



ELLMORE FARMHOUSE Condition and Treatment Report

2739 West Ox Road, Herndon, VA



Final Report

March 28, 2018

WJE No. 2017.5127

Prepared for:

Mr. David Buchta

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12055 Government Center Parkway
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Prepared by:

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Rebecca Wong, PMP

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Nina Jean-Louis, EIT

A handwritten signature in black ink that reads 'Christine Reynolds'.

Christine Reynolds, PE

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EXECUTIVE SUMMARY

The Ellmore Farmhouse is located in Herndon, Virginia along West Ox Road within Frying Pan Farm Park. The house was built around 1891 by Mary Ellmore and owned by the Ellmore family until 1945. After 1945, it was owned by various families and entities until the property sold to the Fairfax County Park Authority in 2001. Since the original construction, the house has had several additions and renovations made by various owners/tenants. The major alterations made to the house outside of the period of significance have impacted its historic integrity from the loss of historic material, primarily during the late 20th century with the final major addition and alterations performed at the interior spaces. This document serves as an updated treatment plan for the Ellmore Farmhouse, as well as documentation of the current conditions. The treatment plan and associated recommendations are in compliance with the Secretary of the Interior's Standards for the Treatment of Historic Properties (Standards). Recommendations in this document were developed in conjunction with a review of the 2011 Historic Structure Report (HSR) of the house authored by Shaffer, Wilson, Sarver & Gray, PC. WJE visited the site and conducted an independent condition assessment on October 31, 2017 and November 1, 2017). Fairfax County Park Authority (FCPA) has completed numerous work recommendations provided in the 2011 HSR and requested an updated treatment plan. The recommendations are separated by features in an attempt to serve as a checklist for Fairfax County Park Authority and any potential Resident Curators to the property.

PROJECT BACKGROUND

The Fairfax County Park Authority is developing a Resident Curator Program that would allow a resident to occupy a historic property owned by Fairfax County that is currently listed on the County's Inventory of Historic Sites. The resident must apply for the property and qualify under the program's requirements. The Ellmore Farmhouse is being considered as a potentially eligible property for the Resident Curator Program. One of the main requirements of the Resident Curator Program is that the resident must maintain the building and perform the repairs and restoration required by Fairfax County Park Authority. The work must be completed in compliance with the Secretary of the Interior's Standards for the Treatment of Historic Properties and the curator are informed by the treatment recommendations contained herein.

The Ellmore Farmhouse was constructed around 1891 and is located on West Ox Rd within Frying Pan Farm Park in Herndon, Virginia. The property is a part of the Floris Historic District bounded by Centreville Road, West Ox Road, Monroe Street and the Frying Pan Branch in Fairfax County, Virginia. The original configuration of the house consisted of a L-shaped floor plan with symmetrical main facade¹. The house was first added onto in 1920 and subsequently in 1945 and 1984. The 1920 addition consisted of a small one-story shed attached to the rear of the house, semi-enclosing the "ell". In 1945, this shed was replaced with a two-story addition completely enclosing the void of the L-shaped layout of the house, along with providing additional cellar space. After the house sold in 1954, the full length front porch was

¹ Schaffer, Wilson, Sarver & Gray, *Ellmore Farmhouse Structure Report*, 2011, p 3.1

replaced with a one-story, centered gable, entry vestibule reflecting a Colonial Revival architectural style². The house was added onto once more around 1984 where another two-story addition was constructed onto the rear of the home. An enclosed stair was also built onto the northwest façade of the house to allow for second floor access separate from the main entrance of the house. This was primarily done to keep the first floor of the house residential under the Chantilly Bible Church ownership³. A one-story screened patio deck was added at the rear of the final addition possibly during the 1984 construction. Since the 2011 inspection by Shaffer Wilson, the non-historic screened patio has been replaced with an open deck and accessible ramp. . In addition, after the completion of the 2011 HSR, the entry vestibule was removed and reconstructed to reflect a similar, yet simplified style of porch that previously existed within the period of historic significance; however, the existing porch has handrails at the perimeter, which did not exist originally.

In 2001, the house was purchased by Fairfax County Authority to be included in Frying Pan Farm Park and continued to remain in the southeast section of the Park. This property contains much of the land owned by the Ellmore family during the 19th century, and has been found to be significant due to the association William H. Ellmore, previous Fairfax County Board of Supervisor, and dairy farming in the Floris Historic District of Fairfax County. In 2011, Fairfax County intended to repurpose the house as office space. In addition, the county wanted to restore the exterior of the house to the appearance noted during its period of significance dating from 1891 to 1954, in conjunction with the Frying Pan Farm Park landscape focused on the agricultural environment between the 1920s to the 1950s.

PROJECT DESCRIPTION

The Ellmore Farmhouse is one of a several historical resources built before 1900⁴ within the Floris Historic District established in 2010. The purposes of the 2011 HSR report were to understand the history and significance of the property, the architectural development of the house, and to provide a condition assessment and treatment plan.⁵ Along with the report, measured floor plans were recorded. To supplement the 2011 HSR report, WJE was retained to perform an updated condition assessment with subsequent treatment recommendations to be utilized by the Fairfax County Park Authority and a future resident curator.

All survey work and observations were conducted from the ground with the use of binoculars, where needed, and from accessible interior locations. WJE performed a condition survey on all accessible architectural and enclosure features. In addition, WJE did not perform any destructive evaluations (inspection openings or material samples) or detailed reviews of structural or MEP components as part of this scope.

TREATMENT PLAN

Treatment recommendations and work undertaken on the buildings and site are to be guided by the following:

- Secretary of the Interior's Standards for the Treatment of Historic Properties (Secretary's Standards)

² National Register of Historic Places, Floris Historic District, 2010, p 5.

³ Schaffer, Wilson, Sarver & Gray, *Ellmore Farmhouse Structure Report*, 2011, p 3.35.

⁴ National Register of Historic Places, Floris Historic District, 2010, p 2-4.

⁵ Schaffer, Wilson, Sarver & Gray, *Ellmore Farmhouse Structure Report*, 2011, p 1.1.

- American with Disabilities Act (ADA)
- International Building Code (IBC), 2012
- International Existing Building Code (IEBC), 2012
- Applicable National Park Service Preservation Briefs:
 - Preservation Brief #4 “Roofing for Historic Buildings”
 - Preservation Brief #9 “The Repair of Historic Wooden Windows”
 - Preservation Brief #10 “Exterior Paint Problems on Historic Woodwork”
 - Preservation Brief #16 “The Use of Substitute Materials on Historic Building Exteriors”
 - Preservation Brief #17 “Architectural Character - Identifying the Visual Aspects of Historic Buildings as an Aid to Preserving their Character”
 - Preservation Brief #18 “Rehabilitating Interiors in Historic Buildings - Identifying Character-Defining Elements”
 - Preservation Brief #21 “Repairing Historic Flat Plaster - Walls and Ceilings”
 - Preservation Brief #24 “Heating, Ventilating, and Cooling Historic Buildings: Problems and Recommended Approaches”
 - Preservation Brief #28 “Painting Historic Interiors”
 - Preservation Brief #32 “Making Historic Properties Accessible”
 - Preservation Brief #39 “Holding the Line: Controlling Unwanted Moisture in Historic Buildings”

Newly installed electrical systems and components, including any significant alterations to existing electrical systems, should comply with applicable provisions of the National Electrical Code (NEC).

The definitions of the four treatments approaches that may be applied to historic structures have been developed in the Secretary’s Standards: preservation, rehabilitation, restoration, and reconstruction. The four definitions are as follows:

Preservation is defined as the act or process of applying measures necessary to sustain the existing form, integrity, and materials of an historic property. Work, including preliminary measures to protect and stabilize the property, generally focuses upon the ongoing maintenance and repair of historic materials and features rather than extensive replacement and new construction. The limited and sensitive upgrading of mechanical, electrical, and plumbing systems and other code-required work to make properties functional is appropriate within a preservation project. However, new exterior additions are not within the scope of this treatment.

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

Restoration is defined as the act or process of accurately depicting the form, features, and character of a property as it appeared at a particular period of time by means of the removal of features from other periods in its history and reconstruction of missing features from the restoration period. The limited and sensitive upgrading of mechanical, electrical, and plumbing systems and other code-required work to make properties functional is appropriate within a restoration project.

Reconstruction is defined as the act or process of depicting, by means of new construction, the form, features, and detailing of a non-surviving site, landscape, building, structure, or object for the purpose of replicating its appearance at a specific period of time and in its historic location.⁶

Of the four treatment approaches, **rehabilitation**, which involves making possible a compatible use through repair, alterations, or additions, is most appropriate for the house given the impact of previous alterations. This treatment would allow for the repairs necessary to stabilize and preserve the building in its existing state, while also permitting modifications (as needed) to accommodate improvements to heating, ventilating, air conditioning, electrical, and plumbing systems, as well as to meet code and accessibility requirements. The treatment **rehabilitation** also permits selective restoration of character-defining elements where missing or altered, if appropriate archival documentation is available.

Ultimate Treatment and Use

Guidelines for Treatment

Guidelines and requirements for treatment listed below were developed in accordance with the Secretary of the Interior's Standards for the Treatment of Historic Properties.

The Secretary of the Interior's Standards for **Rehabilitation** are as follows⁷:

1. A property will be used as it was historically or be given a new use that requires minimal change to its distinctive materials, features, spaces and spatial relationships.
2. The historic character of a property will be retained and preserved. The removal Of distinctive materials or alteration of features, spaces and spatial relationships that characterize a property will be avoided.
3. Each property will 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 elements from other buildings, will not be undertaken.
4. Changes to a property that have acquired historic significance in their own right will be retained and preserved.
5. Distinctive features, finishes, and construction techniques or examples of craftsmanship that characterize a property will be preserved.
6. Deteriorated historic features shall be repaired rather than replaced. Where the severity of deterioration requires replacement of a distinctive feature, the new feature will match the old in design, color, texture, and other visual qualities and, where possible, materials. Replacement of missing features will be substantiated by documentary and physical evidence.
7. Chemical or physical treatments, if appropriate, will be undertaken using the gentlest means possible. Treatments that cause damage to historic materials will not be used.

⁶ The Secretary of the Interior's Standards for the Treatment of Historic Properties

⁷ The Secretary of the Interior's Standards for the Treatment of Historic Properties, Standards for Rehabilitation.

8. Archeological resources will be protected and preserved in place. If such resources must be disturbed, mitigation measures will be undertaken.
9. New additions, exterior alterations, or related new construction shall not destroy historic materials, features, and spatial relationships that characterize the property. The new work will be differentiated from the old and will be compatible with historic materials, features, size, scale and proportion, and massing to protect the historic integrity of the property and its environment.
10. New additions and adjacent or related new construction shall be undertaken in such a manner that if removed in the future, the essential form and integrity of the historic property and its environment would be unimpaired.

The basic guidelines for work on the Ellmore Farmhouse are as follows:

- Undertake work in compliance with the Secretary of the Interior's Standards for **Rehabilitation**.
- Retain the character of the historic building and environs by protecting the buildings and significant site features.
- Ensure that proposed new elements or construction are compatible with historic character of the buildings and its site.
- Protect adjacent natural resources during construction activities.
- Document through detailed as-built drawings, photographs, and written narrative all changes and treatments to the building and its immediate site. Maintain records of treatments and preserve documentation according to professional archival standards. Maintain a copy of records in Fairfax County archives.
- Retain features and materials at both the exterior and interior of the buildings that date from the period of significance to the greatest extent possible.

ELLMORE FARMHOUSE

Site Description

Ellmore Farmhouse is located in Herndon, Virginia, off West Ox Road within the southeast portion Frying Pan Farm Park. The house is in close proximity to Dulles Airport as well as Centreville Road located to the northwest, and Fairfax County Parkway located to the southeast. Trees and shrubbery are prominent at the front of the house with one very large oak tree adjacent to the northwest elevation. The house is accessed by a paved road from West Ox Road that terminates into a parking lot adjacent to the northwest side of the house. The house is also to the southwest of Frying Pan Farm Park's Visitors Center and to the west of an outdoor event space. The house is visible from West Ox Road as trees and shrubbery have been maintained by the county over the years.

Structure Description

Ellmore Farmhouse is a two-story, wood-framed vernacular farmhouse sheathed in wood siding, resting atop of a fieldstone and CMU foundation. The original portion of the home contains a side gable standing seam metal roof with overhanging eaves and intersection gable roof at the "ell". The additions of the home have a low slope standing seam metal roofing that connects to the original section near the eaves. Since its construction around 1891, the house has been added onto and renovated several times, resulting in the structure that resides on the property today. As such, the house currently reflects the National Folk architectural style but previously was also an influence of simplistic Queen Anne, which is evident from

historic photos (such as depicted at the original southwest porch in Figure 1) and some remaining historic interior finishes. Based upon the historic photos provided in the 2011 HSR and reported dates of construction, the home was likely originally built in the aforementioned style.

The home was originally a three bedroom, two-story house constructed around 1891. The original portion was constructed with balloon framing using mill-sawn yellow pine lumber⁸. The original floor joists are not visible due to gypsum board panels installed at the cellar ceiling. However, based on documentation provided in the 2011 HSR, original floor joists were of round logs constructed out of mill-sawn yellow pine logs measuring 6-inches in diameter⁹. Part of the original roof elements have been replaced recently with a 20th century roof replacement, however, the framing for the original attic access remains (Figure 2). Moreover, the home was constructed with an early septic tank system made of stone (and later, additionally supported with concrete) that is exposed on the southeast side of the cellar (Figure 3). Originally, the home had a wall separating the living room from a center hall as evidenced by pre-existing structural elements in the living room. The home also originally had two chimneys, one at its current location in the kitchen (re-clad with replica brick) and the other located on the interior side of the living room that has now been built on the exterior of the home.

In 1920, a small one story shed addition was added to the home by the Ellmore family (Figure 4) but then was replaced in 1945 with a major addition was constructed in the void of the L-plan by the Smith family (Figure 5). This addition included a family room adjacent to the kitchen and an additional bedroom on the second floor, Room 204 (bedroom). Much of the construction utilized dimensional lumber for framing and floor joists¹⁰. At this time, an additional chimney with a fireplace was added in the family room along with central air conditioning. Additionally, the house was re-clad with asbestos panels as shown in Figure 6.

The Ellmore family held ownership of the home from its construction until 1945. In 1945, Minnie Ellmore, daughter of William Ellmore, sold the home to Mason and Mary Peck Smith. At this time, the property was called the “Masonary Farm”, a combination of Mason and Mary, where it continued to operate as a dairy farm¹¹. The children of Mason and Mary Smith sold the farm in 1954 to B. Alton and Annie May Poole. During the Poole ownership, the original porch was removed and replaced with a Colonial Revival entry vestibule (Figure 7). In 1963, Annie Poole divided the property into three parcels and it was sold to various owners, including FCPA. The Trustees of the Chantilly Bible Church obtained the parcel of the farmhouse in 1984 and constructed the second major addition onto the rear of the home (Figure 8, Figure 9 and Figure 10). This addition included slab-on-grade construction resulting in the first floor level of the addition being 8 inches lower than the first floor of the original home footprint.¹² On the first and second floor, additional office space was added along with a second bathroom on the second floor. The additional office space on the second floor had an associated access that was separate from the historic portion of the home. Moreover, an additional brick chimney between the 1945 family room and 1984 office on the first floor was constructed and now is infilled with brick.

The house was sold in 2001 to Fairfax County Park Authority and since 2011 the FCPA has completed various restoration tasks recommended in the 2011 HSR to reinstate elements reflecting style elements

⁸ Schaffer, Wilson, Sarver & Gray, *Ellmore Farmhouse Structure Report*, 2011, p 2.5.

⁹ Schaffer, Wilson, Sarver & Gray, *Ellmore Farmhouse Structure Report*, 2011, p 3.10.

¹⁰ Schaffer, Wilson, Sarver & Gray, *Ellmore Farmhouse Structure Report*, 2011, p 3.11.

¹¹ Schaffer, Wilson, Sarver & Gray, *Ellmore Farmhouse Structure Report*, 2011, p 2.7.

¹² Schaffer, Wilson, Sarver & Gray, *Ellmore Farmhouse Structure Report*, 2011, p 3.35

within the establish Period of Significance for the home. These tasks included, but not limited to, reinstating exterior wood siding with a drop cove, removing the Colonial Revival influenced entry vestibule, and reconstructing a new full width porch reflecting the historic period of significance.

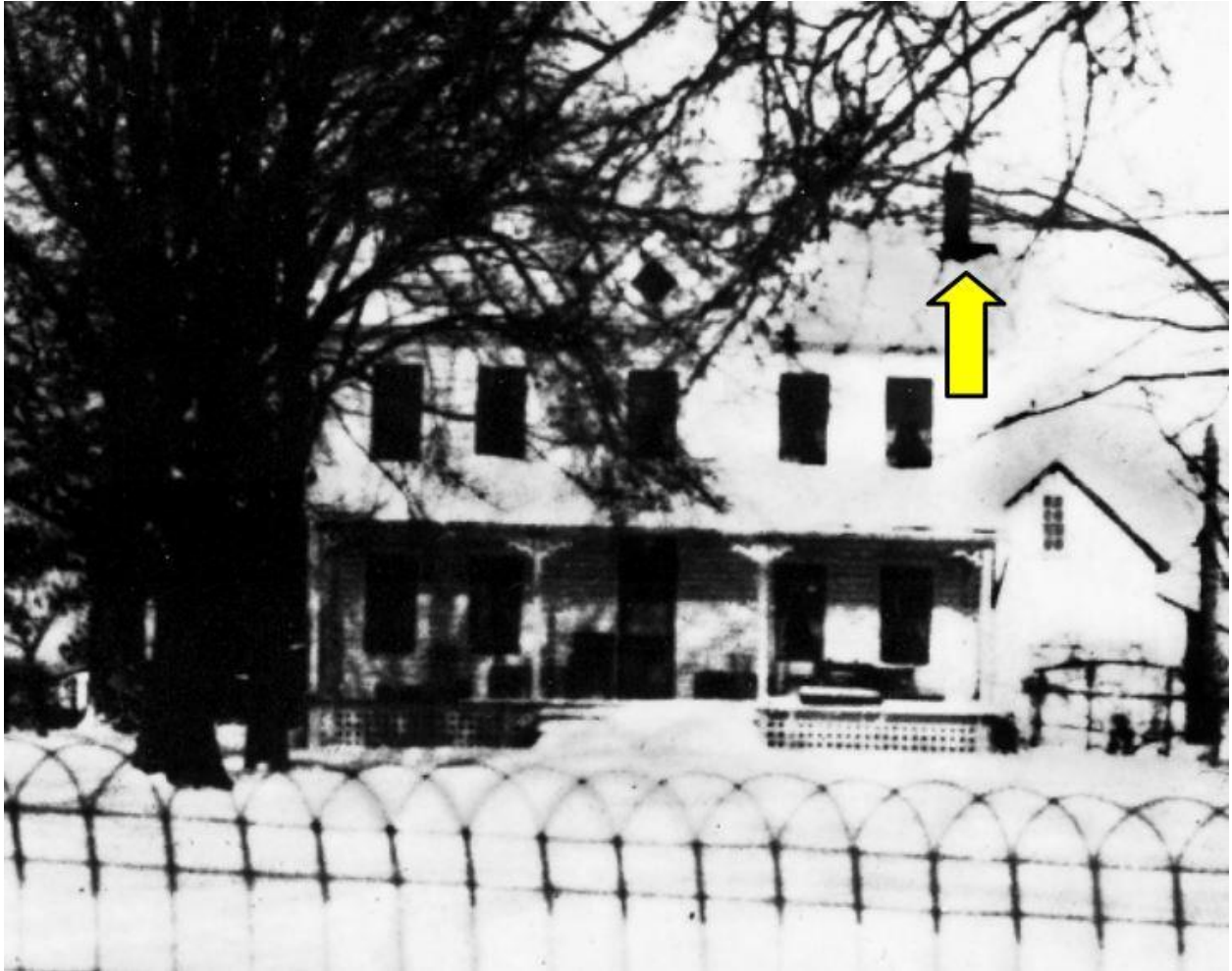


Figure 1. Southwest (main) facade of the Ellmore Farmhouse ca 1920 courtesy of Shaffer, Wilson, Sarver & Gray, PC Historic Structure Report (2011). Original interior chimney shown by yellow arrow.



Figure 2. Framing of original attic access.



Figure 3. Original septic tank exposed in cellar.



Figure 4. Northeast (rear) facade of the Ellmore Farmhouse ca 1920 courtesy of Shaffer, Wilson, Sarver & Gray, PC Historic Structure Report (2011). The shed addition is shown by the yellow arrow.

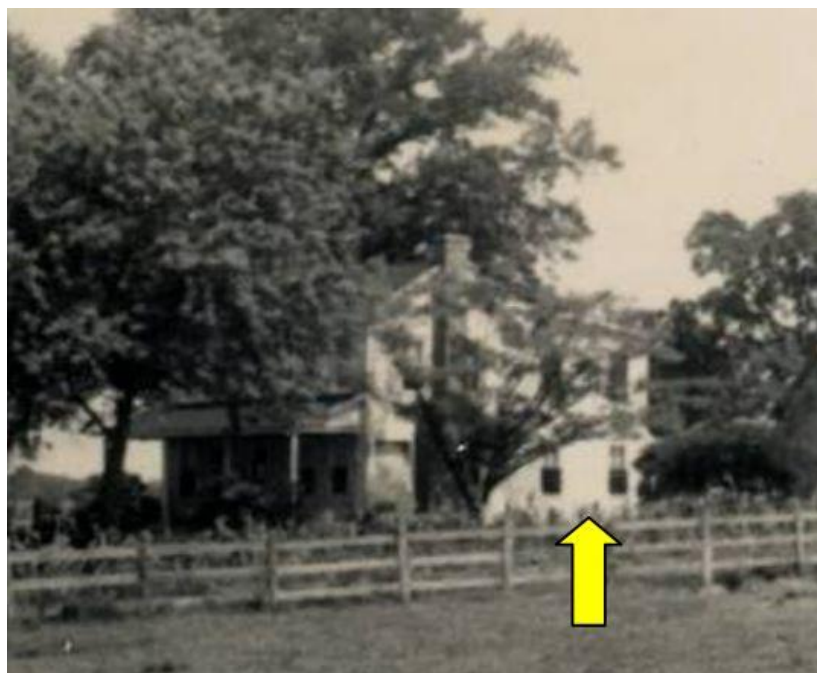


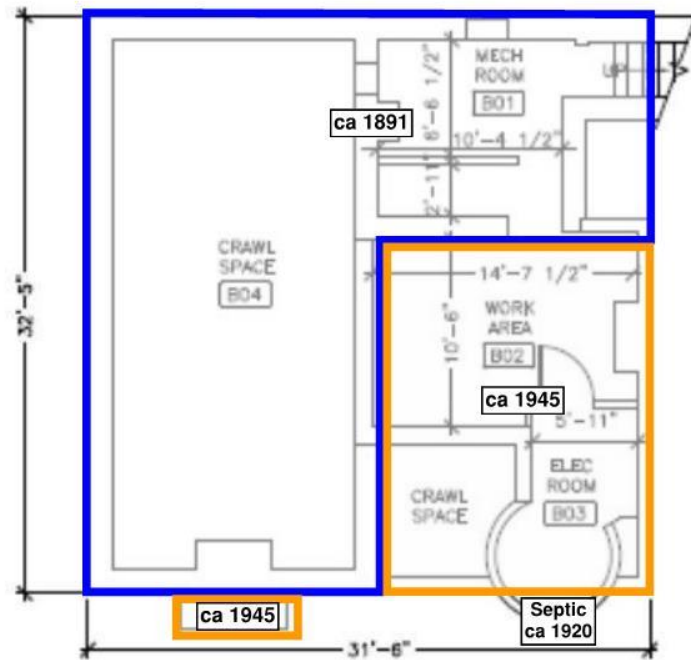
Figure 5. First major addition to the rear of the home ca 1945 illustrated by the yellow arrow. Courtesy of Shaffer, Wilson, Sarver & Gray, PC Historic Structure Report (2011).



Figure 6. Asbestos siding at southwest (main) facade of the Ellmore Farmhouse ca 1945 courtesy of Shaffer, Wilson, Sarver & Gray, PC Historic Structure Report (2011).



Figure 7. 1954 entry vestibule replacement at Southwest (main) facade of the Ellmore Farmhouse ca 2011 courtesy of Shaffer, Wilson, Sarver & Gray, PC Historic Structure Report (2011).



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

Figure 8. Cellar Floor Plan courtesy of the Fairfax County Park Authority Resident Curator Program (2015) with WJE annotations of estimated construction dates for ease of reference.

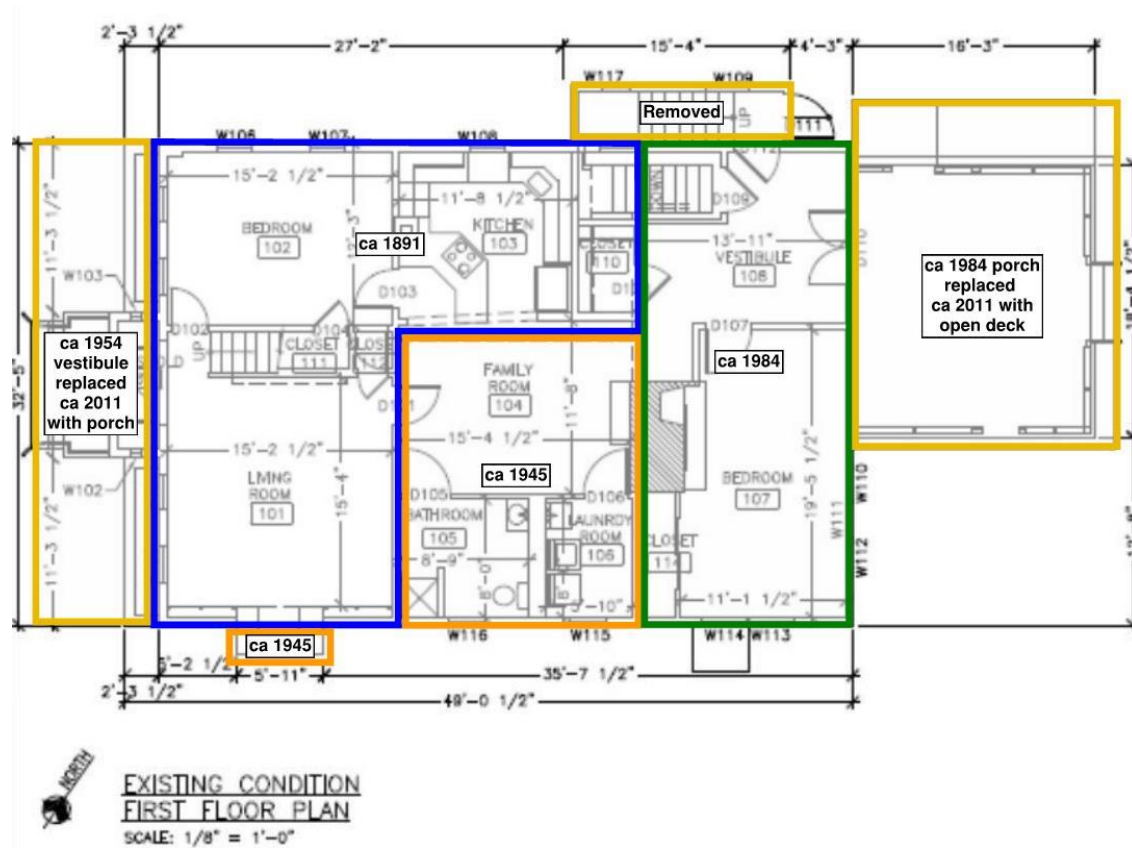


Figure 9. First Floor Plan courtesy of the Fairfax County Park Authority Resident Curator Program (2015) with WJE annotations of estimated construction dates for ease of reference.

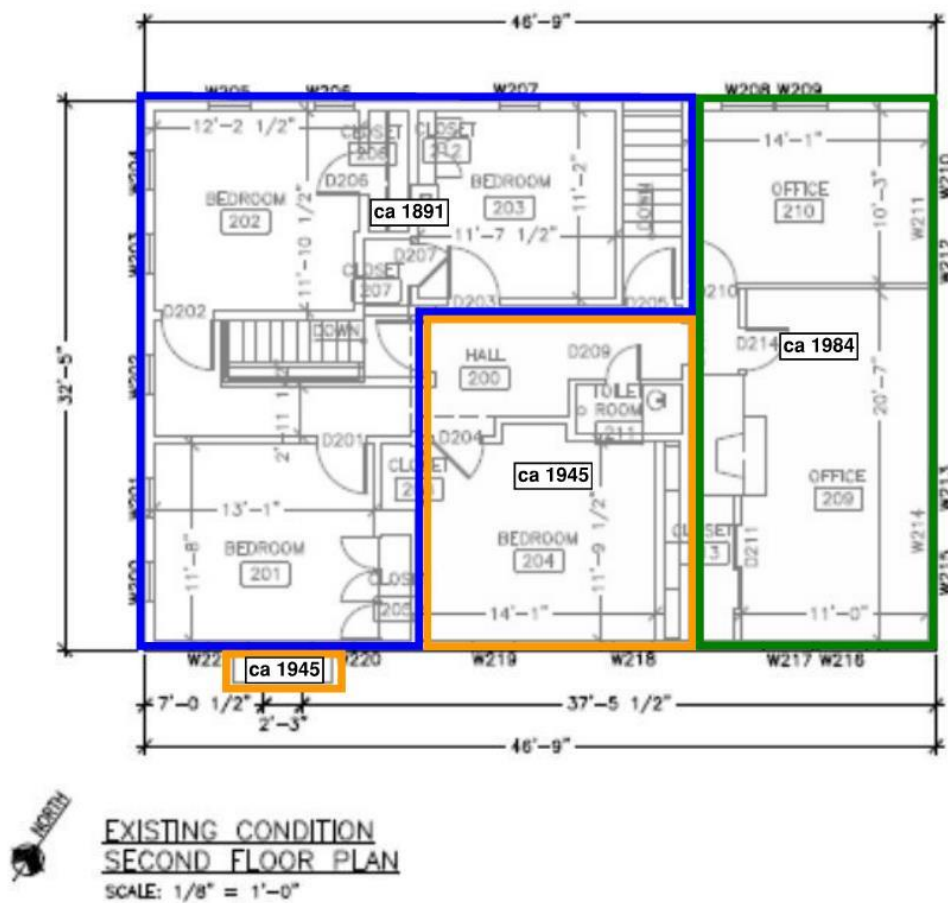


Figure 10. Second Floor Plan courtesy of the Fairfax County Park Authority Resident Curator Program (2015) with WJE annotations of estimated construction dates for ease of reference.

Exterior Condition

General

- Some vegetation was observed in close proximity to the house with evidence of growth at the foundation (Figure 11).

Wood Siding

- Displaced wood siding boards were observed at locations throughout the facades, generally around window and vent openings (Figure 12 and Figure 13).
- Several cracks and isolated areas of spalls were observed in wood siding, typically originating from the end of the board or at fasteners. Previous crack repairs were also observed throughout the facade (Figure 14, Figure 15, and Figure 16).
- Minor paint deterioration such as peeling, cracking, and discoloration was observed throughout the exterior of the home with some areas coincidental with wood deterioration as the wood material became exposed with the compromised coating (Figure 17 and Figure 18).

Foundation

- The field stone foundation at the original portion of the home appears to be in poor to fair condition. Several cracks and isolated spalls were observed in the cementitious parge coat at the areas visible at the exterior of the home (Figure 19, Figure 20, and Figure 21). Moreover, the foundation wall was observed at the interior to be bowing concavely at the northwest façade (Figure 22). There is a large tree in close proximity to this side of the house that may be contributing to the foundation wall condition.
- The foundation at the additions of the home were observed to be in good condition with isolated and very minor cracks and spalls (Figure 23) in the parge coat. At the foundation located on the northwest elevation, isolated areas of spalling and deteriorated mortar joints was observed at the CMU foundation block (Figure 24). In addition, three partially sealed pipe penetrations through the foundation to room 105 (bathroom) are located at the southeast facade to accommodate existing utilities (Figure 25).

Chimney

- In general, the chimneys are in good condition. Minor deterioration was observed at the chimney located on the southeast facade including isolated cracks, deteriorated mortar joints and an area of paint staining (Figure 26 and Figure 27).
- Dark staining was observed at the chimney located at the rear of the 1945 addition (Figure 28).

Doors

- The exterior doors of the home are in good condition with areas of minor deterioration. Separation between joinery, splintered wood, and missing door hardware was observed at the base of the French doors on the northeast facade (Figure 29 and Figure 30).

Windows

- In general, the replacement windows and exterior storm windows are in good operating condition with minor paint deterioration.

Roof

- The metal roofing throughout the home is in good condition with minor areas of soiling such as below gutters (Figure 31).
- A dent and area of displaced metal was observed at the metal coping on the southeast facade (Figure 32 and Figure 33).
- Most downspouts do not have splash pads or extension resulting in the discharged water being deposited close to the foundation (Figure 33 and Figure 34). One downspout was observed to be disconnected at the northwest elevation (Figure 35).

Porch

- The porch is generally in good condition with areas of minor deterioration at the door threshold, porch column and porch stairs due to the exposure to the elements. A vertical crack was observed along the base of the southeast porch column (Figure 36). The door threshold was observed to be uncoated (Figure 37) and paint deterioration at the porch stairs resulting in soft wood was exhibited (Figure 38). The decking joists have been replaced in recent years and are in good condition with minor areas of staining (Figure 39).
- The original stone foundation underneath the porch was observed to have deteriorated mortar joints (Figure 40).

Fence

- The wood fence added on the southeast façade is fair condition with areas of multiple cracks, missing areas of wood, and missing rail caps (Figure 41). In addition, as the wood is uncoated, the fence exhibits staining, displacement, and bowing (Figure 42).

Wood Deck

- The wood deck constructed on the northeast facade is generally in good condition with areas of minor deterioration including isolated cracks and wood deterioration due to exposure to the elements (Figure 43).

Lighting Fixtures

- The exterior lighting fixture located on the northeast facade is in good condition with one fixture missing on the upper corner of the facade (Figure 44).



Figure 11. Vegetation along foundation at the southeast facade. Note close proximity of downspout to the house without splash pads and crack in foundation parge coat.



Figure 12. Example of displaced siding at southwest facade.



Figure 13. Displaced wood siding adjacent to window a northwest facade.



Figure 14. Typical cracking at fastener and end of boards.



Figure 15. Chip in siding adjacent to a window corner. Typical on northwest facade.



Figure 16. Chipped wood siding at base of siding at northeast facade.



Figure 17. Typical flaked paint, and potentially damaged wood below, on wood siding.



Figure 18. Flaked paint on window frame at southeast facade.



Figure 19. Typical crack and slight delamination in parge coat at original foundation.



Figure 20. Spall in parge coat at original foundation exposing stone foundation.



Figure 21. Incipient spall in parge coat at original foundation near window well.



Figure 22. Foundation wall concave at original foundation. Note vegetative growth and staining at parge coat and above siding.



Figure 23. Typical spall and cracking in parge coating and CMU foundation at rear of additions.



Figure 24. Delamination in parge coat exposing CMU foundation between ca. 1945 and 1984 additions on southeast facade.



Figure 25. Partially sealed pipe penetrations on southeast facade.



Figure 26. Cracking in mortar joint at chimney on southeast facade.

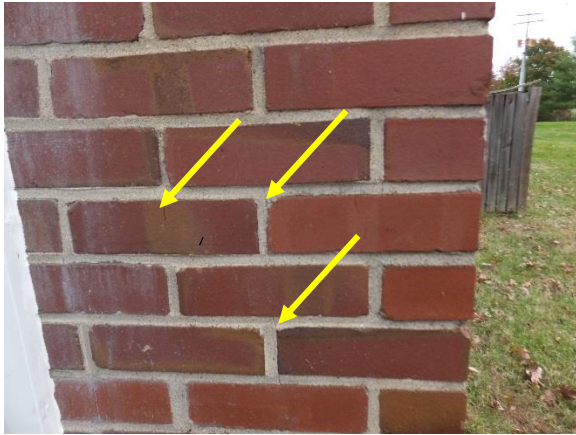


Figure 27. Typical crack in brick and mortar at chimney on southeast facade.



Figure 28. Staining at chimney located at the rear of the 1945 addition.



Figure 29. Splintered wood at base (yellow arrow) and separation of joinery (red arrow) at French doors.



Figure 30. Missing doorknob at French doors on northeast facade.



Figure 31. Soiling at fascia board behind gutter.



Figure 32. Dent in metal roof coping on southeast facade.



Figure 33. Displaced roof coping on southeast facade.



Figure 34. Downspouts terminate near the foundation without splash pads or extensions and have eroded the adjacent soil, typical.



Figure 35. Disconnected downspout at northwest facade.



Figure 36. Vertical separation (checking) at wood porch column.



Figure 37. Uncoated wood door threshold at porch with minor areas of splintering.



Figure 38. Paint and wood deterioration at porch stairs.



Figure 39. Wood joists under porch exhibiting staining, likely from water.



Figure 40. Missing mortar in stone foundation.

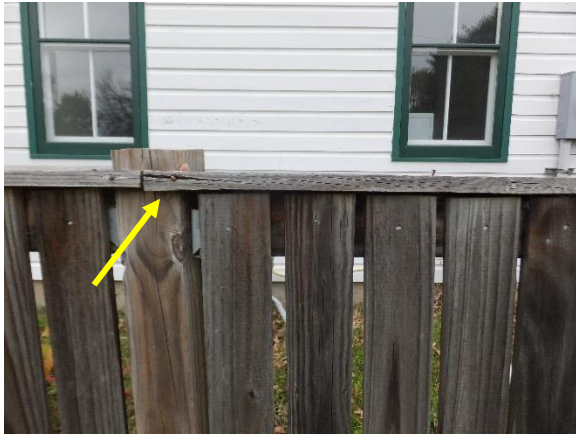


Figure 41. Multiple areas of splintered wood on fence at southeast facade.



Figure 42. Bowed top rail of fence at southeast facade.



Figure 43. Multiple areas of splintered wood on wood deck at northeast facade.



Figure 44. Missing light fixture at northeast facade.

Interior Condition

Interior Wall Finishes

- Interior wall finishes consist of drywall, plaster, and wood paneling. Cracking of plaster and drywall was observed throughout the home generally located near window or doorframes, walls seams, fixtures, ceiling interfaces, and at drywall board seams (Figure 45, Figure 46, and Figure 47). Diagonal cracking was observed on the walls in the stairwell, living room (room 101), and first and second floor bedrooms in the historic portion of the home (Figure 48, Figure 49, Figure 50, and Figure 51). Cracks typically emanated from the ceiling to the wall base with several intermediate cracks following the crack pattern. These cracks were also evident on closet walls in Rooms 201-204 (bedrooms).
- Isolated areas of damaged plaster and drywall were observed throughout the home including stained and missing finishes likely due to previous water infiltration (Figure 52, Figure 53, Figure 54, Figure 55, Figure 56, Figure 57, and Figure 58). *Note: Although outside the scope of our work, the electrical outlet depicted in Figure 56 is partially exposed and unsecured wire runs through the plaster in Figure 54, which may present substandard electrical work.*
- Missing sections of baseboards associated wood elements were observed in Room 101 (living room) and 210 (office) and around ductwork on the first floor (Figure 59 and Figure 60)
- Gaps and separation at seams were observed between crown molding, baseboards, and ceiling interfaces throughout the home. (Figure 61). Areas of flaked and chipped were observed throughout the home (Figure 62).
- In room 209 and 210 (offices), observations of the wood paneled siding included separation in joinery, splitting/cracking, tooling damage, and several gaps at crown molding interfaces (Figure 63, Figure 64, Figure 65, and Figure 66). In one isolated area, the siding appeared to bow inward in room 210 (office) (Figure 67).
- The historic stairwell and handrail has been enclosed with drywall at the second floor (Figure 68). In addition, drywall installation, as well as exterior siding, has been installed to terminate exterior access for the stairwell located between room 203 (bedroom) and 210 (office) (Figure 69).
- In the cellar, several pipe penetrations through the drywall were observed. In addition, poor installation of drywall compound was observed between particle board panels and interfaces with foundation walls (Figure 70). Microbial growth is also apparent in isolated areas at the base of the drywall and ceiling (Figure 71 and Figure 72).

Wood

- In the cellar, conditions of the historic floor beams could not be observed due to limited accessibility/visibility. Exposed wood joists at the north corner of area B02 and B03 appeared to be in good condition (Figure 73).
- In the attic, observations included residual staining from water infiltration, rafter supports in place along the southeast, isolated areas of splitting at supports, and a missing piece of wood siding adjacent to vent at the northwest facade (Figure 74). The existing access hatch to the attic is skewed, making it difficult to lower the ladder. The original access, near the southwest wall, has been covered at the ceiling with interior finishes.

Masonry

- Interior wall construction throughout the cellar consist of either fieldstone, CMU, concrete, or brick with many areas of the foundation walls covered with drywall. Most of the historic fieldstone is covered in a cementitious parge coat at the interior (Figure 75).

- On the northwest side of the cellar, there are multiple areas of spalling and cracking in the parge coat. The wall also appears to be out of plumb and bowing inward (Figure 76). There is a ventilation opening at this wall that opens due to wind and potentially allowing for possible water infiltration as well as insects and pests.
- In areas of exposed fieldstone, deteriorated mortar was observed along with several mortar patch repairs (Figure 77). Isolated areas of cracking in the concrete floor were observed near the entrance of the cellar and Electrical Room, B03 (Figure 78). Minor areas of bondline failure were observed at CMU units on the southeast side of the cellar (Figure 79).
- At stone hearth on first floor, deterioration in mortar joint between the brick wall and apron was observed along with an isolated area of flaked coating (Figure 80).
- Spalled brick and separation between brick at rear chimney and adjacent wall was observed (Figure 81 and Figure 82).

Floors

- In Room 101 (living room), there are areas of exposed unfinished wood and a perpendicular intersection of flooring from the previous hallway wall that has been removed (Figure 84 and Figure 85).
- In Room 210 (office), staining on flooring was observed along with isolated areas of cracking. Similar observations were made in the hallway adjacent to Room 209 and 210 (offices) (Figure 86).
- Staining of the carpet is typical throughout the home (Figure 87). The original wood flooring was revealed underneath carpeting on the second floor (Figure 88).
- Isolated areas of linoleum tiles were observed to be heavily soiled and delaminated throughout the home (Figure 89).

Doors

- Typical deterioration/damage observed at historic doors included minor separation at joinery and minor areas of indentations and scratches (Figure 90).
- One isolated area of splitting, creating a void in a raised panel was observed at the second floor, D205 (Figure 91).
- One door at the second floor, D202, did not fully close. At D101, the doorknob is inoperable (Figure 92).
- Several of the historic doors have been replaced with contemporary hardware and thus, original thresholds and rim locks for some doors have been removed (Figure 94). The historic hardware that remains, such as some hinges, were observed to be decorated in various styles, including Queen Anne (Figure 95).
- The doors located at the additions of the home were generally in good condition throughout. Isolated cracking and water damage was observed at the trim of the French doors on the first floor, northeast facade (Figure 96).

Fixtures

- The interior lighting fixtures all appear to be replacements and are in good working condition.



Figure 45. Cracked plaster/drywall above 1st floor doorframe, typical. Crack traced for clarity.



Figure 46. Cracking at ceiling (1st Floor) likely seams between drywall boards. Crack traced for clarity.

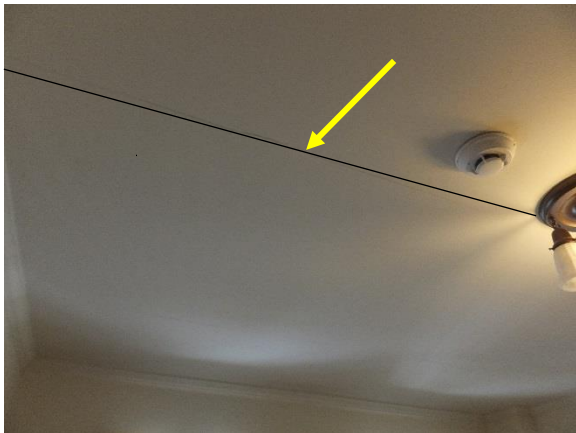


Figure 47. Horizontal cracking at light fixture in room 102 (bedroom/family room) likely between seams of drywall boards. Crack traced for clarity.

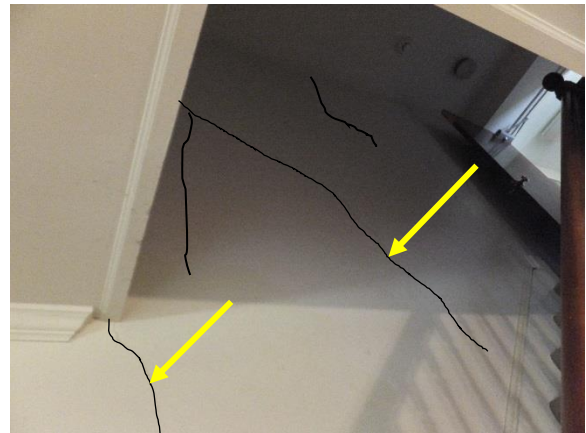


Figure 48. Diagonal cracking at stairwell. Crack traced for clarity.

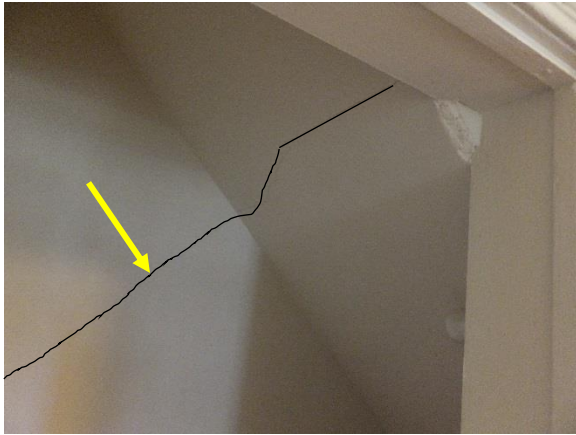


Figure 49. Diagonal cracking underneath stairwell. Crack traced for clarity.



Figure 50. Diagonal and vertical cracking in room 102 (bedroom/family room). Cracks traced for clarity.

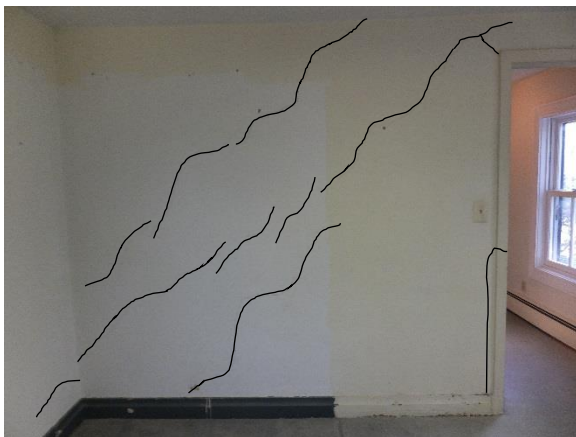


Figure 51. Diagonal cracking in room 202 (bedroom). Crack traced for clarity.



Figure 52. Removed area of plaster with drywall patch in room 201 (bedroom).



Figure 53. Missing plaster with wood lathe exposed at closet in room 201 (bedroom).



Figure 54. Hole through plaster and lathe for wiring.



Figure 55. Original timber framing.



Figure 56. Stained plaster and potential previous repair. Note electrical outlet.



Figure 57. Damaged drywall due to water infiltration



Figure 58. Drywall delamination at rear entryway.

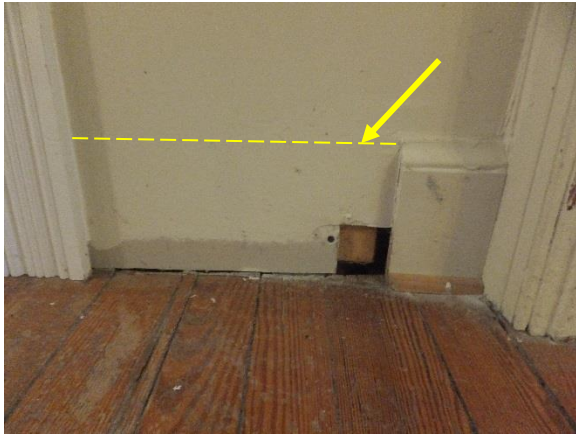


Figure 59. Missing baseboard.



Figure 60. Ductwork installed at closet in stairwell.



Figure 61. Gap and separation at crown molding, typical.

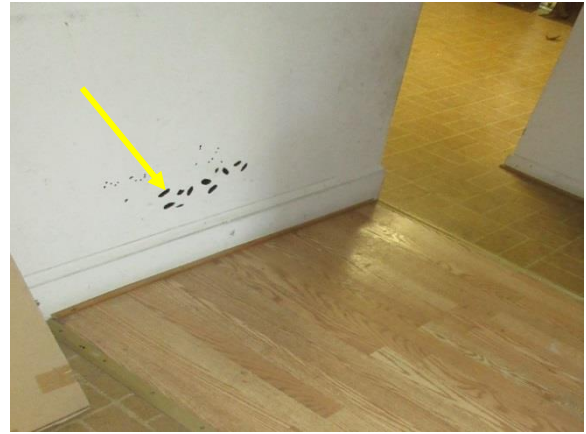


Figure 62. Flaked paint, typical.



Figure 63. Cracked wood siding panel and gaps at ceiling (red arrow) at entry of Room 210 (office), typical.



Figure 64 Tooling damage at wood siding panel at entry area adjacent to Room 209 & 210 (offices).

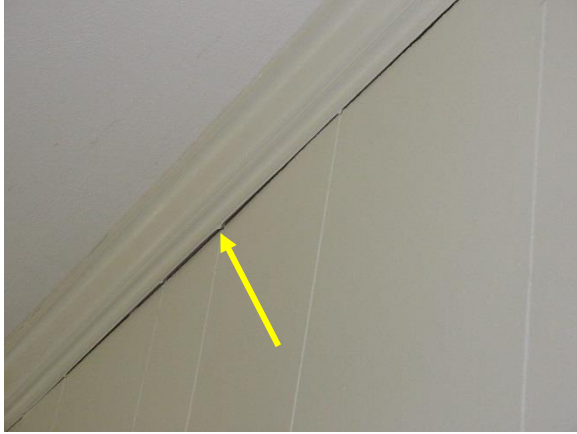


Figure 65. Gap between wood siding panel and crown molding, typical.



Figure 66. Displaced wood siding panel, typical.



Figure 67. Bowed portion of wood siding panel in Room 210 (office).



Figure 68. Drywall covering enclosing the historically open original stairwell and handrail.



Figure 69. Terminated exterior access of stairwell at D205.



Figure 70. Drywall compound installation at gypsum ceiling panels in cellar.



Figure 71. Potential microbial growth at drywall in cellar.



Figure 72. Condition of floor joist at 1945 addition.



Figure 73. Condition of joists visible from cellar.



Figure 74. Rafter stud supports not continuous (yellow arrow) in attic and toe-nailed rafters (red arrow).



Figure 75. Different types of masonry construction in cellar fieldstone, brick, and CMU.



Figure 76. Northwest wall of cellar bowed out of plane and cracking in parge coat. Typical on northwest side of cellar.



Figure 77. Deteriorated mortar and previous patch repairs at original stone foundation wall in cellar.



Figure 78. Cracking in concrete floor near the cellar entry. Crack traced for clarity.



Figure 79. Bondline failure at CMU foundation wall in cellar.



Figure 80. Deteriorated mortar joint between brick fireplace facing and the stone hearth/apron in living room (room 101).



Figure 81. Flaked coating on fireplace brick in living room (room 101).



Figure 82. Spalled brick infilled with wood piece at Room 107 (bedroom).



Figure 83. Separation between brick and adjacent wall, typical.



Figure 84. Exposed wood from pre-existing hallway structural elements. Note intersecting floors.



Figure 85. Area in room 101 (living room) where the original hallway wall was located.



Figure 86. Staining at wood floor in Room 210 (office). Split across flooring visible.



Figure 87. Stained carpet, typical.



Figure 88. Original wood flooring under carpet.



Figure 89. Delaminated and damaged linoleum flooring, typical.



Figure 90. Separation of joinery at original door, typical.



Figure 91. Cracking and missing wood at door panel at D205.



Figure 92. Splitting on stile of door facing latch, at D205.

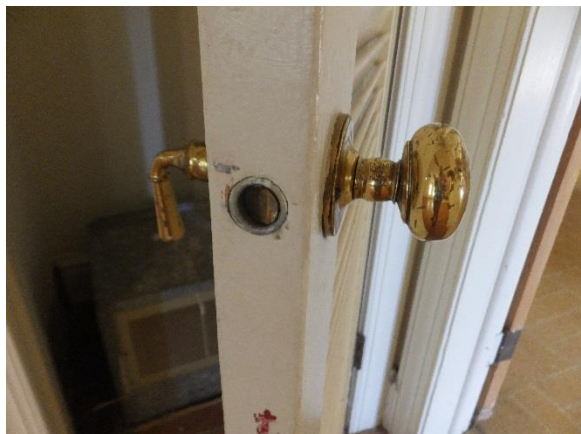


Figure 93. Inoperable doorknob at D101.



Figure 94. Missing original rimlock at D101



Figure 95. Original ornate steeple door hinge at D207.



Figure 96. Damage at the trim of the French Doors.

Recommendations

All work performed on the structures and site features should be documented through notes, photographs, and measured drawings and/or sketches, or with as-built annotations to construction documents at project completion. These records should be permanently archived with Fairfax County Park Authority as a part of the record of the property and to provide information for future repairs and ongoing maintenance. In addition, these records will allow future observers to identify which materials are original, replacement, and their date of installation.

Prioritization of Treatment

Based on the observed conditions from the October 31, 2017 and November 1, 2017 site visit, the following priority treatments are recommended for work the restoration on the Ellmore Farmhouse:

1. Consider an additional in-depth structural review of the following items: :
 - a. Displaced foundation wall bowing inward on northwest facade;
 - b. Cracks in parge coating at exterior and interior surfaces of foundation;
 - c. Missing rafter supports in attic
2. Secure the building envelope such that moisture infiltration cannot further degrade the remaining historic elements. Work related to exterior envelope waterproofing should follow to prevent water infiltration and deterioration of building envelope materials, and to address conditions that may lead to continued deterioration and loss of historic fabric. These types of repairs include, but are not limited to:
 - a. Window and door repairs;
 - b. Removing vegetation away from the home;
 - c. Regrading of soil to slope away from the home, particularly near cellar ventilation window and downspout discharge locations;
 - d. Clearing gutters and roofs of dirt and debris;
 - e. Installing splash pads and/or extension pipes for downspouts;
 - f. Reinstalling disconnected downspouts; and
 - g. Reinstall missing light fixture at the upper corner of the northeast facade of the home.

Exterior

Based on the observed conditions from our site visits, the following treatments are recommended for work the restoration on the Ellmore Farmhouse:

General

- Perform insect and pest control measures to minimize insect activity.
- Perform and schedule cyclical maintenance tasks such as building envelope and site inspection, painting of exterior wood and metal elements, inspection and replacement of joint sealants, tree and vegetation care, cleaning of gutters, and other ongoing maintenance tasks to minimize impact to the historic site and building fabric. Performance of cyclical maintenance will reduce the need for large-scale repair projects in future.

Wood Siding

- Remove all loose, soft, and deteriorated wood. Perform wood dutchman or full member replacement where required. Replaced members are to utilize in-kind materials.

- All exterior wood elements should be cleaned and repainted on a cyclical basis. In this climate, maintenance cycles for residential grade coatings on wood are typically between 7 and 10 years and depend heavily on the substrate's preparation, exposure, and bond between the new coating and existing elements. At isolated areas requiring repainting, remove the paint layers down to bare wood. Feather the edges of the surrounding paint and allow wood to fully dry. Install prime and repaint. Given the age of the building, the paint will likely contain lead. Testing should be done to verify any hazardous materials.
- Repair cracks in wood siding where possible. Evaluate locations of missing areas of wood in siding. Minor missing material may remain; however, if missing material begins to expose flashing or the joints between wood siding elements, a wood dutchman should be performed.
- Reattach any wood siding and trim pieces that are displaced or no longer fully attached. Evaluate flashings to ensure they are properly placed and integrated to minimize water shedding that could impact wood materials.
- Seal around penetrations through siding to prevent water infiltration.

Foundation

- Seal around pipe penetrations through foundation to minimize water infiltration.
- Remove all delaminated and spalling pieces of parge coating and CMU. Apply new parge coat at foundations and patch voids in CMU once structural investigation and any subsequent repairs are complete.
- Remove deteriorated mortar at stone foundation in crawl space and repoint. New mortar should match original mortar in material, color, texture, and profile.

Chimney

- Replace any loose, cracked or broken brick units. Consider performing a close range survey of chimneys to determine location of loose brick currently at the ground. Store surplus brick observed near chimney at southeast facade if original location cannot be determined.
- Clean areas of dark staining.
- Have interior flues/liners inspected prior to full scale restoration and use. Our inspections did not include a scope or interior inspection.

Doors

- Remove all loose and deteriorated paint to a clean wood substrate. Evaluate isolated areas of separation at joinery to determine if repairs are required to re-engage connection. Remove and repair any soft or deteriorated wood. Perform isolated repairs, such as epoxy patches, if deterioration or damage is found once coatings have been removed.
- Clean and repaint all doors once repairs, if required, have been made.
- Replace deteriorated weather stripping at doors to ensure they are weathertight.

Windows

- Remove flaked and deteriorated paint at window surfaces and repaint, including sash channels and sills along with the cyclical maintenance of wood siding.

Roof

- Coordinate structural evaluation of missing rafter supports and necessity at the historic section of the house. Repair cracked and split existing rafter supports.
- Consider performing close range survey to repair dented metal coping and evaluate displacement of metal piece.

- Install splash pads and/or downspout extensions at downspouts. Repair disconnected downspout at northwest elevation.

Porch

- Remove flaked and deteriorated paint at porch. Once paint is stripped, remove any loose, soft, and deteriorated wood. Perform partial or full wood dutchman, if required. If areas of entire decking planks are found to be completely soft and deteriorated, replace in kind. Repair cracking by removing soft and deteriorated wood, consolidate, and epoxy patch. Clean and repaint wood deck.
- Clean and seal door threshold.

Fence

- Remove and replace non-historic fence in kind at southeast facade.

Wood Deck

- Remove any loose, soft, and deteriorated wood. Perform consolidation, epoxy patch, or partial/full wood dutchman if required. Clean and seal wood deck.

Lighting Fixtures

- Install missing light fixture on northeast facade.
- Clean all light fixtures as part of cyclical maintenance.

Interior

Interior Wall Finishes

- Minor cracks, damage, and deterioration in finishes should be repaired in place by filling cracks or damaged areas with compatible new material. Coordinate repairs with structural investigation to be performed at foundation to ensure proper sequencing of repairs. Some material, particularly at water-damaged plaster and drywall, may need to be removed until sound material is found to ensure any compromised material is removed. Repaint interior finishes once repairs have been made. Monitor areas with previous water damage to ensure there are no active leaks.
- Repaint walls and ceilings of historic sections of the home to represent the typical interior finishes of the period of historical significance.
- Reattach crown molding trim pieces that are becoming detached in isolated locations. Replace missing baseboards with appropriate profiling and dimensions to what is in place.
- Reset wood paneling bowing inward at room 209 (office).
- Consult a professional Industrial Hygienist to confirm the extent of microbial growth and best practices for treatment and removal at drywall and ceiling locations observed in cellar.
- Remove wall covering at southeast and southwest walls to reopen the stairwell and expose the handrail, if still intact. Replace handrail with profiling and material representative of what exists if missing.
- For the second staircase located at the northwest side of the home:
 - *OPTION 1:* Remove staircase and infill second story flooring extending to northwest exterior wall ensuring proper support and framing
 - *OPTION 2:* Reinstate an exterior egress for the second floor once future use and configuration of the Ellmore Farmhouse has been determined.
- Engage mechanical, electrical, and plumbing engineer to evaluate existing systems, piping, and conduit to remove any elements not required. Repair interior finishes as needed.

Wood

- Perform Dutchman repair or full element replacement at areas of missing or deteriorated wood in the attic.
- Treat and coat exposed wood in areas where previous elements existed to prevent further deterioration and allow for previous footprints to remain as interpretation.

Masonry

- Remove and repoint deteriorated mortar at historic stone, CMU and brick in cellar and chimney locations.
- Remove and install joint compound at brick and drywall interfaces. Repair spalled brick.

Floors

- Refinish all wood flooring in a manner that represents a typical interior finish of the time period of historic significance.
- Remove and replace non-historic linoleum floor tiles with considerable staining or damage. Consider replacing with materials that may have been in place if archival documentation is found.
- Remove non-historic carpeting at the historic section of the home. Evaluate condition of wood flooring underneath carpeting. Remove all loose, soft, and deteriorated wood. Perform wood dutchman or full member replacement where required. Replaced members are to utilize in-kind materials. Refinish wood flooring in a manner that represents a typical interior finish of the time period of historic significance.
- At the additions of the home, remove and replace carpeting with considerable staining or damage. For rooms 209 and 210 (offices), remove all loose, soft, and deteriorated wood. Perform wood dutchman or full member replacement where required. Replaced members are to utilize in-kind materials. Refinish wood flooring.

Doors

- Clean and refinish all doors. Repair at joinery and areas of minor damage where needed.
- Replace missing hardware with materials appropriate of the historic time period. Repair inoperable doorknob at the first floor closet.
- Remove and rehang doors that are unable to close to attempt obtaining full operability of the doors. Coordinate sequencing of repairs with structural investigation of foundation.
- Replace damaged non-historic door to room 203 (bedroom).
- *OPTION* - Replace contemporary doors, doors dating after 1960, with more historic appropriate doors at historic sections of the home.

Fixtures

- Clean all light fixtures.
- Clean or replace all plumbing fixtures and appliances as required. Existent fixtures are not historic.

Appendix A - Cost Estimate

**Ellmore Farmhouse
RECOMMENDATIONS COSTS SUMMARY**

BUILDING	ESTIMATE TOTAL	GENERAL CONDITIONS 15%	CONTINGENCY 20%	DESIGN ALLOWANCE 12%	GRAND TOTAL	TOTAL SQUARE FEET	COST/FT2
House	\$125,334.50	\$18,800.18	\$25,066.90	\$15,040.14	\$184,241.72	4962	\$37.13
TOTAL FOR ALL BUILDINGS	\$125,334.50	\$18,800.18	\$25,066.90	\$15,040.14	\$184,241.72	4962	\$37.13

RECOMMENDATIONS COSTS SUMMARY INCLUDING OPTIONS

BUILDING	ESTIMATE TOTAL	GENERAL CONDITIONS 15%	CONTINGENCY 20%	DESIGN ALLOWANCE 12%	GRAND TOTAL	TOTAL SQUARE FEET	COST/FT2
House	\$126,334.50	\$18,950.18	\$25,266.90	\$15,160.14	\$185,711.72	4962	\$37.43
TOTAL INCLUDING OPTIONS FOR ALL BUILDINGS	\$126,334.50	\$18,950.18	\$25,266.90	\$15,160.14	\$185,711.72	4962	\$37.43

Note: The projections are based upon the assumption that the work will be undertaken in cost effective parcels where a contractor/laborer will be able to absorb overhead, access, and equipment/tool costs across several similar items. This cost estimate includes restoration of existing elements only and does not include mechanical, plumbing, and comfort upgrades (such as bathroom renovations). Mechanical, lighting, HVAC, plumbing, and reconfiguration upgrades are significant costs.

Ellmore Farmhouse

Recommendations	Quantity	Unit	Unit Price	Cost	Comments
<i>Priority Recommendations</i>					
Perform structural review to evaluate the displaced foundation wall on the northwest facade, cracks in parge coating at interior/exterior surfaces of foundation, and missing rafter supports in attic.	24	hrs	\$169.00	\$4,056.00	At WJE rates per contract
Reinstall disconnected downspouts.	1	ea	\$100.00	\$100.00	
Reinstall missing exterior light fixture at northeast facade.	1	ea	\$250.00	\$250.00	
<i>Exterior</i>					
Perform insect and pest control measures to minimize insect activity.	1	ea	\$500.00	\$500.00	
Perform and schedule cyclical maintenance tasks such as building envelope and site inspection, painting of exterior wood and metal elements, inspection and replacement of joint sealants, tree and vegetation care, cleaning of gutters, and other ongoing maintenance tasks to minimize impact to the historic site and building fabric. Performance of cyclical maintenance will reduce the need for large-scale repair projects in future.	1	unit	\$500.00	\$500.00	
Remove all loose, soft, and deteriorated wood. Perform wood dutchman or full member replacement where required. Replaced members are to utilize in-kind materials.	60	sf	\$27.50	\$1,650.00	Removal of deteriorated wood will determine required dutchman quantity where required.

Ellmore Farmhouse

Recommendations	Quantity	Unit	Unit Price	Cost	Comments
All exterior wood elements should be cleaned and repainted on a cyclical basis. In this climate, maintenance cycles for residential grade coatings on wood are typically between 7 and 10 years and depend heavily on the substrate's preparation, exposure, and bond between the new coating and existing elements. At isolated areas requiring repainting, remove the paint layers down to bare wood. Feather the edges of the surrounding paint and allow wood to fully dry. Install prime and repaint. Given the age of the building, the paint will likely contain lead. Testing should be done to verify any hazardous materials.	3,000	sf	\$4.50	\$13,500.00	
Lead based paint testing of paint coatings at wood siding.	4	ea	\$100.00	\$400.00	
Repair cracks in wood siding.	90	lf	\$30.00		
Evaluate locations of missing areas of wood in siding. Minor missing material may remain; however, if missing material begins to expose flashing or the joints between wood siding elements, a wood dutchman should be performed.	5	sf	\$25.00	\$125.00	
Reattach any wood siding and trim pieces that are displaced or no longer fully attached.	102	lf	\$15.00	\$1,530.00	
Evaluate flashings to ensure they are properly placed and integrated to minimize water shedding that could impact wood materials.	6	hrs	\$169.00	\$1,014.00	At WJE rates per contract. Allowance for inspection does not include repairs.
Seal around penetrations through siding to prevent water infiltration.	5	ea	\$27.50	\$137.50	

Ellmore Farmhouse

Recommendations	Quantity	Unit	Unit Price	Cost	Comments
Seal around pipe penetrations through foundation to minimize water infiltration.	3	ea	\$27.50	\$82.50	
Remove and replace all delaminated and spalling pieces of parge coating and CMU once structural investigation and any subsequent repairs are complete.	2	sf	\$42.00	\$84.00	Does not include structural review or related repairs.
Remove deteriorated mortar at stone foundation in crawl space and repoint. New mortar should match original mortar in material, color, texture, and profile.	280	lf	\$20.00	\$5,600.00	
Replace any loose, cracked or broken brick units. Store surplus brick observed near chimney at southeast facade if original location cannot be determined.	5	lf	\$29.00	\$145.00	
Perform a close range survey of chimneys to determine location of loose brick currently at the ground.	2	ea	\$2,000.00	\$4,000.00	Include WJE rate per contract and man lift for 1/2 day.
Clean areas of dark staining.	10	sf	\$3.00	\$30.00	
Have interior flues/liners inspected prior to full scale restoration and use.	2			\$0.00	
Remove all loose and deteriorated paint at doors to a clean wood substrate. Evaluate isolated areas of separation at joinery to determine if repairs are required to re-engage connection. Remove and repair any soft or deteriorated wood. Perform isolated repairs, such as epoxy patches, if deterioration or damage is found once coatings have been removed. Clean and repaint all doors once repairs, if required, have been made.	3	ea	\$245.00	\$735.00	

Ellmore Farmhouse

Recommendations	Quantity	Unit	Unit Price	Cost	Comments
Replace deteriorated weather stripping at doors to ensure they are weathertight.	50	lf	\$5.00	\$250.00	
Remove flaked and deteriorated paint at window surfaces and repaint, including sash channels and sills along with the cyclical maintenance of wood siding.	50	sf	\$4.50	\$225.00	
Coordinate structural evaluation of missing rafter supports and necessity at the historic section of the house. Repair cracked and split existing rafter supports.	12	hrs	\$169.00	\$2,028.00	At WJE rates per contract. Allowance for inspection does not include repairs.
Perform close range survey to repair dented metal coping and evaluate displacement of metal piece.	2	hrs	\$169.00	\$338.00	AT WJE rates per contract anticipated to be completed in conjunction with chimney inspection.
Install splash pads and/or downspout extensions at downspouts. Repair disconnected downspout at northwest elevation.	4	ea	\$27.00	\$108.00	
Remove flaked and deteriorated paint at porch. Once paint is stripped, remove any loose, soft, and deteriorated wood. Perform partial or full wood dutchman, if required. If areas of entire decking planks are found to be completely soft and deteriorated, replace in kind. Repair cracking by removing soft and deteriorated wood, consolidate, and epoxy patch. Clean and repaint wood deck.	50	sf	\$4.50	\$225.00	
Clean and seal door threshold.	3	sf	\$4.50	\$13.50	
Replace missing door hardware at contemporary patio door.	1	ea	\$150.00	\$150.00	
Remove and replace non-historic fence in kind at southeast facade if fence is desired.	1	ea	\$750.00	\$750.00	

Ellmore Farmhouse

Recommendations	Quantity	Unit	Unit Price	Cost	Comments
Remove any loose, soft, and deteriorated wood at deck. Perform consolidation, epoxy patch, or partial/full wood dutchman if required.	5	sf	\$27.50	\$137.50	Removal of deteriorated wood will determine required repair quantity where required.
Clean and seal wood deck.	300	sf	\$4.50	\$1,350.00	
Clean all light fixtures as part of cyclical maintenance.	1	ea	\$50.00	\$50.00	
Interior					
Minor cracks, damage, and deterioration in finishes should be repaired in place by filling cracks or damaged areas with compatible new material. Coordinate repairs with structural investigation to be performed at foundation to ensure proper sequencing of repairs. Some material, particularly at water-damaged plaster and drywall, may need to be removed until sound material is found to ensure any compromised material is removed.	500	lf	\$38.50	\$19,250.00	
Repaint interior finishes once repairs have been made. Monitor areas with previous water damage to ensure there are no active leaks.	8,000	sf	\$2.25	\$18,000.00	
Reattach crown molding trim pieces that are becoming detached in isolated locations. Replace missing baseboards with appropriate profiling and dimensions to what is in place.	5	lf	\$20.00	\$100.00	
Reset wood paneling bowing inward at room 209 (office).	2	lf	\$20.00	\$40.00	
Consult a professional Industrial Hygienist to confirm the extent of microbial growth and best practices for treatment and removal at drywall and ceiling locations observed in cellar.	1	ls	\$1,000.00	\$1,000.00	

Ellmore Farmhouse

Recommendations	Quantity	Unit	Unit Price	Cost	Comments
Remove wall covering at southeast and southwest walls to reopen the stairwell and expose the handrail, if still intact.	105	sf	\$100.00	\$10,500.00	
Replace handrail with profiling and material representative of what exists, if missing.	13	lf	\$300.00	\$3,900.00	
For the second staircase located at the northwest side of the home:					
<i>OPTION 1:</i> Remove staircase and infill second story flooring extending to northwest exterior wall ensuring proper support and framing.	45	sf	\$3,700.00	\$3,700.00	Estimated as a single lump sum job.
<i>OPTION 2:</i> Reinstate an exterior egress for the second floor once future use and configuration of the Ellmore Farmhouse has been determined.	1	ea	\$1,700.00	\$1,700.00	
Engage mechanical, electrical, and plumbing engineer to evaluate existing systems, piping, and conduit to remove any elements not required. Repair interior finishes as needed.	1	ls	\$5,000.00	\$5,000.00	Inspection allowance does not include repairs.
Perform Dutchman repair or full element replacement at areas of missing or deteriorated wood in the attic, where needed.	10	sf	\$27.50	\$275.00	
Treat and coat exposed wood floor boards in areas where previous elements existed to prevent further deterioration and allow for previous footprints to remain as interpretation.	2	sf	\$4.50	\$9.00	
Remove and repoint deteriorated mortar at historic stone, CMU and brick in cellar and chimney locations.	20	lf	\$20.00	\$400.00	
Remove and install joint compound at brick and drywall interfaces.	8	lf	\$20.00	\$160.00	
Repair spalled brick at chimney in room 107 (bedroom).	1	sf	\$30.00	\$30.00	

Ellmore Farmhouse

Recommendations	Quantity	Unit	Unit Price	Cost	Comments
Refinish all historic wood flooring in a manner that represents a typical interior finish of the time period of historic significance.	450	sf	\$4.50	\$2,025.00	
Remove and replace non-historic linoleum floor tiles with considerable staining or damage and replacing with materials that may have historically been in place if archival documentation is found.	450	sf	\$10.00	\$4,500.00	
Remove non-historic carpeting at the historic section of the home. Evaluate condition of wood flooring underneath carpeting. Remove all loose, soft, and deteriorated wood. Perform wood dutchman or full member replacement where required. Replaced members are to utilize in-kind materials. Refinish wood flooring in a manner that represents a typical interior finish of the time period of historic significance.	650	sf	\$15.00	\$9,750.00	Allowance does not include repairs that may be required.
At the additions of the home, remove and replace carpeting with considerable staining or damage. For rooms 209 and 210, remove all loose, soft, and deteriorated wood. Perform wood dutchman or full member replacement where required. Replaced members are to utilize in-kind materials. Refinish wood flooring.	115	sf	\$15.00	\$1,725.00	Allowance does not include repairs that may be required.
Clean and refinish all historic doors. Repair at joinery and areas of minor damage where needed.	7	ea	\$4.50	\$31.50	Allowance does not include repairs that may be required.
Replace missing hardware with materials appropriate of the historic time period. Repair inoperable doorknob at the first floor closet.	3	ea	\$75.00	\$225.00	

Ellmore Farmhouse

Recommendations	Quantity	Unit	Unit Price	Cost	Comments
Remove and rehang doors that are unable to close to attempt obtaining full operability of the doors. Coordinate sequencing of repairs with structural investigation of foundation.	1	ea	\$350.00	\$350.00	
Replace damaged non-historic door to room 203 (bedroom).	1	ea	\$300.00	\$300.00	
OPTION - Replace contemporary doors, doors dating after 1960, with more historic appropriate doors at historic sections of the home.	2	ea	\$500.00	\$1,000.00	
Clean all light fixtures.	16	ea	\$50.00	\$800.00	
Clean or replace all plumbing fixtures and appliances as required. Existent fixtures are not historic.	8	ea	\$400.00	\$3,200.00	

Summary Total

\$125,334.50

Summary Total Including Options

\$126,334.50