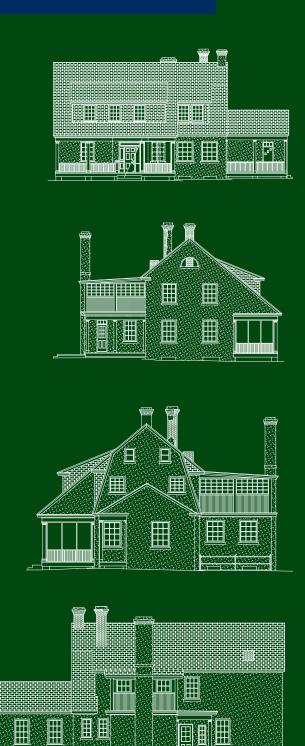
PHYSICIAN'S RESIDENCE

HISTORIC STRUCTURE REPORT

PROPERTY DESCRIPTION, ASSESSMENT, AND RECOMMENDATIONS

III.





This aerial view of the property, taken from Figure 3.1 Google Earth, shows the cleared area that surrounds the house and the tree line at the edge of the property.

A. Site

In this chapter, the Physician's Residence property, its site and structures, will be described. Following the description of each element or feature, alterations to that item's original condition, if any, will be noted. Further discussion will note the condition of the element or feature and make recommendations for its future treatment. These recommendations are general in nature as a number of options for the use of the main house will be given in the following chapter.

1. General Setting and Orientation

The Physician's Residence parcel is located in a shallow depression that is predominantly encircled by a serpentine ridge at an altitude of 200 feet. The site is surrounded on all sides by wooded areas. The house and freestanding garage are both oriented to the Lorton Road Connector (Figure 3.2). A circular drive provides two entry points from the road.

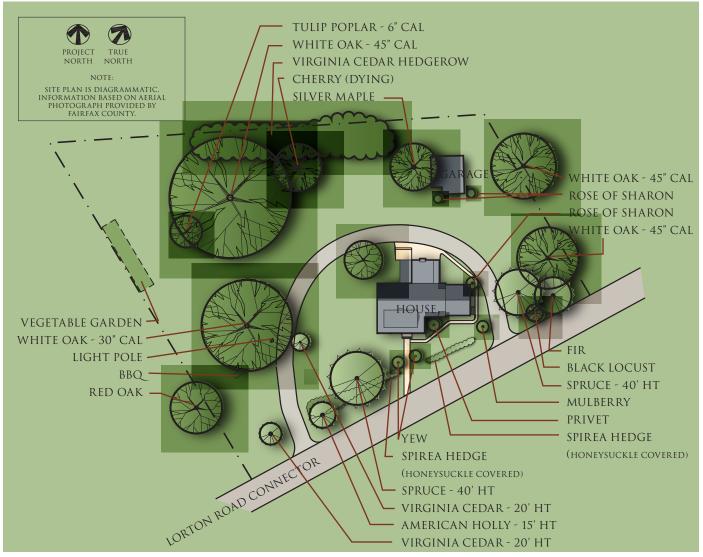


Figure 3.2 The Existing Conditions Site Pan shows the house oriented to the Lorton Road Connector and within a well-planted site.

A. Site, continued

2. Outbuildings

Description:

The Physician's Residence garage (Figure 3.3) is located on the northern side of the circular drive. It was built after 1961 and is a non-contributing resource, according to the National Register of Historic Places (NRHP) nomination for the D. C. Workhouse and Reformatory Historic District. This gable-roofed building measures approximately 12 feet by 22 feet and is built of brick laid in five-course common bond. Built to house a single automobile, the garage has a wooden paneled rollup garage door, a cast concrete lintel, and square ventilator with louvers in the south gable end. Two window openings on each side elevation have been closed-in. A shed-roofed addition of approximately 8 feet by 18 feet is located to the west elevation of the garage. The addition has a door on its south elevation, and two window openings that have been closed-in on its west side.

Condition:

The garage was not accessible and was outside the scope of the study; however, during a general site inspection it was noted that there appears to be failure of the roof allowing moisture infiltration into the building.

Recommendation:

Although a non-contributing structure, the garage warrants further inspection to ascertain whether it may be used as a storage building as part of the future program for the site.



Figure 3.3 The garage for the Physician's Residence is located to the north of the house. Note the utility line that enters the property from behind this structure.



Figure 3.4 The semi-circular driveway sweeps around the north elevation of the house.



Figure 3.5 The concrete front walk is in need of general maintenance.



Figure 3.6 This curving walk leads to the office wing porch.

3. Driveways, Parking, Sidewalks, and Patios

Description:

A semi-circular driveway (Figure 3.4) paved in asphalt wraps around the east, north, and west sides of the house, starting and ending at the Lorton Road Connector. It appears that a paved area that formerly connected this driveway to the garage has reverted to lawn. There are no designated parking areas.

A concrete sidewalk (Figure 3.5) connects the front porch stoop to the road. A secondary sidewalk (Figure 3.6) leads from the front porch stoop to the east following the walls of the south elevation to the porch of the office wing. It continues in a quarter-circle manner to connect to the exterior basement steps and the back patio on the north elevation.

There are two patio areas on the north elevation. Extending north from the rear porch is a rectangular poured-concrete slab. This patio was later extended to the east through the installation of square concrete pavers along the north kitchen wall. To the west of the porch, a brick patio (Figure 3.7) extends the width of the porch to the north and the length of the remaining north elevation to the west.

Condition:

The driveway is in fair condition, however, there is no parking area for the house or handicap access. Most of the sidewalks are overgrown and show settlement or deterioration.

Recommendation:

Provide alterations to the driveway associated with improvements to and the reconfiguration of the Lorton Road Connector in front of the building.

Provide new parking area and handicap access from the parking area to the house. (See Chapter VI for parking options)

Provide new sidewalks as required for handicap access to rear of the building from the new parking area. Replace selected sidewalks as needed.

PRESERVATION BRIEF 32

Making Historic Properties Accessible www.nps.gov/history/hps/tps/briefs/ brief32.htm

PRESERVATION BRIEF 10

Preservation of Historic Concrete www.nps.gov/history/hps/tps/briefs/ brief15.htm

The brick patio adjoins the rear porch on Figure 3.7 the north elevation.

A. Site, continued

4. Yards and Plantings

Description:

The Physician's Residence site appears to have been mowed over the years, with no understory and a number of large mature deciduous and evergreen trees informally planted.

A formal arrangement of trees and shrubs comprises the front yard planting. Evergreen trees dominate the road frontage of the property.

Two large spruce trees flank either side of the house (Figure 3.12), with a fir just east of the eastern spruce. Several Virginia cedars flank the drive circle on the west and an American holly is located at the western entrance of the driveway. Overgrown yews frame the entry walk between the house's front door and the Lorton Road Connector. A deciduous spirea hedge (Figure 3.8), now overgrown with honeysuckle vine and an infestation of poison ivy, flanks the yews (Figure 3.9) and extends along the property's frontage to the circular drive in each direction.

Two large white oak trees (Figure 3.13) are found in the northwestern section of the property on the outside edge of the circular drive. A third large white oak is located on the southeastern corner of the property.



A hedge extends from the yews at the front walk entrance to more Figure 3.8 upright forms at the entrance to the driveway.



Figure 3.9 This view is taken from the front walk looking toward the Lorton Road Connector through a pair of upright form yews.



Figure 3.10 A Rose of Sharon is planted too close to the corner of the office wing of the house.



Figure 3.11 The north lawn is accented by the garage and a mature silver maple tree, among other plantings.



Figure 3.12 A large spruce punctuates the east lawn near the driveway entrance.



Figure 3.13 A large white oak, one of three on the site, is located in the west lawn outside of the driveway.

PRESERVATION BRIEF 36

Protecting Cultural Landscapes: Planning, Treatment and Management of Historic Landscapes www.nps.gov/history/hps/tps/briefs/brief36.htm

It is worth noting that, in 1928, the Reformatory property of 2,700 acres was home to more than three million oak trees, many of which were harvested and used by the various industries of the institution, including broom and basket-making.

Other deciduous trees in the lawn include a tulip poplar, a silver maple (Figure 3.11), a poplar, and a cherry. The poplar provides a partial screen for the patio areas on the north side of the house.

Condition:

Plantings are in good to poor condition. The hedges and other plantings in front of the house are overgrown. Some trees are growing too close to the building.

At the eastern driveway entrance, a number of tree saplings have taken root and detract from the formality of the hedge planting. (Figure 3.8) Other shrubs may have self-seeded near the garage and the house. Rose of Sharon flanks the garage entrance and the northeastern corner of the house itself. Privet is located near the front door, with mulberry to the east.

Recommendation:

Provide tree work and pruning as necessary to retain existing mature trees. Provide screening for parking lots. Replace plantings in front of the building. Remove the Rose of Sharon at the northeast corner of the office wing, as it will likely have an adverse effect on the building if it continues to grow. (Figure 3.10).

A. Site, continued

5. Other Site Features

Description:

A barbeque pit (Figure 3.14) constructed of prison-made bricks is located to the southwest of the house.

A concrete benchmark (Figure 3.15) is located at the southwest corner of the property. With the inscriptions of "DC" and "1910" it appears to date from the time that the Lorton property was deeded to the District of Columbia from the Commonwealth of Virginia.

Condition:

The barbeque pit is starting to disintegrate with the top missing numerous bricks.

The benchmark shows signs of weathering consistent with its age but is in good overall condition.

Recommendation:

Both of these site features are important to the evolution of the property. The barbeque pit should be repaired and retained. The benchmark should be retained and protected from damage.



Figure 3.14 The brick barbeque pit, constructed of prison-made bricks, is located in the west yard and is in deteriorated condition.



Figure 3.15 This concrete benchmark marks the boundary for a portion of the Lorton property.

B. Exterior

1. Introduction and Existing Exterior Elevation Drawings

The Physician's Residence is approximately 2,900 square feet on the two main levels, and was constructed of brick and later coated in stucco.

Irregular in plan, the house is two stories although the front elevation is only one and one-half stories due to the large shed dormer that projects from the roof. In addition to the main block, there is a two-story rear ell to the north and a one-room, one-story office wing to the east of the main block.

The main block of the house measures approximately 45 feet by 23 feet, the rear ell 15 feet by 14 feet, and the office wing 16 feet by 14 feet.

There is a full, below-grade basement for the entire footprint of the house, with the exception of the office wing.



Figure 3.16 A partial view of the south and west elevations of the house is shown from the Lorton Road Connector.



Figure 3.17 The north elevation contains a kitchen ell with the secondfloor sunroom addition.

B. Exterior, continued

1. Introduction and Existing Exterior Elevation Drawings, continued



The front elevation of the house is depicted as it appears today, with a screened front porch and replacement office door.



Figure 3.19 The east elevation drawing shows the deteriorated of the chimneys.

c. North Elevation - Existing Condition



Figure 3.20 The sunroom addition and accompanying extended chimney are seen here.

d. West Elevation - Existing Condition

Figure 3.21 The west elevation drawing shows the rectangular vent placed in the lunette window opening.



B. Exterior, continued

2. Foundation

Description:

The foundation for the main block of the building is brick. Brick piers clad in stucco support the front and office porches. (Figure 3.22)

Condition:

Moisture infiltration into the basement indicates that there is no waterproofing or drain tile below grade next to the foundation.

Recommendation:

Especially if the basement will be occupied, excavate around the perimeter of the building, and provide new foundation drains set in gravel and surrounded by geotextile fabric. Provide a waterproof membrane on the exterior surface of the foundation along with an insulation/drainage/ protection board.



Figure 3.22 Stucco-covered brick piers provide the foundation for the front porch.

PRESERVATION BRIEF 39

Holding the Line: Controlling Unwanted Moisture in Historic Buildings www.nps.gov/history/hps/tps/briefs/brief39.htm



Figure 3.23 This view shows the original brick beneath stucco and that the stucco stops at the wood trim, and that therefore the stucco was a later addition.



Figure 3.24 Vine growth and moss are evident on the north wall of the kitchen wing.

3. Walls: Main House

Description:

Almost all walls are of solid brick construction, employing brick that was manufactured on-site. All walls were coated later with roughfinish stucco. (Figure 3.23)

Condition:

The condition of the stucco is good. The condition of the brick is not known, but suspect that deteriorated condition may have led to stucco covering.

Recommendation:

Remove vine growth (Figure 3.24), clean stucco finish, and repair as needed as part of any exterior rehabilitation.

PRESERVATION BRIEF I

Assessing Cleaning and Water-Repellent Treatments for Historic Masonry Buildings www.nps.gov/history/hps/tps/briefs/brief01.htm

PRESERVATION BRIEF 6

Dangers of Abrasive Cleaning to Historic Buildings www.nps.gov/history/hps/tps/briefs/brief06.htm

PRESERVATION BRIEF 22

The Preservation and Repair of Historic Stucco www.nps.gov/history/hps/tps/briefs/brief22.htm



B. Exterior, continued

4. Walls: Sunroom

Description:

The only exception to the masonry construction is the sunroom above the kitchen, which is of frame construction, with tongue-and-groove boards and wood trim. It is likely that the sunroom is not original to the building. (Figure 3.25)

Condition:

The sunroom addition is in poor condition. The roof of the sunroom has failed, allowing substantial water infiltration into the interior. This has resulted to severe damage to the structure as well as interior finishes. Some of the exterior features such as the windows and wood siding may be partially salvageable.

Recommendation:

The Secretary of Interior's Standard for Rehabilitation #4 states:

"Most properties change over time; those changes that have acquired historic significance in their own right shall be retained and preserved."

Due to the poor condition of the sunroom, the low quality of its original construction, and the lack of its clear relationship to the original design, a strong case can be made that the sunroom addition lacks historic significance and does not contribute to the historic character of the Physician's Residence.

As a result, options that include removal of the sunroom are included later in this report. If a decision is made to pursue the removal option, the historic significance of the sunroom will need to be reviewed by the preservation review agencies



Figure 3.25 This view of the west elevation of the sunroom addition shows its frame construction.

stipulated in the Memorandum of Agreement (MOA) for the property (Appendix 1). The review agencies will use the Secretary of Interior's Standards for Rehabilitation as the basis of their review, but their opinion as to whether Standard #4 applies in this instance may differ from the analysis in this report.

The Secretary of Interior's Standard for Rehabilitation #3 states:

"Each property shall be recognized as a physical record of its time, place, and use. Changes that create a false sense of historical development, such as adding conjectural features or architectural elements from other buildings, shall not be undertaken."

If the sunroom is not rebuilt, the proposed design of the reconstructed gable that takes its place should be confirmed through additional architectural investigations after the sunroom's removal (refer to Chapter VI for illustration of design options). Confirmation that the gable existed originally will address this review standard.



Figure 3.26 The office wing porch retains many of its original elements.



Figure 3.27 The rear porch has been altered over time and is in poor condition.

5. Porches

Description:

The Physician's Residence has three porches; a front porch, an office wing porch, and a rear porch. Each of these porches is constructed of wood elements including an unadorned cornice, square support columns with simple capitals and bases, balustrades of a simple top and bottom rail with square balusters, a tongue-and-groove floor, and beaded-board ceiling.

A screened front porch extends from the southwest corner of the structure and spans 32 feet of the front elevation. (Figure 3.28)

The office wing has a separate porch that spans the wing's full south elevation. (Figure 3.26)

The rear porch spans the length of the west elevation of the rear ell. (Figure 3.27)

Condition:

Overall, most wooden elements are in fair-to-poor condition due to exposure to the weather and lack of maintenance. Masonry piers are in good condition.

The screening (not original) on the front porch is in deteriorated condition as are a number of the floor and ceiling boards.

The floorboards have been replaced on the office wing porch as have the wooden steps from the stoop to the porch floor level.

The railing for the rear porch has been removed. Floorboards are warping and at the north end of the porch have been replaced by a sheet of plywood.

Recommendation:

Retain masonry piers and original posts and columns for reuse. Rebuild porches with new floor framing and tongue and groove porch deck.



The screened front porch exhibits deteriorated wood finishes. Figure 3.28

B. Exterior, continued

6. Chimneys

Description:

The Physician's Residence originally had four brick chimneys with corbelled caps, later clad in stucco. Two are located on the east end of the main house. One serves the fireplace in the dining room and the other is used as the furnace stack. (Figure 3.29)

Based on its appearance, the third chimney, which served the kitchen, was originally much shorter than the chimney found today. When the enclosed porch was added above the kitchen, the chimney was apparently extended above that roofline. (Figure 3.30) The banding immediately above the porch roofline is indicative of this extension. The fourth chimney served the fireplace in the living room although little of this chimney remains above the roofline. (Figure 3.31)

Condition:

Much of this stucco is deteriorating, as well as the brick underneath (Figure 3.32). The kitchen chimney retains the highest level of stucco finish of the four chimneys.

Recommendation:

Remove unstable sections of the chimneys. Rebuild the chimneys using, in part, any salvaged chimney brick that is in good condition. The new chimney should use the same detailing as the original. Provide chimney flashing in coordination with roof replacement. For the missing chimney, rebuild as shown on the drawings in this report. Remove extension to chimney at the sunroom if the sunroom is removed. Recoat portions of exposed brick chimneys with stucco to match existing.



Figure 3.29 Three of the four chimneys for the house are shown above.



Figure 3.30 The kitchen chimney features a band above the sunroom roof line that shows where the chimney was extended after that addition.



Figure 3.31 The deteriorated condition and reduced height of the living room chimney are clearly visible.



Figure 3.32 The failure of the stucco coat on the chimneys on the north side of the house is evident.

PRESERVATION BRIEF 2

Repointing Mortar Joints in Historic Masonry Buildings www.nps.gov/history/hps/tps/briefs/brief02.htm

PRESERVATION BRIEF 22

The Preservation and Repair of Historic Stucco www.nps.gov/history/hps/tps/briefs/brief22.htm

7. Exterior Doorways and Doors

Description:

Located on the south elevation, the wood, six-panel front door is surrounded by sidelights with wainscot panels below and capped by a single-pane transom. (Figure 3.33) Also located on this elevation is the office door. A partially glazed replacement door of late-twentieth century design has been installed in the original opening. The original three-light glazed transom remains. (Figure 3.34)

On the north elevation, the door that opens onto the rear porch is constructed of wood with nine small panes over two wood panels. There is an additional six-pane

over two-panel wood door on the north elevation on the basement level. This door opens into the exterior stairwell.

On the west elevation, the door that connects the porch to the kitchen is similar to the nine-pane door described above, but with a three-light transom above. (Figure 3.35)

The only door on the east elevation is on the basement level and opens into the exterior stairwell. (Figure 3.36)

Most exterior door hardware has been replaced although original examples can be found on the basement door. (Figure 3.36)

Condition:

With the exception of the office door, all exterior doors appear to be original and are in serviceable condition. There is peeling paint and mold growth in some locations.



Figure 3.33 This interior view shows the front door, sidelights, and transom.



Figure 3.35 This partially glazed door leads from the kitchen to the rear porch.



Figure 3.34 The office wing entrance has a replacement door and original transom.



Figure 3.36 Similar to the kitchen door, one of two exterior doors that open into the basement is shown here.

Recommendation:

Retain existing original doors. Adjust, prepare and paint as required. Replace non-original office door with a six-panel design similar to the main front door. Replace non-original hardware with reproduction Colonial Revival hardware appropriate to the building. Where necessary for handicap accessibility, use

PRESERVATION BRIEF 10

hardware that meets ADA requirements.

Exterior Paint Problems on Historic Woodwork www.nps.gov/history/hps/tps/briefs/brief10.htm

B. Exterior, continued

8. Windows and Shutters

Description:

The house retains most of its original six-over-six wooden double-hung sash windows. Most windows have exterior aluminum storm windows. (Figure 3.37) Some smaller openings, such as those found in the pantry and office bathroom, contain four-overfour wood sash windows. A pair of one-over-one windows is located in the west gable end. The original fenestration of the arched lunette window in the east gable end has been removed, and a rectangular louvered vent mounted in plywood presently fills this opening. Lower level windows have been boarded up to prevent vandalism.

Basement windows open into concrete and masonry window wells. (Figure 3.39)

Hinge pins for shutters remain on the trim surrounding a number of windows. (Figure 3.38) Since the shutters are no longer in use, it may be speculated that they were removed when the exterior was clad in stucco and never reinstalled.

The windows are original and an important character-defining feature of the building.



Figure 3.37 Broken panes and bare wood are evidence of the deteriorated condition of the house's wooden windows and damage to the existing storm windows.



Figure 3.39 Concrete and masonry window wells are located on the west elevation.



Figure 3.38 Shutter hinge pins were found on several windows on the north and west elevations.

PRESERVATION BRIEF 3

Conserving Energy in Historic Buildings www.nps.gov/history/hps/tps/ briefs/brief03.htm

PRESERVATION BRIEF 9

The Repair of Historic Wooden Windows www.nps.gov/history/hps/tps/ briefs/brief09.htm

Condition:

A number of windows and storm windows have broken glass. Overall, the wooden windows are in fair condition; the storm windows are in poor condition. Window wells are in fair-to-poor condition with signs of brick deterioration noted.

Recommendation:

Retain and refurbish the existing windows. Work should include the reglazing and replacement of sash cords. Replace existing storm windows with new wood or aluminum-coated storm windows that coordinate with the appearance of the windows.

Window wells should be rebuilt as necessary. Install foundation drains that include drainage of window wells especially where moisture is infiltrating the basement.



The gable roof line contains the integral front porch as viewed from the west elevation.



The unusual gable/gambrel roof line is best viewed from the east elevation. Note the asphalt shingle roof material.

PRESERVATION BRIEF 04

Roofing for Historic Buildings www.nps.gov/history/hps/tps/briefs/brief04.htm

9. Roof

Description:

When viewed from the west elevation, the roof shape is a side-gable with an integral porch. (Figure 3.40) However, when viewed from the east elevation, the roof has a gambrel shape that appears to have been applied on the end of the side-gable and extends the roofline by approximately five feet. (Figure 3.41)

The office wing has a side-gable roof, and the kitchen ell has a shed roof. (Figure 3.41)

The roof surfaces described above are covered in dark gray three-tab composition asphalt shingle. This material is also used on the sides of the shed dormer.

The rear porch has a standing-seam metal roof. The sunroom roof is not visible and, consequently, its material is unknown as is the original roof material of the rest of the roof.

Condition:

Visible roof surfaces are in fair-topoor condition.

Recommendation:

Replace current three-tab asphalt shingles with architectural-grade fiberglass shingles or a shingle that may more closely approximate the original material if it can be determined thorough additional future research or architectural investigations.

Re-paint existing standing-seam porch roof. Replace sunroom roof if the reconstruction option is chosen. Since the sunroom roof is not visible, a single-ply membrane may be acceptable for the low-slope condition.

B. Exterior, continued

10. Cornice, Eaves, and Gutters

Description:

There are rake boards on both the gable and gable/gambrel ends of the house. The rake molding consists of two boards, a flat board affixed to the plane of the wall and a cove molded board that attaches to the flat board which meets the roof overhang. A small molding strip covers the seam created by the junction of these two boards.

Boxed eaves with half-round gutters and corrugated rectangular downspouts (Figure 3.43) are found on the north and south elevations. The aluminum ogee gutters are not original or appropriate to the building. Crown molding at the top of the cornice was removed to allow their installation. In addition, the gutters appear to be in poor repair, and there are missing downspouts that contribute to water damage of wooden elements such as the boxed eaves. (Figure 3.42)

Eaves exhibit significant water damage, missing boards, and holes, especially on the north elevation.

Condition:

Cornice and eave woodwork is in fair-to-poor condition. The gutters are in poor condition.

Recommendation:

Prepare and repaint all exterior woodwork. Repair or replace all deteriorated moldings. Replace missing moldings with matching trim.

Replace the current ogee-shaped gutters with pre-painted aluminum half-round gutters and round downspouts more appropriate to the style of the building.



Figure 3.42 Water damage has occurred on the eave of the north elevation, east of the sunroom addition.



Figure 3.43 The ogee-shaped gutter and missing downspout are shown here on a corner of the front porch.

PRESERVATION BRIEF 10

Exterior Paint Problems on Historic Woodwork www.nps.gov/history/hps/tps/briefs/brief10.htm



The shed dormer is located within the main roof on the south elevation.



Figure 3.45 An additional shed dormer is located on the south elevation, to the east of the main roof.

11. Dormers

Description:

A single shed dormer containing three windows is located in a recessed opening centered in the front porch roof on the south elevation. (Figure 3.44) The dormer is faced with the same composition shingles used on the adjacent roof. The exterior finish beneath the composition shingles is unknown. A ledge wrapped with flat seam galvanized roofing makes the transition from front wall of the shed dormer to the sloped gable roof in front of it. The flashing appears to have pulled loose at the front edge. A second shed dormer is located on the slope of the main roof to the east of the porch and contains two

Condition:

The condition of the shingles is poor. The condition of the flashing is fair.

windows. (Figure 3.45) There are no dormers on the

remaining elevations.

Recommendation:

Remove the asphalt shingles from the walls of the dormer and evaluate the condition of the exterior finish beneath. If the finish is wood siding, repairs and repainting should be anticipated. Reattach the flashing at the front edge of the dormer and paint. The exterior woodwork requires painting and maintenance in line with the rest of the building. Refer also to recommendations for roofing and windows.



C. Interior

1. Floor Plans - Existing

a. Basement

There is a full basement under the main block of the house and the kitchen ell to the rear. There is no basement under the office wing.

There are three entrances to the basement: one from a staircase that connects to the main hall on the first floor, and two from the exterior stair located on the east elevation of the kitchen ell (Figure 3.46).

The interior stair to the basement is located in the basement stair hall (Room 002). To the west of the hall is Room 001, which was most likely used for storage. (Figure 3.49) To the east of the hall is Room 004 (Figure 3.47), a mechanical space, with Room 005 (Figure 3.48), a toilet room, in its northeast corner, and an exterior door on the north wall. To the north, this large room connects to Room 003, located directly under the kitchen and which also contains a door that provides exterior stair access. This space may have been used for servant's quarters since it has its own exterior entrance.

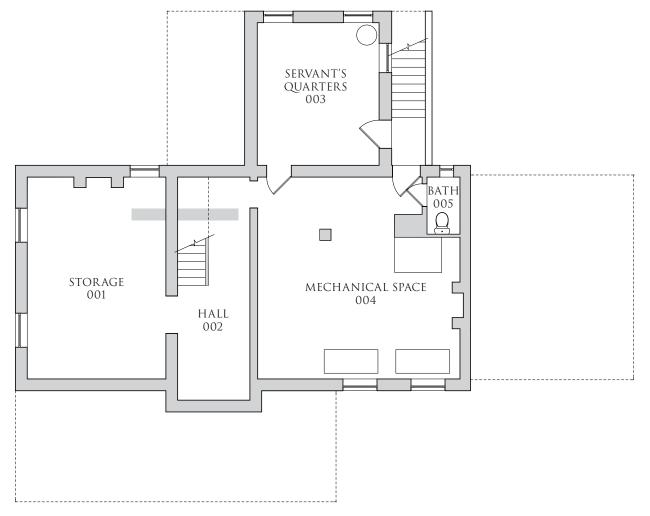


Figure 3.46 Basement Floor Plan



Figure 3.47 Room 004 is located under the east side of the house and is a mechanical space with a concrete floor and painted brick walls.



Figure 3.48 Room 005 is the bathroom, located in the northeast corner of Room 004.



Figure 3.49 Room 001 occupies the west side of the basement and has a plaster coat over the brick foundation walls.



1. Floor Plans - Existing

b. First Floor

The main entrance for the Physician's Residence is the front door, located on the south elevation, and which opens into Room 102, the stair hall (Figure 3.52). There is a small vestibule (Room 103) at the north end of the stair hall that provides access to the basement, rear porch, and pantry (Room 106)/kitchen vestibule (Room 105).

The living room, Room 101, (Figure 3.53) is located to the west of the stair hall and is the only room located on that side of the hall. To the east of the hall is Room 107, the dining room (Figure 3.51), which connects to Room 108, the office (Figure 3.54) and to the pantry/kitchen vestibule. A toilet room (Room 109) for the office is located on the west wall of Room 108.

The pantry/kitchen vestibule connects to the pantry on the east and to the kitchen (Room 104) on the north. On the west wall of the kitchen an exterior door connects

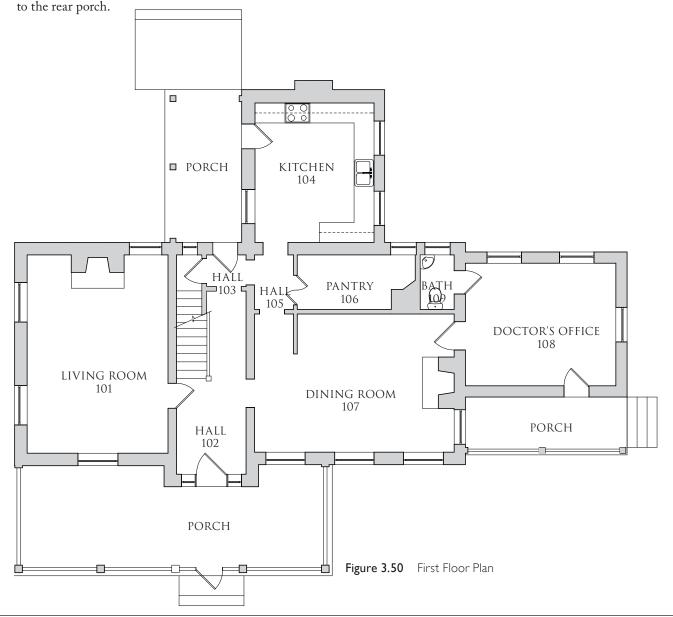




Figure 3.52 Room 102 is the front hall and contains the original characterdefining stair.

Figure 3.51 Room 107 is adjacent to the kitchen and pantry and would have served as the dining room for the house. The door leads to the doctor's office.



Figure 3.53 Room 101 is located to the west of the hall and was the original living room. Note the built-in bookcase to the west of the fireplace.



Figure 3.54 Room 108 served as the doctor's office and has a separate exterior entrance.



1. Floor Plans - Existing

c. Second Floor

The upstairs hall, Room 204, (Figure 3.58) provides direct access to the major rooms on the second floor. A shed dormer over the front porch extends the usable space on this level. At the western end of the stair hall, there are three major rooms. Room 201 is located in the northwest corner and also connects to the bedroom to its south, Room 202. Room 202 contains a closet in its southwest corner (Room 203). Room 205 (Figure 3.56) is located to the east of Room 202 and contains a large closet (Room 206) spanning the eastern wall of the room.

To the east of the stair is a large bedroom (Room 209) with two closets, one located on the west wall (Room 210) and one on the north wall (Room 211). To the north of this bedroom is the only full bathroom in the house, Room 208 (Figure 3.57). Over the kitchen (Room 104) is an enclosed sunroom, Room 207 (Figure 3.59).

A door in the upstairs hall opens to a stair to the attic (Room 301).

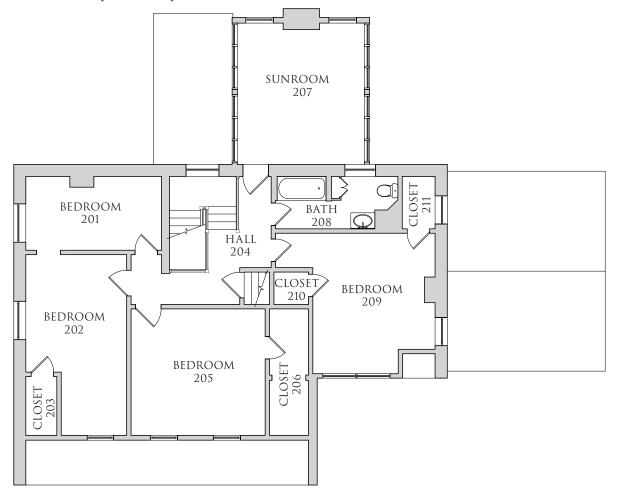


Figure 3.55 Second Floor Plan



Figure 3.56 Room 205 is the largest bedroom and is located on to the south of the upstairs hall.



The character of Room 204 is defined by the original stair railing with its unpainted rail and white painted pickets.



Figure 3.57 Room 208 is the only full bathroom in the house.

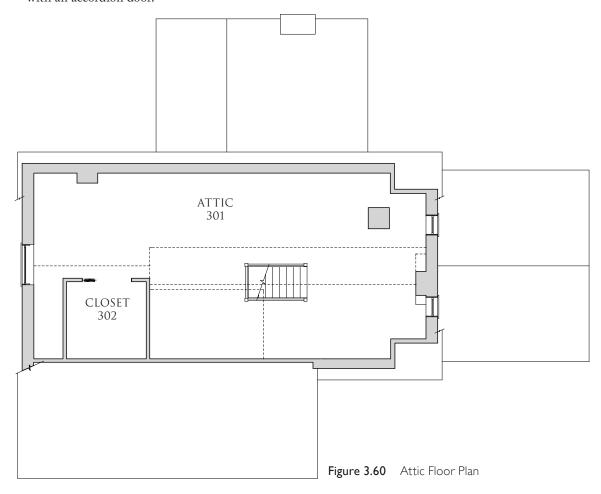


Figure 3.59 Room 207 is the sunroom addition located above the kitchen.

1. Floor Plans - Existing

d. Attic

The attic is one finished room that extends between the gable ends of the house. Despite low ceilings, it appears to have been occupied based on the exit signs installed. The attic includes a small closet area on the south side with an accordion door.









Closet 302 is visible to the west of the attic stair.



Figure 3.63 The collapsing tread and riser are evidence of the deteriorated condition of the basement stairway.



Figure 3.64 The stair hall on the second floor has a well-preserved Colonial Revival balustrade, posts, and railing.

2. Stairways

Description:

The stair that leads from the basement to the first floor stair hall (Figure 3.63) is a straight run of open string construction with a square newel post, unadorned two-by-four rail and single horizontal board balustrade, all painted. This construction appears to be original.

The narrow u-shaped stair from the first to the second floor begins on the west wall of the hall (Room 102). Also an open string stair, it has a square oak newel post with recessed panels and trim that evokes a stylized classical column. An oval rail caps the narrow, square balusters. Posts, of the same description as the newel post, mark each turn of the stair and the balustrade intersections around the stair opening on the second floor (Figure 3.64).

Typically, the posts, rail, and stair treads retain their original unpainted clear finish. The risers have been painted and stenciled (non-original). This stair is original and a character-defining feature of the building.

The straight run stair to the attic (Figure 3.65) is contained on each side by walls and has painted treads and risers. A balustrade with square painted posts, square painted balusters, and an oval painted rail surrounds the stair opening in the attic.

Condition:

The basement stair is structurally unsound and should be considered unsafe. Please refer to the Structural Condition Assessment later in this chapter for more information.

The main and attic stairs are in good to fair condition.

Recommendation:

The basement stair should be replaced with a new stair.

The risers and balusters for the main stair should be repainted. Paint should be removed from the handrail to return the railing to its original appearance.



Figure 3.65 This view of the attic stair shows its beaded-board wainscoting.

3. Flooring

Description:

The floors in the basement are poured concrete (Figure 3.68). The floors slope to floor drains.

On the first, second and attic levels, the floors are typically tongue-and-groove heart pine and are a character-defining feature of the building (Figure 3.69). Many of these wood floor surfaces have been covered by carpeting. Rooms 103, 104, 105, and 106 have sheet vinyl floors (Figure 3.66). The office toilet room (Room 109) has a small square ceramic tile floor (Figure 3.67), which may not be original.

Condition:

The concrete basement floors are in good condition. The drains were not tested. The sheet vinyl flooring and carpeting are in poor condition and were not removed for inspection of the surfaces underneath. Exposed wood floors appear to be in good condition. Limited observed areas of damage include holes for radiator piping.

Recommendation:

If basement spaces are to be occupied, add floor finish over concrete floor.

Wood floors should be retained. Damaged areas should be repaired with matching materials. The floors should be refinished as part of any rehabilitation.

Sheet vinyl flooring should be removed and replaced with a ceramic tile floor. Ceramic tile in Room 109 can be retained or replaced with a new finish appropriate to the building.



Figure 3.66 Patterned vinyl flooring is found in the pantry and kitchen areas.



Figure 3.67 The office bathroom has a ceramic tile floor.



Figure 3.68 There is a poured concrete floor in the basement.



Figure 3.69 Wood tongue-and-groove floors are typical on the first and second floors.



Figure 3.70 Painted brick and exposed joists are found in Rooms 002 and 004.



Figure 3.71 Room 001 has parged walls and mold growth on the ceiling.



Figure 3.72 Patterned pressed board paneling is found in the hall, Room 102.



Figure 3.73 Plaster is the typical wall and ceiling finish on the first and second floor.

PRESERVATION BRIEF 21

Repairing Historic Flat Plaster - Walls and Ceilings www.nps.gov/history/hps/tps/ briefs/brief21.htm

4. Wall and Ceiling Finish

Description:

In the basement, Rooms 001 (Figure 3.71) and 003 have brick walls that have been parged with a portland cement mix. Rooms 002 and 004 (Figure 3.70) have painted brick walls, and Room 003 has plaster walls. Room 001 has a fiberboard ceiling. All other rooms have exposed joist ceilings, with every three to four joists doubled.

On the first floor, rooms typically have painted plaster walls and ceilings. In Room 102 (Figure 3.72) there is pressed wood paneling on both the east and west walls. In Room 108, there is non-original chair rail with pressed board paneling below. In Room 109, a fiberboard product has been applied over the plaster walls. A laminate type wallboard has been installed on the walls in the pantry (Room 106). A glossy backsplash material was installed over the wallboard between the countertop and the upper cabinets in the kitchen (Room 104). Most wall and ceiling surfaces are in good to fair condition with the exception of the kitchen (Room 104) and pantry (Room 106) ceilings, which appear to have water damage.

On the second floor, most walls retain their original plaster finishes (Figure 3.73). The upstairs bath has a chair rail with plaster below and wallpaper above and a tiled tub surround that is not original.

Condition:

Finished wall and ceiling surfaces in the basement are in poor condition. Spalling of paint and parging and mold growth is evident due to moisture infiltration and rising damp. The fiberboard ceiling in Room 001 may contain asbestos.

On the first and second floors, there is peeling paint on some ceilings, peeling wallpaper in Room 201, and a failing ceiling in Room 207. Other surfaces show cracked plaster that is, in part, due to vandalism. There is water damage in Room 104. On the second floor, there was sporadic mold observed due to water damage. Pressboard paneling and wallpaper are in fair to poor condition.

Recommendation:

In the basement, repair wall finishes where necessary and repaint. Improve drainage to eliminate moisture infiltration into basement by installing foundation drainage and foundation waterproofing. Remove the ceiling finish in Room 001 (using appropriate methods) and replace with new finish as appropriate to the use of the space. Add finished ceilings in spaces with exposed ceiling that are proposed to be occupied and a more finished wall surface, if desired.

On the first and second floors, repair damaged plaster using appropriate methods to preserve this character-defining feature. Prepare and paint previously painted surfaces. Select areas of plaster may be removed to allow new building systems to be installed in wall cavities. When replacing plaster, consider using gypsum board with a level 5 (skim coat) finish. Remove pressboard paneling and wallpaper, and repair the plaster underneath.

5. Doorways and Doors

Description:

Interior doors (Figure 3.75) are predominantly of six-panel construction and are of a Colonial Revival style that is consistent with the date of construction for the house. The door between Rooms 103 and 105 (Figure 3.76) is unusual in that it is partially glazed. The under-stair closet in the basement has a vertical board door (Figure 3.74) with a diagonal cross-brace.

There is a door missing between Rooms 102 and 103. The louvered swinging doors between Rooms 105 and 106 (Figure 3.77) are not original to the building.

The door between Rooms 204 and 207 is partially glazed with nine lights above two recessed panels.

Condition:

Most doors are in good condition. There is peeling paint and mold growth in some locations. The louvered door between Rooms 105 and 106 is in poor condition.

Recommendation:

Retain existing original doors. Adjust, prepare and paint as required. Replace the doors between Rooms 105 and 106 with a single door. In instances where new doors are needed, match them to the existing six-panel stile-andrail doors.



Figure 3.74 The understair closet in the basement has a vertical board door.



Figure 3.76 A six-light interior door is located between Rooms 103 and 105.



Figure 3.75 A typical six-panel door is located between Rooms 101 and 102.



Figure 3.77 Louvered doors are located between Rooms 105 and 106.

PRESERVATION BRIEF 28

Painting Historic Interiors www.nps.gov/history/hps/tps/briefs/brief28.htm



Figure 3.78 Typical first floor baseboard molding is shown at a door opening



Figure 3.79 Plain mitred boards are the typical door molding detail on the second floor.

6. Decorative Features and Trim

Description:

Many of the six-over-six windows have double-cased openings (Figure 3.80). The inner trim is recessed into the wall plane, as are the windows, and is a plain board with a beaded inside edge with less of a reveal to the upper edge. The outer trim for windows on the first floor is of a built-up architrave design with a consistent reveal on all sides. The outer trim on the second floor windows is plain board with mitered corners. The shed dormer windows have only the outer trim.

Door trim is of the same design as the outer window trim, with an architrave design on the first floor, and mitred plain boards (Figure 3.79) on the second floor.

Baseboard trim (Figure 3.78) appears to be constructed of three pieces: an upper ogee cap, a plain board, and an ogee base. The baseboard design is consistent on both floors. The baseboard has been replaced in the office.

The fireplace surrounds in the living and dining rooms are of exposed brick and are capped by wooden mantel shelves with ogee-shaped finish trim.

There is a built-in bookcase to the west of the fireplace in the living room that appears to date to a period after the initial construction as it does not share the design features of the original trim in the house.

A small niche in the upstairs bath appears to be original. It is of an arched design with two shelves and is located over the commode.

Condition:

Most decorative features and trim are in good general condition although there are some instances of paint failure and mold growth on the surfaces. The cause for such should be identified and the trim repaired/repainted. There are also miscellaneous replacements in altered spaces.



Recommendation:

Retain, prepare and paint existing original wood trim. Match any new trim with the original.

Figure 3.80 A unique double-cased trim is found on many window openings in the house.

7. Hardware

Description:

The Physician's Residence retains some examples of its original mortise lock hardware with brass knobs.

Condition:

Numerous replacement of the original door hardware have been made. Current door knobs do not meet ADA requirements.

Recommendation:

Save, refurbish and consolidate original door hardware for use in rooms without public functions. Provide new lever hardware as required to meet ADA requirements.

PRESERVATION BRIEF 32

Making Historic Properties Accessible www.nps.gov/history/hps/tps/ briefs/brief32.htm

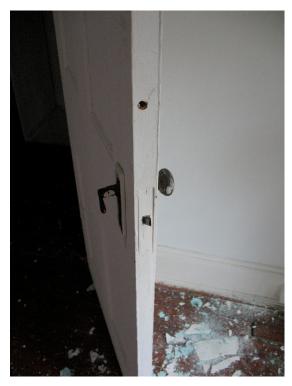


Figure 3.81 Original door hardware is found on some original doors.



Figure 3.82 The outdated heating plant for the house is located in Room 004.



Figure 3.83 The panel box for the electrical service to the house is pictured above.



Figure 3.84 Later florescent light fixture and original radiators are located throughout the house.

PRESERVATION BRIEF 24

Heating, Ventilating, and Cooling Historic Buildings: Problems and Recommended Approaches www.nps.gov/history/hps/tps/ briefs/brief24.htm

8. Building Systems

For the purposes of this study, it is assumed that all of the mechanical, electrical and plumbing systems are no longer serviceable. Any plan to reuse the building would include their replacement.

a. HVAC

Description:

Heat for the building was provided by a radiator system with the boiler located in the basement. There are two oil tanks and a boiler located in Room 004 (Figure 3.82). The house retains its original radiators (Figure 3.84). Exposed radiator piping, as well as plumbing piping, can be seen in the basement of the building. The building does not have a central air-conditioning system. Window air-conditioning units were removed from many openings as a part of the process of mothballing and securing the building.

Condition:

An extended period of building vacancy has likely resulted in deterioration of the system. The condition of the system was not assessed for this report but is assumed to be fair to poor.

Recommendation:

Replace the radiator and boiler system with a new ducted system that provides both air conditioning and heat.

b. Electrical and Lighting

Description:

The electrical system (Figure 3.83) appears to date from mid-twentieth century with many alterations. It can be assumed that it does not have the capacity to support the updated HVAC system proposed in this report. Exposed surface-mounted conduit has been used for fairly recent electrical alterations. No examples of historically significant light fixtures exist in the building. Fluorescent fixtures (Figure 3.84) are not original or appropriate to the building.

Condition:

The condition of the electrical and lighting system was not assessed for this report, but can be assumed to be fair to poor.

Recommendation:

Upgrade the electrical service as required for the new HVAC system. Provide new power distribution with concealed wiring throughout the house. Provide new telecommunications and security systems.

Replace current fluorescent fixtures with more appropriate light fixtures to suit building and proposed uses.

8. Building Systems

c. Plumbing

Description:

The toilets (Figure 3.85) and sinks are outdated. The bathtub (Figure 3.86) in Room 208 could be considered for reuse.

Condition:

The plumbing fixtures are typically in fair-to-poor condition. The extended period of building vacancy has likely resulted in the deterioration of the system.

Recommendation:

Replace or refurbish plumbing and fixtures as part of the overall rehabilitation of the building.



Figure 3.85 The existing toilet in the second floor bathroom is outdated.



Figure 3.86 Room 208 has mid- to late-twentieth century tile and a bathtub from the same period.

9. Structural System

2550 Huntington Ave., Suite 310, Alexandria, VA 22303-1410 | 703.329.3200 | wileywilson.com



January 15, 2009

Mr. Carter B. Green, AIA, LEED® AP Senior Architect, Project Manager Frazier Associates 213 North Augusta Street Staunton, Virginia 24401

RE: Lipscomb House Structural Evaluation

Site of Old Lorton Prison Management Office: 8700 Laurel Crest Drive Lorton, Virginia 22079 Wiley|Wilson Commission No. 208229.00

Dear Mr. Green:

On December 23, 2008 two of Wiley|Wilson's structural engineers, Byron Cook, P.E. and Ryan Brown, E.I.T. visited the above referenced project site. The purpose of the visit was to observe and examine the existing structural conditions in order to provide a suitable assessment of the structure's viability for future use.

Based on the observations made, it is our opinion that the existing structure is acceptable for residential use. To consider the entire structure for office use, some structural reinforcement will be required. In any case, the building as a whole is structurally sound, though several minor, yet necessary improvements need to be made.

Our conclusions are based upon the visible portions of the structural system at the time of visitation. As additional portions may be exposed, they should be further evaluated if they reveal damage beyond what is described below.

Existing Structure

The existing structure is a multi-leveled house ranging from one to three stories and also includes a basement level below all but the one single story portion. Although each section is unique in its geometry, the structure exhibits consistency within the structural system. Rough sawn timber roof and floor framing is supported throughout by a system of perimeter and interior masonry bearing walls, which are in-turn supported likely by corbelled brick foundations. Previous research indicated that the house was likely built in 1920 and it appears the whole of the structure was completed at this time.

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C. Interior, continued

9. Structural System



Mr. Carter B. Green, AIA, LEED® AP Frazier Associates January 5, 2009 Page 2

High Roof: The high roof is located above only the three story portion of the structure. It is a gable type roof utilizing a timber ridge plate and masonry walls to support the sloping timber rafters. To prevent outward thrust on the walls, the rafters are joined by a collar tie just above ceiling level.

Judging by the observed conditions, the high roof structure as a whole is fully intact and in good repair. Moreover, the rafters and wood roof decking appear to have been effectively protected against detrimental moisture damage.

Third Floor Support Structure: The third floor framing is composed of wood plank decking placed over rough sawn timber joists. The joists span across the width of the structure, and though not seen, are likely notched and pocketed into the masonry walls. Although the floor framing was only observable in one location, it can be reasonably assumed this condition is consistent throughout the level.

The same single point of observation relinquished no evidence of damage to the framing. The floor was not perceivably warped or "bouncy" which adds a measure of validity that the floor is in good condition.

Low Roof: This low roof is located above the two story portion of the structure which projects from the South face of the house. It encloses what appears to have been a sun room or enclosed porch that, judging by the dissimilarity of the adjoining walls from the rest of the structure, is possibly an addition. The roof is mono-sloped with timber rafters spanning in the North-South direction, continuously over an intermediate support. This intermediate member is a built-up beam whose laminations are oriented parallel to the floor and is in-turn supported on timber posts located between the windows.

Many points of this low roof structure have suffered severe damage, some to the point of complete failure. Several sizeable holes in the roof deck are easily detected and rotted wooden deck planks and rafters clearly indicate this area has been exposed to the elements for some time. Additionally, many of the rafters have cracked and split along their grain indicating they have been overloaded. Further, the built-up beam has become delaminated and is no longer useful.

Second Floor Support Structure: Based on limited access for inspection, it was determined the second floor framing exhibits a configuration similar to that of the rest of the house – wood plank deck over timber joists spanning between masonry bearing walls.

Similar to other levels of the structure, it is expected the majority of the second floor decking and joists are well intact and in satisfactory condition. Of particular note, however, is the floor framing of the sun room/enclosed porch (see *Low Roof* section).

Mr. Carter B. Green, AIA, LEED® AP Frazier Associates January 5, 2009 Page 3



Although the framing is not exposed to plain view, the frozen and molding floor finish, above, in addition to the water saturated and deteriorating ceiling finish of the kitchen, below, suggests that serious water damage (and possibly worse) has been incurred by the floor structure in between.

First Floor Support Structure: The somewhat unfinished basement level provided the best observation point for determining the geometry and configuration of the first floor framing. As observed elsewhere, typical 2 inch wide by 91/2 inch deep rough sawn timber joists spaced at 16 inches on center were observed throughout. Span and spacing of the joists did vary, but all identified end conditions were suitable connections to headers or ledgers or notched and pocketed into masonry walls. Double joists were appropriately used around large openings, such as around the stairs, and a number of the subsequently framed joists were connected using very heavy gage top-mounted joist hangers - albeit somewhat rusted.

Again, the timber framing and decking appeared to be in good condition and largely unaffected. Splitting, bowing, or warping of members was at a minimum, and water or insect damage was undetected. The stair stringers at this level, in contrast, have suffered severe structural damage and must be replaced.

Foundation: The original foundation was nearly completely unobservable due to the concrete slab-on-grade. The slab included features such as equipment pads, floor drains and tool-finished surfaces, which leads to the notion that the slab was installed after the original construction. The only visible foundation element was observed at the base of the masonry flue which exhausts the boiler. At this location, one layer of a brick base was identified as a component supporting the flue structure. This observation gave evidence to the existence of a corbelled brick foundation. Although not seen along a foundation wall, this visible portion of the corbelled brick likely demonstrates the typical foundation system for a masonry structure built in this period.

Despite not being readily apparent, it can deduced from observations discussed in the following sections (see Masonry Walls and Exterior) that through time the foundation has effectively served its intended purpose.

Masonry Walls: Around the perimeter and throughout the interior, load bearing brick walls support the roof and floor framing. At every level, basement to roof, the visible portions of the structural walls were investigated for cracks and planes of failure - none were observed. The wall construction appeared fully intact and unaffected by lateral drift or foundation settlement. Hairline cracks were seen in some places but are thought not to have originated from structural causes, nor do they seem to posses risky structural implications.

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C. Interior, continued

9. Structural System



Mr. Carter B. Green, AIA, LEED® AP Frazier Associates January 5, 2009 Page 4

Exterior: Further evidence toward the quality of the existing structure is found in the unharmed exterior façade. Surrounding nearly the entire structure is a plaster/stucco finish which is very brittle and highly susceptible to cracking in both the horizontal and vertical planes. Even small movements from lateral drift or foundation settlement would induce such cracks. Since no significant cracking was observed, it appears that neither severe lateral drift nor excessive foundation settlement has occurred.

Porches and Chimneys: Two items of concern are the integrity of the porches and chimneys. The porches, supported on masonry piers, framed with timber beams and joists, in support of wood decking, have been exposed to the elements for some time. The piers look to be in satisfactory condition and have not settled excessively. The beams and joists show serious signs of weathering and have remained only moderately intact. The decking, too, has visibly sustained significant damage and without question is no longer functional. The fascia around the posts has also not weathered well, and leaves suspect the quality of the structural post within. The quality of these members is increasingly questionable due to the noticeably out of plumb condition represented by nearly every post.

The top-most portions of the chimneys as seen above the various roof levels all display considerable degrees of deterioration. The mortar appears loose and flaky as does much of the brick work. In many places significant portions of brick are missing and the chimneys as a whole appear highly unstable.

Existing Capacities

With exception to the substandard areas cited in the "Recommendations" section, all remaining areas of the existing structure have sufficient load capacity for residential use. The International Building Code (IBC) permits a uniformly distributed live load of 40 pounds per square foot (PSF) for residential use, such as that prescribed for one- and two-family dwellings. This envelope capacity is based on the worst case scenario encountered in the structure.

Many, but not all locations of the existing structure have sufficient load capacity for office use. Assuming the typical joist condition (2"W x $9\frac{1}{2}$ "D at 16" on center), the uniformly distributed live load of 50 PSF for office use is achievable when the joist spans is less than 18.5 feet. Without removing all the finishes and investigating the entire structure, it is difficult to explicitly state what areas may be in excess of the 18.5 foot span condition. However, it is likely that all the third floor framing, the eastern most portion of the second floor framing, and the first floor framing as viewed from the western most portion of the basement all exceed this allowable joist span and thus do not qualify for consideration as office use.

Mr. Carter B. Green, AIA, LEED® AP Frazier Associates January 5, 2009 Page 5

Recommendations

To prepare the structure for any future use and equip it for ongoing occupation, the following structural repairs are recommended:

- Demolish and rebuild the sun room/enclosed porch (see description of area in Low Roof and Second Floor Support Structure sections of "Existing Structure").
 - All roof rafters, ledgers and beams
 - All posts supporting roof members
 - o All second floor framing
 - o All exterior cladding
- Demolish and replace floor framing for all porches. This includes the following porch floor members:
 - o Beams
 - o Joists
 - Decking
 - o Posts
 - Where porch roof framing is not an integral part of a larger roof system, it would be practical to demolish and replace the porch roof framing as well.
- Chimneys above roof level should be demolished until fully intact masonry is reached, and then rebuilt to desired height.
- Basement stair case should be completely replaced and anchored to slab.
- Prohibit exterior water intrusion by repairing and/or replacing corrupted areas, and ensuring the exterior envelope is impermeable.

For areas where an increase in overall allowable capacity is desired, structural reinforcement will be necessary. Depending on the conditions of each area, several reinforcing methods may be possible. For example, our current recommendation for areas cited in the "Existing Capacities" section that do not qualify for office use would be to install intermediate post and beam systems to add additional support to the long spanning joists. The new beam would be installed such that the bottom of the existing joist would bear directly on the new beam. Further, each new post would require a new spread footing. Construction of these footings would involve localized demolition of the existing slab-on-grade, excavation of the soil, and placement of the new concrete,

9. Structural System

Mr. Carter B. Green, AIA, LEED® AP Frazier Associates January 5, 2009 Page 6



The full extent to which reinforcement is required, though, can only be satisfactorily determined once all the structure's interior finishes are removed and a thorough analysis of the condition, configuration, and capacity of all the existing structural members is conducted.

Please contact me with any questions.

Sincerely,

Wiley|Wilson

Ryan E. Brown, E.I.T. Structural Engineer-In-Training 2

CC: Elisabeth Lardner

Byron L. Cook, P.E., LEED® AP Senior Structural Engineer



10. Hazardous Materials

Description:

The scope of this report did not involve testing and analysis necessary to identify hazardous materials within the building. Due to the age of the building, however, the paint should be assumed to be lead-based. Also, items such as the ceiling material and pipe insulation in the basement and plaster throughout the house may contain asbestos.

Condition:

The paint is in poor condition in many areas of the building which will complicate the ability to manage it in place.

Recommendation:

Prior to any work being done on the building, a complete hazardous materials evaluation should be undertaken to identify what hazardous materials exist in the building, and proper management and/or abatement. Testing for asbestos containing materials should include all materials that typically contain this hazardous material.

PRESERVATION BRIEF 37

Appropriate Methods for Reducing Lead-Paint Hazards in Historic Housing www.nps.gov/history/hps/tps/briefs/brief37.htm