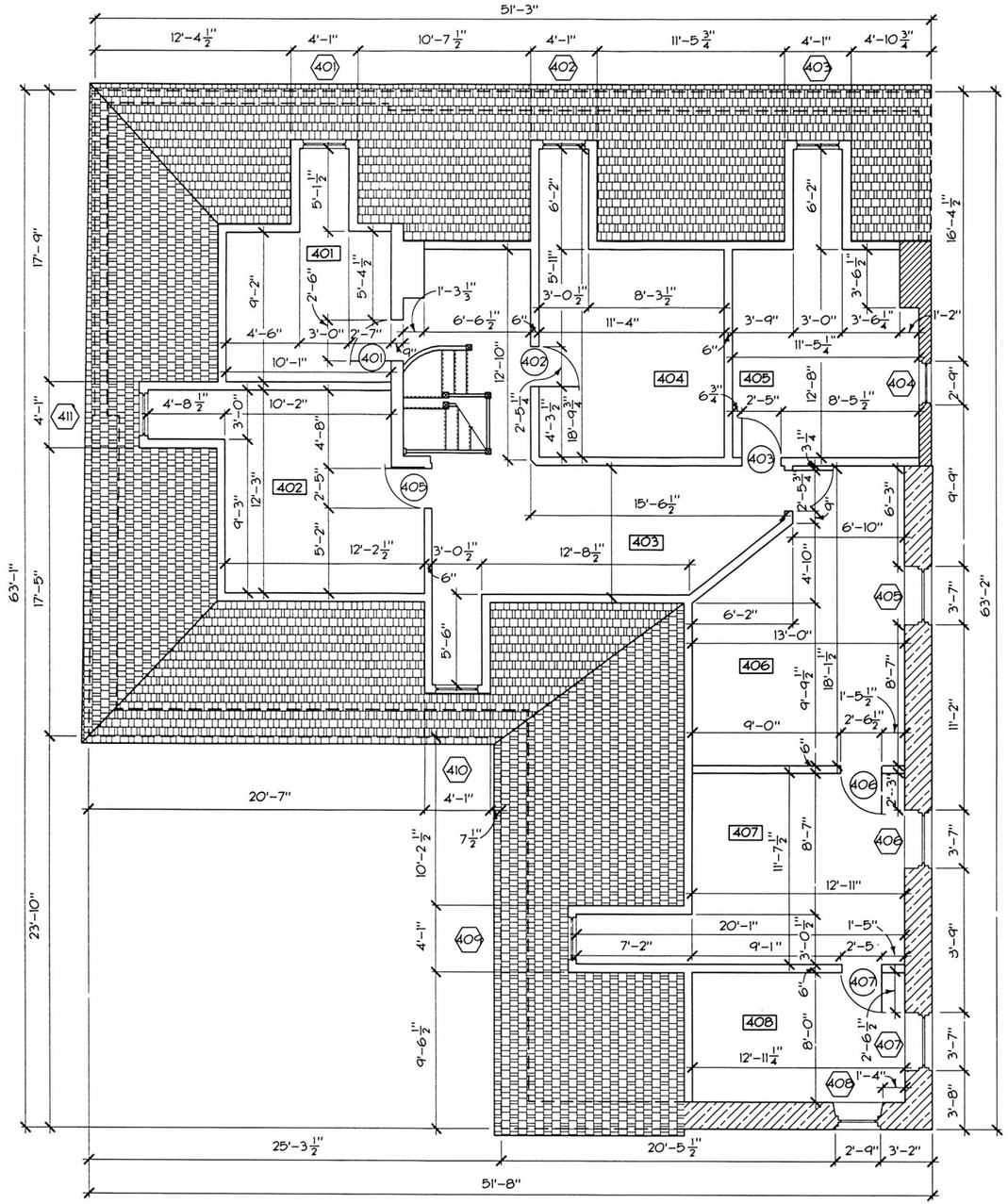
SCALE OF FEET 0 0 4 8

DESIGNED: — ADD STEELE DJ SIKES TECH. REVIEW: ASD DATE: 11/92	SUB SHEET NO.	TITLE OF SHEET: SECOND FLOOR PLAN — BUILDING 34 & 35 HARPERS FERRY N.H.P.	DRAWING NO. 385 25,024	PKG. NO. 116 — — SHEET 6 69



1/7 THIRD FLOOR PLAN

DESIGNED: —	SUB SHEET NO.	TITLE OF SHEET	DRAWING NO.
CADD LF, JB DJ SIKES		THIRD FLOOR PLAN	385 / 25,024
TECH. REVIEW: ASD		BUILDING 34 & 35	PKG. NO. 116
DATE: 11/92		HARPERS FERRY N.H.P.	7 / 69

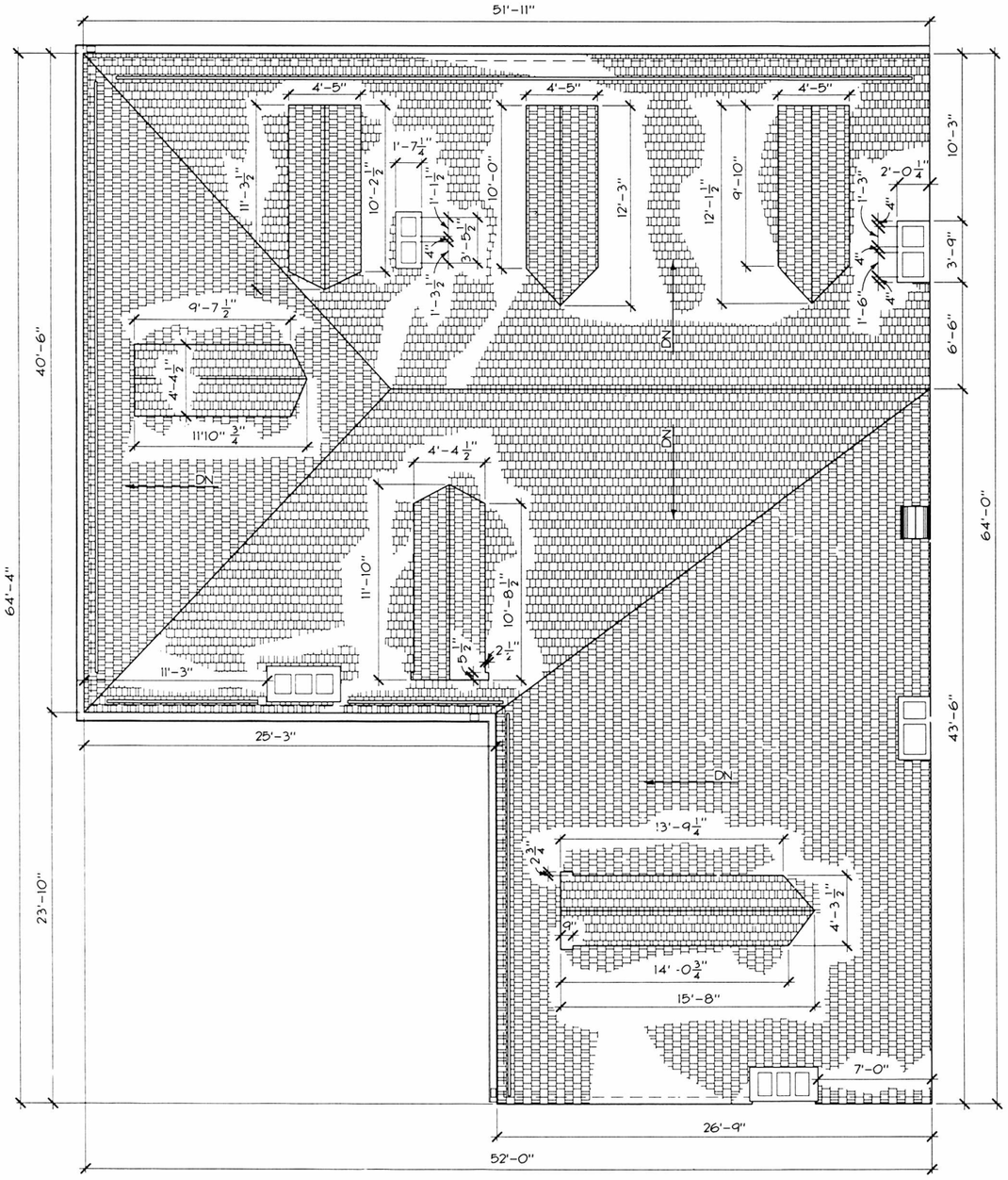


1 FOURTH FLOOR PLAN
8

1 0 1 2 3
SCALE OF METERS

4 0 4 8
SCALE OF FEET

DESIGNED: —	SUB SHEET NO.	TITLE OF SHEET: FOURTH FLOOR PLAN	DRAWING NO. 385 25,024
CADD L.F. JE TOFT		BUILDING 34 & 35 HARPERS FERRY N.H.P.	PKG. NO. 116
TECH. REVIEW: ASD			SHEET 8 OF 69
DATE: 11/92			



1/9 ROOF PLAN

1 0 1 2 3
SCALE OF METERS

4 0 4 8
SCALE OF FEET

DESIGNED: — R.R. DJ SIKES TECH. REVIEW: ASD DATE: 11/92	SUB SHEET NO.	TITLE OF SHEET ROOF PLAN BUILDING 34 & 35 HARPERS FERRY N.H.P.	DRAWING NO. 385 25,024 PKG. NO. 116 — — 9 ~~89~~



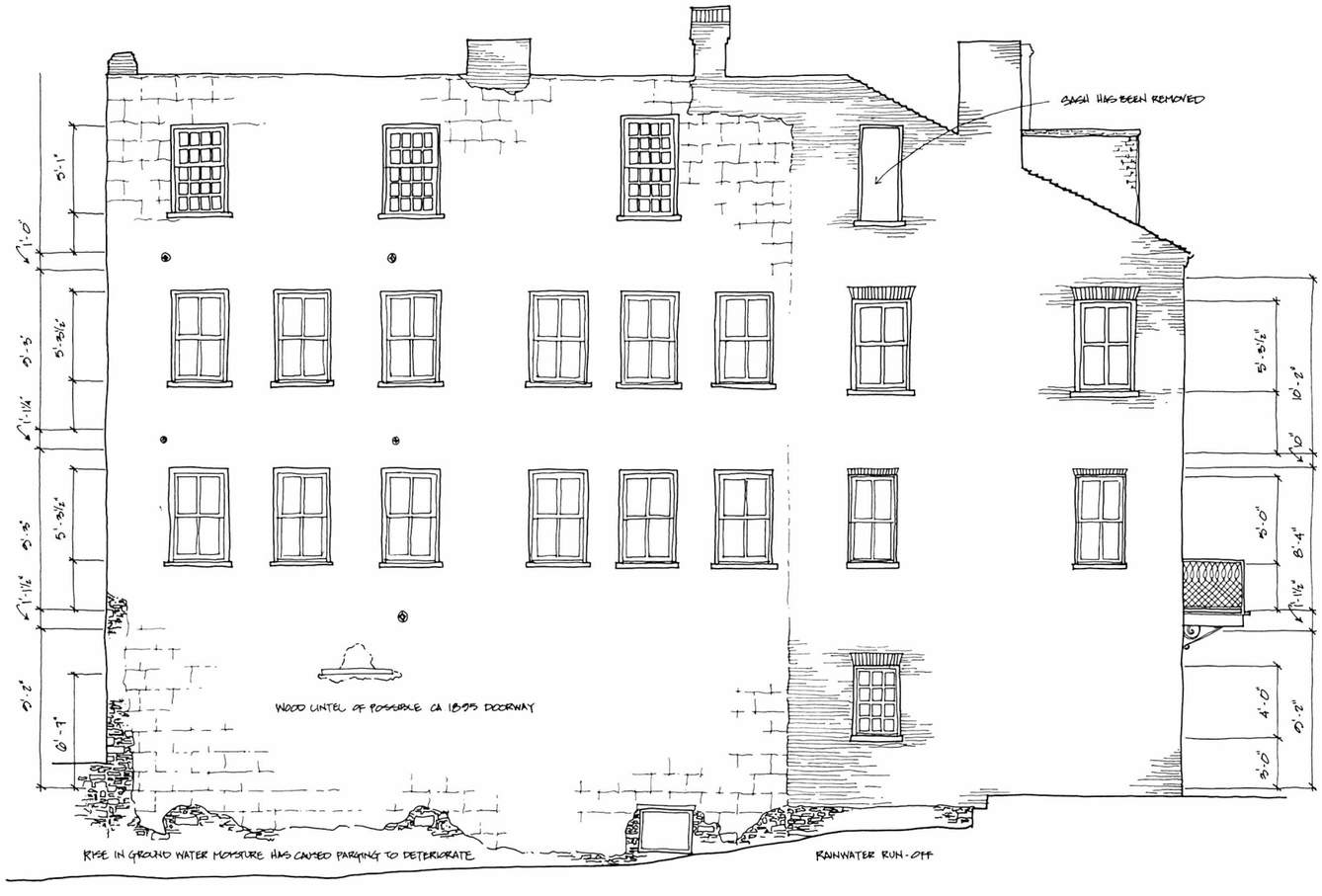
1/10 NORTH ELEVATION

BASED ON 1957 HABS DRAWINGS BY W.A. WISNER D.F. SCHRODER AND H.A. NELSON

1 0 1 2 3
SCALE IN METERS

4 0 4 8
SCALE IN FEET

DESIGNED: —	SUB SHEET NO.	TITLE OF SHEET: NORTH ELEVATION	DRAWING NO. 385 25,029
DRAWN: JNF			PKG. NO. 116
TECH. REVIEW: ASD		BUILDINGS 34 & 35 HARPERS FERRY N.H.P.	SHEET 10 OF 69
DATE: 11/92			



1 0 1 2 3
SCALE IN METERS

4 0 4 8
SCALE IN FEET

1/11 EAST ELEVATION

BASED ON 1957 HABS DRAWINGS BY W.A. WISNER AND D.F. SCHRODER

DESIGNED: —	SUB SHEET NO.	TITLE OF SHEET: EAST ELEVATION	DRAWING NO. 385 / 25,029
DRAWN: JNF		BUILDINGS 34 & 35	PKG. NO. —
TECH. REVIEW: ASD		HARPERS FERRY N.H.P.	SHEET 11 OF 69
DATE: 11/92			



1 0 1 2 3
SCALE IN METERS

4 0 4 8
SCALE IN FEET

1/12 SOUTH ELEVATION

BASED ON 1957 HABS DRAWINGS BY W.A. WISNER AND D.F. SCHRODER

DESIGNED: —	SUB SHEET NO.	TITLE OF SHEET	DRAWING NO.
DRAWN: JNF		SOUTH ELEVATION	385 25,029
TECH. REVIEW: ASD		BUILDINGS 34 & 35 HARPERS FERRY N.H.P.	PKG. NO. — SHEET 12
DATE: 11/92			OF 69



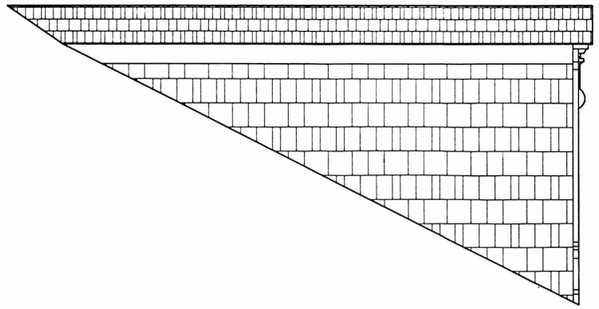
1 0 1 2 3
SCALE IN METERS

4 0 4 8
SCALE IN FEET

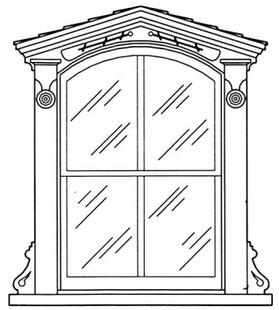
1/13 WEST ELEVATION

BASED ON 1957 HABS DRAWINGS BY W.A. WISNER AND D.F. SCHRODER

DESIGNED: —	SUB SHEET NO.	TITLE OF SHEET: WEST ELEVATION	DRAWING NO. 385 / 25,029
DRAWN: JNF		BUILDINGS 34 & 35	PKG. NO. —
TECH. REVIEW: ASD		HARPERS FERRY N.H.P.	SHEET 13 OF 69
DATE: 11/92			

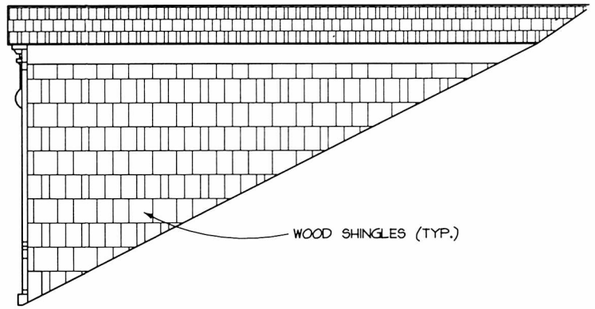


EAST

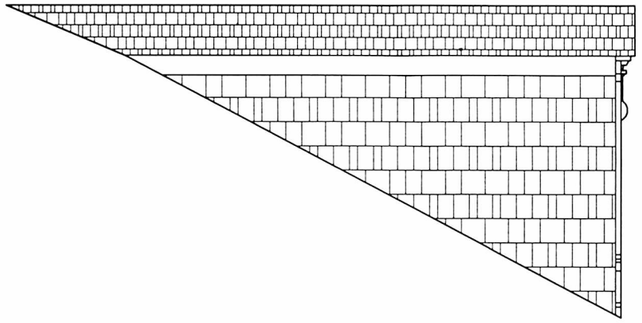


NORTH

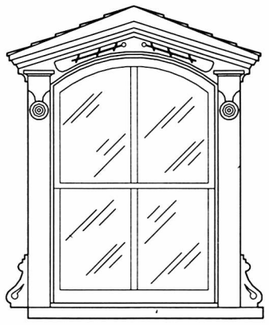
DORMER 1



WEST

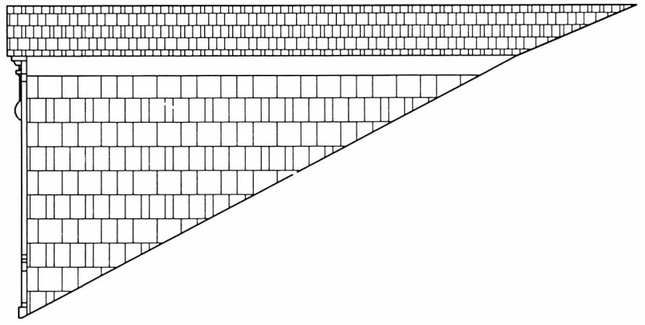


EAST

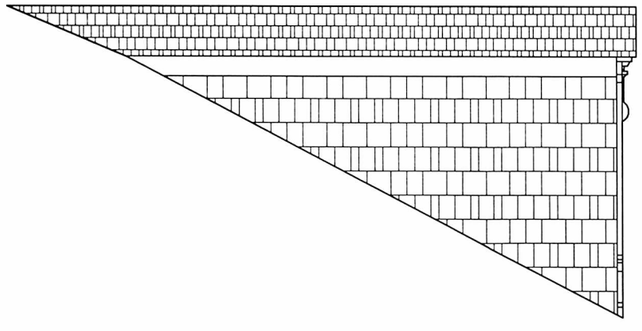


NORTH

DORMER 2



WEST

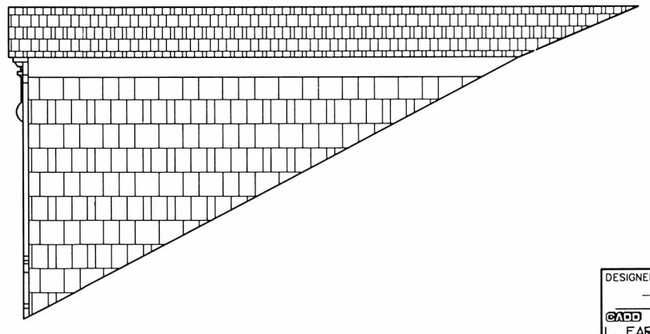


EAST

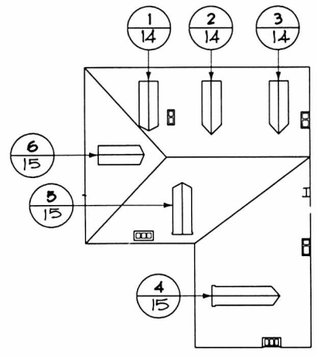


NORTH

DORMER 3



WEST



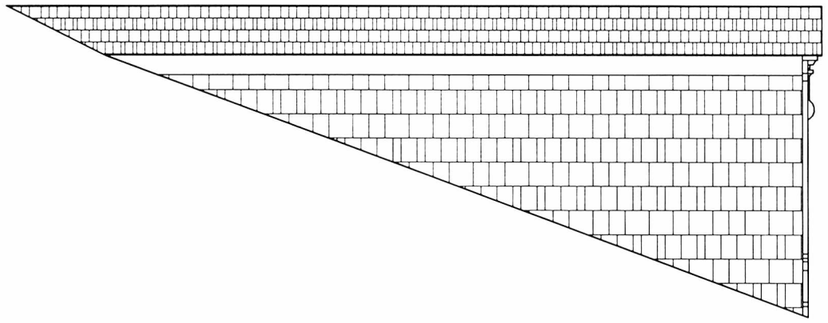
ROOF KEY PLAN

NTS

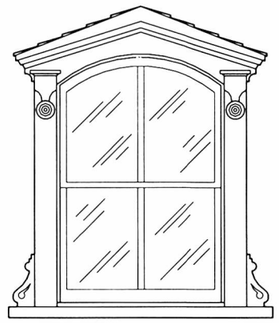
1 0 1 2 3

SCALE OF FEET

DESIGNED: — CADD L. FARKASH; TECH. REVIEW: ASD; DATE: 11/92	SUB SHEET NO.	TITLE OF SHEET: EXTERIOR ELEVATIONS DORMERS 1, 2 & 3 — BUILDING 34 & 35 — HARPERS FERRY N.H.P.	DRAWING NO. 385 25,024	PKG. NO. 116
				SHEET 14 69

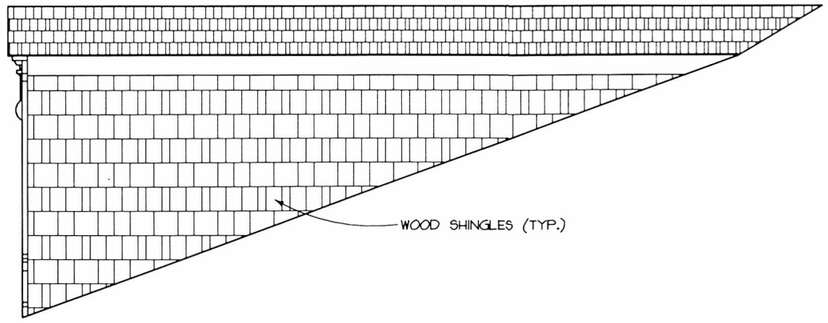


NORTH

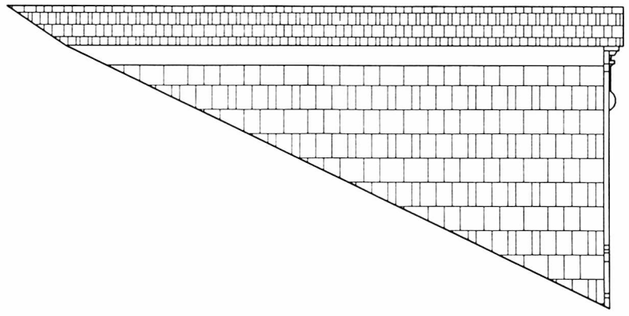


WEST

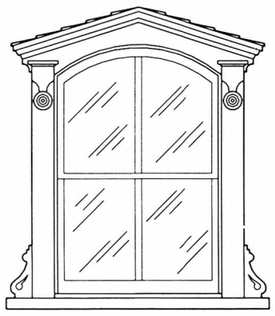
DORMER 4



SOUTH

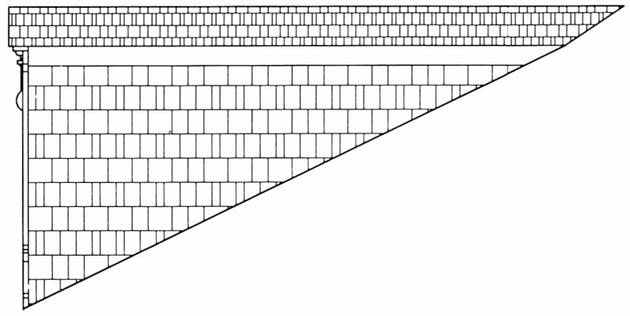


WEST

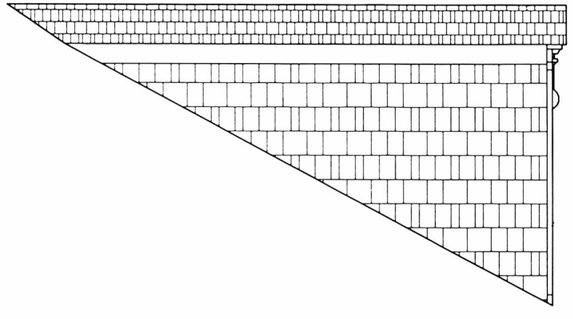


SOUTH

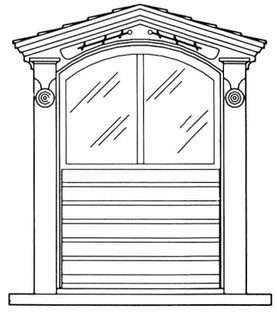
DORMER 5



EAST

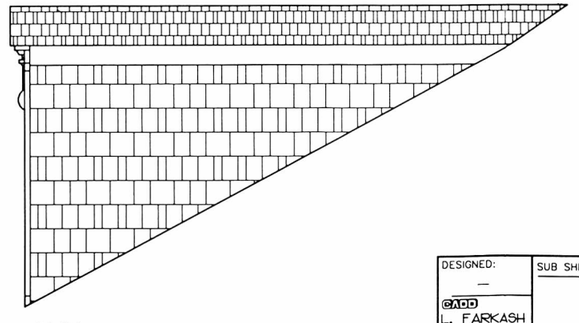


NORTH

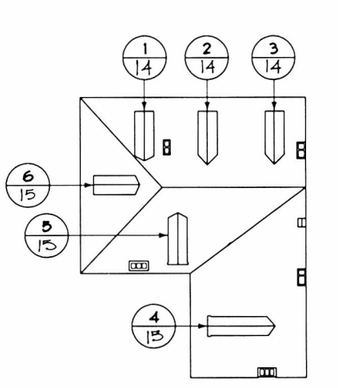


WEST

DORMER 6



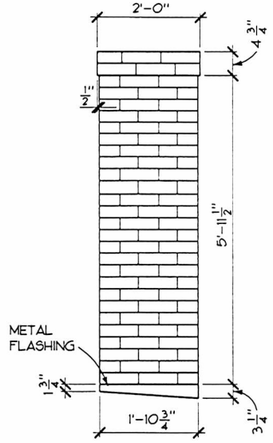
SOUTH



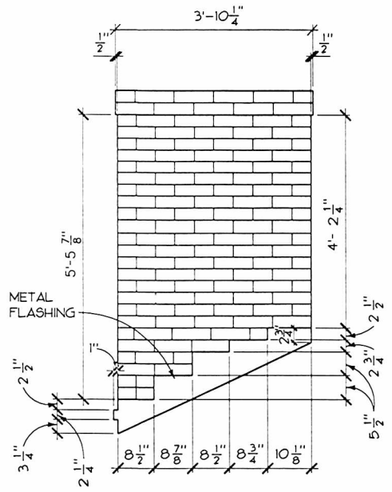
ROOF KEY PLAN
NTS

1 0 1 2 3
SCALE OF FEET

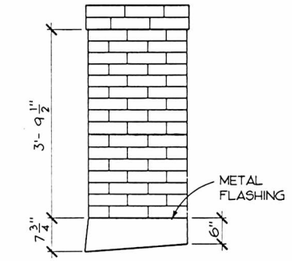
DESIGNED: — CADD L. FARKASH TECH. REVIEW: ASD DATE: 11/92	SUB SHEET NO.	TITLE OF SHEET EXTERIOR ELEVATIONS DORMERS 4, 5 & 6 BUILDING 34 & 35 HARPERS FERRY N.H.P.	DRAWING NO. 385 25,024 PKG. NO. 116 15 69



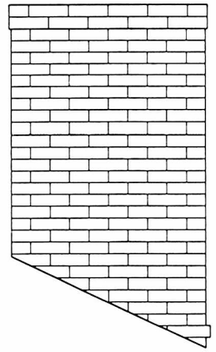
1/16 CHIMNEY #1
NORTH ELEVATION



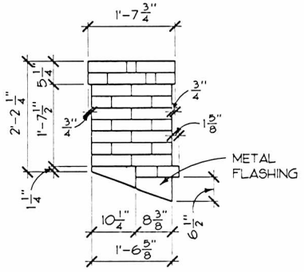
CHIMNEY #1
WEST ELEVATION



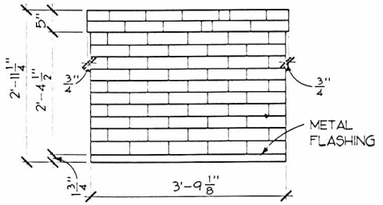
CHIMNEY #1
SOUTH ELEVATION



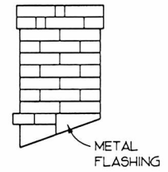
CHIMNEY #1
EAST ELEVATION



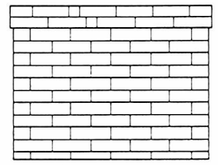
3/16 CHIMNEY #3
NORTH ELEVATION



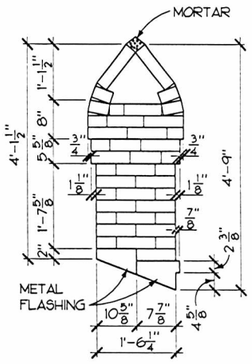
CHIMNEY #3
WEST ELEVATION



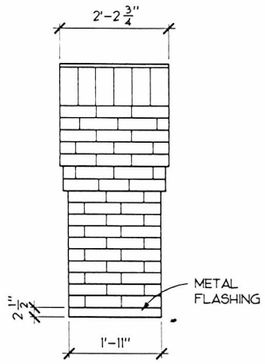
CHIMNEY #3
SOUTH ELEVATION



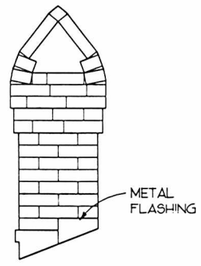
CHIMNEY #3
EAST ELEVATION



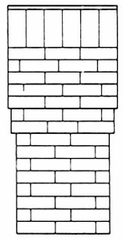
2/16 CHIMNEY #2
NORTH ELEVATION



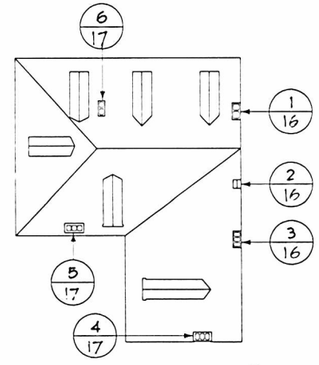
CHIMNEY #2
WEST ELEVATION



CHIMNEY #2
SOUTH ELEVATION



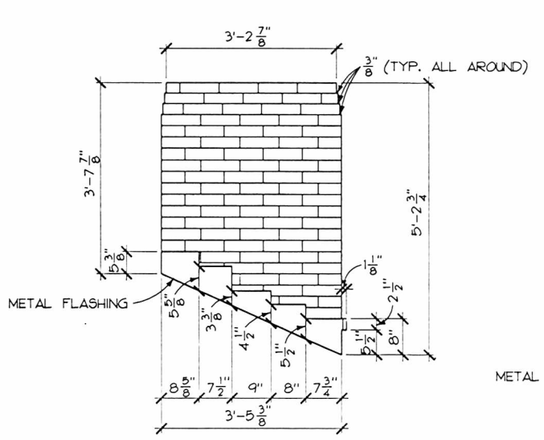
CHIMNEY #2
EAST ELEVATION



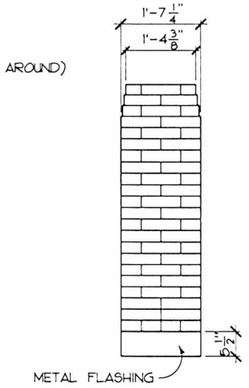
ROOF KEY PLAN
NTS

1 0 1 2 3
SCALE OF FEET

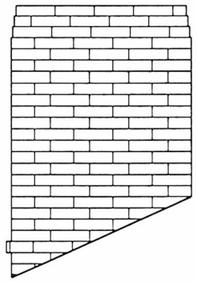
DESIGNED: — CADD DJS J. BENDORF; TECH. REVIEW: ASD; DATE: 11/92	SUB SHEET NO.	TITLE OF SHEET: CHIMNEY ELEVATIONS — BUILDING 34 & 35 — HARPERS FERRY N.H.P.	DRAWING NO. 385 25,024; PKG. NO. 116; SHEET 16 OF 69



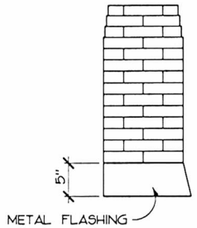
4/17 CHIMNEY #4 NORTH ELEVATION



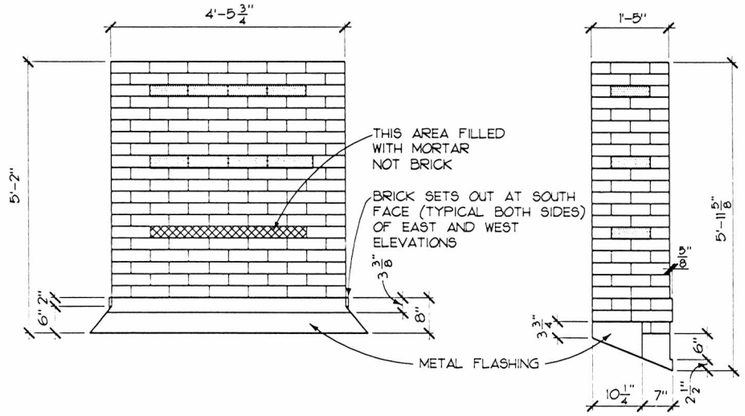
CHIMNEY #4 WEST ELEVATION



CHIMNEY #4 SOUTH ELEVATION

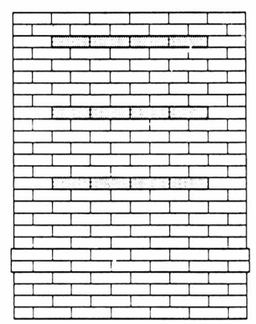


CHIMNEY #4 EAST ELEVATION

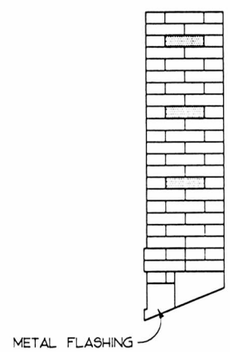


5/17 CHIMNEY #5 NORTH ELEVATION

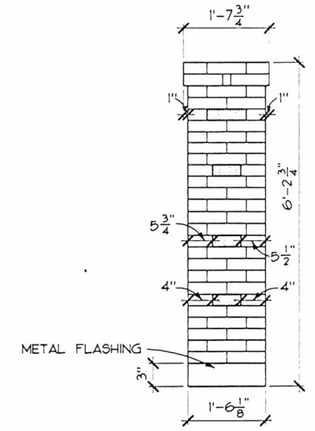
CHIMNEY #5 WEST ELEVATION



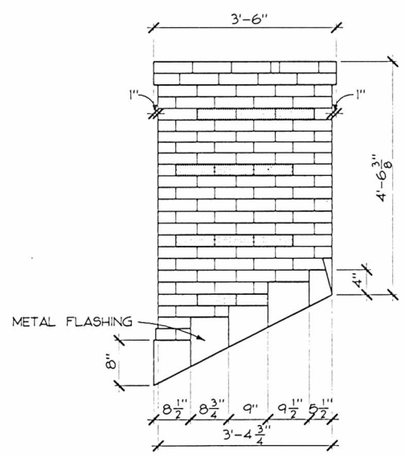
CHIMNEY #5 SOUTH ELEVATION



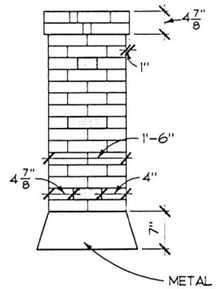
CHIMNEY #5 EAST ELEVATION



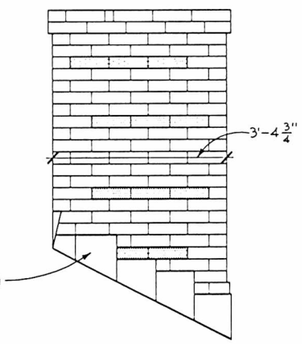
6/17 CHIMNEY #6 NORTH ELEVATION



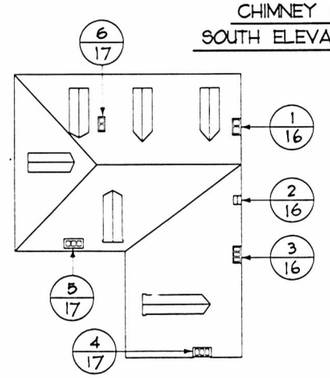
CHIMNEY #6 WEST ELEVATION



CHIMNEY #6 SOUTH ELEVATION



CHIMNEY #6 EAST ELEVATION

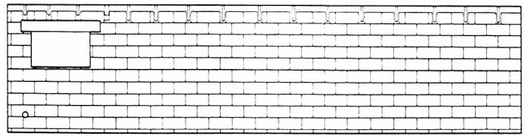


ROOF KEY PLAN
NTS

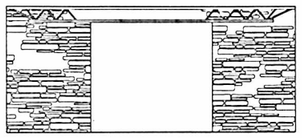
NOTE
SHADED AREAS OF BRICK ARE AREAS WHERE THE BRICKS ARE RECESSED 3/8" FROM THE OTHER BRICKS

1 0 1 2 3
SCALE OF FEET

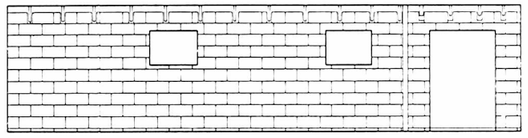
DESIGNED: — ADD DJS; J. BENDORF; TECH. REVIEW: ASD; DATE: 11/92	SUB SHEET NO.	TITLE OF SHEET: CHIMNEY ELEVATIONS — BUILDING 34 & 35 — HARPERS FERRY N.H.P.	DRAWING NO. 385 25,025; PKG. NO. 116; SHEET 17 OF 69



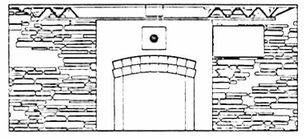
NORTH



EAST



SOUTH

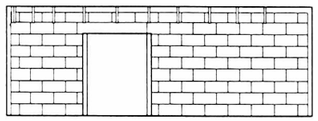


WEST

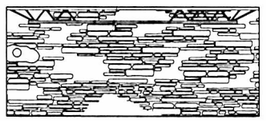
ROOM 001



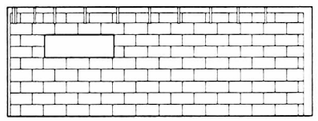
NORTH



EAST

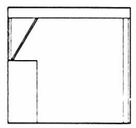


SOUTH

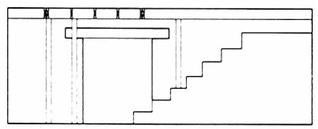


WEST

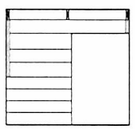
ROOM 003



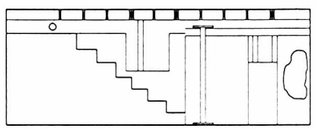
NORTH



EAST

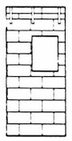


SOUTH

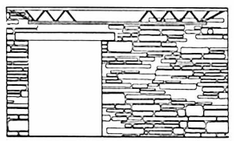


WEST

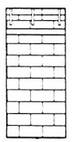
ROOM 004



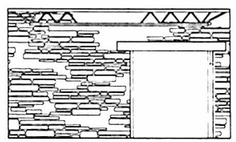
NORTH



EAST

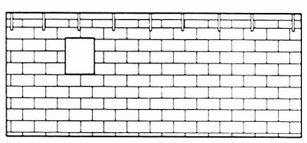


SOUTH

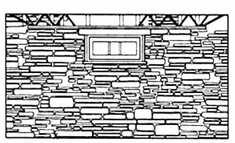


WEST

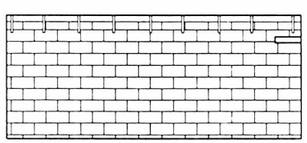
ROOM 005



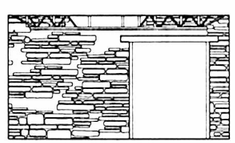
NORTH



EAST



SOUTH



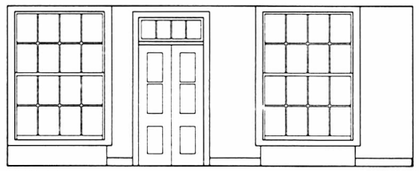
WEST

ROOM 006

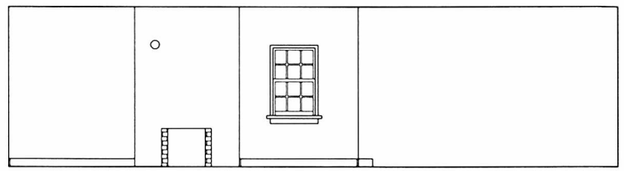
NOTE:
INTERIOR ELEVATIONS ARE SCHEMATIC DRAWINGS.
ALL MEASUREMENTS WILL NEED TO BE VARIFIED.

4 0 4 8
SCALE OF FEET

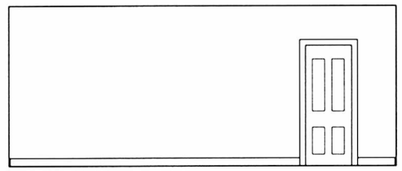
DESIGNED: —	SUB SHEET NO.	TITLE OF SHEET: INTERIOR ELEVATIONS BASEMENT	DRAWING NO. 335 25,024
CADD: L. RUEDA		BUILDING 34 & 35	PKG. NO. 116
TECH. REVIEW: ASD		HARPERS FERRY N.H.P.	SHEET 18 OF 69
DATE: 11/92			



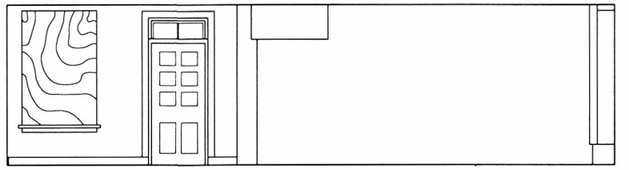
NORTH



EAST

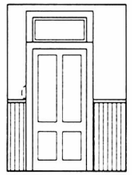


SOUTH

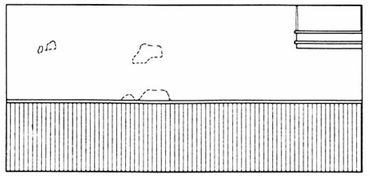


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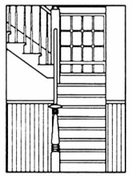
ROOM 101



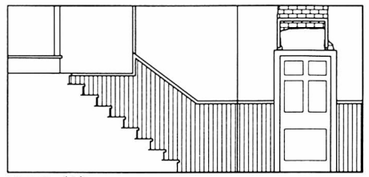
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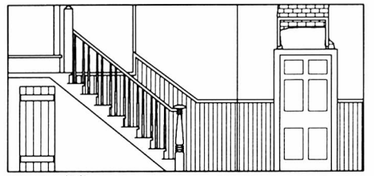
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SOUTH

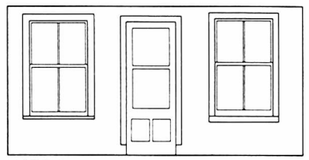


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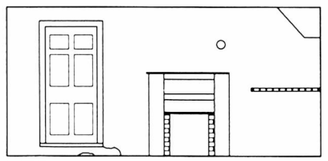


WEST (B)

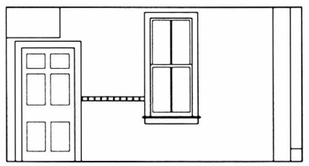
ROOM 102



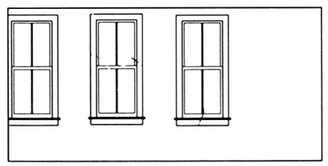
NORTH



EAST

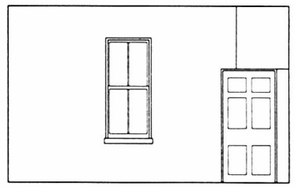


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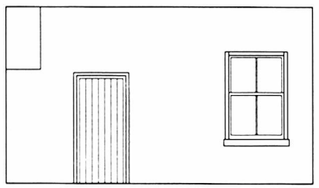


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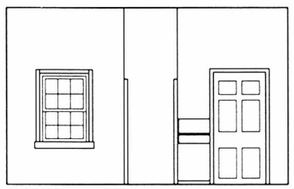
ROOM 103



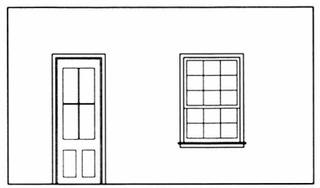
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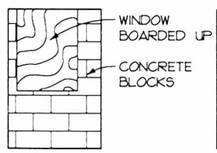


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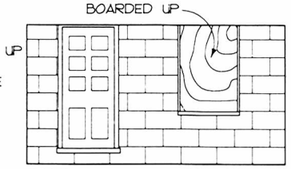


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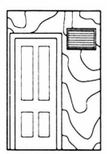
ROOM 104



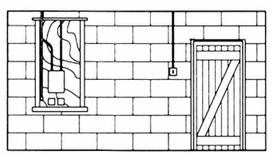
NORTH



EAST

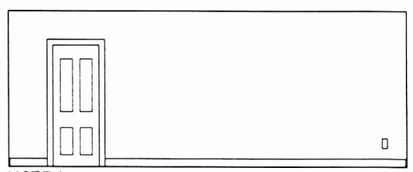


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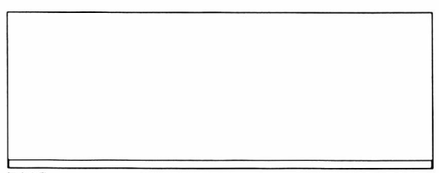


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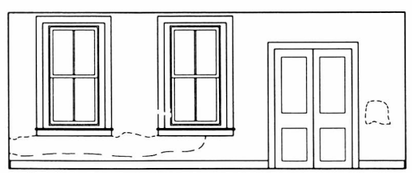
ROOM 105



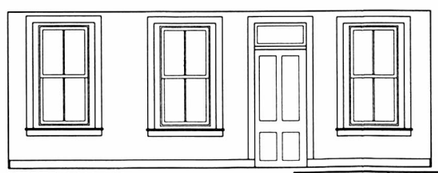
NORTH



EAST



SOUTH



WEST

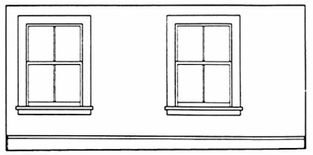
ROOM 106

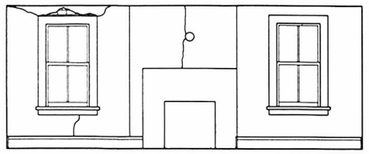
NOTE:
INTERIOR ELEVATIONS ARE SCHEMATIC DRAWINGS ALL MEASUREMENTS WILL NEED TO BE VARIFIED.

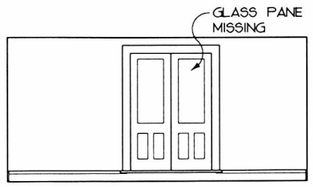
4 0 4 8
SCALE OF FEET

DESIGNED: — ADD DJS L. FARKASH TECH. REVIEW: ASD DATE: 11/92	SUB SHEET NO.	TITLE OF SHEET INTERIOR ELEVATIONS FIRST FLOOR BUILDING 34 & 35 HARPERS FERRY N.H.P.	DRAWING NO. 385 25,024 PKG. NO. 116 SHEET 19 OF 69

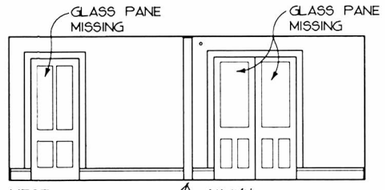
ROOM 201


NORTH


EAST

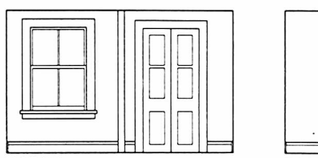


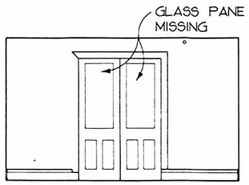
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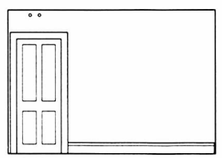
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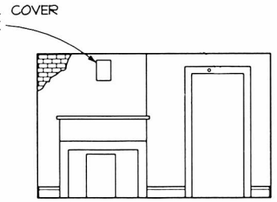
ROOM 202


NORTH



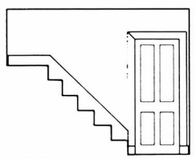
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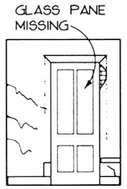

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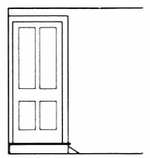
WEST

ROOM 203

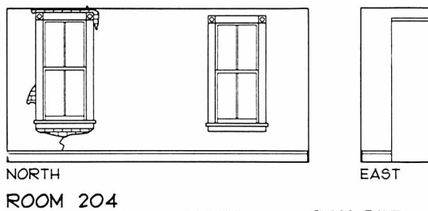

NORTH



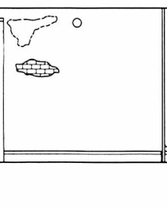
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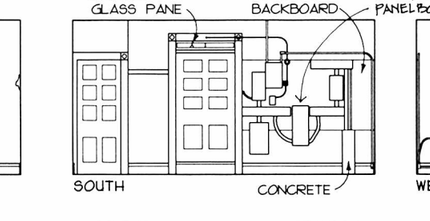

SOUTH

ROOM 204

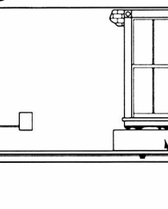


NORTH


EAST

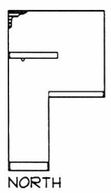


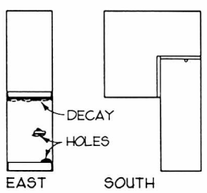
SOUTH



WEST

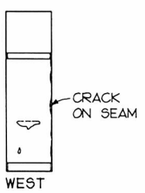
ROOM 205


NORTH



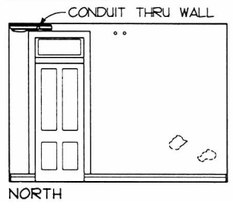
EAST

SOUTH

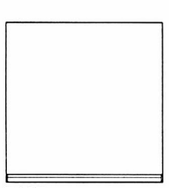


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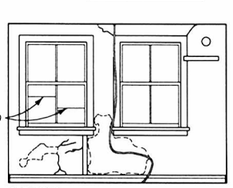
ROOM 206



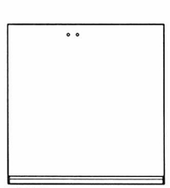
NORTH


EAST

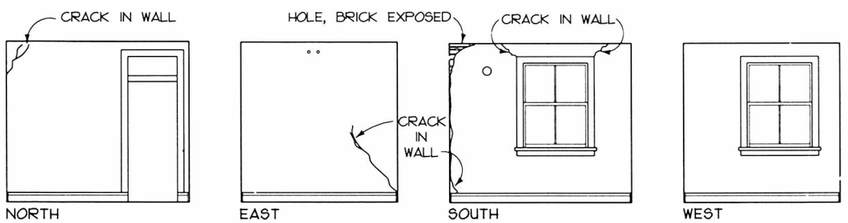
ROOM 207



SOUTH


WEST

ROOM 208



NORTH
EAST
SOUTH
WEST

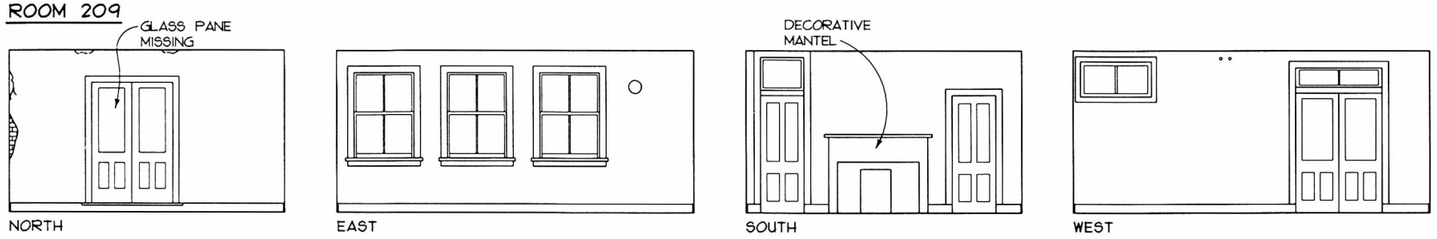
NOTE:
INTERIOR ELEVATIONS ARE SCHEMATIC DRAWINGS. ALL MEASUREMENTS WILL NEED TO BE VARIFIED.

4 0 4 8
SCALE OF FEET

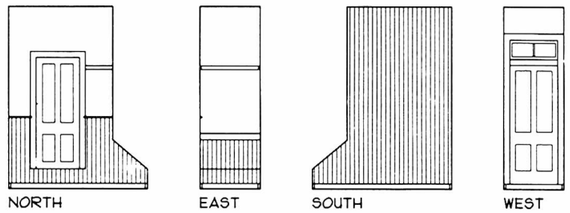
DESIGNED: — GADD L.FARKASH; TECH. REVIEW: ASD; DATE: 11/92	SUB SHEET NO.	TITLE OF SHEET: INTERIOR ELEVATIONS SECOND FLOOR; BUILDING 34 & 35; HARPERS FERRY N.H.P.	DRAWING NO. 385 25,024; PKG. NO. 116; SHEET 20 OF 69



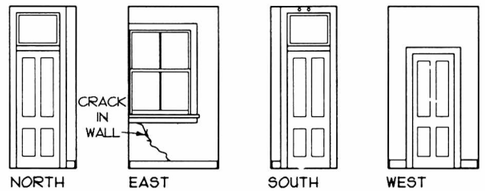
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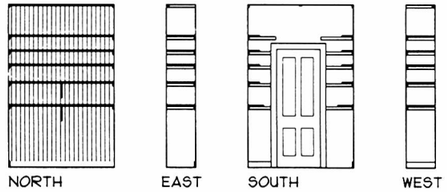
ROOM 210



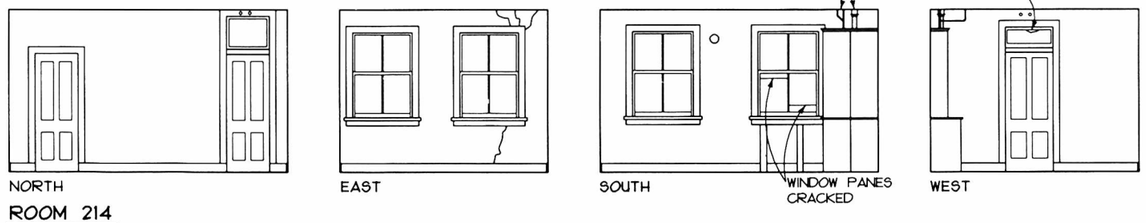
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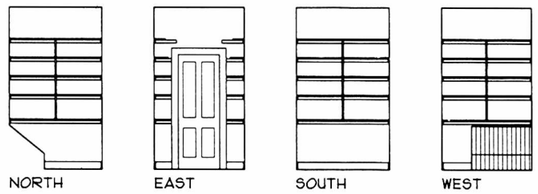
ROOM 212



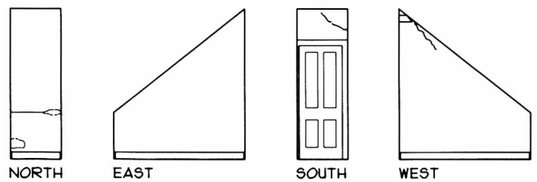
ROOM 213



ROOM 214



ROOM 215

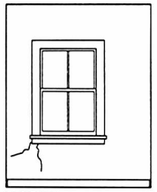


ROOM 216

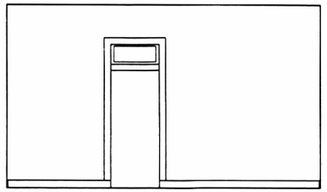
NOTE:
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4 0 4 8
SCALE OF FEET

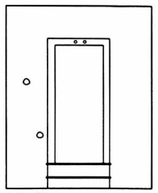
DESIGNED: —	SUB SHEET NO.	TITLE OF SHEET: INTERIOR ELEVATIONS SECOND FLOOR	DRAWING NO. 385 25,024
DRAWN: L. FARKASH		BUILDING 34 & 35	PKG. NO. 116
TECH. REVIEW: ASD		HARPERS FERRY N.H.P.	SHEET 21
DATE: 11/92			OF 69



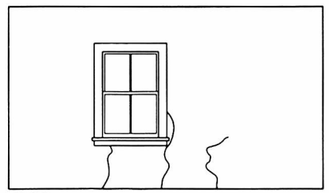
NORTH



EAST

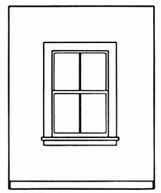


SOUTH

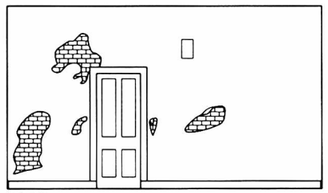


WEST

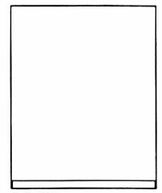
ROOM 301



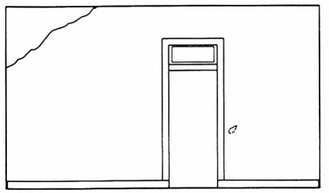
NORTH



EAST

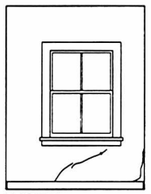


SOUTH

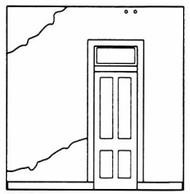


WEST

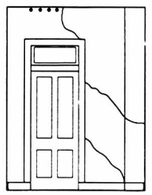
ROOM 302



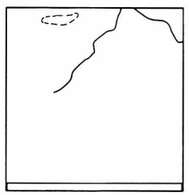
NORTH



EAST

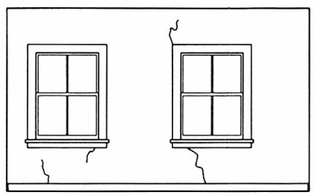


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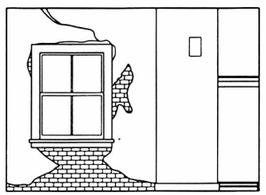


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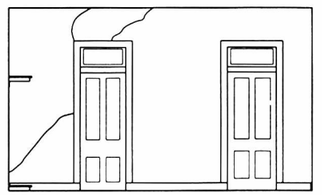
ROOM 303



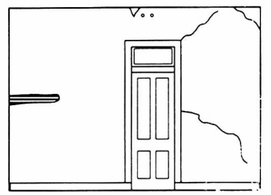
NORTH



EAST

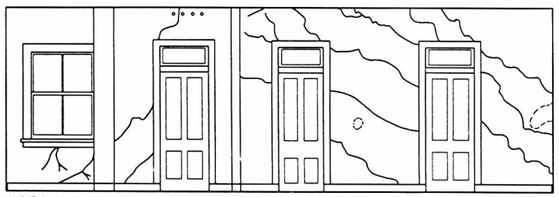


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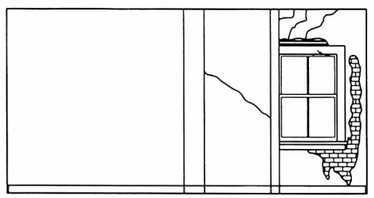


WEST

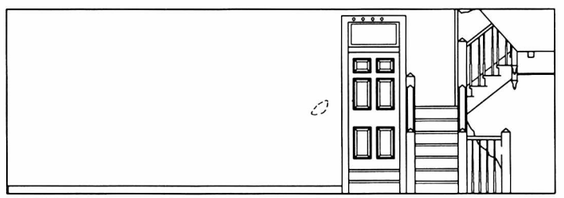
ROOM 304



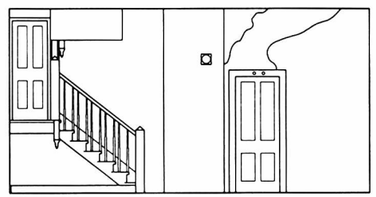
NORTH



EAST

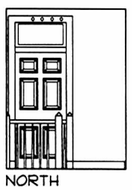


SOUTH

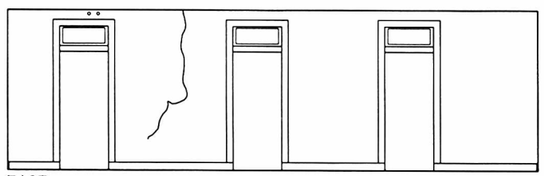


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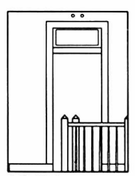
ROOM 305



NORTH



EAST

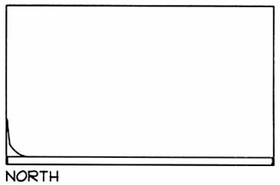


SOUTH



WEST

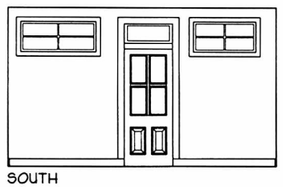
ROOM 306



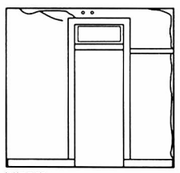
NORTH



EAST



SOUTH



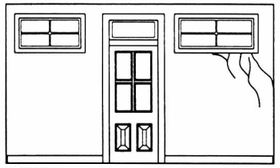
WEST

ROOM 307

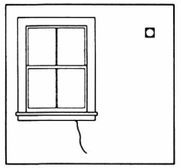
NOTE:
INTERIOR ELEVATIONS ARE SCHEMATIC DRAWINGS. ALL MEASUREMENTS WILL NEED TO BE VARIFIED.

4 0 4 8
SCALE OF FEET

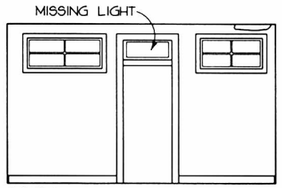
DESIGNED: — CADD DJ SIKES TECH. REVIEW: ASD DATE: 11/92	SUB SHEET NO.	TITLE OF SHEET INTERIOR ELEVATIONS THIRD FLOOR BUILDING 34 & 35 HARPERS FERRY N.H.P.	DRAWING NO. 385 25,024 PKG. NO. 116 SHEET 22 OF 69



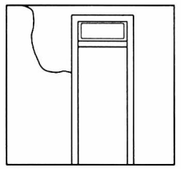
NORTH



EAST

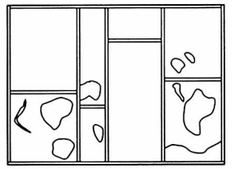


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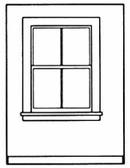


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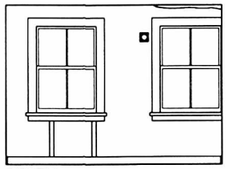
ROOM 308



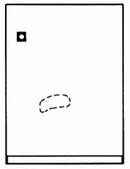
NORTH



EAST

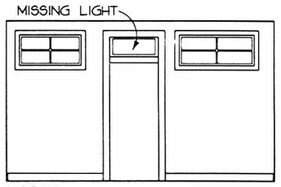


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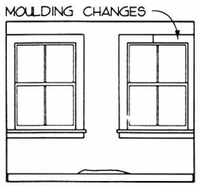


WEST

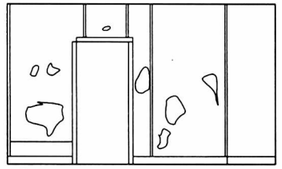
ROOM 310



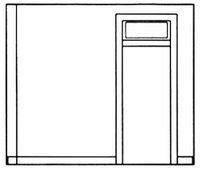
NORTH



EAST

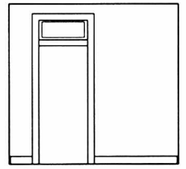


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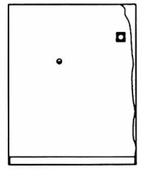


WEST

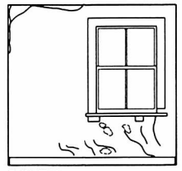
ROOM 309



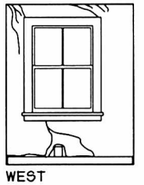
NORTH



EAST

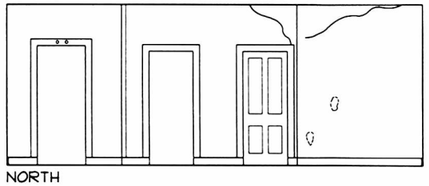


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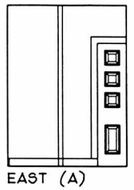


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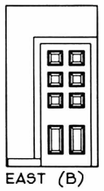
ROOM 311



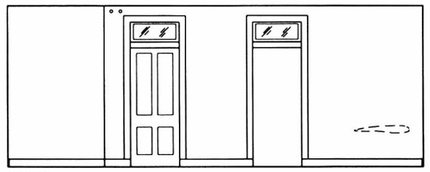
NORTH



EAST (A)



EAST (B)

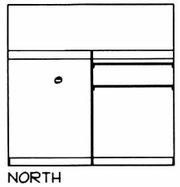


SOUTH



WEST

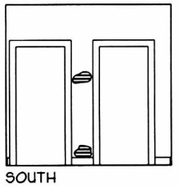
ROOM 312



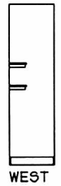
NORTH



EAST

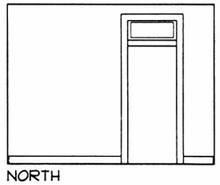


SOUTH

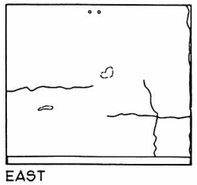


WEST

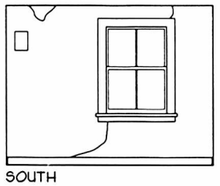
ROOM 313



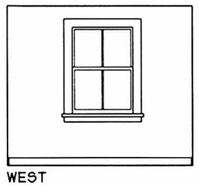
NORTH



EAST

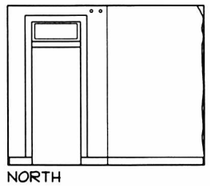


SOUTH

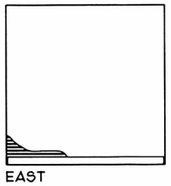


WEST

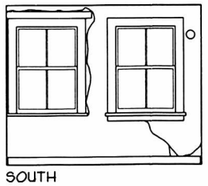
ROOM 314



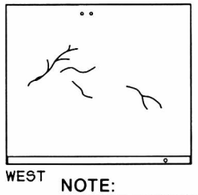
NORTH



EAST



SOUTH



WEST

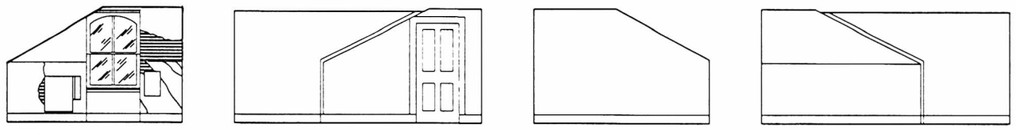
ROOM 315

NOTE:
INTERIOR ELEVATIONS ARE SCHEMATIC DRAWINGS.
ALL MEASUREMENTS WILL NEED TO BE VARIFIED.

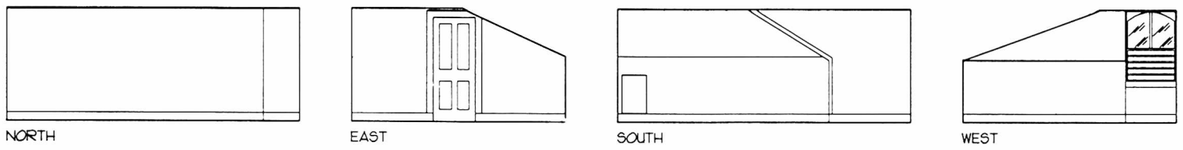
4 0 4 8

SCALE OF FEET

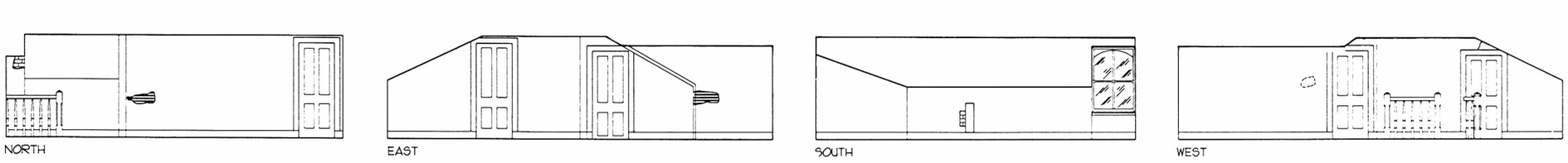
DESIGNED: — GADD DJ SIKES TECH. REVIEW: ASD DATE: 11/92	SUB SHEET NO.	TITLE OF SHEET: INTERIOR ELEVATIONS THIRD FLOOR — BUILDING 34 & 35 — HARPERS FERRY N.H.P.	DRAWING NO. 385 25,025 PKG. NO. 116 SHEET 23 OF 69



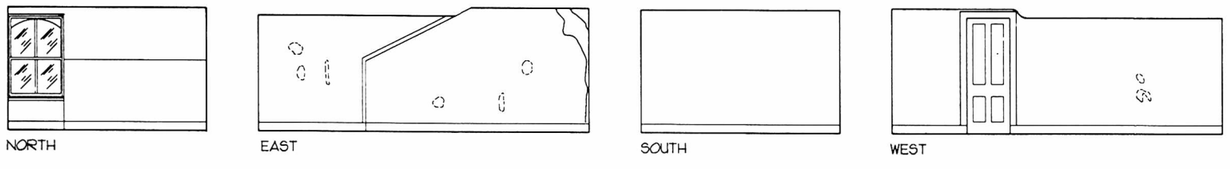
ROOM 401



ROOM 402



ROOM 403

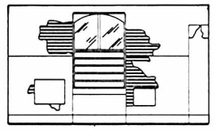


ROOM 404

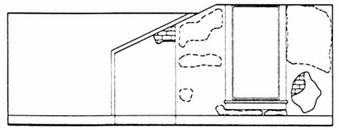
NOTE:
INTERIOR ELEVATIONS ARE SCHEMATIC DRAWINGS.
ALL MEASUREMENTS WILL NEED TO BE VARIFIED.

4 0 4 8
SCALE OF FEET

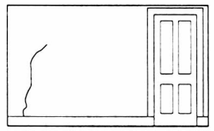
DESIGNED: — CADD J.B. TECH. REVIEW: ASD DATE: 11/92	SUB SHEET NO.	TITLE OF SHEET: INTERIOR ELEVATIONS FOURTH FLOOR — BUILDING 34 & 35 HARPERS FERRY N.H.P.	DRAW NG. NO. 385 25,024 PKG. NO. 116 SHEET 24 OF 69



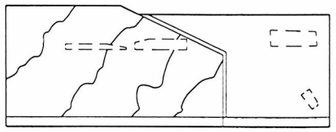
NORTH



EAST

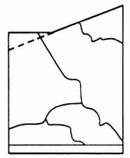


SOUTH

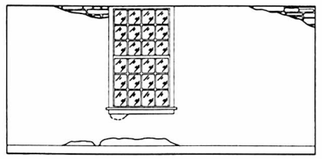


WEST

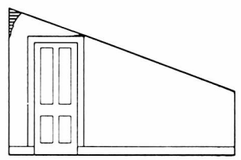
ROOM 405



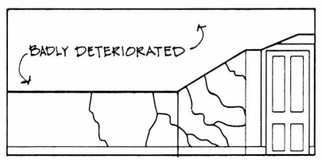
NORTH



EAST



SOUTH



WEST

ROOM 406

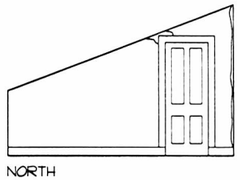
NORTH

EAST

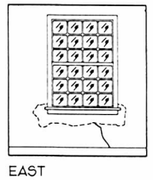
SOUTH

WEST

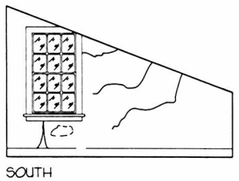
ROOM 407



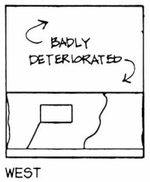
NORTH



EAST



SOUTH



WEST

ROOM 408

NOTE:
INTERIOR ELEVATIONS ARE SCHEMATIC DRAWINGS.
ALL MEASUREMENTS WILL NEED TO BE VARIFIED

4 0 4 8
SCALE OF FEET

DESIGNED: — CADD J.B. TECH. REVIEW: ASD DATE: 11/92	SUB SHEET NO.	TITLE OF SHEET: INTERIOR ELEVATIONS FOURTH FLOOR BUILDING 34 & 35 HARPERS FERRY N.H.P.	DRAWING NO. 385 25,024 PKG. NO. 116 SHEET 25 OF 69

ROOM FINISH SCHEDULE

BLDG.	FLOOR	ROOM	FLOOR		WALLS								CEILING			BASE											REMARKS
					NORTH		EAST		SOUTH		WEST					NORTH			EAST			SOUTH			WEST			
			MAT.	FIN.	MAT.	FIN.	MAT.	FIN.	MAT.	FIN.	MAT.	FIN.	MAT.	FIN.	HT.	MAT.	HT.	FIN.	MAT.	HT.	FIN.	MAT.	HT.	FIN.	MAT.	HT.	FIN.	
34 & 35	FIRST FLOOR	101	T & G WOOD	—	PLASTER	PAINT	PLASTER	PAINT	PLASTER	PAINT	PLASTER	PAINT	PLASTER	PAINT	8'-11"	WOOD	6"	PAINT	WOOD	6"	PAINT	WOOD	6"	PAINT	WOOD	6"	PAINT	
		102	T & G WOOD	PAINT	PLASTER	—	PLASTER	—	PLASTER	—	PLASTER	—	PLASTER	—	9'-5 1/4"	—	—	—	—	—	—	—	—	—	—	—	—	4'-1" A.F.F. WAINSCOT PAINTED ON ALL FOUR WALLS.
		103	T & G WOOD	—	PLASTER	PAINT	PLASTER	PAINT	PLASTER	PAINT	PLASTER	PAINT	PLASTER	PAINT	8'-7 3/4"	—	—	—	—	—	—	—	—	—	—	—	—	
		104	T & G WOOD	—	PLASTER	PAINT	PLASTER	PAINT	PLASTER	PAINT	PLASTER	PAINT	PLASTER	PAINT	10'-0 3/4"	—	—	—	—	—	—	—	—	—	—	—	—	
		105	T & G WOOD	PAINT	CONCRETE BLOCK	PAINT	CONCRETE BLOCK	PAINT	PLYWOOD	PAINT	CONCRETE BLOCK	PAINT	PLYWOOD	PAINT	7'-11 1/2"	—	—	—	—	—	—	—	—	—	—	—	—	THIS ROOM HAS BEEN RENOVATED. CEILING LOWERED. SOUTH WALL, AIR CONDITIONER BUILT INTO WALL.
		106	T & G WOOD	—	PLASTER	PAINT	PLASTER	PAINT	PLASTER	PAINT	PLASTER	PAINT	PLASTER	PAINT	8'-11 3/4"	WOOD	6"	PAINT	WOOD	6"	PAINT	WOOD	6"	PAINT	WOOD	6"	PAINT	
		102A	T & G WOOD	—	PLASTER	—	PLASTER	—	PLASTER	—	PLASTER	—	WOOD	—	5'-0 3/8"	—	—	—	—	—	—	—	—	—	—	—	—	PART OF THE FLOOR IS MISSING. THE CEILING IS UNDERSIDE OF LANDING.
	SECOND FLOOR	201	T & G WOOD	PAINT	PLASTER	PAINT	PLASTER	PAINT	PLASTER	PAINT	PLASTER	PAINT	PLASTER	PAINT	8'-3 1/2"	WOOD	8"	PAINT	WOOD	8"	PAINT	WOOD	8"	PAINT	WOOD	8"	PAINT	SOME WALL PAPER ON WALLS. MAY HAVE HAD PAPER AT ONE TIME. FIREPLACE ON WEST WALL.
		202	T & G WOOD	—	PLASTER	WALL PAPER	PLASTER	WALL PAPER	PLASTER	WALL PAPER	PLASTER	WALL PAPER	PLASTER	WALL PAPER	8'-2 1/2"	WOOD	8"	PAINT	WOOD	8"	PAINT	WOOD	8"	PAINT	WOOD	8"	PAINT	FIREPLACE ON WEST WALL.
		203	T & G WOOD	—	PLASTER	PAINT	PLASTER	PAINT	PLASTER	PAINT	PLASTER	PAINT	PLASTER	PAINT	8'-3 1/2"	WOOD	6"	PAINT	WOOD	6"	—	WOOD	7"	PAINT	WOOD	7"	—	PLYWD. OVER DOORWAY, E. WALL. ON S. WALL PLYWD. WITH ELEC. BOXES. ON W. WALL BASEBD. HTR. & ELEC. BOX. PLYWD. ON CEILING, LIGHT, & J. BOX.
		204	T & G WOOD	PAINT	PLASTER	PAINT	PLASTER	PAINT	PLASTER	PAINT	PLASTER	PAINT	PLASTER	PAINT	8'-8"	WOOD	7"	PAINT	WOOD	7"	PAINT	WOOD	7"	PAINT	WOOD	7"	PAINT	
		205	T & G WOOD	—	PLASTER	PAINT	PLASTER	PAINT	PLASTER	PAINT	PLASTER	PAINT	PLASTER	PAINT	9'-1"	WOOD	6"	PAINT	WOOD	6"	PAINT	WOOD	6"	PAINT	WOOD	6"	PAINT	ELECTRICAL OUTLET BOX ON NORTH WALL APPROXIMATELY 6'-10" A.F.F.
		206	T & G WOOD	—	PLASTER	PAINT	PLASTER	PAINT	PLASTER	PAINT	PLASTER	PAINT	PLASTER	PAINT	9'-2"	WOOD	6"	PAINT	WOOD	6"	PAINT	—	—	—	WOOD	6"	PAINT	
		207	T & G WOOD	—	PLASTER	PAINT	PLASTER	PAINT	PLASTER	PAINT	PLASTER	PAINT	PLASTER	PAINT	9'-1 3/4"	WOOD	6 1/2"	PAINT	WOOD	6 1/2"	PAINT	WOOD	6 1/2"	PAINT	WOOD	6 1/2"	PAINT	
		208	T & G WOOD	—	PLASTER	PAINT	PLASTER	PAINT	PLASTER	PAINT	PLASTER	PAINT	PLASTER	PAINT	8'-11 3/4"	WOOD	5"	PAINT	WOOD	5"	PAINT	WOOD	5"	PAINT	WOOD	5"	PAINT	
		209	T & G WOOD	—	PLASTER	PAINT	PLASTER	WALL PAPER	PLASTER	WALL PAPER	PLASTER	PAINT	PLASTER	WALL PAPER	9'-3 1/4"	WOOD	3 1/2"	PAINT	WOOD	6"	PAINT	WOOD	6"	PAINT	WOOD	6"	PAINT	
		210	T & G WOOD	PAINT	PLASTER	WALL PAPER	PLASTER	WALL PAPER	PLASTER	WALL PAPER	PLASTER	WALL PAPER	PLASTER	WALL PAPER	9'-3 3/8"	WOOD	6"	PAINT	WOOD	6"	PAINT	WOOD	6"	PAINT	WOOD	6"	PAINT	SOUTH WALL FIREPLACE MANTLE AND FRAME NAILED TO THE WALL.
		211	—	—	PLASTER	WALL PAPER	PLASTER	WALL PAPER	WAINSCOT	PAINT	PLASTER	WALL PAPER	PLASTER	WALL PAPER	9'-3 1/4"	—	—	—	—	—	—	—	—	—	—	—	—	2'-11" A.F.F. WAINSCOT ON NORTH WALL (PAINT)
		212	T & G WOOD	—	PLASTER	PAINT	PLASTER	PAINT	PLASTER	PAINT	PLASTER	PAINT	PLASTER	PAINT	9'-3 3/4"	WOOD	5"	PAINT	WOOD	5"	PAINT	WOOD	5"	PAINT	WOOD	5"	PAINT	
		213	T & G WOOD	—	WAINSCOT	PAINT	GYP. BOARD	PAINT	GYP. BOARD	PAINT	PLASTER	PAINT	GYP. BOARD	PAINT	9'-3 1/2"	—	—	—	—	—	—	WOOD	4"	PAINT	WOOD	4"	PAINT	
		214	T & G WOOD	PAINT	PLASTER	PAINT	PLASTER	PAINT	PLASTER	PAINT	PLASTER	PAINT	PLASTER	PAINT	9'-2 3/4"	WOOD	6"	PAINT	WOOD	6"	PAINT	WOOD	6"	PAINT	WOOD	6"	PAINT	SOUTH WALL, CABINET WITH SHELF ENCLOSING WASTE PIPE.
		215	T & G WOOD	PAINT	PLASTER	PAINT	PLASTER	PAINT	PLASTER	PAINT	PLASTER	PAINT	PLASTER	PAINT	9'-3 1/4"	WOOD	5"	PAINT	WOOD	5"	PAINT	WOOD	5"	PAINT	WOOD	5"	PAINT	
		216	T & G WOOD	—	PLASTER	—	PLASTER	—	PLASTER	—	PLASTER	—	PLASTER	—	8'-7 3/4"	WOOD	4 1/2"	PAINT	WOOD	4 1/2"	PAINT	—	—	—	WOOD	4 1/2"	PAINT	

NOTES

DESIGNED:	SUB SHEET NO.	TITLE OF SHEET	DRAWING NO.
—		ROOM FINISH SCHEDULE	385 25,024
HABS		BUILDING 34 & 35	PKG. NO. 116
DJ SIKES		HARPERS FERRY N.H.P.	SHEET 26 OF 69
TECH. REVIEW: ASD			
DATE: 11/92			

ROOM FINISH SCHEDULE

BLDG.	FLOOR	ROOM	FLOOR		WALLS								CEILING			BASE												REMARKS
					NORTH		EAST		SOUTH		WEST					NORTH			EAST			SOUTH			WEST			
			MAT.	FIN.	MAT.	FIN.	MAT.	FIN.	MAT.	FIN.	MAT.	FIN.	MAT.	FIN.	HT.	MAT.	HT.	FIN.	MAT.	HT.	FIN.	MAT.	HT.	FIN.	MAT.	HT.	FIN.	
34 & 35	THIRD FLOOR	301	T & G WOOD	—	PLASTER	WALL PAPER	PLASTER	WALL PAPER	PLASTER	WALL PAPER	PLASTER	WALL PAPER	PLASTER	WALL PAPER	10'-8"	WOOD	7"	PAINT	WOOD	7"	PAINT	WOOD	7"	PAINT	WOOD	7"	PAINT	
		302	T & G WOOD	—	PLASTER	WALL PAPER	PLASTER	WALL PAPER	PLASTER	WALL PAPER	PLASTER	WALL PAPER	PLASTER	WALL PAPER	10'-7 1/2"	WOOD	6"	PAINT	WOOD	6"	PAINT	WOOD	6"	PAINT	WOOD	6"	PAINT	
		303	T & G WOOD	—	PLASTER	PAINT	PLASTER	PAINT	PLASTER	PAINT	PLASTER	PAINT	PLASTER	PAINT	10'-7"	WOOD	6"	PAINT	WOOD	6"	PAINT	WOOD	6"	PAINT	WOOD	6"	PAINT	
		304	T & G WOOD	—	PLASTER	PAINT	PLASTER	PAINT	PLASTER	PAINT	PLASTER	PAINT	PLASTER	PAINT	10'-7 1/2"	WOOD	7"	PAINT	WOOD	6 1/4"	PAINT	WOOD	6"	PAINT	WOOD	6 1/4"	PAINT	
		305	T & G WOOD	—	PLASTER	PAINT	PLASTER	PAINT	PLASTER	PAINT	PLASTER	PAINT	PLASTER	PAINT	10'-7"	WOOD	5 3/4"	PAINT	WOOD	5 3/4"	PAINT	WOOD	5 3/4"	PAINT	WOOD	5 3/4"	PAINT	
		306	T & G WOOD	PAINT	PLASTER	WALL PAPER	PLASTER	WALL PAPER	PLASTER	WALL PAPER	PLASTER	WALL PAPER	PLASTER	WALL PAPER	9'-2"	WOOD	5 3/4"	PAINT	WOOD	5 3/4"	PAINT	WOOD	5 3/4"	PAINT	WOOD	5 3/4"	PAINT	
		307	T & G WOOD	—	PLASTER	PAINT	PLASTER	PAINT	PLASTER	PAINT	PLASTER	PAINT	PLASTER	PAINT	9'-1 1/2"	WOOD	6"	PAINT	WOOD	6"	PAINT	WOOD	6"	PAINT	WOOD	6"	PAINT	
		308	T & G WOOD	—	PLASTER	PAINT	PLASTER	PAINT	PLASTER	PAINT	PLASTER	PAINT	PLASTER	PAINT	9'-1 1/2"	WOOD	6"	PAINT	WOOD	6"	PAINT	WOOD	6"	PAINT	WOOD	6"	PAINT	
		309	T & G WOOD	—	PLASTER	PAINT	PLASTER	PAINT	PRESSED CARDBOARD	PAINT	PLASTER	PAINT	PLASTER	PAINT	9'-2 1/2"	WOOD	5 3/4"	PAINT	WOOD	5 3/4"	PAINT	WOOD	5 3/4"	PAINT	WOOD	5 3/4"	PAINT	
		310	T & G WOOD	STAIN	PRESSED CARDBOARD	PAINT	PLASTER	PAINT	PLASTER	PAINT	PLASTER	PAINT	PLASTER	PAINT	9'-2 1/2"	—	—	—	WOOD	5 3/4"	PAINT	WOOD	5 3/4"	PAINT	WOOD	5 3/4"	PAINT	
		311	T & G WOOD	PAINT	PLASTER	PAINT	PLASTER	PAINT	PLASTER	PAINT	PLASTER	PAINT	PLASTER	PAINT	9'-3 1/4"	WOOD	5 3/4"	PAINT	WOOD	5 3/4"	PAINT	WOOD	5 3/4"	PAINT	WOOD	5 3/4"	PAINT	PAINTED WAINSCOT ON NORTH AND EAST WALLS 54" A.F.F.
		312	BEADED T & G	—	PLASTER	PAINT	PLASTER	PAINT	PLASTER	PAINT	PLASTER	PAINT	PLASTER	PAINT	9'-1 3/4"	WOOD	5 3/4"	PAINT	WOOD	5 3/4"	PAINT	WOOD	5 3/4"	PAINT	WOOD	5 3/4"	PAINT	1/2" FLOOR IS T&G OTHER IS WOOD FLOOR,
		313	BEADED T & G	—	PLASTER	PAINT	PLASTER	PAINT	PLASTER	PAINT	PLASTER	PAINT	PLASTER	PAINT	9'-1 3/4"	WOOD	5 3/4"	PAINT	WOOD	5 3/4"	PAINT	WOOD	5 3/4"	PAINT	WOOD	5 3/4"	PAINT	
		314	BEADED T & G	—	PLASTER	PAINT	PLASTER	PAINT	PLASTER	PAINT	PLASTER	PAINT	PLASTER	PAINT	9'-1 3/4"	WOOD	6 1/4"	PAINT	WOOD	6 1/4"	PAINT	WOOD	6 1/4"	PAINT	WOOD	6 1/4"	PAINT	
		315	T & G WOOD	—	PLASTER	PAINT	PLASTER	PAINT	PLASTER	PAINT	PLASTER	PAINT	PLASTER	PAINT	9'-1 1/2"	WOOD	5 3/4"	PAINT	WOOD	5 3/4"	PAINT	WOOD	5 3/4"	PAINT	WOOD	5 3/4"	PAINT	
	FOURTH FLOOR	401	BEADED T & G	—	PLASTER	PAINT	PLASTER	PAINT	PLASTER	PAINT	PLASTER	PAINT	PLASTER	PAINT	6'-6"	WOOD	5 3/4"	PAINT	WOOD	5 3/4"	PAINT	WOOD	5 3/4"	PAINT	WOOD	5 3/4"	PAINT	
		402	BEADED T & G	—	PLASTER	PAINT	PLASTER	PAINT	PLASTER	PAINT	PLASTER	PAINT	PLASTER	PAINT	6'-5 1/2"	WOOD	5 3/4"	PAINT	WOOD	5 3/4"	PAINT	WOOD	5 3/4"	PAINT	WOOD	5 3/4"	PAINT	
		403	T & G WOOD	—	PLASTER	PAINT	PLASTER	PAINT	PLASTER	PAINT	PLASTER	PAINT	PLASTER	PAINT	7'-0 1/4"	WOOD	5 3/4"	PAINT	WOOD	5 3/4"	PAINT	WOOD	5 3/4"	PAINT	WOOD	5 3/4"	PAINT	PARTIAL T&G WOOD FLOOR ALSO,
		404	T & G WOOD	—	PLASTER	PAINT	PLASTER	PAINT	PLASTER	PAINT	PLASTER	PAINT	PLASTER	PAINT	6'-11 1/2"	WOOD	5 3/4"	PAINT	WOOD	5 3/4"	PAINT	WOOD	5 3/4"	PAINT	WOOD	5 3/4"	PAINT	
		405	T & G WOOD	—	PLASTER	PAINT	PLASTER	PAINT	PLASTER	PAINT	PLASTER	PAINT	PLASTER	PAINT	6'-11 3/4"	WOOD	5 3/4"	PAINT	WOOD	5 3/4"	PAINT	WOOD	5 3/4"	PAINT	WOOD	5 3/4"	PAINT	
		406	T & G WOOD	—	PLASTER	PAINT	PLASTER	PAINT	PLASTER	PAINT	PLASTER	PAINT	PLASTER	PAINT	8'-6"	WOOD	5 3/4"	PAINT	WOOD	5 3/4"	PAINT	WOOD	5 3/4"	PAINT	WOOD	5 3/4"	PAINT	
		407	T & G WOOD	—	PLASTER	PAINT	PLASTER	PAINT	PLASTER	PAINT	PLASTER	PAINT	PLASTER	PAINT	8'-6"	WOOD	5 3/4"	PAINT	WOOD	5 3/4"	PAINT	WOOD	5 3/4"	PAINT	WOOD	5 3/4"	PAINT	
		408	T & G WOOD	—	PLASTER	PAINT	PLASTER	PAINT	PLASTER	PAINT	PLASTER	PAINT	PLASTER	PAINT	8'-6 1/2"	WOOD	5 3/4"	PAINT	WOOD	5 3/4"	PAINT	WOOD	5 3/4"	PAINT	WOOD	5 3/4"	PAINT	

NOTES

DESIGNED: —
CADD: L RUEDA
TECH. REVIEW: ASD
DATE: 11/92

SUB SHEET NO.

TITLE OF SHEET
ROOM FINISH SCHEDULE
BUILDING 34 & 35
HARPERS FERRY N.H.P.

DRAWING NO. 385 25,024
PKG. NO. 116 — —
SHEET 27 OF 69

DOOR SCHEDULE

FLR.	DOOR NO.	DOOR TYPE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V		THICKNESS	FRAME DETAILS	ARCHITRAVE TYPE	PANEL TYPE	COMMENTS
BASEMENT	001	NO	DOOR																											
	002	NO	DOOR																											
	003	NO	DOOR																											
	004	NO	DOOR																											
FIRST FLOOR	101	A	2'-11 1/2"	7'-6 1/2"	4 1/4"	3 7/8"	3 1/2"	1'-0 3/8"	11 1/2"	4"	9 3/8"	1'-3 1/4"	7 3/8"	2'-3"	2 1/8"	2'-1 7/8"	3 1/2"	10"	1'-2"	9 3/4"	2'-1 1/2"	1 3/8"	2'-1 5/8"	4 1/4"				SOUTH-F	EXT. C INT. H	
	102	P	3'-1 1/4"	6'-11 1/2"	3 3/4"	1'-1"	11 1/2"	4 3/4"	3 5/8"	1'-1"	11 1/2"	4 3/4"	7 1/2"	1'-7 5/8"	6 5/8"	3'-10"	3 3/4"	8"	1'-6 1/8"	8"	3'-8 5/8"	4 3/4"				1 3/4"		SOUTH-F	EXT. J INT. G	
	103	CC	1'-10 1/2"	7'-0"	5 3/4"	5 5/8"	5 1/4"	6"	8 3/8"	1'-7"	9"	1'-8 3/8"	1 3/8"	1'-8 3/8"	5 1/2"	8 3/4"	1'-6 1/8"	8 7/8"	1'-9 3/8"	3/8"	1'-9 1/2"	5"				1 7/8"		SOUTH-G	EXT. D INT. K	
	104	DD	2'-2 1/8"	6'-11"	4 3/8"	1'-5 3/8"	4 3/8"	7 1/4"	1'-10 5/8"	10 1/8"	3'-2 5/8"	4 3/8"	4'-4 3/4"	2'-2 3/8"												1 9/16"		NORTH-A	EXT. B INT. J g	INTERIOR HAS PANEL SIMILAR TO 1 EXCEPT MIDDLE
	105	E	2'-11 1/4"	6'-10 7/8"	3 3/8"	11 3/4"	4"	11 3/4"	4 3/8"	7 1/4"	1'-7 1/4"	8"	3'-8 3/8"	4"	3 7/16"	11 7/8"	4"	11 5/8"	4 5/16"							1 3/4"		EAST-A	(EXT. A INT. A) A	
	106	F	2'-4 1/4"	6'-3 1/8"	4 3/8"	8"	3 7/8"	7 1/2"	4 1/2"	8 7/8"	1'-5"	8 1/8"	3'-1 1/8"	4"												1 3/8"		NORTH-O	EXT. A INT. I	
	107	G	2'-10 1/2"	6'-2 3/8"	3 5/8"	1'-0 1/4"	3 3/4"	1'-0 1/4"	2 5/8"	4 1/4"	1'-8 7/8"	11"	1'-9 3/4"	3 3/4"	9 3/8"	3 3/8"										1 1/2"		NORTH-O	EXT. E INT. I	
	108	H	2'-5 3/4"	6'-11 7/8"	3 7/8"	10 5/8"	5/8"	10 3/4"	3 7/8"	4"	8 7/8"	4 3/8"	8 5/8"	3 7/8"	4 3/4"	1'-6 5/8"	7 1/2"	2'-0"	5/8"	2'-0 1/8"	4 1/4"					DOOR LOCKED		EAST-O	G	
	109	I	3'-0 1/2"	6'-7 3/4"	3 1/2"	1'-1"	3 3/4"	1'-0 3/4"	3 1/2"	3 1/2"	2'-5 1/2"	3 1/2"	7 7/8"	1'-9 5/8"	11 5/8"	1'-9 5/8"	3 3/4"	9 3/4"	3 1/2"							1 1/2"		EAST-D WEST-D NORTH-D SOUTH-I	G	
	110	J	3'-0 3/8"	6'-5"	3 1/2"	1'-0 3/4"	3 3/4"	1'-0 3/4"	3 3/8"	7"	1'-8 1/8"	11 5/8"	1'-9 1/4"	3 3/4"	9 7/8"	3 3/8"										1 1/2"				
	111	K	2'-9 7/8"	6'-1 3/8"	4 3/4"	6 1/8"	4'-4 1/2"	6"	4"																	3/4"		EAST-O WEST-O	—	NO PANEL, JUST WOOD SLATS
	112	L	2'-11 5/8"	6'-10 3/4"	4 1/4"	11 1/4"	4 3/8"	11 3/8"	4 3/8"	8 1/8"	1'-9 1/4"	11 3/4"	9 1/2"	4 3/8"	9 1/2"	4 1/2"	9 1/2"	4 1/4"								1 1/2"		EAST-A WEST-N	B	
	113	F	2'-7 3/4"	6'-7"	4 3/4"	8 9/16"	5"	8 9/16"	4 7/8"	8"	1'-6 3/4"	11 5/8"	3'-0 1/8"	5"												1 3/8"		NORTH-H SOUTH-H	L	
	114	N	2'-0 1/4"	4'-10 1/2"	1/2"	1'-11"	3/4"	6 1/2"	4 1/8"	3'-2"	4 1/8"	5 3/4"														1"		EAST-D WEST-O	—	NO PANEL, WOOD SLATS FORM DOOR
SECOND FLOOR	201	CC	1'-6 1/2"	7'-0 5/8"	4 1/2"	9 3/4"	4 1/4"	9 1/2"	1'-5 5/8"	8 3/8"	1'-10 1/8"	1/2"	1'-10 1/8"	4 3/8"	3'-1 1/2"	1'-7"										1 3/8"		SOUTH-J	A	
	202	F	2'-9 7/8"	6'-8 1/4"	3 7/8"	11 5/16"	3 5/8"	11 5/8"	3 3/4"	7 1/4"	1'-7 1/2"	8 1/8"	3'-6"	3 3/8"												1 3/8"		NORTH-A	A	
	203	E	2'-9 5/8"	6'-9 3/8"	4 3/16"	10 5/8"	4"	10 5/8"	4 3/16"	8"	1'-7"	8"	3'-6 3/16"	4 3/16"												1 3/8"		EAST-A	A	
	204	NO	2'-11 7/8"	7'-0"																								EAST-D WEST-B	—	NO DOOR IN FRAME
	205	O	2'-6 1/4"	6'-5 3/4"	3 7/8"	9 3/8"	4"	9 1/4"	3 3/4"	8 1/4"	1'-5"	11 1/2"	10 1/8"	3 7/8"	9 7/8"	3 7/8"	9 7/8"	3 7/8"								1 3/8"		NORTH-B SOUTH-I	B	
	206	MM	2'-4 1/8"	6'-11 3/4"	3 5/8"	1'-9 1/4"	3 1/4"	3 5/8"	8 9/16"	4 1/8"	8 9/16"	3 1/4"	8 1/4"	1'-7"	8 1/4"	3'-8 1/8"	4 1/8"	4'-8 3/8"	2'-4 1/4"							1 3/8"		EAST-A WEST-A	A	
	207	MM	2'-3"	6'-10 7/8"	3 3/4"	1'-7"	4 1/4"	3 7/8"	7 1/4"	4 1/2"	7 1/4"	4 1/8"	7 7/8"	1'-7 1/2"	7 3/8"	3'-8 1/4"	3 7/8"	4'-5 3/4"	2'-2 3/4"							1 3/8"		NORTH-E SOUTH-E	C	
	208	F	2'-5 3/4"	6'-8"	4 1/4"	8 5/8"	4"	8 5/8"	4 1/4"	8 1/8"	1'-7"	8 1/4"	3'-4 1/4"	4 3/8"												1 3/8"		NORTH-A SOUTH-N	A	
	209	F	2'-6"	6'-7 1/2"	4 3/8"	8 1/2"	4"	8 3/4"	4 3/8"	7 7/8"	1'-6 7/8"	8 1/8"	3'-4 1/8"	4 1/2"												CAN'T OPEN		NORTH-A SOUTH-N	A	
	210	F	2'-4 1/2"	6'-5 1/4"	3 3/8"	8 5/8"	4 1/8"	8 5/8"	3 3/4"	8 1/8"	1'-8 1/8"	7 1/4"	3'-2"	3 3/4"												1 3/8"		EAST-A WEST-F	A	
	211	F	2'-6"	6'-7 1/2"	4 1/2"	8 1/2"	4"	8 5/8"	4 3/8"	8 5/8"	1'-6 7/8"	8"	3'-4 1/8"	3 7/8"												1 1/4"		NORTH-G SOUTH-A	A	
	212	F	2'-5 3/4"	6'-7 3/4"	4 1/4"	8 5/8"	4"	8 1/2"	4 3/8"	8 1/8"	1'-7"	8 1/4"	3'-4"	4 3/8"												1 3/8"		NORTH-G SOUTH-A	A	
	213	F	2'-10"	6'-9 1/8"	4 3/8"	10 1/2"	4 1/8"	10 5/8"	4 3/8"	7 3/4"	1'-6 7/8"	8 1/4"	3'-6"	4 1/4"												1 3/8"		EAST-A WEST-A	A	
	214	F	2'-9 7/8"	6'-10 1/8"	4 1/8"	10 5/8"	4 1/8"	10 5/8"	4 3/8"	9 1/4"	1'-6"	8 1/2"	3'-6"	4 3/8"												1 3/8"		EAST-G WEST-B	A	
	215	F	2'-5 3/4"	6'-5 1/2"	4 3/8"	8 1/2"	4"	8 1/2"	4 3/8"	8 1/4"	1'-7"	8 1/8"	3'-2"	4 1/8"												1 3/8"		NORTH-G SOUTH-A	A	
	216	MM	2'-6"	6'-9 1/2"	4 3/8"	1'-9 1/8"	4 1/2"	4 3/8"	8 9/16"	4"	8 9/16"	4 1/2"	8 3/8"	1'-7 1/8"	8 1/4"	3'-6 1/4"	3 3/4"	4 -11 5/8"	2'-5 5/8"									EAST-A WEST-A	A	
	217	G	2'-10 3/4"	6'-4 3/4"	3 1/2"	1'-0"	3 3/4"	1'-0"	3 5/8"	7 1/4"	1'-8 3/4"	11 5/8"	1'-8 7/8"	3 3/4"	9 1/4"	3 1/4"													EAST-A WEST-H	G	
	218	E	2'-10 5/8"	6'-10 3/4"	4 3/8"	1'-0"	1 5/8"	1'-0"	4 5/8"	7 3/4"	1'-5 5/8"	9 3/8"	3'-8 1/8"	3 7/8"	4 3/8"	10 1/2"	4 5/8"	10 1/2"	4 5/8"									NORTH-D SOUTH-D	I	
	219	E	2'-10 5/8"	6'-11 1/4"	4"	1'-0"	2 1/4"	1'-0"	4 3/8"	8 3/8"	1'-6 1/4"	7 1/2"	3'-9 1/8"	4"	4"	10 3/4"	4 3/4"	10 3/4"	4 3/8"									EAST-A WEST-A	F	CHECK FLOOR PLAN DOOR IS THERE (INTO RM 201)
	220	E	2'-7 3/8"	6'-6"	3 7/8"	9 7/8"	3 3/4"	9 7/8"	4"	6 3/4"	1'-8 3/8"	7"	3'-4 1/4"	3 3/8"	3 7/8"	9 7/8"	3 3/4"	9 7/8"	4"									NORTH-A SOUTH-A	A	
	221	2'-4 3/8"	6'-3 3/4"																								NORTH-L SOUTH-H	—	NO DOOR IN FRAME
	222	F	2'-9 3/4"	6'-9 1/4"	4 1/4"	10 1/2"	4 1/8"	10 1/2"	4 3/8"	8 1/4"	1'-6 7/8"	8 1/4"	3'-6 1/8"	3 3/4"														NORTH-H SOUTH-H	A	
	223	2'-10"	6'-9 1/2"																								NORTH-H SOUTH-H	—	NO DOOR IN FRAME
	224	L	3'-2 3/4"	6'-2 1/8"	4 3/8"	1'-0 7/8"	4 1/2"	1'-0 3/4"	4 1/4"	8 3/4"	1'-4 3/16"	11 1/2"	8 3/16"	4 1/2"	8 1/8"	4 3/8"	8 1/8"	4 3/8"											NORTH-B SOUTH-I	B	

DESIGNED: — CADD DJS 05 J. NAHODYL TECH. REVIEW: ASD DATE: 11/92	SUB SHEET NO.	TITLE OF SHEET: DOOR SCHEDULE — BUILDING 34 & 35 HARPERS FERRY N.H.P.	DRAWING NO. 385 25,024 PKG. NO. 116 — — SHEET 28 69

DOOR SCHEDULE

FLR.	DOOR NO.	DOOR TYPE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V		THICKNESS	THICK-NESS	FRAME DETAILS	ARCHITRAVE TYPE	PANEL TYPE	COMMENTS
THIRD FLOOR	301		2'-10"	6'-9 1/4"																									EAST-H WEST-H	–	NO DOOR IN FRAME
	302	F	2'-6 3/8"	6'-7"	3 3/4"	9 5/8"	4"	9 1/2"	3 1/2"	8"	1'-7"	8 3/4"	3'-4"	3 5/8"												1 3/8"			EAST-A WEST-H	A	
	303	E	2'-9 3/4"	6'-9 7/8"	4 1/4"	10 5/8"	4"	10 5/8"	4 1/4"	8 5/8"	1'-7"	8 1/8"	3'-6 1/8"	4"												1 3/8"			NORTH-A SOUTH-A	A	
	304	F	2'-9 5/8"	6'-9 5/8"	4 1/4"	10 1/2"	4 1/8"	10 5/8"	4 1/8"	8 3/8"	1'-6 7/8"	8 1/4"	3'-6"	4 1/8"												1 3/8"			NORTH-A SOUTH-A	A	
	305	F	2'-7 3/8"	6'-9 1/4"	4"	9 3/8"	4 1/2"	9 3/8"	4 1/8"	6"	1'-5"	1'-0"	3'-6 1/2"	3 3/4"												1 5/8"			NORTH-A SOUTH-A	H	
	306	F	2'-5	6'-9 1/4"	4 1/4"	8 3/4"	3 7/8"	8 3/4"	4 1/4"	8 1/8"	1'-7"	8 1/8"	3'-6"	4"												1 5/8"			EAST-E WEST-E	A	
	307	J	2'-11 5/8"	6'-8	3 3/8"	1'-0 3/8"	3 3/4"	1'-0 3/8"	3 3/4"	7 1/4"	1'-9 3/4"	11 3/4"	1'-9 1/2"	3 3/4"	9 7/8"	4 1/8"														NORTH-A SOUTH-A	G	
	308	H	2'-9 3/4"	6'-9 3/4"	4 1/8"	11 7/8"	1 3/8"	11 7/8"	4 1/4"	4 3/8"	10 1/2"	4 1/8"	10 1/2"	4 1/4"	8 1/4"	1'-7"	8"	1'-8 3/8"	1 3/8"	1'-8 3/8"	4 3/8"									NORTH-C SOUTH-C	A	
	309	NO	DOOR																										NORTH-C SOUTH-C	–	
	310	NO	DOOR																										NORTH-K SOUTH-	–	
	311	NO	DOOR																										NORTH-A SOUTH-A	–	
	312	NO	DOOR																										EAST-A WEST-A	–	
	313	NO	DOOR																										EAST-A WEST-A	–	
	314	NO	DOOR																										EAST-A WEST-A	–	
	315	L	2'-10 3/4"	7'-0"	5"	10 3/8"	4 1/2"	10 3/8"	4 1/2"	8 1/2"	1'-7 3/4"	11 7/8"	10 1/8"	4 3/8"	10"	4 1/2"	10 1/8"	4 3/4"												EAST-A WEST-H	B	
	316	F	2'-6 7/8"	6'-6"	3 7/8"	9 1/2"	4"	9 1/2"	3 3/4"	8 1/8"	1'-7"	8 1/4"	3'-2 1/8"	4 1/4"																NORTH-L SOUTH-H	A	
	317		2'-6 1/2"	6'-6 1/8"																									NORTH-L SOUTH-H	–	NO DOOR IN FRAME
	318	F	2'-10"	6'-9 3/8"	4 3/8"	10 5/8"	4"	10 5/8"	4 3/8"	8 1/4"	1'-7"	8 1/4"	3'-6 1/8"	3 3/4"												1 3/8"			NORTH-H SOUTH-H	A	
	319		2'-9 7/8"	6'-9 3/8"																									NORTH-H SOUTH-H	–	NO DOOR IN FRAME
	320		2'-9 1/2"	6'-9 3/4"																									NORTH-H SOUTH-H	–	NO DOOR IN FRAME
	321																													A	

		A	B	C	D	E	F	G	H	I	J	K
FOURTH FLOOR	401	F	2'-6"	5'-8 1/8"	4 1/2"	8 1/2"	4"	8 5/8"	4 3/8"	7 7/8"	1'-6 7/8"	8 1/4"	2'-5 1/8"	4"
	402		2'-5 7/8"	6'-6"										
	403	F	2'-5 7/8"	6'-5 3/4"	4 1/2"	8 1/8"	4"	8 5/8"	4 1/8"	7 7/8"	1'-8 1/8"	7 1/4"	3'-2"	4 1/2"
	404	F	2'-5 7/8"	6'-0"	4 3/8"	8 1/2"	4 1/8"	8 5/8"	4 1/4"	2 3/4"	1'-7"	8 1/4"	3'-2"	4"
	405	F	2'-5 3/4"	6'-0 1/8"	4 1/4"	8 5/8"	4"	8 5/8"	4 1/4"	8 1/2"	1'-7"	8 1/8"	2'-8 1/8"	4 3/8"
	406	F	2'-5 7/8"	6'-5 3/8"	4 3/8"	8 5/8"	4 1/8"	8 3/8"	4 3/8"	8 1/4"	1'-6 7/8"	8 1/4"	3'-2"	4"
	407	F	2'-5 7/8"	6'-5 3/8"	4 3/8"	8 5/8"	4 1/8"	8 3/8"	4 3/8"	8 1/4"	1'-6 7/8"	8 1/4"	3'-2"	4"

THICKNESS	THICK-NESS	FRAME DETAILS	ARCHITRAVE TYPE	PANEL TYPE	COMMENTS
1 1/8"			EAST-A WEST-M	A	
			EAST-I WEST-A		
1 1/8"			NORTH-I SOUTH-A	A	
1 3/8"			EAST-A WEST-A	A	
1 1/8"			EAST-A WEST-I	A	
1 1/8"			NORTH-A SOUTH-A		NO DOOR IN FRAME
1 1/8"			NORTH-A SOUTH-A	A	

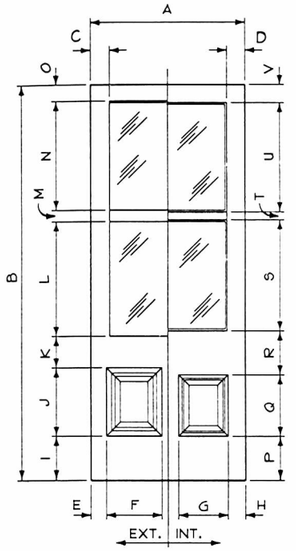
DESIGNED: —	SUB SHEET NO.	TITLE OF SHEET	DRAWING NO. 385 25,024
DRAWN: DJS		DOOR SCHEDULE	PKG. NO. 116
CHECKED: J. NAHODYL		BUILDING 34 & 35	SHEET 29
TECH. REVIEW: ASD		HARPERS FERRY N.H.P.	69
DATE: 11/92			

TRANSOM SCHEDULE

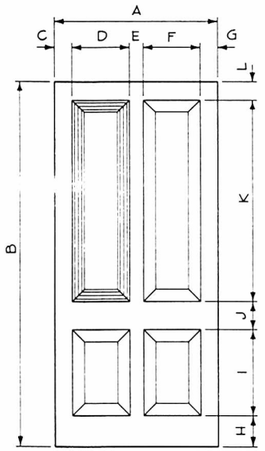
FLR.	DOOR NO.	TRANSOM TYPE	AA	BB	CC	DD	EE	FF	GG	HH	II	JJ	KK	LL	MM	NN	TRANSOM BAR TYPE	COMMENTS
BASEMENT	001	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	002	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	003	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	004	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
FIRST FLOOR	101	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	102	A	3'-1 3/4"	1'-6 1/8"	3"	1'-7 3/4"	3"	2 5/8"	1'-1"	2 1/2"	—	—	—	—	—	—	SOUTH-E	
	103	C	3'-10 1/4"	1'-4 1/2"	2"	10 7/16"	3/16"	10 7/16"	3/16"	10 7/16"	3/16"	10 3/8"	2"	1 3/8"	1'-1 3/4"	1 3/8"	SOUTH-E	
	104	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	105	A	3'-0"	1'-3 3/4"	2 1/4"	2'-7 1/2"	2 1/4"	1 1/2"	1'-0 1/2"	1 3/4"	—	—	—	—	—	—	EAST-C	
	106	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	107	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	108	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	109	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	110	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	111	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	112	B	3'-4"	1'-3 1/4"	3 1/4"	1'-4 1/2"	1/4"	1'-4 3/4"	3 1/4"	2 1/4"	10 1/2"	2 1/2"	—	—	—	—	EAST-G	
	113	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	114	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
SECOND FLOOR	201	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	202	A	2'-9 3/4"	1'-2"	2 5/8"	2'-4 1/2"	2 5/8"	1 3/4"	10 1/2"	1 3/4"	—	—	—	—	—	—	NORTH-A	
	203	—	2'-10"	1'-2"	—	—	—	—	—	—	—	—	—	—	—	—	EAST-A	
	204	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	205	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	206	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	207	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	208	A	2'-5 3/4"	1'-10 1/2"	1 3/4"	2'-2"	2"	1 3/4"	1'-7"	1 3/4"	—	—	—	—	—	—	NORTH-F SOUTH-G	
	209	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	210	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	211	A	2'-6"	1'-10 1/2"	2"	2'-2"	2"	1 7/8"	1'-6 3/4"	1 7/8"	—	—	—	—	—	—	NORTH-G SOUTH-A	
	212	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	213	A	2'-9 1/8"	1'-1 5/8"	2 1/4"	2'-4 1/2"	2 3/8"	1 3/4"	10 3/8"	1 1/2"	—	—	—	—	—	—	EAST-A WEST-B	
	214	B	2'-9 7/8"	1'-2"	1 7/8"	1'-3"	1/4"	1'-3"	1 3/4"	2"	10"	2"	—	—	—	—	EAST-B WEST-B	
	215	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	216	B	4'-10 1/2"	1'-1 1/2"	2 1/8"	2'-2 7/8"	1/2"	2'-2 7/8"	2 1/8"	1 5/8"	10 1/2"	1 3/8"	—	—	—	—	EAST-A WEST-B	
	217	A	2'-11"	1'-4 1/8"	2"	2'-7"	2"	2 1/8"	1'-0"	2"	—	—	—	—	—	—	EAST-B WEST-C	
	218	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	219	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	220	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	221	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	222	A	2'-9"	1'-1 1/2"	2 1/4"	2'-4 1/2"	2 1/4"	1 3/4"	10 1/2"	1 1/4"	—	—	—	—	—	—	NORTH-B SOUTH-E	
	223	—	2'-9 1/4"	1'-1 1/8"	—	—	—	—	—	—	—	—	—	—	—	—	NORTH-B SOUTH-E	
	224	B	3'-2 3/4"	6 1/4"	7/8"	1'-6 3/8"	1/4"	1'-6 3/8"	7/8"	1 5/8"	3 1/8"	1 1/2"	—	—	—	—	NORTH-E SOUTH-C	

FLR.	DOOR NO.	TRANSOM TYPE	AA	BB	CC	DD	EE	FF	GG	HH	II	JJ	KK	LL	MM	NN	TRANSOM BAR TYPE	COMMENTS
THIRD FLOOR	301	A	2'-9"	1'-1 1/2"	2 1/4"	2'-4 1/2"	2 1/4"	1 5/8"	10 1/2"	1 3/8"	—	—	—	—	—	—	EAST-B WEST-E	
	302	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	303	A	2'-9"	1'-2 1/4"	2 1/4"	2'-4 1/2"	2 1/4"	1 3/4"	10 1/2"	2"	—	—	—	—	—	—	NORTH-A SOUTH-B	
	304	A	2'-9"	1'-2"	2 1/4"	2'-4 1/2"	2 1/4"	1 3/4"	10 1/2"	1 3/4"	—	—	—	—	—	—	NORTH-A SOUTH-B	
	305	A	2'-6 1/2"	1'-1 1/2"	2 1/8"	2'-2 5/8"	1 3/4"	1 7/8"	10 1/8"	1 1/2"	—	—	—	—	—	—	NORTH-A SOUTH-B	
	306	A	2'-6"	1'-2"	1 7/8"	2'-2 1/4"	1 3/4"	2"	10"	2"	—	—	—	—	—	—	EAST-D WEST-C	
	307	A	2'-11"	1'-5"	1 3/4"	2'-7 1/2"	1 3/4"	2"	1'-1 5/8"	1 3/8"	—	—	—	—	—	—	NORTH-B SOUTH-A	
	308	A	2'-9"	1'-1 1/4"	2 1/4"	2'-4 1/2"	2 1/4"	1 1/2"	10 1/2"	1 1/4"	—	—	—	—	—	—	NORTH-B SOUTH-A	
	309	—	2'-9 7/8"	1'-2"	—	—	—	—	—	—	—	—	—	—	—	—	NORTH-B SOUTH-C	
	310	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	311	A	2'-9"	1'-1 1/2"	2 1/4"	2'-4 1/2"	2 1/4"	1 3/4"	10 1/2"	1 1/4"	—	—	—	—	—	—	NORTH-B SOUTH-A	
	312	A	2'-9"	1'-1 1/2"	2 1/4"	2'-4 1/2"	2 1/4"	1 1/2"	10 1/2"	1 1/2"	—	—	—	—	—	—	EAST-A WEST-B	
	313	A	2'-9"	1'-1 1/2"	2 1/4"	2'-4 1/2"	2 1/4"	1 1/2"	10 1/2"	1 1/2"	—	—	—	—	—	—	EAST-A WEST-B	
	314	A	2'-9"	1'-1 1/2"	2 1/4"	2'-4 1/2"	2 1/4"	1 1/2"	10 1/2"	1 1/2"	—	—	—	—	—	—	EAST-A WEST-B	
	315	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	316	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	317	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	318	A	2'-9"	1'-1 1/2"	2 1/4"	2'-4 1/2"	2 1/4"	1 5/8"	10 3/8"	1 1/2"	—	—	—	—	—	—	NORTH-B SOUTH-E	
	319	A	2'-9"	1'-1 1/2"	2 1/4"	2'-4 1/2"	2 1/4"	1 5/8"	10 3/8"	1 1/2"	—	—	—	—	—	—	NORTH-B SOUTH-E	
	320	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	321	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
FOURTH FLOOR	401	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	402	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	403	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	404	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	405	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	406	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	407	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	

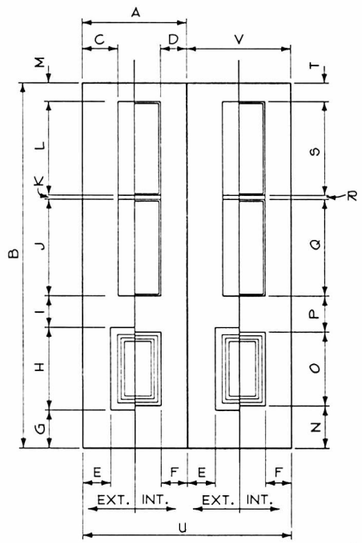
DESIGNED: —	SUB SHEET NO.	TITLE OF SHEET: TRANSOM SCHEDULE	DRAWING NO. 385 / 25,024
CADD DJS		BUILDING 34 & 35	PKG. NO. 116
L. RUEDA		HARPERS FERRY N.H.P.	30
TECH. REVIEW: ASD			69
DATE: 11/92			



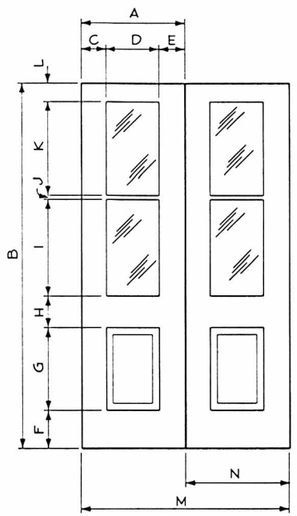
TYPE A



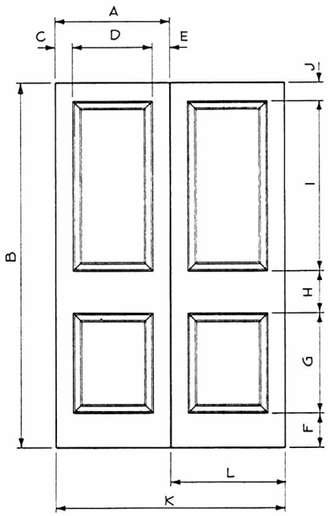
TYPE B



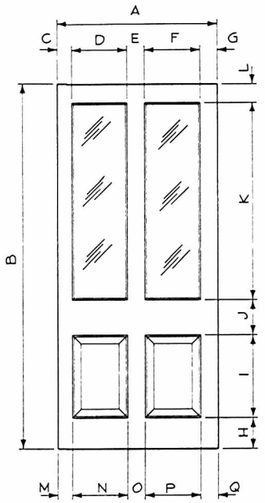
TYPE C



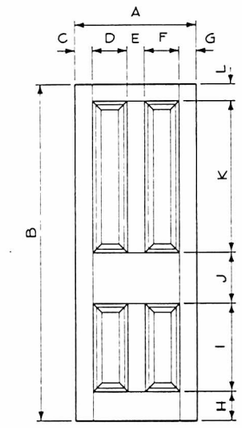
TYPE CC



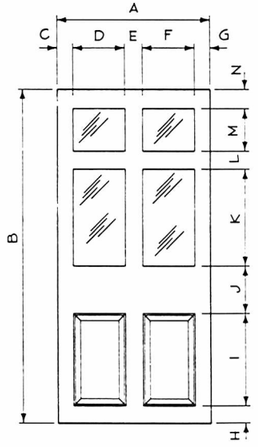
TYPE D



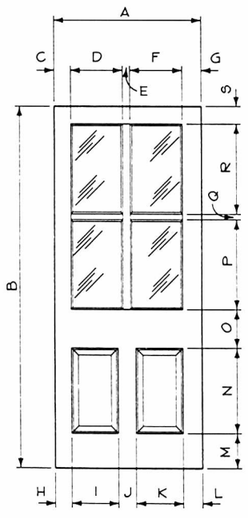
TYPE E



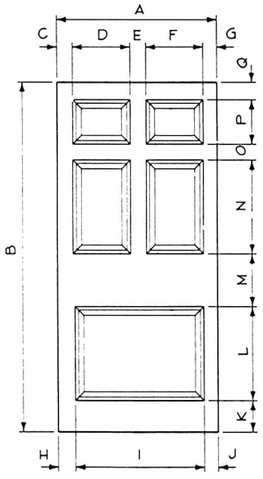
TYPE F



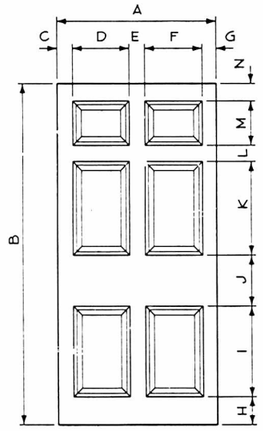
TYPE G



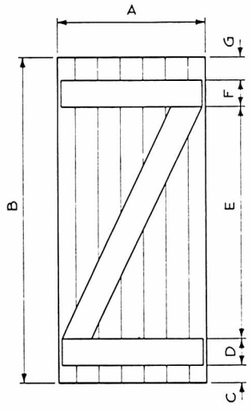
TYPE H



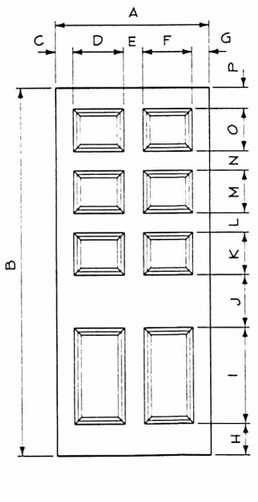
TYPE I



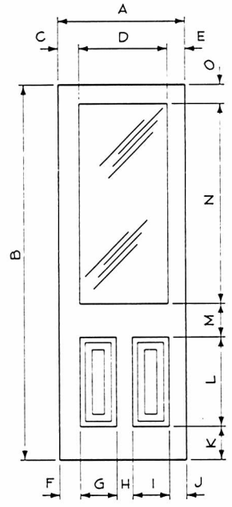
TYPE J



TYPE K

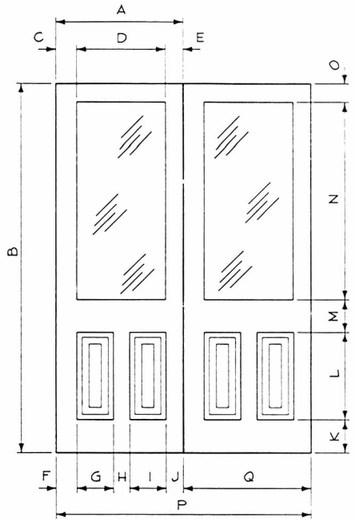


TYPE L

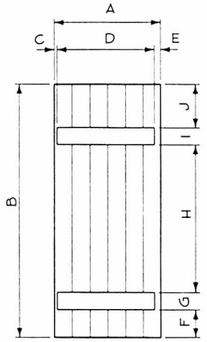


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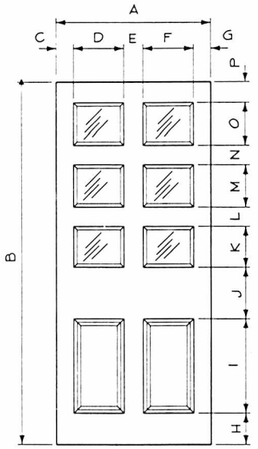
DESIGNED: — GADD DS / JET TECH. REVIEW: ASD DATE: 11/92	SUB SHEET NO.	TITLE OF SHEET: DOOR TYPES — BUILDING 34 & 35 HARPERS FERRY N.H.P.	DRAWING NO. 385 25,024 PKG. NO. 116 SHEET 31 69



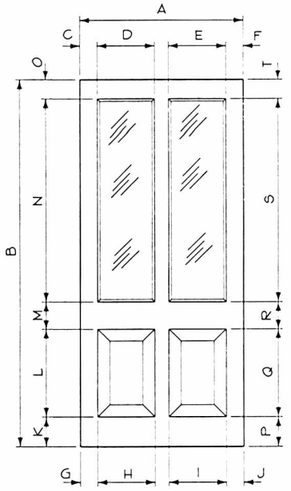
TYPE MM



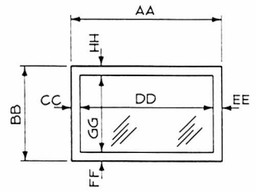
TYPE N



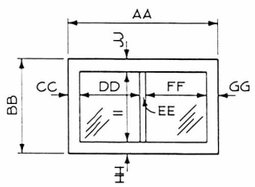
TYPE O



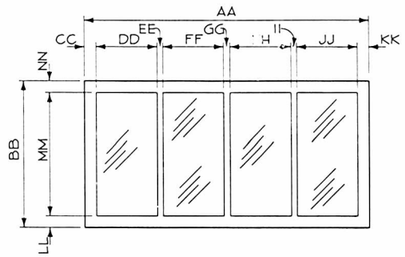
TYPE P



TRANSOM TYPE A



TRANSOM TYPE B



TRANSOM TYPE C

DOOR #103 TRANSOM TYPE C

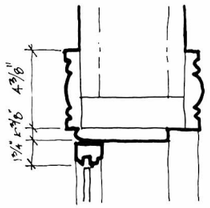
AA	BB	CC	DD	EE	FF	GG	HH	II	JJ	KK	LL	MM	NN
3'-10 1/4"	1'-4 1/2"	2"	10 7/16"	3/16"	10 7/16"	3/16"	10 7/16"	3/16"	10 3/8"	2"	1 3/8"	1'-1 3/4"	1 3/8"

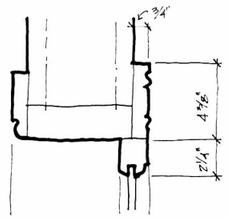
Key to Door Types

Type	Door(s)
A	101
B	similar to F
C	103, 201
CC	---
D	104
E	102,203 218-20, 303
F	113, 202 208-15, 222, 302, 304-06, 316,318, 321, 401, 403-05, 407
G	107, 217
H	108, 308
I	109
J	110, 307
K	105
L	112, 224, 315
M	---
MM	206-07, 216
N	---
O	205
P	similar to E

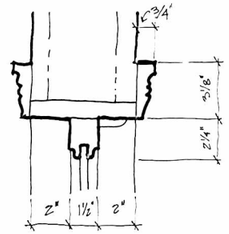
DESIGNED: — GADD LS TECH. REVIEW: ASD DATE: 11/92	SUB SHEET NO.	TITLE OF SHEET: DOOR TYPES BUILDING 34 & 35 HARPERS FERRY N.H.P.	DRAWING NO. 385 25,024 PKG. NO. 116 SHEET 32 OF 69

HEAD

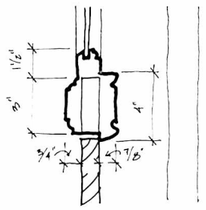


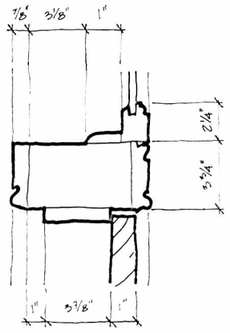


HEAD

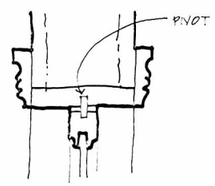


TRANSOM BAR

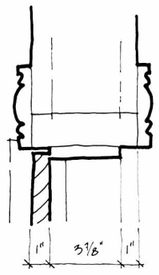


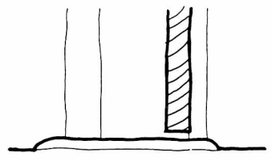


JAMB

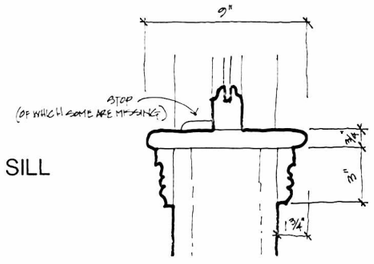


JAMB





SILL



THRESHOLD



DOOR 308

D309, 311-14 SIMILAR
D302, 315-17, 320 SIMILAR BUT W/O TRANSOM

DOOR 213

D208, 211 SIMILAR
D210, 212 SIMILAR BUT W/O TRANSOM

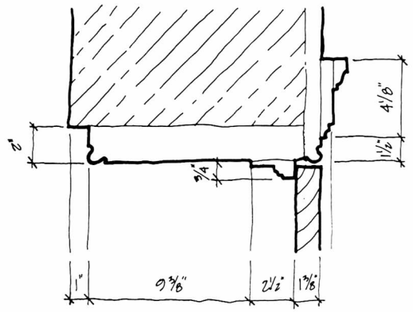
WINDOW 218

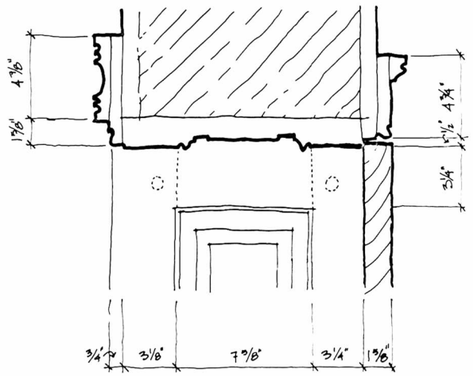
W315-18 SIMILAR

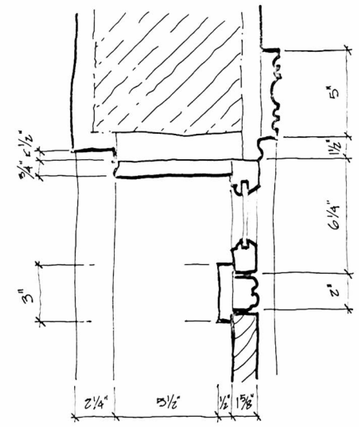
DESIGNED: —	SUB SHEET NO.	TITLE OF SHEET: DOOR DETAILS INTERIOR WINDOW DETAIL BUILDINGS 34 & 35 HARPERS FERRY N.H.P.	DRAWING NO. 385 / 25,029
DRAWN: JNF			PKG. NO. 116
TECH. REVIEW: ASD			SHEET 34 OF 69
DATE: 11/92			

U.S. GOVERNMENT PRINTING OFFICE: 675-100

HEAD



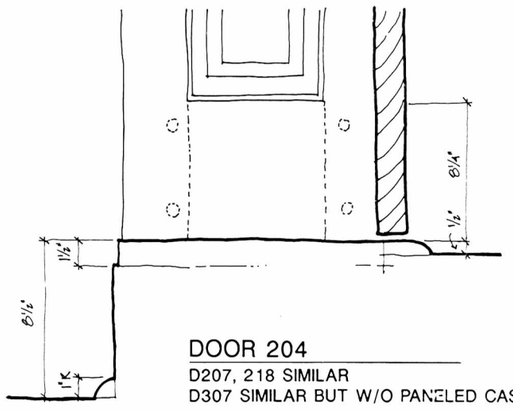




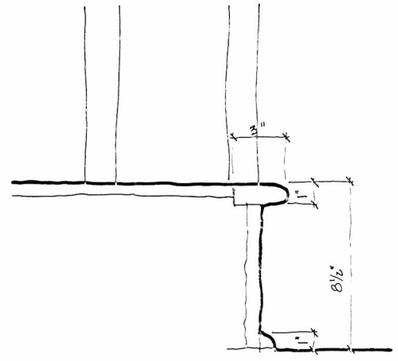
THRESHOLD



DOOR 201



DOOR 204
D207, 218 SIMILAR
D307 SIMILAR BUT W/O PANELED CASING

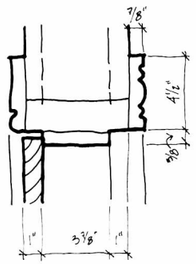


DOOR 224
D320 SIMILAR BUT W/O TRANSOM

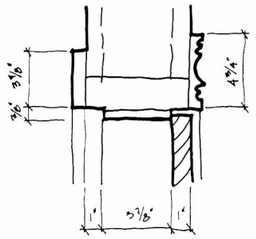
DESIGNED: —	SUB SHEET NO.	TITLE OF SHEET: DOOR DETAILS	DRAWING NO. 385 / 25,029
DRAWN: JNF			PKG. NO. 116
TECH. REVIEW: ASD		BUILDINGS 34 & 35 HARPERS FERRY N.H.P.	SHEET 35 OF 69
DATE: 11/92			

U.S. GOVERNMENT PRINTING OFFICE: 675-100

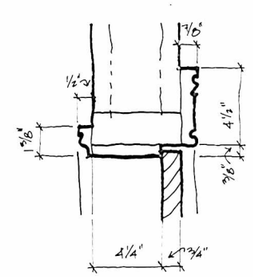
DOORS 402, 403, 405



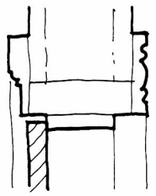
DOORS 209,
210 (3" WALL), 212



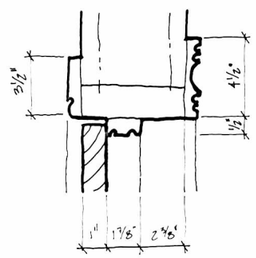
CLOSET DOORS



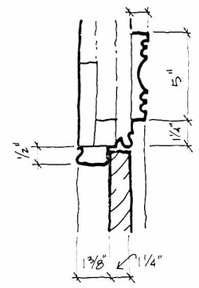
DOOR 401



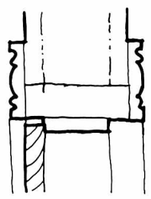
DOOR 215



DOOR 205

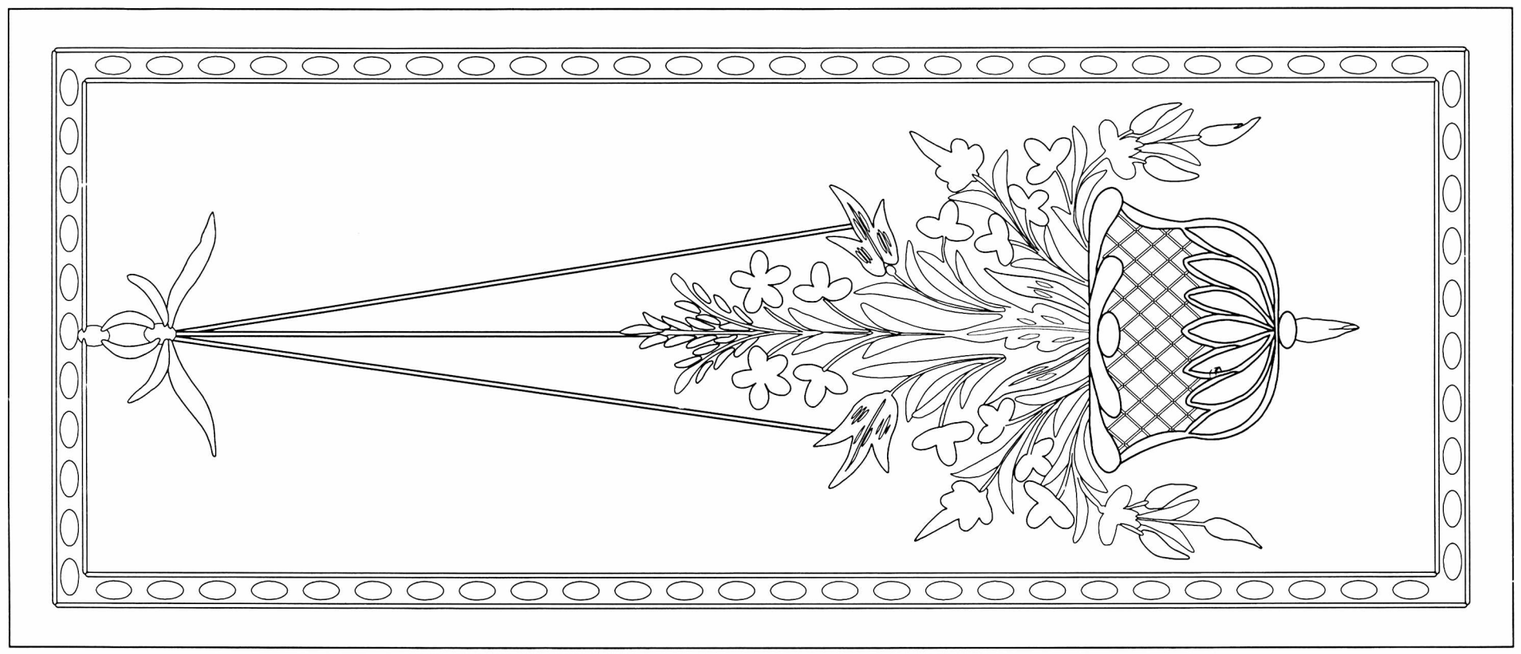


DOORS 404, 406, 407



DESIGNED: —	SUB SHEET NO.	TITLE OF SHEET DOOR DETAILS VARIOUS HEAD DETAILS BUILDINGS 34 & 35 HARPERS FERRY N.H.P.	DRAWING NO. 385 / 25,029
DRAWN: JNF			PKG. NO. 116
TECH. REVIEW: ASD			SHEET 36 OF 69
DATE: 11/92			

U.S. GOVERNMENT PRINTING OFFICE: 675-100



DESIGNED: — CADD L. FARKASH TECH. REVIEW: ASD DATE: 11/92	SUB SHEET NO.	TITLE OF SHEET DOOR 207 WINDOW BUILDING 34 & 35 HARPERS FERRY N.H.P.	DRAWING NO. 385 25,024 PKG. NO. 116 SHEET NO. 37 OF 89	

/PRO./HAFE116/ARCH/WINDOW_HANG_BASKET.DG

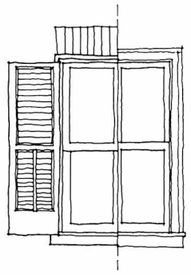
WINDOW NO.	TYPE	DIMENSIONS A	B	C	D	ARCHITRAVE TYPE	REMARKS
		FIRST FLOOR					
101	A1	3'-5¼"	5'-7½"	2'-10"	2'-10½"	D	
102	A1	3'-4"	5'-8"	2'-10½"	2'-10½"	D	
103	C1	5'-2¼"	7'-0½"	—	—		SINGLE FIXED SASH
103A	C2	5'-4¾"	7'-7"	3'-10¾"	3'-9¾"		
104	C1	5'-5"	7'-2¼"	—	—		SINGLE FIXED SASH
104A	C2	5'-4½"	7'-7½"	3'-10¾"	3'-9¾"		
105	B5	2'-4¼"	3'-10½"	2'-0"	1'-11¾"	O	
106	A2	2'-0¼"	6'-1"	3'-1½"	3'-0½"	A	
107	A2	2'-0¼"	6'-0¾"	3'-1½"	3'-0½"	A	
108	A2	2'-0¼"	6'-0¾"	3'-1½"	3'-0½"	A	
109	A2	2'-0½"	6'-0½"	3'-1½"	3'-0½"	A	
110	A2	2'-0½"	6'-0¼"	3'-1½"	3'-0½"	A	
111	—	—	—	—	—	A	WINDOW BOARDED
112	B2	3'-1½"	5'-8"	2'-11¼"	2'-10¼"	F	
113	—	—	—	—	—	O	WINDOW BOARDED
114	B5	2'-5¼"	3'-11"	2'-0"	2'-0"	O	
115	B1(R)	2'-5¼"	4'-7½"	1'-11"	2'-10¼"	O	TOP AND BOTTOM SASHES REVERSED
116	A4	2'-4½"	5'-7"	2'-10½"	2'-0¾"	D	
117	A4	2'-4¼"	5'-7"	2'-10¼"	2'-10"	D	
118	A4	2'-4½"	5'-7"	2'-10¼"	2'-10"	D	
119	A4	2'-4¼"	5'-6½"	2'-0¾"	2'-10"	D	
		SECOND FLOOR					
201	A4	2'-5"	5'-7"	2'-10⅝"	2'-0¾"	B	
202	A4	2'-4⅜"	5'-7"	2'-10¾"	2'-0¾"	B	
203	A1	3'-1⅝"	4'-10"	2'-6"	2'-5½"	J	
204	A1	3'-1¾"	4'-0¾"	2'-6½"	2'-5"	J	
205	A1	3'-1½"	4'-10"	2'-6¼"	2'-5"	J	
206	A1(N)	2'-5⅛"	4'-10"	2'-5¼"	2'-6¼"	J	
207	A1(N)	2'-5½"	4'-10"	2'-6"	2'-5¾"	J	
208	A1	3'-0"	4'-10½"	2'-6½"	2'-5¾"	A	
209	A1	3'-0"	4'-10¾"	2'-6½"	2'-5¾"	A	

WINDOW NO.	TYPE	DIMENSIONS A	B	C	D	ARCHITRAVE TYPE	REMARKS
		SECOND FLOOR (CONTINUED)					
210	A1	3'-0"	4'-10"	2'-6"	2'-5¼"	A	
211	A1					A	INACCESSIBLE
212	A1	3'-0½"	4'-10¾"	2'-6¼"	2'-5¾"	A	
213	A1	3'-0"	4'-10¼"	2'-6⅞"	2'-5¾"	A	
214	A1	3'-0¼"	4'-10½"	2'-6¼"	2'-6"	A	
215	A1	3'-0"	4'-10½"	2'-6¼"	2'-5½"	A	
216	A1	3'-0"	4'-10½"	2'-6"	2'-5¾"	A	
217	A1					A	INACCESSIBLE
218	C3	2'-0"	4'-0"	—	—	O	SINGLE SWINGING SASH
219	A1	3'-0"	4'-10½"	2'-6¼"	2'-5¾"	H	
220	B1	3'-1½"	4'-6"	—	2'-0"	F+I	BOTTOM SASH MISSING
221	A1	3'-0"	4'-0½"	2'-6"	2'-5½"	H	
222	A1	3'-0"	4'-10½"	2'-6"	2'-5½"	H	
223	A1	3'-0"	4'-10½"	2'-6"	2'-5¾"	H	
224	A1	3'-0"	4'-10½"	2'-6¼"	2'-5¼"	H	
225	A4	2'-5"	5'-7"	2'-10¾"	2'-0¾"	B	
		THIRD FLOOR					
301	A1	3'-0"	4'-10¾"	2'-6½"	2'-6"	M	
302	A1	3'-0"	4'-11"	2'-6¾"	2'-6"	M	
303	A1	3'-0¼"	4'-10¾"	2'-6¾"	2'-6"	A	
304	A1	3'-0"	4'-10¾"	2'-6¾"	2'-5¾"	A	
305	A1	3'-0"	4'-10¾"	2'-6½"	2'-6"	A	
306	A1	3'-0"	4'-11"	2'-6¾"	2'-6"	A	
307	A1	3'-0"	4'-11"	2'-6½"	2'-6¼"	A	NEW FINISHED OPENING
308	A1	3'-0"	4'-10½"	2'-6¼"	2'-5½"	A	PARTIALLY RECONSTRUCTED FINISHED OPENING
309	A1	3'-0¼"	4'-10¼"	2'-6¼"	2'-5½"	A	
310	A1	3'-0¼"	4'-10½"	2'-6⅞"	2'-6"	A	
311	A1	3'-0¼"	4'-10½"	2'-6¼"	2'-5¾"	A	
312	A1	3'-0"	4'-10½"	2'-6¼"	2'-5½"	A	
313	A1	3'-0¼"	4'-10½"	2'-6⅞"	2'-5½"	A+E	
314	A1	3'-0"	4'-10¾"	2'-6½"	2'-5¼"	A	

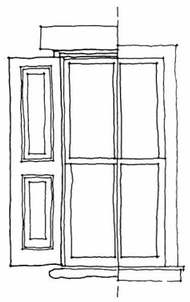
WINDOW NO.	TYPE	DIMENSIONS A	B	C	D	ARCHITRAVE TYPE	REMARKS
		THIRD FLOOR (CONTINUED)					
315	C3	2'-0"	3'-6⅛"	—	—	P	SINGLE SWINGING SASH
316	C3	2'-0"	4'-4¼"	—	—	P	SAME
317	C3	2'-0"	4'-4¼"	—	—	P	SAME
318	C3	2'-0"	3'-6"	—	—	P	SAME
319	A1	3'-0¼"	4'-10½"	2'-6¼"	2'-5½"	A	
320	A1	3'-0¼"	4'-10½"	2'-6¼"	2'-5¾"	A	
321	A1	3'-0¼"	4'-10¼"	2'-6⅝"	2'-5½"	A	
322	A1	3'-0"	4'-10¾"	2'-6½"	2'-5¾"	A	
323	A1	3'-0⅛"	4'-10¾"	2'-6¾"	2'-5¾"	A	
324	A1	3'-0¼"	4'-10½"	2'-6¼"	2'-5½"	A	
325	A1	3'-0"	4'-10¾"	2'-6⅛"	2'-5½"	—	NEW FINISHED OPENING/ REFINISHED SASHES/ MISSING INTERIOR CASING
326	A1	3'-0¼"	4'-10¾"	2'-6½"	2'-5½"	H	
327	A1	3'-0¼"	4'-10¾"	2'-6¼"	2'-5¾"	H	
328	A1	3'-0¼"	4'-10¾"	2'-6¼"	2'-5½"	H	
329	A1	3'-0"	4'-10½"	2'-6¼"	2'-5¼"	H	
330	A1	3'-0¼"	4'-10½"	2'-6¼"	2'-5½"	M	
		FOURTH FLOOR (GARRET)					
401	A3	2'-10¼"	4'-5½"	2'-3¾"	2'-3½"	O	
402	A3	2'-10½"	4'-5¾"	2'-3½"	2'-3"	O	
403	A3	2'-0¾"	4'-5½"	—	2'-3"	O	BOTTOM SASH REMOVED WOOD GRILLE IN PLACE
404	—	2'-5"	5'-7¼"	—	—	I	SASH REMOVED SINCE 1957 (BOARDED)
405	B2	3'-1½"	5'-8½"	2'-10¾"	2'-0¾"	O	
406	B1	3'-1¾"	4'-10¼"	2'-10½"	2'-0"	O	
407	B1	3'-1¾"	4'-10¼"	2'-11"	2'-0"	O	
408	B5	2'-1¾"	4'-8¼"	2'-10½"	2'-0"	O	
409	A3	2'-10¼"	4'-5½"	2'-3¾"	2'-3½"	O	
410	A3	2'-10¼"	4'-5½"	2'-3½"	2'-3¾"	O	
411	A3	2'-10½"	4'-5½"	—	2'-3¼"	O	BOTTOM SASH REMOVED WOOD GRILLE IN PLACE

NOTES: ALL FIRST FLOOR WINDOWS HAVE FIXED BOTTOM SASHES EXCEPT INTERIOR WINDOWS 103A AND 103B.

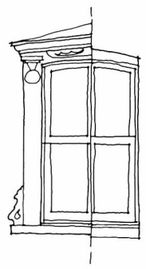
DESIGNED: —	SUB SHEET NO.	TITLE OF SHEET: WINDOW SCHEDULE	DRAWING NO. 385 25,029
DRAWN: JNF		BUILDINGS 34 & 35 HARPERS FERRY N.H.P.	PKG. NO. 116
TECH. REVIEW: ASD			SHEET 38 OF 69
DATE: 11/92			



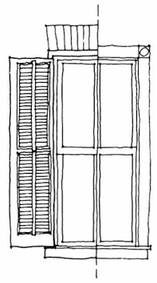
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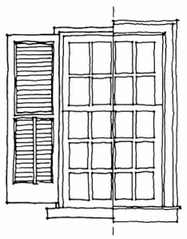
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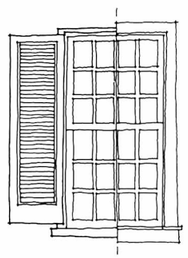
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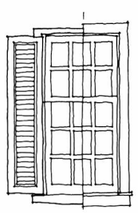
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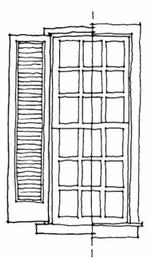
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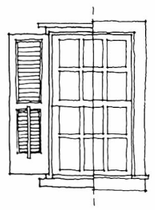
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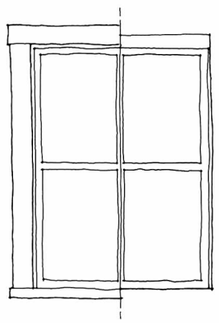
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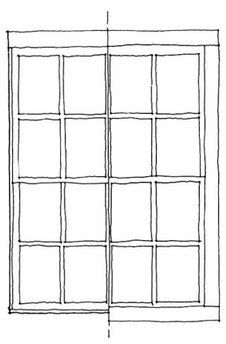
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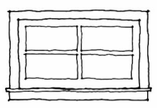
5



C 1



2



3

DESIGNED: —
DRAWN: JNF
TECH. REVIEW: ASD
DATE: 11/92

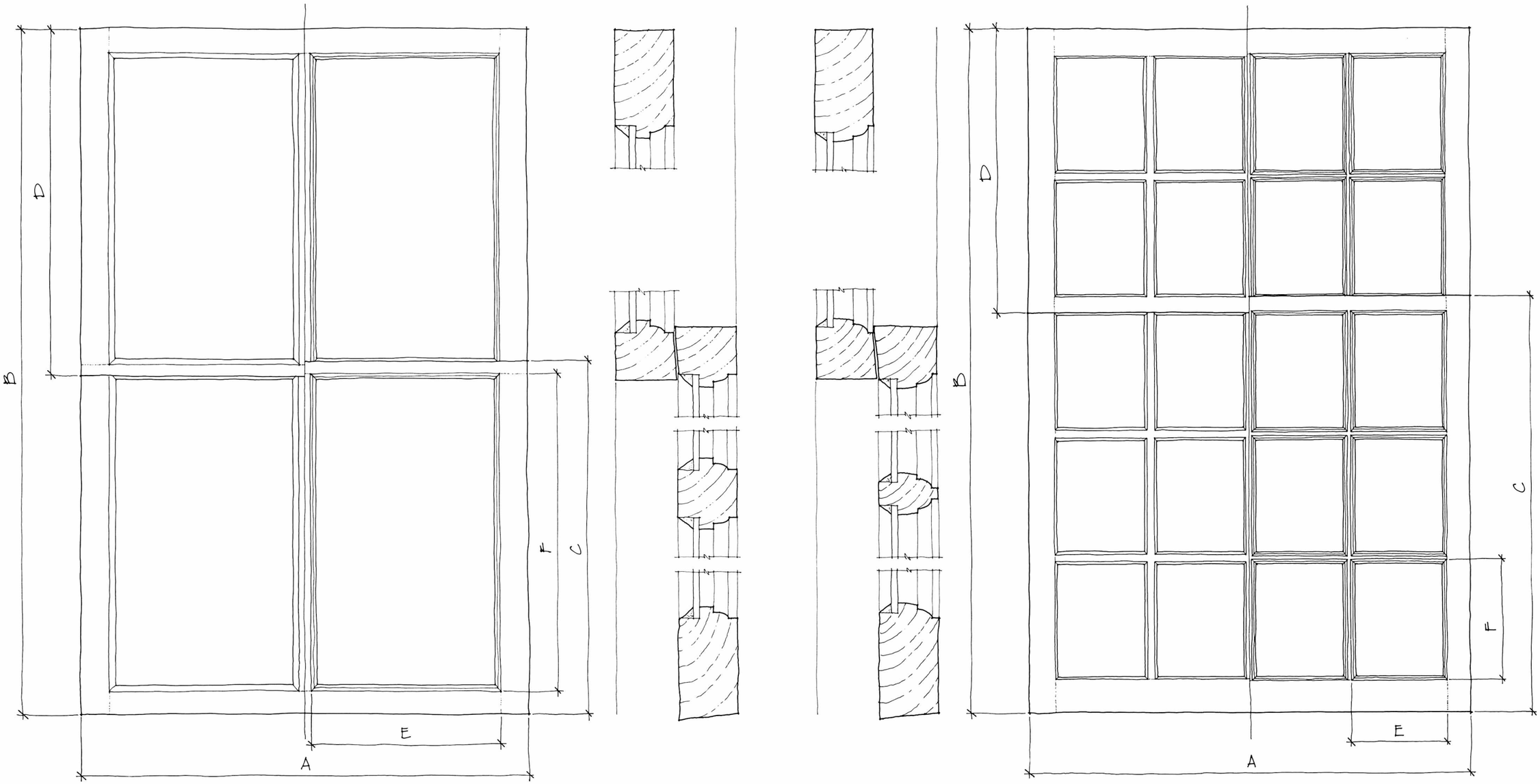
SUB SHEET NO.

TITLE OF SHEET
WINDOW TYPES
BUILDINGS 34 & 35
HARPERS FERRY N.H.P.

DRAWING NO. 385 25,029
PKG. NO. 116
SHEET 39 OF 69

U.S. GOVERNMENT PRINTING OFFICE: 675-100

WINDOW TYPES: "A" "A" "B" "B"



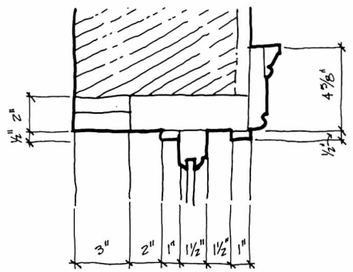
SCALES: 3" = 1'-0" FULL SCALE 3" = 1'-0"

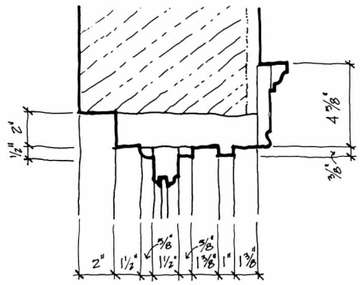
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DESIGNED: —	SUB SHEET NO.	TITLE OF SHEET: WINDOW DETAILS	DRAWING NO. 385 25,029
DRAWN: JNF		BUILDINGS 34 & 35 HARPERS FERRY N.H.P.	PKG. NO. 116
TECH. REVIEW: ASD			SHEET 40 OF 69
DATE: 11/92			

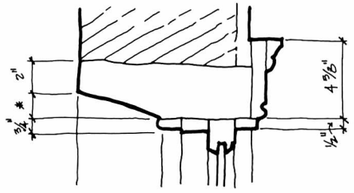
☆ U.S. GOVERNMENT PRINTING OFFICE: 675-100

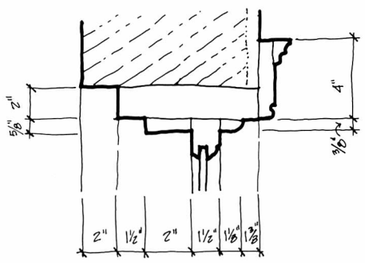
HEAD



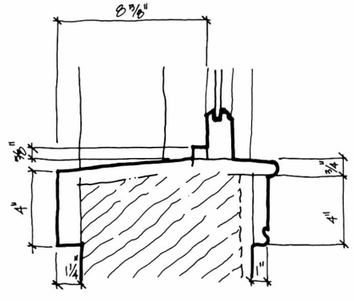


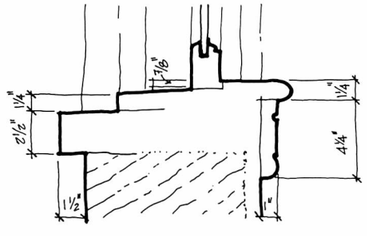
JAMB





SILL





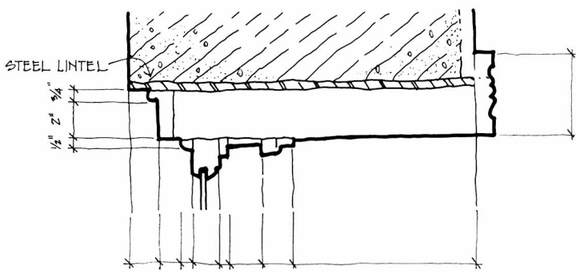
WINDOW 101
W102 SIMILAR

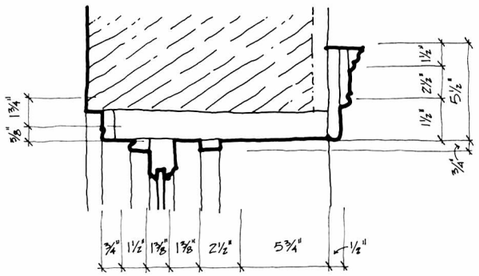
WINDOW 116
W117-19 SIMILAR

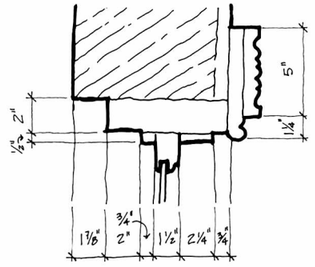
DESIGNED: —	SUB SHEET NO.	TITLE OF SHEET: WINDOW DETAILS — BUILDINGS 34 & 35, HARPERS FERRY N.H.P.	DRAWING NO. 385 / 25,029
DRAWN: JNF			PKG. NO. 116
TECH. REVIEW: ASD			SHEET 41 OF 69
DATE: 11/92			

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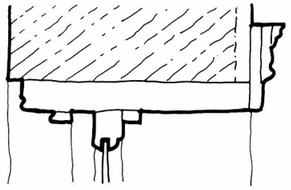
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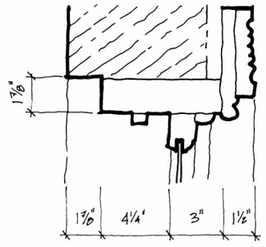




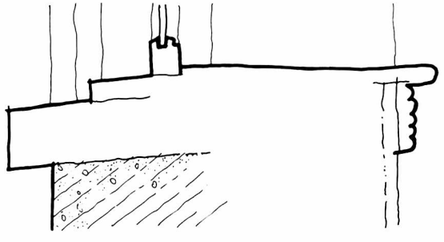


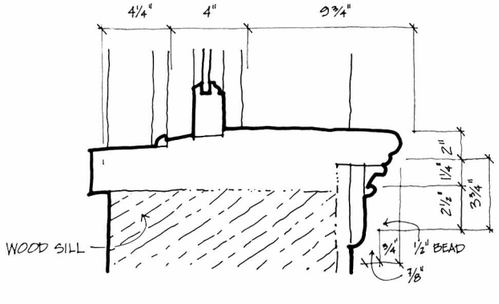
JAMB

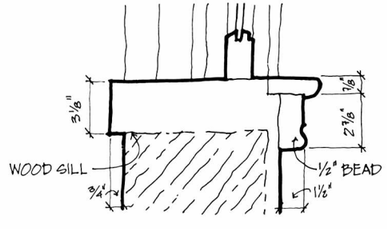




SILL







WINDOW 208

W209-17, 219-24 SIMILAR
NOTE: LINTELS VARY BETWEEN STEEL AND TIMBER

WINDOW 203

W204-07, 220 SIMILAR

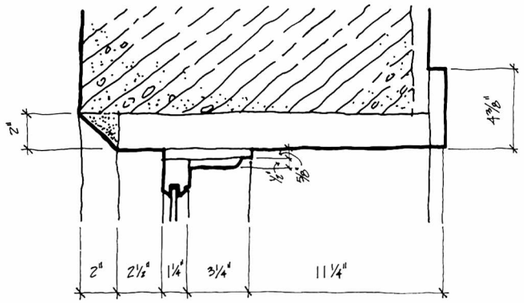
WINDOW 201

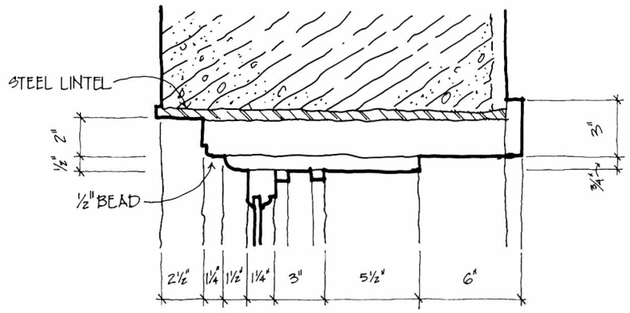
W202, 225 SIMILAR

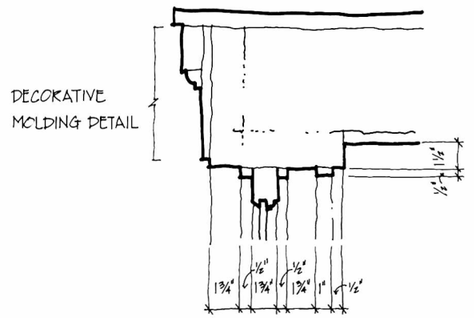
DESIGNED: —	SUB SHEET NO.	TITLE OF SHEET: WINDOW DETAILS	DRAWING NO. 385 / 25,029
DRAWN: JNF		BUILDINGS 34 & 35	PKG. NO. 116
TECH. REVIEW: ASD		HARPERS FERRY N.H.P.	SHEET 42 OF 69
DATE: 11/92			

☆ U.S. GOVERNMENT PRINTING OFFICE: 675-100

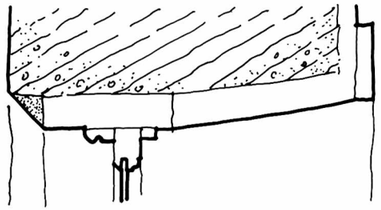
HEAD



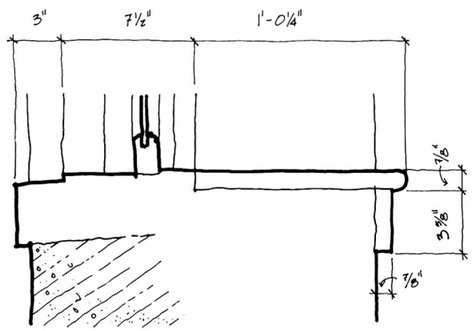




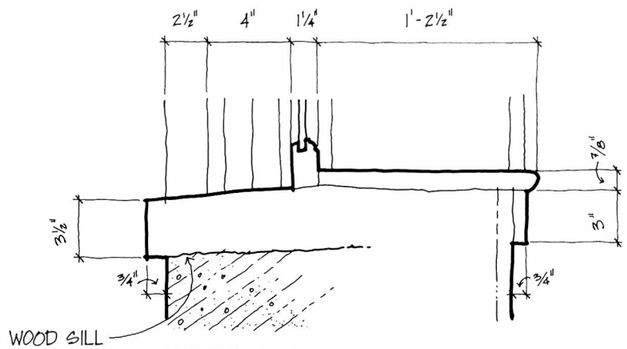
JAMB



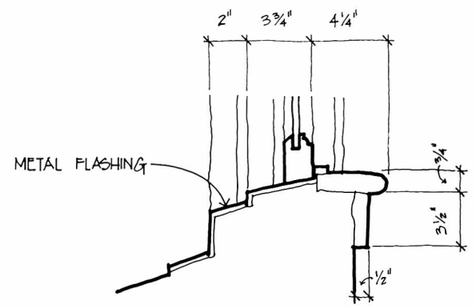
SILL



WINDOW 408



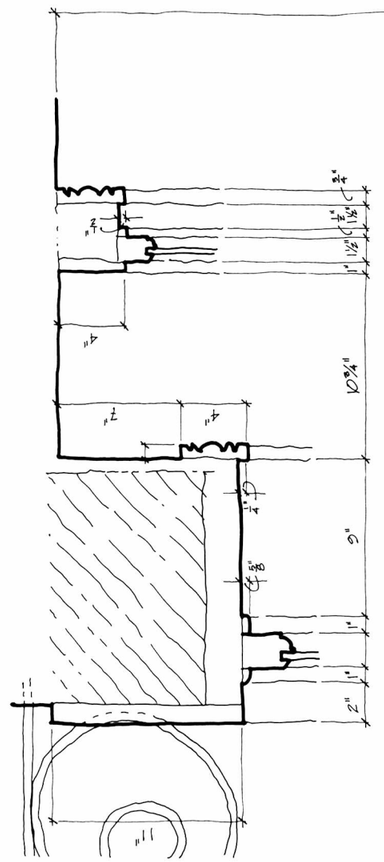
WINDOW 405
W406-07 SIMILAR



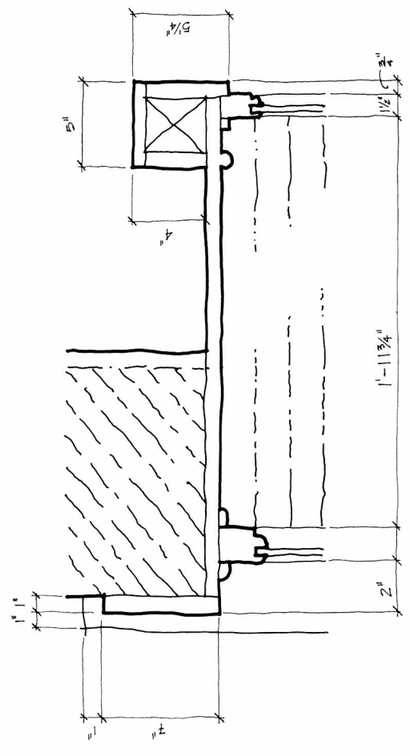
WINDOW 401
W402-03, 409-11 SIMILAR

DESIGNED: —	SUB SHEET NO.	TITLE OF SHEET: WINDOW DETAILS	DRAWING NO. 385 / 25,029
DRAWN: JNF		BUILDINGS 34 & 35	PKG. NO. 116
TECH. REVIEW: ASD		HARPERS FERRY N.H.P.	SHEET 43 OF 69
DATE: 11/92			

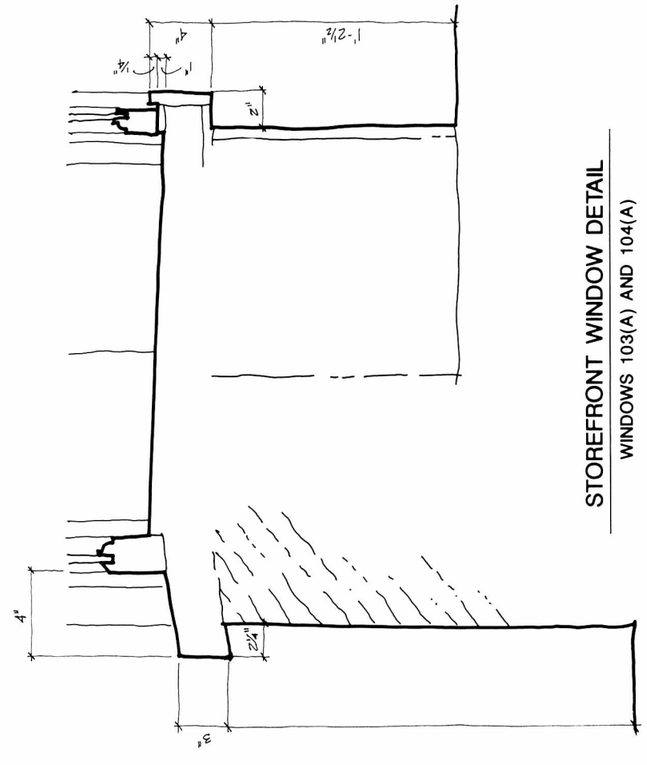
☆ U.S. GOVERNMENT PRINTING OFFICE: 675-100



HEAD



JAMB

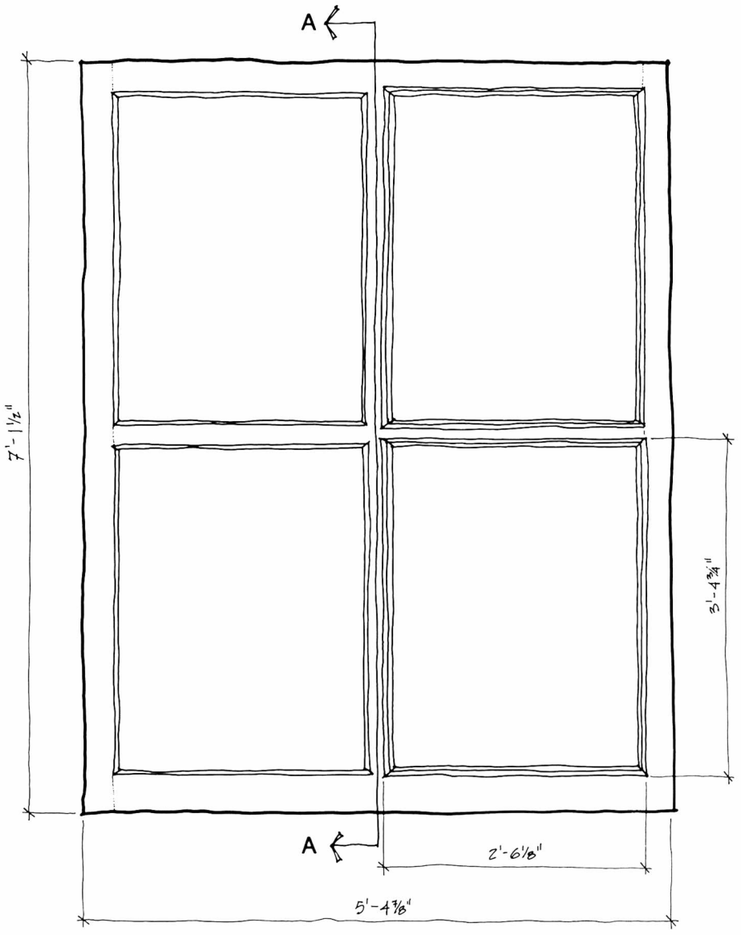


SILL

STOREFRONT WINDOW DETAIL
WINDOWS 103(A) AND 104(A)

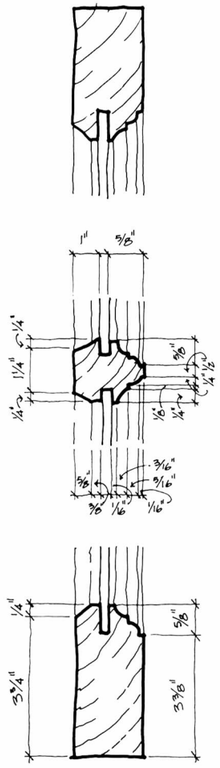
DESIGNED: —	SUB SHEET NO.	TITLE OF SHEET: WINDOW DETAILS	DRAWING NO. 385 25,029
DRAWN: JNF		BUILDINGS 34 & 35	PKG. NO. 116
TECH. REVIEW: ASD		HARPERS FERRY N.H.P.	SHEET 44 OF 69
DATE: 11/92			

☆ U.S. GOVERNMENT PRINTING OFFICE: 675-100

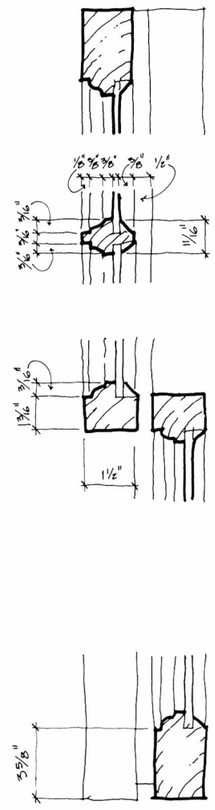


OUTER STOREFRONT WINDOW

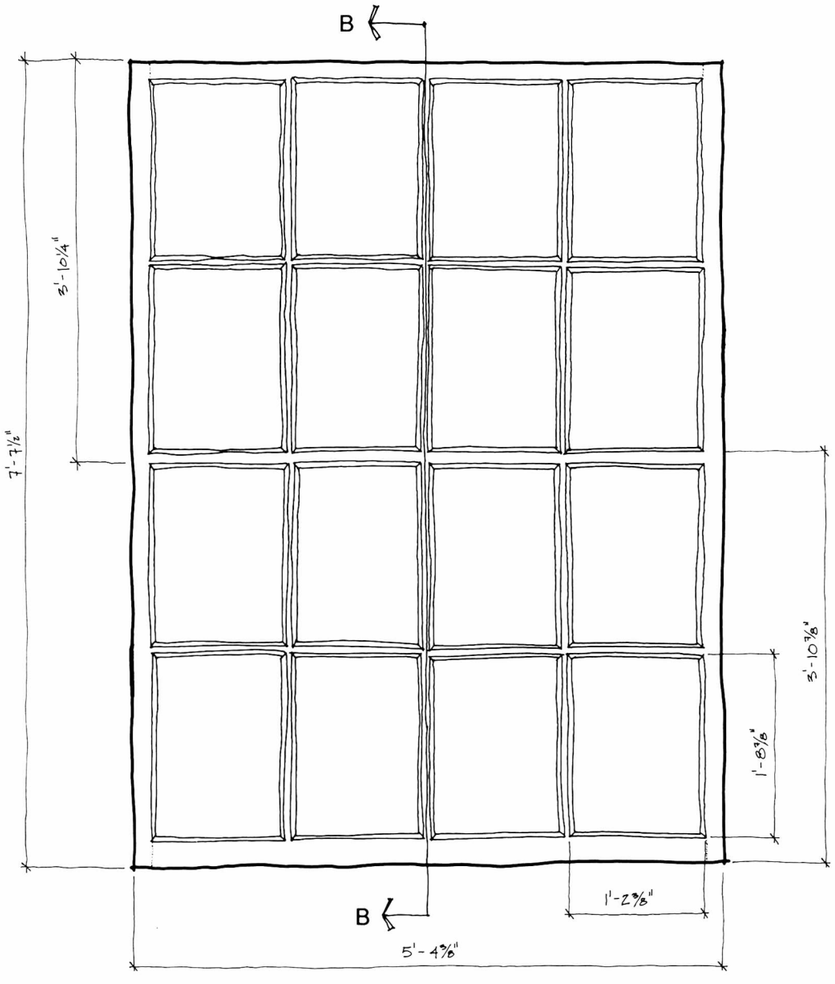
WINDOWS 103-04



SECTION A-A



SECTION B-B



INNER STOREFRONT WINDOW

WINDOWS 103A-04A

DESIGNED: —	SUB SHEET NO.	TITLE OF SHEET: WINDOW DETAILS	DRAWING NO. 385 25,029
DRAWN: JNF		BUILDINGS 34 & 35 HARPERS FERRY N.H.P.	PKG. NO. 116
TECH. REVIEW: ASD			SHEET 45 OF 69
DATE: 11/92			

☆ U.S. GOVERNMENT PRINTING OFFICE: 675-100

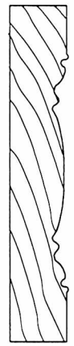
ARCHITRAVE TYPES



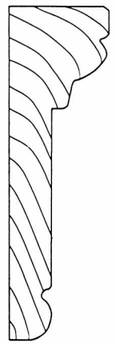
TYPE A



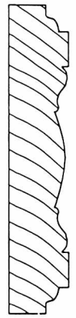
TYPE B



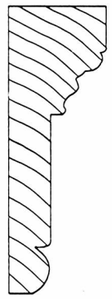
TYPE C



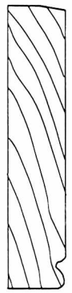
TYPE D



TYPE E



TYPE F



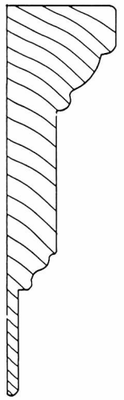
TYPE G



TYPE H



TYPE I



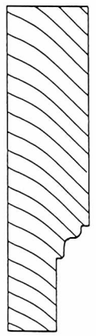
TYPE J



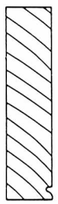
TYPE K



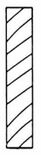
TYPE L



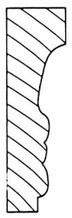
TYPE M



TYPE N



TYPE O

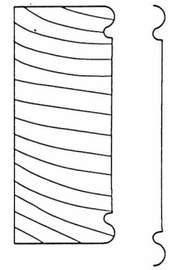


TYPE P

TRANSOM BAR TYPES



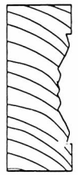
TYPE A



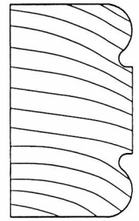
TYPE B



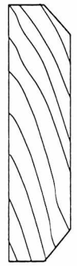
TYPE C



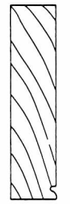
TYPE D



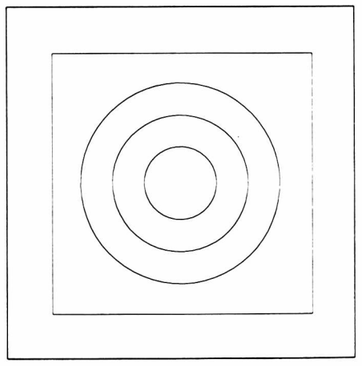
TYPE E



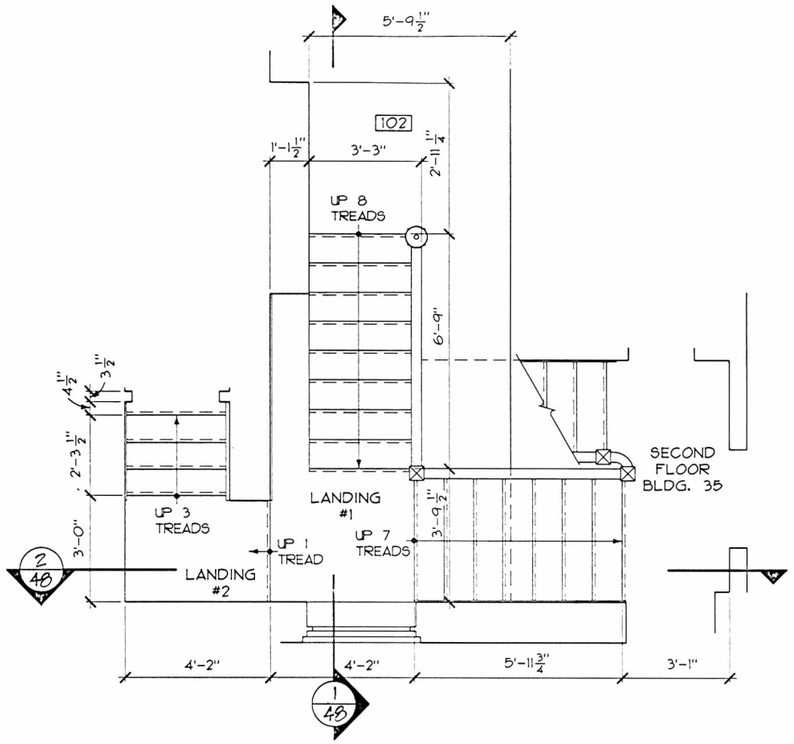
TYPE F



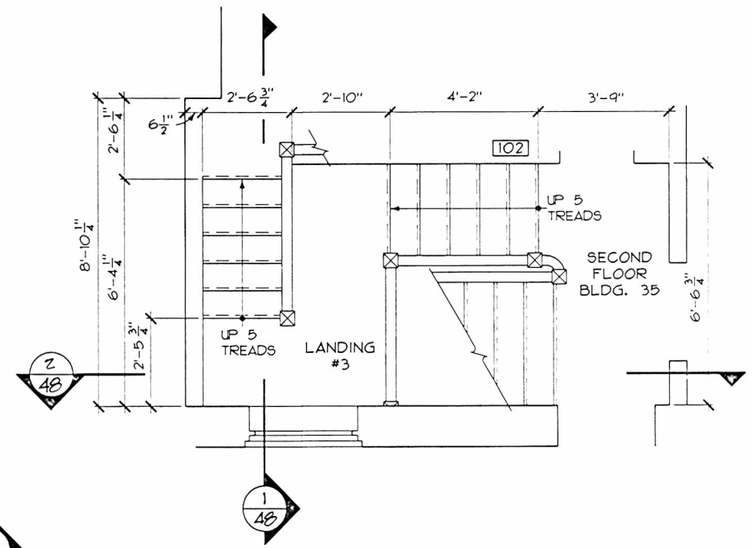
TYPE G



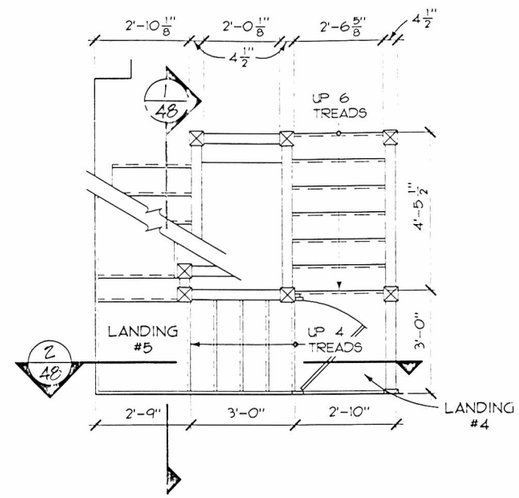
DESIGNED: — CADD L.F. L.ASHBY TECH. REVIEW: ASD DATE: 11/92	SUB SHEET NO.	TITLE OF SHEET: ARCHITRAVE AND TRANSOM BAR TYPES — BUILDING 34 & 35 — HARPERS FERRY N.H.P.	DRAWING NO. 385 25,024 PKG. NO. 116 SHEET 46 OF 69



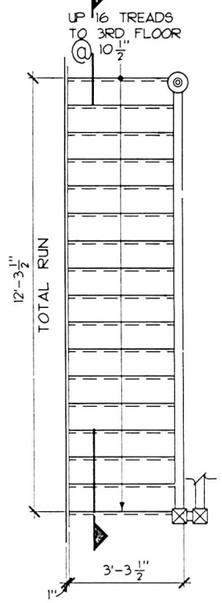
1/47 STAIR PLAN (1ST TO 2ND FLOORS)



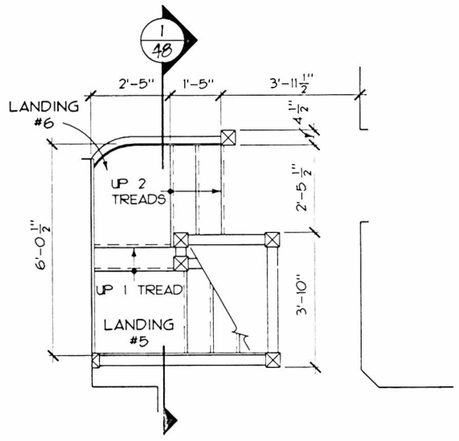
2/47 STAIR PLAN (2ND TO 3RD FLOORS)



3/47 STAIR PLAN (3RD TO INTERMEDIATE ATTIC LANDING)



4/47 STAIR PLAN (2ND TO 3RD FLOORS)

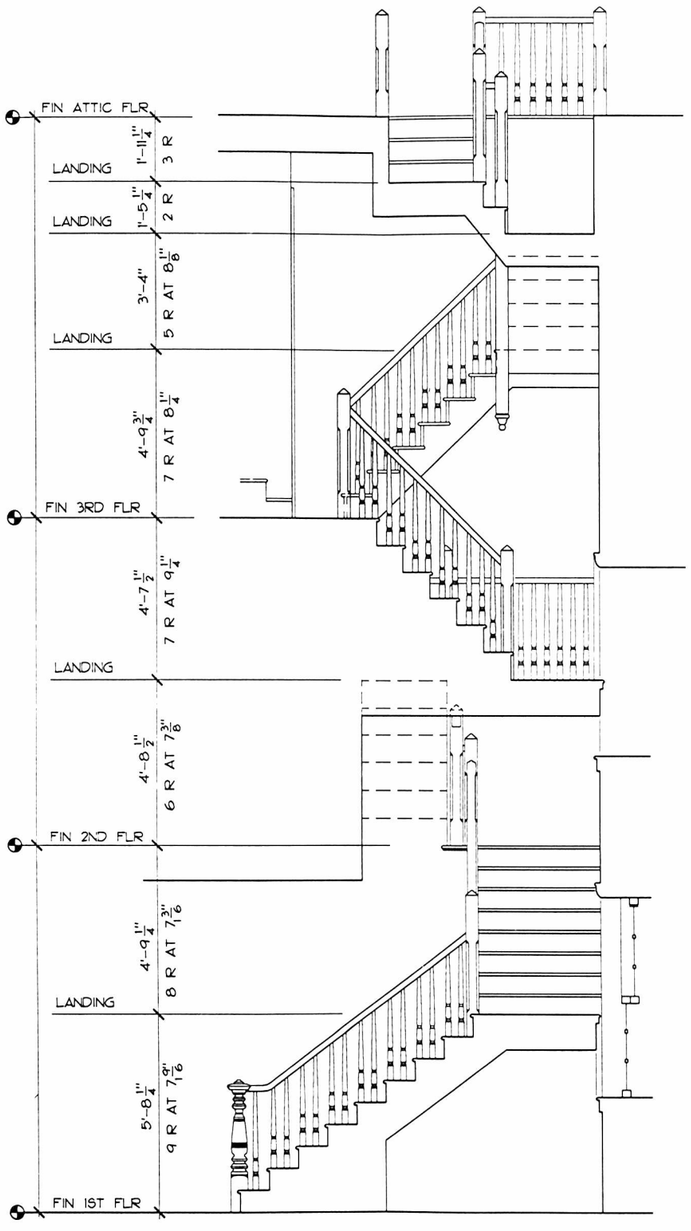


5/47 STAIR PLAN (LANDING TO ATTIC FLOOR)

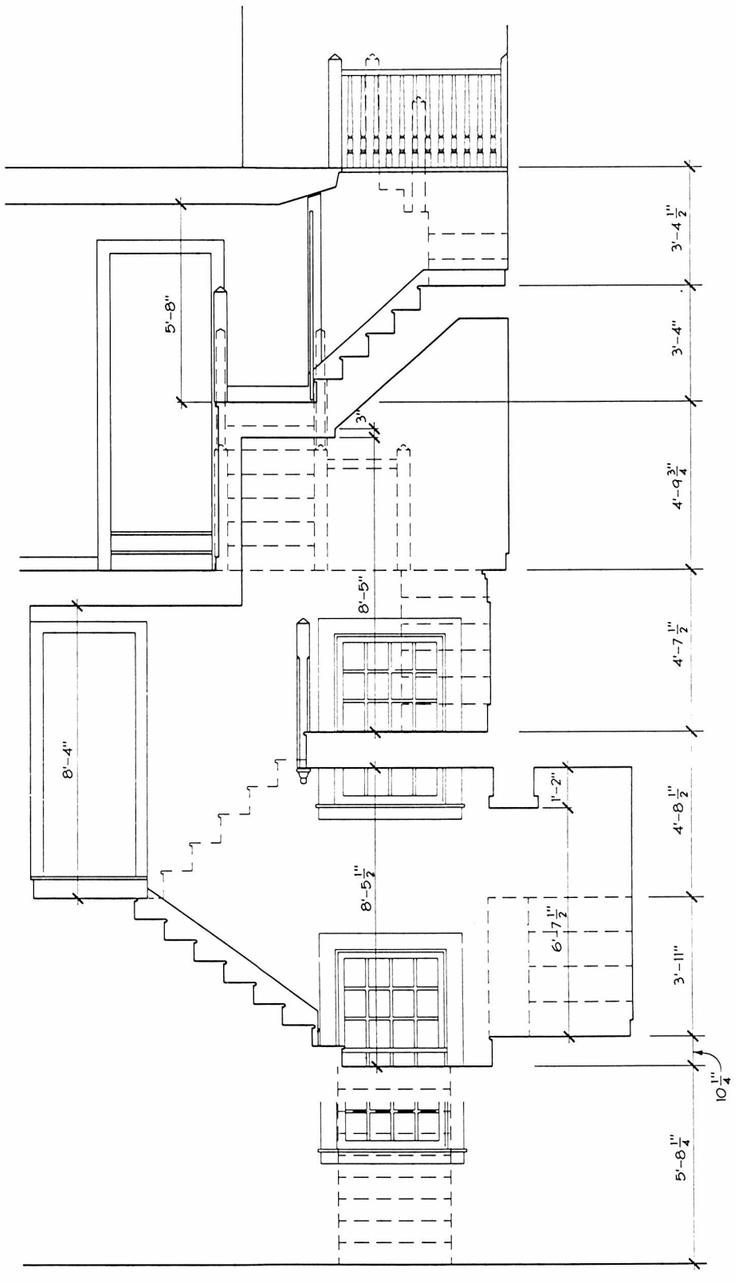
SCALE OF METERS 1 0 1

SCALE OF FEET 2 0 2 4

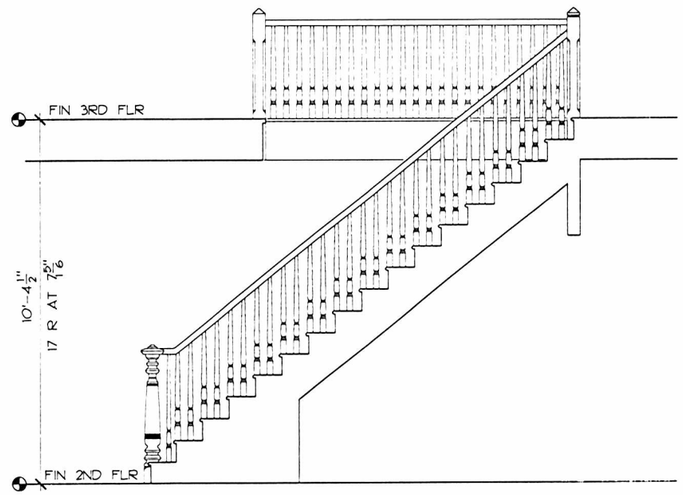
DESIGNED: — GADD DJ SIKES; TECH. REVIEW: ASD; DATE: 11/92	SUB SHEET NO.	TITLE OF SHEET: STAIR PLAN — BUILDING 34 & 35 HARPERS FERRY N.H.P.	DRAWING NO. 386 25,024; PKG. NO. 116; SHEET 47 OF 69



1/48 SECTION: MAIN STAIRWAY
LOOKING EAST



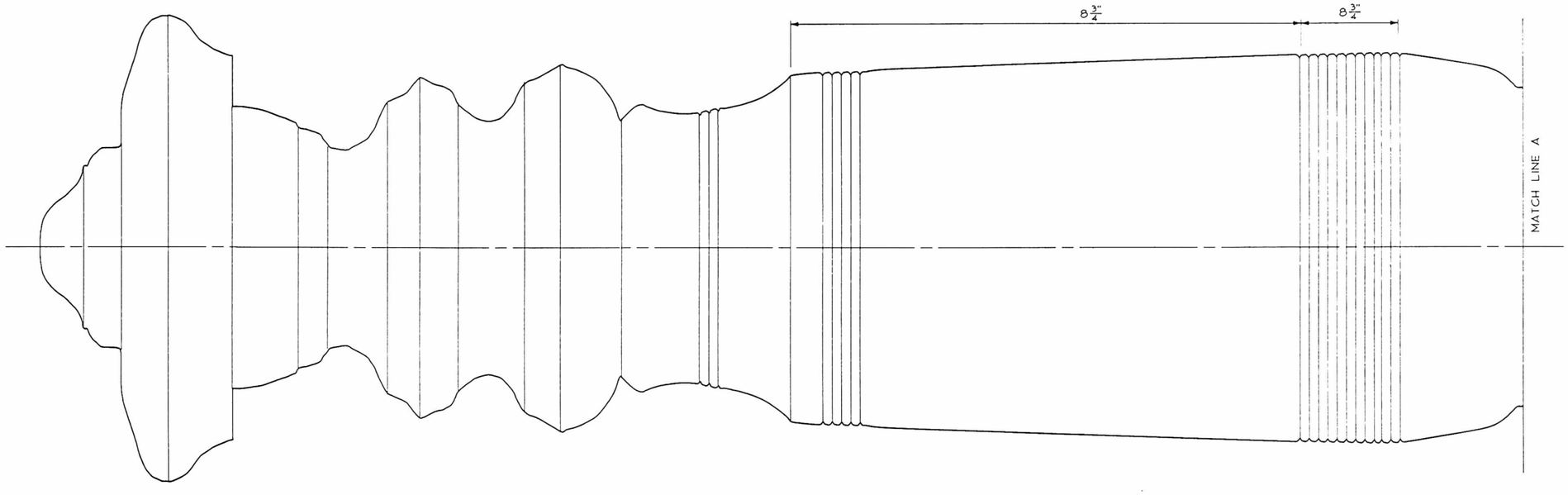
2/48 SECTION: MAIN STAIRWAY
LOOKING SOUTH

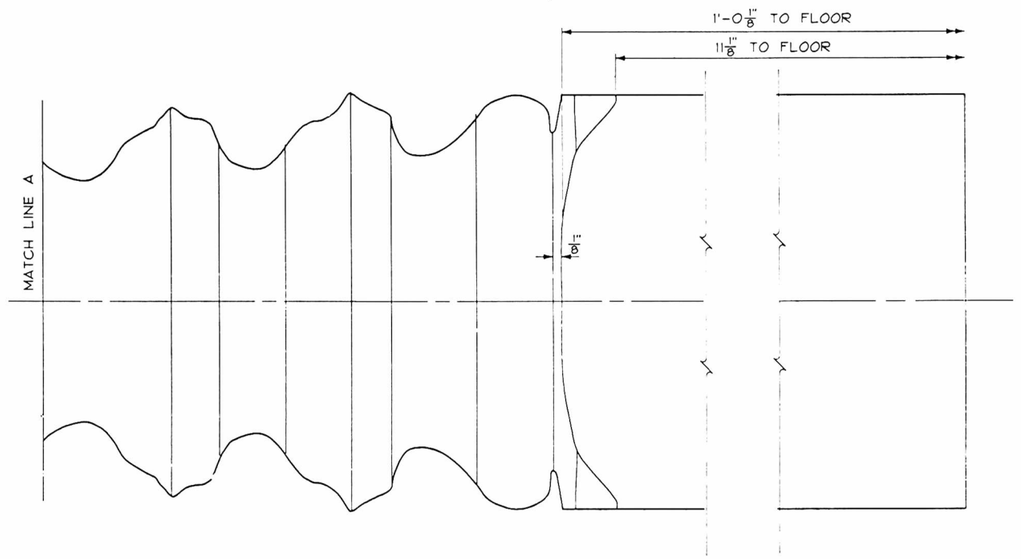


3/48 SECTION: REAR STAIRWAY
SECOND FLOOR - LOOKING EAST

2 0 2 4
SCALE OF FEET

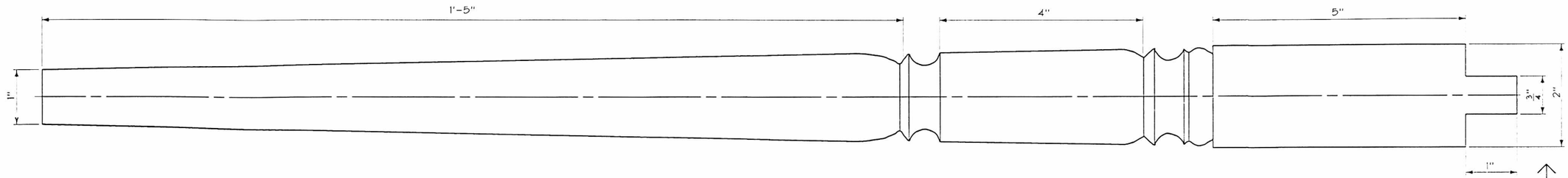
DESIGNED: — CADD S. MOORE; TECH. REVIEW: ASD; DATE: 11/92	SUB SHEET NO.	TITLE OF SHEET: STAIR SECTIONS — BUILDING 34 & 35 HARPERS FERRY N.H.P.	DRAWING NO. 385 25,024; PKG. NO. 116; SHEET 48 OF 69



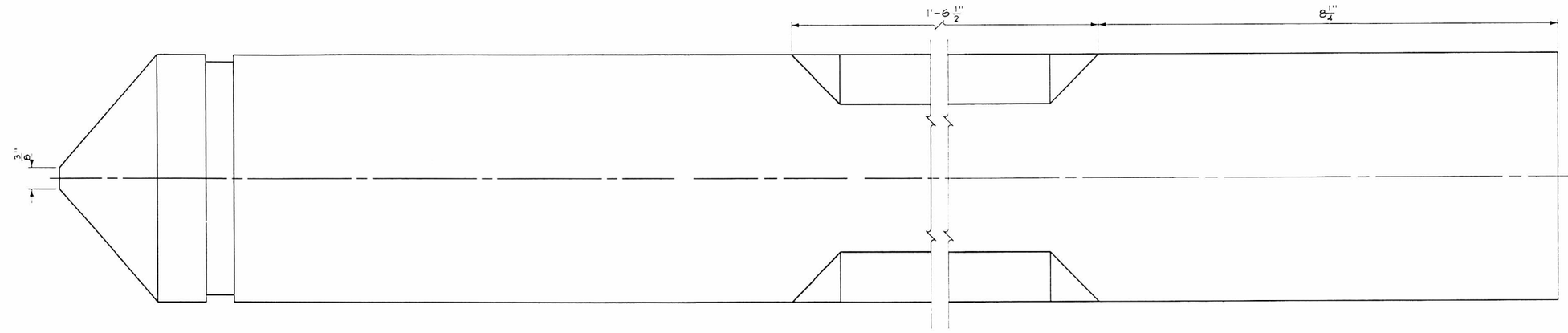


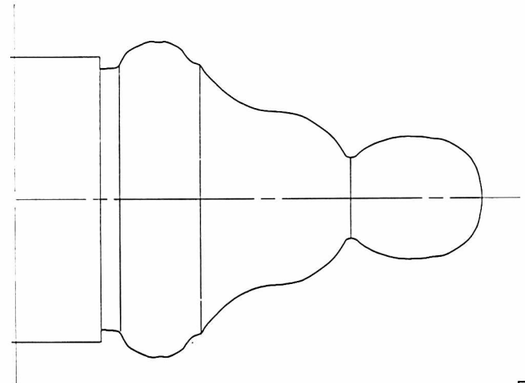
NEWEL POST
FULL SCALE

DESIGNED: — CADD B. BODNAR TECH. REVIEW: ASD DATE: 11/92	SUB SHEET NO.	TITLE OF SHEET NEWEL POST BUILDING 34 & 35 HARPERS FERRY N.H.P.	DRAWING NO. 385 25,024 PKG. NO. 116 SHEET 49 OF 69



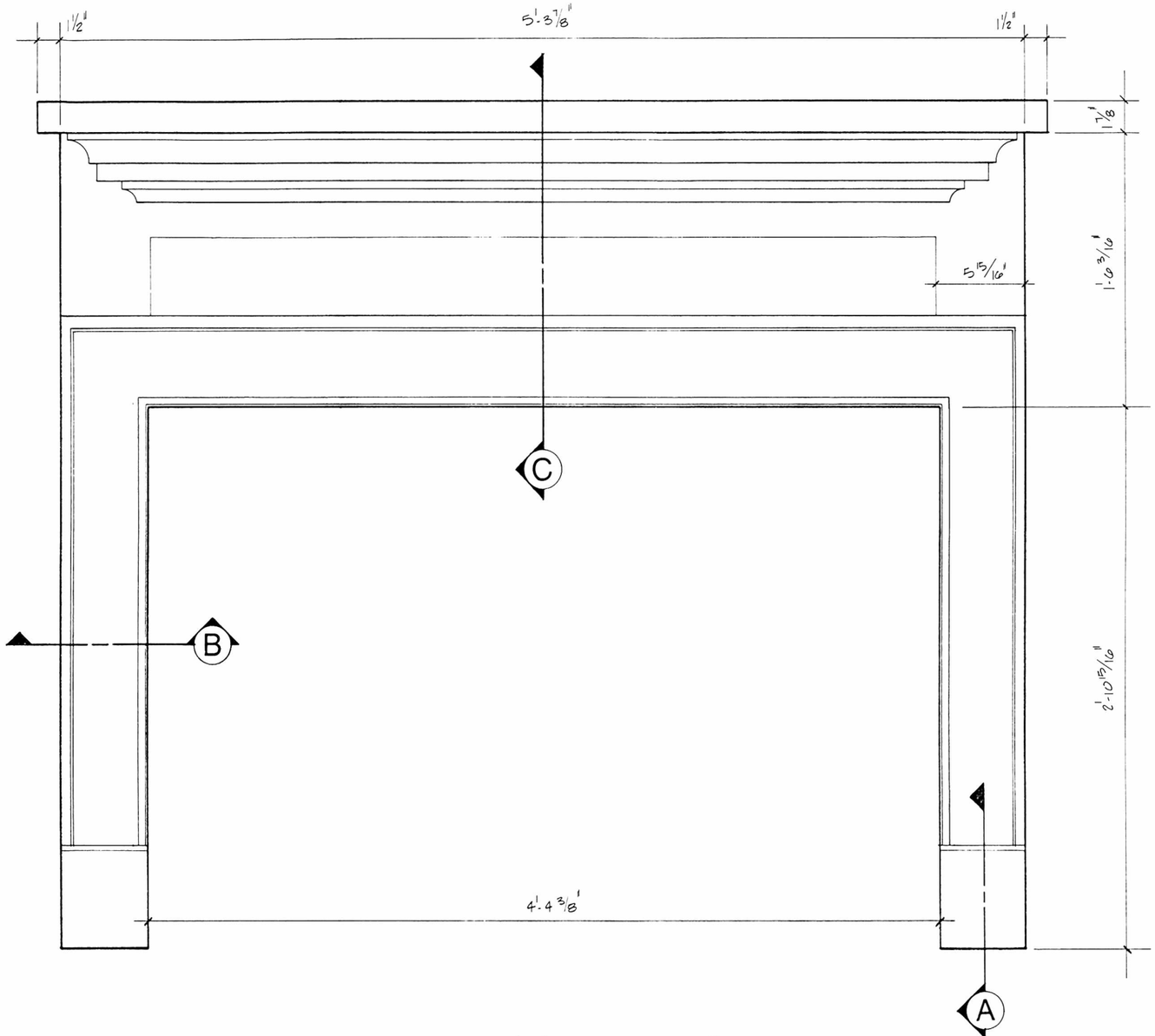
2/50 BALUSTER
FULL SCALE





1/50 NEWEL POST AND DROP
FULL SCALE

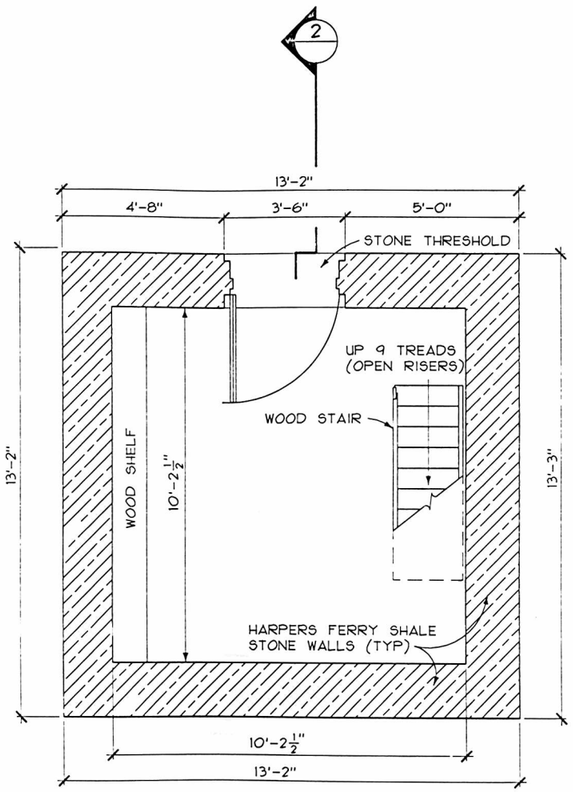
DESIGNED: — CADD B. BODNAR TECH. REVIEW: ASD DATE: 11/92	SUB SHEET NO.	TITLE OF SHEET: TYPICAL BALUSTER AND NEWEL POST — BUILDING 34 & 35 HARPERS FERRY N.H.P.	DRAWING NO. 385 25,024 PKG. NO. 116 SHEET 50 OF 69



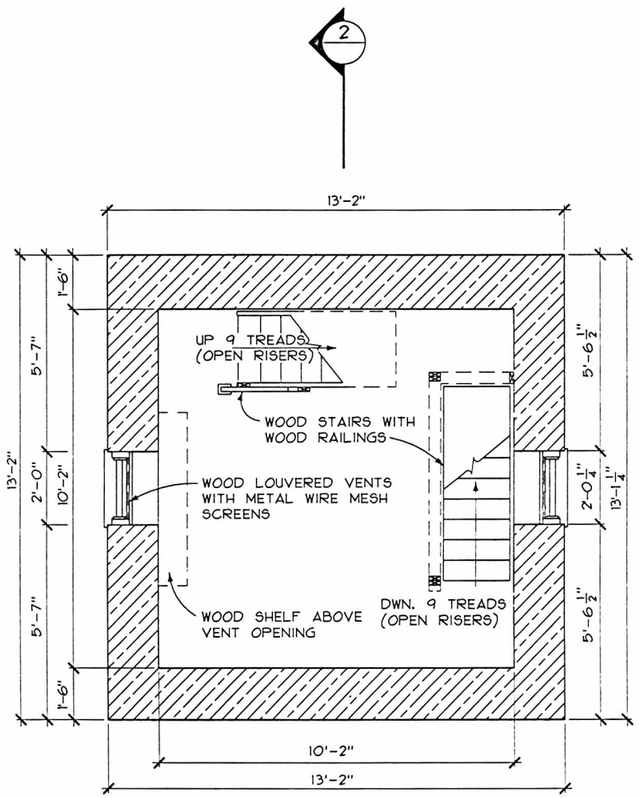
FIREPLACE MANTEL IN ROOM 202 - FRONT ELEVATION

SCALE: 1/4" = 1"

DESIGNED:	SUB SHEET NO.	TITLE OF SHEET	DRAWING NO. 385 / 25,029
DRAWN:		BUILDINGS 34 & 35 HARPERS FERRY N.H.P.	PKG. NO. 116
TECH. REVIEW: ASD			SHEET 51 OF 69
DATE: 11/92			



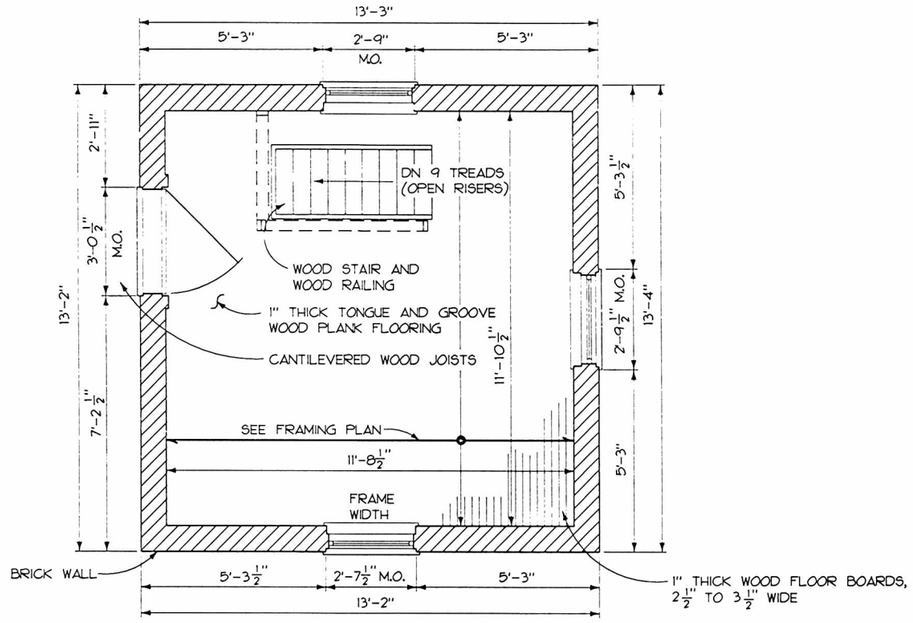
1 FIRST FLOOR PLAN



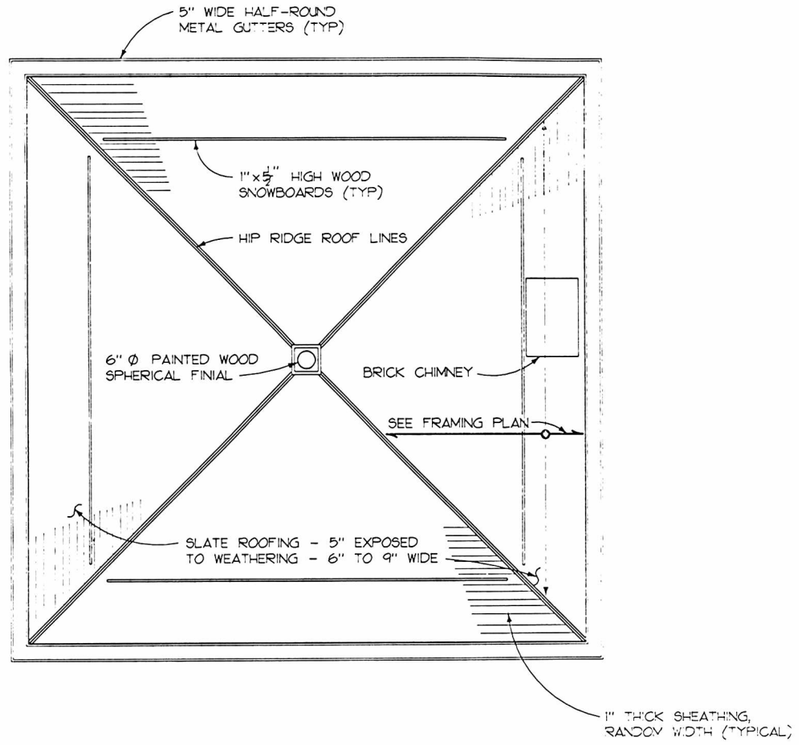
2 SECOND FLOOR PLAN

2 0 2 4
SCALE OF FEET

DESIGNED: —	SUB SHEET NO.	TITLE OF SHEET	DRAWING NO. 385 25,024
CADD DJS		FIRST AND SECOND FLOOR PLAN	PKG. NO. 116
R.R.		BUILDING 34A	SHEET 52
TECH. REVIEW: ASD		HARPERS FERRY N.H.P.	OF 69
DATE: 11/92			



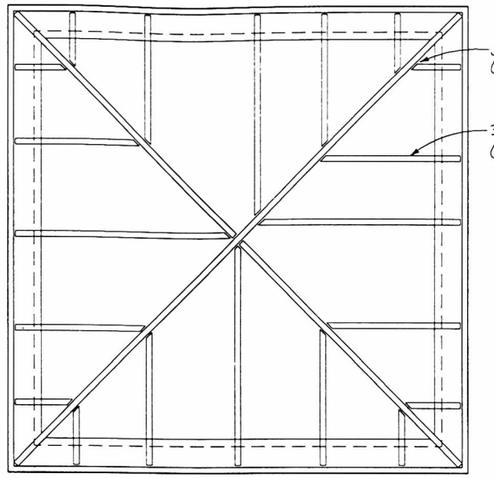
1 THIRD FLOOR PLAN



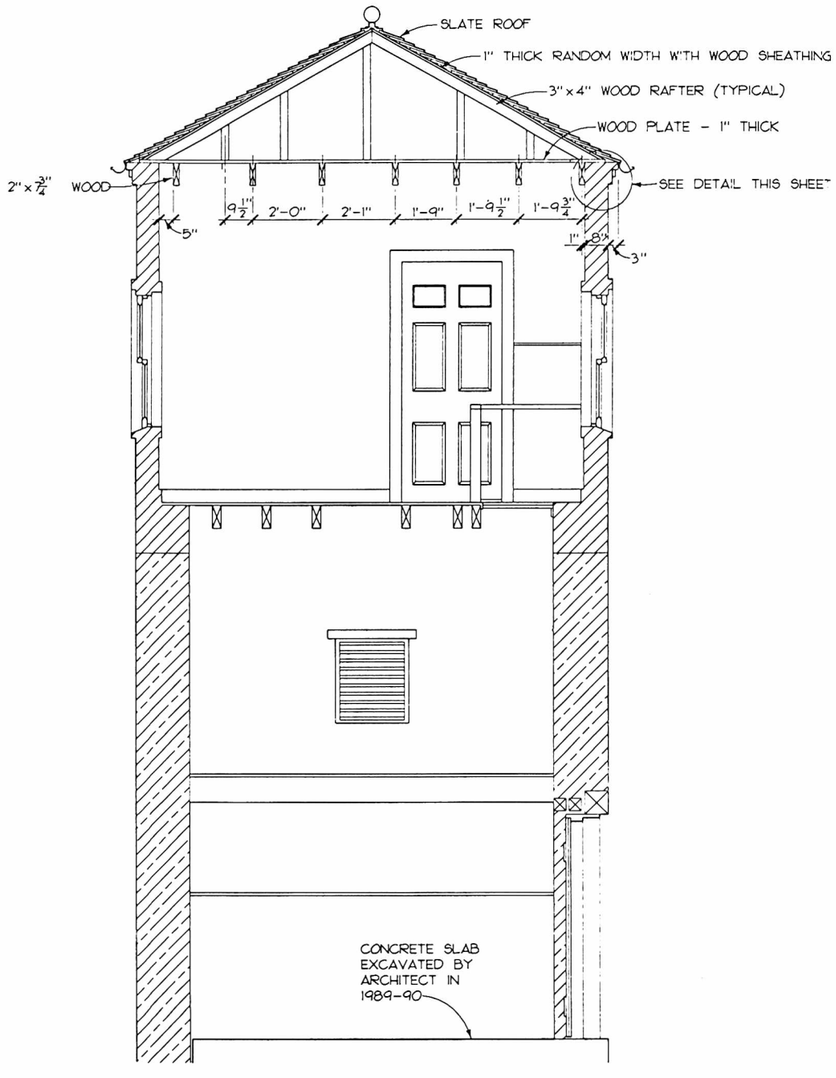
2 ROOF PLAN

2 0 2 4
SCALE OF FEET

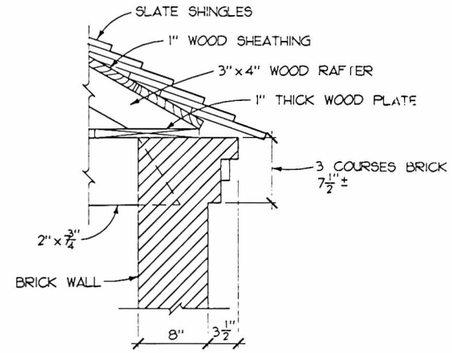
DESIGNED: — DJS J. NAHODYL TECH. REVIEW: ASD DATE: 11/92	SUB SHEET NO.	TITLE OF SHEET THIRD FLOOR AND ROOF PLAN BUILDING 34A HARPERS FERRY N.H.P.	DRAWING NO. 385 25,024 PKG. NO. 116 SHEET 53 OF 69



1 ROOF FRAMING PLAN
SCALE (A)



2 BUILDING SECTION
(LOOKING WEST)
SCALE (A)



3 DETAIL
SCALE (B)

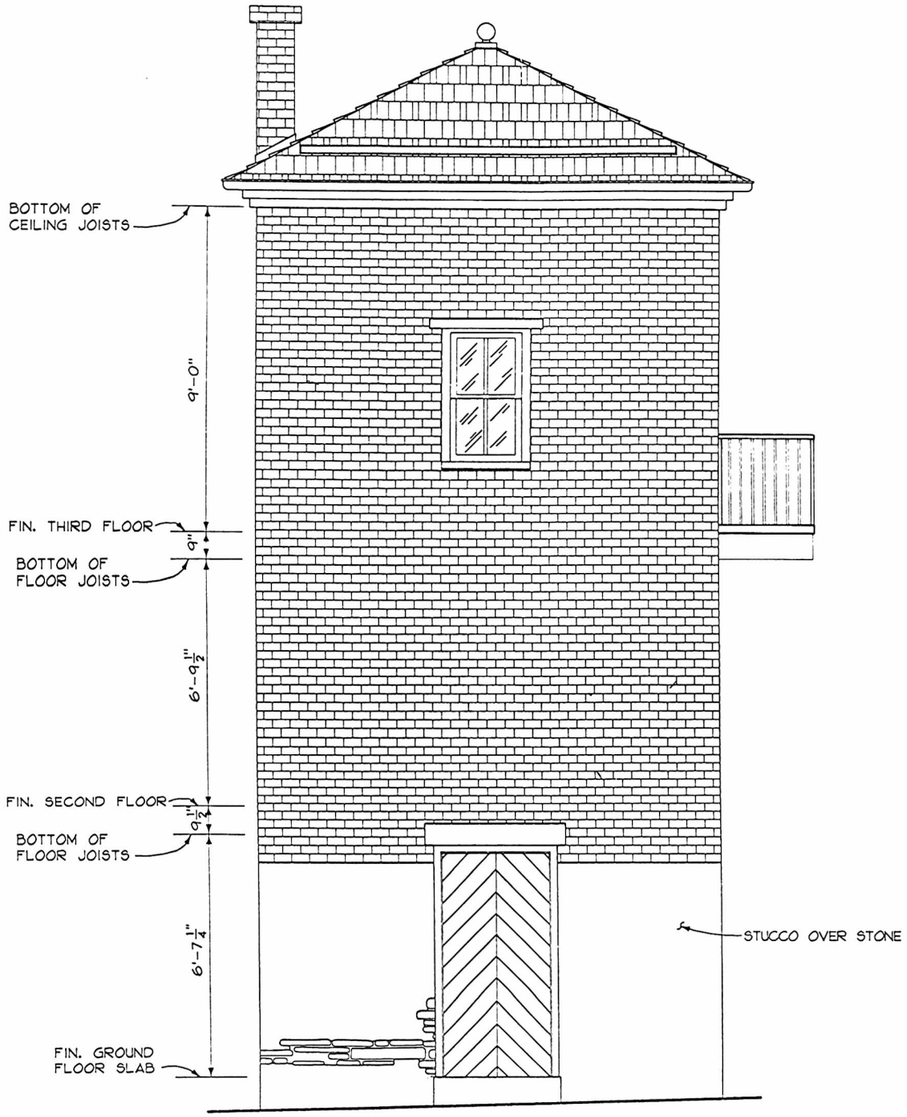
SCALE (B) 12 6 0 12
SCALE OF INCHES

SCALE (A) 2 0 2 4
SCALE OF FEET

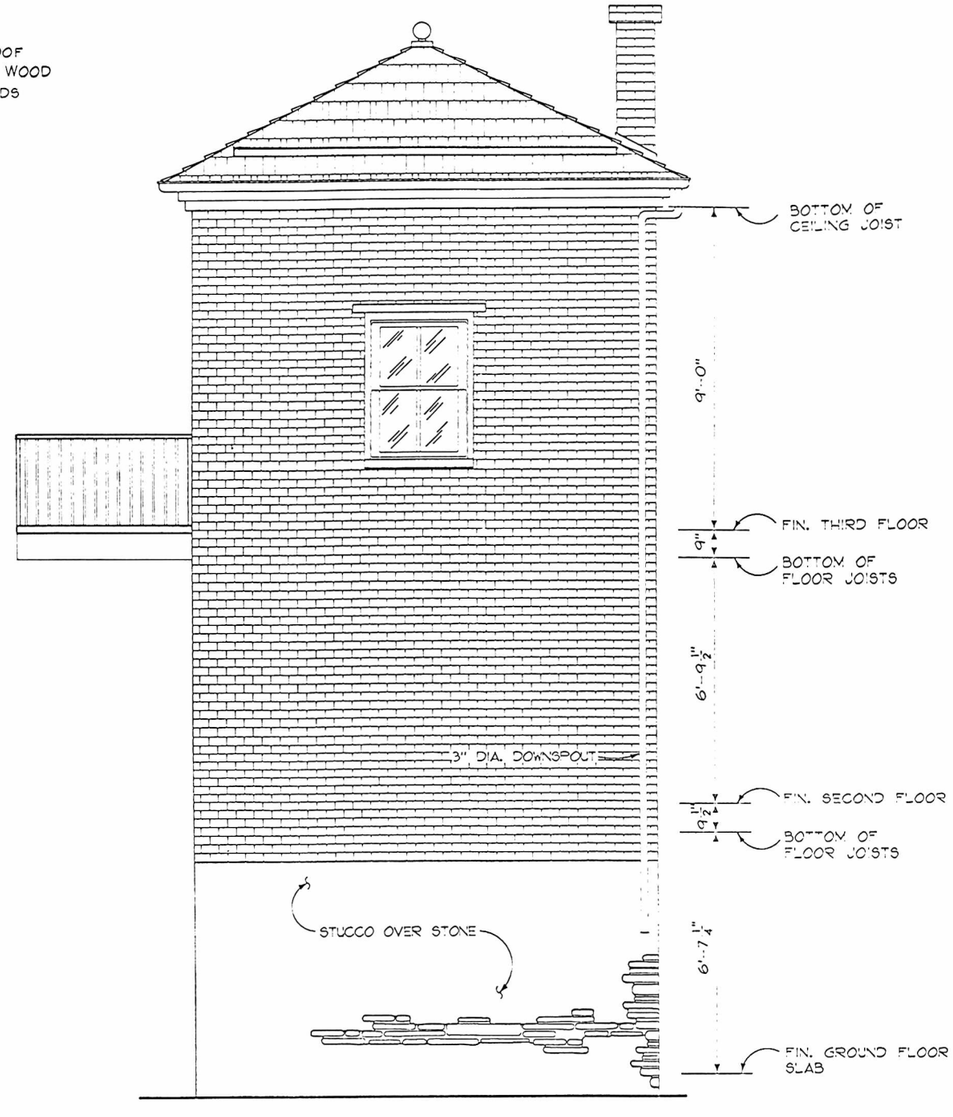
DESIGNED: —	SUB SHEET NO.	TITLE OF SHEET: ROOF FRAMING PLAN AND BUILDING SECTION	DRAWING NO. 25,024
CADD G.H. INTERPRETER		BUILDING 34A	PKG. NO. 116
TECH. REVIEW: ASD		HARPERS FERRY N.H.P.	SHEET 54
DATE: 11/92			69

/PKG./HAFE116/ARC-/ROOF_FRAME_SECTION.DG

SLATE ROOF
WITH 1"x 5½" WOOD
SNOW BOARDS



1 NORTH ELEVATION



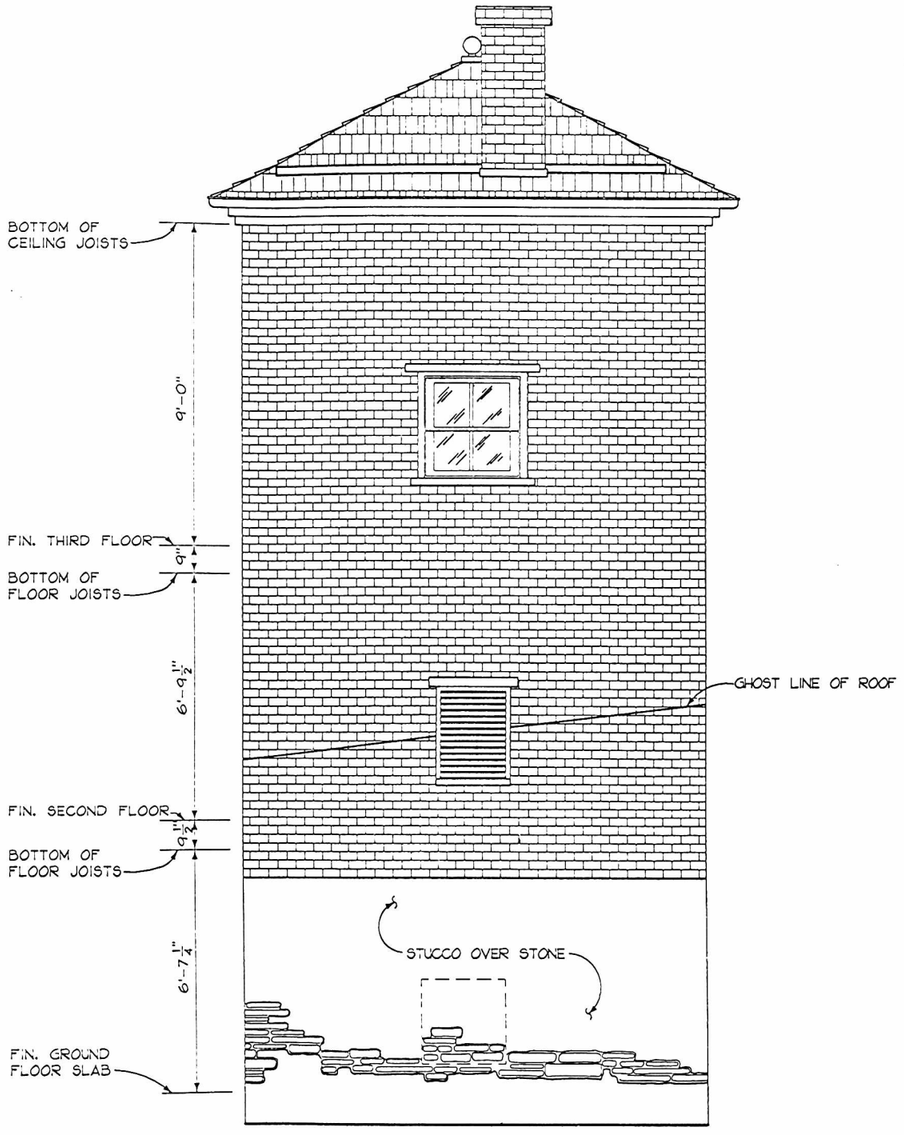
2 SOUTH ELEVATION

2 0 2 4
SCALE OF FEET

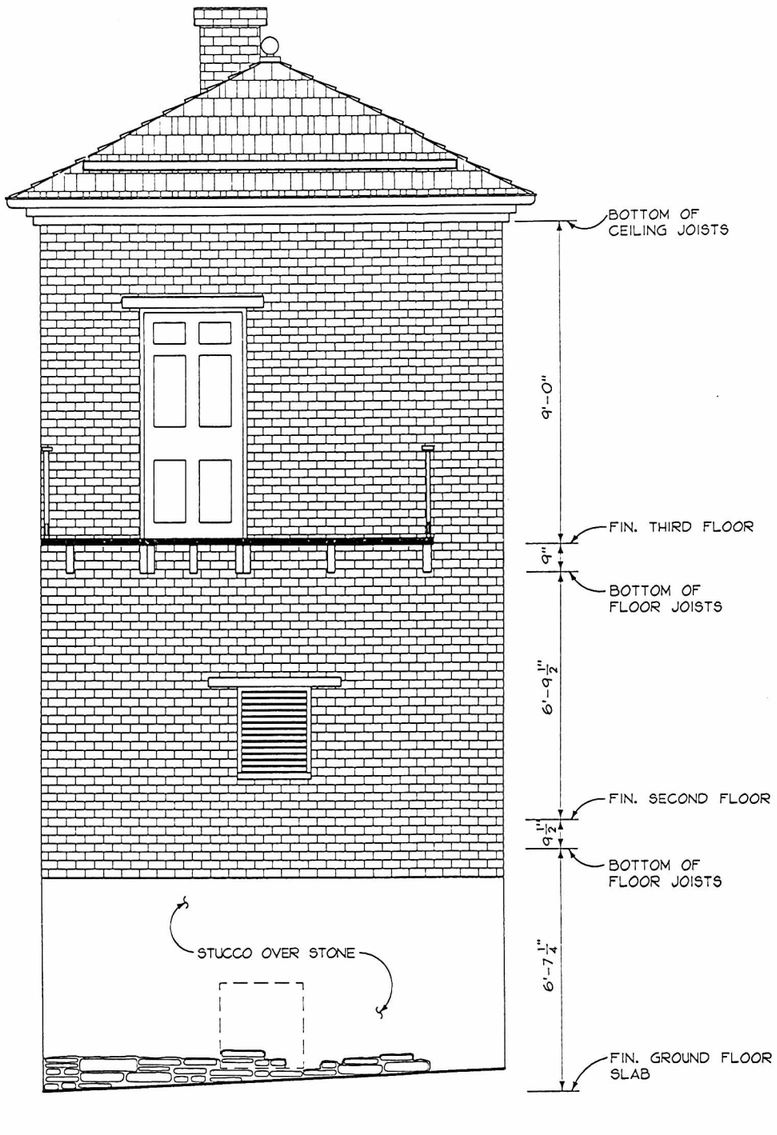
DESIGNED: — GADD LR DS DJS TECH. REVIEW: ASD DATE: 11/92	SUB SHEET NO.	TITLE OF SHEET NORTH AND SOUTH ELEVATIONS BUILDING 34A HARPERS FERRY N.H.P.	DRAWING NO. 385 25,024 PKG. NO. 116 — SHEET 55 OF 69

/PROJ/HAFE116/ARCH/BLDG34A_N_S_ELEV.DG

SLATE ROOF
WITH 1" x 5½" WOOD
SNOW BOARDS



1 EAST ELEVATION

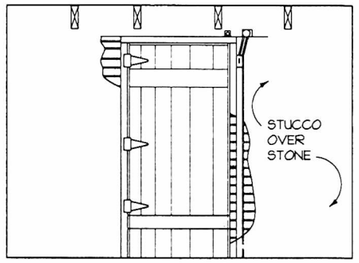


2 WEST ELEVATION

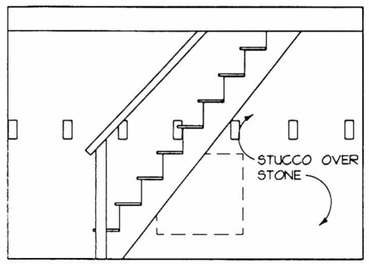
2 0 2 4
SCALE OF FEET

DESIGNED: — CADD LR R.R. TECH. REVIEW: ASD DATE: 11/92	SUB SHEET NO.	TITLE OF SHEET EAST AND WEST ELEVATIONS BUILDING 34A HARPERS FERRY N.H.P.	DRAWING NO. 385 25,024 PKG. NO. 116 SHEET 56 OF 69

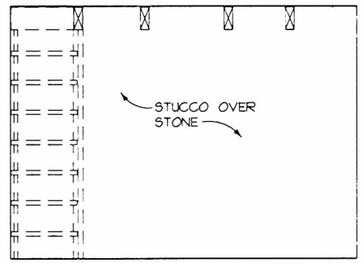
/PROJ/HAFE116/ARCH/BLDG34A_EW_ELEV.DG



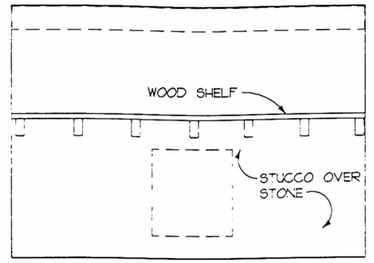
NORTH



EAST

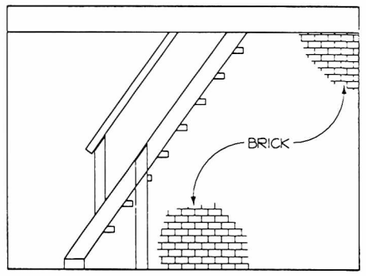


SOUTH

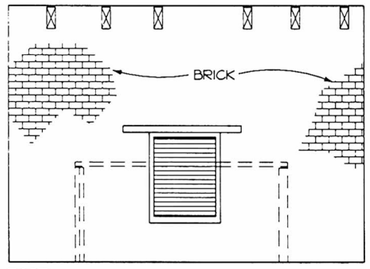


WEST

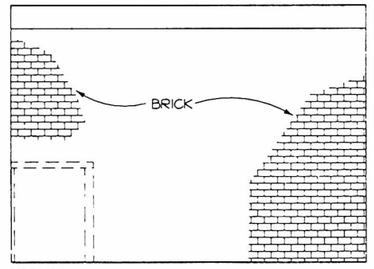
(1/59) INTERIOR ELEVATIONS-FIRST FLOOR



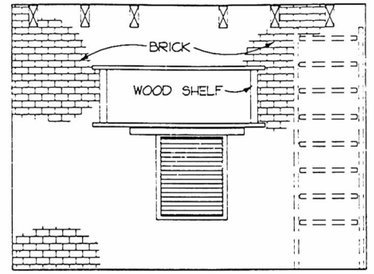
NORTH



EAST

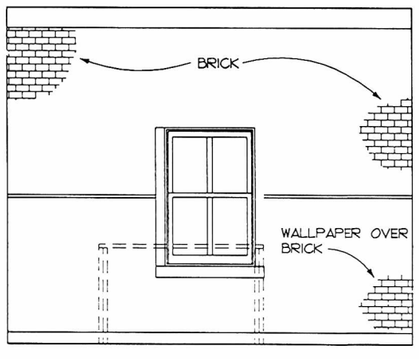


SOUTH

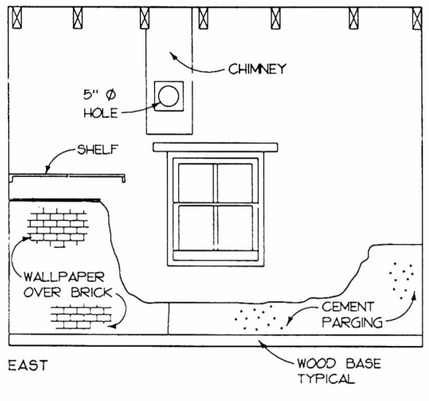


WEST

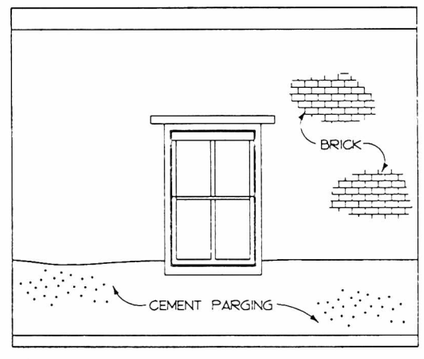
(2/59) INTERIOR ELEVATIONS-SECOND FLOOR



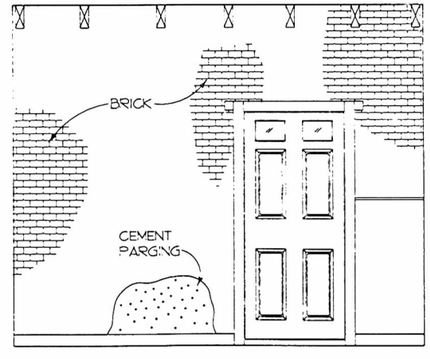
NORTH



EAST



SOUTH

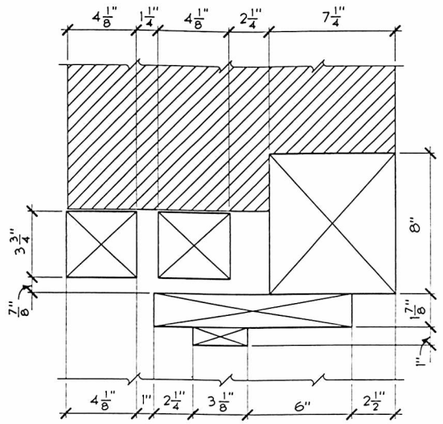


WEST

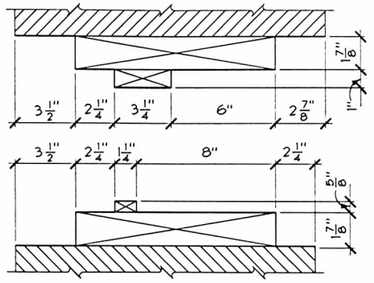
2 0 2 4
SCALE OF FEET

(3/59) INTERIOR ELEVATIONS-THIRD FLOOR

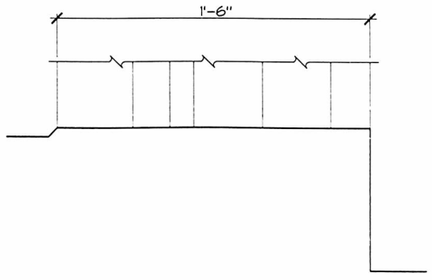
DESIGNED: — CADD B. BODNAR TECH. REVIEW: ASD DATE: 11/92	SUB SHEET NO.	TITLE OF SHEET: INTERIOR ELEVATIONS — BUILDING 34A HARPERS FERRY N.H.P.	DRAWING NO. 385 25,024 PKG. NO. 116 SHEET 57 OF 69



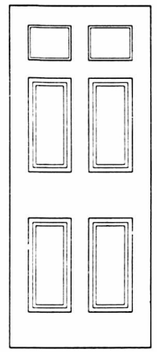
1/60 DOOR NO. 1 HEAD
SCALE B



2/60 DOOR NO. 1 JAMBS
SCALE B

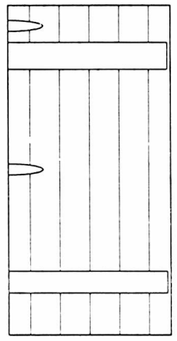


3/60 DOOR NO. 1 THRESHOLD
SCALE B

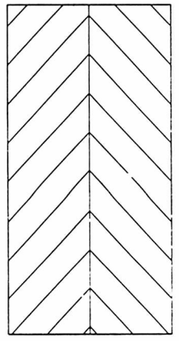


INTERIOR

4/60 DOOR NO. 2 (3RD FLOOR)
SCALE A

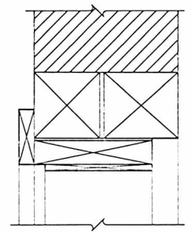


INTERIOR

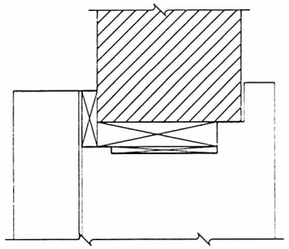


EXTERIOR

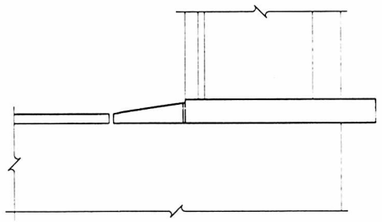
5/60 ENTRANCE DOOR NO. 1
SCALE A



6/60 DOOR NO. 2 HEAD
SCALE B



7/60 DOOR NO. 2 JAMB
SCALE B

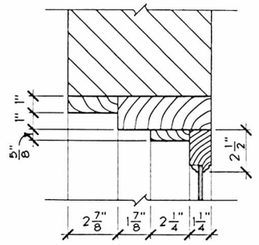


8/60 DOOR NO. 2 THRESHOLD
SCALE B

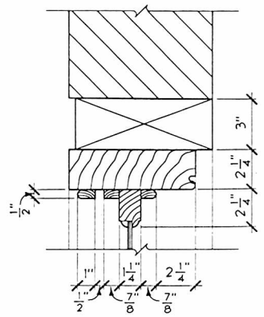
SCALE B 6 3 0 6
SCALE OF INCHES

SCALE A 1 0 1 2 3
SCALE OF FEET

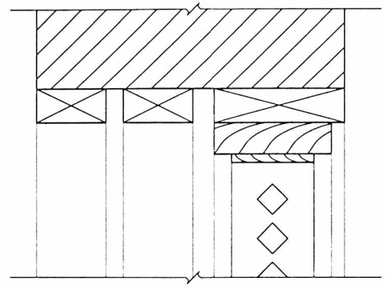
DESIGNED: — CADD DJS INTERPRETER; TECH. REVIEW: ASD; DATE: 11/92	SUB SHEET NO.	TITLE OF SHEET: DOOR DETAILS AND ELEVATIONS — BUILDING 34A — HARPERS FERRY N.H.P.	DRAWING NO. 385 25,024; PKG. NO. 116; SHEET 58 OF 69



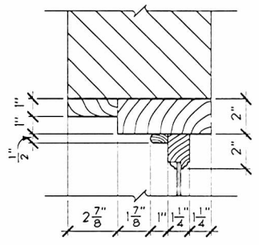
HEAD A



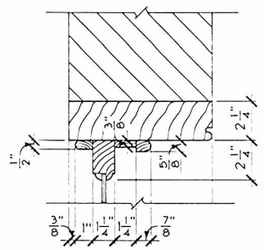
HEAD D



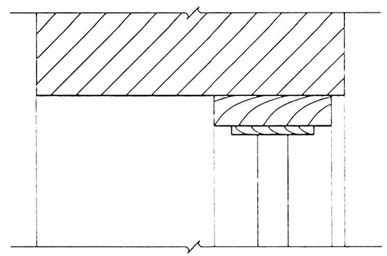
HEAD G



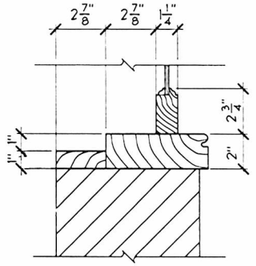
JAMB B



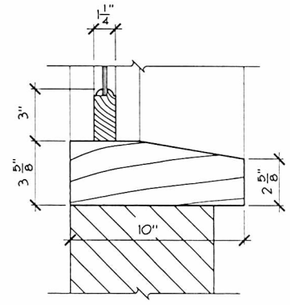
JAMB E



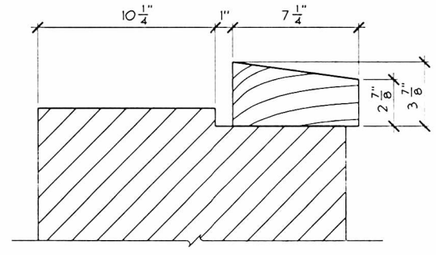
JAMB H



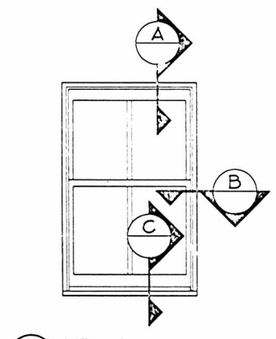
SILL C



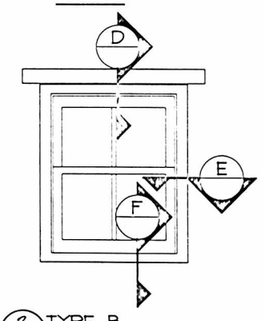
SILL F



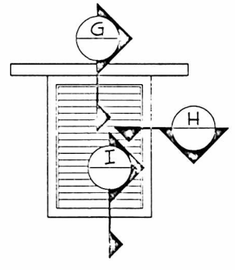
SILL I



1/61 TYPE A



2/61 TYPE B

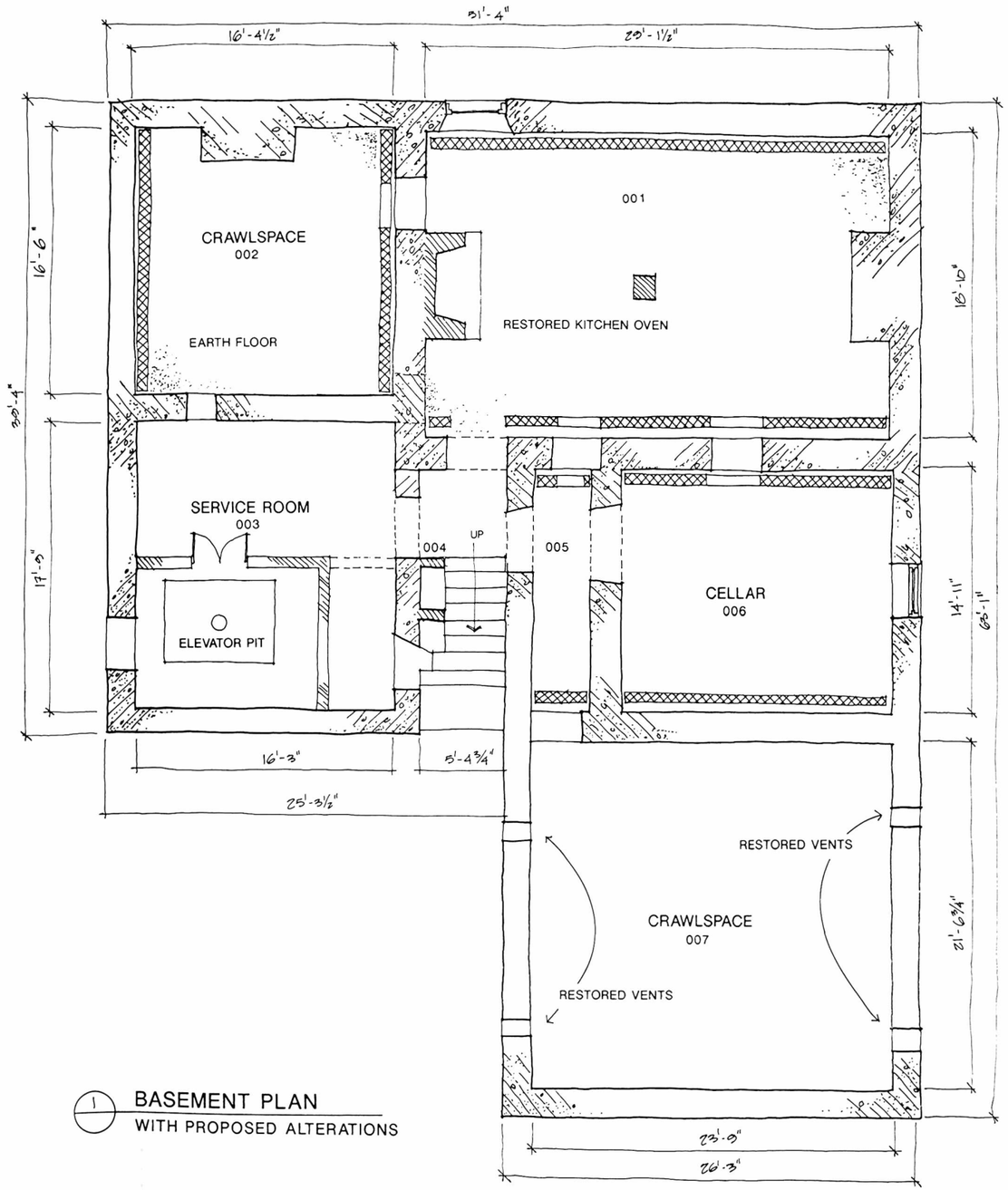


3/61 TYPE C

6 3 0 6

SCALE OF INCHES

DESIGNED: — DJS D. SHULL; TECH. REVIEW: ASD; DATE: 11/92	SUB SHEET NO.	TITLE OF SHEET: WINDOW DETAILS — BUILDING 34A, HARPERS FERRY N.H.P.	DRAWING NO. 335 25 024; PKG. NO. 116; SHEET 59 69

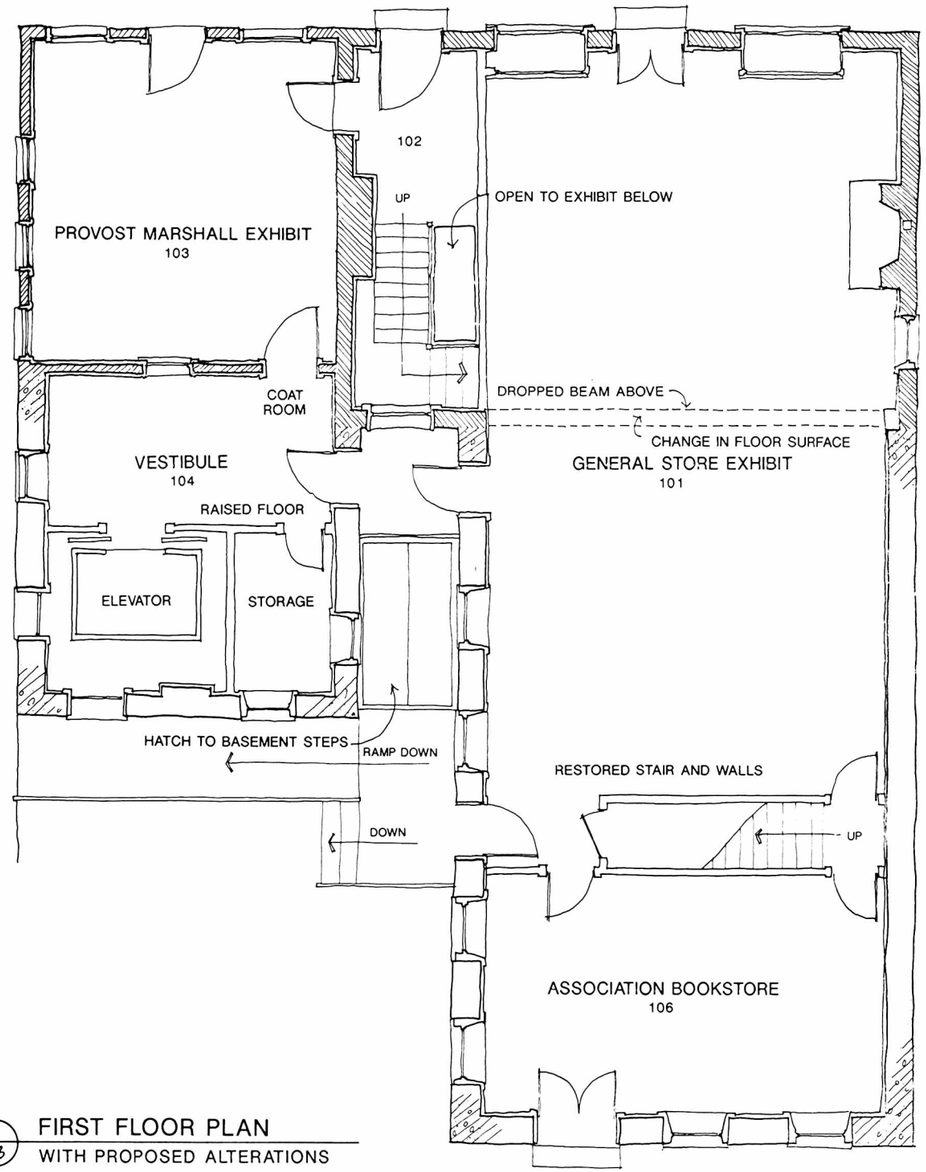


1 BASEMENT PLAN
WITH PROPOSED ALTERATIONS

1 0 1 2 3
SCALE IN METERS

4 0 4 8
SCALE IN FEET

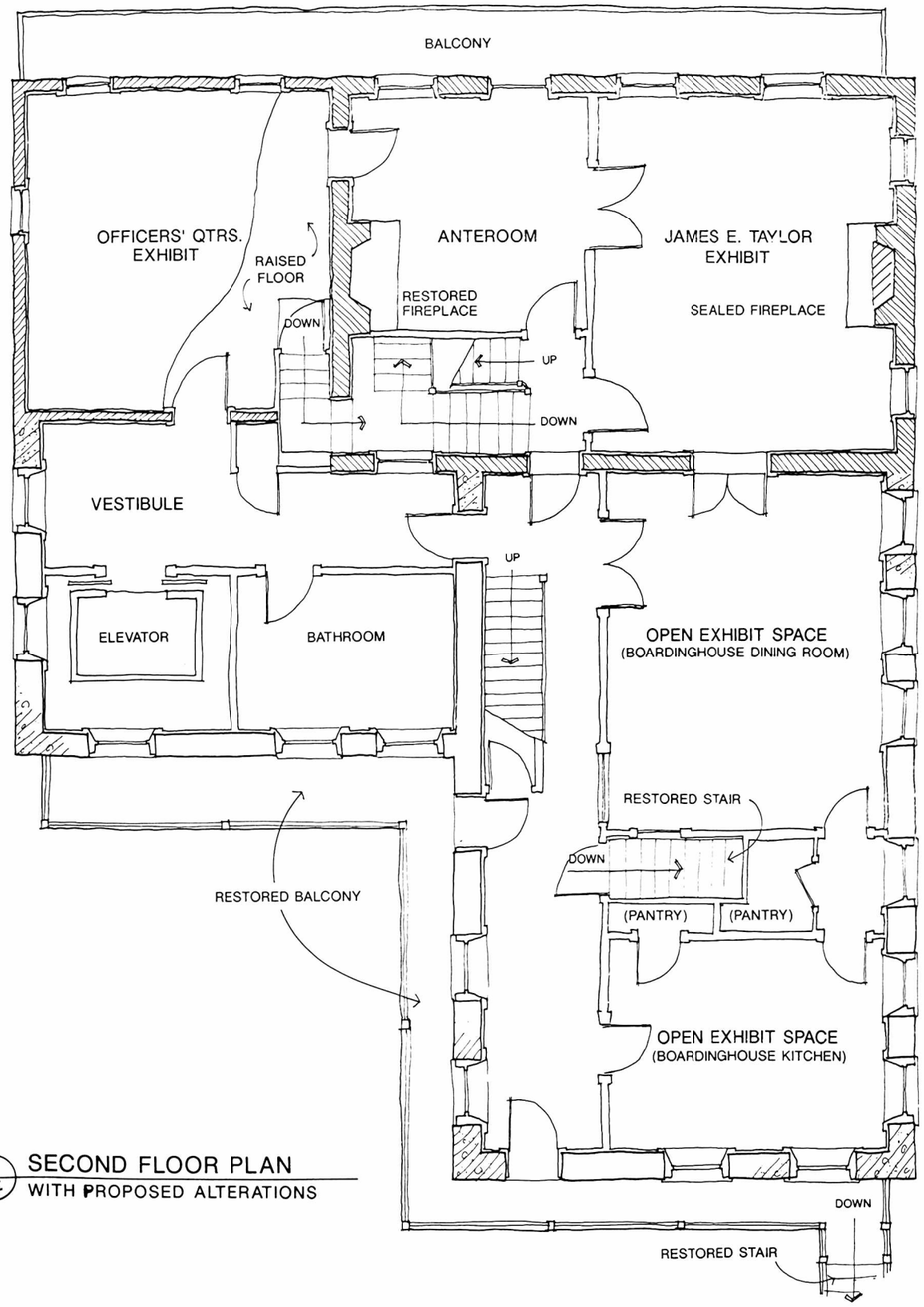
DESIGNED: JNF DRAWN: JNF TECH. REVIEW: ASD DATE: 11/92	SUB SHEET NO.	TITLE OF SHEET BASEMENT PLAN BUILDINGS 34 & 35 HARPERS FERRY N.H.P.	DRAWING NO. 385 / 25,029 PKG. NO. 116 SHEET 60 OF 69



1/63 FIRST FLOOR PLAN
WITH PROPOSED ALTERATIONS

1 0 1 2 3
SCALE OF METERS
4 0 4 8
SCALE OF FEET

DESIGNED: JNF	SUB SHEET NO.	TITLE OF SHEET: FIRST FLOOR PLAN	DRAWING NO. 385/25,029
DRAWN: JNF			PKG. NO. 116
TECH. REVIEW: ASD		BUILDINGS 34 & 35 HARPERS FERRY N.H.P.	SHEET 61 OF 69
DATE: 11/92			

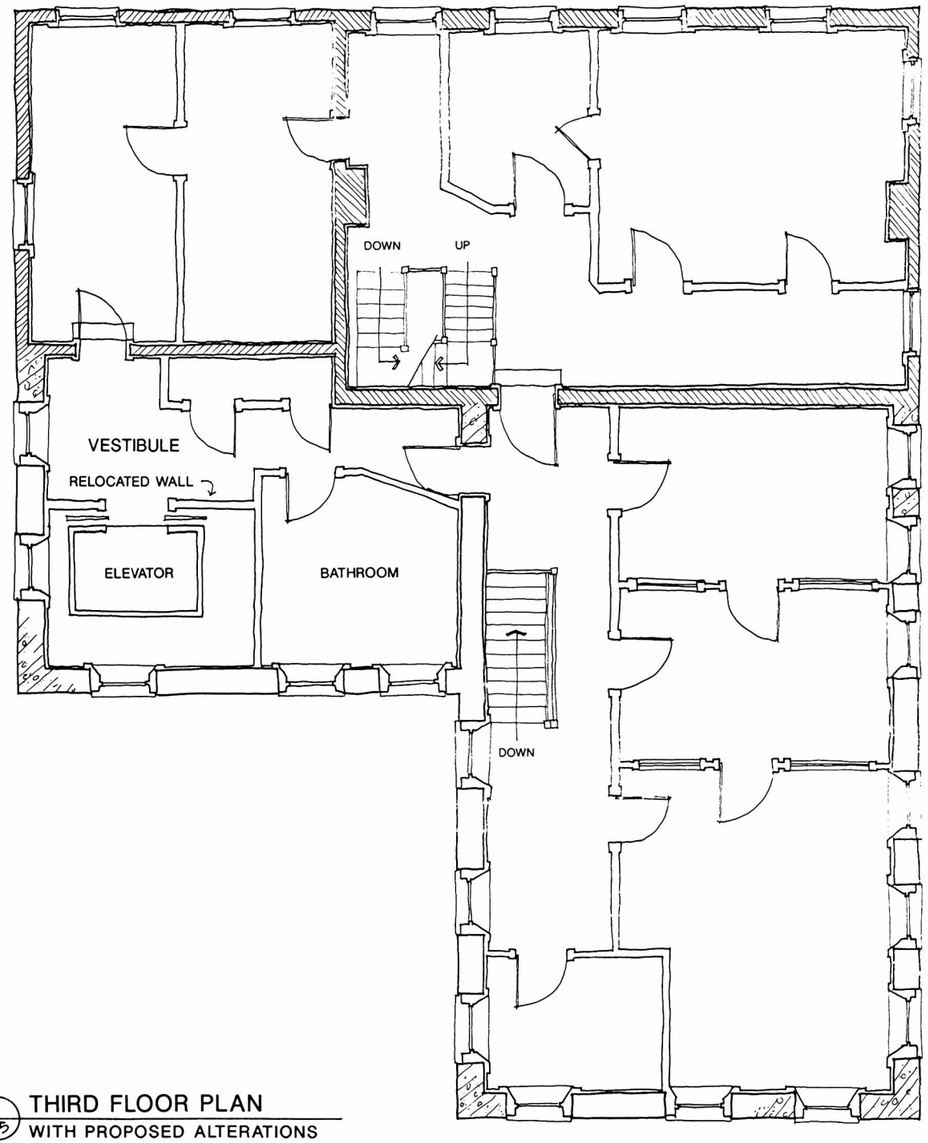


1/64 SECOND FLOOR PLAN
WITH PROPOSED ALTERATIONS

1 0 1 2 3
SCALE OF METERS

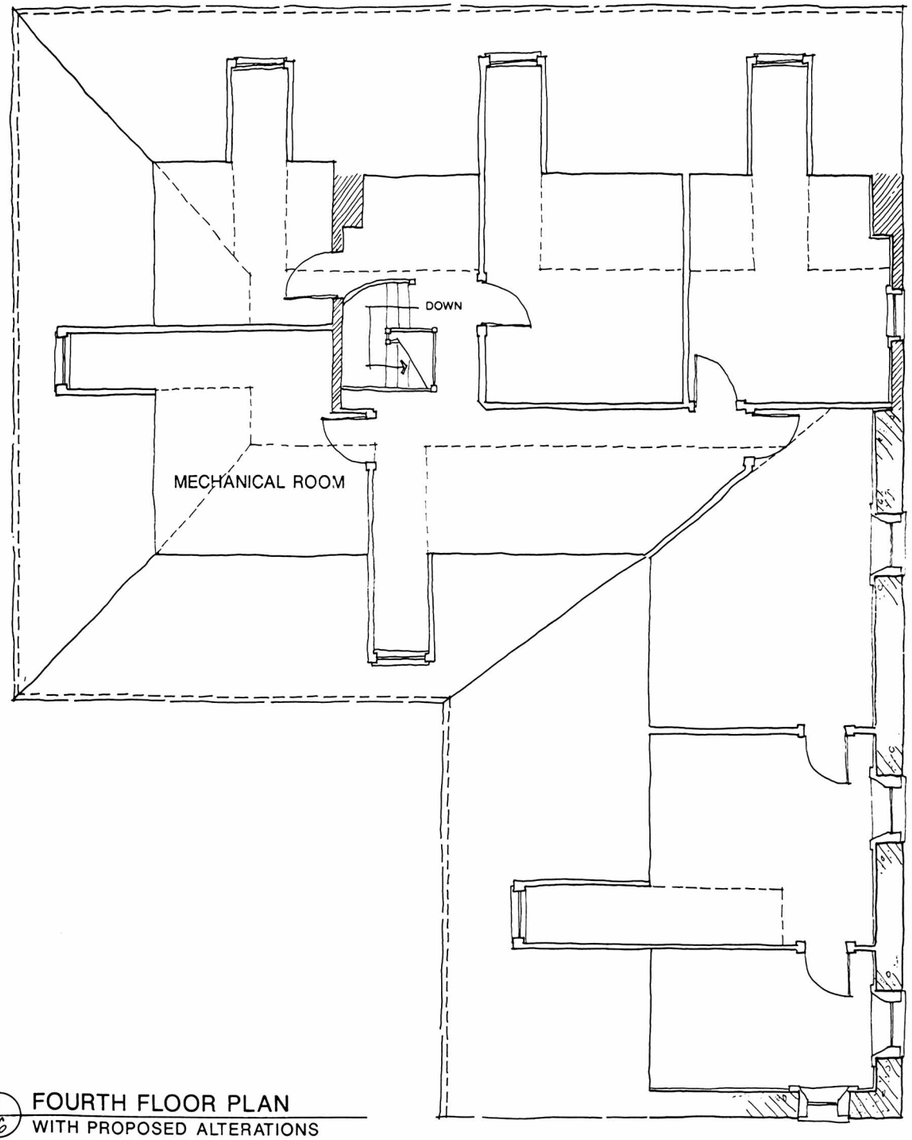
4 0 4 8
SCALE OF FEET

DESIGNED: JNF DRAWN: JNF TECH. REVIEW: ASD DATE: 11/92	SUB SHEET NO.	TITLE OF SHEET SECOND FLOOR PLAN BUILDINGS 34 & 35 HARPERS FERRY N.H.P.	DRAWING NO. 385 / 25,029 PKG. NO. 116 SHEET 62 OF 69



1/65 THIRD FLOOR PLAN
WITH PROPOSED ALTERATIONS

DESIGNED: JNF	SUB SHEET NO.	TITLE OF SHEET: THIRD FLOOR PLAN	DRAWING NO. 385 / 25,029
DRAWN: JNF			PKG. NO. 116
TECH. REVIEW: ASD		BUILDINGS 34 & 35	SHEET 63
DATE: 11/92		HARPERS FERRY N.H.P.	OF 69



1/66 FOURTH FLOOR PLAN
WITH PROPOSED ALTERATIONS

SCALE OF FEET

DESIGNED: JNF	SUB SHEET NO.	TITLE OF SHEET: FOURTH FLOOR PLAN	DRAWING NO. 385 25,029
DRAWN: JNF			
TECH. REVIEW: ASD		BUILDINGS 34 & 35 HARPERS FERRY N.H.P.	PKG. NO. 116
DATE: 11/92			SHEET 64 OF 69

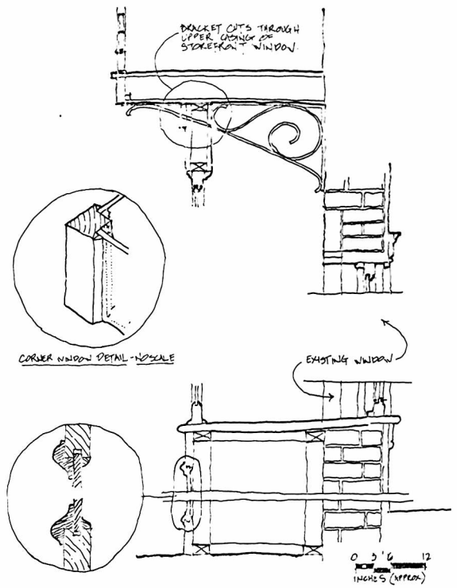


BUILDING 35 BUILDING 34

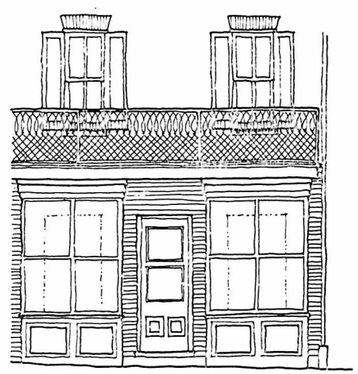
(1/67) NORTH ELEVATION
WITH PROPOSED RESTORATIONS

1 0 1 2 3
SCALE OF METERS
4 0 4 8
SCALE OF FEET

BASED ON 1957 HABS DRAWINGS AND HISTORIC PHOTOGRAPHS



(2/67) SECTION THROUGH BAY WINDOWS
SCALE: 1" = 1' - 0"



(3/67) BUILDING 34
WITH CA. 1910 BAY WINDOWS

DESIGNED: JNF DRAWN: JNF TECH. REVIEW: ASD DATE: 11/92	SUB SHEET NO.	TITLE OF SHEET NORTH ELEVATION BUILDINGS 34 & 35 HARPERS FERRY N.H.P.	DRAWING NO. 385 / 25,029 PKG. NO. 116 SHEET 65 OF 69



1/68 EAST ELEVATION
WITH PROPOSED RESTORATIONS

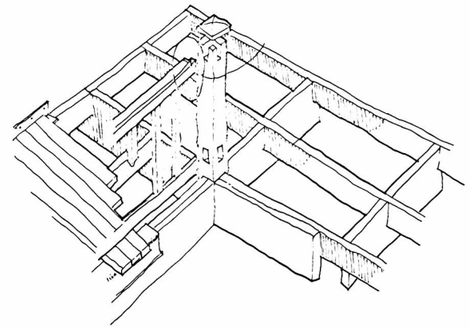
1 0 1 2 3
SCALE OF METERS

4 0 4 8
SCALE OF FEET

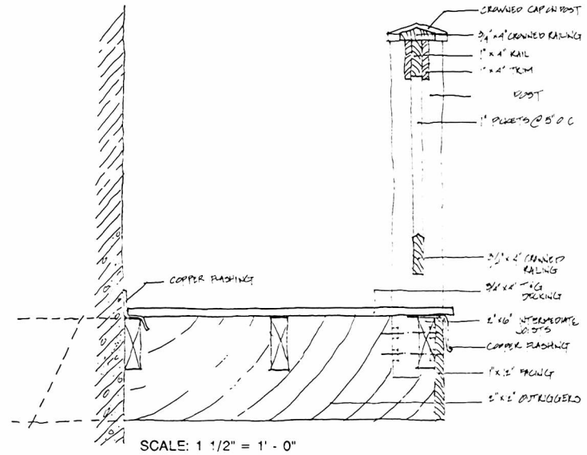
BASED ON 1957 HABS DRAWINGS AND HISTORIC PHOTOGRAPHS

DESIGNED: JNF	SUB SHEET NO.	TITLE OF SHEET	DRAWING NO. 385 25,029
DRAWN: JNF		EAST ELEVATION	PKG. NO. 116
TECH. REVIEW: ASD		BUILDINGS 34 & 35	SHEET 66
DATE: 11/92		HARPERS FERRY N.H.P.	OF 69





NO SCALE



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

DETAILS OF REAR PORCH

1891 - 92

1/69 SOUTH ELEVATION

WITH PROPOSED RESTORATIONS AND DISABLED ACCESS RAMP

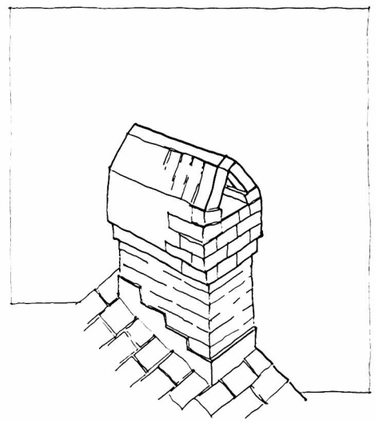
SCALE OF METERS 0 1 2 3

SCALE OF FEET 4 0 4 8

BASED ON 1957 HABS DRAWINGS AND HISTORIC PHOTOGRAPHS

DESIGNED: JNF	SUB SHEET NO.	TITLE OF SHEET	DRAWING NO. 385/25,029
DRAWN: JNF		SOUTH ELEVATION	
TECH. REVIEW: ASD		CONSTRUCTION DETAILS	PKG. NO. 116
DATE: 11/92		BUILDINGS 34 & 35	SHEET 67 OF 69
		HARPERS FERRY N.H.P.	





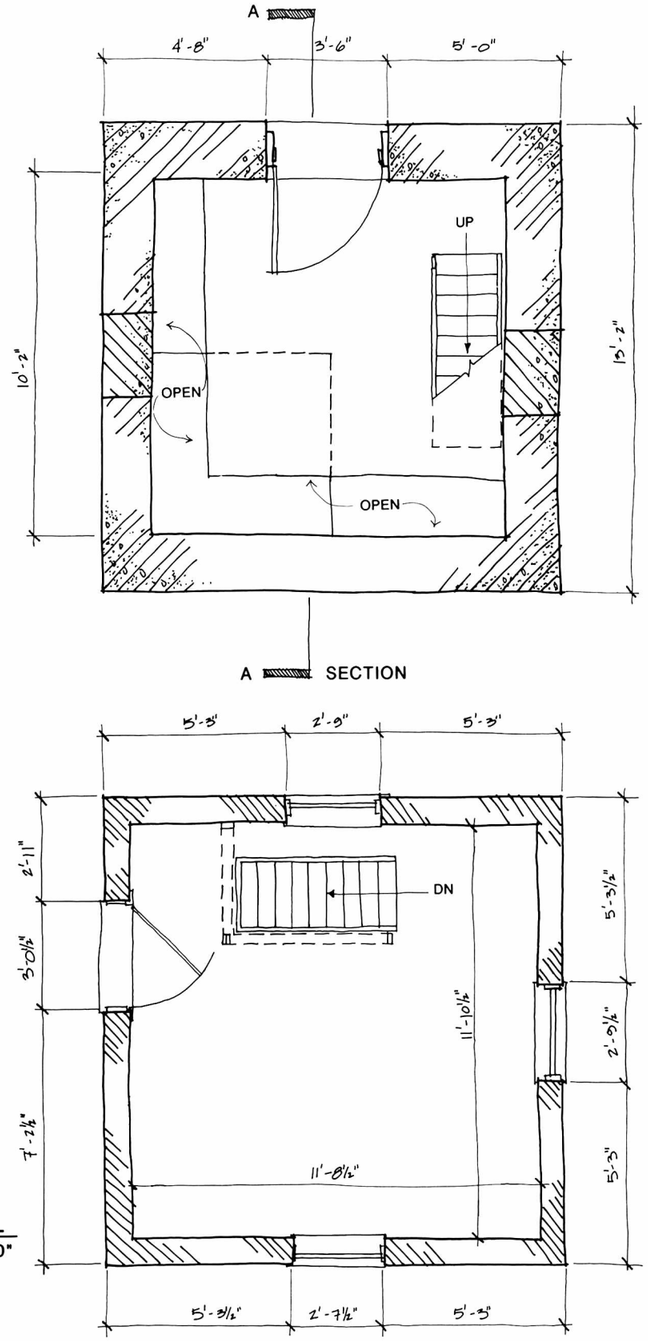
CHIMNEY CAP DETAIL
NO SCALE

1/90 WEST ELEVATION
WITH PROPOSED RESTORATIONS
AND DISABLED ACCESS RAMP

BASED ON 1957 HABS DRAWINGS AND HISTORIC PHOTOGRAPHS

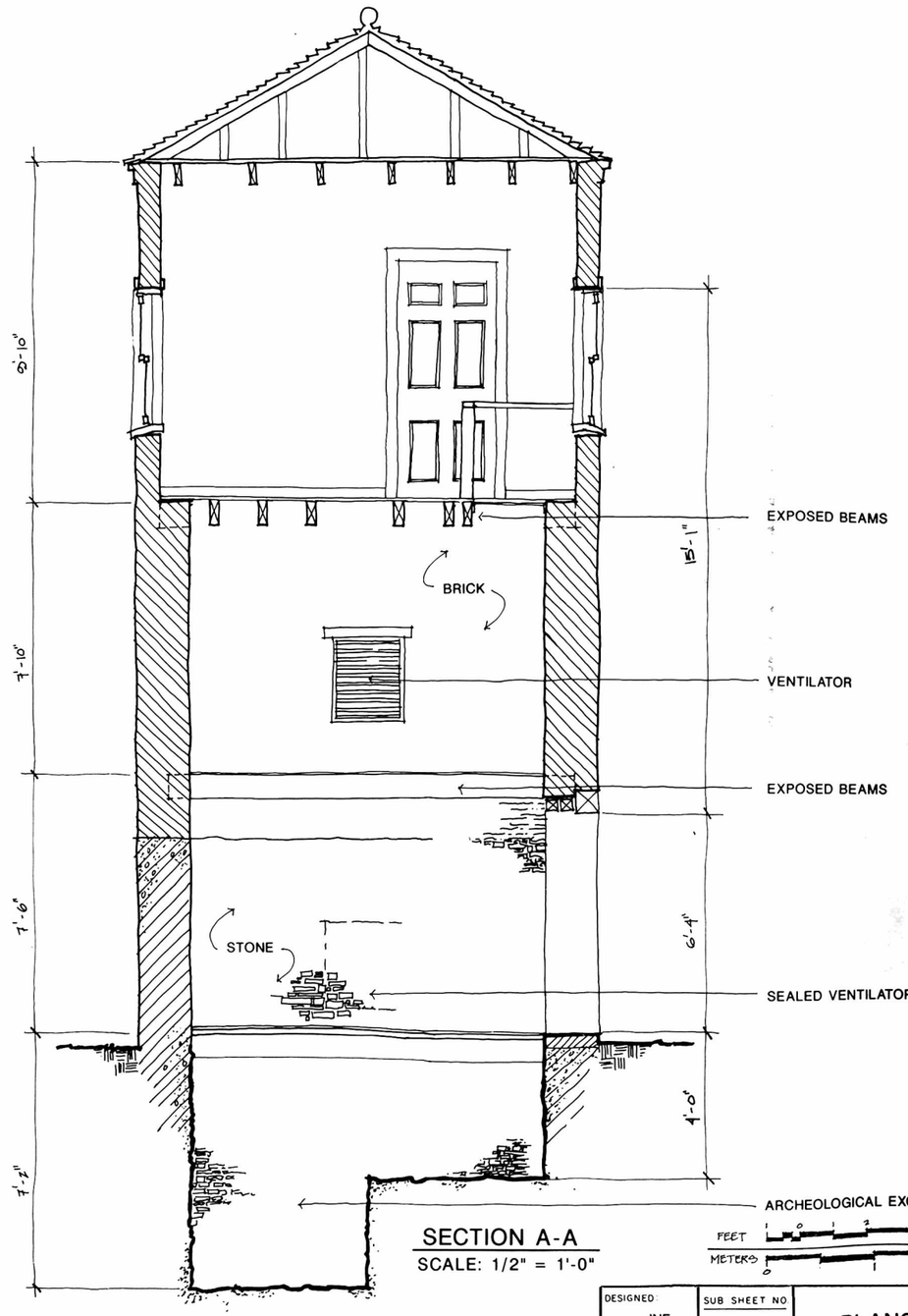
1 0 1 2 3
SCALE OF METERS
4 0 4 8
SCALE OF FEET

DESIGNED: JNF	SUB SHEET NO.	TITLE OF SHEET: WEST ELEVATION	DRAWING NO. 385 25,029
DRAWN: JNF			PKG. NO. 116
TECH. REVIEW: ASD		BUILDINGS 34 & 35	SHEET 68
DATE: 11/92		HARPERS FERRY N.H.P.	OF 69



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

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



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

DESIGNED: JNF DRAWN: JNF TECH. REVIEW: ASD DATE: 11/92	SUB SHEET NO	TITLE OF SHEET PLANS & SECTION BUILDING 34A HARPERS FERRY N.H.P.	DRAWING NO. 385 25,029 PKG. NO. 116 SHEET 69 OF 69

U.S. Department of the Interior
Mission Statement

As the Nation's principal conservation agency, the Department of the Interior has responsibility for most of our nationally-owned public lands and natural resources. This includes fostering sound use of our land and water resources; protecting our fish, wildlife, and biological diversity; preserving the environmental and cultural values of our national parks and historical places; and providing for the enjoyment of life through outdoor recreation. The Department assesses our energy and mineral resources and works to ensure that their development is in the best interests of all our people by encouraging stewardship and citizen participation in their care. The Department also has a major responsibility for American Indian reservation communities and for people who live in island territories under U.S. administration.





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