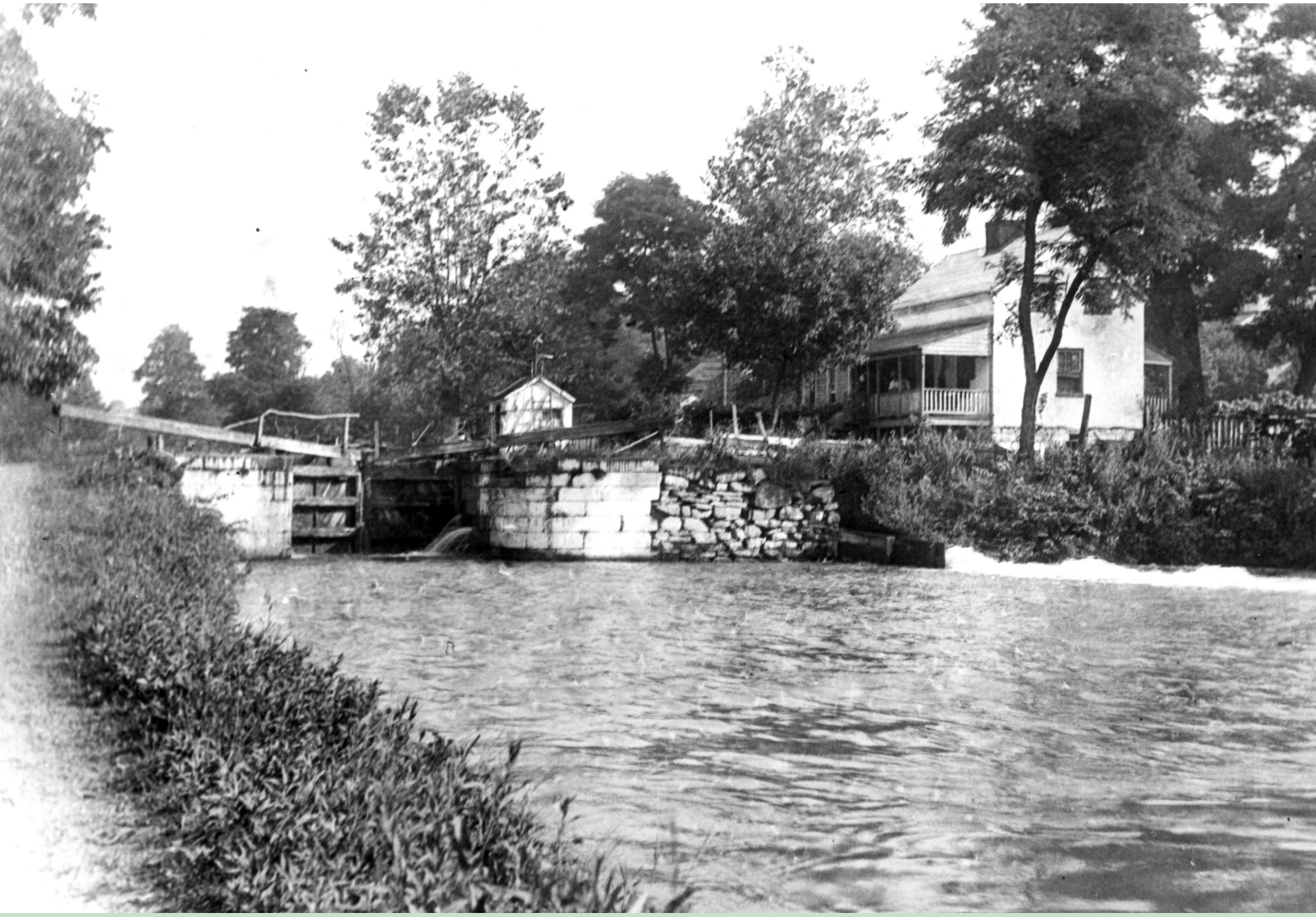


Lock #29 - Lockhouse

Historic Structure Report

Chesapeake and Ohio Canal National Historical Park

Jefferson, Maryland

October 2023

Historic Structure Report

for

Lock #29 - Lockhouse

Chesapeake and Ohio National Historical Park

Jefferson, Maryland



LeeAnne R. Brooks, Architectural Conservator, M.H.P.

September 2023

Cover Photo: Lock #29 & Lockhouse, southwest oblique, ca. 1915. (Chesapeake & Ohio Canal Archive).

Title Page: Lock #29 - Lockhouse, southwest oblique, 2022 (LeeAnne Brooks, October 20, 2022).

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I. EXECUTIVE SUMMARY

Executive Summary

PROJECT SUBJECT

Lock #29 - Lockhouse (Lockhouse #29) is located 12 miles southwest of Frederick, Maryland near the town of Jefferson in Frederick County, Maryland. Located at the end of Lander Road (no address available), it sits on an original parcel of land located to the east of the Potomac River and the Chesapeake and Ohio Canal (C&O Canal). The structure is situated near Lock #29 at milepost 50.9. The surrounding area is primarily rural with housing developments dotting the landscape. Lockhouse #29 is owned by the National Park Service (NPS) and is listed in the National Register of Historic Places (NRHP) as a contributing resource in the Chesapeake and Ohio Canal National Historical Park (CHOH).

PURPOSE AND SCOPE

This Historic Structure Report (HSR) focuses on Lockhouse #29, located within CHOH in Jefferson, Maryland. The goal of this project is to gain a broad understanding of the building and its history through physical and archival research and documentation, as well as to acquire a framework for the long-term stewardship of the building. Ultimately, it furnishes information needed to design future projects that will preserve both the historical and architectural integrity of the structure.

The report also achieves NPS-wide goals of providing baseline research and documentation of significant structures; and to enhance public awareness and understanding of a fundamental resource to CHOH by making this HSR available to park staff, visitors, researchers and educators.

This report was written in accordance with NPS Director's Order #28: *Cultural Resource Management Guideline Part 1 Developmental History*, which defines the level of investigation for this report as "thorough."[1] It further adheres to NPS guidelines that are found in NPS Preservation Brief #43 – *The Preparation and Use of Historic Structure Reports* which provides an outline of the required chapters entitled Historical Background and Context, Chronology of Development and Use, Current Physical Description, and Identification of Character-Defining Features (CDF)[2] that provide answers to the following questions:

- What is the historical context and architectural significance of the structure during its period of construction and later periods?
- When was the structure built and by whom?
- What is the structure's overall historical significance?
- Who has owned and occupied the structure throughout its 187-year history?

1 Unknown, "Director's Order #28: Cultural Resource Management Guideline, Part 1 Developmental History," (National Park Service).

2 Unknown, "Preservation Brief #43: The Preparation and Use of Historic Structure Reports," (National Park Service).

- How has the appearance, materials, exterior/interior configuration of the structure changed over time?
- What parts of the structure are original?
- Which parts belong to other periods of significance?
- What is the structure's current physical condition, layout, and features?
- What are the structure's character-defining features?
- What types of treatment are recommended in the future?

STATEMENT OF SIGNIFICANCE

The purpose of the statement of significance for a historic resource is to describe why a structure is important in a historical, regional and National Park Service-wide context. It is also intrinsically linked with, and supports the stated purpose and mission of the park, which reflects the scholarly facts and principles known both currently and at the time of establishment of the park. As stated in the park's Foundation Document, the park was established to:

> … preserve and interpret 19th century canal transportation, civil engineering technology, and the evolution of a flat-water transportation system in support of the industrial growth of the nation.[3]

THE CHESAPEAKE AND OHIO CANAL

The National Register nomination form (2015) defines the statement of significance for C&O Canal. Its above-ground resources have been deemed significant on the local, state, and national levels under Criterion A (Associated with events that have made a significant contribution to the broad patterns of our history); Criterion C (Embodies the distinctive characteristics of a type, period, or method of construction or represents the work of a master, or possesses high artistic values, or represents a significant and distinguishable entity whose components lack individual distinction); as well as its archaeology resources which are eligible under Criterion D (Has yielded, or is likely to yield, information important in prehistory or history). Its significance is further defined:

> … for its role in the history of transportation and engineering in the United States. In addition, the district reflects significant trends in local and statewide architectural, commercial, military, agricultural, industrial, community development, conservation, ethnic heritage, and recreational history. [It] also contains several individually listed archeological sites of statewide and local significance that demonstrate important research potential for prehistoric and historic periods.[4]

3 Unknown, "Foundation Document, Chesapeake and Ohio Canal National Historical Park, District of Columbia, Maryland, and West Virginia", (National Park Service, July 2013)

4 Susan Cianci Salvatore, Stephen Potter, C&O National Register Nomination form, National Park Service, September 11, 2014.

LOCK #29 - LOCKHOUSE

The lockhouses of C&O Canal performed an essential service in providing housing for lock keepers and their families, enabling the lock keepers to be on-site to do their jobs at any time of day or night. Lockhouse #29 is listed as one of 1,251 resources that contributes to the significance of the park.[5] It was built in 1836 as one of the many lockhouses that stood aside the canal's 74 lift locks.[6]

METHODOLOGY AND RESEARCH CONDUCTED

ARCHITECTURAL INVESTIGATION

Some of the information provided in this report is derived from on-site physical observation and architectural investigation. Physical investigation techniques included documentation of building materials, photography, and physical examination of existing building fabric.

During the week of October 16, 2022, a non-invasive, on-site architectural investigation was undertaken at Lockhouse #29 by architectural conservator LeeAnne Brooks on behalf of CHOH. Preservation Brief 17, *Architectural Character - Identifying the Visual Aspects of Historic Buildings as an Aid to Preserving Their Character* was used to guide the recording and analysis of architectural and historic features of the building and its surrounding landscape. A follow-up visit was made on April 24–28, 2023 to complete the on-site, physical investigation and documentation of the structure. Research was conducted at local depositories.

DOCUMENTARY RESEARCH

Research was performed at local, regional, and national repositories. Sources consulted included textual records, historical manuscripts, maps, architectural drawings, and still photographs. Relevant secondary research covered readily accessible documentary and published resources including secondary textual and cartographic documentation.

Archival research was performed at the following institutions:

National Park Service – Chesapeake and Ohio Canal National Historical Park: The on-site C&O archive is substantial and contains many relevant documents pertaining to lockhouses in general, and Lockhouse #29 and the Lander area specifically.

Library of Congress: The Library of Congress has an extensive collection of relevant maps and photos, in addition to the C&O Canal Company records.

Newspapers.com (online): Newspapers.com is the "largest online newspaper archive consisting of 842 million+ pages of historical newspapers from 26,800+ newspapers from around the United States". The activities that took place in

5 Ibid. 3

6 Hazel Groves Hansrete, C&O National Register Nomination, National Park Service, May 3, 1971.

and around C&O Canal and Lock #29 during the period of significance were newsworthy enough to appear in the newspapers of the time, and provided additional information.

Ancestry.com: Ancestry® is the global leader in family history and consumer genomics. Their database contains census records that provided the names of several Lock #29 lock tenders and their families.

***Lander Reunion, Shared Recollections of Life in Lander and other Western Maryland River, Canal, Rail, and Trail Communities*, by George Lewis, Pepper Scotto, and Kaitlyn Shorter**: This comprehensive oral history of Lockhouse #29 and the local village of Lander is invaluable to the understanding of not only the history of the house but the people who lived in and around it for over 100 years.

George Lewis, Pepper Scotto – Interviews: Personal interviews of the authors of the above oral history shed more light on Lander's history. Their archive of images amassed during the interview process were used in the writing of the report.

Todd Brown, Bob Brust, Dwayne Donahoe – Interviews: Those who participated in the 2000 interior rehabilitation project provided valuable information to help fill in the gaps in the structure's building chronology.

RESEARCH FINDINGS

Some of the more significant research findings included, but were not limited to, the following:

- The date and description of the temporary lockhouses at locks #28, 29, 34, and 37.
- Lock #29 - Lockhouse's role in the Civil War
- Additional lock keeper information.
- Through local oral history, it is now possible to understand how the canal and its employees effected change in local villages. This study provided local context for the lockhouse.
- Through molding profile analysis, it was discovered that a high degree of architectural integrity exists at Lockhouse #29. In spite of constant exposure to flood waters, very little original architectural fabric has been lost.
- Through the analysis of historical photographs it was possible to track changes to the exterior of the house and the surrounding site.

RESEARCH RECOMMENDATIONS

Although research for this project was thorough, there is potential for the following future building research at Lock #29 - Lockhouse:

- Additional focused research at the Library of Congress in College Park, Maryland, where the C&O Canal company records are held, is recommended. It is likely that addition information about lockkeepers can be found.
- It is recommended that the exterior brick be further inspected. A small test site should be made to determine the condition of the brick and lime mortar underneath the multiple layers of whitewash.
- Photos dating throughout the 20th century consistently show the exact same stair-step cracking above W101.2. Further inspection should be done to determine if there is a structural issue affecting the window header. Similar cracking is also present on many of the other gable window openings.
- Further research and analysis could yield additional information about the doors and door hardware. This could fill holes within the building history and chronology.

ADMINISTRATIVE DATA

Table 1: Administrative Data	
National Park:	Chesapeake and Ohio Canal National Historical Park
Preferred Structure Name:	Lock #29 - Lockhouse
Secondary Names:	Lander Lockhouse Lander Lockhouse #29 Lockhouse #29
Location:	Towpath Mile Marker 50.90 Village of Lander, Town of Jefferson
County:	Frederick
State:	Maryland
Ownership:	Department of the Interior, National Park Service, Chesapeake and Ohio Canal National Historical Park
GPS & UTM Location:	Latitude: 39.30657 Longitude: -77.55817 Zone: 17.735260 E 4292380 N

The Cultural Resources Inventory System (CRIS) is a web-based inventory of historic structures, archeological sites, cultural landscapes, and ethnographic resources in the National Park System, having historic, architectural, or engineering significance, in which the NPS has—or plans to acquire—any enforceable legal interest.

Table 2: CRIS Data	
Preferred Structure Name:	Lockhouse - Lock #29
Structure Number:	059.89A
CRIS Number:	11660

NATIONAL REGISTER OF HISTORIC PLACES

NRIS: #14001236

Lock #29 - Lockhouse was determined to be a contributing resource to C&O Canal National Historical Park's Historic District by the Keeper of the National Register of Historic Places on August 9, 1979. A boundary increase and additional documentation were added to an updated National Register form on February 3, 2015. An individual National Register nomination would not be appropriate for Lock #29 - Lockhouse.

GENERAL RECOMMENDATIONS

The NPS is directed under Section 106 of the National Historic Preservation Act of 1966 to take into account the effects of their undertakings on historic properties and must "to the maximum extent possible, undertake such planning and actions as may be necessary to minimize harm to such a landmark."[7]

With this in mind, the author has constructed the following overall long-term treatment recommendations, as well as future research recommendations:

1) All preservation work to be executed under The Secretary of the Interior's Standards for Preservation, which is identified 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. New exterior additions are not within the scope of this treatment; however, 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.[8]

2) The Secretary of the Interior further identifies Standards for Preservation as follows:

> A. A property will be used as it was historically or be given a new use that maximizes the retention of distinctive materials, features, spaces, and spatial relationships. Where a treatment and use have not been identified, a property will be protected and, if necessary, stabilized until additional work may be undertaken.
>
> B. The historic character of a property will be retained and preserved. The replacement of intact or repairable historic materials or alteration of features, spaces, and spatial relationships that characterize a property will be avoided.

7 "Section 106 Consultation Involving National Historic Landmarks," (Advisory Council on Historic Preservation, ND), https://www.achp.gov/digital-library-section-106-landing/section-106-consultation-involving-national-historic-landmarks.

8 Anne E. Grimmer and Kay D. Weeks, "The Secretary of the Interior's Standards for the Treatment of Historic Properties with Guidelines for Preserving, Rehabilitating, Restoring & Reconstructing Historic Buildings", (Washington D.C.: United States Department of the Interior, National Park Service, 2017), 2.

> C. Each property will be recognized as a physical record of its time, place, and use. Work needed to stabilize, consolidate, and conserve existing historic materials and features will be physically and visually compatible, identifiable upon close inspection, and properly documented for future research.
>
> D. Changes to a property that have acquired historic significance, in their own right, will be retained and preserved.
>
> E. Distinctive materials, features, finishes, and construction techniques or examples of craftsmanship that characterize a property will be preserved.
>
> F. The existing condition of historic features will be evaluated to determine the appropriate level of intervention needed. Where the severity of deterioration requires repair or limited replacement of a distinctive feature, the new material will match the old in composition, design, color, and texture.
>
> G. 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.
>
> H. Archaeological resources will be protected and preserved in place.

3) The Secretary of Interior's Standards for the Treatment of Historic Properties provides four general treatment approaches for the treatment of historic buildings and are described as follows:

> 1. 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. The Standards for Preservation require retention of the greatest amount of historic fabric along with the building's historic form.

Preservation would sustain Lockhouse #29 at its current appearance and configuration. Ongoing maintenance and repair of the building would continue, emphasizing the retention of the building's character-defining features. More extensive work would follow the philosophy of replacement-in-kind. Upgrading of building systems could be carried out, being careful not to damage or detract from historic character-defining features. This treatment would be appropriate if the choice were made to retain the building but not open it to the public.

> 2. 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. The Rehabilitation Standards acknowledge the need to alter or add to a historic building to meet continuing or new uses while retaining the building's historic character.

Rehabilitation would adapt Lockhouse #29 to a new, compatible use. This is the most lenient treatment, allowing alterations and additions that are nevertheless both respectful of and preserve the building's historic character-defining features. Such a treatment would be appropriate if it is decided to use the structure as a meeting space, overnight summer housing, or museum interpretive space.

> 3. 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. The Restoration Standards allow for the depiction of a building at a particular time in its history by preserving materials, features, finishes, and spaces from its period of significance and removing those from other periods.

Restoration would return Lockhouse #29 to its historical appearance during its period of significance by preserving existing character-defining features, removing non-historic features, and reconstructing missing historic features. Building systems could be upgraded, being sensitive to the retention of historic character-defining features. Such a treatment would be appropriate if it is decided to reestablish Lockhouse #29 as a museum.

A logical restoration target date for Lockhouse #29 is during its period of significance (1828–1924). Although the building has been changed over a long period of time, it is feasible to restore the structure. Such a restoration could be partial or complete, beginning with the exterior and finishing with the interior. Exterior restoration would entail conservation and repair of existing historic character-defining features, removal of non-historic features, and reconstruction of missing historic features. Likewise, interior restoration would preserve existing character-defining features, remove non-historic features, and install historically appropriate features. Restoration should employ an architectural conservator and/or historical architect to achieve an authentic reconstruction of missing historic elements based on documentary sources and physical evidence.

> 4. 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. The Reconstruction Standards establish a limited framework for recreating a vanished or non-surviving building with new materials, primarily for interpretive purposes.

Reconstruction is not an appropriate treatment for Lockhouse #29 since it is an intact structure.

The future treatment and use of Lockhouse #29 has yet to be determined. The method of treatment is dictated by its level of significance, architectural

integrity, current condition, and its intended use. Any treatment should follow The Secretary of the Interior's Standards for the Treatment of Historic Properties. Every effort should be made to preserve its historic character-defining features, which are described in this report. (See Chapter 5)

In addition, any work on the structure should be photographically documented and retained in NPS and CHOH files. Extensive work should be documented with both photographs and a written project completion reports. If replacement materials are installed, a representative sample of the historic material should be saved, cataloged, and placed in the park's museum collection. Every attempt should be made to replicate the size, scale, and other details of original deteriorated materials. New replacement materials should also be date-stamped to distinguish them from surviving historic building fabric.

II. HISTORICAL BACKGROUND AND CONTEXT

Historical Background and Context

INTRODUCTION

When researching the history of Lock #29 - Lockhouse (Lockhouse #29), it is easy to fall into the trap of focusing only on the easily accessible and voluminous Chesapeake & Ohio Canal history. Because Lockhouse #29's known history is sparse and contains large gaps, there is very little known about the 187-year-old lockhouse, or those who lived and worked there. Fortunately, the lockhouse is tied to the canal, and the canal's history is able to provide a contextual history for the lockhouse. That context has had a great influence on not only the architectural style of Lockhouse #29, but how the building was used.

This section will focus on Lockhouse #29's history and its relationship with C&O Canal. It is broken down into five eras. The first era begins with pre-contact and ends with early migration to the Potomac Valley (1733). The second era begins in 1823 when a convention was held to attract investors in the C&O Canal, and ends in 1924 when the canal was no longer used by commercial traffic. The third era ends when the last lockkeeper at Lockhouse #29 died in 1962. The fourth era begins in 1962 with the active use and maintenance of the structure by the National Park Service (NPS) and ends with the closing of Lockhouse #29's museum in 2018. The final era covers the time since its closing until the present day.

Each element and room within the building has been assigned an identifier. Those identifiers have been notated on floor plans drawings located in Appendix A.

PRE-CONTACT – EARLY MIGRATION

The Potomac Valley, located along the path of the Potomac River, was home to indegenous peoples as early as 10,000 to 25,000 years ago.[1] By the late sixteenth century, the Iroquois and Sioux arrived, later to be joined by the Powhatan and Piscataway of the Algonquin tribes.[2] As with many western frontiers in the colonies at that time, contact with Europeans and the resulting wars, erased most Native nations. Many indigenous people remained, and still remain, but became invisible to white-run government after 1700.[3]



Figure 2.1. Potomack Company Seal, 1803. (Park Headquarters, Chesapeake & Ohio Canal National Historical Park, Williamsport, Maryland).

By 1733 German colonizers had settled near the Monancy River, a tributary of the Potomac River, in the Monocacy Valley. Soon after, in 1745 Frederick Maryland was founded. Expanding population prompted the creation of Frederick County a few years later.[4] With the building of Hooks Ferry and Tavern Inn, the village, near to where Lockhouse #29 sits, was settled in the 1740s. [5] By 1776 Frederick County was divided into three smaller counties that were primarily devoted to farming.[6] The great need for alternate methods to ship goods to and from outlying areas as far as the Ohio River to the Chesapeake Bay prompted the creation of George Washington's Potomac Company in the 1780s (Figure 2.1).[7] Although unsuccessful, this enterprise was the precursor to the C&O Canal.

1823–1924



Figure 2.2. C&O Canal Company seal, 1825. (Park Headquarters, Chesapeake & Ohio Canal National Historical Park, Williamsport, Maryland.).

The farming culture was almost exclusive in Frederick County in 1823, when the C&O Canal project began with a convention held for potential investors (Figure 2.2).[8] The convention jump started the creation of the C&O Canal and led to the Virginia and Maryland assemblies passing an act incorporating the Chesapeake & Ohio canal in 1824. The United States Congress approved the C&O Canal charter in 1825.[9] The goal of the canal was to:

> … construct a shipping canal connecting tidewater on the Potomac River in the District of Columbia with the headwaters of the Ohio River in western Pennsylvania …[10]

1 Walter S, Sanderlin, "A Study of the History of the Potomac River Valley," (National Park Service, October 1967), 5.

2 Ibid. 6.

3 Blyth McManus, in correspondence with the author, October 4, 2023.

4 Ibid. 13.

5 George Lewis, Pepper Scotto, Kaitlyn Shorter, "Lander Reunion, Shared Recollections of Life in Lander and other Western Maryland River, Canal, Rail, and Trail Communities," (Self-published, 2020), 4.

6 "A Study of the History of the Potomac River Valley," 16.

7 Unknown, "Lockhouse 29 at Catoctin – A Brief," (Lander Community Association. n.d.).

8 Unknown, "Canal President Charles Fenton Mercer," (National Park Service, n.d.). Accessed September 20,2022. https://www.nps.gov/choh/learn/historyculture/canalpresidentcharlesfentonmercer.htm

9 "A Study of the History of the Potomac River Valley," 57.

10 Hazel Groves Hansrote, "National Register of Historic Places Nomination Form," (National Park Service, 1971), 8.

In 1826 the Commonwealth of Pennsylvania also approved the Virginia Act incorporating the canal.[11] At nearly the same time, the little village that would one day become Lander, near to Lock #29, began to grow with the addition of Union School to its public structures.[12]

President John Quincy Adams kicked off the construction of the canal during a ceremony held on July 4, 1828 (Figure 2.3). That was quickly followed, in August of the same year, with the unfinished and defunct Potomac Company conveying its existing rights to the new C&O Canal. In February of the same year the Baltimore & Ohio Railroad (B&O) was chartered.[13]

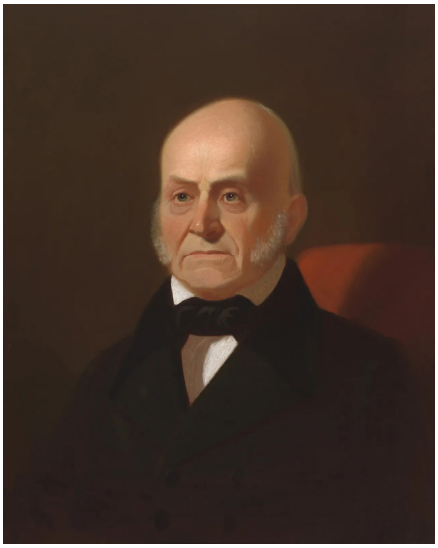


Figure 2.3. President John Quincy Adams, oil on canvas by George Caleb Bingham, c. 1850. (Encyclopædia Britannica, Inc.)

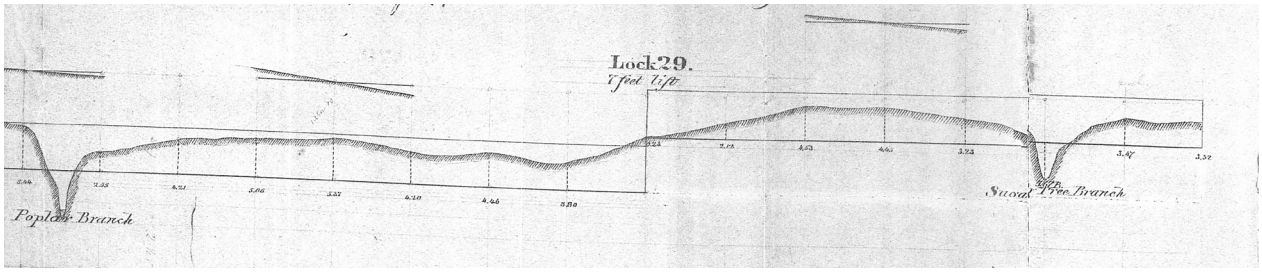


Figure 2.4. Elevation survey map showing an 8 feet lift at Lock #29, 1831. (National Archives, College Park, MD. RG 79 - 227, Construction Drawings, 1823-1937)

From the beginning, work on the canal was plagued with problems. First, in 1828 a lengthy legal battle began between the C&O Canal and B&O Railroad over the right-of-way between Point of Rocks, Maryland and Harper's Ferry, Virginia delayed construction of the canal (Figure 2.4). The case lingered in court until 1832.[14] Next, the farming culture in the Potomac Valley did not produce enough available labor, which contributed to continuing labor shortages, eventually forcing the use of enslaved workers and skilled Irish indentured workers with varying degrees of success.[15] The continuing lack of workers drove the price of labor up, causing shortages in the canal budget.[16]

11 Unknown, "Formation of the C&O Canal Company, (C&O Canal Trust," n. d.). Accessed September 20,2022. https://www.canaltrust.org/about-us/about-the-co-canal/history/canal-history-formation-of-the-co-canal-company/

12 Marie Anne Erickson, "Crossroads - Lander," (Frederick Magazine, November 1992).

13 John P. Cowan, "Sometub's Cruise on the C&O Canal," (Self-published, 1916), 37.

14 Susan Cianci Salvatore, Stephen Potter, "National Register of Historic Places Nomination Form," (National Park Service, September 11, 2014).

15 "A Study of the History of the Potomac River Valley," 72.

16 Ibid. 40.

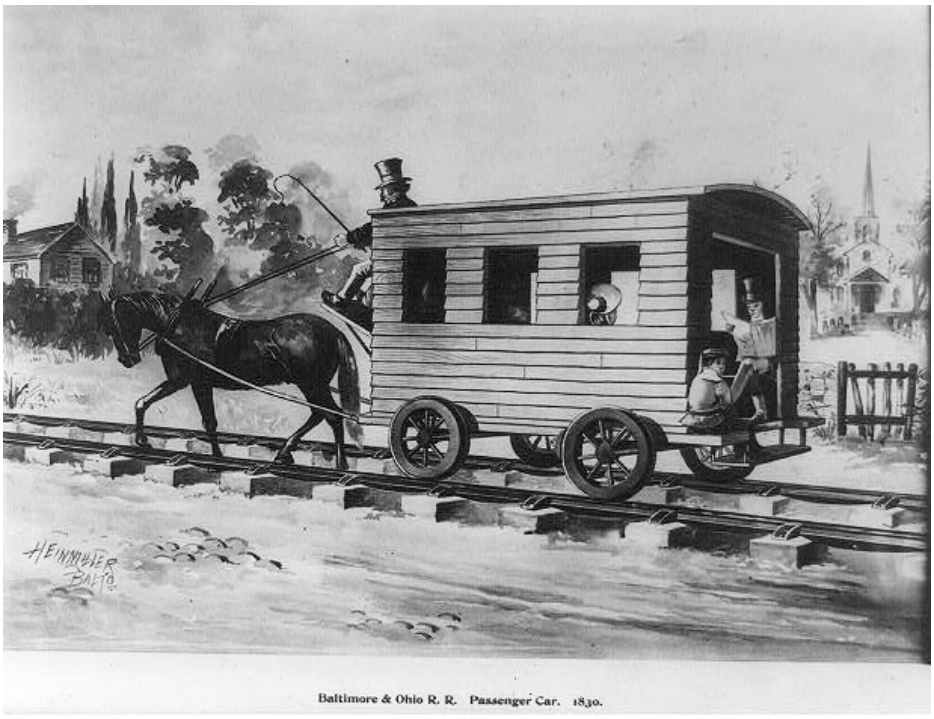


Figure 2.5. *B&O Railroad Passenger Car*, 1830. (The Urban History Association. https://themetropole.blog/2022/03/09/the-bo-railroad-from-municipal-enterprise-to-private-corporation-a-review-of-steam-city/)

The Commonwealth of Virginia and the state of Maryland financially supported the C&O Canal Company, with Maryland "virtually underwriting the construction of the canal" between 1834 and 1837.[17] There was a flood in 1829, and major cholera outbreaks broke out in the canal workforce in 1832 and in 1833 effectively halting all construction on both occasions. An economic depression in 1839 once again stopped all construction of the canal.[18] While the C&O Canal experienced one construction delay after another, the B&O Railroad was completed to Harper's Ferry, Virginia and was operating as a major freight and passenger competitor on December 1, 1834 (Figure 2.5).[19]

Construction began on the canal lockhouses in 1828.[20] They were fashioned after local architecture using local materials. The building of lockhouses began closest to Georgetown, near downtown Washington D.C. The original design of the lockhouses was made by C&O engineer Benjamin Wright. The first group of lockhouses were built in 1828, closer to Washington D.C., and were made of stone. After a very short time stone became less available, leading to the construction of wood or brick lockhouses.

17 Ibid. 76.

18 Ibid. 72.

19 Harper's Ferry remained a part of Virginia until the Civil War.

20 David Oboler, "Historic Structure Report, Architectural Data Section," (National Park Service, April 1979), 5.





Figure 2.6. (above) Catoctin Train station at Lander, Maryland, n.d. (below) Lander General Store and Post Office, n.d. (Courtesy of Pepper Scotto).

Lack of funding after the construction of canal locks as far as Harper's Ferry delayed the construction of permanent lockhouse at eleven locks.[21] With the canal newly active, temporary housing was essential for the lockkeepers at Locks #28, #29, #34, and #37.[22] The temporary lockhouses were small, 12-by-15-foot, wood-plank or log structures built by builder Isaac Williams in 1834, and stayed in use until a permanent lockhouse was built in 1836–1837.[23] Additionally, a shanty was built for the lock tender adjacent to the lock wall. It contained a bunk, coal stove, table, and a clock.[24]

After another large infusion of cash from Maryland, builder Michael Foley was contracted to construct permanent lockhouses in June of 1836.[25] The lockhouses were designed by C&O Canal Company Chief Engineer Charles B. Fisk.[26] C&O Canal's basic lockhouse design "reflected vernacular architecture of the upper Potomac River Valley, and possibly other canals, including those in England."[27] It was at this time that Lockhouse #29 was constructed for $950 at mile post 50.9.[28] It was built upon farm land purchased from the heirs of local farmer and landowner Samuel Luckett on March 9, 1832.[29]

The first lockkeeper in May of 1837 received $175.00 per year, tenancy in the lockhouse, and a garden. The first known lockkeeper at Lock #29 was William Waller who remained at the job from 1839 to 1841 when John Walter took over the job, receiving the same compensation. John Walter, his wife Margaret, and their six children remained at

21 Jill Y. Halchin, "Phase III Archeological Investigations, Lockhouse 29 Restoration," (National Park Service, March 1999), 2.

22 Harlan D. Unrau, "Historic Structure Report, The Lockhouses, Historical Data," (MD-DC-WV. National Park Service, May 1978), 5.

23 "Historic Structure Report, Architectural Data Section," 5.

24 Lavenia Waskey, "C&O Canal Memories," (Lander Community Association, 1972), 9.

25 Thomas Swiftwater Hahn, "The Chesapeake & Ohio Canal Lock-Houses & Lock-Keepers," (West Virginia University, 1996), 24.

26 "Historic Structure Report, Architectural Data Section," 8.

27 Thomas Swiftwater Hahn, "The Chesapeake & Ohio Canal Lock-Houses & Lock-Keepers," (West Virginia University, 1996), 3.

28 "Historic Structure Report, Architectural Data Section," 8.

29 L. Harding, "Warrant, Frederick County, Maryland, 1832," (C&O NHP Archive: Land Record JS 43).

Lockhouse #29 until at least 1860.[30] By 1853 lockkeepers were making $220 a year.[31]

During the 1840s the C&O Canal had mixed success. Between 1842 and 1847, canal construction slowed to nearly a standstill. During the same period, "more than 500 boats were in frequent operation on the canal."[32] By 1850 the canal was complete to Cumberland Maryland for a whopping $11 million (equivalent to $265,507,698. in 2023)[33], but given the construction difficulties they had experienced to that time, the decision was made to halt further construction.[34]

The B&O Railroad and C&O Canal at Lock #29 changed the landscape, culture, and growth rate of the small hamlet nearby. Lander was no longer a sleepy farm village with a schoolhouse. Over time, a train station, post office (1862), and general store (1912) were built along the railroad and canal near Lockhouse #29 (Figure 2.6).[35] When the canal first opened, the farmers along the canal were uneasy around canal folk. Canal people were "Highly individualistic, yet definitely [felt] themselves to be a group apart . . ." This uneasiness continued until the locals felt the economic benefits of the canal workers' presence.[36]

The C&O Canal was used as a Union supply line which became a flash point during the Civil War. Confederates continually attacked the supply line that was reliant on the canal and Potomac River. On June 21, 1863, Confederate forces crossed the Potomac at Lander. They quickly moved to attack a train headed to Point of Rocks. The train escaped only to be captured and burned at Point of Rocks. Passengers and Union officers were taken prisoner.[37] On July 4, 1864 Confederate raiders, on their way to attack Point of Rocks, crossed the Potomac at Lock #29. They burned a canal boat carrying Washington bureaucrats who fled at the sight of the attacking Mosby's Rangers (Figure 2.7). [38]

Towards the end of the war lockkeepers pay increased to $50 per month ($600 per year). The large jump in pay was meant to help lockkeepers hire an assistant.[39] Additionally, in 1865 the C&O Canal Company authorized entrepreneur M.E. Alexander to build a feed and grocery store on Lock #29's berm for $12 per year rent. It is unclear whether the store was ever built, as a 1999 archaeological survey was unable to find evidence of the building at that

30 Unknown, "Annual Reports, Chesapeake and Ohio Canal Company," (National Archives at College Park, College Park, MD; RG 79).

31 "Historic Structure Report, The Lockhouses," 32.

32 Phillip S. Romigh, Barry Mackintosh, "Statement of Significance," (Chesapeake and Ohio Canal National Register Nomination, National Park Service. 1979 (Updated 2020), 5

33 Hazel Groves-Hansrete, "History," (Chesapeake and Ohio Canal National Register Nomination, National Park Service, 1975), 8.

34 Josh Howard, "our Only Alma Mater: The CCC and the C&O Canal – History Study." (December 16, 2017), 47.

35 Margaret Nuse Hicks, "Lander Reunion, January 23, 2002," (Marie Anne Erickson, Crossroads - Lander, Frederick Magazine, November 1992).

36 "A Study of the History of the Potomac River Valley," 95.

37 Unknown, "From Harpers Ferry, Capture and Destruction of a Train of Cars," (New York Times, New York, New York. June 21, 1863).

38 Unknown, "History of the Canal," (C&O Canal Trust, n.d).

39 "The Chesapeake & Ohio Canal Lock-Houses & Lock-Keepers," 48.



Figure 2.7. Mosby's Raiders,1860s. (https://www.nps.gov/articles/000/mosby-s-rangers-in-the-shenandoah-valley.htm)

location.[40] Authorization to John H. Rench, Lock #29's lockkeeper, was also granted permission to build a second feed store in 1869; however, the location was unspecified and has also not yet been discovered. [41]

The nearby village of Lander was so named sometime after the Civil War. It was named for the Union general, westward explorer, and poet Frederick W. Lander who died at Paw Paw, West Virginia in March of 1862 (Figure 2.8).

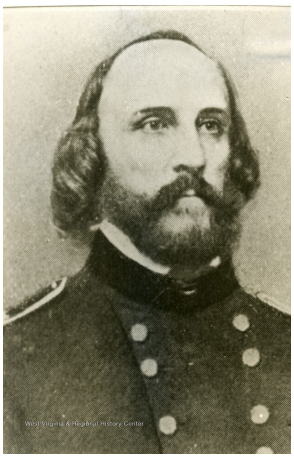


Figure 2.8. Brigadier General Frederick W., Lander, Union Army, 1860s. (West Virginia History on View). https://wvhistoryonview.org/catalog/001285.

The 1870s began as a prosperous time for the C&O Canal, but by 1873 the rail road began to drain away all of C&O's coal hauling business.[42] A financial panic and depression hit in 1873, adding to the problems the company was already experiencing due to violent labor strikes. The challenging decade was rounded out by flooding so extreme the canal was considered a "total wreck."[43] In a case of profoundly bad timing John Rench, Lock #29's lockkeeper,[44] requested that money be spent on a fence to enclose the lockhouse's garden and yard in March and July of 1873.[45] Later, a new lease on the house came with new rules about which Rench complained.[46] By this time Rench had hired an 18-year-old assistant named James Price.[47] In 1880 a new lockkeeper named Benjamin Sigafoose, his wife Laura and their two children were living and working at #29.[48]

The success of the very early 1870s was replaced with continuing problems for the C&O Canal in the 1880s:

> By the 1880s, the combination of improving railroad technologies and periodic, devastative flooding meant the canal was becoming

40 Unknown, "Lockhouse 29 Archeology," (National Park Service, March 1999. Chesapeake and Ohio Canal archive: 041, CHOH, 50.89, Lockhouse No.29, 1975-2001 (2 of 3).

41 "The Chesapeake & Ohio Canal Lock-Houses & Lock-Keepers," 24.

42 Phillip S. Romigh, Barry Mackintosh, "Statement of Significance," (Chesapeake and Ohio Canal National Register Nomination, National Park Service. 1979 (Updated 2020). 5

43 "A Study of the History of the Potomac River Valley," 124 and 126.

44 U.S. Census Bureau, "Population Estimates, 1870 – Jefferson Maryland." Accessed June 1, 2023. https://www.ancestry.com/imageviewer/collections/7163/images/4269475_00439?treeid=&personid=&rc=&usePUB=true&_phsrc=wQY527&_phstart=successSource&pId=23510732

45 John H. Rench, "L Keeper No. 29, Note to Wm. A. P. Gorman [sic], March 15, 1873," (C&O Archive: 046 50.89, Lander's Boat Ramp and Lockhouse No. 2, 1873, 1952, 1999-2001 (1 of 2).

46 John H. Rench, L Keeper No. 29, "Note to Wm. A. P. Gorman [sic], July 20, 1873", (C&O Archive, 046 50.89 Lander's Boat Ramp and Lockhouse No. 2, 1873, 1952, 1999-2001 (1 of 2).

47 "Population Estimates, 1870 – Jefferson Maryland," 5.

48 U.S. Census Bureau, "Population Estimates, 1880 – Jefferson Maryland." Accessed June 1, 2023.

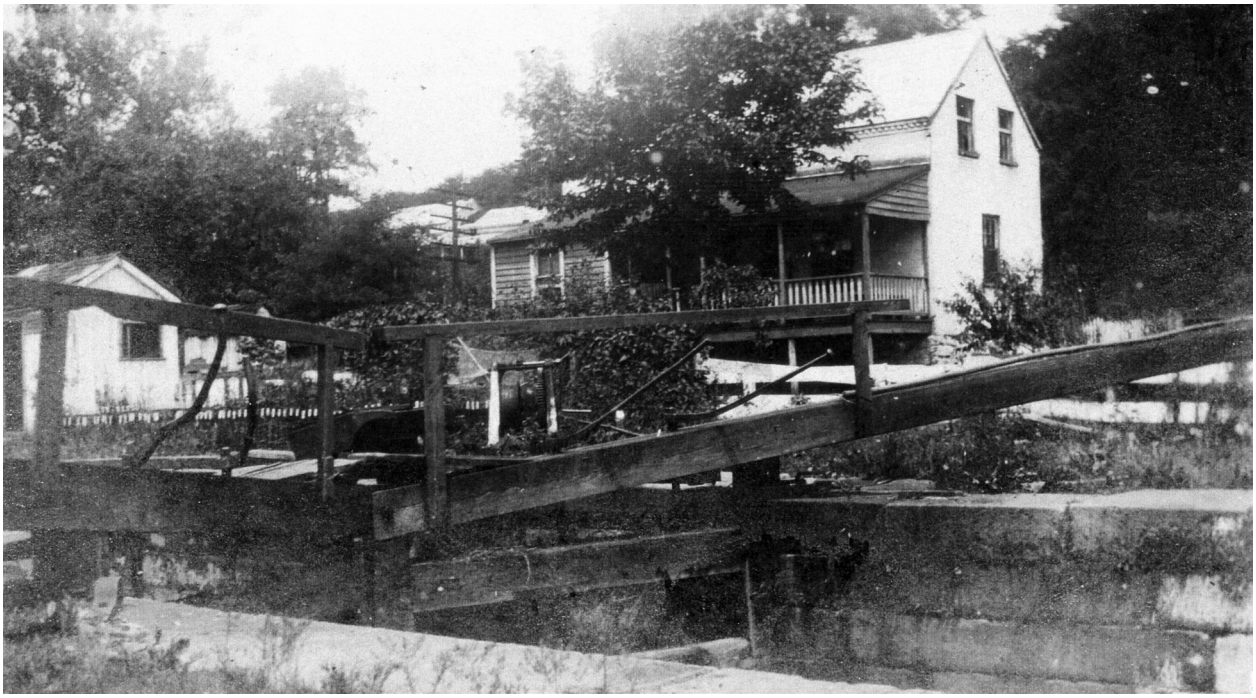


Figure 2.9. Lock #29 - Lockhouse, southwest oblique, ca. 1920 (Park Headquarters, Chesapeake & Ohio Canal National Historical Park, Williamsport, Maryland.)

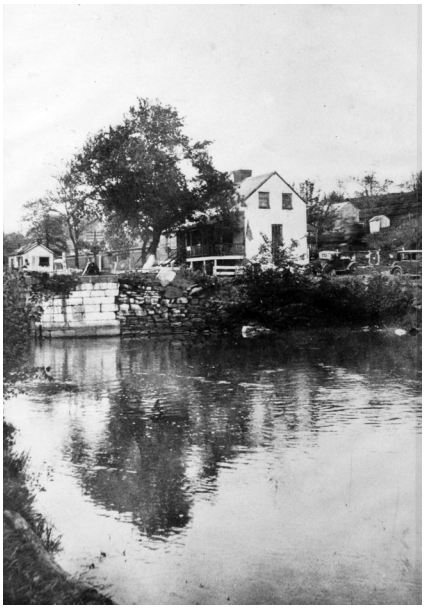


Figure 2.10. Lockhouse - Lock #29, southwest oblique, ca. 1920. (Park Headquarters, Chesapeake & Ohio Canal National Historical Park, Williamsport, Maryland)

increasingly obsolete as a commercial entity . . . The canal was effectively neglected upstream of Lock 5.[49]

It is difficult to understand Lockhouse #29's history without first understanding the relationship between the house and the Potomac River. Sitting on a 50-year flood plain, the house was in constant danger of flooding. The entire C&O Canal did not fare much better (See Appendix E). Flooding was the primary reason for the failure of the C&O Canal Company.[50] Money spent either proactively or reactively drained their ability to not only make a profit, but to function on a day-to-day basis:

> We are again in the midst of Trouble, Everything we have been doing the Last 6 weeks have been swept a way [sic]; and we may as well & Better have burn [sic], the money we have expended on this portion of the Canal; The whole canal is now under water; This is discouraging; I am discouraged after night & day for the Last 6 weeks to restore the navigation; and Just as it was Ready for the Trade, to entirely be swept away. [51]
>
> *W. S. Elgin, maintenance superintendent, to James M. Coale, president of the C&O Canal Company. 25 November 1847.*

With this in mind, it is easy to see why the canal and all of its assets declined. The C&O Canal entered into receivership in 1889 with the B&O Railroad acting as court-appointed reciever. As receivers, B&O was not the owner of the Canal and had no interest in keeping the canal open, they were only attempting to

49 "Our Only Alma Mater: The CCC and the C&O Canal – History Study," 47.

50 David Oboler, "Historic Structure Report, Architectural Data Section," (National Park Service, April 1979, 128.

51 Written shortly after renewed flooding destroyed just-completed repairs of an earlier flood the month before.

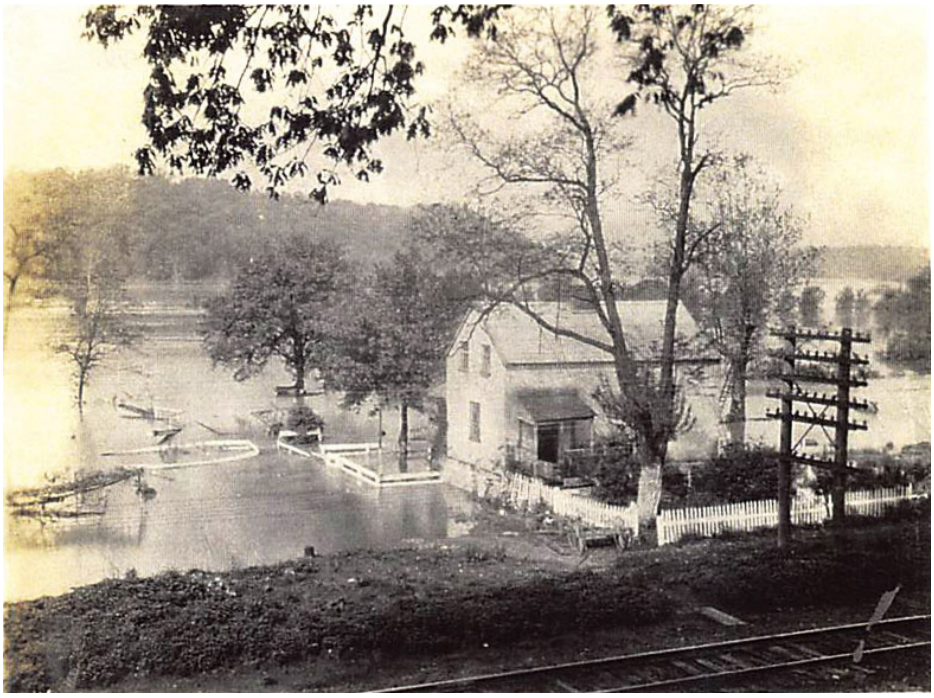


Figure 2.11. Lockhouse - Lock #29, photograph taken during the flood of 1924. (Park Headquarters, Chesapeake & Ohio Canal National Historical Park, Williamsport, Maryland.)

stop their commercial competitors from seizing it. In the end they were required by the court to use it or face a court-ordered sale.[52] Additionally, the state of Maryland, the canal company's biggest supporter and the second largest stock owner behind B&O Railroad, finally gave up on the C&O Canal and sold all of their stock in 1904.[53]

To visualize what the Crosses found in 1917 upon moving into Lockhouse #29, two photos taken prior to the 1924 flood shows the west side of the building and the canal in operation, and the lock tender's shack located nearby (Figures 2.9, 2.10).

By the turn of the twentieth century, turnover at Lockhouse #29 became a common occurrence. The following is a list of the last the lockkeepers and inhabitants at Lockhouse #29:

- 1900 – Charles W. Grove, his wife Florence, sister-in-law Elizabeth Waver, and Grove's three children. [54]
- 1905 - Brigham Young. [55]
- 1910 - Noble O. Dean, his wife Nettie, and their three daughters. [56]
- 1917 - Lewis "Bugs" Cross, his wife Mamie and their daughter Lavenia.[57]

52 Donald R. Shaffer, "We Are Again in The Midst of Trouble," (Chesapeake and Ohio Canal National Historical Park, National Park Service, July 1997), 7.

53 "Our Only Alma Mater. " 48.

54 U.S. Census Bureau, "Population Estimates, 1900 – Jefferson Maryland." Accessed June 1, 2023.

55 Unknown, "Shot His Toes Off, Youth Suffers Badly by Accident," (Hagerstown Mail, Hagerstown, MD. January 20, 1905).

56 U.S. Census Bureau, "Population Estimates, 1910 – Jefferson Maryland." Accessed June 1, 2023.

57 Lavenia Waskey, "C&O Canal Memories," (Lander Community Association, 1972), 9.



Figure 2.12. Lock #29 - Lockhouse, west elevation, 1933. (Historic American Building Survey)

Cross continued to be the locktender until a massive flood struck the canal in 1924, and the already struggling canal company, unable recover from the damage, closed to commercial traffic.[58] The 1924 flood brought more than five inches of rain to Harper's Ferry in a 26-hour period.[59] The Potomac River rose at the rate of two inches an hour, and reports were that flood waters reached an estimated 20 feet in some areas.[60] The B&O Railroad tracks were under water for miles around Lander. Holiday cabins located along the river near Lockhouse #29 were washed away, forcing campers to seek higher ground.[61]

Although the flood caused severe damage to sections of the canal, Lockhouse #29 was only slightly damaged with water reaching the basement and the edge of the west porch.[62] A photo of Lockhouse #29, taken during the 1924 flood shows encroaching water around the house and yard (Figure 2.11). It confirms the requested picket-fence was indeed built, and was present in 1924. The front, or river side, of the yard was enclosed in a rail fence.

After the canal closed, Cross and three other lock tenders were allowed to rent their lockhouse and one acre of land for $1 per year.[63] Rent on Lockhouse #29 would eventually rise to $5 and then $20 per year, payable quarterly.[64] That was

58 Unknown, "History of the Canal," (C&O Canal Trust, n.d.). Accessed March 21, 2023. https://www.canaltrust.org/about-us/about-the-co-canal/history/

59 Unknown, "Harper's Ferry Bridge is Wrecked by Floods, More than Five Inches of Rainfall Reported in the Town in 26 Hour Period," (Frederick Post, Frederick, MD. May 15, 1924).

60 Unknown, "Flood Waters at Peak in County Sunday Midnight," (Frederick Post, Frederick, MD. March 31, 1924).

61 Unknown, "40 Buildings at Point of Rocks Under Water; Johnstown Flood Record Passed," (Frederick Post, Frederick, MD. April 14, 1924).

62 Lavenia Waskey, "C&O Canal Memories," (Lander Community Association, 1972),18.

63 Lefty Kreh, "Out of Doors with Field & Stream," (Frederick News Post. February 22, 1957).

64 Unknown, "Lockhouse 329 at Catoctin – A Brief," (Lander Community Association. n.d.).

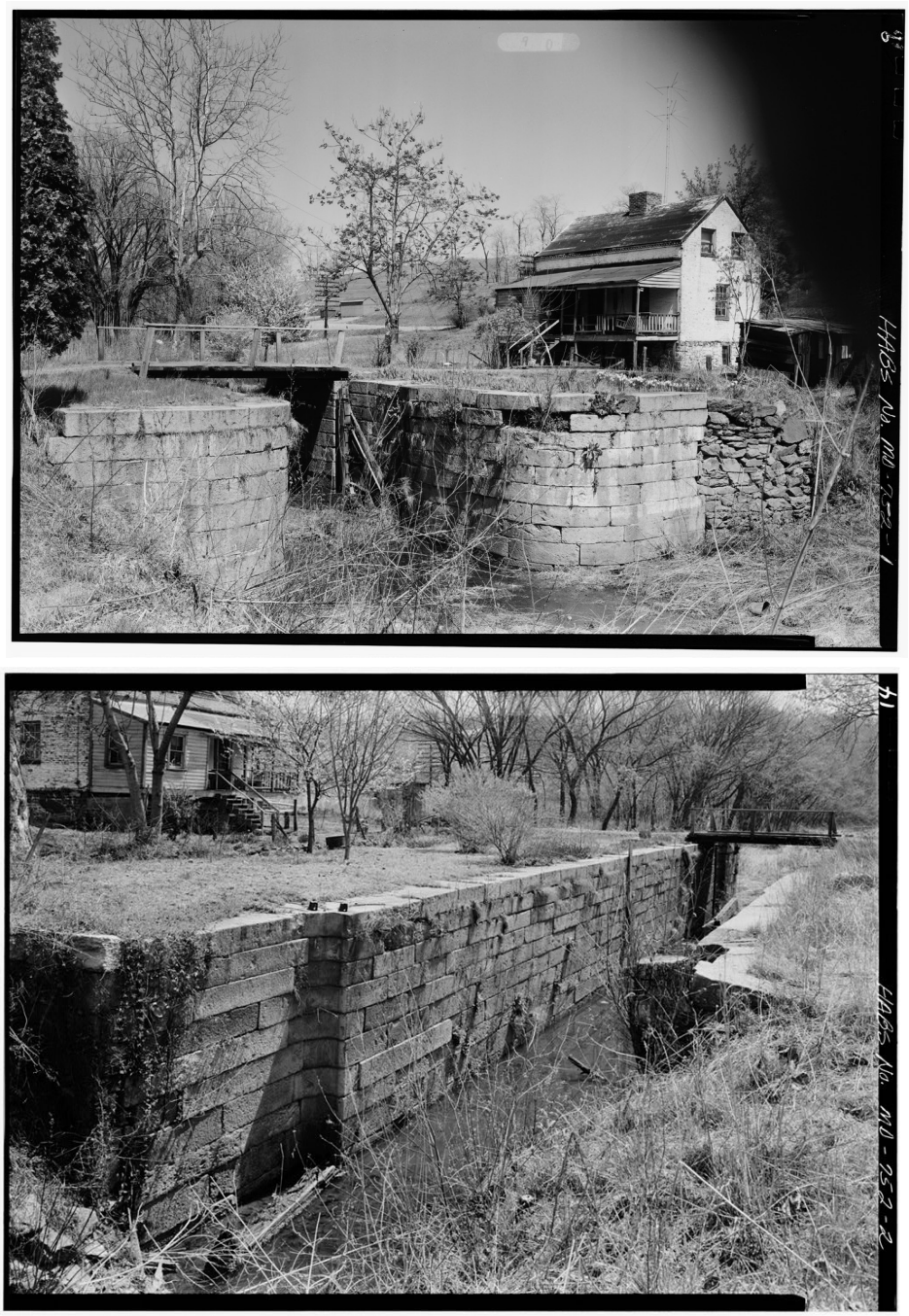


Figure 2.13. (upper) Lock #29 and Lockhouse - southwest oblique, (lower) Lock #29 with lockhouse - northwest oblique. (Historic American Building Survey-1933)

not the great deal it appears to be today. In 1924 the "locks and lockhouse had deteriorated into a hopelessly unusable condition . . ."[65]

By 1933, Lock #29 had changed somewhat. The canal and lock were overgrown with tall weeds and saplings and the nearby lockhouse was still in poor condition (Figures 2.12, 2.13). Just beyond the lock was a baseball diamond with viewing stands and a concession stand.[66] The lockkeeper's shack was gone,

65 "A Study of the History of the Potomac River Valley," 132.

66 "Shared Recollections of Life in Lander and other Western Maryland River, Canal, Rail, and Trail Communities," 75.



Figure 2.14. (left and right) Lockhouse #29 surrounded by 1936 flood. (Courtesy of Pepper Scotto)

and a few vacation cottages continued to line the river.[67]

In March 1936, those living along the remains of the C&O Canal experienced a flood, larger and more damaging than the 1924 flood. Heavy snow runoff combined with two days of rain, sometimes at the rate of six inches in 48 hours, contributed to the flood.[68] It was estimated that the water depth reached up to 17 feet. The entire canal was flooded or experienced damage.[69] Lockhouse #29 was badly flooded. Photographs taken at the height of the flood shows Lockhouse #29 completely surrounded by water (Figure 2.14).[70] One eyewitness account said, "The 1936 flood was a disaster … the water nearly reached the second floor" of Lockhouse #29.[71] Ultimately the flood reached way beyond Lockhouse #29, over the railroad tracks, only to be stopped by the berm that lined the east side of the tracks. Flood damage estimates were as high as $9.5 million.[72]

As the 1930s progressed, a number of uses for the canal were proposed. Congress authorized the money to purchase the canal up to Point of Rocks, and in 1930 Congress passed the Capper-Cramton Act which was meant for the purchase of the canal, but the purchase was stopped by the Great Depression. It wasn't until August 6, 1938 that the federal government purchased the entire canal for $2 million.[73] It was placed under the care of the Department of the

67 Jack E. Boucher, Photograph - Chesapeake & Ohio Canal, Lockhouse at Lock 29, (Historic American Buildings Survey, Lander, Frederick County, MD. Maryland, 1933). Accessed January 25, 2023. https://www.loc.gov/item/md0686/.

68 Unknown, "Great Potomac and Susquehanna Flood of 1936, March 17-19," (National Weather Service, n.d.). Accessed June 26, 2023. https://www.weather.gov/safety/flood-states-md

69 "Great Potomac and Susquehanna Flood of 1936, March 17-19."

70 Unknown, Photograph, Courtesy of Pepper Scotto, 1936.

71 Lavenia Waskey, "C&O Canal Memories," (Lander Community Association, 1972).

72 "Great Potomac and Susquehanna Flood of 1936, March 17-19"

73 "Our Only Alma Mater," 47.



Figure 2.15. Lockhouse #29, west elevation, "Bugs" and Mamie Cross (on porch), Lavenia Cross (on steps), ca.1930. (Courtesy of Pepper Scotto)





Figure 2.16. (upper) "Bugs" Cross at fishing cottage on the Potomac River near Lock #29 (Park Headquarters, Chesapeake & Ohio Canal National Historical Park, Williamsport, Maryland.).(lower) Cross fishing boat fleet, 1959.

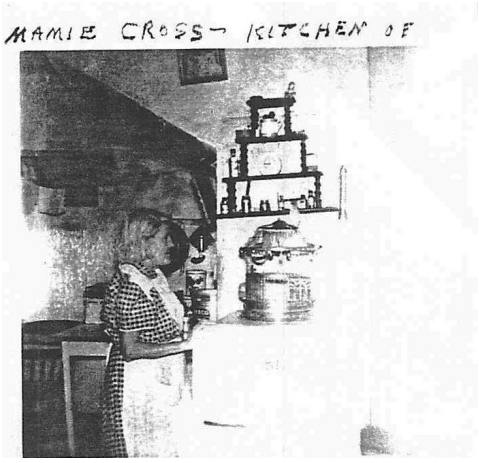


Figure 2.17. First known photo of the interior of #29. looking west. Mamie Cross in R102. (Courtesy of Pepper Scotto)

Interior.[74] By November of 1939, sections of the canal were opened to the public for recreational purposes.[75]

After the canal closed, Lewis "Bugs" Cross transitioned smoothly to operating a boat rental and fishing business (Figure 2.16). This supported him and his family for the rest of their lives. He and his wife Mamie were short of stature but quite the local characters (Figure 2.15). One local resident said of Bugs:

> He would have a dollar a year rent to pay for it … The old man would get up … and he'd either walk it, hook a ride on the train. I have known him to put his ice skates on and go skating down the canal [to carry the rent to D.C]." [76]

The condition of the C&O Canal got progressively worse until 1939 when a Civilian Conservation Corps (CCC) camp (NP-2-MD) was built at Carderock Maryland. The camp was manned with up to 200 young men whose job it was to clean

74 "The Chesapeake and Ohio Canal," 7.

75 Unknown, "Restored C&O Canal to Contrast with Earlier Days," The Sun (Baltimore, MD), Nov. 6, 1938. 16.

76 Richard F. Hale, George Lewis, "Lander Reunion." 161.

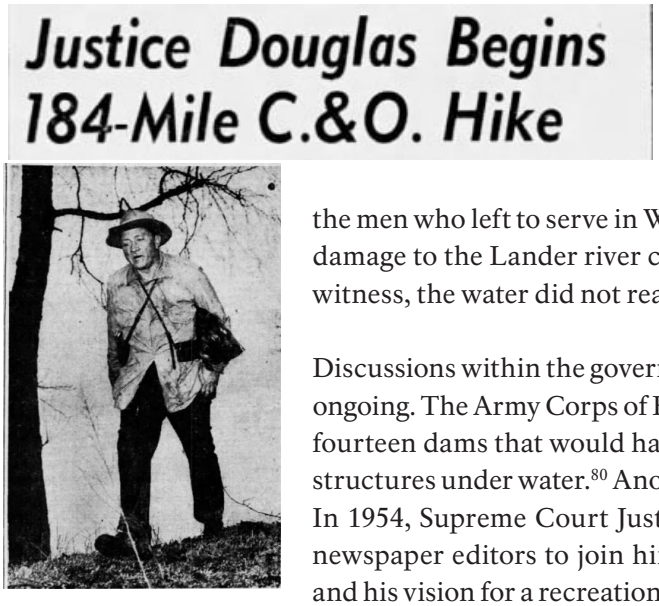

Justice Douglas Begins
184-Mile C.&O. Hike

Figure 2.18. Supreme Court Justice William O. Douglas walks the C&O Canal, March 17-30, 1954 (The Evening Sun)

up the canal. Camp NP-2, along with Camp NP-1, were responsible for restoring the first twenty-two miles of the canal, while earning $30 a month ($25 was sent to their families). Work continued until it was disrupted by the loss of the men who left to serve in World War II.[77] Another flood in 1942 caused heavy damage to the Lander river cabins and baseball field,[78] but according to an eye witness, the water did not reach as high at Lockhouse #29 as it did in 1936.[79]

Discussions within the government about what to do with the C&O Canal were ongoing. The Army Corps of Engineers put forth a flood prevention plan to build fourteen dams that would have left a good portion of the canal and its historic structures under water.[80] Another idea was to build a parkway along the canal.[81] In 1954, Supreme Court Justice William O. Douglas challenged Washington newspaper editors to join him in walking the canal to see the natural beauty and his vision for a recreational area open to all (Figure 2.18). The walk changed some minds, made headlines, and began years of activism and lobbying for the canal to become a park.[82] In 1961 President Dwight D. Eisenhower proclaimed the C&O Canal to be a National Monument under the Antiquities Act.[83]

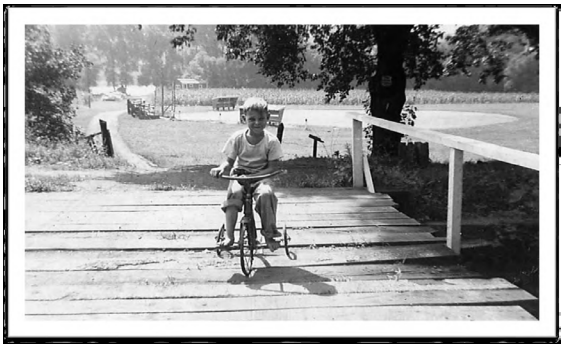


Figure 2.19. Unknown child playing on the wooden bridge over the canal, with Lander baseball field in background - located between the canal and the Potomac River. (Courtesy of Pepper Scotto)

77 Unknown, "The Civilian Conservation Corps," (National Park Service, n.d.). Accessed June 26, 2023. https://www.nps.gov/choh/learn/historyculture/civilianconservationcorpsccc.htm

78 Unknown, "Relief from Heat on Way After A 94," (The News, Frederick Maryland. June 22, 1949). Accessed December 20, 2022. Newspaper.com

79 Lavenia Waskey, "C&O Canal Memories," (Lander Community Association, 1972), 19.

80 Unknown, "The Parkway Proposition," (National Park Service, October 11, 2004). Accessed June 27, 2023. https://www.nps.gov/parkhistory/online_books/choh/admin_history/history4.htm

81 Unknown, "The Parkway Proposition," (National Park Service, October 11, 2004). Accessed June 27, 2023. https://www.nps.gov/parkhistory/online_books/choh/admin_history/history4.htm

82 Mary H. Rubin, "The Chesapeake and Ohio Canal," (Arcadia Publishing, Charleston S.C. 2003), 8.

83 Unknown, "The Park Campaign," (The National Park Service, October 11, 2004). Accessed June 27, 2023. https://www.nps.gov/parkhistory/online_books/choh/admin_history/history5.htm

The village of Lander began to change in the late 1950s and 1960s. Located between Lockhouse #29 and the Potomac River were the baseball field, farm fields, and fishing cabins (Figure 2.19).[84] At the river there were 85 boats in Cross's fishing fleet, 16 of which he owned (Figure 2.16).[85] In 1957, Cross' wife Mamie died (Figure 2.17). In 1958 the Lander Post Office closed, leaving only the general store, residential, and farm structures in the Lander area. In 1966 the Lander general store closed.[86]

Beginning in 1961, the NPS began to work on Lockhouse #29 to create NPS storage and office space.[87] Cross lived on the first two floors with NPS storage in the basement until his death at Frederick Memorial Hospital in 1962.[88] The Crosses' raised four children and lived in Lockhouse #29 for 45 years. Their belongings were auctioned off in June 1962. [89]

After Cross's death, the first-story rooms were used as a "temporary public contact station." for an unknown period of time.[90] By 1963, a metal NPS maintenance outbuilding was placed north of the house (Figure 2.20).[91] NPS use of Lockhouse #29 continued until 1971.[92] In 1971, after years of lobbying, Congress authorized the acquisition of more land to add to the already



Figure 2.20. Lockhouse #29, southwest oblique. NPS metal maintenance structure visible north of the house. (Park Headquarters, Chesapeake & Ohio Canal National Historical Park, Williamsport, Maryland.)

84 "Richard F. Hale," (Lander Reunion), 147.

85 Lefty Kreh, "Out of Doors with Field & Stream," (Frederick News Post. February 22, 1957).

86 "Crossroads - Lander."

87 "Richard F. Hale," Lander Reunion. 172

88 Unknown, "Bugs" Cross Dies," (Frederick Post, Frederick MD, May 23,1962).

89 Unknown, "Public Sale," (Frederick Post, Frederick MD. June 21, 1962) .

90 Unknown, "Environmental Assessment, Lander Improvement Project, NPS April 10, 1998," (CHOH Archive, 046 50.89 Lander's Boat Ramp and Lockhouse No. 2, 1873, 1952, 1999-2001 (1 of 2).

91 Unknown, "Fixed Property Record," (National Park Service. July 31, 1963, C&O NHP Archive. 042 50.89 Lockhouse No. 29, 1975-2001 (3 of 3).

92 "Historic Structure Report, Architectural Data Section," 9.



Figure 2.21. Lockhouse #29, northeast oblique. Flood lines visible, with the north wall brick wicking water halfway up W102.2. (Park Headquarters, Chesapeake & Ohio Canal National Historical Park, Williamsport, Maryland.)

existing C&O National Monument, and to create the Chesapeake & Ohio Canal National Historical Park.[93] That same year, C&O Canal was listed in the National Register of Historic Places with Lockhouse #29 identified as a contributing resource.[94]

The early 1980s saw little change at Lockhouse #29. Internal NPS documents confirm that "Due to past park budget constraints and higher priority access points, only limited maintenance has been done by the park [at Lockhouse #29]."[95] In 1983 the metal maintenance building located north of Lockhouse #29 was moved to another site in the park.[96] The 1990s brought other challenges as well. The C&O Canal was hit with two major floods in 1996. Multiple photographs show a water line up to the middle of the first story window on

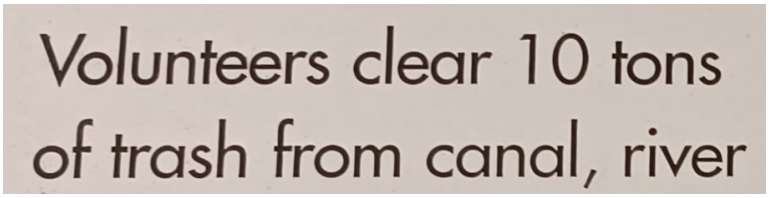

Volunteers clear 10 tons
of trash from canal, river

Figure 2.22. *The Frederick Post* headline - Lander Volunteers work to clean Lock #29 and surrounding site. (*The Frederick Post*, March 30, 1998)

93 Phillip S. Romigh, Barry Mackintosh, "History, Chesapeake and Ohio Canal National Register Nomination," (National Park Service. 1979 (Updated 2020), 6.

94 Ibid. 46.

95 Unknown, "Environmental Assessment," (C&O Canal NHP. April 10, 1998, C&O NHP Archive, 046 50.89 Lander's Boat Ramp and Lockhouse No. 2, 1873, 1952, 1999-2001 (1 of 2).

96 Unknown, "The Lander Shop Relocation, Along the Towpath Vol.6 #4," (Chesapeake and Ohio Canal Association. April 1983). Accessed January 23, 2023. https://candocanal.org/atp/1983-04.pdf

the north wall (Figure 2.21). A photo of the east wall confirms that water, at approximately one to two feet above the first-story level, entered the building. [97]

Local residents began to express an interest in Lockhouse #29 in the 1990s (Figure 2.22). They held a community clean-up day where "Volunteers clear 10 tons of trash from the canal and river . . . When they were through, the trash trucks were full of refrigerators, plastic barrels, tires, and construction scrap."[98] Community leaders Bob and Lana Brust (granddaughter to Bugs Cross) and Dr. George Lewis, formed the Lander Community Association (LCA) in 1998.[99]

The NPS and the LCA entered into an agreement sometime in 1999 where LCA would rehabilitate the interior of #29, and the NPS would rehabilitate and maintain the exterior of the building.[100] Project planning began in 1999 with the majority of the work taking place in 2000 and 2001. Local volunteers worked every Sunday for nearly a year rehabilitating the inside of Lockhouse #29.[101] In May of 2001, Lockhouse #29 opened on Saturdays for tours with local resident docents telling visitors the story of the canal and life at Lockhouse #29.[102] By the end of 2001 the exterior rehabilitation was complete with the addition of the west rail fence and the east picket fence.



Figure 2.23. C & O Canal Trust logo. (https://www.canaltrust.org/)

In 2007 the non-profit C&O Canal Trust was founded as a partner to the NPS (Figure 2.23). Their goal is aiding the NPS in raising funds to preserve Chesapeake &Ohio Canal National Historical Park.

In 2018 Lockhouse #29 was closed to visitors. Lockhouse #29 is currently vacant and maintained by the NPS.

97 Photograph, April 1, 1996, (C&O NHP Archive. 043, CHOH, 50.89 Lockhouse No. 29 Photographs, 1987-2000).

98 Julia Robb, "Volunteers clear 10 tons of trash from canal, river," (Frederick Post, Frederick, MD. March 30, 1998, C&O NHP Archive, 042 CHOH 50.89 Lockhouse No.29, 1975-2001 (3 of 3).

99 Pepper Scotto, in conversation with the author, August 7, 2023.

100 Unknown, "Agreement between Lander Community Association (LCA) and CHOH," (National Park Service, n.d., C&O NHP Archive: 042, CHOH, 50.89, Lockhouse No 29, 1975-2001 (3 of 3).

101 George Lewis, "Lander Reunion," 208.

102 Karen Gardner, "Lander Lockhouse, A Look at C&O Canal history," (Sunday Star, September 28, 2003). Accessed September 12, 2022. Newspapers.com

III. CHRONOLOGY OF DEVELOPMENT AND USE

Chronology of Development and Use

OVERVIEW

Despite its long history, Lock #29 - Lockhouse (Lockhouse #29) has only had two owners – The C&O Canal Company and the federal government. Its status as a rental property ensured that many times only the bare maintenance would be performed. No structural remodeling was likely at any of the canal's lockhouses. Lockhouse #29's biggest threat has always been the flooding of the Potomac River. The Potomac has flooded 144 times between 1828 to 1996, and although Lockhouse #29 was not affected by many floods, the few it did experience were very serious.[1] Some of the original building fabric has been replaced many times. With all of that in mind, it is remarkable that so much original building fabric is intact.

Lockhouse #29 has survived four of the five eras defined in this report. The first era begins with Pre-Contact and ends with early migration to the Potomac Valley. The second era begins in 1823 when a convention was held to attract investors in the C&O Canal, and ends in 1924 when the canal was no longer used by commercial traffic. The third era ends when the last lockkeeper at Lockhouse #29 died in 1962. The fourth era begins with the active use and maintenance of the structure by the NPS and ends with the closing of Lockhouse #29's museum. The final era covers the time since the museum closing to the present day.

This chronology uses multiple source types to assist in the understanding of how the building has evolved throughout its history. Through the process of analyzing historic drawings, photographs, and C&O Canal records it is possible to track physical changes and use within the site and building envelope.

Each element and room within the building has been assigned an identifier which has been notated on floor plan drawings found in Appendix A.

1 Donald R. Shaffer, "We are Again in the Midst of Trouble, Flooding on the Potomac River and the Struggle for Sustainability of the Chesapeake and Ohio Canal, 1828-1996," (Park Headquarters, Chesapeake & Ohio Canal National Historical Park, Williamsport, Maryland) 126.

INTRODUCTION

In 1823, the state legislatures of Maryland, Virginia, and Pennsylvania passed the act that enabled the creation of the C&O Canal.[2] The building of the canal greatly changed the farming culture of the area surrounding Lock #29. There were not enough potential canal workers living in the Potomac Valley in 1823, which in effect, forced the importation of skilled, indentured labor from Ireland. Enslaved laborers were, at times, also used in the construction of the canal.[3]

The building of the C&O Canal was challenging and expensive, and this was particularly so when it came to the lockhouses. The original plan was to build all of the required lock houses at one time starting in 1828.[4] By 1834 the canal itself was nearing completion to Harper's Ferry, but they had nowhere for remaining eleven lock tenders to live. They did not have enough money to build permanent housing so in 1834 they built temporary lockhouses.[5] The temporary lockhouse at Lock #29 was made of logs or wood planks. Its permanent lockhouse was built in 1836–1837.[6]

The C&O Canal continued to struggle with damaging floods, money challenges, labor issues, and competition from the B&O Railroad well into the twentieth century. A flood in 1889 finally forced the C&O Canal Company into receivership. [7] A final blow came with the flood of 1924 whose damage was severe enough to close the canal to commercial navigation.[8] In 1938 the federal government purchased the canal.[9]

The last Lock #29 tender, Lewis "Bugs" Cross and his wife, remained on as a tenants until their deaths, his being the last in 1962.[10]

2 Unknown, "Laws of the United States," (Rhode Island Republican. September 3, 1812). Accessed December 19,2022. Newspapers.com

3 Walter S, Sanderlin, "A Study of the History of the Potomac River Valley," (National Park Service. October 1967), 58.

4 David Oboler, "Historic Structure Report, Architectural Data Section," (National Park Service. April 19790), 5.

5 Harlan D. Unrau, "Historic Structure Report, The Lockhouses, Historical Data, MD-DC-WV," (National Park Service. May 1978), 5.

6 David Oboler, "Historic Structure Report, Architectural Data Section," 8.

7 Ibid. 128.

8 Unknown, "History of the Canal," (Canal Trust, n.d). Accessed April 11, 2023. https://www.canaltrust.org/about-us/about-the-co-canal/history/

9 Mary H. Rubin, "The Chesapeake and Ohio Canal," (Arcadia Publishing, Charleston S.C. 2003), 7

10 Unknown, "Bugs" Cross Dies," (Frederick Post, Frederick MD, May 23,1962).

1823 to 1924

The lockhouses of the C&O Canal were built as true vernacular structures. They were fashioned after local architecture using local materials. The second group of eleven lockhouses was designed by C&O Engineer Charles B. Fisk and built in 1836.[11] They were constructed from a slightly different design, in that they had beefier specifications for stone foundations, and brick or wood walls, resulting in bigger more functional basements.[12] The two types of lockhouses had slightly different floor plans. (See Appendix A) Interestingly enough, although Lockhouse #29 was built during type #2 construction, its basic design (not including Lockhouse #29's full basement), with its central chimney, is more like the type #1 design. Lockhouse #29 was finished in May of 1837 for $950.



Figure 3.1. Lockhouse #29, southwest oblique showing summer kitchen on west porch, 1958. (Park Headquarters, Chesapeake & Ohio Canal National Historical Park, Williamsport, Maryland)

One possible exception to the uniform design mentioned above was the west elevation's summer kitchen located on the northwest corner of its full-length porch (Figure 3.1). Most of the lockhouses did not have a full, canal-side porch; and although no evidence was found to support the theory, some believe a summer kitchen was located on the porch as part of the original design.[13] There is however, no way of confirming or rejecting the theory as there are no images or drawings of Lockhouse #29 prior to the early twentieth century.

Little is known of Lockhouse #29's architectural history until 1866 when C&O Company records report that the "lockhouses apparently needed substantial maintenance." Maintenance had been delayed for over ten years. There were two separate renovation projects that took place at Lockhouse #29: one in 1869, and another in 1885. There are no known records of what work was completed during the 1866 renovation, but the 1889 renovation included roof, window, and porch repairs.[14] As has been stated earlier, it was well known that the lockhouses were deteriorated and in "a hopelessly unusable condition." [15]

There are several ca. 1920 images of Lock #29 and the lockhouse prior to the canal's closing. They provide the first view of the house, its architectural elements, and their condition. The first photograph is taken of the southwest corner of the building.[16] Most, if not all, of the lock apparatus is visible in the foreground. A lockkeeper's shanty and a small outbuilding are located northwest of the house. The summer kitchen is visible on the full-width, west

11 "Historic Structure Report, The Lockhouses, Historical Data, MD-DC-WV," 15.

12 Thomas Swiftwater Hahn, "The Chesapeake & Ohio Canal Lock-Houses & Lock-Keepers," 4.

13 David Oboler, "Historic Structure Report, Architectural Data Section," 8.

14 Ibid. 8.

15 Walter S, Sanderlin, "A Study of the History of the Potomac River Valley," (West Virginia University, 1996), 132.

16 Photograph, Lockhouse #29, National Park Service, Archive.

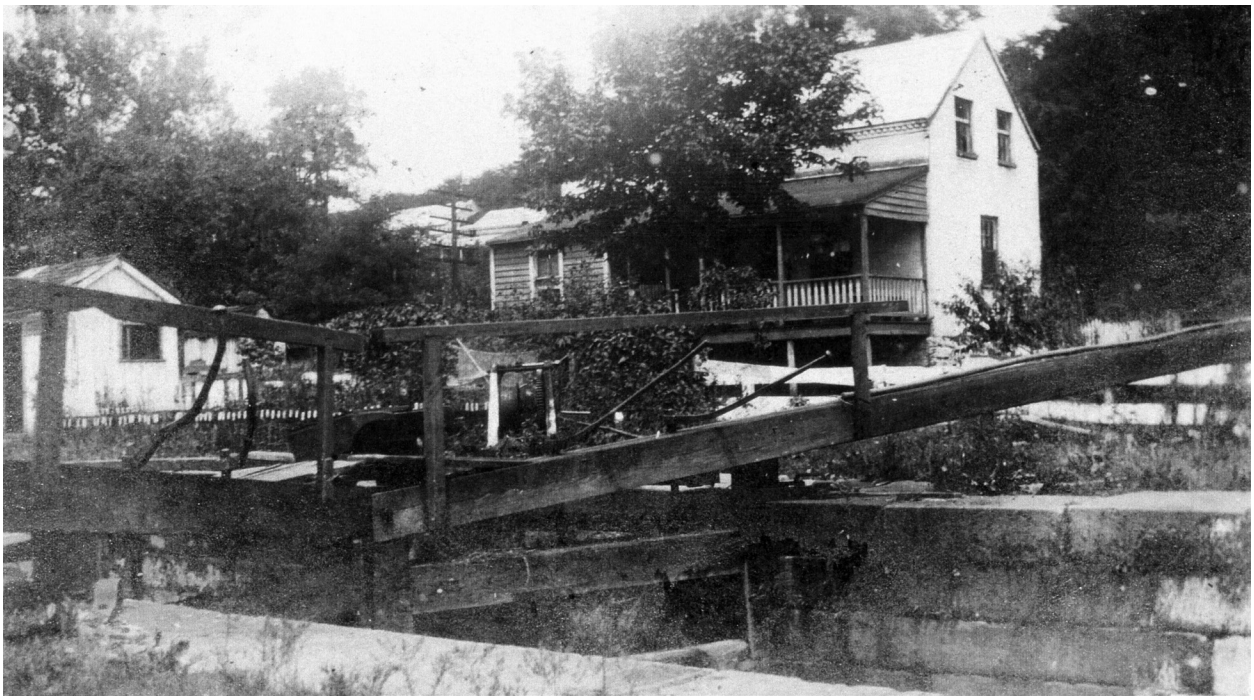


Figure 3.2. Lockhouse #29, c. 1920, southwest oblique, showing lock apparatus, lockkeepers shanty, and a small outbuilding. (Park Headquarters, Chesapeake & Ohio Canal National Historical Park, Williamsport, Maryland)

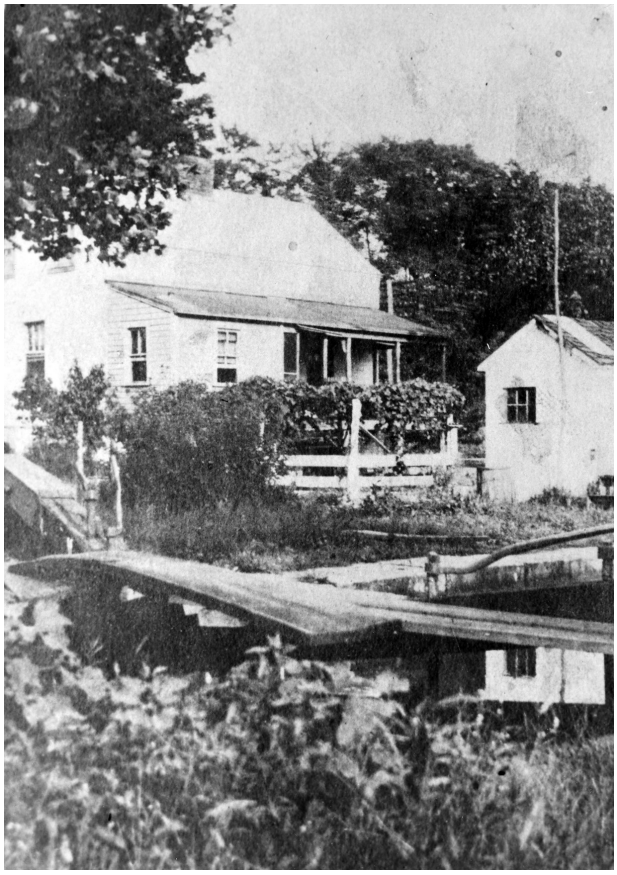


Figure 3.3. Lock #29 - Lockhouse, 1919, northwest oblique, detailing lock apparatus, lockkeeper's shanty, and summer kitchen. (Park Headquarters, Chesapeake & Ohio Canal National Historical Park, Williamsport, Maryland)

porch. The house appears to be in good condition with very little obvious maintenance needs. W202.1 and W202.2 are both filled with 3/6 wood sash. There are no gutters or downspouts on the west elevation (Figure 3.2).

A second photograph was taken of the northwest corner of the house and lock in 1919 (Figure 3.3). Because of the angle from which the photograph was taken, more details can be seen of the summer kitchen and lockkeeper's shanty. The summer kitchen is tucked under the north side of the west porch roof and is covered in wood siding. It contains a 2/2 north window opening, and a 2/2 west window opening. The shanty has a 6-light window on its north wall, and a door opening facing the lock on its west wall. The last of the photographs taken prior to the closing of the canal was taken of the south west corner of the house (Figure 3.4). W101.2 is visible and is filled with 6/6 wood sash. The roof was covered with tar paper.

The 1924 flood closed the C&O Canal to commercial navigation. One eye witness claimed that the water "stopped at the edge of the 'high' porch" of Lockhouse #29. Lavenia Waskey grew up in Lockhouse #29 and she recalled:

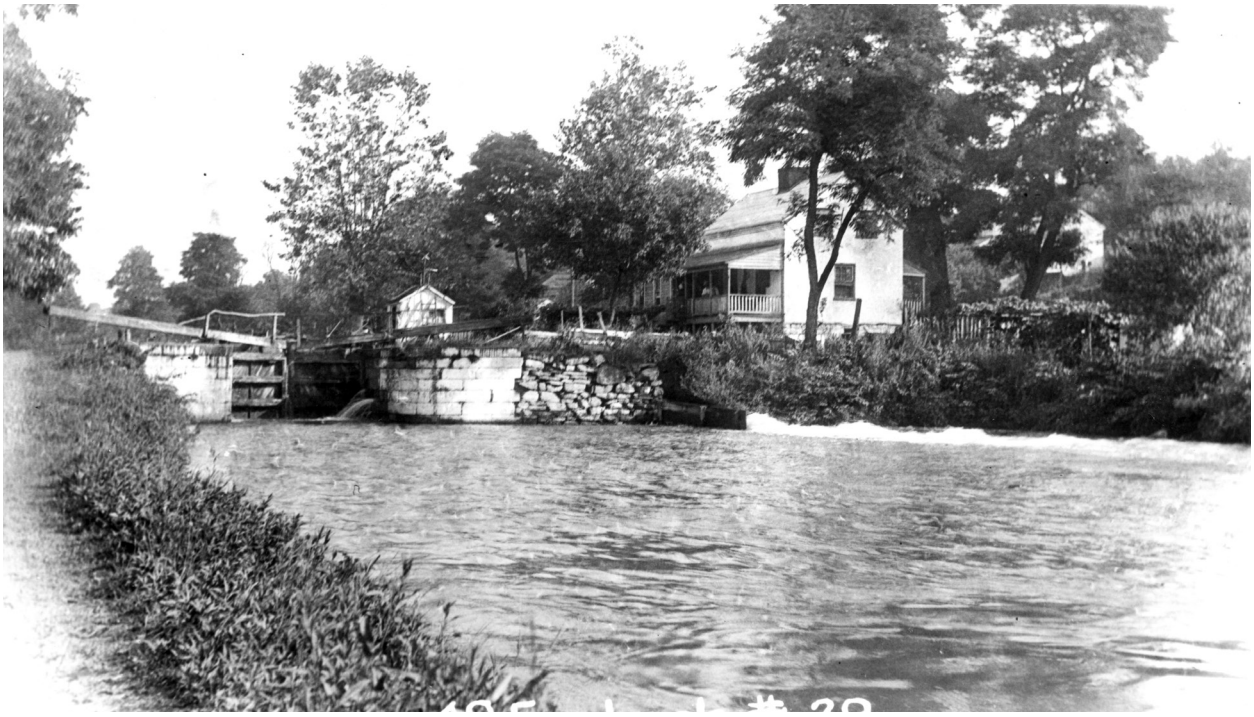


Figure 3.4. c. 1920, Lockhouse #29, south west oblique. Note the canal equipment and the operating flume on the right. (Park Headquarters, Chesapeake & Ohio Canal National Historical Park, Williamsport, Maryland)

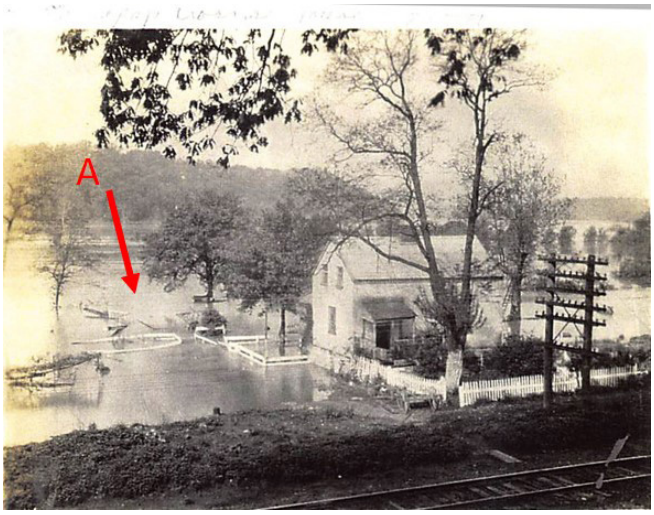


Figure 3.5. Lockhouse #29 in 1924 flood. (Courtesy of Pepper Scotto)

> The floods damaged the canal and lockhouses, so that all transportation was ended forever on the C&O. I recall the damage it had done to our lockhouse No-29. I helped my parents to clean out the house after the water had receded to about six inches on the floors. We waded in with high boots to shovel and sweep out the inches of mud and water. We did this as the river was slowly falling.[17]

There were 144 floods on the Potomac between the years of 1828 and 1996 (See Appendix E).[18] It is unknown how many of these actually flooded Lockhouse #29, but if only a fraction of them flooded the house like the 1924 flood did, it is easy to see how much damage the house has sustained since it was built.

A photograph was taken of the southeast corner of the house during the 1924 flood (Figure 3.5).[19] W101.2, W202.1, and W202.2 are all visible. Both upper windows contain 3/6 sash windows, while W101.2 contains 6/6 sash windows. The brick above the porch at D101.1 is visibly very wet. The baseball field dugout (A) located west of the house is visible in the background. The west yard is enclosed by a rail fence, and the east yard is encircled by a picket fence.

17 Lavenia Waskey, "C&O Canal Memories," (Lander Community Association. 1972), 17.

18 Donald R. Shaffer, "We are Again in the Midst of Trouble, Flooding on the Potomac River and the Struggle for Sustainability of the Chesapeake and Ohio Canal, 1828-1996," (University of Maryland, College Park, MD, July 1997), 126.

19 Photograph, courtesy of Pepper Scotto, Lander Community Association), 1924.

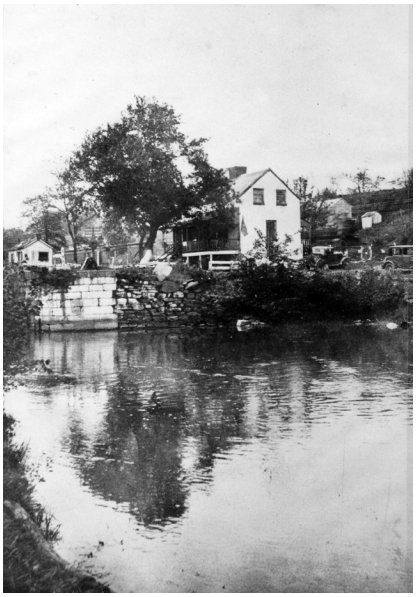


Figure 3.6. Lock #29 - Lockhouse, southwest oblique, ca. 1920. (Park Headquarters, Chesapeake & Ohio Canal National Historical Park, Williamsport, Maryland)

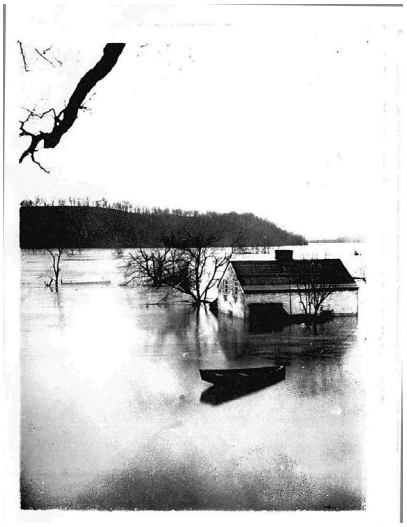


Figure 3.7. Lockhouse #29, southeast oblique, during 1936 flood. (Courtesy of Pepper Scotto)

Although the second photograph is taken from a farther distance, it reveals no new information.

1924–1962

A photograph shows that by 1932 most of the lock equipment had been removed and a wire fence encircled the east yard (Figure 3.6). The Historic American Building Survey (HABS) visited Lockhouse #29 in 1933. A west façade photograph shows Lockhouse #29 in poor condition (Figure 3.8).[20] The porch roof has a definite division between the porch section and the summer kitchen section, as if it they were constructed at different times. A homemade rain diverter is above the west staircase. The staircase pictured is nearly half the size of the stairs seen today. The porch balustrade is missing most of its pickets, leaving only the top and bottom rails in many places. The west porch is supported by four log posts. The roof on the house and porch is covered in tar paper. The summer kitchen is covered with wood siding that is in need of paint. Its west window contains 2/2 sash, and it too is in need of paint. The west yard is enclosed with a wire fence.

Another HABS photograph shows the house in the background of the canal (Figure 3.9). The summer kitchen north window is visible and is filled with 2/2 sash. W102.2 is visible with 6/6 sash. An outhouse is located directly south of the house. A third HABS photograph is of the south west corner of the house (Figure 3.10). W202.1 and W202.2 are visible and appear to have 1/1 sash. W101.2 contains 6/6 sash. Structural, stair-step brick cracks are visible above both second story windows. Another stair-step brick crack is visible above W001.1. The south, wooden, barge board is rotting and falling off the building.

Unlike the 1924 flood, the 1936 flood was particularly damaging at Lockhouse #29. An eye witness to the flood said, "The 1936 flood was a disaster . . . in that flood water nearly reached the second floor" of the house. A photograph taken at the height of the flood show the Potomac River at least twice its normal width.[21] Flood waters rose up to the top of the first-story (Figure 3.7).

Lockhouse #29 changed hands for the first and only time in 1938 when the federal government acquired the canal and all of its components.[22] Sections of the canal opened to the public in 1940. Maria Elana Waskey Brust, grandaughter of the last lockkeeper, Lewis "Bugs" Cross, spent a lot of time with her grandparents in Lockhouse #29. She was able to later describe details of the inside of the house. She said that the walls were painted with Calsomine, or whitewash. The remainder of her

20 Jack E. Boucher, Photograph - Chesapeake & Ohio Canal, Lockhouse at Lock 29, (Historic American Buildings Survey, Lander, Frederick County, MD. Maryland, 1933). Accessed January 25, 2023. https://www.loc.gov/item/md0686/.

21 Photograph, courtesy of Pepper Scotto, Lander Community Association, 1936.

22 Mary H. Rubin, "The Chesapeake and Ohio Canal," 7.



Figure 3.8. Lockhouse #29, west elevation, 1933 (Historic American Building Survey)



Figure 3.9. Lock #29, looking south, 1933. (Historic American Building Survey).



Figure 3.10. Lock #29 - Lockhouse, southwest oblique, 1933 (Historic American Building Survey)



Figure 3.11. Lock #29 - Lockhouse, south east oblique, 1957. (Park Headquarters, Chesapeake & Ohio Canal National Historical Park, Williamsport, Maryland)



Figure 3.12. Lock #29 - Lockhouse, south west oblique, 1958. (Park Headquarters, Chesapeake & Ohio Canal National Historical Park, Williamsport, Maryland)

description matches the way the house looks today.[23]

The quality of the 1957 photograph illustrate most of the problems Lockhouse #29 was experiencing at that time (Figure 3.11).[24] Structural, stair-step cracks are visible above all windows on the south wall, indicating failing lintels. W202.1 and 202.2 were filled with 1/1 sash, while W101.2 contains 6/6 sash. Extreme moisture conditions are visible on the entire upper east wall. Spotty brick efflorescence is visible on both the south and east walls. Both walls and the west porch are in need of paint. The mortar is failing on both the south west and south east upper corners near the roof. The barge board on the south wall is rotting and falling off the house. The lintel over W001.1 is rotting and the brick water table nearby is deteriorating. Pickets on the east porch are falling off and others are missing altogether. Lattice work enclosing the crawl space under the east porch is deteriorating and falling apart.

Bugs Cross' wife Mamie died in 1957.[25] The following year a photograph was taken of the southwest corner of Lockhouse #29 (Figure 3.12).[26] Its condition is very similar to that seen in the 1933 HABS photographs. The stairs on the west porch are narrower than those seen in the HABS photographs and have what looks like a temporary south handrail. In 1960 the house was appraised for $1,000. The house had electricity but no sewer or baths, and no heating or hot water. The roof was covered with tar paper. It was known at the NPS, at least on paper, as Building #5.[27]

A photograph taken in ca.1961 of the southeast corner of the house shows a very wet building (Figure 3.13).[28] The moisture that could be seen on the building in 1957 was still present in 1961, and during those four years the moisture problem became progressively worse. The moisture in 1961 was, once again located on the

23 George Lewis, Pepper Scotto, Kaitlyn Shorter, "Lander Reunion, Shared Recollections of Lifein Lander and other Western Maryland River, Canal, Rail, and Trail Communities," (Self-published, 2020), 6.

24 Photograph, "Lock House #29," (National Park Service Archive, 042 CHOH 50.89 Lockhouse No. 29, 1975-2001 (3 of 3).

25 Unknown, "Lock House 329 at Catoctin – A Brief," (Lander Community Association. n.d.)

26 Photograph, "Lock House #29," (Park Headquarters, Chesapeake & Ohio Canal National Historical Park, Williamsport, Maryland.)

27 Unknown, "Data for Individual Building Report," National Park Service. February 1960. CHOH NPS Archives 50.89 Lockhouse No.29, 1975-2001 (3 of 3).

28 Photograph, Lock House #29, (Nation Park Archive: 041, CHOH, 50.89 Lockhouse No.29, 1975-2001 (2 of 3)



Figure 3.13. Lock #29 - Lockhouse, south east oblique, 1961. (Park Headquarters, Chesapeake & Ohio Canal National Historical Park, Williamsport, Maryland)



Figure 3.14. Lock #29 - Lockhouse, north elevation, ca. 1961. (Park Headquarters, Chesapeake & Ohio Canal National Historical Park, Williamsport, Maryland)



Figure 3.15. Lock #29 - Lockhouse, southwest oblique, ca.1961. (Park Headquarters, Chesapeake & Ohio Canal National Historical Park, Williamsport, Maryland)

south corner and across the entire east wall. A possible source for the water on the east wall was a leaky roof caused by the lack of gutters or downspouts. The failing lintles are still visible over all of the south window openings. The east porch had continued to deteriorate and was leaning to the south.

The continued practice of deferred maintenance came to an end in 1961 when a rehabilitation project was undertaken at Lockhouse #29.[29] Given the prevalent flooding in the area, it is no surprise that moisture problems visible on the exterior of the building were present on the interior as well. Lockhouse #29 had a unique architectural weakness in that second-story plaster was applied directly to the rafters. This left no vapor barrier between the roof structure and the plaster, and promoted a steady buildup of moisture in the second story ceilings. Damaged first floor joists and wall studs were either braced or replaced. Concrete flooring was poured in the basement.

The visible problems on the exterior were addressed as well. A rare photograph taken of the north wall of Lockhouse #29 ca. 1961 shows the degree of brick spalling and exterior paint deterioration (Figure 3.14).[30] The failing lintels on the south wall were repaired and repointed. Rotting wooden window sills were replaced, and frames were rebuilt. The moisture issues on the roof were addressed when new roof sheathing, a few rafters, barge board, and tar paper coverings were installed. Gutters and downspouts were also added.

The west porch was rebuilt with square-cut support posts, horizontal railing, and the removal of the west staircase. The summer kitchen remained (Figure 3.15). A new west porch stairway was installed on the south wall to allow for a new road that wrapped around the front of the house and ended at a metal maintenance building installed in the north yard. The east porch was removed and rebuilt. Its original size was reduced to the size that is visible today. Photographs taken at that time show a wooden bridge over the bypass flume. Photographs taken later and at the completion of the rehabilitation show that the exterior walls still needed an application of whitewash.

29 Unknown, "Narrative Report, Emergency Stabilization of Lock Houses," (National Park Service, 1961.) National Park Service Archive: 038, CHOH, 49.93-108.74 Emergency Stabilization of Lockhouses, c. 1961-1963.

30 Photograph, "Lock House #29," (Park Headquarters, Chesapeake & Ohio Canal National Historical Park, Williamsport, Maryland, 1961)





Figure 3.16. (upper) Lockhouse #29, east elevation. (lower) South elevation, 1975. (Park Headquarters, Chesapeake & Ohio Canal National Historical Park, Williamsport, Maryland)

In 1962 Lewis "Bugs" Cross died, leaving the lockhouse vacant except for the few NPS personnel whose office space and tool storage were located there.[31] Problems with the roof continued, prompting a 1962 project to replace sections of the attic plate.[32] Although there is no known information about when the summer kitchen was added to Lockhouse #29, NPS documentation reveals it was removed in 1969.[33]

By 1972 the house was used for "day-to-day Park operations," and as a public contact station.[34] There is no record of when the public contact station closed. In August of 1973 gutter repair was completed.[35]

A series of regular ongoing inspections caught problems before they became severe. In April of 1974, basement joists were infested with wood boring insects. The inspection report noted that "load support" was only fair. The problem prompted the treatment of the floor joists with Chlordane.[36] The entire process of inspection and Chlordane treatment was repeated in November of 1974.[37]

In an illustration of the ongoing issue with plaster mounted directly to the second-story rafters, the April 1975 inspection revealed there were large

31 "Lander Reunion, Shared Recollections of Life in Lander and other Western Maryland River, Canal, Rail, and Trail Communities," 7.

32 Unknown, "Stabilization," (National Park Service Archive, 038 CHOH, 49 93-108.74 Emergency Stabilization of Lockhouses, c. 1961-1963,) 1962).

33 "Historic Structure Report, Architectural Data Section," 9

34 William R. Failor, "Environmental Review of the Adaptive Use of the Interior of Lockhouse 29 Located on the C&O Canal National Historical Park for the Purpose of Establishing a Single-Family Residence," National Park Service, 1976. C&O NPS Archive: 042, CHOH, 50.89 Lockhouse No.29, 1975-2001 (3 of 3).

35 Unknown, "Antietam-C & O Canal Group, Quarterly Building Inspection Report," (National Park Service Archive, 042 CHOH, 50.89 Lockhouse No. 29, 1975-2001 (3 of 3), 1976.

36 Unknown, "Cultural-C & O Canal Group, Quarterly Building Inspection Report," National Park Service Archive: 042, CHOH, 50.89 Lockhouse No.29, 1975-2001 (3 of 3). 1976.

37 Ibid.

patches of plaster that had fallen off the second-floor ceiling.[38] It also noted that the chimney and foundation needed repointing. Exterior wood work was rotting in places and all needed paint. The first-story floor and plaster required repair. The floor boards on the east porch were rotted. The large porch was in need of gutter repair.

In August of 1975 an inspection revealed a rotting window sill (unidentified).[39] Both porches and all exterior woodwork were painted at this time. A portion of the exterior walls were repointed. Two photographs taken in 1975 show the continuing deterioration of exterior brick whitewash (Figure 3.16).

An inspection in September of 1975 also included a building appraisal of $80,000. The roof was listed as covered with "Ruberoid."[40] The following month (October 1975) it was noted that a basement floor joist was deteriorated but continued to have fair load support. A new window seal (unidentified) was installed at the time. While the first-story plaster was listed as fair, the second-floor plaster was listed as poor. Although some of the exterior walls were repointed in August, there was still more foundation and chimney repointing needed.

The ongoing problem with insects in the basement persisted into 1976.[41] In April the joists were treated with Chlordane. The rotting boards on the east porch were replaced, as well as repair to the gutter on the west porch. An inspection report written the following month stated that approximately 50 square feet of plaster was off the ceiling and walls in R201 and R202, exposing lathe and brick.[42]

Vandalism and serious maintenance issues persisted beyond 1976. The building's vacant status left it vulnerable to vandals and neglect. A proposal was considered in 1976 to use Lockhouse #29 for overnight accommodations. No structural or aesthetic changes were proposed for the project.[43] On June 7, 1976 the park stated that "Seasonal use of Lockhouse 29 at Lander" was to commence about July 1, 1976.[44] The same month minor repairs were made to the first-story floor and replastering was also done (unidentified location).[45] Later in 1976 a job order request was made to repoint areas of the outside walls. One window sill was replaced, and all window jams were sealed with mortar. All

38 Unknown, "Antietam- C & O Canal Group Quarterly Building Inspection Report," (National Park Service Archive: C&O NPS Archive: 042, CHOH, 50.89, Lock House No.29, 1975-2001 (3 of 3), April 17, 1975).

39 Unknown, Antietam-C & O Canal Group, Quarterly Building Inspection Report, (National Park Service Archive: 50.89, Lockhouse No. 29, 1975-2001 (2 of 3),1976).

40 Unknown, "Individual Building Data," (National Park Service Archive: 50.89 Lockhouse No.29, 1975-2001 (3 of 3), September 30, 1975).

41 "Antietam-C & O Canal Group, Quarterly Building Inspection Report," 1976.

42 G. Hicks, "Memo to Dale," National Park Service, May 26, 1976. C&O NPS Archive: 50.89 Lockhouse No.29, 1975-2001 (3 of 3).

43 Unknown, "Environmental Assessment 1976-1," (National Park Service Archive: 042 CHOH, 50.89 Lockhouse No. 29, 1975-2001 (3 of 3), 1976).

44 J.D. Young, "Seasonal Use of Lockhouse 29 at Lander," National Park Service Archive: 042, 50.89 Lockhouse No. 29, 1975-2001 (3 of 3), June 7, 1976.)

45 Phil Romigh, "Structural Field Inventory Report," (Park Headquarters, Chesapeake & Ohio Canal National Historical Park, Williamsport, Maryland), July 1976.

exterior woodwork, gutters, and downspouts were painted.[46]

An intensive study of Lockhouse #29 took place with the writing of a Historic Structure Report in 1979. The following is the 1979 author's inventory of Lockhouse #29:[47]

Table 3: 1979 HSR Inventory (Exterior)			
Location - Exterior	**Item**	**Description**	**Condition**
East wall	Heating	Heating oil tank on east wall.	
Walls – east/west	Measurements	14" thick from first-story.	
Walls – north/south	Measurements	14" thick from first-story. 9" at second-story to roof.	
Windows & Doors	Openings	Soldier course, tapered, brick arches.	
Roof	Framing	"... 5" wide sheathing nailed to 3" by 6 ½" historic pine rafters on 24" centers ... Collar ties span between each rafter ... 6' 9 ¼" clear attic height ... A 1" thick untapered barge board ... of non-historic design ..."	
Summer Kitchen		"9 x 9 in size, lap siding, 2/2 sash centered in the west and north walls, and a door in the south wall opening to the porch."	

Table 4: 1979 HSR Inventory (Interior)			
Location - Interior	**Item**	**Description**	**Condition**
All	Hardware	Iron butt hinges, original box locks with thumb latches.	Hinges - good Box locks - non-functioning
R001	Electricity	Circuit breaker box located in basement.	
R001	FP001	"The basement fireplace is built of stone with a stone lining and has a 3'6" high by 4' 10" wide arched opening. The opening is framed by 1 course of brick headers (apparently recently repaired) supported on ¾" by 2" curved iron lintel."	
R001	Door	Not original	
R001 & R002	Walls	Uncoursed, rough, limestone laid 22" thick, 2' below basement floor, 4" water table.	Excellent
R001 & R002	Floor	Concrete slab.	
R101	Joist	"3-inch by 11½" pine on 19" centers."	Fair, beetle damage, decay. One sistered joist.
R101	Floor	Historic wood floor 4 to 11" wide, tongue and groove - overlaid with plywood and sheet vinyl.	
R101	Wall	Covered with non-historic wood paneling. Plastered with hand-riven lathe.	
R101	Ceiling	Covered with drywall.	
R101	Window	Frames were been rebuilt in 1961. Sash was rebuilt using historic muntins. Non-historic exterior shutters.	Excellent

46 Unknown, "Job Order Request," (National Park Service Archive: 042 CHOH 50.89 Lockhouse No.29, 1975-2001 (3 of 3). 1976).

47 "Historic Structure Report, Architectural Data Section," (National Park Service, April 1979), 10.

Table 4: 1979 HSR Inventory (Interior)			
Location - Interior	**Item**	**Description**	**Condition**
R101	Doors	D101.1 – eight panel, possibly not original. Casement matches window casements. D101.2 – missing (has modified casement for smaller door).	Good
R101	Chair Rail & baseboard	"The chair railing & baseboard are 8-inches with an elaborate series of moldings at the top which indicates it probably does not date from the original . . . "	
R101	Electricity	Wired for electricity in R101 by surface Romex behind paneling.	
R101	Heating	Oil heater installed at FP101.	
R101	FP101	Blocked by plywood sheet. Charring on historic shelf mantlepiece.	Poor
R102	Walls	Plastered with hand-riven lathe.	Poor
R102	Windows	Frames were rebuilt in 1961. Sash has been rebuilt using historic muntins. Non-historic exterior shutters.	Excellent
R102	Doors	D102.3 – eight panel, possibly not original Remainder of doors historic 6-panel.	Good
R102	FP102	Historic fireplace and mantle.	
R102	Joists	"3-inch by 11 ½ " pine on 19" centers."	
R201	Windows	No sash present. Ventilation screens.	Excellent
R201	Floor	Historic wood floor 4 to 11" wide, tongue and groove.	
R201	Walls	Historic plaster finish.	Poor
R201	Ceiling	"Finished with historic plaster on wood lath nailed to the rafters and collar joists."	
R202	Windows	No sash present. Ventilation screens.	Excellent
R202	Floor	Board flooring covered in linoleum	
R202	Walls	Historic plaster finish.	Poor
R202	Ceiling	"Finished with historic plaster on wood lath nailed to the rafters and collar joists."	

The NPS continued to struggle to maintain all of the cultural resources for which they were responsible. In June of 1979 the decision was made to ask the so-called "Level Walkers," those who walk the towpath in their area routinely, to help with condition assessment after a recent flood.[48] The early 1980s saw the continuing threat of vandalism at Lockhouse #29. A metal access gate was vandalized, and according to those living in Lander, vandalism was an ongoing

48 Joseph Prentice, "Letter to Lavenia Waskey," (Park Headquarters, Chesapeake & Ohio CanalNatinal Historical Park, Williamsport, Maryland, June 22, 1979).



Figure 3.17. Lock #29 - Lockhouse, southwest oblique, 1980. (Park Headquarters, Chesapeake & Ohio Canal National Historical Park, Williamsport, Maryland)

problem. ATVs and trucks used the area for off-roading and trash dumping.[49]

A photograph taken in 1980 shows that although the walls were still in need of paint, W202.1 and W202.2 were fitted with ventilated window covers. W101.1 and W101.2 were covered with two-panel, exterior, wood shutters (Figure 3.17).[50] The west porch stairway remained on the south wall.

A 1983 photograph taken from the south west corner shows Lockhouse #29 There is obviously a new wood-shingle roof.[51] The west porch was covered in a new standing-seam metal roof. The entire house was freshly painted. The metal NPS maintenance building is visible to the north of the house. It was removed to another C&O location in April of the same year (Figure 3.18).

A photograph taken in ca. 1985 of the southwest corner of the house shows the stark contrast between clean whitewash and a brown flood line from what might have been the 1984, or one of the two 1985 floods (Figure 3.19).[52] Water had filled the basement, and about 10 inches of water reached into the first floor. A series of photographs were taken in 1987 that confirm the total exterior rehabilitation of Lockhouse #29 was complete (Figures 3.20, 3.21).[53] In particular, there are rare photographs of the north and east walls showing all of its second-story windows covered with the ventilated window covers, and the two first-story windows (north and east walls) covered with two-panel, louvered, wood, shutters.

In 1993, only ten years after Lockhouse #29 was freshly painted, another job order request was submitted for whitewash, repair of porches and steps, scrape and paint porch roofs, exterior wood surfaces, gutter; and repair shutters.[54] That was followed in 1994 by a work request for the same work, indicating the 1993 project probably did not take place.[55] A series of photographs taken of the catastrophic 1996 flood at Lockhouse #29 show that the 1994 request for paint had not been granted either.[56] The flood line was approximately a foot to two feet into the first story. A photograph of the north wall shows that flood water

49 Julia Robb, "Volunteers clear 10 tons of trash from canal, river," (Frederick Post, Frederick, MD. March 30, 1998). National Park Service Archive: 042 CHOH 50.89 Lockhouse No.29, 1975-2001 (3 of 3).

50 Photograph, "Lock House #29," National Park Service Archive: 042 CHOH, 50.89, Lockhouse No. 29, 1975-2001 (3 of 3), 1980).

51 Ibid.

52 Ibid.

53 Ibid. National Park Service Archive: 043, CHOH, 50.89, Lockhouse No.29, Photographs, 1987-2000).

54 Unknown, "Job Order Request," National Park Service," National Park Service Archive: 041, CHOH, 50.89, Lockhouse No.29, 1975-2001 (2 of 3), 1993.

55 Unknown, "Work Request," (National Park Service Archive: 041 CHOH, 50.89, Lockhouse No.29, 1975-2001 (2 of 3), 1994.

56 Photograph, "Lock House #29," National Park Service Archive: 043, CHOH, NPS, 50.89, Lockhouse No.29 Photographs, 1987-2000, 1980).



Figure 3.18. Lock #29 - Lockhouse, southwest oblique, 1983. (Park Headquarters, Chesapeake & Ohio Canal National Historical Park, Williamsport, Maryland)



Figure 3.19. Lock #29 - Lockhouse, west façade, 1985. (Park Headquarters, Chesapeake & Ohio Canal National Historical Park, Williamsport, Maryland)



Figure 3.20. Lock #29 - Lockhouse, east elevation, 1987. (Park Headquarters, Chesapeake & Ohio Canal National Historical Park, Williamsport, Maryland)



Figure 3.21. Lock #29 - Lockhouse, northwest oblique, 1987. (Park Headquarters, Chesapeake & Ohio Canal National Historical Park, Williamsport, Maryland)



Figure 3.22. Lock #29 - Lockhouse, east elevation flood damage, 1996. (Park Headquarters, Chesapeake & Ohio Canal National Historical Park, Williamsport, Maryland)



Figure 3.23. Lock #29 - Lockhouse, north wall flood damage, 1996, (Park Headquarters, Chesapeake & Ohio Canal National Historical Park, Williamsport, Maryland)



Figure 3.24. Lock #29 - Lockhouse, east elevation, Lander Community Clean-up Day, 1998. (Park Headquarters, Chesapeake & Ohio Canal National Historical Park, Williamsport, Maryland)

had wicked through the soft, historic brick, up the wall as high as four to five feet into the first-floor level (Figure 3.23). The siding on both porches and the wood shutters were above the flood line but show quite a bit of deterioration, verifying the need for paint. The steps of the east porch had completely rotted away. Photographs taken three years later show the same, or possibly worse, deterioration (Figure 3.22).[57]

In May of 1996 the NPS met with the Maryland Department of Natural Resources of Freshwater Fisheries to discuss visitor access, recreational use, and the potential impacts at Lock #29. Local interest and involvement in Lockhouse #29 began to grow during this time. In March of 1998 the community joined together to clean up the site around Lockhouse #29 (Figure 3.24).[58] A year earlier, local resident and organizer Dr. George Lewis contacted the NPS regarding continuing vandalism and trespassing at Lockhouse #29.[59] The NPS agreed to strategically place gates to keep vandals and trespassers away from Lockhouse #29 after hours. The project was completed in January of 1998.[60]



Figure 3.25. Lock #29 - Lockhouse, 1999, archaeology at D001.1, west wall. (Park Headquarters, Chesapeake & Ohio Canal National Historical Park, Williamsport, Maryland)

Sometime around 1998 the Lander Community Association (LCA) was formed.[61] Their goal was to rehabilitate the interior of Lockhouse #29 for use as a history museum that would tell the story of the canal, Lockhouse #29, and the Lander community; while the NPS would rehabilitate its exterior. The NPS agreed to the proposal, and project planning began immediately. The projected cost of the exterior project was $29,841.[62] When completed, the NPS would maintain the exterior of the building and site, supply electricity to the building, provide security patrols twice a day, and if needed, help LCA with furnishing the house with period pieces. LCA would maintain the interior, whitewash the exterior every two years as needed, maintain the lawn, and air out the house at least

57 Photograph, National Park Service, (National Park Service Archive: 041, CHOH, 50.89, Lockhouse No.29, 1975-2001 (2 of 3), 1999).

58 Julia Robb, "Volunteers clear 10 tons of trash from canal, river," (Frederick Post, Frederick, MD, March 30, 1998). National Park Service Archive: 042 CHOH 50.89 Lockhouse No.29, 1975-2001 (3 of 3).

59 Douglas D. Faris-Superintendent, "Letter to Respond to George Lewis concerns," (National Park Service Archive: 046, CHOH, 50.89-51.00 Lander's Area, 1988-1998, October 14, 1997).

60 Unknown, "Compliance Committee Checklist, Fabricate Gates – Lander Area – RR Property," (National Park Service Archive: 046, CHOH, 50.89-51.00, Lander's Area, 1988-1998, January 28, 1998).

61 Pepper Scotto - LCA member and local historian, in conversation with the author, August 8, 2023.

62 Unknown, "Estimate Sheet," (National Park Service Archive: 042, CHOH, 50.89, Lockhouse No.29, 1975-2001 (3 of 3), March 25, 1999).



Figure 3.26. Lock #29 - Lockhouse, south stairs, 1999. (Park Headquarters, Chesapeake & Ohio Canal National Historical Park, Williamsport, Maryland)





Figure 3.27. (left) Lock #29 - Lockhouse, D101.1 and east porch, 1999. (right) north wall, 1999. (Park Headquarters, Chesapeake & Ohio Canal National Historical Park, Williamsport, Maryland)





Figure 3.28. (left) Lock #29 - Lockhouse, south wall and stairs. (right), west porch roof and gutter, 1999. (Park Headquarters, Chesapeake & Ohio Canal National Historical Park, Williamsport, Maryland)

every two weeks.[63]

As part of the planning process, archaeologists needed to test areas of potential disturbance, namely at the foundation on the west wall, the location where water mitigation could potentially be managed. The plan was to create a drain in the basement to help with the moisture issues. A test pit revealed an old drain in front of D001.1. During the investigation it was found that D001.1 had, at one time, a 7-foot-tall opening (Figure 3.25). The creation of the historic drain, at the time of Lockhouse #29's construction, shortened the door opening by 1½ feet. More stones were added in the doorway in the later part of the nineteenth century which shortened the door opening by 6 inches. The door sill was raised a second time with the addition of concrete and shale fragments, and a final and third time with the addition of another layer of concrete.[64] In the end, it was decided that a new drain would not compromise the old drain so it was laid over the old drain (at its smallest point), running away from the building towards the canal. [65] At the same time, NPS and the state began the assessment and planning necessary to create a recreational area at Lock #29. A new road, parking lot, and boat ramp were planned and installed by the end of 1999.[66]

The two parts (interior and exterior) of the 1999 rehabilitation project were somewhat separate. NPS had, of course, oversight privileges of the entire project. Several photographs were taken before construction started (Figures 3.26, 3.27, 3.28).[67] They illustrated what needed to be done on the exterior of the building. Most of the porch woodwork had peeling paint and at places, such as the east porch, it was rotted away. One of the two benches that line the east porch, and the steps leading to the porch were missing. The roof of both porches were deteriorating and need painting. The foundation around the house was in need of paint as well. The shutters on the first-story needed repair or replacement. The south stairs were in extremely poor condition. The revised estimate for the NPS project was $19,935.00.[68] The following is a 1999 list of NPS work items for the exterior of the building.[69]

63 Unknown, "Agreement between Lander Community Association (LCA) and CHOH," (National Park Service Archive: 042, CHOH, 50.89, Lockhouse No 29, 1975-2001 (3 of 3), July 1999).

64 Unknown, "Archy Investigations 5 & 6," (National Park Service Archive: 041 CHOH, 50.89, Lockhouse No,29, 1975-2001 (2 of 3), March 1999).

65 Jill Y. Halchin, "Phase III Archeological Investigations," National Park Service Archive: 041, CHOH, 50.89 Lockhouse No. 29, 1975-2001 (2 of 3), 1999).

66 Jill Y Halchin," Archeological Clearance," National Park Sevice Archive: 50.89 Lockhouse No. 29, 1975-2001 (2 of 3), July 2, 1999), 1.

67 Photographs, "Stabilization of Lockhouse 29," (National Park Service Archive: 041, CHOH, 50.89, Lockhouse No.29, 1975-2001 (2 of 3), 1999).

68 Unknown, "Lockhouse Program Work Estimates, Revised 11/25/98," (National Park Service Archive: 042, CHOH, 50.89, Lockhouse No.29, 1975-2001 (3 of 3), 1998).

69 Unknown, "Specifications Lockhouse 29," National Park Service Archive: 040, CHOH, 50.89, Lockhouse No.29, 1975-2001 (1 of 3), July 1999).

Table 4: 1999 NPS Work Items (Exterior)				
Location	**Item**	**Description**	**Condition**	**Illustration**
Roof	Roof Covering	Remove existing wood shingles down to sheathing. Replace with red cedar shingles (No.1 Blue Label Grade, 18 inches long.) Install nailers to existing roof rafters so as to provide nailing space for new roof sheathing and shingles. Install lead coated copper flashing at the chimney. Remove and replace ridge flashing with 8" x 30" felt strip.	Fair	
Roof	Framing	Remove & replace damaged roof structure elements. Install new combed ridge. Repair/sister all sagging rafters.	Poor	
Roof	Gutters	Remove & replace 30' of lead coated copper gutters in-kind (6 ½ inch round) on west elev. porch. Secure/reattach/realign and clean existing gutters and downspouts. Use replacement gutter bracket as needed.	Poor	
Roof	Chimney	Remove existing concrete chimney cap. Install new ventilating chimney cap constructed of one brick course with ¼ inch thick fieldstone cap from Western MD Stone and Marble, Smithsburg MD. Install copper wire cloth 1x16 mesh per inch.	Fair/Good	

Table 4: 1999 NPS Work Items (Exterior)				
Location	**Item**	**Description**	**Condition**	**Illustration**
West Wall	Porch	West porch unsafe-Remove existing structure, leaving roof intact, replace in-kind. Remove south stairs, landing, and railing. Replace all rotten decking boards. Paint porch white, floor decking gray. Strip with wire brush & paint existing metal roofs. Remove/replace metal flashing at porch roof. Build west porch central stairs. Paint underside of porch roof structure, siding, underside of deck joists, railings, posts, and piers.	Poor	
East Wall	Porch	Remove existing steps, landing, and railing on east porch, replace to match existing. Replace deteriorated floor decking. Remove paint down to sound paint Repaint porch (east) white, floor decking grey. Use existing footings & replace piers Replace porch flashing.	Poor	

Table 4: 1999 NPS Work Items (Exterior)				
All Walls	Windows & Doors	Remove and tag existing ventilation panels, window sash, shutters, and attic ventilation panels, exterior wood doors and store appropriately on second floor. Install new ventilating panels in all existing openings. Rehab and reinstall sash, doors, shutters. Paint green. Replace sill on W102.2. Remove & repair W102.1 sash, shutter, hardware. Paint. Install aluminum flashing to cover sill. Remove & repair W101.2, W202.1, W202.2 sash, hardware. Reinstall. Install aluminum flashing to cover sill. Remove & repair W101.1 Remove & repair D001.1, D102.3. Paint, reinstall. Install newW001.1 & W001.2. Remove existing vents in W001.1 & W002.1. Add or repair existing shutters.	Poor	
All Walls	Repair	Remove loose whitewash down to sound surface using low pressure wash. Whitewash exterior. Replace barge boards with cedar and paint. Repoint when necessary, using 1 part Portland cement, 1 part hydrated lime, 6 parts sand. Replace sections of wood fascia and trim. Paint.	Fair	

Table 4: 1999 NPS Work Items (Exterior)				
All Openings	Hardware	Hardware for Security Doors Hinges: Stanley or equal, 4" mortise, stainless steel, 3 per door. Note: surface mount to existing door jamb. Lock: Best Deadbolt, L function, key on outside only, satin stainless steel, option 626 chrome plated.	Unknown	
Basement	Drainage	Clean-out connection with existing sub-surface drainage system.		

Photographs taken of the exterior after rehabilitation in 2000, prior to the removal of the south stairs and the addition of the central west stairs, reveal Lockhouse #29 looking very much as it does in 2023.

At the same time the NPS was progressing on the exterior of the building, LCA work began on the rehabilitation of the interior. The LCA project was very different from the NPS project. Work was done by both professional and volunteer workers on Sundays for over a year.[70] Local donors were found to help defray the cost of the project. The LCA planned on the use of both trained and untrained local volunteers.

> Donors to the project included Hardwood Mechanics of Thurmont, who reworked the wide-board hardwood floors at no cost. The brickwork in and around the fireplace was done by Bub Shores, a local bricklayer from Jefferson. Other helpful hands included Jefferson residents Robert Brust [and Todd Brown,] who did most of the carpentry, Dewayne Donahoe, who completed all of the plaster work, and Joe Mangan, who worked on the fence as well as the inside of the house.[71]

Before work could start, the house needed cleaning out. Plaster was falling off the walls and the flooring in R101 was rotted in front of FP101. The following is a list of the work was done by LCA in 1999 and completed in May of 2000.[72]

70 George Lewis, "Lander Reunion," Self-Published, January 23, 2002. 208

71 Lindsay Pack, "Family Unlocks History Along C&O Canal," Frederick Gazette, Frederick MD. June 19, 2000.

72 Photos, "Lock House #29," Lander Community Association, 1999.

Table 4: 1999 LCA Work Items (Interior)				
Location	**Item**	**Description**	**Condition**	**Illustration**
Basement	FP001	Remove all barriers enclosing the fireplace. Clean out silt and debris down to existing concrete floor.	Fair	
R101	FP101	Remove all barriers enclosing the fireplace. Scrape out joints of fireplace and fireplace face; and replace with NPS approved mortar mix. Strip, prime, paint mantle and surround. Rebuild firebox.	Poor	 
R102	FP102	Remove all barriers enclosing the fireplace. Scrape out joints of fireplace and fireplace face; and replace with NPS approved mortar mix. Removed burn-damaged mantle. Replace with newly made mantle made by volunteer Robert Brust. Prime, paint mantle and surround. Rebuild brick firebox. Rebuild brick hearth. "Delivered used bricks from Jarbo's Store to finish hearth at fireplace #2 [FP102.]"	Poor Poor New Poor Poor	 

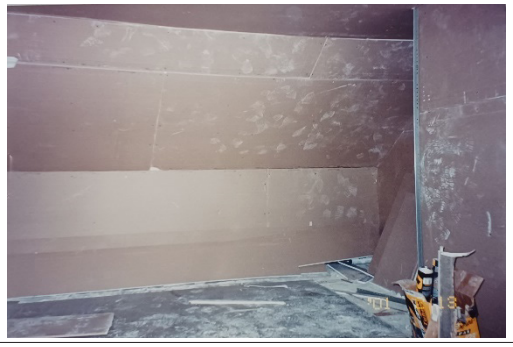
Table 4: 1999 LCA Work Items (Interior)				
Walls	First Story	Install drywall, prime, paint. Close stove pipe holes above FP101 & FP102.	New	 
Walls	2nd Story	Install drywall, prime, paint.	New	 
Ceilings	All	Install drywall, prime, paint.	New	

Table 4: 1999 LCA Work Items (Interior)				
Floor	R101	Add wood flooring at rotted wood in center of room 101.	Poor, new	
Floor	All	Sand, stain, seal	Poor	
Trim	R101	Replace small section of chair railing north of D101.1[72] Paint.	Poor	
Trim	R102	Replace small section of chair railing east of W102.2. Replace section of casement on D102.3. Paint all trim.	Poor Poor	
Windows	All	Scrape & paint all windows and doors. Prime & paint.	Poor	

73 Robert Brust, in discussion with the author, July 20, 2023.

Table 4: 1999 LCA Work Items (Interior)				
ST102	Stair	Inlay repair patch on first stair.	Fair	
Basement	Elec.	Add circuit box to north basement wall. "Park to extend underground conduit from light pole closest to boat ramp to pole near house." Wire outlets to CL102.1 & CL102.1, R201, R202.	Basement	

The LCA did not use an architect, instead relying on volunteer professionals to accomplish the project.[74] NPS also monitored the project on a daily basis.

Phase III of the project, the installation of the centrally located west stairs, began in April of 2001. These stairs were installed to resemble those found on the west porch in the 19th and early 20th centuries. The project was overseen by Dr. George Lewis of LCA.[75] In June, Lockhouse #29 opened as a C&O Lock House Museum.[76] It stayed open as a museum on Saturdays until 2018. In October, Dr. Lewis oversaw the installation of door sensors, siren, keypad control panel, and motion detector.[77] This was followed in November with the installation of the picket fence to the east of the building and rail fence on the west side of the house.[78]

Although there has likely been additional maintenance on Lockhouse #29, maintenance and project records end at this point.

74 Robert Brust, in discussion with the author, July 20, 2023.

75 George Lewis, "Chesapeake and Ohio Canal NHP Project Screening Form, Natural and Cultural Resources, Lander Community Association," National Park Service, 2001. C&O NPS Archive: 046 50.89 Lander's Boat Ramp and Lockhouse No. 2, 1873, 1952, 1999-2001 (1 of 2).

76 Lindsay Pack, Tom Fedor, "Family Unlocks History Along C&O Canal," The Frederick Gazette, Frederick, MD. June 19, 2003.

77 George Lewis, "Lockhouse 29, Security System & Light," National Park System, October 1, 2001. C&O NPS Archive: 046 50.89 Lander's Boat Ramp and Lockhouse No. 2, 1873, 1952, 1999-2001 (1 of 2).

78 Sonny Sanders, "Inspection 12-5-2001, Lander Lockhouse #29, New Installed Fences," National Park Service, December 5, 2001. C&O NPS Archive: 50.89 Lockhouse No. 29, 1975-2001 (2 of 3).

IV. CURRENT PHYSICAL DESCRIPTION

Current Physical Description

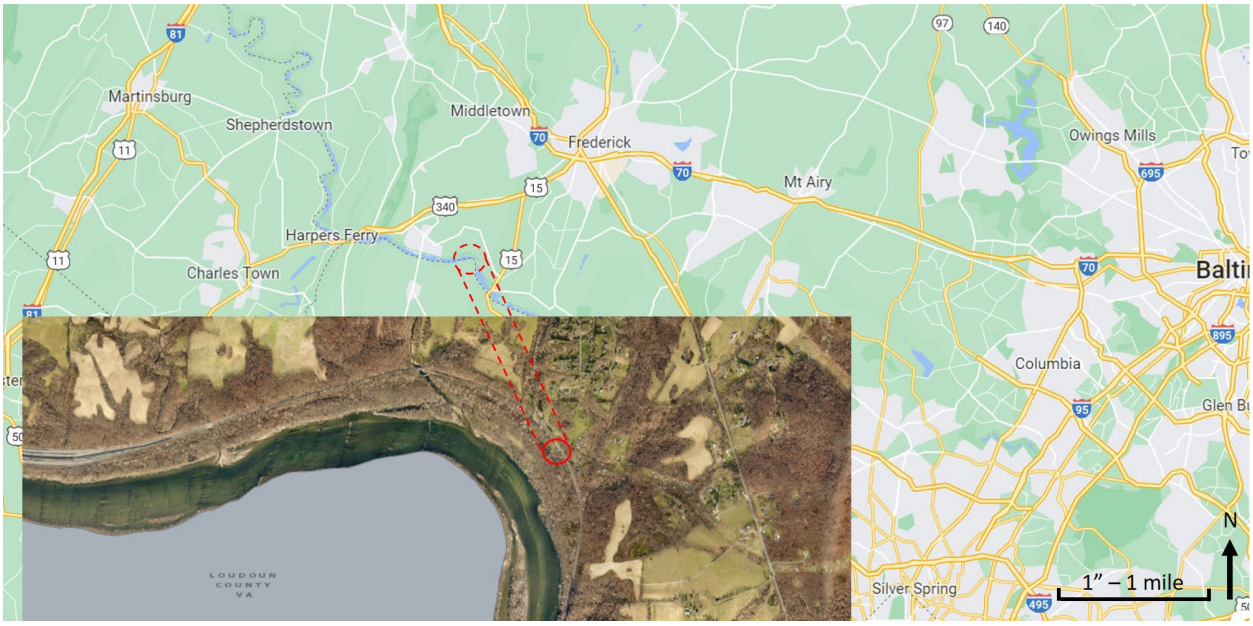


Figure 4.1. October 19, 2022. Lock #29 - Lockhouse site location & aerial view. (Google.com)

GENERAL INFORMATION

Lock 29 - Lockhouse (Lockhouse #29) is located at milepost 50.89 near the Catoctin Aqueduct in Jefferson, Maryland (Figure 4.1). Located within Frederick County, Maryland. The building faces west with the long axis of the building oriented in the north/south direction. It sits on slightly-sloping ground just to the east of Lock #29. The gravel entrance road passes near to the lockhouse and continues west towards the Potomac, providing access to the 1960s Lander Boad Ramp.

Lockhouse #29 is a vernacular style, 1½-story, two-bay, brick structure built to C&O Canal Company specifications. A prominent stone water table supports handmade brick walls. The entire building is whitewashed. The building's roof is clad in wood shingles. All of the window openings are covered with louvered shutters and three entrance door openings contain wood doors. The house is built upon a full, unfinished basement accessed from an outside doorway (D001.1). The interior layout contains two rooms on the main story with two rooms above. They are joined by a staircase located in the north west corner of R102.

A detailed description, organized by location, is listed below. The rooms and architectural elements at Lockhouse #29 have been assigned numerical labels to help make their identification simpler. Annotated floorplans providing those labels are located in Appendix A.

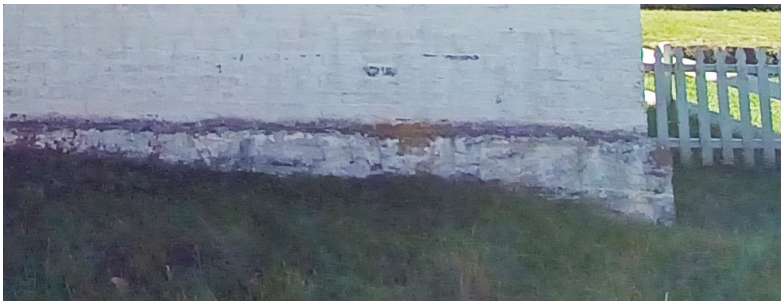


Figure 4.2. Limestone foundation. east elevation. (LeeAnne Brooks, October 20. 2022)

EXTERIOR

Foundation

Lockhouse #29 is built upon a limestone foundation and prominent water table (Figure 4.2). Basement access (D001.1) is located under the first-story, full-length porch located on the west elevation. D001.1 is filled with a board-and-batten wood door hung on iron strap hinges. The basement contains window openings on the west and south walls (see Interior Basement description).

Walls

The walls at Lockhouse #29 are made of handmade brick laid in American Common Bond that sit atop a limestone foundation and water table (Figure 4.2). The majority of wall surface is covered in whitewash. Brick headers laid at an angle create a decorative element lining the east and west eaves (Figure 4.5). The north and south walls have wooden barge boards that are painted with whitewash (Figure 4.3).



Figure 4.3. Brick, north elevation coated with white wash. (LeeAnne Brooks, October 20, 2022)

Chimneys

The side-gable roof contains a central-ridge, brick chimney topped by a cement cap (Figure 4.4).



Figure 4.4. Central-ridge, brick chimney topped with a cement slab. (LeeAnne Brooks, October 20. 2022)



Figure 4.5. Architectural decoration at eave, north elevation. Note: decorative brick element at eave level. (LeeAnne Brooks, October 20. 2022)

Roof

The structure has a side-gable, wood-frame roof clad in wood shingles. It is lined with half-round metal gutters with downspouts located on the northwest and southeast corners (Figure 4.5).

Doors

There are three exterior doors in the building. The primary entrance (D102.3) opening is located on the west wall near the south wall, and contains a wood, paneled door (Figure 4.10). The rear entrance (east) opening (D101.1) contains a wood, paneled door (Figure 4.9). The walk-out basement opening contains a board-and-batten, wood door (D001.1) (Figure 4.6).



Figure 4.6. D001 located on basement west wall. (LeeAnne Brooks. October 20. 2022)

Windows

There are 10 window openings in the building. The east elevation contains a single window opening (W102.1) filled with 6/6 single-hung sash, a plain wood, painted sill with metal pintle shutter hardware (Figure 4.8). The first and second story windows are framed with operable, green-painted, two-panel, louvered wood shutters (Figure 4.7). The north elevation contains a window opening on the first story (W102.2), and two window openings on the second story (W201.1 & W201.2). All are filled with 6/6 single-hung sash and plain wood sills with metal pintle shutter hardware. The west elevation contains two window openings. The first story opening (W101.1) is filled with 6/6 single-hung sash and plain wood sills with metal pintle shutter hardware (Figure 4.10). The basement west wall contains a single window opening (W002.1) containing wood louvers and window screening. The south elevation contains a window opening (W101.2) on the first story, and two window openings on the second story (W202.1 & 202.2). The upper-level openings contain 6/6



Figure 4.7. W102.1, exterior shutter, east wall. (LeeAnne Brooks, October 20. 2022)



Figure 4.8. South wall. (LeeAnne Brooks, Octobrt 20, 2022)



Figure 4.9. D101 and small porch on east elevation. (LeeAnne Brooks, October 20, 2022)



Figure 4.10. Full-width porch on west elevation. (LeeAnne Brooks, October 20, 2022)

single-hung sash and plain wood sills with metal pintle shutter hardware. The basement contains a single opening filled with wood louvers and screening (Figure 4.8).

Porches

The west, primary elevation has a full-width wooden porch built upon 5 ½ inch square wooden posts and cement blocks attached at the first story level. Eight wooden steps provide access to the porch that are lined with a wooden handrail and balustrade. The porch is supported by six, 3½-inch, square, wooden posts and is sheltered by a shed-roof clad in standing seam metal and lined with half-round metal guttering. It has a tongue-and-groove, 3-inch wood-plank deck lined with seven sections of standard balustrade and wood pickets. They are secured to the building with two 4 inch by 2¼-inch pilasters attached to the west wall. Two additional pilasters are located on either side of D102.3 (Figure 4.10).

The east, or rear, elevation contains one porch located at D101.1. The wooden porch is built upon 5½-inch square wooden posts and 7-inch cement blocks. Two wood steps measuring 3 feet 2 inches wide and 11½ inches deep lead to a small deck measuring 7 feet 4½ inches by 4 feet 3¼ inches. It is sheltered by a shed-roof clad in standing-seam metal that is painted green and has exposed rafter tails. The roof is supported by two 3½-inch square, wood posts. Two, simple, 3½-by-1½-inch pilasters are located on either side of D101.1. There are simple wooden benches lining the north and south edges of the porch. It has an 3 ¼-inch tongue-and-groove wood-plank floor that is painted grey (Figure 4.9).



Figure 4.11. R001, looking north west. (LeeAnne Brooks, October 19, 2022)



Figure 4.12. D001.1, looking west. (LeeAnne Brooks, October 19, 2022)



Figure 4.13. W001.1, looking south. (LeeAnne Brooks, October 19, 2022)

INTERIOR

Room 001



Figure 4.14. Security siren located in R001. (LeeAnne Brooks, October 19, 2022)

Room 001 (R001) is located on the south side of the structure's walk-out basement. The room measures 14 feet 10 inches by 11 feet 7 inches with a 5-foot 6-inch joist clearance. The ceiling is made of wooden floor joists running from east to west. The joists have white paint remaining on most of their surfaces. A partially pink-painted section is situated between the north wall and the brick chimney that corresponds with the raised flooring area found in R101. A number of joists are exhibiting wood borer damage and have been repaired with wood sistering on three of the joists near the east wall (Figure 4.15). Additional structural support is provided by wood blocks and screw ties. The floors are made of rough poured concrete.

The walls are made of random-laid limestone topped with brick. A single light switch is affixed to the casement of D001.1, while a security sensor is mounted to the door. Electrical conduit leads to a GFCI electrical outlet and two, clear-glass globe light fixtures hung on a centrally located joist. An older bare bulb fixture is located nearby. Electrical wire running along a joist leads to a mounted security alarm horn (Figure 4.14). Multiple strands of electrical wire, conduit, and phone wire run along the ceiling line around the room.

The entrance to R001 is located on the west wall (D001.1) (Figure 4.12). Its opening measures 5 feet ¼ inch by 4 feet ¾ inches and has a 5½-inch wood threshold. It is filled with a board-and-batten wood door hung on two iron strap hinges. A padlock strap lock is mounted to the exterior of the door with a metal keeper on the exterior door frame. A 2-inch wood casement surrounds the door opening.



Figure 4.15. R001, 'Sistered' joists, looking east. (LeeAnne Brooks, October 19, 2022)

A 1-foot-9-inch-by-2-foot window opening is located on the north wall (W001.1). It is filled with wood louvers and screening held by wood blocks. It is topped by a 4-feet ½-inch by 3-foot 8-inch wooden lintel (Figure 4.13).

The south wall is made of a brick fireplace and chimney (FP001.1). Its firebox is 3 feet 10½ inches wide at its widest point, 3 feet 5½ inches tall and 2 feet deep at its deepest point with an iron lintel over the opening. A wooden relieving arch for FP101.1 is located above it opening.



Figure 4.16. R002, looking north east. (LeeAnne Brooks, October 19, 2022)

Room 002

Room 002 (R002) is located on the north side of the walk-out basement. The room measures 11 feet 11 inches by 10 feet 9 inches with a 5-foot 6-inch joist clearance from finished floor to bottom of joists. The open ceiling is constructed of wooden floor joists running from east to west. The joists have wire nails and white paint remaining on most of their surfaces (Figure 4.16). The wood flooring above has the remains of white paint. Additional structural support is provided by screw ties and wood blocks (Figure 4.20). The floors are made of rough poured concrete.

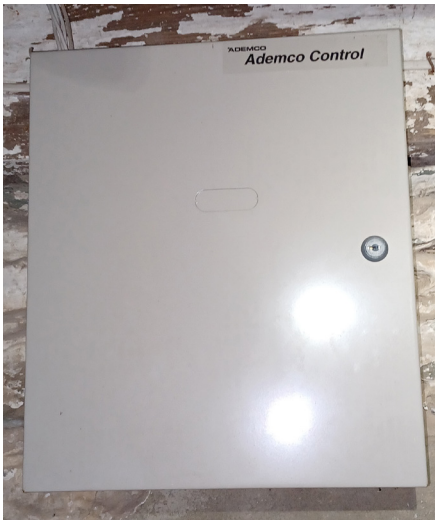


Figure 4.17. R002, "Ademco" security control box, north wall. (LeeAnne Brooks, October 19, 2022)



Figure 4.18. R002, "Square D" circuit box, north wall. (LeeAnne Brooks, October 19, 2022)

The walls are made of random-laid stone topped with a mix of machine and hand-made brick. The stone walls also have the remains of white paint on most surfaces.

Electrical conduit leads from a circuit box/panel to three, clear-glass globe light fixtures hung on a centrally located joist. An older bare bulb fixture is located nearby. Multiple strands of electrical wire, conduit, and phone wire run along the ceiling line around the room. The "Square D" brand circuit box and a electrical plug are mounted to a piece of plywood located in the north west corner of the room (Figure 4.18). An "Ademco Control" brand security box is located nearby (Figure 4.17).



Figure 4.19. W 0 0 2 shutter. (LeeAnne Brooks, October 19, 2022)

A window opening is located on the west wall (W002.1). It measures 1 foot 10½ inches by 2 feet 11 inches and is filled with wood louvers. A wood, board-and-batten shutter measuring 1 foot 10 inches by 3 feet ¾ inches is affixed to the interior frame, with a screen attached to the exterior frame (Figure 4.19).

A stone chimney divides R001 from R002 (Figure 4.11). It has a wooden relieving arch supported by wooden posts.

Room 101



Figure 4.20. R 0 0 1 , structural screw tie, east wall. (LeeAnne Brooks, October 19, 2022)

Room 101 (R101) is one of two rooms located on the first story. It is located on the south side of the structure and is accessed through an exterior door on the east elevation (D101.1) (Figure 4.23). The room measures 11 feet 11 inches wide by 15 feet 12 inches long. Its flat ceiling is covered with drywall and is painted a cream color (Figure 4.21). The ceiling measures 8 feet 2 inches from the faced-nailed, wood flooring that runs in a north/south direction. The flooring boards are of variable sizes running from 4½ inches wide to 6¼ inches wide. There is a 1" raised section of wood flooring measuring 4 feet 4 ¾ inches wide by 10 feet 2 inches long located between the room's south wall and the brick hearth (FP101.1). This section is bounded by a 2½-inch strip of wood trim on its west and east sides.

The exterior walls in R101 are made of brick covered with drywall. Fireplace 101.1 makes up the majority of the north wall (FP101.1) (Figure 4.22). All of the walls are painted a cream color. The east wall contains D101.1, while the north wall contains D101.2, D101.3, and FP101.1. W101.1 is located in the west



Figure 4.21. R101, looking east .(LeeAnne Brooks, October 17, 2022)

wall with W101.2 located on the south wall. A 2½-inch wood chair rail with a ¼-inch bottom bead is located on all but the north wall. A 5½-inch wood baseboard topped by a 1-inch bead can be found on all walls.



Figure 4.22. FP101.1, looking north west. (LeeAnne Brooks, October 17, 2022)

The entrance doorway to R101 is located off-center in the east wall (D101.1) (Figure 4.23). It is filled with a 7-foot 4¾-inch by 3-foot 10-inch wood, raised eight-panel door hung on two butt hinges. There is a 4-inch wood threshold. The interior of the door contains a metal doorknob, and an old security sensor on the lower north corner. The exterior contains a similar metal doorknob and padlock hardware. Doorway 101.2 (D101.2) is located in the northeast corner of the south wall and leads to CL102.1. It is filled with a 6-foot 1 inch by 2 feet 11¼-inch, raised six-panel, wood door hung on two butt hinges. The exterior of the door contains a metal knob and backplate, while the interior of the door contains a small box-lock with no knob. Doorway 101.3 (D101.3) is located on the south wall and leads to R102. Although the door opening contains no door there is a 2¾-inch wood threshold. All of the doors are surrounded by 5-inch wood casement.



Figure 4.23. D101.1, looking south east. Inset #1: Interior door knob. Inset #2: Exterior door knob. (LeeAnne Brooks, October 17, 2022)

Single windows are centrally located on the west and south walls respectively (W101.1 & W101.2). Their openings measure 4 feet 8¼ inches tall by 3 feet ½-inch and are filled with 6/6, single-hung sashes. They have 5-inch-wide casements with a ¾-inch tall by 8½ inches deep by 3 feet long wood sills. Their wood aprons measures 2¼ inches tall with a ¼-inch bead. The top rail of each lower sash



Figure 4.24. CL101.1. Inset #1: interior door hardware. Inset. #2: Exterior hardware. (LeeAnne Brooks, October 17, 2022)

contains a modern window lock.

Closet 101.1 (CL101.1) is located in the northeast corner of the room (Figure 4.24). Its walls are covered with unpainted old plaster. It is filled with two, 1 foot 4-inch-deep wood shelves. There are empty wooden brackets on the west and east walls that once held a closet pole. The wood flooring in R101 continues into CL101.1.

Fireplace 101.1 (FP101.1) is a wood burning fireplace and is centrally located on the north wall (Figure 4.22). Its capped, brick firebox has a brick arch and measures 2 feet 10 inches wide by 2 feet 4⅕ inches tall by 1 foot 3½ inches deep. There is a brick hearth that measures 5 feet 5 inches wide by 1 foot 9 inches deep. It has a wood surround with stylized wood columns sitting on 7¼-inch wood plinths and topped with a 5 feet 6½-inch long by 7½-inch deep wooden mantle shelf.

Room 102

Room 102 (R102) is located in the north side of the structure and is accessed through an exterior door on the west elevation (D102.3). The room measures 12 feet 6 inches by 15 feet 10 inches (Figure 4.28). Its flat ceiling is covered with drywall and is painted a cream color. The ceiling measures 8 feet from the tongue-in-groove, wood-flooring that runs in an east/west direction (Figure 4.27). The flooring boards are of variable sizes and lengths running from 3¾ inches to 6¾ inches wide. Wood flooring located within CL102.1 varies in size from 6¼ inches to 6½ inches and runs in a north/south direction.



Figure 4.25. R102, baseboard. (LeeAnne Brooks, October 18, 2022)

The exterior walls in R102 are made of brick covered with drywall. The walls are painted a pink-color with all the room's trim painted a darker colored pink paint. A double-beaded, wood, 3¾-inch chair rail lines all but the south wall. A 4½-inch wood baseboard topped by a 1-inch bead can be found on all walls (Figure 4.25).

There is a door opening (D102.1) located in the southeast corner of the room leading to CL102.1 (Figure 4.26). Its opening measures 6 feet 11¼ inches tall by 3 feet wide and is filled with a raised, six-panel, pink-painted, wood door. The door measures 6 feet 11½ inches by 3 feet and is hung on two hinges. It contains an iron box lock and latch on the exterior, with a bare key hole on the interior of the door. A 3¼-inch wooden threshold lines the entrance to the closet and highlights its 6¼-inch to 6½-inch wood flooring that runs opposite to the room's north/south wood flooring. Its wood casement measures 5½ inches wide and is painted a darker shade of pink.



Figure 4.26. D102.1, looking south. Inset: exterior lock on D102.1. .(LeeAnne Brooks, October 18, 2022)

A doorway (D102.2) is located in the southwest corner of the room that leads to ST102.1 (Figure 4.32). Its opening measures

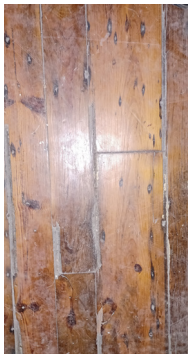


Figure 4.27. R102, flooring. (LeeAnne Brooks, October 18, 2022)



Figure 4.28. R102, looking south east towards CL102.1. (LeeAnne Brooks, October 18, 2022)



Figure 4.29. D102.3 bar lock. (LeeAnne Brooks, October 18, 2022)

5 feet 11½ inches tall by 3 feet wide and is filled with a raised, six-panel, pink-painted, wood door. The door measures 6 feet 7 inches by 2 feet 11¼ inches and is hung on two butt hinges. Its plain, wood, casement measures 1¾ inches wide and is painted a darker shade of pink. The exterior contains an iron box lock with a brass knob, and a wooden latch and iron keeper. A wooden keeper is mounted to the door's trim. A small "eye" is mounted below the lock with a matching hook on W102.2's trim. The interior of the door contains a brass knob and a brass key hole plate.



Figure 4.30. D102.3 interior door knob. (LeeAnne Brooks, October 18, 2022)



Figure 4.31. D102.3 exterior, looking north. (LeeAnne Brooks, October 18, 2022)



Figure 4.32. D102.2, looking west. (LeeAnne Brooks, October 18, 2022)



Figure 4.33. CL102.1 interior, looking south. (LeeAnne Brooks, October 18, 2022)

An entrance door opening into R102 is located on the west wall (D102.3) (Figure 4.31). Its opening measures 7 feet tall by 3 feet 1 inch wide and is filled with a raised, eight-panel, pink-painted, wood door hung on two hinges. The door measures 6 feet 10½ inches by 3 feet 1 inch. Its wood casement measures 3½ inches wide and is painted a darker shade of pink. The exterior of the door contains a brass knob and plate. The interior contains an old security sensor, door knob and decorative plate, slide lock (Figure 4.30), and two wooden bar locks resting on metal brackets mounted to both sides of the door's casement (Figure 4.29). The door opening also contains a 4 ½ inch wooden threshold.

The east wall contains a window opening (W102.1). Its opening measures 4 feet 8 inches by 3 feet ½ inch and contains 6/6, single-hung, wood sash. The lower sash has a modern window lock attached to its upper rail. The opening's wood casement measures 5 inches wide and 5 feet 1 inch tall. Its wooden sill is 1 inch thick and 8¾ inches deep with a 3-inch wooden apron. A second window opening is located on the south wall (W102.2). Its opening measures 4 feet 8½ inches by 3 feet 1 inch and it contains 6/6, single-hung, wood sash with a modern window lock on the lower sash's top rail. The opening's wood casement measures 5¼ inches wide and 5 feet tall. Its wooden sill is 1 inch thick and 8½ inches deep with a 2¾-inch wooden apron.

Closet 102.1 (CL102.1) is located in the northeast corner of the room. It measures 5 feet long by 1½ feet deep. Damaged horsehair plaster over machine-made lathe covers its interior walls. It contains an older, 1¼-inch-tall wood shelf above a modern 1-inch wood shelf.

A woodburning fireplace is centrally located on the north wall of R102 (FP102.1) (Figure 4.34). Its capped, brick firebox has a brick



Figure 4.34. FP102.1, looking south. (LeeAnne Brooks, October 18, 2022)



Figure 4.35. ST102.1, looking west. (LeeAnne Brooks, October 18, 2022)

arch and measures 2 feet 4 inches tall by 2 feet 10 inches wide by 11 inches deep. There is a 5-foot by 2-foot brick hearth. It has a wood surround with stylized wood columns sitting on 6¾-inch-tall wood plinths and topped with a 5 feet 7 inches wide by 7¼-inch-tall wooden mantle shelf.

Stairway 102.1

Stairway 102.1 (ST102.1) originates in R102 and rises to R201. It measures 2 feet 9 inches wide, 8 feet 3½ inches long and has an 11-foot-4-inch-tall ceiling at its highest point. The wood-framed, drywall-covered ceiling is painted a cream color. The stairway's interior wall is wood-framed and covered with cream colored drywall. Its exterior brick walls are covered with cream colored drywall (Figure 4.36).

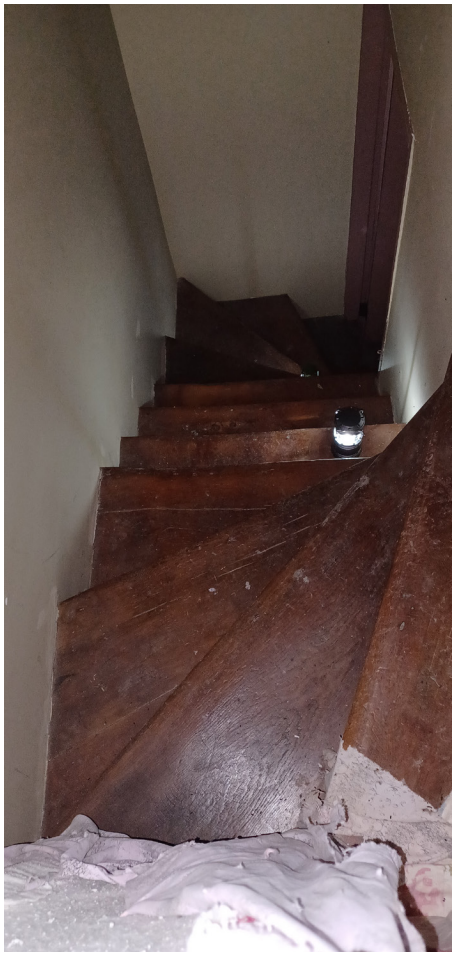


Figure 4.36. ST102.1, looking north. (LeeAnne Brooks, October 18,2022)

Two, dark pink-painted steps measuring 3 feet 2½ inches wide, 10 inches deep with 7½-inch stained-wood risers are located outside the stairwell within R102. They head west to meet four wedge-shaped stairs that turn north and meet three stairs measuring 2 feet 9 inches wide, 9¾ inches deep with 6¾-inch stained-wood risers. Four wedge-shaped stairs complete the staircase by turning east to meet the floor in R201. Two half-walls line the staircase opening in R201. They measure 2 feet 10 inches long on the east side of the stairs and 2 feet 9¾ inches long on the south side of the stairs (Figure 4.35).

ROOM 201

Room 201 (R201) is located on the second story and in the north side of the structure. The room measures 15 feet 10 inches by 15 feet 11 inches. Its 6-foot 8 inch tall drywalled ceiling is painted a cream color paint. The wood flooring width varies from 4½ to 6½ inches wide and runs from north to south exhibiting both face-nailing and tongue in groove construction. The brick, cream-colored, drywall-covered walls are lined with 6-inch, single-bead, green-painted, wood baseboard. Clothing pegs are mounted on 1 foot 7 inches long, double-bead, wood trim located on the north wall (Figure 4.37). A brick, fireplace chimney bisects the two rooms on the second story (Figure 4.38).

There are two windows located on the north wall in R201 (W201.1 and W201.2).



Figure 4.37. R201, Looking north east. (LeeAnne Brooks, October 18, 2022. R1201)



Figure 4.38. R201, looking south east. (LeeAnne Brooks, October 18, 2022)

Their openings measure 3 feet 5¾ inches by 2 feet 11 inches. Their wood sills are ½ inch tall, 3 feet 9 inches wide, and 4 inches deep with a 2-inch wood apron. Their green-painted wood, casements measure 5 inches wide. Their openings are filled with 2/2 cream-colored, wood, single-hung sash (Figure 4.37).

Room 202

Room 202 (R202) is located on the second story and in the south side of the structure. The room measures 12 feet 1 inch by 15 feet 9 inches (Figure 4.40). Its 6-foot-8-inch-tall drywalled ceiling is painted a cream color. The wood flooring width varies from 4½ to 6½ inches wide and runs from north to south exhibiting both face-nailing and tongue-and-groove construction. The brick, cream-colored, drywall-covered walls are lined with 6¼-inch, single-bead, green-painted, wood baseboard (Figure 4.41). A brick, fireplace chimney bisects the two rooms on the second floor.

The entrance opening into R202 is located in the northwest corner of the room (D202.1) (Figure 4.39). Its opening measures 5 feet 11½ inches by 2 feet 5½ inches and is lined on the bottom with a 4-inch, wood threshold. Its green-painted, wood casement measures 5 inches wide. It is filled with a board-and-batten



Figure 4.39. R202, looking north west. (LeeAnne Brooks, October 18, 2022)



Figure 4.40. R202, baseboard on south wall. (LeeAnne Brooks, October 18, 2022)

door hung on two butt hinges and contains an iron box lock, lever, and keyhole on the interior of the door, and an iron lever with an iron plate and keeper on the exterior.

There are two windows located in R202 on the south wall. W202.1 opening measures 3 feet 5½ inches tall by 1 feet 11 inches wide and is surrounded by a 3 foot-10½-inch-tall and 5-inch-wide wood casement. It is filled with 1/1 single-hung, wood sash. Its sill measures ¾ inch tall and is 4 inches deep. A 3-inch wood apron is located below. W202.2 opening measures 3 feet 5½ inches tall by 2 feet 11 inches wide and is surrounded by a 3-foot-10½-inch-tall and 5-inch-wide wood casement. It is filled with 1/1 single-hung, wood sash. Its sill measures ¾ inch tall and is 4 inches deep. A 3-inch wood apron is located below.



Figure 4.41. R202, looking south east. (LeeAnne Brooks, October 18, 2022)

V. CHARACTER-DEFINING FEATURES

Character-Defining Features

INTRODUCTION

The purpose of this chapter is to identify the character-defining features (CDF) of Lock #29 - Lockhouse. Through its history of changing occupants and multiple major floods, Lockhouse #29 has survived with a fairly high degree of integrity. Situated within C&O Canal National Historical Park, Lockhouse #29 resides next to one of the 74 locks situated along the C&O Canal. The identification of character-defining features outlined below is critical for the treatment and preservation of Lockhouse #29, so it may be enjoyed in perpetuity as a cultural and historical resource. The NPS definition of character-defining features is described as follows:

> . . . visual aspects and physical features that comprise the appearance of every historic building. Character-defining elements include the overall shape of the building, its materials, craftsmanship, decorative details, interior spaces and features, as well as the various aspects of its site and environment.[1]

A CDF may date to the structure's initial construction, or be a later alteration made within the building's period of significance. Lockhouse #29 is considered part of Chesapeake & Ohio Canal National Historical Park and the park's period of significance is 1828 to 1924. In some cases, a CDF may be a missing architectural element or site feature that existed during the structure's period of significance. The identification of these missing historic features is based on observation, and textual and photographic primary source documentation. To retain the historic integrity of the structure, it is important to retain these elements.

The CDFs of Lockhouse #29 are presented in the following table. If a CDF is a missing element, that is noted.

INTEGRITY

The level of historic integrity of a structure and/or architectural element is partially reflected in its ability to contribute to the historic appearance of the structure, and to convey the significance of the resource in general. This report will not only identify the CDFs of Lockhouse #29, but will also report the condition of those features. It is the intent of this report that by identifying the level of integrity of each character-defining feature, mindful and appropriate preservation and rehabilitation projects can be accomplished. CDFs with a ranking of high integrity can be identified in historic photographs, drawings, and/or primary source descriptions of the house. A medium integrity ranking is given to those features believed to be a significant architectural feature that has undergone a higher level of intervention.

1 Lee H. Nelson, "Preservation Brief 17: Architectural Character," (Washington, DC: US Department of the Interior, National Park Service, Technical Preservation Services, 1988).

Table 5: Character-Defining Feature Inventory – Lock #29 - Lockhouse		Integrity			Figure No.
		High	Medium	Low	
Location	The Lockhouse at Lock #29 is located in Jefferson, Maryland. Jefferson is located in Frederick County, south-central Maryland near the Virginia border. Maryland is located within the Mid-Atlantic region. Maryland is surrounded on the north by Pennsylvania, on the east by Delaware and the Atlantic Ocean, on the west by West Virginia, and on the south by Virginia.	X			1
Setting	Lockhouse #29 resides in a rural setting.	X			
	Site circulation is accomplished by foot on the C&O Canal Towpath, and by car on Lander Road, both of which are simply treated with asphalt paving, gravel, or dirt.	X			
	Lockhouse #29 is situated atop a rise above the Potomac River and near the C&O Canal.	X			2
Approach and Access	Lockhouse #29 is located at the end of Lander Road. This road has given access to Lockhouse #29 and the C&O Canal since at least 1858 or earlier.[2]	X			3
Siting	Lockhouse #29 resides at its original 1836 location.	X			
	House orientation with the main façade facing the canal and river, signaling the façade hierarchy.	X			4
	Lockhouse #29's location and orientation in relation to the C&O Canal, Potomac River, illustrating the house's original purpose.	X			
	Lockhouse #29's position as the one residential structure at Lock #29, separate from the residential buildings in the village of Lander, setting it apart and signaling its status as part of a commercial enterprise.	X			
	House proximity to canal, designed to insure lockkeeper's availability day and night, every day.	X			5
Mass, Scale and Shape	Side-gable, 1 ½ stories tall.	X			
	Lockhouse #29's simple, side-gable, 2/2 design, incorporates elements of both the 1828 and 1836 C&O Company's specifications.	X			
Exterior Features	Hand-made brick walls laid in American Common Bond.	X			
	The use of brick rather than stone walls confirms the historical narrative that as lock houses were built, limestone became harder to acquire, prompting the construction of brick lockhouses.	X			
	Rubble limestone foundation.	X			
Exterior Features	*Missing Character Defining Feature: Summer Kitchen on west porch.*				
Exterior Openings - Doorways	Functional placement and location of primary and secondary exterior doorway openings allow access to the two, first-story, interior spaces.	X			
	All exterior door openings.	X			

2 Isaac Bond, C.E., "Map of Frederick County, MD," (E. Sachse & Co., Baltimore, MD., 1858).

Table 5: Character-Defining Feature Inventory – Lock #29 - Lockhouse		Integrity			Figure No.
		High	Medium	Low	
Exterior Openings - Windows	Spacing and location of window openings reflect interior room arrangement rather than aesthetic design.	X			
	All window openings.	X			
	Missing Character Defining Feature: Original, 3-light, hopper windows at W001.1, W002.1.				
	Missing Character Defining Feature: Summer Kitchen – two window openings.				
Roof and Roof-Related Features	Simple gable-roof form covered in wood shingles.	X			
	Prominent, brick, central-ridge chimney.	X			6
	Missing Character Defining Feature: Wooden barge boards on north and south elevations (current – replacements)				
Exterior - Projecting Features	Historic location of porch at D101.1.	X			
	Historic location of porch at D102.3.	X			
	Stone water table located on entire foundation.	X			
	Decorative brick feature at roof eave.	X			6
	Missing Character Defining Feature: Original, full-width, west porch.				
	Missing Character Defining Feature: Original, small, east porch				
Exterior Materials and Craftsmanship	White wash stone and brick walls, and foundation.	X			
	Window and door opening's molded, wood frames.		X		
	Handmade bricks.	X			
	Cut stone rubble foundation.	X			
Exterior Finishes	White paint on wood trim (windows).		X		
	White paint on wood trim.		X		
	Whitewashed walls			X	
Outdoor Spaces	Masonry lock, and flume	X			
	Bypass Flume	X			
	Towpath.	X			
	Lander Road on east and south elevations	X			
	Railroad location, and rail verge.	X			
	Area next to D001.1 – site of original basement drain.	X			7
	Missing Character Defining Feature: Lock #29 lock apparatus (some are located within R002).				
	Missing Character Defining Feature: Lockkeeper Lewis' fishing and boat business.				
	Missing Character Defining Feature: Lockkeeper's garden (grassy area north of house).				
	Missing Character Defining Feature: Baseball field (wooded area west of canal and towpath).				

Table 5: Character-Defining Feature Inventory – Lock #29 - Lockhouse		Integrity			Figure No.
		High	Medium	Low	
Interior Features - Layout Plan	Room Layout - Room layout has remained from the original plan.	X			
	Original room sizes.	X			
	R101 is and has always been the primary, or formal, room within the lockhouse.	X			
	Ceiling height – all rooms.	X			
	R102 was designated the kitchen with close proximity to summer kitchen on west porch.	X			
Interior - Materials (Flooring, Walls, and Ceilings)	Wood flooring running in east/west direction (R102, R201, R202).	X			
	Wood stairs (ST102.1)	X			
	Chair railing R101, R102 (partial), R201, R202.	X			
	Peg board (R201, north wall).	X			
	Wood, fireplace surround (FP101.1).	X			
	Wood shelving (CL102.1)	X			
	Stair framing on west wall of R102.	X			8
	All wood trim (exception: outside trim on D102.3 casement, east side of W102.2 casement, chair railing east of W102.2, R201 baseboard).	X			
	Plaster (CL102.1).	X			9
	Chimney mass, R201–R202.	X			
Interior - Materials (Flooring, Walls, and Ceilings)	R001, R002 - Floor joists	X			10
	Missing Character Defining Feature: R201 baseboard.				
	Missing Character Defining Feature: R102 chair railing east of W102.2.				
	Missing Character Defining Feature: W102.2 east casement.				
	Missing Character Defining Feature: D102.3 casement trim.				
	Missing Character Defining Feature: Wood flooring in R101.				
	Missing Character Defining Feature: FP102.1 surround.				
Interior Openings	All door openings.	X			
	All chimney openings.	X			
Doors	All wood doors (exception D001.1 – much shorter than the original[3])	X			
	Missing Character Defining Feature: D001.1 taller door (as determined in 1999 archaeology investigation).				

3 Jill Y. Halchin, "Phase III Archeological Investigations," (Park Headquarters, Chesapeake & Ohio Canal National Historical Park, Williamsport, Maryland, 1999).

Table 5: Character-Defining Feature Inventory – Lock #29 - Lockhouse		Integrity			Figure No.
		High	Medium	Low	
Windows	All window sash.	X			
	Missing Character Defining Feature: 3/6 sash in W201.1, W201.2, W202.1, W202.2				
Interior Finishes	Whitewash on basement walls and floor joists.	X			
Interior Features - Hardware	Surface applied locks and hardware.	X			

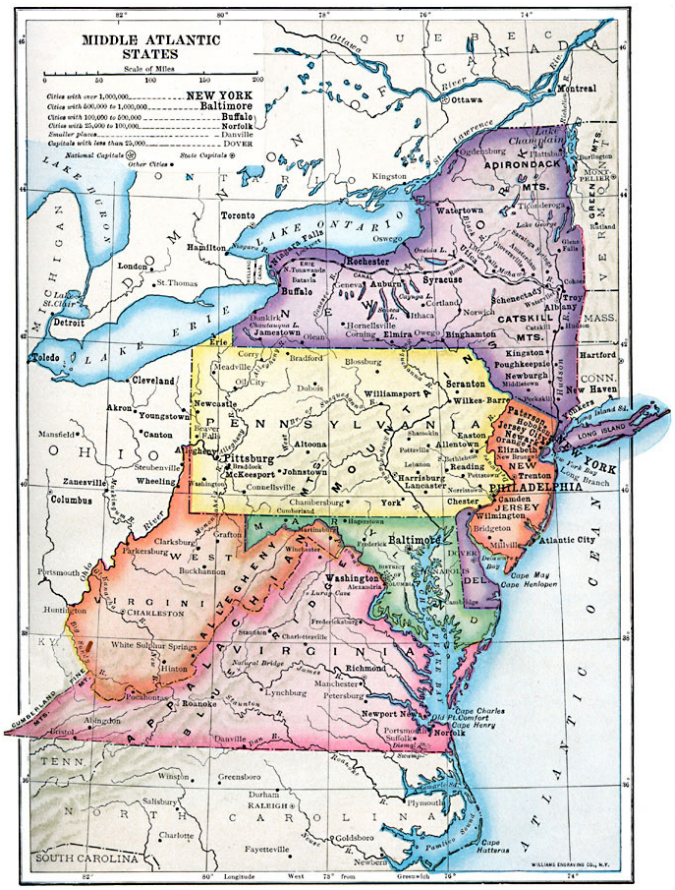


Figure 5.1. Maryland, within the Mid-Atlantic Region (Educational Technology. Clearinghouse)



Figure 5.2. Lockhouse #29, west elevation, taken from Lander Boat Landing. (LeeAnne Brooks, October 17, 2022)



Figure 5.3. Lander Road, looking north. (LeeAnne Brooks, October 20, 2022)



Figure 5.4. Lockhouse #29, west elevation. (LeeAnne Brooks, April 27, 2023)



Figure 5.5. Lock #29 and Lockhouse #29, looking northwest. (LeeAnne Brooks, October 20, 2022)



Figure 5.6. Central-ridge, brick chimney and decorative brick element at eave. (LeeAnne Brooks, October 20, 2022)



Figure 5.7. Remains of drain near D001.1. (Park Headquarters, Chesapeake & Ohio Canal National Historical Park, Williamsport, Maryland)



Figure 5.8. Stair (ST102.1) framing, west wall R102. (LeeAnne Brooks, October 18, 2022)



Figure 5.9. CL102, south wall plaster. (LeeAnne Brooks, October 18, 2022)



Figure 5.10. R002 joist, insect activity and deterioration. (LeeAnne Brooks, April 27, 2023)

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-------. Photograph, “Lander Community Cleanup Day,” 1998, Park Headquarters, Chesapeake & Ohio Canal National Historical Park, Williamsport, Maryland.

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-------. Photograph, “Lock #29 – Lockhouse,” ca.1920, Park Headquarters, Chesapeake & Ohio Canal National Historical Park, Williamsport, Maryland.

-------. Photograph, “Lock #29 – Lockhouse,” ca. 1920, Park Headquarters, Chesapeake & Ohio Canal National Historical Park, Williamsport, Maryland.

-------. Photograph, “Lock #29 – Lockhouse,” ca. 1920, Park Headquarters, Chesapeake & Ohio Canal National Historical Park, Williamsport, Maryland.

-------. Photograph, “Lock #29 – Lockhouse, north west oblique” ca. 1920, Park Headquarters, Chesapeake & Ohio Canal National Historical Park, Williamsport, Maryland.

-------. Photograph, “Lock #29 – Lockhouse,” 1924, Pepper Scotto Collection.

-------. Photograph, “Lock #29 – Lockhouse,” ca. 1932, Park Headquarters, Chesapeake & Ohio Canal National Historical Park, Williamsport, Maryland.

-------. Photograph, “Lock #29 – Lockhouse, north east elevation” 1936, Pepper Scotto Collection.

-------. Photograph, “Lock #29 – Lockhouse, south east elevation” 1936, Pepper Scotto Collection.

-------. Photograph, “Lock #29 – Lockhouse, west elevation” ca.1930, Pepper Scotto

Collection.

-------. Photograph, “Lock #29 – Lockhouse, south east oblique,” 1957, Park Headquarters, Chesapeake & Ohio Canal National Historical Park, Williamsport, Maryland.

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-------. Photograph, “Lock #29 – Lockhouse, north elevation,” ca.1961, Park Headquarters, Chesapeake & Ohio Canal National Historical Park, Williamsport, Maryland.

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-------. Photograph, “Lock #29 – Lockhouse, south east oblique,” 1985, Park Headquarters, Chesapeake & Ohio Canal National Historical Park, Williamsport, Maryland.

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_____. Photograph, “Lock #29 – Lockhouse, north west oblique,” 1987, Park Headquarters, Chesapeake & Ohio Canal National Historical Park, Williamsport, Maryland.

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-------. Photograph, "Lock #29 – Lockhouse, east elevation," 1996, Park Headquarters, Chesapeake & Ohio Canal National Historical Park, Williamsport, Maryland.

-------. Photograph, "Lock #29 – Lockhouse, archaeology," 1999, Park Headquarters, Chesapeake & Ohio Canal National Historical Park, Williamsport, Maryland.

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-------. Photograph, "Lock #29 – Lockhouse, D101.1," 1999, Park Headquarters, Chesapeake & Ohio Canal National Historical Park, Williamsport, Maryland.

-------. Photograph, "Lock #29 – Lockhouse, north elevation," 1999, Park Headquarters, Chesapeake & Ohio Canal National Historical Park, Williamsport, Maryland.

-------. Photograph, "Lock #29 – Lockhouse, south elevation," 1999, Park Headquarters, Chesapeake & Ohio Canal National Historical Park, Williamsport, Maryland.

-------. Photograph, "Lock #29 – Lockhouse, west porch," 1999, Park Headquarters, Chesapeake & Ohio Canal National Historical Park, Williamsport, Maryland.

-------. Photograph, "Lock #29 – Lockhouse, west elevation," 1999, Park Headquarters, Chesapeake & Ohio Canal National Historical Park, Williamsport, Maryland.

-------. Photograph, "Lock #29 – Lockhouse, chimney," 1999, Park Headquarters, Chesapeake & Ohio Canal National Historical Park, Williamsport, Maryland.

-------. Photograph, "Lock #29 – Lockhouse, south stairs," 1999, Park Headquarters, Chesapeake & Ohio Canal National Historical Park, Williamsport, Maryland.

-------. Photograph, "Lock #29 – Lockhouse, FP101.1," September 25, 1999, Park Headquarters, Chesapeake & Ohio Canal National Historical Park, Williamsport, Maryland.

-------. Photograph, "Lock #29 – Lockhouse, FP101.1," September 25, 1999, Park Headquarters, Chesapeake & Ohio Canal National Historical Park, Williamsport, Maryland.

-------. Photograph, "Lock #29 – Lockhouse, FP102.1," September 25, 1999, Park Headquarters, Chesapeake & Ohio Canal National Historical Park, Williamsport, Maryland.

-------. Photograph, "Lock #29 – Lockhouse, FP102.1," September 25, 1999, Park Headquarters, Chesapeake & Ohio Canal National Historical Park, Williamsport, Maryland.

-------. Photograph, "Lock #29 – Lockhouse, R102, looking south west," September 25, 1999, Park Headquarters, Chesapeake & Ohio Canal National Historical Park, Williamsport, Maryland.

-------. Photograph, "Lock #29 – Lockhouse, R101, looking south west," September 25, 1999, Park Headquarters, Chesapeake & Ohio Canal National Historical Park, Williamsport, Maryland.

-------. Photograph, "Lock #29 – Lockhouse, R201, looking south east," September 25, 1999, Park Headquarters, Chesapeake & Ohio Canal National Historical Park, Williamsport, Maryland.

-------. Photograph, "Lock #29 – Lockhouse, R201, looking south east," September 25, 1999, Park Headquarters, Chesapeake & Ohio Canal National Historical Park, Williamsport, Maryland.

-------. Photograph, "Lock #29 – Lockhouse, R101 ceiling," September 25, 1999, Park Headquarters, Chesapeake & Ohio Canal National Historical Park, Williamsport, Maryland.

-------. Photograph, "Lock #29 – Lockhouse, R101, flooring," September 25, 1999, Park Headquarters, Chesapeake & Ohio Canal National Historical Park, Williamsport, Maryland.

-------. Photograph, "Lock #29 – Lockhouse, flooring," September 25, 1999, Park Headquarters, Chesapeake & Ohio Canal National Historical Park, Williamsport, Maryland.

-------. Photograph, "Lock #29 – Lockhouse, D102.3 interior," September 25, 1999, Park Headquarters, Chesapeake & Ohio Canal National Historical Park, Williamsport, Maryland.

-------. Photograph, "Lock #29 – Lockhouse, R102 looking north east," September 25, 1999, Park Headquarters, Chesapeake & Ohio Canal National Historical Park, Williamsport, Maryland.

-------. Photograph, "Lock #29 – Lockhouse, ST102.1," September 25, 1999, Park Headquarters, Chesapeake & Ohio Canal National Historical Park, Williamsport, Maryland.

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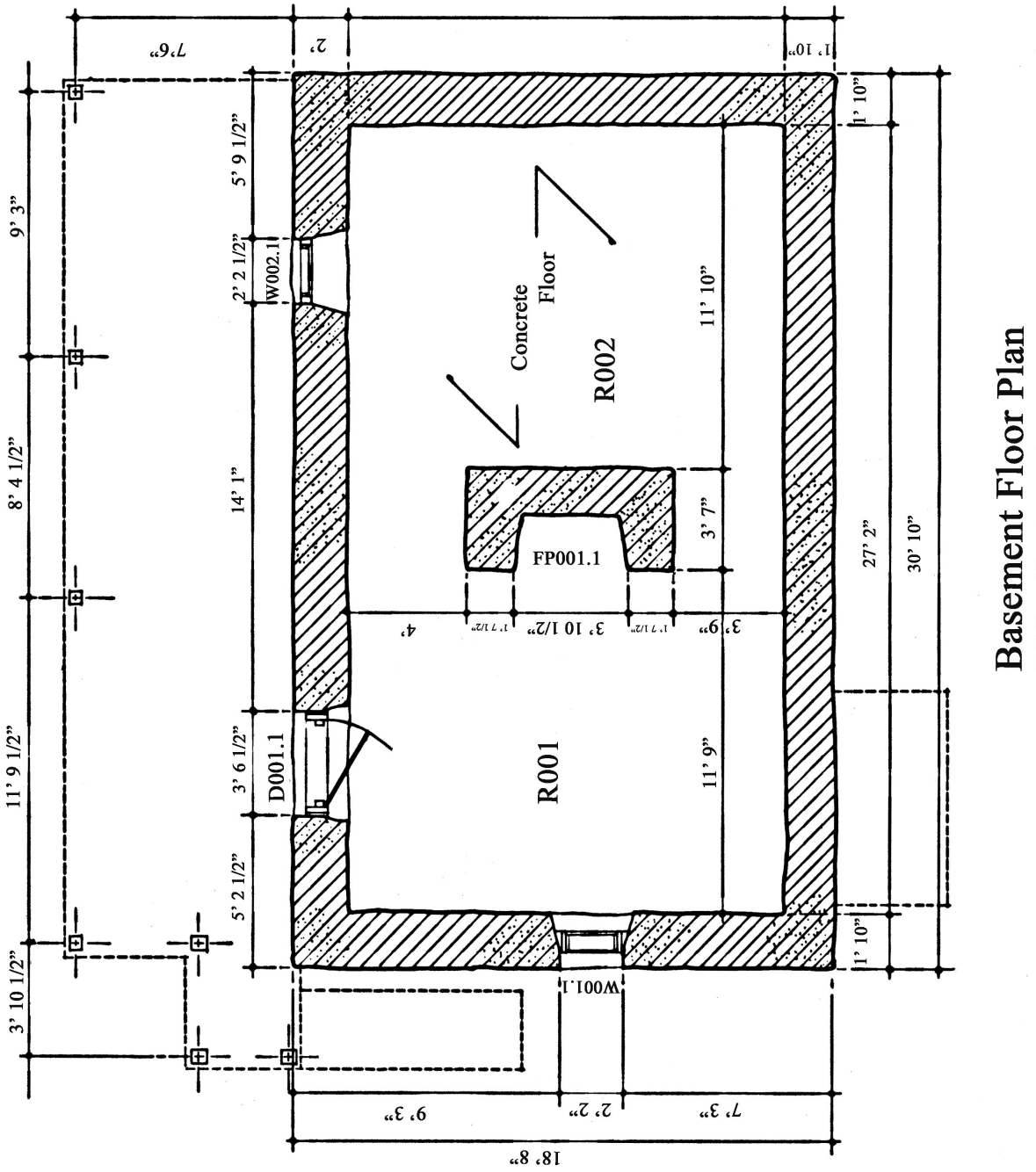
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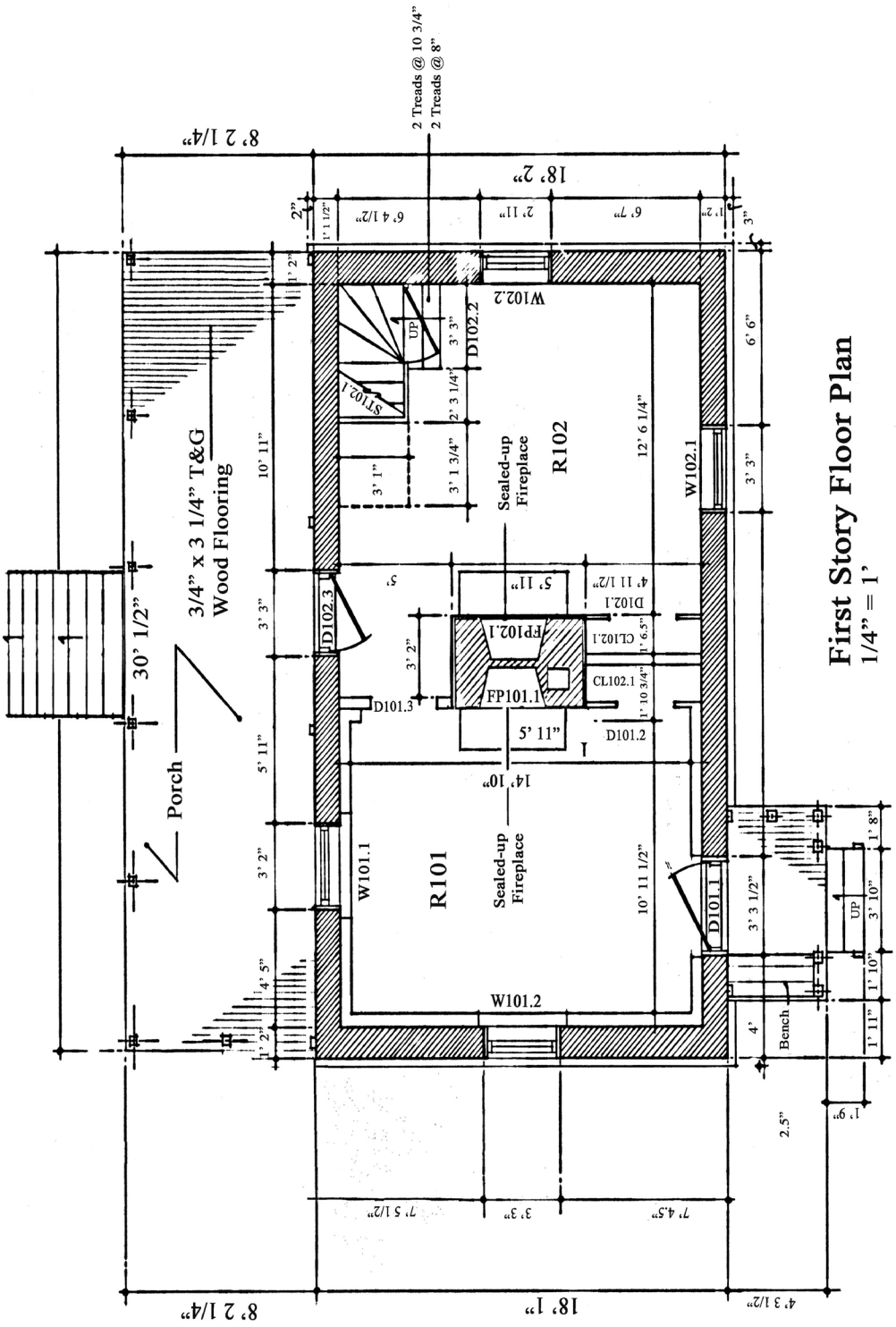
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APPENDIX A: FLOOR PLANS

Appendix A: Floor Plans



Appendix A.1. Lock #29 - Lockhouse, Basement Floor Plan, ((Park Headquarters, Chesapeake & Ohio Canal Nationl Historical Park, Williamsport, Maryland, 1977).

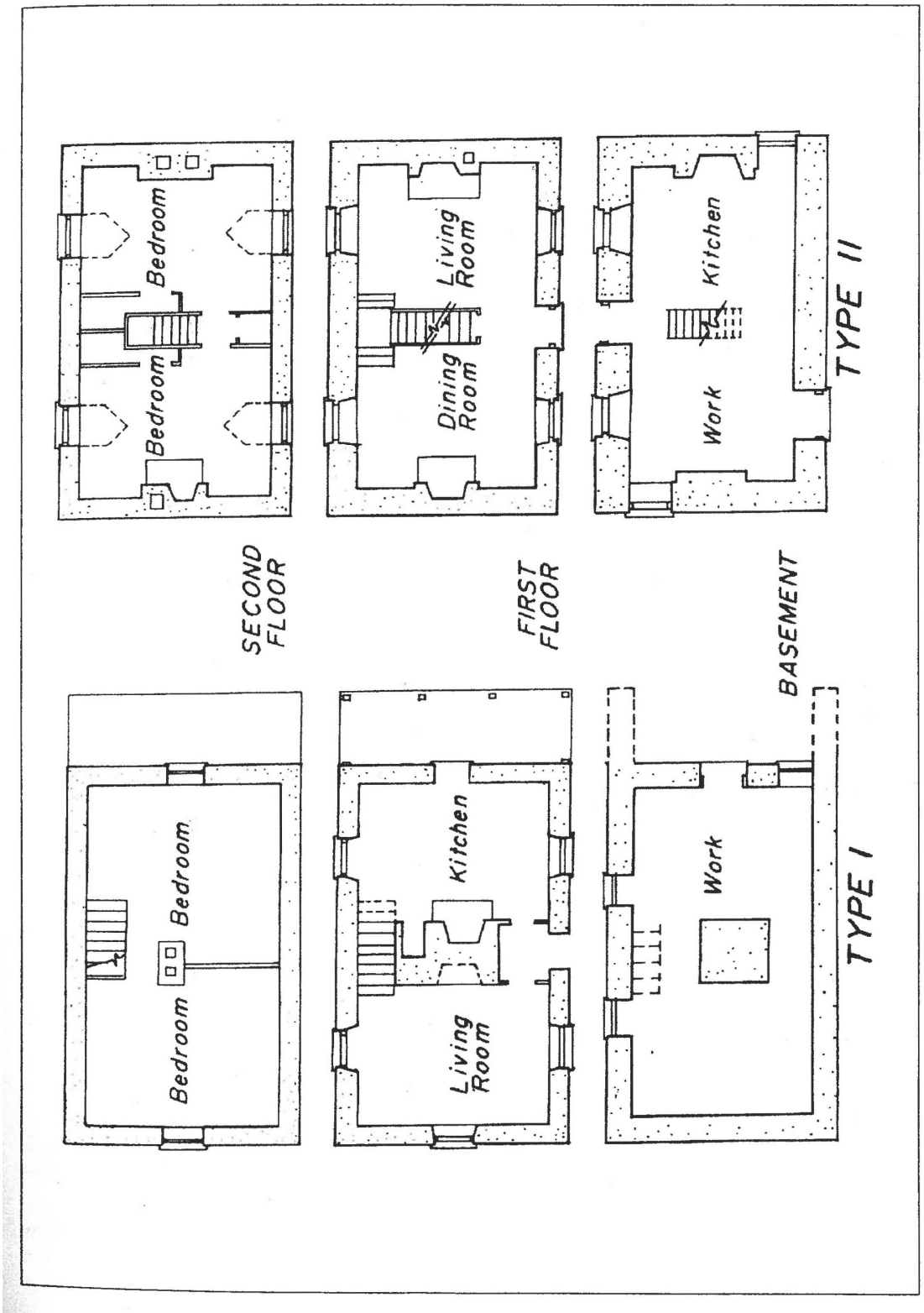


Appendix A.2. Lock #29 - Lockhouse, First-Floor Plan, ((Park Headquarters, Chesapeake & Ohio Canal Nationl Historical Park, Williamsport, Maryland, 1977).

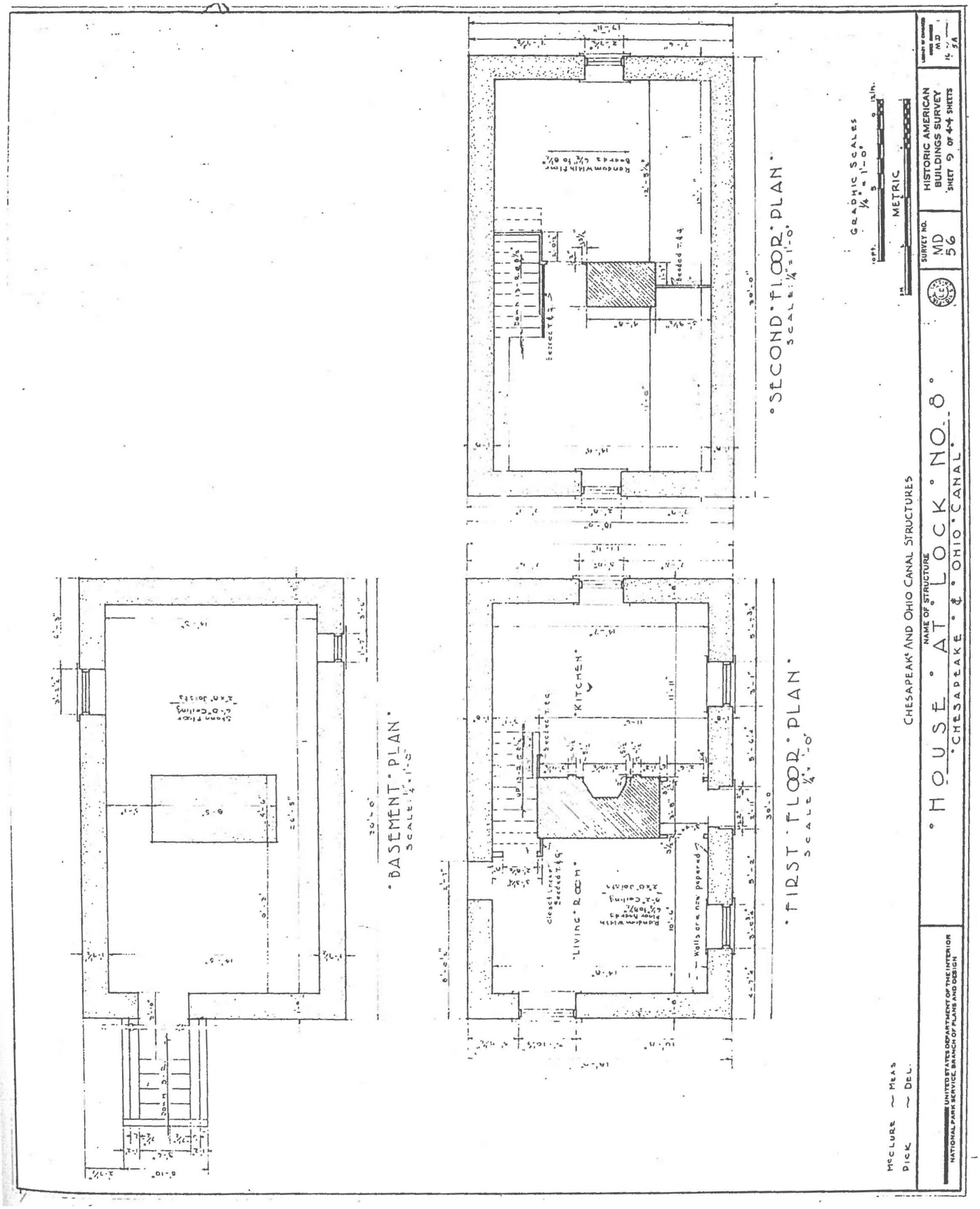
Appendix A.3. Lock #29 - Lockhouse, Second-Floor Plan, ((Park Headquarters, Chesapeake & Ohio Canal Nationl Historical Park, Williamsport, Maryland, 1977).

APPENDIX B: C&O CANAL - 1828 TYPE 1 & 1836 TYPE 2 LOCKHOUSE DESIGNS

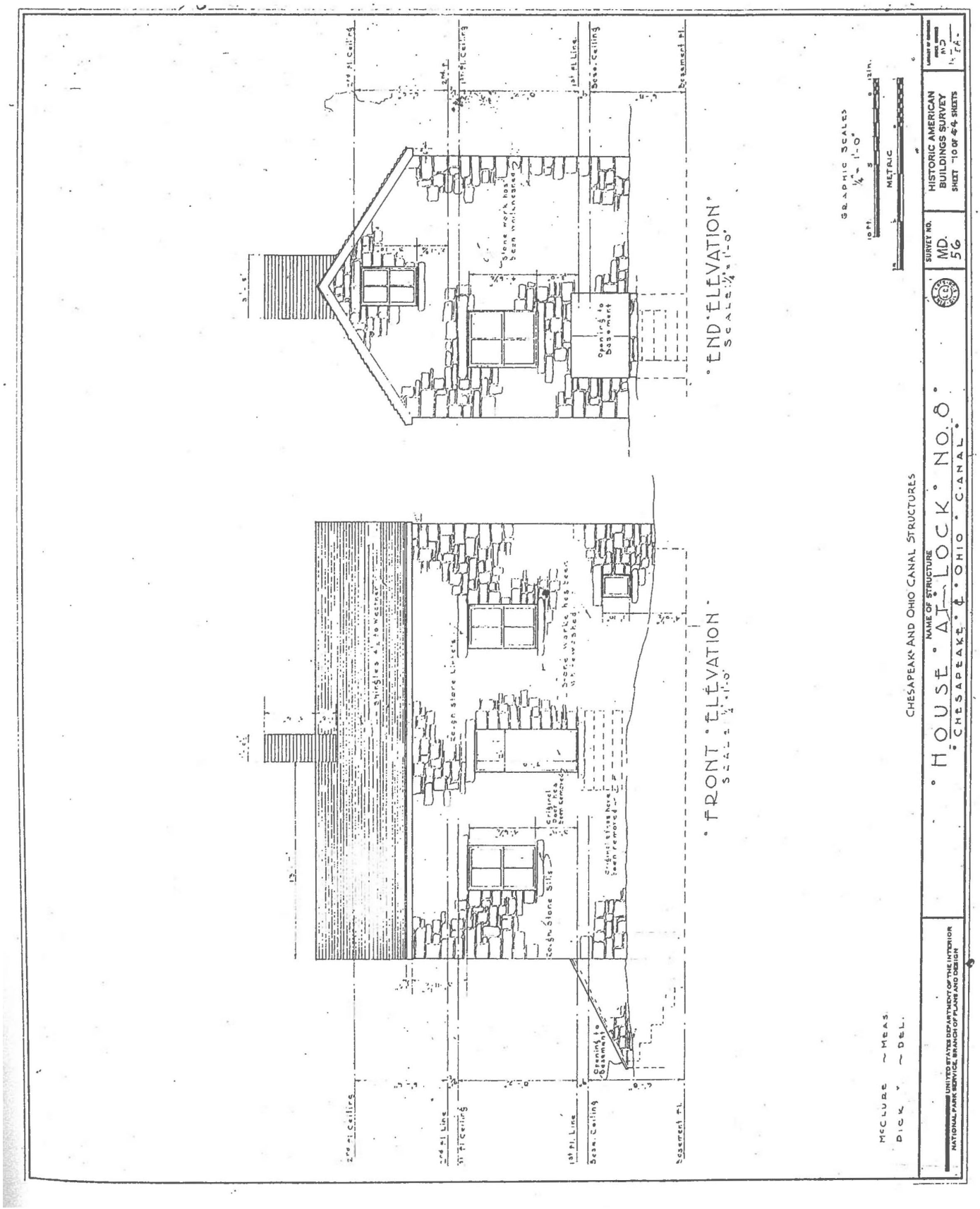
Appendix B: C&O Canal - 1828 Type 1 & 1836 Type 2 Lockhouse Designs



Appendix B.1. 1828 Type 1 & 1836 Type 2 Lockhouse floorplans. (Thomas Swiftwater Hahn, "The Chesapeake & Ohio Canal Lock-Houses & Lock-Keepers," West Virginia University, 1996) 7.



Appendix B.2. 1828 Type 1 & 1836 Type 2 Lockhouse floorplans. (Thomas Swiftwater Hahn, "The Chesapeake & Ohio Canal Lock-Houses & Lock-Keepers," West Virginia University, 1996) 7.



Appendix B.3. 1828 Type 1 & 1836 Type 2 Lockhouse floorplans. (Thomas Swiftwater Hahn, "The Chesapeake & Ohio Canal Lock-Houses & Lock-Keepers," West Virginia University, 1996) 7.

APPENDIX C: MOLDING PROFILES

Appendix C: Molding Profiles

OBJECTIVE

The profiles of interior woodwork moldings were recorded in every room of Lock # 29 - Lockhouse (Lockhouse #29). The objective of recording molding profiles was to aid in the understanding of the evolution of the woodwork in interior rooms, thus allowing for the greater understanding of Lockhouse #29's architectural history. Every period in architectural history has moldings that are unique to their time, making them a potential dateable element in historic houses. Woodwork elements included baseboards, doorway, and window trim. Rooms in which moldings were recorded are located on the first and second-story rooms of the building.

The initial walkthrough of the interior of Lockhouse #29 revealed an early vernacular style dwelling. Because so little has been known about Lockhouse #29, it was important to utilize every available method of documentation to help fill in the large gaps in its architectural history. A molding profile study is one of the many tools used to accomplish that goal.

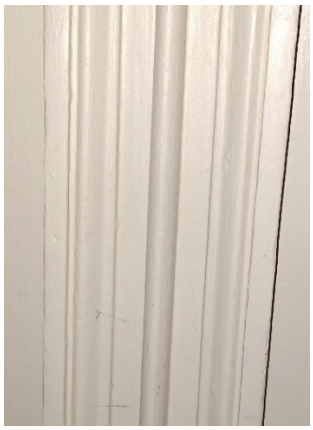
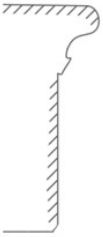
METHODOLOGY

Molding profiles were recorded using a wire molding profile gage. This is accomplished by pressing the gage against a molding, allowing the wires to move and conform to the shape of the molding. A full-scale tracing of the profile was then made in the field, and later transcribed for this report. The transcribed profiles on the following pages are representative and not drawn to full scale.

FINDINGS

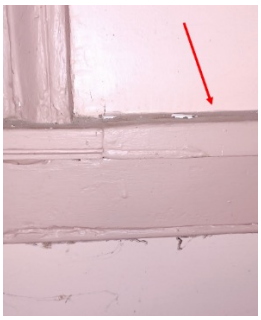
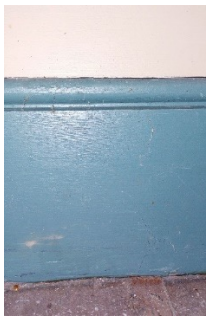
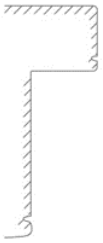
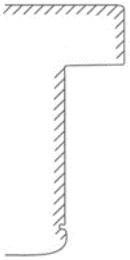
It was found that Lockhouse #29 contained two types of baseboard, two different types of window and door trim, one type of fireplace molding, and two types of chair railing. With the use of applicable reference material, it was possible to date most of these types, and to spot trends in the information gathered. At Lockhouse #29, it was found that the majority of the trim dates to its 1836–1837 build date. Given the constant flooding and humidity at this location, it is remarkable that so much early wood trim survived.

The 1999–2000 interior rehabilitation project revealed problems with the wood casement around D102.3, the east side of W102.2 casement, and the chair railing located east of W102.2. It appears an attempt was made to copy the original moldings, and as is usually the case, Type 2 and 5 moldings have a less refined design and only resemble Types 1 and 4. None of the reference material used listed such moldings. Type 6 and 7 baseboard are identical, but are of different heights and paint build-up. This type of molding can be found as early as the eighteenth century up to today. While earlier baseboards of this type are usually taller than their later counterparts, in this case the earlier baseboard is the shortest of all (Type 7).

Molding Profiles		
		
		
Type 1[1]	Type 2	Type 3[2]
Date: ca. 1835	Date: 2000	Date: Unknown Although there is no source to identify this trim, it is similar in design to styles seen in other Mid-Atlantic states.
5" wide	3.5" wide	Approximately 4.5–6.25" wide
Location: D101.1 D101.2 D101.3 D102.1 D202.2 W101.1 W101.2 W102.1 W102.2 W201.1	Location: D102.3 W102.2 (right)	Location: FP101 FP102 - Recreation FP102 – Original - Located in R001

1 Barbara Yocum, "The Shelton House at Rural Plains Historic Structure Report," (Historic Architecture Program, Northeast Region, National Park Service Lowell, Massachusetts, August 2012), F-12.

2 Ibid.

Molding Profiles			
			
			
Type 4	Type 5	Type 6	Type 7
Date: Unknown Although there is no source to identify this trim, it is similar in design to styles seen in other Mid-Atlantic states.	Date: 1999	Date: 2000	Date: ca. 1835
2.5" tall	2.5" tall	Varies: 5" to 6" tall	4.5" tall
Location: Chair rail R101 Chair rail R102 (west of W102.2)	Location: Chair rail R102 (east of W102.2)	Location: R101 R201 R202	Location: R102

APPENDIX D: DOOR, WINDOW, & HARDWARE SCHEDULE

Appendix D: Door, Window, & Hardware Schedule

INTRODUCTION

A door, window, and hardware schedule is meant to document all of the doors, windows, and hardware at Lockhouse #29. The design of doors, windows, and their hardware can reflect the time in which they were made. Through the comparison of these elements, it is sometimes possible to reveal chronological patterns that otherwise could be difficult to see. In the case of Lockhouse #29, documentation was accomplished, and although not every element could be dated, a window of construction was possible for a few of the elements.

The need for such a study is great, as no interior photos or written accounts of the interior of Lockhouse #29 exist prior to a single undated poor quality photo of Mamie Cross taken sometime in the 1940s or 1950s. No further interior photos were taken again until preparations for the 1999 rehabilitation were underway. Unfortunately, those photos did not provide any new dating information.

Doors

There are four distinct door types in Lockhouse #29. As the 19th-century builders of Lockhouse #29 appear to have used a combination of the 1828 and 1836 C&O lockhouse plans, both specifications should be used as a valuable source in dating doors, windows, and hardware. The 1828 specification called for exterior doors with substantial strap hinges held with screws. Interior doors were specified as battened, fastened with wrought nails. In the 1838 specifications, exterior doors were to be held with strap hinges held with screws. Plain, paneled doors were designated for all interior doors.[1]

The most prevalent interior door style (D101.2, D102.1, & D102.2) in Lockhouse #29 today is plain, six-paneled wood doors. This is a style that was common from the 18th century to today, and is present in builders supply catalogs dating from as early as 1895. More importantly, this is the style that was called for in the 1836 interior specifications; and it is the most common style seen at Lockhouse #29. Although, without further analysis it is not possible to date these to 1836, this style door could be original to the house. The remaining interior door style (D202.1) is similar to the 1828 specification, with wood plank construction, but does not contain battens or wrought nails. Only one of the exterior doors resembles the specifications in 1828 and 1836. The basement entry door (D001.1) is hung with strap hinges held with screws. An additional, more in-depth study, to include paint analysis, wood identification, and door construction techniques, might provide further door dating information.

1 Thomas Swiftwater Hahn, "The Chesapeake & Ohio Canal Lock-Houses & Lock-Keepers," (West Virginia University, 1996), 67.

Windows

The 1828 window specifications called for 3-light hopper window in the basement window openings.[2] Its description of the 3-light basement window is exactly what can be seen in the 1933 HABS photos. Today the basement windows (W001.1 & W001.2) contain wood louvers and screens that were installed ca. 1990.

The current 6/6 sash configuration in the first-floor window openings match the 1836 window specifications.[3] They can be documented at Lockhouse #29 to as early as c. 1920.[4] This type of sash could have been used originally, and has been in use in the Mid-Atlantic region since long before the original build date. The current 6/6 first-story window frames and sash are actually a hybrid of old and new. A 1961 rehabilitation project addressed the poor condition of the frames and sash on the first story. The frames were rebuilt, and the sash were extensively repaired using existing muntins.

The second-story window openings currently contain 1/1 wood sash. This type of sash has been in use here since at least 1933 when HABS photos show W202.1 and W202.2 filled with 1/1 sash. One of the earliest known photographs show those same second-story openings containing a 3/6 configuration. Original C&O drawings (1828 & 1836) show both 2/2 and 6/2 sash in these openings.

Hardware

The majority of the hardware at Lockhouse #29 is difficult to date because their design is very commonplace. Some of these styles were sold for many years, crossing over many different architectural periods giving a wide dating window. Some of the locks and knobs were undatable leaving this topic open for further study. It is important to remember that the central method used for dating hardware for this report was builders catalogs, which unfortunately are only available from the late 19th century to the 1950s.

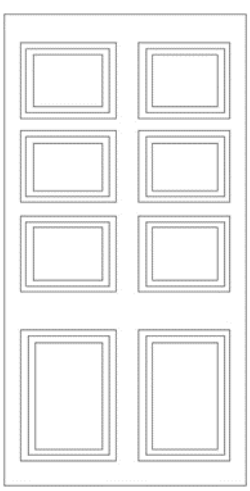
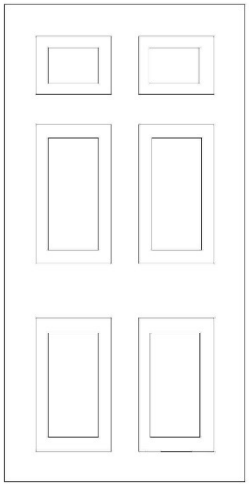
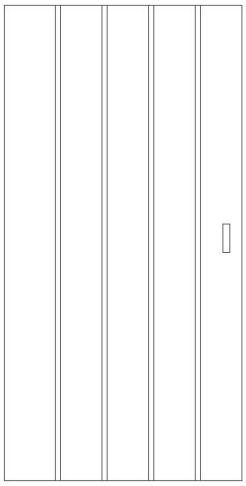
Both the 1828 and 1836 specifications provide limited information on the hardware at Lockhouse #29. Non-descriptive terms such as “stocklock,” and “7-inch knob lock” were used. The 1836 plans do call for Pennsylvania or German locks with iron handles. None of the doors have iron handles, but D101.2, D102.1, D102.2, D202.1 all have slightly different versions of an iron rim lock, with varying styles of knobs, levers, and locks on the reverse side. Only one was definitively identified in a 1930 builder’s catalog (Type 6). Type 3 lock is mounted upside down and is similar but different to Type 6. The simple round brass or metal style knobs were scattered throughout the late 1800s and early 1900s catalogs. However, this type of knob can also be found from an even earlier timeframe, which effectively limits the ability to precisely date these knobs.

The first-story windows have modern locks that were installed in 1999–2000. The second-story windows do not contain hardware.

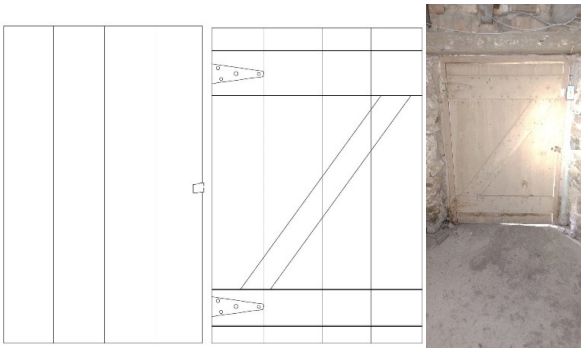
2 Ibid. As seen in the 1933 HABS photo (southwest oblique view).

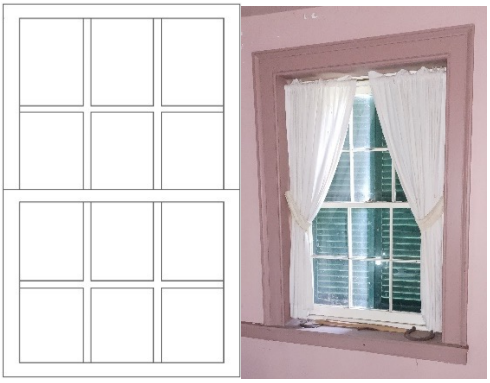
3 Ibid., 70.

4 Photo, (Park Headquarters, Chesapeake & Ohio Canal National Historical Park, Williamsport, Maryland, ca. 1920).

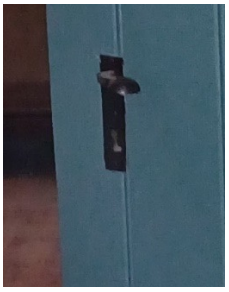
Door Schedule			
Room	**Type & Size**	**Date**	**Photo**
D101.1, D102.3	**Type 1** 8-panel, wood D101.1 – 7′ 4 ¾″ x 3′ x 2″ D102.3 - 6′ 10 ½″ x 3′ 1″ x 2″	Unknown	 
D101.2, D102.1, D102.2	**Type 2** D101.2 – 7′ 1″ x 2′ 11 ¼″ x 2″ D102.1 – 6′ 11 ½″ x 3′ x 2″ D102.2 – 6′ 7″ x 2′ 11 ¼ ″ x 2″	Unknown This door style is common from the 18th century to the present. Builders catalogs list this style from 1895[5] to 1959. It is the style found most at Lockhouse #29.	 
D202.1	**Type 3** D202.1 – 5′ 11 ½″ x 2′ 5 ½ ″ x 2″	Unknown	 

5 St. Louis Sash & Door Works, (Rand McNally & Company, Chicago, Ill., 1895), Accessed 10/9/2023. https://archive.org/

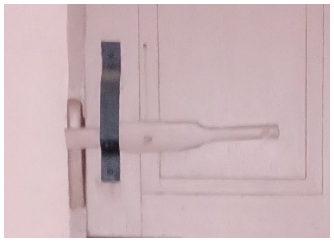
Door Schedule			
Room	**Type & Size**	**Date**	**Photo**
D001.1	**Type 4** D001.1 – 5′ ¼″ x 4′ ¾″	Unknown	

Window Schedule			
Room	**Type & Size**	**Date**	**Photo**
R101, R102	**Type 1** W101.1 & W101.2 – 4′ 8 ¼″ x 3′ 5″ W102.1 – 4′ 8″ x 3′ ½″ W102.2 – 4′ 8 ½″ x 3′ 1″	Mix of 19th century window construction and 1961 repair construction. Potentially dating from as early as ca.1920.	
R201, R202	**Type 2** W201.1 & W201.2 – 3′ 5 ¾″ x 2′ 11″ W202.1 – 3′ 5 ½″ x 1′ 11″ W202.2 – 3′5 ½″ x 2′ 11″	ca. 1933[6]	

6 These windows are documented for the first time in the 1933 HABS photos.

Locks and Knobs Schedule			
Room	**Type**	**Date**	**Photo**
D102.1 (Exterior), D202.1 (Interior)	**Type 1**	Unknown	
D202.1 (Exterior)	**Type 2**	Unknown	
D101.2 (Interior)	**Type 3**	Unknown	
D101.2 (Exterior)	**Type 4**[7]	Unknown	
D101.1 (Interior & Exterior)	**Type 5**	Unknown	

7 This knob is listed in builder's catalogs from 1890 to 1932. It is unlikely that the backplate belongs with this knob.

Locks and Knobs Schedule			
D102.2 (Exterior)	**Type 6**	ca. 1930[8]	
D102.2 (Exterior)	**Type 7**	Unknown	
D102.2 (Interior)	**Type 8**	ca. 1910[9]	
D102.3 (Interior)	**Type 9**	ca. 1903[10] This set was very common and appeared in builder's catalogs almost every year beginning in at around 1899 to 1937.	
D102.3 (Exterior)	**Type 10**	Unknown[11]	
D102.3 (Interior)	**Type 11**	Unknown	

8 This date is for the lock apparatus alone. The knob style was common for many years, making it difficult to date. Unknown, "Know Your Cost – 16th Edition," (Imse-Schilling Sash & Door Company, St. Louis, MO., 1930) 306.

9 This date is for the knob alone. The key escutcheon style date is unknown. Unknown, "Catalogue of Builder's Hardware," (Taylor & Boggis Foundry Co., Cleveland, OH., 1910) 18.

10 Ibid., 74.

11 This knob style was common for many years making it difficult to date.

Hinge Schedule			
Room	**Type**	**Date**	**Photo**
	Type 1	1900[12]	

12 This hinge style is pictured in builder's catalogs from 1890 to 1939. "Forged Iron Hardware," (McKinney Manufacturing Co., Pittsburgh, PA., 1929), 78.

APPENDIX E: "WE ARE AGAIN IN THE MIDST OF TROUBLE"

Appendix E: "We Are Again in the Midst of Trouble"

DAMAGE TO THE C&O CANAL FROM MAJOR FLOODS

Flood or Flood Sequence	Areas With Major Damage	Damage Estimate ($)
June 1836	Little Falls to Seneca, Harper Ferry, Dam 4, below the Cacapon River	Unknown
April 1843	Georgetown to Edwards Ferry, with lesser damage between Dam 4 and Dam 6	$20,000
September 1843	Georgetown to Dam	$30,000
March 1846	Dam 4 to Dam 5	$21,327.76[1]
July 1846	Georgetown to Dam 6, water highest from Williamsport to Dam 6	$21,327.76[1]
October 1847	Georgetown to Dam 6, heavier in certain areas below Dam 5.	$48,201.56[2]
April 1852	Town Creek to Georgetown, with the greatest damage below Seneca	$100,000[3]
February to June 1857	Dam 4 and 5	$90,000
Summer 1860 to Summer 1862	Various locations, but principally at Dams 4 and 5	$50,000
September 1870	Sandy Hook to Harpers Ferry, Seneca to Georgetown	$22,520.42

DAMAGE TO THE C&O CANAL FROM MAJOR FLOODS

[1]Combined damages from the March and July 1846 freshets.

[2]Damage estimate includes the follow-up flood of November 1847.

[3]Figure includes the cost of post-flood improvements.

Figure E.4. "We are Again in the Midst of Trouble: Flooding on the Potomac River and the Struggle for the Sustainability of the Chesapeake and Ohio Canal, 1828-1996." (Donald R. Shaffer, Ph. D., University of Maryland, College Park. July 1997.)

(Continued)

Flood or Flood Sequence	Areas With Major Damage	Damage Estimate ($)
August 1873	Antietam and Monocacy Divisions	$25,000
November 1877	The entire canal, with the worst damage in the in the middle section.	$238,500.21
April-May 1886 at Dam 6.	The entire canal, with worst damage at Dam 6	$82,000
May-June 1889	The entire canal, with worst damage below Harpers Ferry	$430,764.43
March-April 1924	Williamsport, Hancock, and Cumberland and some damage at Dam 1	$30,000
May 1924	The entire canal, with worst damage below Harpers Ferry	Unknown
March 1936	The entire canal.	$25,406.05[4]
October 1942	Worst damage below Harpers Ferry	$250,000[5]
June 1972	Georgetown to Hancock, with the worst damage below Harpers Ferry	$14,000,000
February 1984	The entire canal.	$580,000
November 1985	South Branch to Georgetown	Unknown

[4]Figure reflects only the repair of the canal at and below Little Falls.

[5]Figure reflects only the repair estimate from Georgetown to Great Falls.

APPENDIX B

DOCUMENTED FLOODS ON THE POTOMAC RIVER, 1828-1996

July/August 1829
February 1831
January 1832
February 1832
April 1832
November 1832
January 1834
April 1834
June 1834
August 1834
June 1836
November 1836
March 1838
January 1840
February 1840
May 1840
January 1841
August 1842
April 1843
August 1843
September 1843
March 1845
March 1846
May 1846
July 1846
November 1846
March 1847
October 1847
November 1847
December 1847
January 1849
April 1852
September 1852
June 1855
August 1855
February 1857
May 1857
June 1857
May/June 1858
April 1859
September 1859
January 1860
Summer 1860
November 1860
April 1861

DOCUMENTED FLOODS ON THE POTOMAC RIVER, 1828-1996
(continued)

July 1861
November 1861
April 1862
June 1862
April 1863
July 1863
December 1863
April/May 1864
March 1865
May 1865
October 1866
February 1867
October/November 1867
Winter 1868
May 1868
October 1868
September 1870
August 1872
February 1873
May 1873
June/July 1873
July 1873
August 1873
August 1874
January 1874
April 1874
March 1875
July/August 1875
September 1876
January 1877
November 1877
January 1879
June 1884
March/April 1886
May 1887
July 1887
May/June 1889
April 1891
October 1896
February 1897
April 1901
February 1902
June 1910
July 1912
Spring 1913
June 1915

DOCUMENTED FLOODS ON THE POTOMAC RIVER, 1828-1996
(continued)

August 1915
June 1916
March 1917
February 1918
December 1918
January 1919
May 1921
March/April 1924
May 1924
February 1925
November 1925
August 1926
September 1926
September 1927
April/May 1928
June 1928
April/May 1929
October 1929
July 1931
May 1932
April 1933
August 1933
December 1934
March 1936
January 1937
April 1937
May 1942
October 1942
September 1945
May 1947
April 1948
December 1948
June 1949
November 1952
October 1954
July 1955
August 1955
July 1956
January 1958
May 1958
April 1960
February 1961
March 1963
March 1967
June 1971
June 1972

DOCUMENTED FLOODS ON THE POTOMAC RIVER, 1828-1996
(continued)

October 1976
February 1979
February 1984
February 1985
November 1985
January 1996
September 1996