National Park Service
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Olmsted Center
for Landscape Preservation

Cultural Landscape Report for Martin Van Buren National Historic Site

Volume II: Updated Treatment Plan and Record of Treatment



"The Whigs would hardly believe that a much larger portion of my time is taken up with devising ways & means to multiply the quantity & improve the quality of manure than in forming political plans or any such matter."
— Martin Van Buren, 1843

Cultural Landscape Report for Martin Van Buren National Historic Site

Kinderhook, New York

Volume II:

Updated Treatment Plan

Record of Treatment

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Olmsted Center for Landscape Preservation
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Cover Photo: Artists depiction of the Van Buren era Lindenwald landscape. Original by S.N. Patricia (1996), updated in 2016 by Eric D. Whiting (Martin Van Buren National Historic Site Collection, hereafter MAVA).

Title Page: Roxbury Farm produces sustainably grown crops, including rainbow swiss chard, on Van Buren's historic farmland, 2014 (Olmsted Center for Landscape Preservation, hereafter OCLP).

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FOREWORD

Henceforth, manure… manure is the word.

-Martin Van Buren, 1843

This sentiment neatly captures Van Buren's progressive farming philosophy and provides a link from the past to the future, from the Free Soil Party of the mid -19th century to Roxbury Farm in the 21st century. In 1839 Van Buren moved back to his home town, Kinderhook, New York, to the estate he named Lindenwald. But this was not to be a retirement; rather it was a time to regroup for another bid for the presidency. His farm at the Lindenwald estate was not a gentlemen's idyll pastime, instead it was an experiment in sustainability. It was a personal and political imperative to demonstrate that, with the right techniques, soil could remain fertile enough to sustain generations of farmers and that this could be done with free labor instead of enslaved women and men.

The Lindenwald estate was more than a farm during Van Buren's lifetime, and the plan set forth in this document does more than restore a historic landscape. With Roxbury Farm managing the land using the core values associated with organic and biodynamic farming, a focus on soil health and attention to social justice, this plan echoes Van Buren's own scientific and social agenda. Thus, this plan creates something new for Martin Van Buren National Historic Site and potentially for the National Park Service, a political farmscape informed by the past but looking to the future.

Megan O'Malley, Site Manager

Martin Van Buren National Historic Site

ACKNOWLEDGMENTS

This report is the product of collaboration between staff from the National Park Service Olmsted Center for Landscape Preservation, Martin Van Buren National Historic Site, and the Northeast Regional Office. This report builds on work initiated in the preceding volumes, including the *Cultural Landscape Report for Martin Van Buren National Historic Site, Volume I: Site History, Existing Conditions, Analysis and Evaluation* (1995), the *Volume II: Treatment Plan* (1997), and *A Farmer in his Native Town: Cultural Landscape Report for the Martin Van Buren Farmland* (2004). This treatment plan has been expanded and updated to reflect the management guidance provided in the recently completed *General Management Plan for Martin Van Buren National Historic Site*.

At Martin Van Buren National Historic Site, Patricia West McKay, Site Curator and Historian, served as project lead, and offered the enthusiasm, insight, and research materials necessary to develop the treatment and record of treatment chapters. Jim McKay, Chief of Interpretation, Steve Hanaburgh, Facility Manager, Dave Hayes, Chief of Facilities and Resource Management, and Sarah Olson, former Superintendent, participated in project workshops and provided specialized information as requested. Mike Delaney provided insight regarding landscape maintenance practices and changes to the landscape including removal and planting of trees since the late 1990s. Jody Bolluyt, of neighboring Roxbury Farm, involved from the beginning of the project, graciously attending project workshops and providing feedback to perpetuate sustainable agriculture and cultural resource preservation. Megan O'Malley, Site Manager, and former Site Manager, Justin Monetti, reviewed draft reports and provided valuable input at project workshops, including insightful comments regarding project phasing and implementation. The dedication and talent of O'Malley, Superintendent Larry Turk, and park staff, will carry the recommendations of this report forward.

Colleagues in allied fields, including planning, archeology, and architecture, provided expanded perspective and understanding of the Lindenwald landscape. James O'Connell, Community Planner, Northeast Region, reviewed the draft of this report and provided insight regarding the recently completed *General Management Plan* (GMP). Jim Harmon, Archeologist at the Northeast Region Archeology Program, shared his wealth of knowledge regarding the rich archeological resources at Martin Van Buren National Historic Site. Rebekah Krieger, Conservator at the Northeast Region Historic Architecture, Conservation & Engineering Center, shared findings from the *Historic Structure Report: Farm Cottage*, a report completed concurrently with this document.

At the Olmsted Center for Landscape Preservation, Bob Page, Director; Margie Coffin Brown, Senior Project Manager, Preservation Planning; and Alexandra von Bieberstein, Historical Landscape Architect participated in the project workshops and planning efforts. Alexandra von Bieberstein developed the report narrative and graphics. Margie Coffin Brown provided project oversite, guidance, and reviewed multiple drafts. Bob Page provided ongoing program support that routinely makes the work of the Olmsted Center possible. Sarah Sancehz, SCA Conservation Associate, assisted in the preparation of the vegetation inventory and accompanying field work. The efforts of Kim Ramos, Budget Analyst, and Amy McDermott, former Budget Analyst, allowed all of the pieces of the administrative puzzle to come together.

This report, combined with the forthcoming *Agricultural Management Guidelines,* will provide guidance to perpetuate the management and stewardship of Lindenwald and the Van Buren farmland. Published in the centennial year of the National Park Service, this document provides specific direction to preserve resources and enrich visitor experience by enhancing the historic character of the landscape.

INTRODUCTION

Martin Van Buren National Historic Site is located twenty miles south of Albany and two miles east of the Hudson River in Kinderhook, Columbia County, New York. The Hudson Valley property known as "Lindenwald" was the home of Martin Van Buren (1782–1862), the nation's eighth President from 1837 to 1841. Upon acquiring the property in 1839, Van Buren managed it as an experimental and working farm, and resided there from the end of his presidential term until the end of his life. The site is defined by its historically rural setting, upper and lower river terrace topography, and the westward view to the Catskill Mountains. The park preserves the core of Van Buren's original property, defined by a 2.5-story brick mansion built in 1797 and enlarged between 1849 and 1850 by Van Buren to include a five-story tower. To the front of the mansion a shady lawn is enclosed by a semi-circular tree-lined entry drive and a remnant segment of the Old Post Road. Beyond the formal landscape around the mansion, the balance of the park's 295.5-acre authorized boundary is primarily active farmland bordered by woodland.

For the past four decades, the National Park Service has cared for the core of the Martin Van Buren property, undertaking improvements consistent with National Park Service policies and guidelines, as well as park management objectives. In 2009, the park expanded its boundary to encompass almost of all of Van Buren's farmland. While the historically significant property is intact as an estate and working farm, the landscape has changed since the Van Buren period due to the loss of historic outbuildings and barns, the addition of new farm buildings and circulation routes, the growth and decline of vegetation, and the accommodation for public use. Additional changes to the landscape are proposed to enhance historic character, expand regional recreational opportunities, and establish a park orientation center with universally accessible facilities (Figure 0.1).

PURPOSE, SCOPE, AND METHODOLOGY

The Cultural Landscape Report (CLR) is the primary document used by the National Park Service to guide the treatment and management of a cultural landscape. This treatment volume builds upon previous landscape documentation and establishes site specific guidelines for preserving and enhancing the historic landscape character. The report follows methods outlined in *A Guide to Cultural Landscape Reports: Contents, Process, and Techniques* (National Park Service, 1998).

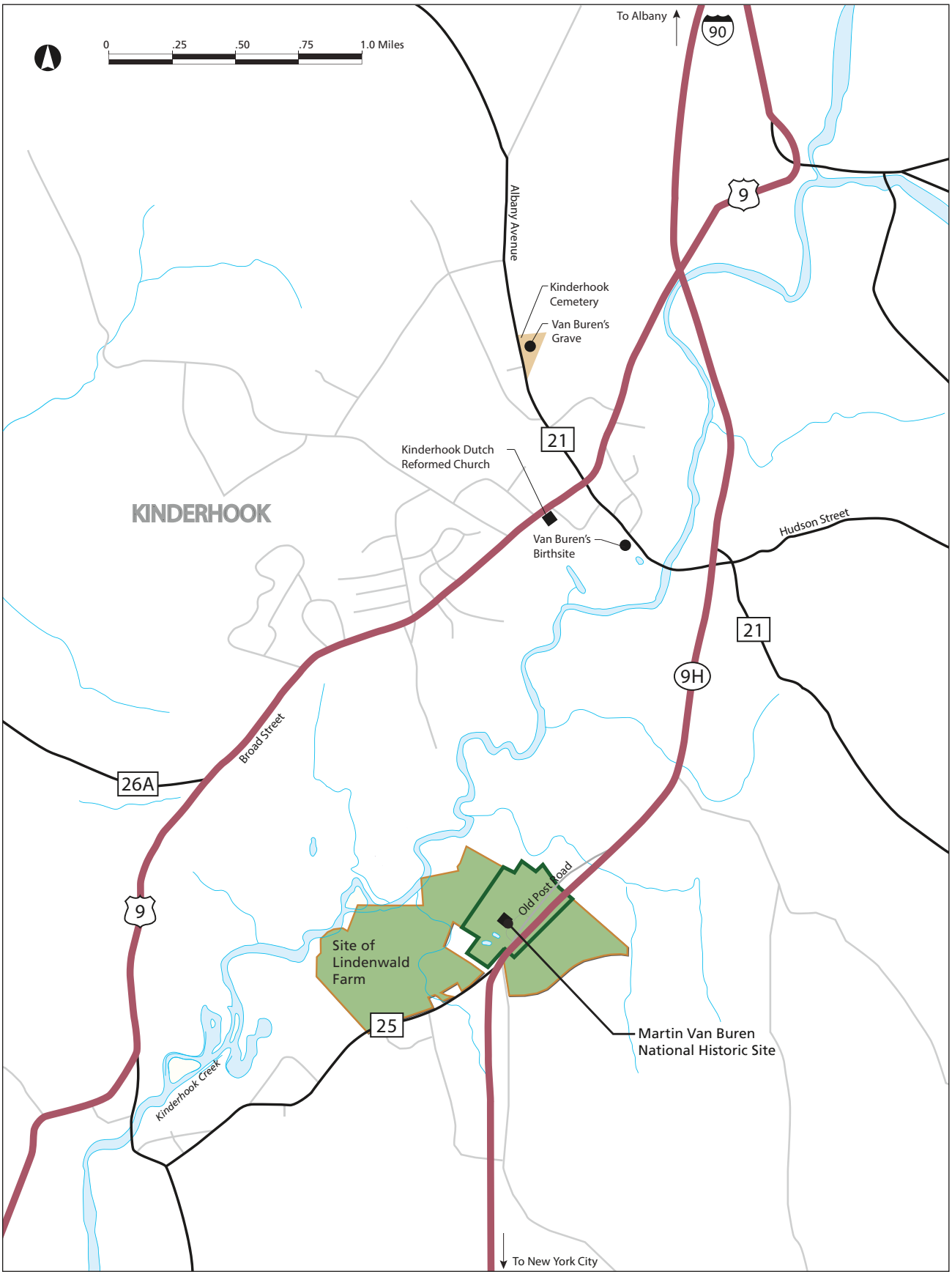


Figure 0.1. Martin Van Buren National Historic Site is located in Kinderhook, New York, immediately east of the Kinderhook Creek and west of Route 9H. The expanded park boundary is delineated by the orange line, while the dark green line represents land currently held by the National Park Service in fee or easement, 2015 (OCLP, adapted from GMP).

The guidance in this report expands upon the management direction outlined in the park's 2015 *General Management Plan* (GMP), which specifically recognizes the cultural landscape as significant for its association with the agricultural pursuits of Martin Van Buren. This updated treatment plan combined with forthcoming agricultural management guidelines will articulate an approach for the short and long-term care of the landscape while retaining the integrity of the property's core as a National Historic Landmark and the surrounding landscape listed on the National Register.

The objective of this report is to outline a program of recommendations and tasks that will preserve what survives of the historic landscape, restore key features, and rehabilitate the landscape characteristics to both recapture the landscape's former character to the greatest extent possible and support park and farm operations. Furthermore, recommended actions seek to enhance parallels between Van Buren's experimental and scientific agricultural practices and contemporary sustainable farming techniques. Specific treatment tasks address the issues associated with the restoration of historic vegetation patterns, management of a maturing landscape and viewsheds, enhancement of visitor experience and access, connections to agricultural practices, and interpretation of missing historic features.

SITE HISTORY OVERVIEW

Previous landscape documentation for Lindenwald includes the *Cultural Landscape Report for Martin Van Buren National Historic Site, Volume I: Site History, Existing Conditions, and Analysis* (1995), *Cultural Landscape Report for Martin Van Buren National Historic Site, Volume 2: Treatment Plan* (1997), *A Farmer in his Native Town: Cultural Landscape Report for the Martin Van Buren Farmland* (2004), *Turf Management Plan for Martin Van Buren National Historic Site* (2010), *Historic Grounds Report* (1981), and the "Cultural Landscape Inventory for Martin Van Buren National Historic Site" (2013). These reports contain detailed narratives of the Van Buren property history, supplemented with photographs, maps, and period plans. A summary of the site history follows.

Prior to European settlement, the Mahicans, a Native American tribe of the Lenni-Lenapes, occupied the valley of the Hudson River. In 1609 Henry Hudson made the first documented European voyage up the Hudson River. After witnessing many Native American children playing, he named the place Kinderhook, or "childrens corner." By the late 1700s, however, the Mahicans were displaced from the area by European settlers, particularly after the English defeated the Dutch in 1664. Many Dutch families remained in the area, and along with a wave of English settlers transformed the Kinderhook landscape into a patchwork of working farms. The land that would later become Lindenwald was

part of the Powell Patent of 1664, a portion of which was acquired by the Van Alstynes in the 1660s. The Van Alstyne stone house appears on the 1762 Voorman map of Kinderhook and was likely located on the lower terrace near Kinderhook Creek.[1]

Peter Van Ness, a well-known Revolutionary War commander, judge, and New York senator, purchased 260 acres from Van Alstyne in 1780. He and his family lived in the existing stone house on the property and operated a prosperous farm. In 1797, Van Ness constructed a Federal-style brick house on the upper terrace by the Old Post Road, the main north-south thoroughfare in the region. The addition of the large new house and curving tree-lined entry drive distinguished his property as one of the most prominent gentleman's estates in the area. When Peter Van Ness died in 1804, he passed the home and 137 acres to one of his sons, William. The remaining acreage went to his eldest son, John. Falling into financial trouble in 1824, William Van Ness sold his half of the estate to friend and mayor of New York City, William Paulding, who intended to hold the property until Van Ness could re-purchase it from him. This proposed transaction never took place and in 1839, President Martin Van Buren purchased the 137-acre estate.[2]

Van Buren named his Kinderhook estate "Lindenwald" and envisioned it as a place to pursue his interest in agriculture, as well as a place to receive dignitaries, politicians, and other guests. After a tumultuous term as President, including the Financial Panic of 1837 and an extended economic depression, Van Buren lost the bid for reelection in 1840, forcing an early return to Lindenwald in 1841. As a figure of national importance, Van Buren sought notoriety through the progressive management of Lindenwald as a well-heeled country estate and farm, which emulated Thomas Jefferson's Monticello and Andrew Jackson's Hermitage. Van Buren chose Lindenwald for its highly visible location on the Old Post Road and for its distinction as the former home of Peter Van Ness.[3]

While serving as President in Washington, D.C., Van Buren began improving the deteriorated property immediately after acquiring it by issuing directives to his foreman in Kinderhook. Stables, wood houses, fish ponds, and a hothouse were added in the early years, and improvements to the estate continued after his return to Kinderhook. He increased the size of the farm to approximately 220 acres by 1845 with the purchase of adjacent parcels, and built two large barns and a dwelling for his farm foreman. Intending the farm to be self-sufficient, Van Buren planted field crops—predominantly potatoes, hay, rye, corn, and oats—and tree fruits such as pear and apple, for market.[4]

In creating a prosperous working farm, Van Buren's property did not assume the highly designed and manicured appearance inspired by the popularity of Andrew Jackson Downing and Alexander Jackson Davis's adaptations of English pastoral landscape structures and garden designs. However, Van Buren did hope to portray the refined appearance of a country gentleman, fitting his station in

life. To accommodate his sons, daughters-in-law, and numerous grandchildren as well as to improve upon the simple Van Ness house, Van Buren commissioned architect Richard Upjohn to renovate the main house in 1849. After the lengthy construction period, Upjohn transformed the Federal-style house into a larger Italianate-inspired dwelling featuring a dramatic five-story tower. The grounds surrounding the main house included two gatehouses, a hothouse, greenhouse, garden, a formalized semi-circular entry drive lined with locust trees, and a cultivated lawn. Van Buren consciously developed the home's formal presentation from the Old Post Road to project his identity as an elder statesman and gentleman farmer amongst his peers.[5]

Van Buren launched two unsuccessful campaigns to regain the presidency in 1844 and 1848. Throughout this time and through the 1850s, Van Buren was occupied with managing the farm, writing his memoirs, and entertaining at Lindenwald. Van Buren died in 1862 and willed the property to his three surviving sons, although none chose to live at Lindenwald. His second eldest son, John, purchased the estate shares owned by his brothers in 1863 but did not occupy or improve the estate. After less than a year, John sold the financially burdensome property to Leonard Jerome in 1864.[6]

Over the next ten years, the property changed hands numerous times, passing from one absentee owner to the next. This cycle ended with the Wagoner brothers' purchase of the 220-acre estate in 1874 and their subsequent ownership for forty-three years. Known locally as industrious and successful farmers, the Wagoners maintained the property in good condition and managed the area immediately surrounding the home as mowed turf with a scattering of informally placed trees. They farmed the property intensively, evidenced by their use of the southern portion of the front lawn as a corn field. Along with several new buildings erected by the Wagoners, many of Van Buren's farm buildings remained in use during this period in a central area of the property behind (to the west of) the main house.[7]

The first division of Van Buren's original 221 acre estate occurred in 1917 when the Wagoners sold 185 acres, the majority of the property, to Dr. Bascom Birney, beginning deProsse Period. The Wagoners retained the 36 southernmost acres of the property. The Birney family, from Yonkers, New York, purchased the farm as an investment but later occupied the property full-time. Several members of the Birney family held title to the property, but the longest owner was Clementine Birney deProsse, who lived on the site with her family from 1930 to 1957. The Birneys and deProsses farmed the land throughout the 1920s and 1930s during a difficult economic period of depressed agricultural prices and overall hardship for the farming community. Many of the aging agricultural buildings fell into disrepair but the main house remained well-tended thanks to Clementine's understanding of the property's historical significance.[8]

The 1930s and 40s represented a period of enormous change at Lindenwald. In 1930, the path of the Old Post Road was altered by the construction of Route 9H. The new road bed was located farther east than Old Post Road, which left a triangular piece of land buffering the northeastern portion of the property from the highway. During the later years of the deProsse tenure, maintenance of the vegetation around the mansion declined, and shrubs, grass, and trees became overgrown. Deterioration of farm buildings, limited maintenance of orchards, and loss of aged vegetation contributed to a change in the property's character. The deProsse family sold the farmland in 1946 to local farmer Dudley Ray Meyer, Jr., but retained thirteen acres and the mansion, where they resided until 1957.[9]

Using farm tractors and earthmoving machines, Meyer made substantial changes to the farm to modernize the languishing fields, orchards, fences, and buildings that had deteriorated over the previous twenty years. He removed hedgerows, cut down orchards, burned unstable buildings, added larger drainage ditches, altered topography, and built new roads and barns. Meyer transformed the outdated farmland, which retained many character defining features from the nineteenth century, into a modern, post-World War II productive farm.[10]

Ken Campbell purchased the mansion and the surrounding thirteen acres from the deProsses in 1957. He addressed deferred maintenance on the deteriorated property and made stylistic changes to the house and landscape, including a new two-story Neo-Colonial Revival porch on the front of the mansion and details on the façade that reduced the Italianate influence. He operated an antique business out of the historic South Gatehouse and a new shop building near the gatehouse. Items for sale were often displayed on the lawn. Campbell introduced ornamental fences, imitation well houses, trellises, and other eclectic lawn decorations to the mansion landscape. Toward the end of Campbell's ownership estate maintenance waned and the condition of the property deteriorated.[11]

In 1973, the National Park Foundation purchased the approximately thirteen-acre Martin Van Buren mansion property. The remainder of Van Buren's historic estate was owned by two separate local farmers, a portion of which had been developed as a residential subdivision. A year later, the Martin Van Buren National Historic Site was established and the property transferred to the National Park Service from the National Park Foundation. The deteriorated property required extensive rehabilitation and systems upgrades. The National Park Service cleared overgrown vegetation, removed ornamental landscape features from the Campbell period, upgraded utilities, and restored the mansion. Park staff operated from temporary structures placed west of the mansion, and later moved to temporary structures north of the mansion.

The park carried out landscape projects including the restoration of the formal entry drive and locust allée, replacement of aged white pines along the Old Post Road trace, and installation of screening plants around the visitor parking lot

and temporary park office structure. The park's authorized boundary increased significantly in 2009 from 40 acres to almost 300 acres, allowing for the protection of the surrounding property that was once part of the historic farm and protecting the park's viewshed.

Three previous cultural landscape reports have been prepared for the property: the first report, published in 1995 provides a site history, existing conditions, and analysis for the formal mansion landscape termed the 'house lot', the second, published in 1997, provides landscape treatment recommendations for the formal landscape, and the third, published in 2004 provides site history, existing conditions, and analysis of the Van Buren farmland.

EXISTING CONDITIONS SUMMARY

The landscape of Martin Van Buren National Historic Site continues to be defined by its historically rural Hudson Valley setting, upper and lower river terrace topography, and the distant Catskill Mountains visible in the park's western viewshed. The surrounding woodland and farmland within the park's nearly 300-acre authorized boundary remains undeveloped and actively farmed.

The park continues to preserve much of the original Van Buren estate within its boundary. Resources include the Lindenwald mansion, South Gatehouse, North Gatehouse foundation, Farm Cottage, and the Farm Office site. A semi-circular driveway lined with locust trees leads to the 2.5-story brick Lindenwald mansion built in 1797 and enlarged by Van Buren in 1849 – 1850. A remnant segment of the Old Post Road is located near the east edge of the property. A portion of the circular front garden has been restored near the front entrance to Lindenwald. Specimen trees continue to dot a well-manicured law as they did during the historic period. Remnants of Van Buren's fish ponds remain. The approximate site of the carriage barn, located northwest of the mansion is marked with scattered foundation stones. Existing conditions are documented in the existing conditions maps (Drawing 3.4 and 3.5) and described within Chapter 3, Treatment Tasks and Chapter 5, Record of Treatment.

SIGNIFICANCE AND INTEGRITY OVERVIEW

The park commemorates the life and political career of Martin Van Buren, and interprets the issues facing America during the formative years of the country through the turbulent decades leading to the Civil War. Van Buren was a dominant figure in antebellum politics and the primary architect of the American political

party system. He entertained a wide variety of guests on the Kinderhook property for twenty-three years between 1839, during his presidency, until his death in 1862.

The core of the Lindenwald property—thirteen acres including the mansion—was designated a National Historic Landmark in 1961 and administratively listed without documentation in the National Register of Historic Places in 1966 with the passage of the National Historic Preservation Act. Documentation for the historic site was accepted by the Keeper of the National Register on February 8, 1980.

In 2009, Congress approved the expansion of the park's boundary to include an additional 261 acres of land encompassing all of Van Buren's farmland northwest of New York State Highway Route 9H and Albany Avenue (County Road 25) and some additional property intended to provide protection for its setting (Figure 0.2). On July 11, 2012, the Keeper accepted an amendment to the 1980 National Register documentation that evaluated all resources within the expanded boundary. The amendment identified significance for the 176.95-acre historic district under National Register criteria A, B, C, and D in the areas of politics/government, architecture, and archeology.

The historic district derives its primary significance under Criterion A and B at the national level in the area of politics/government for its association with Martin Van Buren (1782–1862) and his political career during the years between 1841 and 1848. During that period, Van Buren, who moved to Lindenwald after his single term as president of the United States (1837–1841), launched two unsuccessful but historically important campaigns to regain the presidency in 1844 and 1848. The district is significant under Criterion B as the only surviving property that is associated with the life of Martin Van Buren. Lindenwald, the only home that Van Buren ever owned, represents the culmination of a remarkable political career that saw him rise from meager beginnings as a Kinderhook tavern-keeper's son to become the eighth president of the United States. His subsequent development of Lindenwald into a country estate and working farm reflected his Jeffersonian beliefs in the value and virtue of agriculture to a democratic society.

Lindenwald is locally significant under Criterion C in the area of architecture as an important example of a Federal-style mansion that was redesigned by architect Richard Upjohn to reflect the popular Italian Villa style of the mid-nineteenth century. The district is significant under Criterion D in the area of archeology and the subcategories "Prehistoric" and "Historic-Non Aboriginal" as a property that has yielded, or may be likely to yield, information important in prehistory or history. Surveys and excavations conducted on the property to date have identified four sites that address substantive research questions regarding Native American usage of the land, Van Buren's occupancy of Lindenwald, and development of the property by previous and subsequent owners.

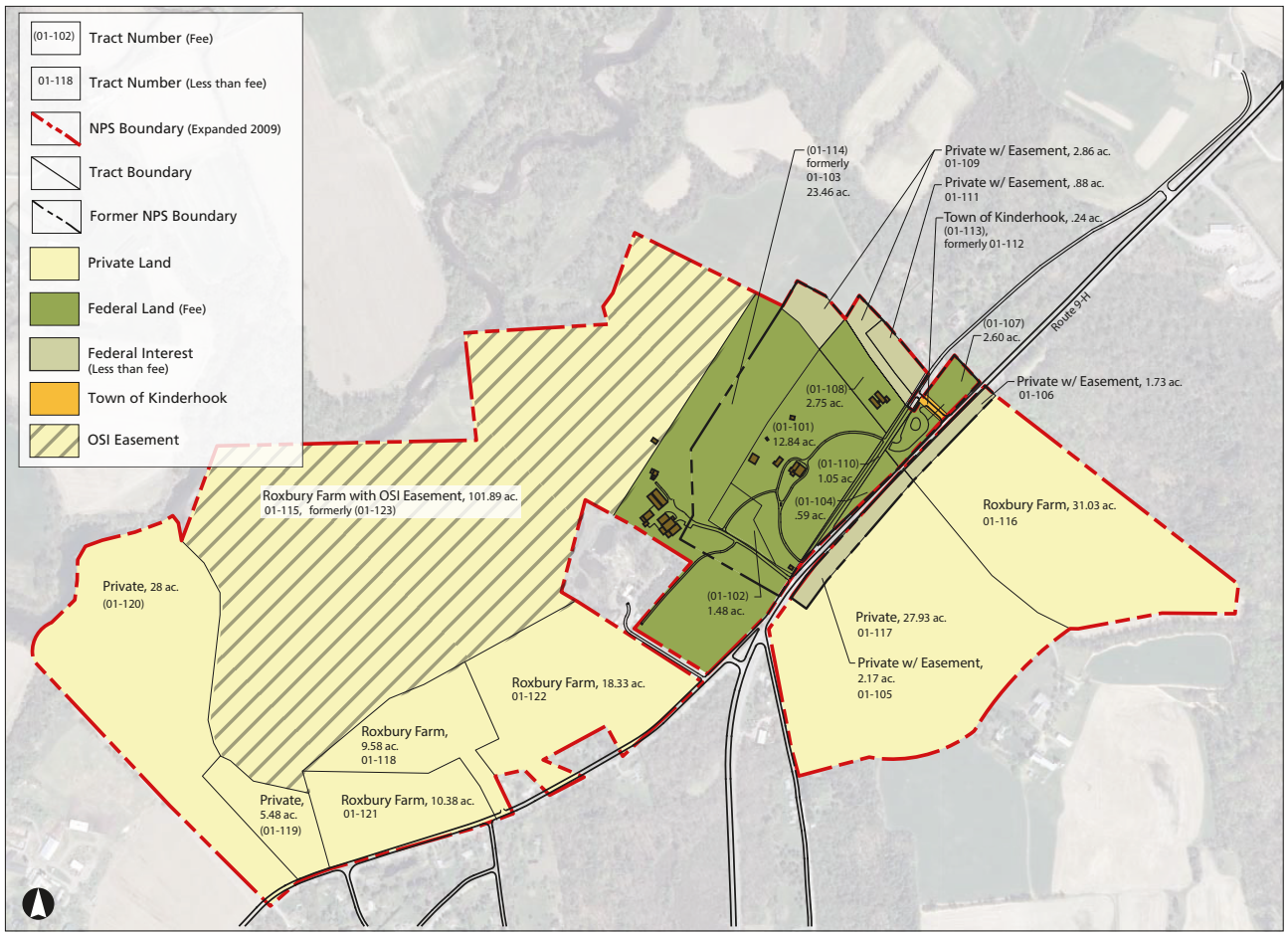


Figure 0.2. Expanded in 2009, the park boundary (shown in red) encompasses 295 acres with parcels in both private and public ownership and several easements. The park boundary before expansion is represented by a dashed black line. Federal land owned in fee or less than fee is shaded dark or light green, respectively. Yellow parcels are privately owned. The Open Space Institute (OSI) easement is represented by striped lines within parcel 01-115. The parcel owned by the town of Kinderhook is shaded orange, 2015 (OCLP, adapted from GMP).

The physical integrity of the landscape is evaluated by comparing landscape characteristics and features present during the two historic periods of significance (1797, 1839–1862) with current conditions. Many of the landscape's historic characteristics and features are still intact. The spatial organization of the formal mansion grounds, with the imposing home, semi-circular lawn, and gracefully curved entry drive, is still distinct from the open farmland west of the mansion. Vegetation patterns remain similar through the restored black locust allée, mowed turf lawn, and cultivated acreage of the farm fields. The Italianate-style mansion has been restored and remains the focus of the historic core, as it was during Van Buren's time, and the extant South Gatehouse contributes to the presentation of historic conditions. The Van Ness monument remains visible in the field to the west of the mansion, as does one of Van Buren's fish ponds south of the mansion. Importantly, the historic setting is largely intact due to the retention of views of the Catskill Mountains and the preservation of actively farmed land in the park's viewshed. However, much has changed since 1862. Notably, many of the historic structures known to Van Buren are no longer extant, including all of the barns, the Farm Office, and the North Gatehouse. The removal of these structures

has altered the spatial arrangement of the area behind the mansion, which was historically the center of the working farm. Other key features including the orchards and formal garden are gone, further altering the character around the mansion. Additionally, the dense north woodlot area, once Van Buren's north orchard, encroaches on the formal organized landscape. Removal of hedges and fencerows in the 1940s and 50s resulted in increased agricultural field sizes on the lower terrace, and twentieth-century agricultural practices have altered the topography and drainage of some fields.

TREATMENT SUMMARY

The overall treatment approach for Martin Van Buren National Historic Site is articulated in the park's *General Management Plan* (2015). In the preferred alternative, the cultural landscape will be restored and rehabilitated to reflect its appearance in the mid 1800s, to coincide with the ownership and occupancy of Martin Van Buren from 1839 to 1862. Treatment will perpetuate ongoing agricultural operations on Van Buren's farmland and allow visitors to tour the historic core of the property and explore edges of the historic farmland.

As detailed in the treatment chapter, restoration will perpetuate the historic landscape setting for the Lindenwald mansion, while rehabilitation will allow for compatible alterations and new additions to facilitate the continued use of the property as a national historic site.

General treatment recommendations address strategies for:

- Protection of archeological resources.
- Enhancement of the historic character of the mansion and farmlands through removal of non-historic features.
- Enhancement of the historic character of the landscape through interpretation of missing features.
- The perpetuation of sustainable agriculture highlighting the parallels between Van Buren's progressive farming methods and best practices for contemporary sustainable agriculture.
- Minimizing the effects of off-site development.
- Development of sustainable site facilities that meet park and visitor needs and do not impact the historic character of the site.
- Expansion of opportunities for recreation.
- Expansion of opportunities for community involvement.

Collectively, the recommended treatment tasks will enhance the historic character of the property while improving park and agricultural operations and creating opportunities for visitor enjoyment and engagement. The report also incorporates a prioritized implementation strategy that integrates current Facility Management System Software (FMSS) data.

RECORD OF TREATMENT SUMMARY

During the past seventeen years, the park has undertaken a number of projects recommended in the *Cultural Landscape Report for Martin Van Buren National Historic Site, Volume II: Treatment Plan* (1997). The final chapter of this report documents the completed treatment work for the historical record and future reference. For example, the park has restored the black locust allée and replanted many trees along the historic section of the Old Post Road. Summaries of completed projects included a brief overview of the historic condition, a brief overview of existing conditions prior to treatment, and documentation associated with treatment implementation.

Endnotes

1. David Uschold and George Curry, *Cultural Landscape Report for Martin Van Buren National Historic, Site Volume I: Site History, Existing Conditions, and Analysis* (Boston: National Park Service, Olmsted Center for Landscape Preservation, 1995), 11-13; Llerena Searle, *A Farmer in his Native Town: Cultural Landscape Report for the Martin Van Buren Farmland* (Boston: National Park Service, 2004), 10-11.

2. Uschold and Curry 1995: 13; Searle 2004: 20.

3. Uschold and Curry 1995: 31; Leonard L. Richards, Marla R. Miller and Erik Glig, *A Return to His Native Town: Martin Van Buren's Life at Lindenwald, 1839-1862: Historic Resource Study* (Amherst, Massachusetts: National Park Service, 2006), 20, 29.

4. Uschold and Curry 1995: 31; Searle 2004: 44-55.

5. Uschold and Curry 1995: 32; Searle 2004: 26; HRS 2006: 31,76,113; National Register amendment 2012: 16.

6. Uschold and Curry 1995: 32.

7. Uschold and Curry 1995: 59-66.

8. Searle 2004: 85-92.

9. Searle 2004: 85-92.

10. Searle 2004: 107-115.

11. Uschold and Curry 1995: 77- 103; Searle 2004: 107.

1. TREATMENT FRAMEWORK

This chapter describes the framework within which the landscape treatment recommendations and tasks in this report have been developed. Based on park legislation, mission, policies, and planning, the framework supports a treatment philosophy that calls for restoring and enhancing the landscape character of the historic core to reflect its appearance during Martin Van Buren's residency from 1839 to 1862 and rehabilitating the surrounding landscape to accommodate contemporary uses. Application of this treatment philosophy will in time present visitors with a landscape that strongly evokes the historic character of Van Buren's nineteenth-century estate and farm within the larger agricultural context of the Hudson Valley.

NATIONAL PARK SERVICE REGULATIONS AND POLICIES

The treatment framework for Martin Van Buren National Historic Site is guided by the mission of the National Park Service, defined in the *Organic Act of 1916*, ". . . to conserve the scenery and the natural and historic objects and the wild life therein and to provide for the enjoyment of the same in such manner and by such means as will leave them unimpaired for the enjoyment of future generations." The application of this mission to cultural landscapes is articulated in *The Secretary of the Interior's Standards for the Treatment of Historic Properties with Guidelines for the Treatment of Cultural Landscapes*, which in turn is interpreted within a hierarchy of National Park Service management regulations and policies.

As a cultural resource, management of the Martin Van Buren National Historic Site landscape is defined by *36 Code of Federal Regulations: Parks Forests and Public Property, Part 2: Resource Protection, Public Use and Recreation* (Preservation of Natural, Cultural, and Archeological Resources). The application of these regulations to cultural landscapes is contained within *National Park Service Management Polices* (2006), *Director's Order 28: Cultural Resource Management*, and *NPS-28: Cultural Resource Management Guideline*.

National Park Service *Management Policies* call for the Park Service to ". . . provide for the long-term preservation of, public access to, and appreciation of, the features, materials, and qualities contributing to the significance of cultural resources" (Section 5.3.5).

Several management standards outlined in *NPS-28* provide a broad philosophical base for treatment approaches outlined in *The Secretary of the Interior's Standards*

and are directly applicable to the Martin Van Buren National Historic Site landscape:

- Land use activities, whether historic or introduced, do not impair archeological resources.[1]
- Uses addressing programmatic needs or park facilities within a cultural landscape, such as visitor centers, parking, interpretive structures, housing, administrative facilities, maintenance yards, and storage areas, are carefully considered in the context of the significance of the landscape.[2]
- Use is monitored and regulated to minimize both immediate and long-term damage.[3]
- Contemporary facilities do not adversely impact the landscape's physical and visual character. New facilities are compatible with the historic character and material of the landscape.[4]
- Contemporary structures to facilitate access, such as ramps, railings, signs, and curb cuts, are designed and located to minimize adverse impacts on the character and features of a cultural landscape.
- Access to a cultural landscape that is vulnerable to damage from human use is limited, monitored, or controlled.[5]
- All treatment and use decisions reflect consideration of effects on both the natural and built features of a cultural landscape and the dynamics inherent in natural processes and continued use.[6]
- Use of destructive techniques, such as archeological excavation, is limited to providing sufficient information for research, interpretation, and management needs.[7]
- All work that may affect cultural landscapes is evaluated by a historical landscape architect and other professionals, as appropriate.[8]
- All modification, repair, or replacement of materials and features is preceded by sufficient study and recording to protect research and interpretive values.[9]
- New work, materials, and replacement features are identified, documented, or permanently marked in an unobtrusive manner to distinguish them from original work, materials, and features.[10]
- A proposed treatment project is initiated by the appropriate programming document, including a scope of work and cost estimate from a cultural landscape report. Such projects include preservation maintenance as well as major treatment. No treatment is undertaken without an approved cultural landscape report or work procedure specifying the work, and Section 106 compliance.[11]
- A treatment project is directed by a historical landscape architect and performed by qualified technicians.[12]
- Representative features salvaged from a cultural landscape are accessioned and cataloged, provided that they fall within the park's scope of collection statement.[13]

- All changes made during treatment are graphically documented with drawings and photographs. Records of treatment are managed as archival materials by a curator or archivist within the park's museum collection.[14]
- Work on historic structures, including modifications to improve drainage and access, does not harm the character-defining features of a cultural landscape.[15]

ENABLING LEGISLATION AND BOUNDARY ADJUSTMENT

Martin Van Buren National Historic Site, previously designated a National Historic Landmark in 1961, was one of six national parks established on October 26, 1974 through Public Law 93-486, after a nearly seventy-year-long effort on the part of individuals, community groups, and organizations to preserve Lindenwald as a public historic site.

> "Unless otherwise provided hereafter, the Secretary of the Interior...is authorized to acquire by purchase with donated or appropriated funds, donation, exchange, or by transfer from another Federal agency such lands and interests in lands as hereafter provides for establishment as units of the national park system, as follows: . . .(6) for establishment as Martin Van Buren National Historic Site, New York, those lands depicted on the map entitled "Boundary Map, Martin Van Buren National Historic Site, New York", number NHS-MAVA-91,001 and dated January 1974, which shall include the home of Martin Van Buren, eighth President of the United States."[16]

The initial authorized boundary encompassed 39.55 acres, of which 21.07 acres were owned in fee simple by the National Park Service, 18.24 acres were protected by conservation easements, and 0.24 acre was a private inholding.[17] The Omnibus Public Land Management Act of 2009 expanded the boundary of Martin Van Buren National Historic Site to 295.53 acres, including the majority of Van Buren's farmland. Within the expanded boundary, 44.53 acres are owned in fee simple by the National Park Service, 18.24 acres are protected through conservation easements, 101.89 acres are owned by Roxbury Farm with a conservation easement through the Open Space Institute, 59.74 acres are owned by the Open Space Institute and under conservation easement, and 71.13 acres are private inholdings. The Town of Kinderhook owns one inholding encompassing a portion of the entry drive, while the remaining inholdings are zoned for agricultural use.[18]

During a hearing before the subcommittee on Interior and Insular Affairs in the early 1970s Park Service Director George Hartzog publicly recognized the importance of protecting the agricultural context surrounding the Lindenwald mansion. Hartzog emphasized the value of preserving productive land, the site's scenic viewshed to the west, and providing protection from development along Route 9H.[19] The 2009 park boundary expansion allows increased opportunities for the park to interpret Van Buren's interest in progressive farming and political

beliefs, which emphasized the value of agriculture and free labor to the future of democracy.[20]

RELATIONSHIP TO PARK PLANNING DOCUMENTS

A series of planning documents have guided the management and physical development of Martin Van Buren National Historic Site. The following brief review of these earlier plans chronicles the progression of park efforts to protect and manage the cultural landscape. Initial planning recommendations, many of which remain relevant today, are presented in the *Master Plan and General Development Plan* (1970), followed by cultural landscape reports and treatment plans produced in the 1990s and early 2000s.

MASTER PLAN AND GENERAL DEVELOPMENT PLAN (1970)

The 1970 *Master Plan and General Development Plan* was completed prior to establishment of the park to serve as a "management blueprint for the National Park Service, should the area be established."[21] The document provides initial guidance for restoration of the formal landscape at Lindenwald and recommends facilities to accommodate visitor use and park maintenance. The *Master Plan and General Development Plan* calls for the park service to "recreate and simulate as nearly as possible to the historic period, 1849—1862, within the main body of the area."[22] Specific guidance from 1970 associated with the landscape includes:

- The management of historical resources will be aimed at restoring the historical buildings and grounds as far as is practicable and at recreating the environment which President Van Buren knew. All efforts will be made to give the historic environment an active, living quality. Secondary portions of historic structures may be used for adaptive purposes.[23]

- Non-historic facilities for visitor access, parking, and maintenance will be physically separated from the historical core of the site. Area development will be guided by the architectural character of the site and neighborhood.[24]

- In order to protect the historic resources and provide some of the atmosphere of the historic period, certain lands within the national historic site boundary should be acquired outright, while other lands will serve as well under conservation easement.[25]

- Conservation easements are recommended along all sides of Lindenwald to permit the present farm uses to continue, stabilize the setting, and prevent undesirable development, . . . maintain the rural character in the immediate vicinity of Lindenwald so that park visitors will experience a pleasing landscape as they approach the historic site. With no zoning,

there is a strong possibility that the park will become an island within a dense concentration of residential and/or commercial developments.[26]

- It is probable that the restoration of the grounds cannot be accomplished in detail without resorting to conjecture. Information about drives, plantings near the house, and the existence of certain domestic animals should be obtainable through research. Exact delineation of the garden, orchards, meadows, etc., will probably have to depend on good judgment applied to the best available information.[27]

- Visitors will walk to Lindenwald, entering a historic zone as they cross the restored historic trace. The house, gatehouses, farm, and grounds will be restored to present the property visually to the visitor as Martin Van Buren saw it, and wished it to be seen. The carriage barn should be located, and its foundations stabilized and marked.[28]

The initial management approach and direction articulated by the National Park Service and affiliate preservation groups in the 1970 *Master Plan and General Development Plan* remain relevant nearly fifty years later. Concepts common to park planning in 1970s and today include: removal of non-historic buildings behind the mansion and near the South Gatehouse; locating, stabilizing and marking the sites of missing building including the Farm Office, outbuildings, and carriage barn; development and management of conservation easements; and the relocation of utilities underground. Recent planning documents build upon the 1970s management direction and approach as described below.

CULTURAL LANDSCAPE REPORTS (1995, 1997, AND 2004)

Cultural landscape reports for the Van Buren property from the late 1990s and early 2000s describe the evolution of the physical landscape and provide treatment guidance. The *Cultural Landscape Report for Martin Van Buren National Historic Site, Volume I: Site History, Existing Conditions, and Analysis* (1995), details the site's history in an annotated chronology, documents existing landscape conditions, analyzes the integrity of the landscape, and provides an evaluation of the historical significance of the park. Written narrative is supported by historic images, maps, contemporary photographs, and period plans.

The *Cultural Landscape Report for Martin Van Buren National Historic Site, Volume II: Treatment Plan* (1997) articulates a long-term preservation strategy for Martin Van Buren National Historic Site's cultural landscape based on its significance, existing conditions, and use. *Volume II* recommends a restoration treatment for the historic landscape surrounding the mansion to accurately depict the form, features, and character of the landscape as it appeared in 1850. The year 1850 coincides with the restoration date of the main house, encompasses the last major changes during Van Buren's tenure, and captures

the height of the farm's productivity.[29] Direction provided in the recent *General Management Plan*, subsequently broadened the treatment date to encompass the full period of Martin Van Buren's ownership of Lindenwald from 1839 to 1862. Recommendations detailed in *Volume II* that carry forward from the 1970 *Master Plan and General Development Plan,* include relocation of contemporary features away from the mansion (NPS sign, flagpole, and contemporary buildings), reconstruction of the North Gatehouse, relocation of overhead utility lines, and the development of vegetation management strategies.

A third volume, *A Farmer in his Native Town: Cultural Landscape Report for the Martin Van Buren Farmland* (2004) contains a site history, existing conditions description, and analysis and evaluation of National Register significance and integrity of Van Buren's farmland, with a discussion of treatment implications, but does not provide specific treatment recommendations.

GENERAL MANAGEMENT PLAN (2015)

The *General Management Plan* reiterates many of the ideas expressed in earlier planning documents, while providing additional management direction for land recently acquired in fee and land within the expanded National Park Service boundary.[30] Five management zones, outlined in the *General Management Plan* are described below and reflected in Figure 1.1.[31] These five management zones are used to organize treatment tasks in Chapter 3.

Historic Management Zone

The Historic Management Zone, also referred to as the historic core in this report, encompasses the formal Lindenwald landscape surrounding the mansion, including the Old Post Road and tree row, entry drive, allée, and specimen trees. Additional historic resources include the Lindenwald mansion, South Gatehouse, circular front garden, and archeological sites including the North Gatehouse foundation. A separate portion of the Historic Management Zone encompasses the Farm Cottage structure, while the domestic area surrounding the building is classified under the Historic Transition Zone. Twentieth-century buildings within the Historic Management Zone include the museum storage pole barn, maintenance garage, storage sheds, and accompanying infrastructure including paths and fencing.

Historic Transition Zone

The Historic Transition Zone encompasses upper terrace agricultural land owned in fee by the National Park Service including the twentieth-century Meyer farm complex, portions of the landscape surrounding the Historic Management Zone including the north and south woodlots, a portion of the wedge-shaped parcel between the Old Post Road and Route 9H, and two smaller parcels along

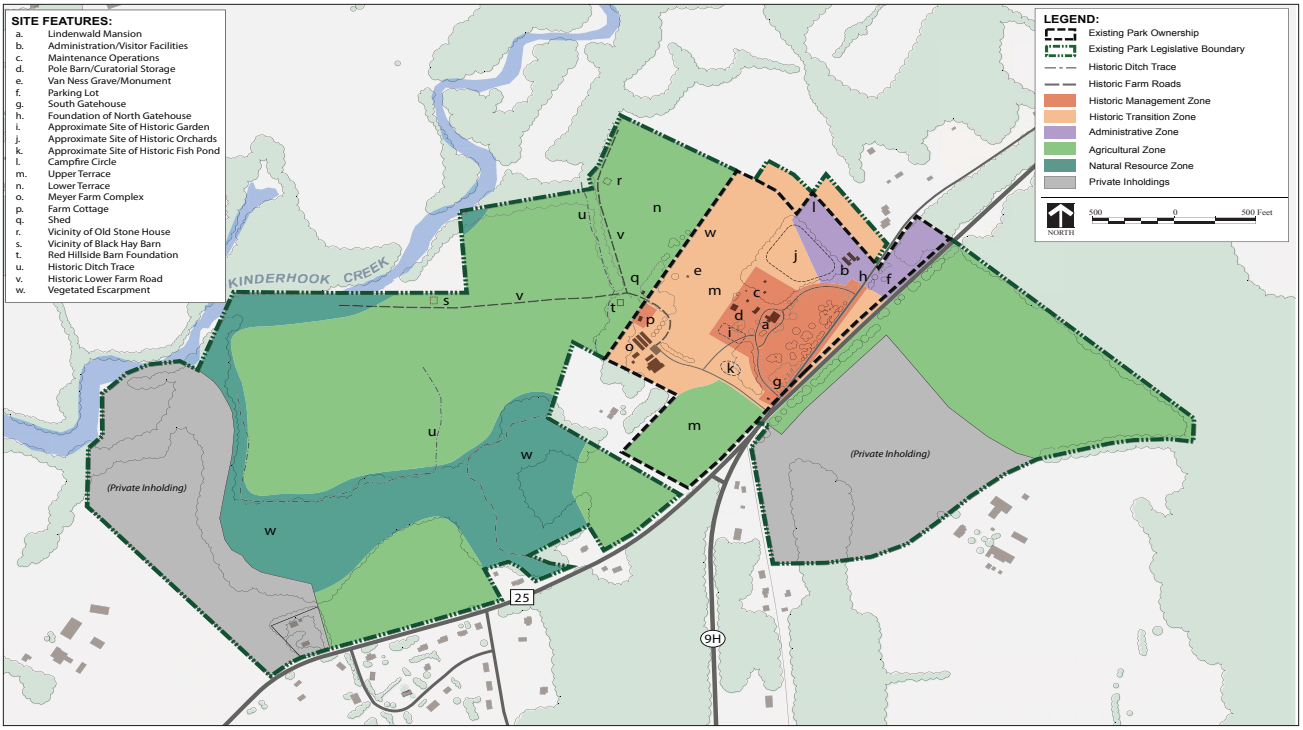


Figure 1.1. Treatment recommendations are organized by five zones identified in the GMP: the Historic Management Zone, Historic Transition Zone, Administrative Zone, Agricultural Zone, and the Natural Resource Zone, 2015 (GMP).

the north boundary of the park. Historic resources include archeological sites, portions of Van Buren period farm roads, the site of the south pasture and north orchard, and the Van Ness Grave.

Administrative Zone

The Administrative Zone encompasses land on the east and west sides of the Old Post Road, primarily in the north field, an area outside of Van Buren's historic property boundary. This zone extends into the northern portion of the north woodlot, encompassing a portion of the Van Buren period north orchard site. Features include the contemporary visitor center and administrative offices, the parking lot, and associated supporting infrastructure such as contemporary pedestrian paths, signage, and lighting.

Agricultural Zone

The Agricultural Zone encompasses the lower terrace farmland, a field abutting Route 9H south of the Roxbury Farm access road, and a large field east of Route 9H, all actively farmed by Roxbury Farm. Van Buren period archeological sites include the Red Barn site, the Black Hay Barn site. The Old Stone House Site predates Van Buren's residency. The Agricultural Zone encompasses a network of historic and contemporary farm roads, road traces, and the portion of the escarpment directly west of the Lindenwald mansion. Land in this zone will remain in agricultural use.

Natural Resource Zone

The Natural Resource Zone encompasses the riparian corridor along Kinderhook Creek and the wooded areas bordering the upper and lower terrace fields. The zone includes the southern section of the escarpment within the park boundary and the major portion of the northern section, which divides the upper and lower terraces.

Preferred Management Alternative:

The preferred management alternative presented in the *General Management Plan*, Alternative C: 'In the Footsteps of Martin Van Buren,' directs management to further evoke Martin Van Buren's tenure at Lindenwald from 1839 to 1862. Alternative C focuses on the cultural landscape as a primary vehicle for storytelling, offering visitors an opportunity to walk in the footsteps of Martin Van Buren—as the former president, family man, and gentleman farmer. Key concepts described in Alternative C include:

- Interpret the presidency and political career of Martin Van Buren at the Lindenwald mansion and through exhibits at a new visitor contact station.[32]
- Highlight the continuity of agriculture at Lindenwald, using the surrounding farmland as context for interpreting the history of progressive farming from Van Buren's time to the present day operations of Roxbury Farm.[33]
- Restore the cultural landscape surrounding the Lindenwald mansion as fully as feasible to the period of Martin Van Buren's residence.[34]
- Tell the story of Martin Van Buren's political career and impact while also focusing on the daily lives of the Van Buren family and the workers of Lindenwald.[35]
- Interpret farming techniques of Native Americans, the Dutch, and Van Buren up to the present day. Install new interpretive devices to communicate stories about the farm workers who lived at the South and North Gatehouses and Farm Cottage.[36]
- Develop hands-on agricultural programs to help visitors understand historic agricultural practices and allow for participation in rehabilitation of the cultural landscape.[37]

Fundamental Resources

Fundamental resources at Martin Van Buren National Historic Site are identified by a thorough analysis of enabling legislation and examination of the Congressional Record to ensure that they are directly tied to the purpose and significance of the park. The features identified as fundamental resources warrant primary consideration during planning and management decision making processes because they are critical to achieving the park's purpose and maintaining its significance. Fundamental resources must not be adversely impacted by actions taken by the park or others.

The fundamental resources at Martin Van Buren National Historic Site are the Lindenwald mansion, the South Gatehouse, the Farm Cottage, the Lindenwald cultural landscape encompassing the historic core and historic farmlands, the museum collections, Van Buren period archeological sites, and scenic viewsheds.[38]

LANDSCAPE TREATMENT PHILOSOPHY

The Martin Van Buren National Historic Site landscape treatment philosophy articulates the essential qualities of the landscape that convey its significance and is consistent with broad principles derived from the preferred management alternative identified in the park's *General Management Plan* Alternative C: 'In the Footsteps of Martin Van Buren.' The treatment philosophy provides the overall context for enhancing historic character and perpetuating the characteristics and features that convey historic significance while balancing contemporary needs associated with active agricultural use and park operations.

MARTIN VAN BUREN TREATMENT PHILOSOPHY

The cultural landscape of Lindenwald has a distinctive character based on its physical attributes as a Hudson Valley estate and working farm, and its historic association with Martin Van Buren. As a figure of national importance, Van Buren sought notoriety through the progressive management of Lindenwald as a well-heeled country estate and farm, which emulated Thomas Jefferson's Monticello and Andrew Jackson's Hermitage. Van Buren purchased the 137 acre property in 1839, and over the next six years expanded the estate to approximately 220 acres. Van Buren transformed a deteriorated and overgrown farm into a successful operation consisting of a wide variety of crops, extensive orchards, livestock, ornamental plantings, a formal garden, fishponds, and numerous outbuildings.

Portraying himself as a country gentleman, Van Buren envisioned his property as a place to pursue his interest in agriculture, receive dignitaries, politicians, and other guests. Van Buren consciously developed Lindenwald's formal presentation to travelers on the Old Post Road to project his identity as an elder statesman

and gentleman farmer. Van Buren frequently entertained visitors and dignitaries, including Sarah Mytton Maury who remarked in 1846, "The comforts and elegancies of his residence exactly resemble those we find in the country house of an English gentleman who lives upon his estate."[39]

The stately Lindenwald mansion, set within a well-manicured lawn dotted with specimen trees, was reached by a formal semi-circular entry drive lined with locust trees. Outbuildings included two symmetrical gatehouses near the Old Post Road, hothouse, greenhouse, carriage barn, farm cottage, and Farm Office. A vegetable garden south of the mansion sustained the Van Buren family and staff. The impressive estate was set before the sweeping backdrop of open agricultural fields and the Catskill Mountains. The retired President resided at his beloved Lindenwald for the last twenty-one years of his life, taking great pride in his agricultural operations and improvements to the property. He spent, what he described as 'the last and happiest years of my life, a farmer in my native town."

The historic character of the Lindenwald cultural landscape will be enhanced to further reflect its condition under Van Buren's ownership through expanded representation of historic spatial organization, massing, and hierarchy of features including: agricultural outbuildings, circulation systems, and vegetation including specimen trees and hedges. Contemporary intrusions will be removed while missing historic features will be represented to greatest extent feasible. The direct connection between the formal and agricultural landscape remains, providing a platform to highlight Van Buren's interest in progressive farming and ongoing sustainable agriculture today. Treatment will maintain the landscape as a historic site, preserving extant historic resources in perpetuity.

The Lindenwald mansion will remain the focal point of the landscape set as it was during the historic period, on a well maintained lawn shaded by specimen trees. Non-historic vegetation will be removed, presenting historic buildings and vegetation within the spatial hierarchy of the historic period. Removal of non-historic vegetation and contemporary buildings will restore historic views and the visual connection to the agricultural fields and Catskill Mountains. Historic circulation routes including the segment of the Old Post Road, formal entry drive, and farm roads will be preserved, while missing historic circulation routes will be incorporated into an interpretive trail as feasible.

Van Buren's agricultural fields to the west of the mansion remain in active agricultural production, providing an opportunity to tell the story of nearly 300 years of continual agricultural production. Hedgerows and fencelines characteristic of the mid-1800s agricultural landscape will be represented as feasible to evoke the character of the Van Buren agricultural landscape. Several outbuildings and portions of farm roads from the historic period remain, alluding to the interconnected network of barns, sheds, and greenhouses present during the historic period. Missing outbuildings that date to the historic period will be

evoked to the extent possible based on historic and archeological evidence. The landscape will be managed for historic character, allowing modification of historic features when necessary to address other resource values, park operations, or agricultural operations, provided the changes are subordinate to the historic landscape characteristics.

Landscape Management Zones

Five management zones articulated in the *General Management Plan* are used in this report to organize treatment tasks for Martin Van Buren National Historic Site. A physical description of each zone is provided in this chapter in the section titled '*General Management Plan* (2015)' (page 18), and the section below articulates management objectives for each management zone. The landscape management zones are: Historic Management Zone, Historic Transition Zone, Administrative Zone, Agricultural Zone, and Natural Resource Zone. Figure 1.1 graphically depicts the five management zones.

General Recommendations:

Immersed in the historic landscape, visitors will be presented with the opportunity to experience the entirety of the Lindenwald landscape. Visitors will experience a landscape that portrays not only what life was like for the retired President, but also for farm hands, gardeners, and Irish servants, illuminating a broad historical perspective.

- The historic character of the formal residential landscape and working agricultural landscape will be balanced with contemporary park uses, including visitor services, maintenance, and active agriculture.
- Agricultural use of the historic Van Buren fields will be perpetuated, linking Van Buren's agricultural practices to sustainable agriculture today.
- Limited new screen plantings will mitigate the impact of surrounding intrusions and necessary infrastructure so that the landscape supports a visitor experience that is consistent with the experience of the landscape during the Van Buren era.
- New park furnishings and signage necessary for public use will be inconspicuous and compatible with the historic setting.
- Compatible new circulation routes will be accommodated so that visitors of all physical abilities might experience and understand this national historic landmark.

Historic Management Zone

Within the Historic Management Zone the landscape will be restored, to the extent possible, to its mid-1800s appearance, reflecting the country estate of Martin Van Buren. Visitors will tour restored buildings, stroll through restored grounds, and along historic roadways, walking amidst a landscape that expresses the narratives of the daily activities that occurred on the property.

- Fundamental landscape characteristics and features will be restored and perpetuated, including: patterns of spatial organization within and between the mansion and agricultural landscapes; key views and visual connections including views to the distant Catskills and adjacent farm fields; historic circulation features leading to and from the mansion; and historically significant vegetation.

- Alterations to the core of the landscape that followed the Van Buren period will be remedied to enhance the sense of place that characterized the property during the historic period. Non-historic buildings and intrusions will be removed, lost or damaged plant material will be replaced, missing historic buildings, structures, and roadways will be reconstructed or interpreted, and missing hedges and fence lines will be reestablished.

- The landscape will continue to receive a high level of skilled care to present the manicured, ornamental and agricultural qualities that characterized the property during Van Buren's ownership.

- Treatment will take into account opportunities to enhance stewardship partners and opportunities for collaboration with adjacent farmers.

Historic Transition Zone

Within the Historic Transition Zone farmland owned in fee simple by the National Park Service will be rehabilitated to evoke the historic agricultural character of the landscape. The Historic Transition Zone will buffer the Historic Management Zone from visual and auditory intrusions, and contemporary development. The current practice of leasing agricultural land in the Historic Transition Zone to agricultural partners will be perpetuated. Upper terrace agricultural land in the Historic Transition Zone will be rehabilitated and continually managed for sustainable agricultural production, preservation of historic resources, and visitor experience. The landscape will provide an appropriate setting to interpret Van Buren's progressive farming methods within a broader platform of agricultural

and regional history, and highlight parallels between Van Buren's practices and contemporary sustainable agricultural production.

- The landscape will be managed using best practices to perpetuate sustainable agriculture, improve historic landscape character, and expand opportunities for collaborative programing that will connect people to the landscape and agriculture.
- Treatment actions will support the continued development of a mutually beneficial relationship between the National Park Service and farm partners, and plan for improved visitor access and orientation.
- Missing historic features including hedgerows and fencelines will be evoked to the greatest extent possible while balancing operational needs of ongoing agricultural operations.
- Van Buren period farmlands and circulation systems will be interpreted and opportunities for enhanced interpretation and visitor experience will be developed in a manner which will not impede agricultural operations.
- Incompatible contemporary off-site views will be screened to the extent practical with appropriate plantings on the park property.
- Development of necessary park infrastructure will be done in a manner that does not distract from historic character.

Administrative Zone

The Administrative Zone will accommodate contemporary infrastructure necessary to support park visitation and National Park Service administration. The area will be rehabilitated to the greatest extent possible, balancing necessary visitor services with preservation of resource integrity within the Historic Management Zone. Contemporary construction will be restricted to the Administrative Zone.

- Treatment will balance preservation of rural agricultural heritage and historic resources with necessary contemporary park uses and development.
- Necessary construction and supporting infrastructure will be designed and located in a manner that does not impact historic character, resources, or views.

Agricultural Zone

Land within the Agricultural Zone should remain in agricultural production in perpetuity, providing an appropriate context and landscape for Lindenwald. The majority of farmland within the Agricultural Zone is owned by Roxbury Farm, and the National Park Service will continue to develop a mutually beneficial working relationship. An easement on the 101-acre lower terrace parcel, currently held by the Open Space Institute (OSI) is expected to transfer to the National Park Service in the near future. Like the Historic Transition Zone, the Agricultural Zone will be rehabilitated for sustainable agricultural production, preservation of historic resources, and visitor experience. The zone will be managed using best practices to perpetuate sustainable agriculture, improve historic landscape character, and expand opportunities for collaborative programing that will connect people to the landscape and agriculture. The landscape will continue to provide an appropriate setting to interpret Van Buren's progressive farming methods within a broad platform of agricultural and regional history, and highlight parallels between Van Buren's practices and contemporary sustainable agricultural production. Treatment actions will support the continued development of a mutually beneficial relationship between the National Park Service and farm partners, and plan for improved visitor access and orientation. For more specific guidance see the bullets under the Historic Transition Zone.

Natural Resource Zone

Land within the Natural Resource Zone should continue to buffer the Kinderhook Creek riparian area. Woodland surrounding agricultural fields should be managed as necessary to support agricultural operations according to best practices.

TREATMENT REFERENCE DATE, 1839 TO 1862

Identification of a treatment reference date provides an objective benchmark for managing historic landscape character. An appropriate treatment reference date may correspond to a time during the historic period when the landscape reached the height of its development or a time when the landscape best illustrated the property's significance or interpretive themes. Determination of a treatment reference date is informed by the site's history, existing conditions, integrity, significance and interpretive goals.

The treatment date of the Lindenwald landscape is 1839 to 1862—the years of Martin Van Buren's association with the property. This timeframe corresponds

with the period of significance articulated in the National Register documentation for the property, and aligns with the preferred alternative identified in the *General Management Plan*, 'In the Footsteps of Martin Van Buren.'

The property was at the height of its physical development during Van Buren's residency. Shortly after purchasing the property, Van Buren began an ambitious agenda of improvements, encompassed by the historic period. Van Buren perpetuated Van Ness period features including: the Lindenwald mansion, carriage barn, Farm Office, white pine row along the Old Post Road, locust allée lined entry drive, network of farm roads, and specimen trees dotting the front lawn. Van Buren's personal interest in scientific farming and fishing are reflected in improvement projects he initiated soon after purchasing the property, such as the redevelopment of the garden plot southwest of the mansion, revitalization of agricultural fields, and construction of two fish ponds. The treatment date encompasses construction of the Farm Cottage in 1844, the North and South Gatehouses between c. 1846–47, and the redesign the mansion executed by prominent architect Richard Upjohn between 1849 and 1850.

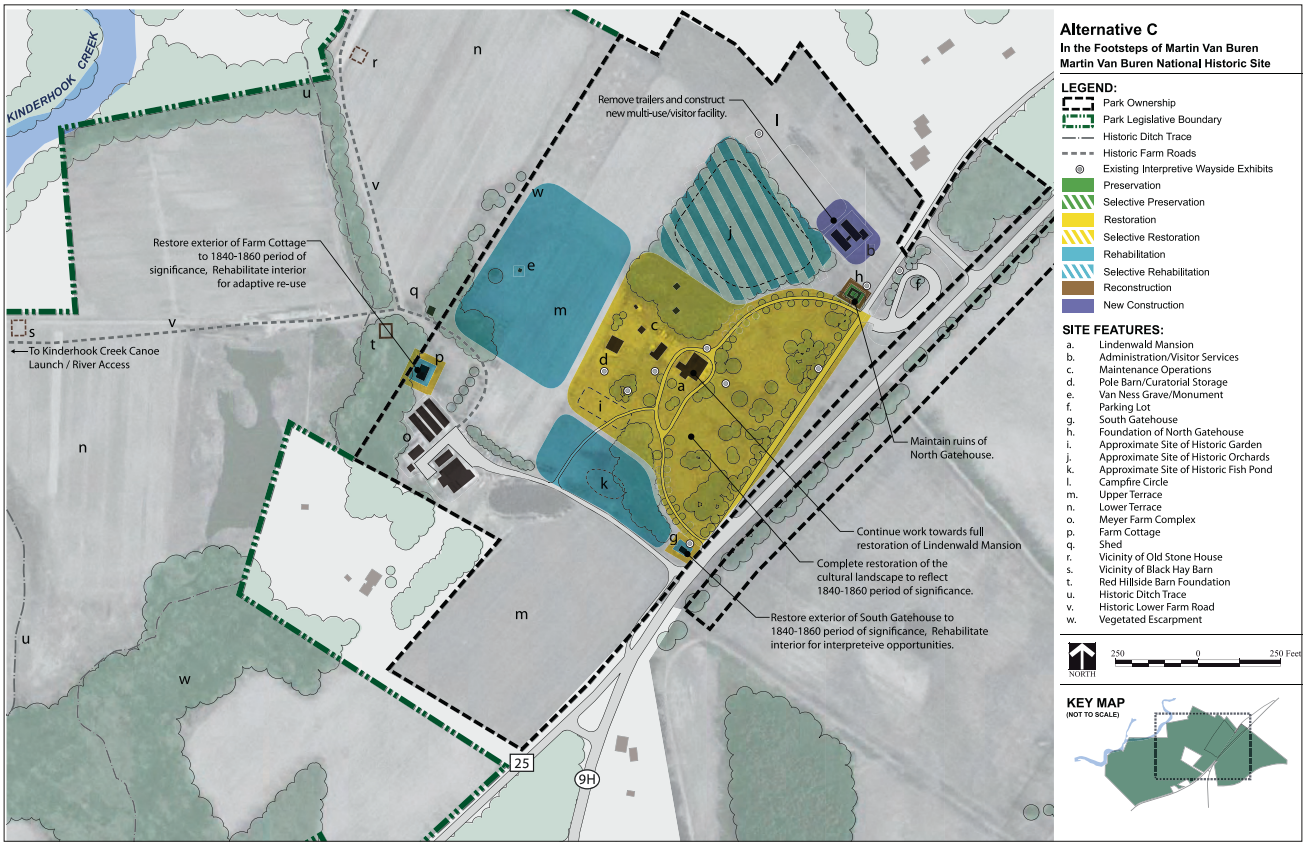


Figure 1.2. The *General Management Plan* identifies restoration as the treatment approach for the Historic Management Zone, encompassing the historic core, mansion, formal landscape, and Farm Cottage structure. Rehabilitation is identified for select areas surrounding the Historic Management Zone, 2015 (GMP).

Treatment Approach

The *General Management Plan* identifies two treatment approaches for Martin Van Buren National Historic Site. Restoration is identified as appropriate for the Historic Management Zone, including the Lindenwald mansion, historic outbuildings, entry drive, and formal landscape dotted with specimen trees. Rehabilitation is identified for the surrounding land owned in fee by the National Park Service, consisting primarily of the upper terrace field, an agricultural field immediately south of the historic core, the former Meyer agricultural complex, visitor parking lot, and the north field and visitor center. In this report, we have expanded this treatment approach to provide guidance for all land (primarily Agricultural Zone) included within the National Park Service 2009 boundary adjustment (Figure 1.2).

Restoration:

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 replacing 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.

Standards for Restoration:

- A property will be used as it was historically or be given a new use which reflects the property's restoration period.
- Materials and features from the restoration period will be retained and preserved. The removal of materials or alteration of features, spaces, and spatial relationships that characterize the period will not be undertaken.
- Each property will be recognized as a physical record of its time, place, and use. Work needed to stabilize, consolidate and conserve materials and features from the restoration period will be physically and visually compatible, identifiable upon close inspection, and properly documented for future research.
- Materials, features, spaces, and finishes that characterize other historical periods will be documented prior to their alteration or removal.
- Distinctive materials, features, finishes, and construction techniques or examples of craftsmanship that characterize the restoration period will be preserved.

- Deteriorated features from the restoration period will be repaired rather than replaced. Where the severity of deterioration requires replacement of a distinctive feature, the new feature will match the old in design, color, texture, and, where possible, materials.
- Replacement of missing features from the restoration period will be substantiated by documentary and physical evidence. A false sense of history will not be created by adding conjectural features, features from other properties, or by combining features that never existed together historically.
- 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.
- Archeological resources affected by a project will be protected and preserved in place. If such resources must be disturbed, mitigation measures will be undertaken.
- Designs that were never executed historically will not be constructed.

Rehabilitation:

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

Standards for Rehabilitation:

- A property will be used as it was historically or be given a new use that requires minimal change to its distinctive materials, features, spaces, and spatial relationships.
- The historic character of a property will be retained and preserved. The removal of distinctive materials or alteration of features, spaces, and spatial relationships that characterize a property will be avoided.
- Each property will be recognized as a physical record of its time, place, and use. Changes that create a false sense of historical development, such as adding conjectural features or elements from other historic properties, will not be undertaken.
- Changes to a property that have acquired historic significance in their own right will be retained and preserved.
- Distinctive materials, features, finishes, and construction techniques or examples of craftsmanship that characterize a property will be preserved.

- Deteriorated historic features will be repaired rather than replaced. Where the severity of deterioration requires replacement of a distinctive feature, the new feature will match the old in design, color, texture, and, where possible, materials. Replacement of missing features will be substantiated by documentary and physical evidence.
- 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.
- Archeological resources will be protected and preserved in place. If such resources must be disturbed, mitigation measures will be undertaken.
- New additions, exterior alterations, or related new construction will not destroy historic materials, features, and spatial relationships that characterize the property. The new work will be differentiated from the old and will be compatible with the historic materials, features, size, scale and proportion, and massing to protect the integrity of the property and its environment.
- New additions and adjacent or related new construction will be undertaken in such a manner that, if removed in the future, the essential form and integrity of the historic property and its environment would be unimpaired.

Figure 1.2 illustrates the rehabilitation and restoration zones for the landscape within Martin Van Buren National Historic Site.

The treatment approach identified in the *General Management Plan*, rehabilitation with a restoration zone in the historic core will facilitate preservation and restoration efforts of the Lindenwald mansion and formal landscape, while the surrounding rehabilitation treatment accommodates greater changes and compatible uses.

Endnotes

1. NPS-28: Cultural Resource Management Guideline (Washington, D.C.: National Park Service, 2002), 96.
2. Ibid, 96.
3. Ibid, 96.
4. Ibid, 96.
5. Ibid, 96.
6. Ibid, 96.
7. Ibid, 96.
8. Ibid, 96.
9. Ibid, 96.
10. Ibid, 96.
11. Ibid, 96.
12. Ibid, 96.
13. Ibid, 96.
14. Ibid, 96.
15. Ibid, 96.
16. Public Law 93-486 (Washington D.C.: United States Congress, 1974).
17. David Uschold and George Curry, *Cultural Landscape Report for Martin Van Buren National Historic Site, Volume II: Treatment Plan* (Boston: National Park Service, Olmsted Center for Landscape Preservation, 1997), 77.
18. The last private owner of the property, Ken Campbell, purchased the thirteen acres surrounding the main house from the deProsse family in 1957.
19. Suzanne Julin, *Martin Van Buren National Historic Site Administrative History 1974-2006* (Boston: National Park Service, Northeast Region History Program, 2011), 210.
20. *Martin Van Buren National Historic Site: General Management Plan, Environmental Impact Statement* (Boston: National Park Service, 2015) iii.
21. *Lindenwald: Master Plan and General Development Plan* (National Park Service, 1970), 1.

22. Ibid, 18.

23. Ibid, 16.

24. Ibid, 17.

25. Ibid, 18.

26. Ibid, 20.

27. Ibid, 22.

28. Ibid, 24.

29. Uschold and Curry, 1997, 42.

30. GMP, i-ii.

31. Ibid, 40.

32. Ibid, vi.

33. Ibid, vi.

34. Ibid, vi.

35. Ibid, 65.

36. Ibid, 65.

37. Ibid, 65.

38. Ibid, 17-21.

39. From Sara Mytton Maury, *The Statesmen of America in 1846* (London, 1847)118, in Matthew Quirey, Charles Pepper, and A. Martin Petrovic. *Turf Management Plan for Martin Van Buren National Historic Site* (Boston: Olmsted Center for Landscape Preservation, 2010), 5.

2. General Treatment Guidelines

The following chapter provides general treatment guidelines for the Martin Van Buren National Historic Site landscape. These guidelines build upon the park's *General Management Plan* and the landscape treatment philosophy articulated in the previous chapter. The intent of these guidelines is to provide direction for future management decisions that impact historic landscape character. These guidelines will help the park develop a more meaningful visitor experience through expanded interpretive and recreational opportunities within a landscape portrayed as Van Buren knew it. The recommendations in this chapter are based on findings of the *Cultural Landscape Report for Martin Van Buren National Historic Site, Volume I: Site History, Existing Conditions, Analysis and Evaluation (1995), Volume II: Treatment Plan (1997),* and *A Farmer in his Native Town: Cultural Landscape for the Martin Van Buren Farmland* (2004). These guidelines serve as a basis for more specific treatment tasks presented in Chapter 3.

Protect archeological resources.

Archeological resources at Martin Van Buren National Historic Site include multiple pre-contact and historic archeological sites identified through surveys and excavations. Numerous recorded and unrecorded Native American sites and historic-period residential and agricultural sites address substantive research questions regarding nearly 3,000 years of Native American usage of the land, Van Buren's occupancy of Lindenwald, and development of the property by previous and subsequent owners.[1] Known archeological sites should be protected and kept in good condition. Additional surveys should be conducted on easement lands (PW-AR-1). Archeological features with the potential to yield information related to Native American occupation or the Van Buren farm should be protected to the greatest extent possible.[2]

Restoration and rehabilitation projects have the potential to adversely impact archeological resources due to ground-disturbing activities. New and existing archeological surveys should be used to identify sensitive sites during restoration and rehabilitation efforts to minimize risk to archeological resources as a result of construction. Known archeological sites will be avoided and mitigation actions will ensure compliance with the *Secretary of the Interior's Standards for the Treatment of Historic Properties*. Execution of treatment tasks will not have significant impact on archeological resources because design and construction will be undertaken in a manner consistent with National Park Service policies and guidelines to ensure protection of archeological resources.[3]

Enhance historic character and spatial organization of the landscape by removing non-historic features.

The Martin Van Buren National Historic Site landscape contains several non-historic features including contemporary buildings, supporting infrastructure, and contemporary vegetation that detract from the historic character of the landscape. Contemporary park-owned buildings immediately west of the mansion include a pole barn used for archival storage and a maintenance garage. These buildings diminish the historic setting of the Lindenwald mansion and obstruct historically open views from the mansion grounds to the agricultural fields and the Catskill Mountains. The privacy fence, asphalt paths, and vehicle storage area associated with these contemporary buildings further detract from the historic character of the landscape and should be removed in conjunction with the buildings. A third non-historic building, a pole-barn standing northeast of the mansion in the north woodlot, should also be removed.

In addition to contemporary buildings, the non-historic north and south woodlots detract from the sites intended hierarchy of built and planned features, and act as a heavy curtain separating the mansion grounds from the agricultural fields beyond. The north and south woodlots should be rehabilitated to more closely reflect their historic character, as a widely spaced orchard and pasture, respectively, although impacts to wetlands and the need for screening should be taken into account before initiating treatment within the south woodlot (HT-VG-1, 2, HM-VG-5).[4]

Enhance character by interpreting missing features.

The loss of historic features diminishes the ability of the Lindenwald landscape to convey the historic spatial organization including massing, spacing, and interrelationships of structures, circulation routes, equipment, crops, and animals. Missing historic features include: orchards, a vegetable garden, hedgerows, fencelines, portions of farm roads, the Farm Office, the carriage barn, the woodshed, and greenhouses. Interpretation of these features will expand opportunities for park staff to interpret daily life on the Van Buren Farm. Visitors will be able to visualize how Van Buren and estate staff, such as farm laborers and house staff, conducted daily activities like harvesting crops, tending animals, and moving agricultural equipment (HM-BS-1 through 8, PW-CR-1).

Opportunities to evoke the historic agricultural character of the landscape through hedgerow and fenceline restoration projects beneficial to farm operations should be pursued.[5] Further details are included in treatment tasks for hedgerow rehabilitation (PW-VG-1) and fence replacement (PW-SSF-2). Interpretive trails should align with historic circulation routes when feasible. The development of additional waysides will facilitate self-guided tours (PW-SSF-1).[6] Interpretation of missing historic features will support direction articulated in the *General Management Plan* to expand the park's focus beyond the mansion and formal

landscape to include the agricultural landscape, Van Buren's progressive farming practices, and sustainable agriculture today.[7]

Perpetuate sustainable agriculture, highlighting the parallels between Van Buren's progressive farming methods and best practices for contemporary sustainable agricultural production.

The agricultural fields at Martin Van Buren National Historic Site, continually farmed since the 1700s, are a critical component of the park cultural landscape and setting. The variety of crops and sustainable methods used today reflect the diversity of the crops and practices of Van Buren's tenure. Active agriculture is a continuation of a historic use and allows the park to maintain an appropriate cultural landscape. During the Van Buren era soil "improvement" became a hallmark of progressive farm management.

Sustainable agricultural practices should continue to build nutrient rich soil and offer a vehicle to help visitors understand the agricultural landscape of Lindenwald in the nineteenth century as well as the present value of sustainable operations.[8] Observation of and participation in (when feasible) sustainable agriculture will offer visitors the opportunity to understand the agricultural landscape of Lindenwald in the nineteenth century as well as current best practices for sustainable farming.[9]

The public-private partnership between the National Park Service and Roxbury Farm allows the Van Buren farmland to remain in agricultural use while highlighting the parallels between sustainable farming practices employed by Roxbury Farm, and those undertaken by Van Buren. The park and Roxbury farm will continue to work together to identify potentially compatible and incompatible activities, ensuring that resources are protected, farm operations are successful, and visitors have a meaningful experience.

Minimize the effects of off-site development.

Non-historic intrusions and future development of properties within the viewshed of Martin Van Buren National Historic Site have the potential to negatively impact historic views, scenic vistas, and soundscapes, while detracting from the historically rural context of the park. Expansion of the boundary and establishment of easements has protected immediate surroundings, however outside development risks remain.

The National Park Service and the Open Space Institute (OSI) should continue to lobby for the preservation of the rural setting surrounding the park. Vegetation should be retained or deliberately planted to minimize the effects of off-site development. For more information see treatment tasks that address screening incongruous views (PW-VV-3), preserving historic tree rows (HM-VG-4), and

maintaining screening vegetation (HT-VG-2). Additionally, the National Park Service should advocate against further widening of Route 9H. Widening of Route 9H would degrade natural and cultural soundscapes and threaten the rural character of the landscape and Old Post Road trace.[10]

Develop sustainable site facilities that meet park and visitor needs and do not impact the historic character of the site.

The Martin Van Buren National Historic Site visitor center and administrative office complex, intended as a temporary facility, has reached the end of its structural lifespan and is inadequately sized for park and visitor needs. Construction of the new Martin Van Buren National Historic Site visitor services building and administrative space should be executed in a manner that does not detract from the historic site. The new facility or facilities, necessary to support park operations and meet visitor needs, should be designed and located in a manner that does not impact the restoration zone, and has minimal impact on the rehabilitation zone. Preliminary guidance indicates that the new visitor contact station will be sited in the north field, owned by Caspirus Dingman during the historic period, and tie in to the existing septic system. This facility may also include the relocated park maintenance facility. Location within the north field is dependent on the design and orientation of the building, the extent to which additional parking is necessary, and scope of park operations the building(s) will support. Significant views from the mansion grounds should be protected and the building should be screened appropriately. The existing parking area will be evaluated to determine if it provides adequate parking for staff and visitor needs.[11] As an alternative to new construction the museum collections will be relocated to a shared facility at the Home of Franklin D. Roosevelt National Historic Site and the archeology collection will remain at a shared regional facility at Fort Stanwix National Monument in Rome, New York. Park archives will be retained on site and stored in administrative space unless alternative provisions are made[12]

In addition to careful placement, the building should follow *Leadership in Energy and Environmental Design* (LEED) design criteria for buildings and the associated *Sustainable Sites Initiatives* (SITES) for the landscape. New construction, renovations, or adaptive reuse should comply with *NPS Management Polices* (2006) and include improvements in energy efficiency and reduction in greenhouse gas emissions. Current National Park Service leadership urges parks to reduce their carbon footprint and foster sustainability within parks and with partners. Runoff from park operations should be minimized to protect surrounding watersheds and forest and field habitat. Further analysis of new facility locations is contained in AD-BS-1 and AD-BS-2.

Expand opportunities for recreation.

Existing and proposed community and regional trails in proximity to Martin Van Buren National Historic Site present an opportunity for expanded recreation, continued development of a trail network, and additional partnerships. Extant community trails include the Dutch Heritage Trail and the Martin Van Buren Nature Area. The Dutch Heritage Trail connects north from the park boundary to the Van Alen House. The Martin Van Buren Nature Area is located immediately northeast of the park on the opposite side of Route 9H and includes a short nature trail. The proposed Kinderhook, Stockport, Stuyvesant Inter-Municipal Trail System would bisect the park and link with neighboring communities and nearby attractions including Stuyvesant Falls. Discussion of the expansion of interpretive and recreation trails within the park boundary is contained in Task PW-CR-1. Connection to the proposed regional trail is discussed in PW-CR-2.

Expanded opportunities for community involvement.

Ongoing agricultural operations and proposed treatment tasks at Martin Van Buren National Historic Site present an opportunity to expand existing and future partnerships with neighboring landowners, community groups, and individuals. The existing partnership with Roxbury Farm provides for the continuation of sustainable agriculture on Van Buren's historic farmland, while an easement on the lower terrace field provides for the development of a trail. Proposed opportunities for expanded programming and partnerships include development of an experiential garden (HM-VG-3) and the orchard restoration project (HT-VG-1). Implementation of treatment tasks to develop the experiential garden and restore the orchard present opportunities for new partnerships with community groups and local schools to care for, maintain, and harvest garden and orchard produce.

Endnotes

1. Margaret Kelly et. Al. *Archeological Overview and Assessment of Martin Van Buren National Historic Site*, Kinderhook, New York (Amherst, Massachusetts: University of Massachusetts, 2004), ix.
2. GMP, 26.
3. Ibid, 19.
4. Ibid, 87.
5. Ibid, 42-43, 64-65.
6. Ibid, 64-65.
7. Ibid, 63.
8. Ibid, 64, 87.
9. Ibid, vi-vii, 87.
10. Ibid, 25.
11. Ibid, 53.
12. Ibid, 53.

3. TREATMENT TASKS

This chapter describes treatment tasks to guide long-term stewardship and enhance the historic character of the Martin Van Buren National Historic Site landscape. The history and significance of landscape features is drawn from the *Cultural Landscape Report for Martin Van Buren National Historic Site, Volume I: Site History, Existing Conditions, and Analysis,* completed in 1995. Many of the treatment tasks presented in this report for the historic core build upon recommendations articulated in the *Cultural Landscape Report for Martin Van Buren National Historic Site, Volume II: Treatment Plan,* completed in 1997. Additional tasks related to strengthening the connection between the formal landscape and surrounding agricultural context build upon the treatment implications discussed in *A Farmer in his Native Town: Cultural Landscape Report for the Martin Van Buren Farmland,* completed in 2004.

Landscape treatment recommendations are presented first as park-wide (PW) actions and followed by five management zones that are defined in the *General Management Plan* and in the Treatment Framework chapter of this report. The five management zones are the Historic Management Zone (HM) (also referred to as the historic core), Historic Transition Zone (HT), Agricultural Zone (AG), Administrative Zone (AD), and Natural Resource Zone (NR). Within the park-wide and individual management zones, treatment tasks are organized by landscape characteristics. Each task is identified and referenced throughout the report with a unique treatment code such as PW-VV-1. The first two letters represent either the park-wide designation or a specific character area and the next letters specify a landscape characteristic such as: views and vistas (VV), vegetation (VG), circulation (CR), small-scale features (SSF), buildings and structures (BS), constructed water features (WF), utilities (UT), and natural features (NF). Finally, each code concludes with a sequential number to differentiate tasks for each landscape characteristic. For example, HM-CR-1 identifies the first treatment recommendation in the circulation landscape characteristic within the Historic Management Zone. The individual task descriptions contain a brief overview of landscape conditions during the 1839 to 1862 treatment period and existing conditions to provide background and rational for treatment decisions. Tasks are supported with graphics, summarized in a table at the conclusion of this chapter (Table 3.1), and illustrated in Drawings 3.6, 3.7, and 3.8. The Landscape Treatment Tasks Table is organized by feature types within management zones defined by the *General Management Plan*. Related treatment tasks are identified in the last column of the table to facilitate planning efforts.

PARK WIDE

VIEWS AND VEGETATION

PW-VV-1: Restore historic views from and to the mansion

During the historic period, the mansion served as the nucleus of the estate and offered views to agricultural fields and the Catskill Mountains to the west, an orchard to the north, filtered views to the Post Road and agricultural fields to the east, and gardens, orchards, and agricultural fields to the south. Reestablishing these views will greatly enhance the historic character of the property. Figure 3.1 graphically depicts desired views based on conditions during the historic period.

View to the west: In the mid-1800s, Isaac Hill wrote in the *Cultivator*, "Lindenwald ... commands a very agreeable landscape view, the most prominent features of which are the Catskill Mountains, whose elevated summits are often veiled by the shadowy cloud."[1] At present, numerous features detract from the historic view and setting (Figure 3.2).

To reestablish views to the west, relocate the maintenance garage, archives building, park vehicle and equipment storage, and stockade fence. Remove non-historic trees to the northwest, west, and southwest of the mansion that

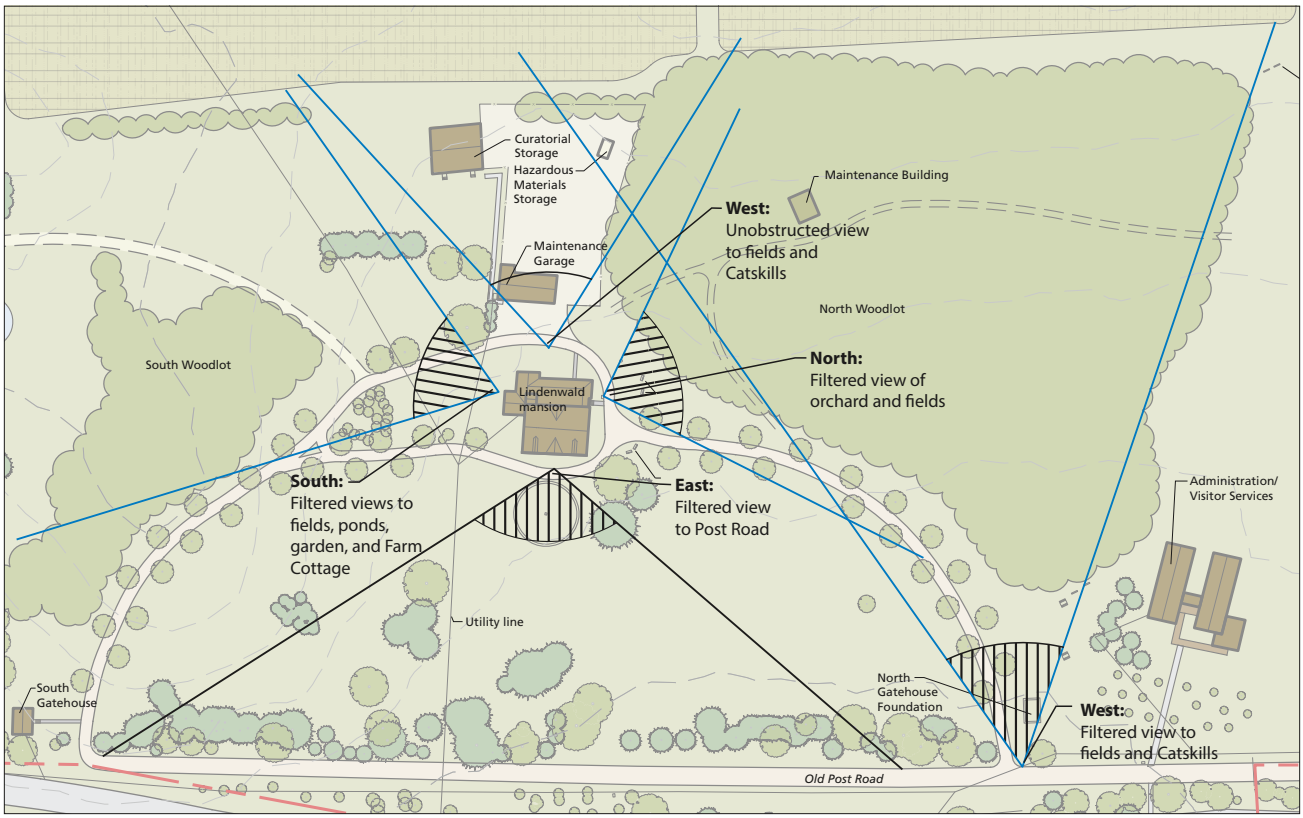


Figure 3.1. Diagram of historic views from the formal Lindenwald landscape overlaid on existing conditions. Blue view cones require treatment and black cones should be maintained. Views diagrammed with striped cones should be filtered views, view cones without stripes represent unfiltered views, 2016 (OCLP).



Figure 3.2. Located in close proximity to the historic Lindenwald mansion, park maintenance facilities, including a garage, vehicles, equipment, and fencing detract from site's historic character and obscure views to the west, 2015 (OCLP).



Figure 3.3. This photo simulation illustrates restoration of the open character and views of agricultural lands west of the mansion through the removal of contemporary buildings and structures. The proposed interpretive trail expansion evocative of the south farm road can be seen to the rear of the historic sycamore tree at image left, 2015 (OCLP).



Figure 3.4. Historically an orchard, the area north and northwest of the mansion, presently referred to as the north woodlot, consists of mature trees and underbrush, which obscure filtered views to agricultural surroundings. The character and massing of the north woodlot differs from the character of the orchard during the historic period which consisted of trees planted in neat rows approximately thirty feet apart, 2014 (OCLP).



Figure 3.5. An effort to clear underbrush and invasive plants in the north orchard using leased goats began in summer 2014. Note the decrease of vegetation on the woodlot floor in the this photo compared to Figure 3.4, taken before clearing efforts began, 2014 (OCLP).

obscure views west. Maintain a low hedgerow along the boundary between the rear mansion lawn and the cultivated fields (Figure 3.3). As detailed in Task PW-VG-1, the hedgerow will benefit wildlife and farm operations, provide filtered and unfiltered views at ground level, and offer unobstructed views from the mansion tower. To further reestablish views to the Catskills, reduce the vegetation on the escarpment as described in Task AG-VG-1.

Views to the north and northwest from the mansion: During the Van Buren period of ownership, neat rows of fruit trees grew immediately northwest of the house, in the area today known as the north woodlot. The historic north orchard extended through the northern portion of the upper terrace, ending at the western edge of the escarpment that separates the upper and lower terraces. Today, the tall trees of the north woodlot and the thick undergrowth form a dense screen, block views



Figure 3.6. View east toward the Old Post Road from the entry drive near the front entrance to the Lindenwald mansion. Note the front garden in the foreground, specimen trees dotting the front lawn in the middle ground, and the white pine screen in the background, 2014 (OCLP).

of the farmland and Catskill Mountains beyond, and disrupt the hierarchy of vegetation, buildings, and open space characteristic of the historic period (Figure 3.4 and 3.5).

To reestablish views to the northwest and north, remove the north woodlot and plant orchard trees or preferred alternative treatment as further described in Task HT-VG-1.

Views to the east from the mansion: During the historic period an assortment of trees grew along the eastern edge of the front lawn and created a filtered view of the Old Post Road and agricultural fields to the east. Pines, cedars, cherries, linden, and additional specimen trees grew in the manicured lawn. Today, the filtered view from the mansion to the Old Post Road and fields beyond remains, though many of the original trees have died and been replaced (Figures 3.6, 3.7 and 3.8). To preserve the filtered views, continue to manage the specimen trees



Figure 3.7. View east c. 2010 from the Lindenwald tower. Note the recently planted replacement white pines along the Old Post Road, (OCLP).



Figure 3.8. View east from the Lindenwald tower. Note the replacement white pine trees along the Old Post Road which have begun to mature and screen the roadway, 2014 (OCLP).



Figure 3.9. Views south of the mansion are obscured by non-historic vegetation. A row of conifers blocks views to the upper terrace agricultural fields. At image left, volunteer vegetation surrounds a wetland and spring area, blocking views of the remaining spring and upper pond, 2014 (OCLP).



Figure 3.10. View from southwest lawn behind the mansion to the contemporary farm complex and historic Farm Cottage. A hedgerow defines the western edge of the formal landscape and the eastern edge of the upper terrace agricultural field. The hedgerow is composed of a mixture of native and invasive species, including grasses, shrubs, and trees. A portion of the hedgerow has been cleared, and is intermittently mowed to maintain views between the formal and agricultural landscape, 2014 (OCLP).

in the front lawn area as described in Task HM-VG-6, replace missing trees as described in Task HM-VG-7, and remove incompatible trees as described in Task HM-VG-8.

Views to the south and southwest from the mansion: Historic views to the south and southwest of the mansion included a garden with a greenhouse and hothouse, the south orchard, and the extant Farm Cottage. One of two stocked fish ponds present during the historic period and frequently fished by Van Buren and guests is partially extant today, although it is no longer visually connected to the mansion

grounds (Figure 3.9).To reestablish views to the south and southwest, remove volunteer vegetation surrounding the wetland and spring area (as feasible) to the south of the mansion and thin vegetation around the single remaining upper pond. The non-historic row of white pine and cedar to the southwest of the mansion should be removed (see Figure 3.9). Removal of vegetation to the south and southwest of the mansion should be done with consideration of the need to screen contemporary development and agricultural operations/ equipment (Figure 3.10). Removal or thinning of the extant overgrown hedgerow between the rear mansion lawn and the upper terrace agricultural field should not be undertaken until preparations for replanting have been made. Removal of vegetation within the south woodlot should be undertaken, as feasible, based on the findings of natural resource experts. Visual impacts of contemporary development including roadways and buildings should be considered prior to the removal of the south woodlot. Removal of portions of the south woodlot may necessitate installation of hedgerows or other screening methods.

PW-VV-2: Restore view of Catskill Mountains along proposed visitor circulation route

During the Van Buren period of ownership, the Lindenwald property offered open views of the Catskills from multiple vantage points along the upper terrace. The growth of trees along the escarpment between the upper and lower terrace now partially obstructs views to the west. The most scenic views of the farmland and Catskill Mountains are presently from the north end of the upper terrace field in an area west of the temporary visitor center. A wayside in this area features an artist's birds-eye-perspective rendering of the property during Van Buren's ownership. A proposed interpretive and recreational corridor, described in Task PW-CR-1 will bring more visitors to this vantage point and along the upper terrace between the mansion grounds and the cultivated farmland.

To improve views of the Catskill Mountains from the proposed circulation route between the mansion grounds and farmland, selectively thin the escarpment vegetation as described in Task AG-VG-1 and establish a low hedgerow along the pedestrian corridor as described in Task PW-VG-1.

PW-VV-3: Screen incongruous views adjacent to the mansion grounds

During the Van Buren period of ownership, many buildings and structures stood in the landscape surrounding the mansion. Only the South Gatehouse, Farm Cottage, and Van Ness Grave remain. At present, views to the surrounding farmland contain a mix of historic and non-historic incongruous features including utility lines and twentieth-century agricultural buildings and homes. Some non-historic features are screened while others are not.



Figure 3.11. View southwest from the western edge of the formal landscape toward the Meyer farm complex and Farm Cottage. Note the utility lines that cross the agricultural field. A row of evergreens (visible in the distance)screens the majority of the contemporary farm complex and supporting infrastructure, 2014 (OCLP).



Figure 3.12. View north from the formal grounds toward the non-historic parcel containing the visitor center and administrative offices. A dense screen of vegetation reduces the visual impact of the visitor center on the historic core, although utility lines detract for the historic character. The foundation of the North Gatehouse is in the foreground, 2014 (OCLP).



Figure 3.13. View north of the visitor parking lot. A mixture of trees and shrubs (at left) screen the parking lot east of the historic core. Replacement plants should be chosen from a historically appropriate palette, 2014 (OCLP).

Screen incongruous views to the west. To enhance the historic character of the landscape, submerge utility lines that bisect the upper terrace as illustrated in Drawing 3.7 and described in Task HM-UT-1. Maintain the existing screen of evergreen trees between the non-historic farm buildings and the mansion (Figure 3.11). As these evergreens mature, lower branches will continue to die back reducing the screening effect of this tree line. As feasible, establishment of a shade tolerant hedgerow parallel to this tree line should be considered (Drawing 3.8).

Screen incongruous views to the north. Maintain the existing screen between the mansion grounds and the temporary visitor center until the extant structure is removed from the site (Figure 3.12). Construction of the new visitor services/ administrative building will be done in a manner to minimize impact to the setting and views from the mansion, although it is likely that some form of screening will be necessary to reduce impact. Removal of the extant non-historic screening in this area should be predicated on the design and installation of additional screening to minimize impact of proposed new construction in this area. Screening of new construction with a hedgerow following the north boundary of Van Buren's estate should be explored once construction plans are finalized (See PW-VG-1).

Screen incongruous views to the east. Maintain existing screening vegetation between the visitor parking lot and the historic core (Figure 3.13). As existing vegetation declines or no longer effectively screens the parking area, replant the screen with species that were present on the site during the historic period as described in Task AD-VG-1. If the existing parking lot is relocated in conjunction with the construction of a visitor orientation building, non-compatible plantings should be removed.

VEGETATION

PW-VG-1: Rehabilitate historic hedgerows to enhance historic character, provide wildlife habitat, and contribute to sustainable farm practices

The mid-1800s agricultural landscape typically included hedgerows that bisected fields and grew along field edges, fencelines, and roadways. The hedgerows which divided the agricultural fields and delineated property boundaries during Van Buren's ownership were removed in approximately 1946 when Dudley Ray Meyer began renting the farmland from the deProsses. Meyer removed hedgerows and combined small fields for greater efficiency and crop yield. Hedgerows should be replanted to evoke the historic spatial organization of the landscape based on historic landscape patterns, trends documented through aerial photographs of the Martin Van Buren farmland in the 1940s (Figure 3.14), and in locations that do not interfere with agricultural operations. Hedgerows will be established in

areas of mutual agreement between the National Park Service and Roxbury Farm. Additional sources of information include known and approximate locations of other agricultural features during the historic period (Drawings 3.2 and 3.3), regional trends documented in drawings (Figure 3.15), and existing landscape features and patterns (Drawings 3.4 and 3.5). In addition to enhancing historic landscape character, replanted hedgerows will offer valuable ecosystem services including: wildlife corridors, hosts for pollinators, reduction in surface runoff and erosion, buffering of crops from winds, and habitat for insects and birds.[2] Replanting missing historic hedgerows aligns with the *General Management Plan* which supports the perpetuation of contemporary sustainable agricultural practices including soil fertility and ecosystem health as well as increased opportunity for visitors to experience how Van Buren's farming practices relate to contemporary farming practices.[3]

Historic hedgerows: While the exact location and composition of the hedges on Van Buren's farm is unknown, regional trends and landscape patterns can be used to guide treatment decisions. Hedgerows in the mid-to-late 1800s agricultural landscape were planted both intentionally and emerged from voluntary growth along untended field edges.

Intentionally planted hedgerows resulted in thick intertwined woody vegetation capable of containing livestock, a characteristic earning this type of hedge the name 'living fence.' Typically, intentionally planted hedges consisted of a single species, such as the Osage orange which was used widely during the historic period. The writings of Andrew Jackson Downing provided the following guidance on Osage orange hedges in 1842: "Almost any of our native thorns in the woods make good hedges, and the farmer may gather the seeds and raise them himself. South of the latitude of New York City, the best hedge-plant is the Osage orange (*Maclura aurantiaca*)."[4] Honey locust and black locust were also commonly used for 'live fence' hedges.

The intentionally planted 'live fence' is also described in Crozier and Henderson's 1884 publication, which details forty years of farming on Long Island.

> "Live fences are now used to a great extent on the prairies, where timber is scare. No other fence is cheaper or better than this if a little care be taken for the first four or five years in their management. The seedling plants of honey locust or Osage orange can be bought at $5 per 1,000 plants, a foot high. Such plants, if set out at one foot apart and the land kept clean for a foot or so each side of the hedge, and kept carefully trimmed into the shape of a blunt wedge, will attain a height of five or six feet in five or six years, and will form a barrier, with needlelike spurs, so dense that a rat could hardly get through it; of course some temporary fence would be required till it grows up. Transplanted two-year-old plants will always be found the cheapest, even at $15 per 1,000."[5]



Figure 3.14. Several hedgerows (highlighted in green) are discernible in this 1948 aerial photo. Note that hedgerows divide the lower terrace. Others correlate with historic property lines, like the north boundary of the Van Buren Farm. The Van Buren's period property boundary is delineated with a dashed red line, 1948 (MAVA archives, NY-A-9 55; annotated 2016, OCLP).



Figure 3.15. This pen and ink drawing of the residence of W. D. Stewart illustrates the prevalence of hedgerows in nearby Chatham, New York in 1878. Many of the depicted hedgerows are located along fence lines and walls, 1878 (Ellis, History of Columbia County).

The second type, volunteer hedges, are still evident in the landscape and are composed primarily of volunteer species that grow in an area undisturbed by plowing or mowing, such as along a fence line, roadway, or stone wall. Animals such as birds or chipmunks contribute to the development of these hedges when they leave behind seeds and nuts, while perching on a fence or forgetfully storing away food for winter. A variation on the volunteer hedge allows for selection of species that attract pollinators or have other desired traits, such as edibility, aesthetic appeal, or desired characteristics such as height or density.

Reestablishment of the hedgerows: To reestablish the historic character of the agricultural fields that were divided by hedgerows, replant hedgerows on the upper and lower terraces fields as illustrated in Drawings 3.6, 3.7, and 3.8. Hedgerows should be established in cooperation with Roxbury Farm along edges such as farm roads and fence lines, or other areas not cultivated, to allow for functional agricultural operations while reflecting the historic character of the landscape. Hedgerow species should be native, noninvasive, and offer the qualities listed above, such as a habitat for host pollinators and nesting for birds. Recommendations for hedgerow species are provided in the Hedgerow Species Table (Appendix B). Maintenance of hedgerows will require ongoing removal of non-native invasive species such as Oriental bittersweet, multiflora rose, and Japanese barberry, especially during establishment.

Species selected for planting should be compatible with site conditions, including soil and hydrologic characteristics, to ensure suitable growth and development. The desired height of the hedge, plant tolerances, and impact on adjacent crop fields are important considerations. The recommended height of proposed hedgerows will be determined with cooperating partners and park staff depending



Figure 3.16. Hedgerows two to four feet tall will maintain visual connections between fields while evoking historic landscape patterns, 2016 (OCLP).



Figure 3.17. Hedgerows four feet or higher will form a visual barrier and can be used to screen undesirable views or as windbreaks, 2016 (OCLP).

on the hedge's purpose and location. The selection of appropriate species will lead to hedges of a desired character for specific locations, from low hedges that allow a visual connection from one field to the next, to hedges of mixed heights and densities that screen non-historic features. Smaller shrubs, forbs, and grasses can be interplanted with larger shrubs or trees to cultivate the desired density and character (Figures 3.16 and 3.17).

The desired density and character of the hedge will determine the quantity and size of plants selected. Major shrubs should be spaced at four-to-five feet apart for dense hedges and six-to-eight feet apart for a more porous character.[6] Within hedges, one or two smaller plants can be planted between larger ones. The lower stratum of the hedgerow can be composed of grasses and forbes that cover the soil, reduce weeds, and offer additional habitat. If trees are incorporated into the hedge they should be spaced ten feet apart. Native grasses can be planted as either plugs or established from seed. Controlling weeds and providing an adequate water supply in a newly established hedgerow is essential to the young hedgerow's success.[7] It will take approximately four to eight years for new hedgerows to establish and thirty or more years to reach maturity. During establishment annual pruning to promote the development of the desired character and species may be required, although species selection will dictate maintenance requirements. Other maintenance tasks could include annual mowing, weeding, or removal of invasive species. Plants that are an alternate host of pests or diseases or are invasive should be avoided.[8] Specific hedgerows to reestablish are described below.

Hedgerow along north property line: Historic vegetation patterns, remnant vegetation, and typical landscape patterns indicate that a hedgerow delineated the north boundary of the Van Buren farmland (Figure 3.14 and 3.18). Historic documentation indicates the presence of the Dingman Fence along this property line. Vegetation surveys completed in 1980 and 1993 indicate the presence of



Figure 3.18. View west from northwest corner of the upper terrace field along the north boundary of the historic Van Buren property. Remnants of the hedgerow documented in Figure 3.14 are visible in the landscape today. Documentation indicates the historic boundary with the Dingman property was delineated with a fence. It is likely that a volunteer hedgerow was present during the historic period, a pattern in the landscape that persists today, 2014 (OCLP).

black locust stumps in a linear form extending west along the northern property line from the proximity of the North Gatehouse foundation to the eastern edge of the historic north orchard. A slight indentation left by a decayed root system is perceptible today. These trees could have been part of the hedgerow, or planted along the boundary line. It is probable that a hedgerow paralleled the northern boundary line and Dingman fence, correlating with the north boundary of Van Buren's north orchard, and likely extended west toward Kinderhook Creek. The hedgerow likely framed the northern edge of the lower terrace agricultural fields. The eastern end of the hedgerow may have ended at the eastern extent of the orchard, marking the transition to the formal landscape and domestic area surrounding the North Gatehouse. The northern property boundary directly north of the North Gatehouse was likely delineated by a fence that extended to intersect a front fence along the Post Road.

Hedgerow between the mansion grounds and upper terrace: After the 2009 boundary expansion, the park removed a portion of the overgrown hedgerow dividing the mansion grounds and upper terrace farmland, revealing the visual connection between the western edge of the mansion grounds and the agricultural landscape beyond (Figure 3.19). To reestablish the hedgerow and improve the visual connection between the mansion and farmland, selectively remove additional vegetation to create a more transparent hedge character, and encourage the growth of shorter vegetation, like small shrubs, grasses, wildflowers, or an edible hedgerow like raspberries (see Appendix B for more information). The current practice of mowing a portion of the hedge to ground level provides a visual connection to the upper terrace field, however it creates a sharp contrast between the mowed section and the mature hedge (Figure 3.19). Selected viewpoints should be managed for visual quality and connection, while the remainder should be managed for hedgerow and ecosystem health. As other tasks are completed, the importance of the visual connection between the historic



Figure 3.19. View west from the mansion rear lawn to the Farm Cottage. The hedgerow between the manicured mansion grounds and upper terrace should be managed to perpetuate the visual connection between the two areas, 2014 (OCLP).

core and the upper terrace will continue to grow and be enjoyed by visitors. Figure 3.72, a photo simulation, depicts the general character and location of this proposed hedgerow. Related tasks include Task HT-VG-1, which calls to evoke the historic quality of the north orchard, and Task PW-CR-1, which calls for the construction of an interpretive trail representative of historic circulation routes.

Additional hedgerows: During Van Buren's residency it is probable that fields were divided by hedgerows or fence lines, a typical practice of the time. While the exact location and composition of these hedges is unknown, their probable location can be abstracted from aerial photographs taken in 1948, which show distinct hedges between fields. While their presence in 1948 does not directly indicate their existence in during Van Buren's time, it is likely that vegetation patterns and field locations transcended ownership and followed lot lines. The location and character of additional hedgerows should be determined based on mutually agreeable criteria that enhances historic character and benefits farming operations. Hedgerows should be located in areas that complement the proposed interpretive trail within the park and Kinderhook-Stuyvesant-Stockport Regional Trail. The location of additional hedgerows will be developed in collaboration with Roxbury Farm.



Figure 3.20. The c. 1841 sketch map of Lindenwald, documents the entry drive, location of the mansion, and the north and south farm roads that head toward the outbuildings and lower terrace. The upper and lower pond, garden, and fields are depicted, (Van Buren Papers, Pennsylvania State University; photocopy on file, MAVA).

CIRCULATION

PW-CR-1: Construct an interpretive trail along Van Buren period circulation routes

Construction of an interpretive trail following the alignment of Van Buren period farm roads (when feasible) will enhance the landscape's ability to convey historic circulation routes and spatial organization patterns. The trail will enhance visitor experience and understanding by emphasizing parallels between farming practices used by Van Buren and Roxbury Farm. Additionally, the trail will provide increased access to Van Buren's farmland and expand opportunities for recreation. The trail should be routed to foster a meaningful visitor experience that does not disrupt agricultural operations. The location of the trail will be determined based on the needs and goals of the National Park Service and farm partners. Provision for the construction of an interpretive trail through the lower terrace is provided by a conservation easement. The trail will provide for visitor access and enjoyment, connect with regional recreational corridors, and strengthen the ties between Van Buren's scientific farming methods and contemporary agriculture.

The c.1841 sketch map of Lindenwald depicts the Van Buren period circulation system, including the north and south farm roads (Figure 3.20). Although fragmented today, during the historic period the north and south farm roads originated near the mansion and provided access to the agricultural fields and outbuildings of the upper and lower terraces. While the historic location and alignment of the Van Buren period network of roads is only partially known, historic documentation and physical evidence in the landscape provide sufficient information to reestablish sections of these historic circulation routes, which will be repurposed as an interpretive trail. Geophysics or conventional archeology will likely confirm road alignment and provide information regarding historic construction materials. Photographs dating to the late 1800s and early 1900s and archeological surveys conducted in 2010 suggest the farm roads were surfaced with compacted soil and gravel. The two-track earthen roadway visible in Figure 3.21 is likely a remnant of the south farm road. Drawing 3.2 illustrates the circulation system during the Van Buren period.

Complete restoration of the historic circulation system is not advisable due to current land use. However, utilizing the historic alignment to the greatest extent feasible will offer visitors an opportunity to understand how people, animals, and crops moved through the working landscape while learning about sustainable agriculture today. Much of Van Buren's agricultural land comprises a 101-acre parcel (# 01-115) owned and actively farmed by Roxbury Farm. An easement on this parcel, held by the Open Space Institute, provides for a trail-right-of-way, and is expected to transfer to the National Park Service in the near future. The easement will enable continued collaboration between the park and Roxbury

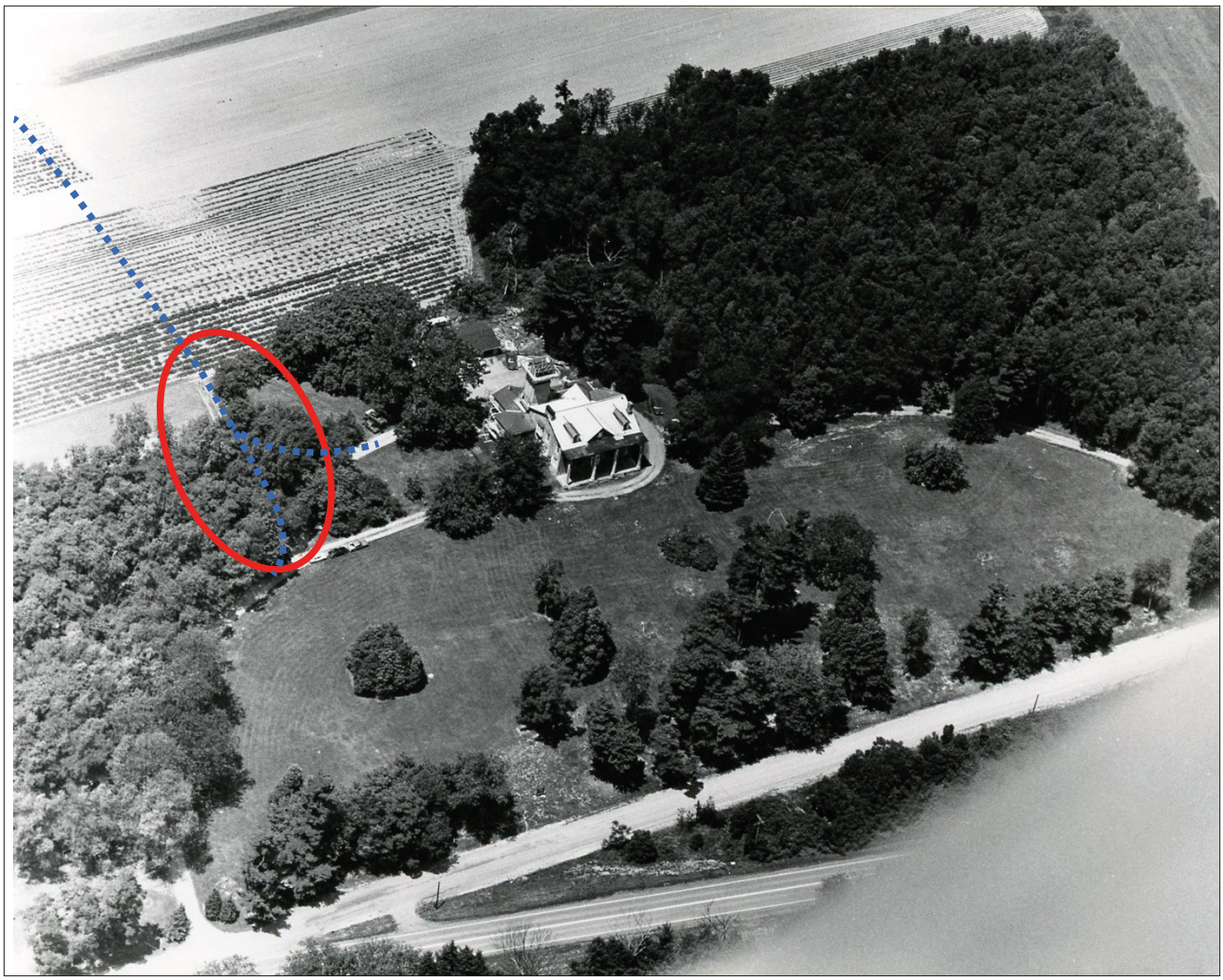


Figure 3.21. A two-track road, circled in red, appears in the approximate location of the historic south farm road in this oblique aerial taken looking west. The dashed blue line represents the approximate location of the south farm road, 1978 (MAVA archives 78-2801).



Figure 3.22. The south entrance drive and accompanying black locust allée, white pines framing the front garden, the mansion, farm office and south farm road are documented in this photo taken during Wagoner ownership, c. 1913 (MAVA archives).



Figure 3.23. This layered photo simulation documents a faint linear rise detected during fieldwork southwest of the mansion and historic sycamore tree. The anomaly may indicate remnants of the south farm road. The figure walks the raised route which corresponds closely to the documented location of the south farm road. This area should be investigated using geophysics or traditional archeology, 2015 (OCLP).

Farm to perpetuate agriculture, protect and interpret cultural features, and develop visitor access to the Van Buren farmland.[9]

The interpretive farm trail should be accessible and multi-use through the upper and lower terrace, while balancing the historic character and rural setting. Amenities should include wayside exhibits interpreting the farm landscape (Task PW-SSF-1), benches, and rest areas.

South farm road: During the Van Buren period the south farm road originated near the southwest corner of the mansion, led west past the Farm Office, the garden, and the south orchard before heading south toward the Farm Cottage (Figure 3.20 and 3.22). Today a portion of the south farm road continues to follows the historic alignment from the Farm Cottage past the Red Barn site before descending the escarpment to the lower terrace and extending west past the Black Hay Barn site toward Kinderhook Creek. A branch road extends northwest and connects to the north farm road in the vicinity of the Old Stone House site.

The easternmost portion of the south farm road, located in the historic core in close proximity to the Lindenwald mansion, should be reestablished as part of an interpretive trail (Drawing 3.7 and Figure 3.21). Historical documentation provides sufficient information to locate portions of the road and understand its general form. During the field work and documentation process for this report a faint linear rise was detected in the suspected location and orientation

of the south farm road (Figure 3.23). Archeological investigation could yield additional information and has potential to confirm the rise as the road alignment. Figure 3.72 depicts a portion of the south farm road interpretive trail in a photo simulation. The portion of the south farm road that bisected the upper terrace, now within an active farm operations area, is unsuitable for visitor use.

North farm road: During the Van Buren period the north farm road extended from the north side of the mansion, along the west edge of a triangular area also bounded by the semi-circular drive extension and the entry drive, and passed immediately south of Van Buren's north orchard and carriage barn. West of the carriage barn, the road continued northwest toward the lower terrace, joining the extension of the south farm road from the Farm Cottage near the stone house site (Figure 3.20). The exact route between the carriage barn and stone house should be confirmed with an archeological investigation.

The interpretive trail should follow the general location, massing, and physical qualities of a portion of the north farm road but not interrupt farm operations



Figure 3.24. View west across the upper terrace farm field from just south of the carriage barn site. The north farm road extended from the rear of the mansion west past the carriage barn and through the upper terrace toward the Old Stone House on the lower terrace. The approximate location of the north farm road through the upper terrace is currently uncultivated land, 2015 (OCLP).



Figure 3.25. Photo simulation depicting an accessible interpretive farm trail through the historic Van Buren farmland. The trail would follow historic circulations routes whenever possible, such as the portion of the north farm road depicted here, 2016 (OCLP).

(Drawings 3.6 and 3.7). The eastern portion of the north farm road, located in the historic core in the proximity to the Lindenwald mansion, should be reestablished as part of the interpretive trail, evoking the historic character and alignment by arching west from the Lindenwald mansion toward the lower terrace. Based on current agricultural use and planting practices, this trail could bisect the upper terrace in an area currently not used for crop production that correlates with the approximate historic route, before descending to the lower terrace (Figure 3.24).

The location of the trail within the escarpment and lower terrace will be discussed and mutually agreed upon by partners. The proposed interpretive trail would extend onto actively farmed land both within and beyond land owned in fee by the National Park Service. A proposed width and surface treatment is illustrated by a photo simulation (Figure 3.25).

PW-CR-2: Develop circulation routes through the park that connect with regional and adjoining trail systems

During the Van Buren period carriages traveled along the Old Post Road. Today, most of the original road is obscured by Route 9H, although some segments remain as access roads and are being considered for recreational trail routes. Existing and proposed local and regional trails in proximity to the park provide the opportunity for Lindenwald to serve as an access point, destination, and hub for the proposed network of trail systems. Circulation routes should be integrated into the site to enhance visitor experience while not detracting from the historic and scenic character of the site or interfering with farm operations. The specific connection points for park trails with regional trails will be determined based on the needs and goals of the National Park Service and regional partners.

Kinderhook Creek Trail (Proposed): The Kinderhook-Stuyvesant-Stockport Inter-Municipal Trail Feasibility Study, conducted in 2010 by the SUNY Albany Masters of Regional Planning Studio, analyzed regional trail routes that would connect the Village of Kinderhook and the towns of Kinderhook, Stuyvesant, and Stockport. The proposed Kinderhook Creek Trail, a segment of the Kinderhook-Stuyvesant-Stockport Inter-Municipal Trail (K-S-S Trail System), originates in the Village of Kinderhook and follows the east side of the Kinderhook Creek for 4.82 miles before ending at Stuyvesant Falls. The proposed trail will pass directly through the Luykas Van Alen House Site and Martin Van Buren National Historic Site using portions of the Old Post Road. According to the feasibility study, most of the trail surface will be designed for use as a pedestrian footpath, although some segments may eventually accommodate bicyclists and horseback riders.[10] Fruition of the trail is dependent on securing easements on several large parcels of private land. The feasibility study states that the Kinderhook Creek Trail is intended to 'complement and dovetail' with the planned expansion of a trail system within the park boundary. The K-S-S trail feasibility study does not depict trails within the

park boundary but indicates general locations on the north and south boundary for the trail to enter and exit the park.

Alternatives for routing the trail within the park are depicted graphically in Drawing 3.1. An overview of planning challenges and goals is provided below.

Trail Challenges:

- Accessibility
- Flooding of the lower terrace
- Multi-use area: necessitates farming operations and recreational use
- Multiple types of users: through traffic on K-S-S trail versus park visitors

Goals:

- Avoid conflict with agricultural operations
- Provide a safe and meaningful visitor experience
- Preserve the character of the historic core and enhance visitor experience
- Avoid the use of bicycles in the historic core
- Direct through-traffic around the historic core

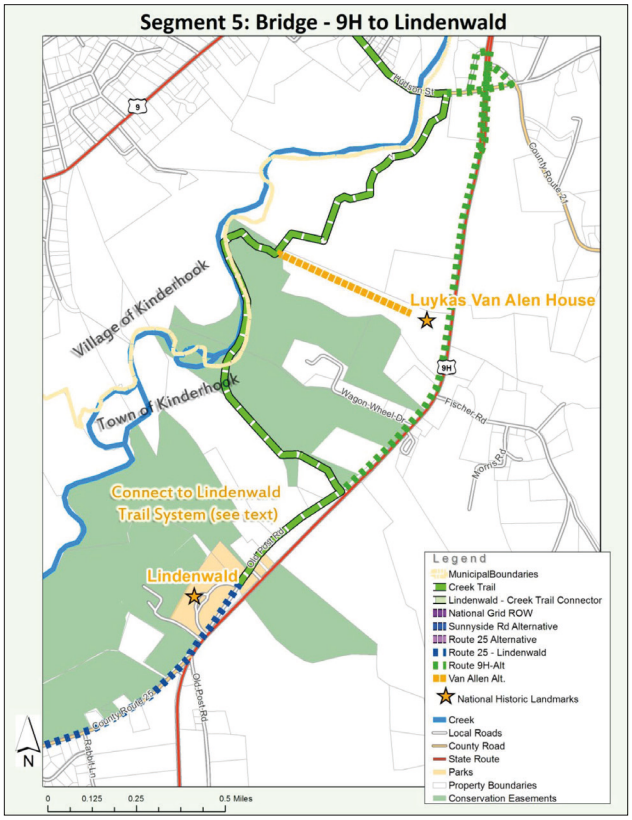


Figure 3.26. The proposed route of the Kinderhook-Stuyvesant-Stockport Inter-Municipal Trail (K-S-S Trail) north of the park is represented by a heavy green line, connecting to the park via the Old Post Road, 2010 (SUNY Albany).

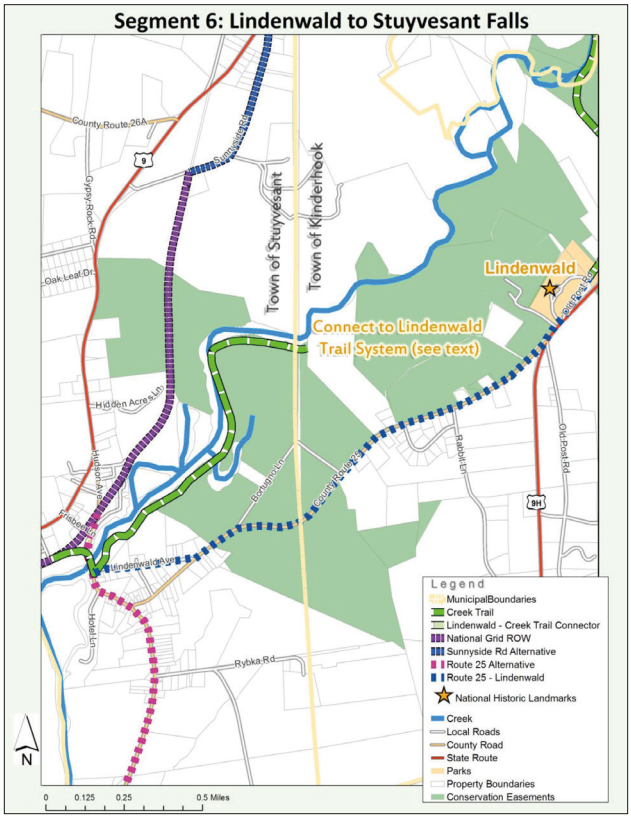
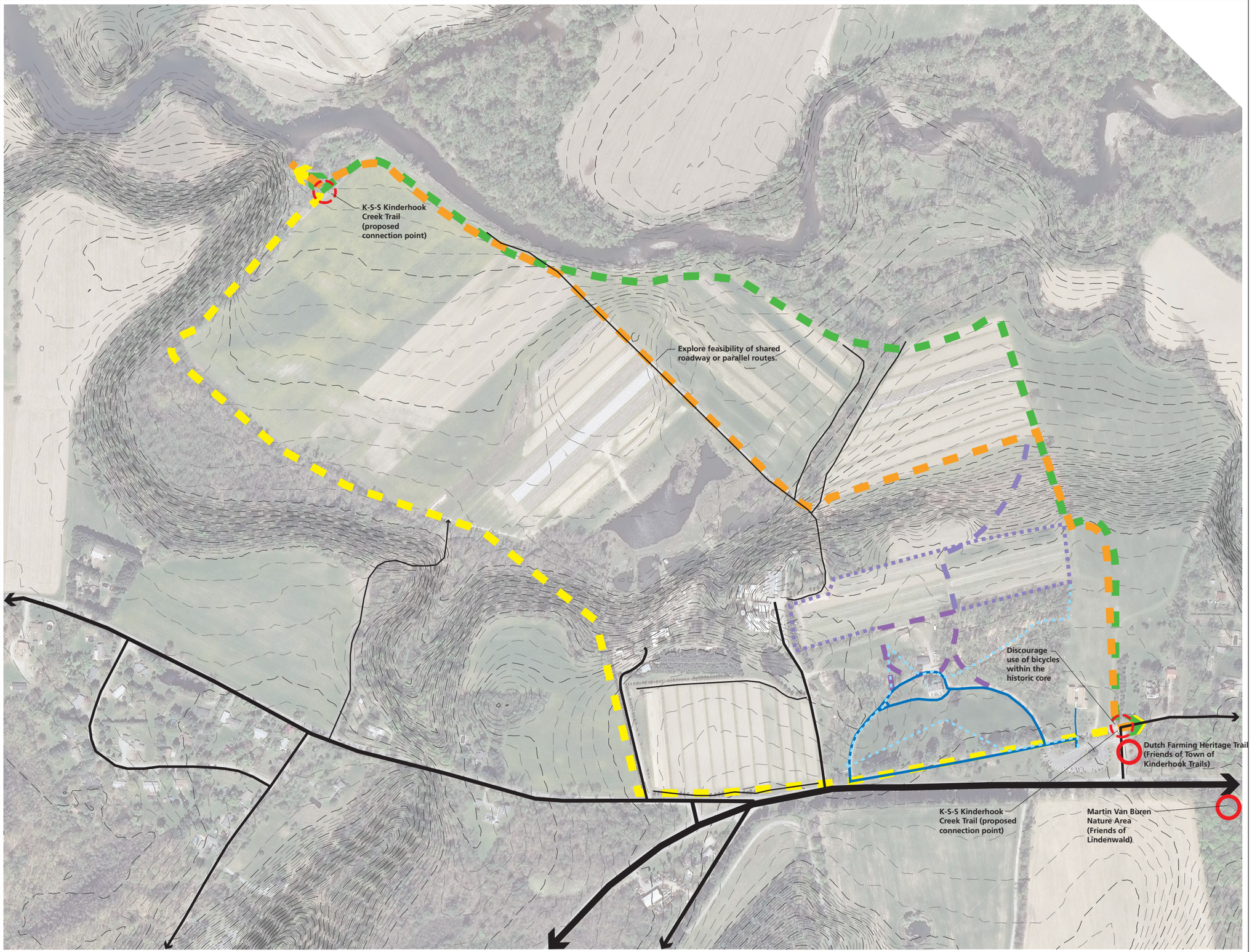


Figure 3.27. The proposed route of the K-S-S Trail south of the park is represented by a heavy green line, connecting to the park in the southwest corner of the lower terrace near Kinderhook Creek, 2010 (SUNY Albany).



Cultural Landscape Report

Martin Van Buren National Historic Site

Kinderhook, New York

Circulation Alternatives

National Park Service
Olmsted Center for Landscape Preservation
www.nps.gov/oclp

SOURCES

1. Orthophotos, NYS GIS Clearinghouse
2. NPS GIS data, Nigel Shaw 2003
3. K-S-S Inter-Municipal Trail Feasibility Study, SUNY Albany, 2010
4. MAVA Trail Brochures, NPS
5. Site visit, field notes, and photography, 2014

DRAWN BY

Alexandra von Bieberstein, CAD 2015, Illustrator 4, 2014.

LEGEND

- Alternative A: K-S-S Kinderhook Creek Trail
- Alternative B: K-S-S Kinderhook Creek Trail
- Alternative C: K-S-S Kinderhook Creek Trail
- Expanded Interpretive Trail (proposed)
- Expanded Path System (proposed)
- Existing Trailhead/ Proposed Connection Point
- Pedestrian Circulation Route (extant)
- Wayside Trail (extant)
- Roadway

NOTES

1. All features shown in approximate scale and location.
2. All grades are approximate.
3. The proposed routes are intended for discussion.

0’ 100’ 200’ 400’

Drawing 3.1

To the north: The Kinderhook Creek Trail is expected to enter the park via the Old Post Road.[11] The proposed route north of the park and parcels with easements is illustrated by Figure 3.26.

To the south: From the southwest boundary of the park, the Kinderhook Creek Trail will traverse several large land parcels within Open Space Institute conservation easements permitting the development of a public recreation trail directly adjacent to the creek. However, a conservation easement for the trail is still outstanding on one parcel. The proposed route south of the park and parcels with easements is illustrated by Figure 3.27. From the southwest park boundary, the trail is expected to continue for two miles before arriving at the upper Stuyvesant Falls. The construction of several small bridges will be necessary to allow users to cross seasonal streams.[12]

Martin Van Buren Nature Area (Extant): The Martin Van Buren Nature Area is located of the east side of Route 9H immediately north of the park. The system of walking trails is owned, administered, and managed by the Friends of Lindenwald. The trailhead for this system of trails is noted in Drawing 3.1.

Dutch Farming Heritage Trail (Extant): The Dutch Farming Heritage Trail, completed in 2013, provides a pedestrian link between the Luykas Van Alen House to the north and Martin Van Buren National Historic Site to the south. The one-and-a-half-mile trail bisects a portion of Roxbury Farm and includes a portion of the historic Old Post Road. Hikers pass through a diverse landscape with forest, farm, and stream views while traversing rolling hills. The trail connects two National Historic Landmarks and provides the foundation to tie together the evolution of Dutch farming across four centuries, beginning in the 1700s when the Van Alen family farmed the land.[13] The southern trailhead and an informational kiosk are located at the north boundary of the park near the visitor parking area (Drawing 3.1).

SMALL SCALE FEATURES

PW-SSF-1: Expand interpretation as additional features are located, identified or marked though waysides, self-guided tours, and/or digital media (apps)

Expanded interpretation is needed to inform visitors about the historic spatial organization and character of the Van Buren property, especially as treatment tasks are implemented. There are presently twelve waysides within the historic core that interpret: the North Gatehouse, the Old Post Road, farmhands and fishing, the Richard Upjohn architectural renovations, the Lindenwald household, farm operations and the Farm Office site, the agrarian lifestyle, Van Buren's role

in both politics and agriculture, soil improvers, the mounting block, and an artist's depiction of the Van Buren landscape.

Expanded interpretation through additional waysides, brochures, and/or digital media (apps) will enable visitors to understand the location, function, appearance, and historic spatial organization of the landscape, including several buildings that are no longer extant including the carriage barn, the gardens and greenhouse, Red Barn, Black Hay Barn, and the Old Stone House; as well as altered features such as the Farm Cottage, the fish ponds, ditches, hedges, and fence lines. An additional wayside should be developed to explain Roxbury Farms practices and highlight parallels to Van Buren's. The proposed waysides would be set along the interpretive trail described in Task PW-CR-1, and would be complemented by interpretation of building footprints as described in Tasks HM-BS-4-6, HM-BS-8, and HM-VG-3. Recommended wayside locations are identified on Drawing 3.7and described below.

North Gatehouse: The North Gatehouse should continue to be interpreted through the wayside east of its fieldstone foundation. The still extant South Gatehouse closely resembles the missing North Gatehouse and is an excellent interpretive tool.

Carriage Barn: The carriage barn was a vital structure during the Van Buren period and continued to be used to stable horses and store carriages through the deProsse period of ownership in the early 1900s. In 1947, Meyer burned the building, which had fallen into disrepair, squaring off the edge of the field for tilling. A wayside at the location of the carriage barn would depict the historic circulation routes within the farm with a historic photo of the carriage barn (see Figure 3.65 and 3.66), and interpret the approximately thirty-five by sixty-five footprint of the building.

Farm Office: A historic photo and description of the Farm Office, built after 1797 by Peter Van Ness, is provided on a wayside in proximity to its site. *A Farmer in his Native Town: Cultural Landscape Report for the Martin Van Buren Farmland* indicates the structure's foundation is extant, although its exact location is unknown.[14]

Greenhouse & Hot House: The site of the Van Buren greenhouse, constructed in 1841 should be interpreted with a wayside. The exotic plants, flowers, and fruit grown in Van Buren's greenhouse are mentioned in numerous pieces of correspondence, attesting to its appeal to guests and Van Buren's pride in the facility. The wayside should include descriptive quotes, such as a this vivid 1846 description provided by a young law clerk who visited Van Buren,

> "He has a capital garden, & conservatory . . . you cannot think of a line that delights the eye, a fragrance that refreshes & purifies the soul, that were not displaying their colors or exhaling their perfumes within that green house."[15]

The hothouse, constructed soon after Van Buren took ownership, was located in the north corner of the garden. At present, no further details of the hothouse are known, however if archeological study of the areas reveals additional information, the footprint should be represented and interpreted.

Red Barn: The Red Barn was torn down between 1946 and 1948 by Meyer. The location, use, and architectural form of this building during the Van Buren period should be interpreted on a wayside marker included in the expanded interpretive trail. A c.1900 photo shows the Farm Cottage and Red Barn, as viewed from the east side of upper terrace field. This could be integrated in a wayside positioned at a similar vantage point (see Figure 3.94).

Black Hay Barn: The Black Hay Barn was torn down between 1946 and 1948. An interpretive wayside should be developed that includes a historic photograph from c.1930 (see Figure 3.101), and the site should be interpreted as part of the new trail.

Old Stone House Site: The Old Stone House site is located in the lower terrace, in the northernmost triangular field, within the parcel now under easement. A wayside explaining the history of the Old Stone House and its role in the development of Lindenwald should be incorporated into the expanded interpretive trail.

Farm Cottage: Built by Van Buren c.1843, the Farm Cottage remains today, although the interior and exterior have been altered. The historic use, appearance, and function of the Farm Cottage should be interpreted through a wayside incorporated into the expanded interpretive trail. Interpretation of the Farm Cottage will add a valuable layer to the story of Van Buren's farmland, highlighting the domestic lives of farm workers. The recently completed historic structure report for this building provides new knowledge and useful graphics.

Van Ness Grave: In 1847 an elaborately engraved headstone was placed over the grave of Peter Van Ness by his son John Van Ness. The gravesite of Van Ness should be incorporated into the expanded interpretive trail with a wayside that discusses the role of Peter Van Ness in the development of the Lindenwald property. The wayside should be located in a manner that does not interfere with farm operations or impair the view to the gravesite. Alternatively, provide interpretive information in a brochure or by digital media.

Fish Ponds, Spring & Dam: Van Buren constructed two fish ponds in 1840 which are documented in multiple letters and journal entries. After the physical and visual connection between the historic core and the ponds is restored, the remaining fishpond should be interpreted through a wayside. The wayside should describe Van Buren's passion for fishing with descriptive quotes and explain subsequent alterations of the landscape. The two ponds were described in an article by Issac Hill:

> "Among the objects which give beauty and interest to the grounds are two artificial ponds in the garden. They were easily made by constructing dams across a little book originating from springs on the premises. Soon after they were made, (three years ago), some fish were put into them, and they are now so well stocked, with trout, pickerel and perch, that Mr. Van Buren assures us they will afford an abundant supply for his table."[16]

In addition the fieldstone dam and wooden sluiceway that fed the lower pond (all no longer extant) should be interpreted.

Hedges & Fences: An interpretive wayside explaining the benefits and ecosystem services provided by hedgerows, the historic agricultural landscape, and how the mechanization of farming practices resulted in an increase in field size should be developed to complement efforts to re-establish hedgerows and restore fence lines.

Van Buren's Ditches: The story of Van Buren's efforts to make "into good meadows the moist lands covered with useless bushes" within the southwestern portion of the lower terrace fields through the installation of drains and ditches should be interpreted by a wayside and linked to the interpretive trail.[17] The 1841 sketch map shows several creeks present in the southwestern portion of the lower terrace, and Van Buren's correspondence documents his efforts to create productive agricultural land from "a tract of *bog land*, thirteen acres of which have been reclaimed, and are covered with luxuriant crops of grass or oats. Three years ago, this land was almost worthless . . ."[18] The location of some of Van Buren's drains and ditches is evident today, and an aerial photograph of the farm taken in 1948 documents the presence of underground structures forming several courses across the southernmost field in the lower terrace and ditches added in the twentieth century (see Figure 3.105). Additionally, an open ditch, draining into Kinderhook Creek, is clearly visible in the woodland fringe on the southern edge of the field. Van Buren's efforts were highlighted in the *Cultivator* as an example of profitable and progressive agricultural practice. Layering of maps from different historic periods, historic photographs, and descriptive quotations can be used to interpret and illustrate how the landscape has been changed by agriculture and natural forces over time.

Active agriculture: Parallels between Van Buren's methods and Roxbury Farm's sustainable practices, history of Hudson Valley agriculture, relevance of agriculture today, and the continuous cultivation of the Lindenwald farmlands for over two hundred years should be highlighted in a wayside.

PW-SSF-2: Replace missing fences and evoke the character of missing fence lines as feasible

During the Van Buren period a combination of hedges and fences delineated property boundaries and lot lines, enclosed the orchards, fields, barnyards, garden, and likely extended along the Post Road. Known evidence is presented below, however historical evidence and details regarding the specific form and extent of these features remains fragmented and is not well documented. The National Park Service and researchers should continue to search for relevant evidence, and to the extent feasible, missing fence lines should be evoked in the landscape, enhancing historic character and landscape patterns.

Information regarding techniques to evoke historic fence lines follows, and details regarding the establishment of hedges to evoke historic character is provided in Task PW-VG-1. Fragmentary references on the location, construction, and maintenance of fences is found in journal entries, letters, and deeds. For example, Thomas Mullikin, who worked on the estate in 1840, spent three days doing 'work on the fence, rying ground," and in 1844 Isaac Hill reported that "several of the fields have been enclosed with new fence."[19] Whether these last fields were the rye fields close to the house or the meadows near the creek is unknown, but those meadows were not fenced one year earlier. Gilpin advised Van Buren in 1843 that ... 'the sweep of meadow down to the creek bordered by the woods, and the hills beyond, is so beautiful that I would not, if I were you, put either fences or corn fields in the range."[20]

Fences along property boundaries are noted in Van Buren's property deeds, including a fence separating Van Buren's houselot and orchard from Dingman's land to the northeast. A second fence is documented along the northern edge of the parcel Van Buren bought from the Dingmans in July 1843. An 1839 deed with Paulding describes the boundaries of a parcel lot containing the mansion as "beginning at the Cedar post set by the fence below the Spring in the lane

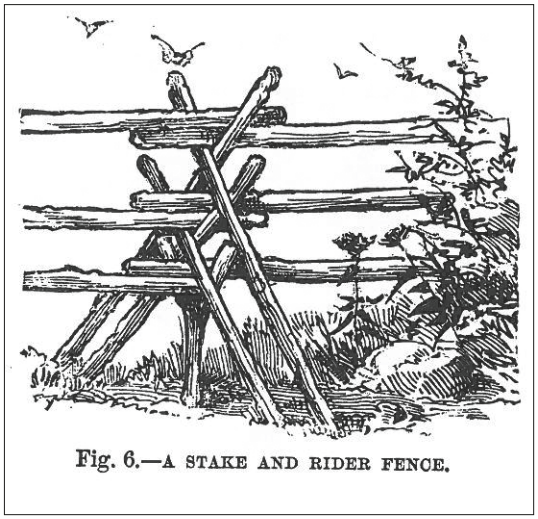


Figure 3.28. This fence is composed of stakes and riders which requires fewer rails than traditional worm fencing and is an alternative version of the popular Virginia worm fence. The weight of the rails locks the stakes in place, 1887 (Freeman, Fences, Gates and Bridges).

leading to the old stone house." The fence referred to here may have been on the Dingmans' property, perhaps along the road to the Old Stone House, or it is possible that this fence followed the line of the "road to the low Lands," which ran west to Kinderhook Creek and is described in the July 1843 deed between Van Buren and Dingman. If the cedar post was part of the fence (which is not clear from the wording) then the fence was likely a post and rail fence of some kind (Figure 3.28).[21] Beyond the reference to a cedar post, there is little information regarding the design of the Van Buren fences. A survey of the U.S. Department of Agriculture in 1871 found "a predominance of worm-fence" in New York and a high percentage of stone walls in use in Columbia County.[22] Drawings of Columbia County farms in Ellis's 1878 *History of Columbia County'* depict a variety of fence types on farms throughout the county: post and rail, especially near houses and farmyards; stone walls topped with rail; worm fencing; and near stately homes ornate fences with detailed rails and pickets. (Figure 3.31 and 3.32).

It is likely that Van Buren rebuilt many of the fences early in his tenure. According, to Issac Hill's written accounts, the estate was in decline when Van Buren purchased it from Paulding in 1839. Hill writes:

> 'it was very much out of order: the land having been rented for 20 years, and having been under cultivation for a period of 160 years. Several of the buildings had become poor, the fences were old and were rotting down, and bushes and grass of wild growth had taken possession of much of the farm."[23]

Van Buren likely used a combination of fence types and styles, as evidenced by regional context and trends. Interestingly, although Lindenwald was the first and only property that Van Buren owned, and also marked his first experiences in farming, he was familiar with fences, having served as the fence-viewer for Kinderhook in 1806. No historic photos or drawings depicting the style or location of fences at Lindenwald during the Van Buren period have been located to date. The location of fence lines in later photographs may give some indication of historic locations, although their location does not necessarily correlate directly. *Fences, Gates and Bridges: A Practical Manual* by George A. Martin, originally published in 1887 contains many examples of fence styles used during the time period (Figure 3.28, 3.29, 3.30, 3.33).[24]

In their 1884, publication, William Crozier and Peter Henderson reflect on forty years of farming on Long Island, New York, and provide the following thoughts on fences.

> "Conditions are so varied that this is something in which the farmer will in most cases have to be guided as circumstances may suggest. I may say, however, that I am a great foe to fences. I have torn down miles upon miles of fences, and have gained by it a great deal of the very best land. I don't believe in having any fences whatever except line fences, and highway fences. It will always pay better to hire a good boy to take care of cattle than to build fences. The kinds of fences

> must of course depend upon the locality. In some sections, where timber is plentiful and lumber scarce, the cheapest fence may be found to be the ordinary rail or post and rail fence; but wherever lumber can be obtained at reasonable price, I think it will be found that a board fence can be erected at lest cost, besides taking up less land and presenting a much neater appearance. A solid post and three-rail fence can always be made at less cost than an ordinary worm fence, even without considering the economy of land."[25]

Crozier and Henderson also write, "wire fences are coming into general use, both plain and barbed," by the 1880s, indicating that during the Van Buren period fences throughout the region were likely composed of a combination of wood and stone. A lack of stones in Lindenwald's riparian terrace landscape and the lack of stone wall remnants in the landscape suggest that Van Buren's fences were wood.

While the exact location and style of fences present during the historic period is unknown, indications of the location of some fences can be gleaned from letters, deeds, and journal entries written before and during the historic period, while the location of others must be derived from trends typical of the time, context and subtle landscape patterns. Archeological investigation using both geophysics and conventional methods could aid in locating historic fence lines, although ground disturbance and the passage of nearly one hundred and fifty years may make evidence difficult to locate or differentiate. Several fences described below are mentioned in documentation and are preliminary candidates for representation.

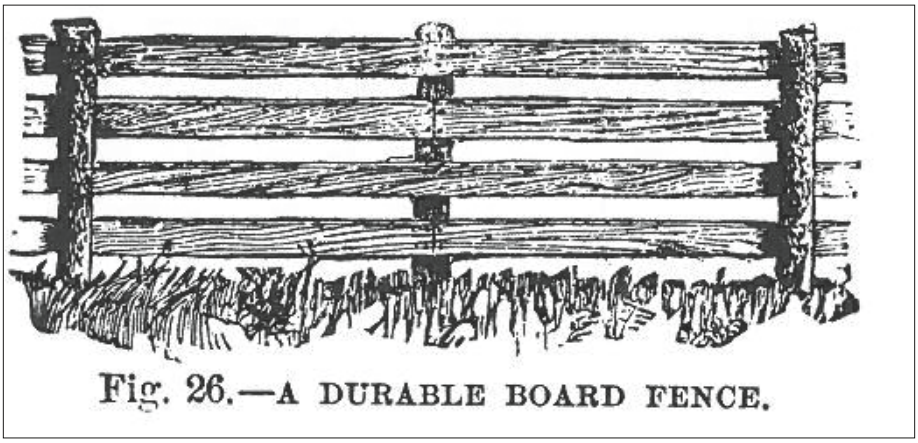


Figure 3.29. The alternating posts on this board fence are a slight adaptation of the traditional style which has posts on a single side. The alternating pattern of posts adds additional stability. Typical construction materials include red cedar, white oak, chestnut, or black locust, 1887 (Freeman, Fences, Gates and Bridges).

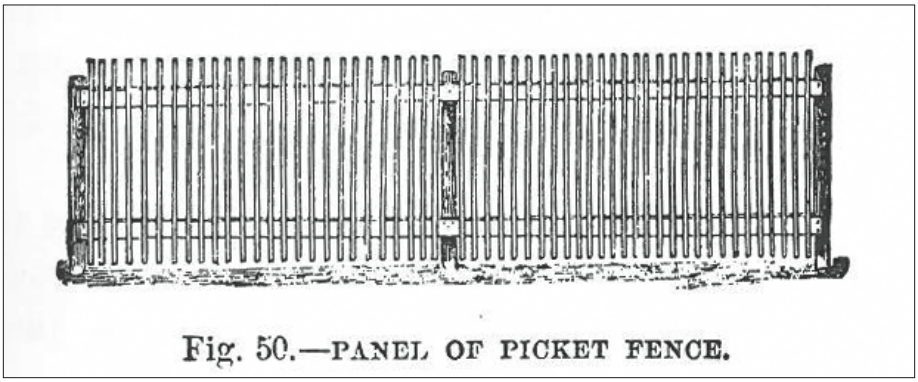


Figure 3.30. This simple fence is constructed of lath pickets two-and-a-half inches apart, six inch top and bottom rails, four to five inch posts, and a kickboard approximately eight inches tall along the base, 1887 (Freeman, Fences, Gates, and Bridges).

Dingman Fence: The Dingman fence separated Van Buren's house lot and orchard from Dingman's land to the northeast.[26] This fence, mentioned in Peter Van Ness's will, is referred to as the 'division fence between me and Casparus Dingman' The *Cultural Landscape Report, Volume II: Treatment Plan* (1997) indicates that the Dingman Fence was post and wire with white painted posts, although other sources indicate that wire fencing, both plain and barbed, came into widespread use in the 1880s. Rather than post and wire, this fence may have been a wood board fence with wood posts. The existence of scattered remnants of a fence along the boundary, buried amidst dense vegetation in the north woodlot, is documented in *Cultural Landscape Report for Martin Van Buren National Historic Site, Volume I: Site History, Existing Conditions, and Analysis* (1995) and by regional archeologists. One wood fence post remains on the historic property line. The extent to which this fence extended west is unknown, although it is likely that a fence, hedge, or both marked the entire north property line.

Van Ness Fence: Peter Van Ness used fencelines to describe the division of property between his sons John and William in his will, 'I hereby order and direct that the lot of Ground lying to the north of the new brick house as far as the division fence between me and Casparus Dingman, and also the lot of Ground including the Orchard to the south of the said house as far as the first fence as it runs at the foot of the hill shall be part of that one half of the above named farm, which I have devised to my sons John and William."[27] A fence at the foot of the hill, following the contour of the bottom of the terrace, and dividing John and William Van Ness's property is described in Paulding's 1834 survey, 'through the center of Kleinrod, along the division of land owned by John Van Ness and William Van Ness.' The extent to which this fence extend across the property is unknown.

It is likely that this fence followed historic parcel lines, extending south from the Dingman property line along the bottom of the terraced slope and historic road traces along a Van Buren period farm road (still extant today) toward the site of the Black Hay Barn and Kinderhook Creek. When Van Buren purchased the property, it is possible that, like the rest of the property, this fenceline had deteriorated and was overrun by vegetation. This fenceline may have exhibited hedgerow-like qualities, developed by volunteer species along the not maintained field edge.

Front Fence along the Post Road: While a formal front fence along the Post Road during the Van Buren period is not documented, historical and regional trends suggest its presence. Ink drawings in *A History of Columbia County*, published in 1878, fifteen years after the end of the period of significance, depict formal landscapes with character similar to Lindenwald's, including well-manicured lawns dotted with specimen trees, decorative urns, and an internal circulation system that circles the house, all enclosed by a fence along the roadway, such as



Figure 3.31. This pen and ink drawing, published in 1878 depicts the Kinderhook, New York home of James Mix, a prominent jeweler and president of the local bank. Similarities to the Lindenwald property include a manicured front lawn dotted with specimen trees, decorative urns, and an interconnected circulation system. Note the board fence that lines the roadway, 1878 (Ellis, History of Columbia County).

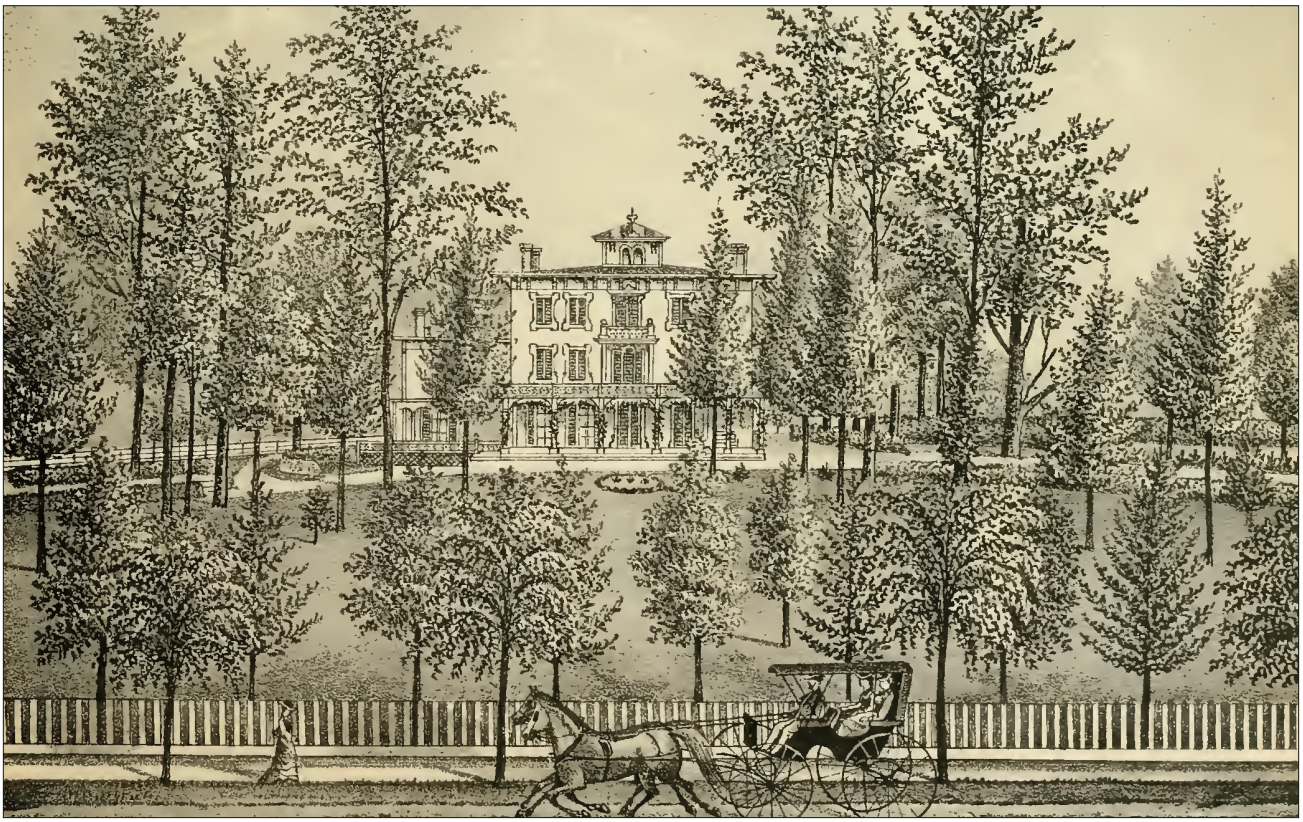


Figure 3.32. This pen and ink drawing, published in 1878 depicts the nearby Claverack, New York residence of Mrs. Catharine Bushnell. Similarities to the Lindenwald property include the tree lined entry drive, manicured lawn, circular front garden, and line of trees along the roadway. Note the presence of a picket fence between the front lawn and roadway, 1878 (Ellis, History of Columbia County).

Figure 3.31. The fence at the Mix property is a three board fence with a decorative top rail. The posts are constructed of sturdy square wood topped with a decorative pyramidal cap. A c.1900 photograph of Lindenwald, Figure 3.34, shows a well-maintained post and wire fence along the Old Post Road, with an ornate wooden gate at the entrance to the north entry drive. Interestingly, the style of the gate in the 1909 photograph closely resembles the arched entry gate depicted in the 1878 ink drawing of the Mix property. Figure 3.32 depicts a wooden fence lining the front of the Bushnell Residence in Claverak, New York. Like the Mix property, the landscape exhibits qualities similar to Lindenwald's during the historic period, including a manicured lawn, specimen trees, an arched entry drive, and a circular front garden. The fence depicted at the Mix Property is a simple wooden picket fence with a kickboard.

Garden Fence: Historic trends and references in correspondence suggest that the Van Buren vegetable garden was fenced. Van Buren hired a gardener to

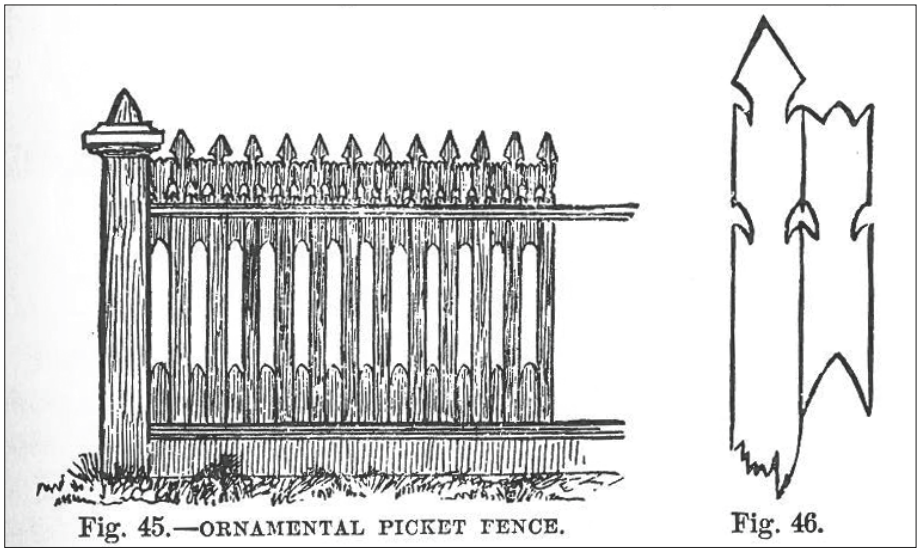


Figure 3.33. This ornamental picket fence, constructed with flat pickets three inches wide and three-and-a-half feet tall, offers refined detailing through notched pickets made with a compass saw, or a foot-powered scroll-saw, 1887 (Freeman, Fences, Gates and Bridges).



Figure 3.34. View southwest along the Old Post Road, showing the front fence and gates to the entry drive during Wagoner ownership. Note the wire fencing and ornate wooden gates, c.1895 (MAVA archives).

"... revive and prepare the old Van Ness plot..." making it clear that the gardens were in a state of neglect and that he created his garden on the footprint of Van Ness's.[28] Van Buren greatly improved and expanded on the remains of the Van Ness Garden, describing his accomplishments in an 1841 article, "A large garden has been laid out, with a greenhouse, and a long wall for espaliers and for the protection of fruit trees."[29] Although construction and existence of these garden structures is documented, their location is less certain. The location of the wall within the garden is unknown, but it is likely that the wall, combined with fences and structures, formed the perimeter of the garden. Van Buren's hop plants and associated structures (fencing or poles) could have been integrated into the design or perimeter of the garden.

Southwest Boundary Fence: Fences marked the boundary of the Van Ness estate, and it is likely that they transcended ownership. Documentation indicates a fence delineating the southwest boundary of estate from the land of Goes, a parcel of land, east of present day Route 9H and not in the park boundary. This fence is mentioned in this section to document its existence, not as a recommendation for representation.

ARCHEOLOGICAL SITES

PW-AR-1: Implement a long-term strategy for collecting geophysical data and archeological investigation

There is strong likelihood that geophysical investigation and traditional archeology will yield new information regarding the physical layout and spatial organization of the Lindenwald estate during Van Buren's tenancy through present day. Geophysical data can be collected over many years as funding or interest dictates. An initial survey grid, composed of numbered twenty by twenty meter squares, should be established using static base points, such as the centerline of the mansion. This will allow data collected during multiple efforts to be synchronized for collective analysis as the bank of geophysical data for the park grows. Figure 3.35 illustrates an example of a geophysical grid established using static basepoints.

Areas of special interests include the land immediately northwest, west and southwest of the mansion, where historical documentation supports the existence of various outbuildings and roadways, including the carriage barn, woodshed, stables, hot house, greenhouse, Farm Office, and farm roads. Geophysics could yield new information critical to determining the location of these historic resources to ensure their protection and improve interpretation of the cultural landscape.



Figure 3.35. Diagram illustrating a sample geophysics collection grid established from fixed base points (east facade and centerline of mansion). Establishment of a grid system will allow data collected through multiple projects and investigations to be linked for comprehensive analysis, 2016 (OCLP).

The park should consult with National Park Service archeologists to determine the appropriate course of action and balance between geophysics and traditional archeological methods. This conversation can frame a long-range approach to investigation which will support treatment recommendations described in this report and agricultural operations. Traditional archeological investigations requiring digging and ground disturbance will be required to confirm anomalies detected during geophysical investigation.

HISTORIC MANAGEMENT ZONE

VEGETATION

HM-VG-1: Implement a turf management strategy

Narrative descriptions of the Lindenwald front lawn during the historic period suggest that the turf was carefully managed and was symbolic of Van Buren's prestige and success. Van Buren likely envisioned Lindenwald, his developing presidential estate, to be of equal status to other prominent properties of the period, especially those along the Hudson River corridor. A common feature

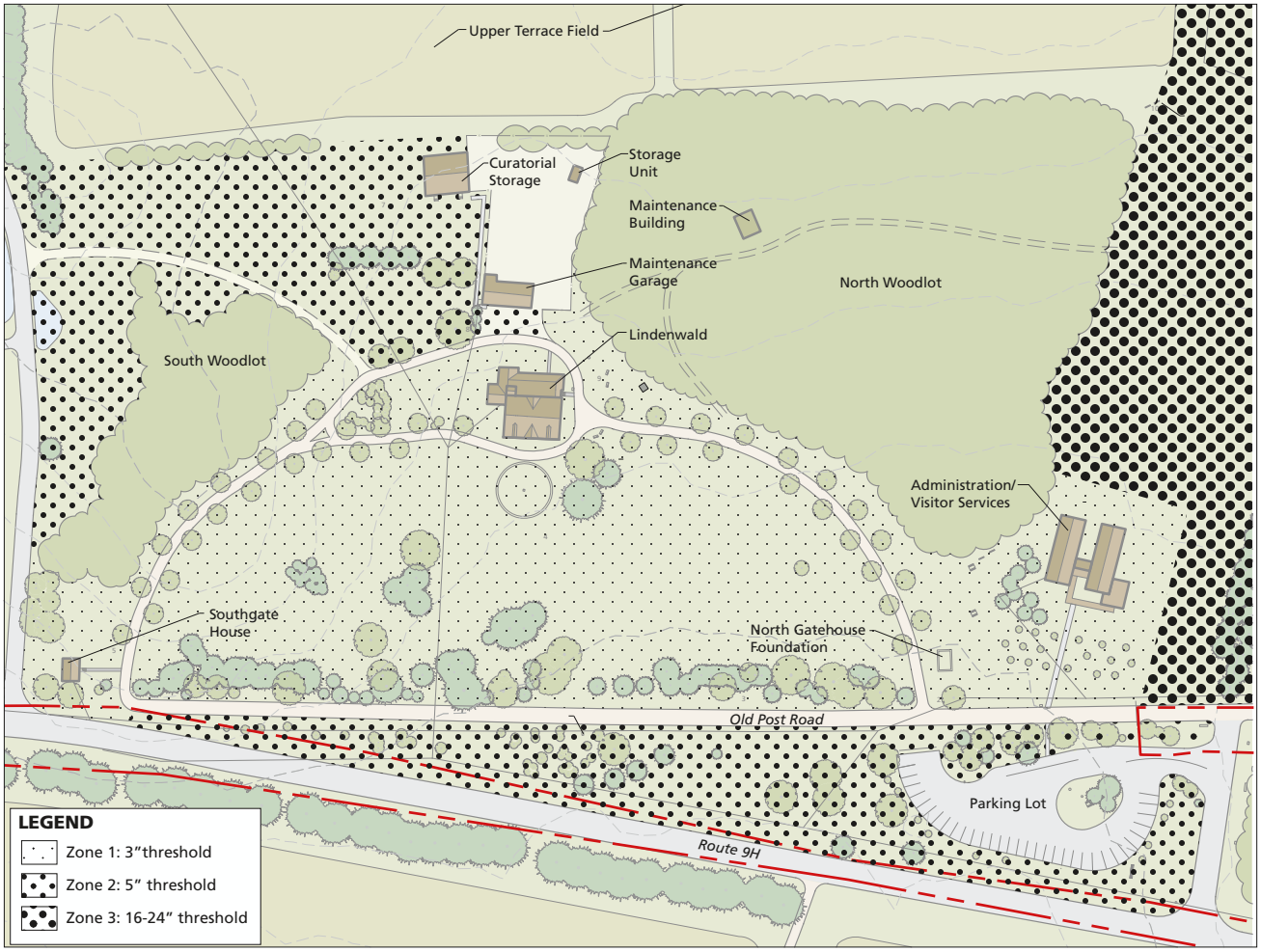


Figure 3.36. The *Turf Management Plan* (2010) divides the formal Lindenwald landscape into three turf management zones based on recommended mowing height. This report updates turf zones and mowing recommendations based on park feedback and recommendations, 2016 (OCLP).

of the Hudson River estates was a well-manicured lawn. In 1846, Sarah Mytton Maury, an English guest to Lindenwald remarked "the comforts and elegancies of his residence exactly resemble those we find in the country house of an English gentleman who lives upon his estate."[30] A Lindenwald guest around 1850 described the manicured landscape as "one of the most beautiful lawns I ever saw . . . fresh and smoothly shaven."[31] Presently, the turf within the historic core, around the visitor parking lot and visitor center is maintained as clipped lawn, approximately two to three inches in height.

The *Turf Management Plan for Martin Van Buren National Historic Site* (2010) replaces guidance provided in *Volume II: Treatment Plan* (1997) and expands on historic context and maintenance practices. Implementation of a turf management strategy should be in keeping with the spirit established within the *Turf Management Plan*; however, based on feedback from park management and maintenance staff, management zones have been revised in this report. In keeping with the *Turf Management Plan*, three zones will be used to define management practices for the Lindenwald landscape. The *Turf Management Plan* directed Zone 1 to be maintained at a 2" height, Zone 2 to be managed at 5-8" in height, and Zone 3 to be managed at 16-24" in height. When these original zones were

implemented, park staff noted that litter often accumulated in the triangular parcel between Route 9H and the Old Post Road (former Zone 3), creating an unsightly appearance and a safety hazard for park staff who maintain the area. Ticks, which can carry Lyme disease, are often harbored in taller grasses, making another case for shorter grass to protect park staff and visitors. Park staff noted that mowing the mansion lawn to 3" is preferred because it provides adequate protection for tree roots while not leaving behind unsightly tire marks in the grass.

The following revised turf management zones, based on park priorities and management needs, are recommended for the formal Lindenwald landscape and immediately surrounding areas. Zone 1, encompassing the formal mansion lawn and area surrounding the visitor center will be managed at a 3" height. Zone 2, encompassing the triangular parcel between Route 9H and the Old Post Road and the field immediately south of the curatorial storage building will be allowed to reach a maximum of 5" in height before being mowed back to 3". Zone 3, encompassing a portion of the north field to the north and west of the visitor center, is used occasionally for overflow parking and event space. This area should be managed through intermittent mowing to meet park needs and balance the desired agricultural character of this area. The revised turf management zones are depicted in Figure 3.36.



Figure 3.37. View southwest toward the mansion along the entry drive. The park replanted the black locust allée in 2002. Now over a decade later, the maturing trees are beginning to evoke the historic character of the entry drive, 2014 (OCLP).



Figure 3.38. View north across the front lawn and circular front garden. Overhead utility lines that bisect the mansion's formal landscape necessitated the removal of one of the replanted black locust in 2014, when the trees crown reached the wires. Overhead utility lines should be buried or relocated, 2014 (OCLP).

HM-VG-2: Preserve the historic character of the black locust allée

The original black locust allée that flanked the semi-circular entry drive was planted c.1800, and was approximately forty years old when Van Buren purchased the property. The trees were arranged in alternating sequence along both sides of the drive and existed through the period of significance. The majority of the original allée was removed during the deProsse Period. The park replanted the black locust allée in 2002, greatly enhancing the historic character of the front lawn area. Several of the replacement black locust trees have been removed and should be replanted in-kind. The replanted allée requires ongoing management and maintenance to ensure overall health and desired characteristics reflective of the uniform character of the allée during the historic period (Figure 3.37).

Tree #112, part of the original allée is located at the end of the north allée, closest to the house, and should be preserved. Black locust #272, (formerly #R22 *Volume II: Treatment Plan*), was removed in 2014 because of safety threats presented as its canopy grew into overhead utility lines (Figure 3.38). Tree #272 should be replanted when overhead utility lines are removed as recommended in Task HM-UT-1. Tree #282 (formerly #R32), part of the replacement allée, is missing and should be replanted. However, prior to replanting, the extant stump should be ground and removed. All attempts should be made to maintain the locusts in uniform size and character. The trees should be monitored by an arborist for signs of diseases and pests, dead and decayed wood, and structural deficiencies.

Continuation of ongoing training regarding proper use of mowing and trimming equipment around trees is essential to ensure the trunks are not damaged.

HM-VG-3: Develop an interactive garden in the area of Van Buren's garden

Shortly after purchasing the Van Ness property, Van Buren set to work restoring and improving the old Van Ness garden plot. Today, Van Buren's marvelous garden, described in detail below, is no longer extant, however the vacant plot presents a wonderful opportunity to revive the spirit of the garden, represent its historic form, and engage the public in a hands-on manner. Following a detailed description of the garden during the period of significance, a spectrum of alternatives for treatment is outlined.

Shortly after purchasing the property, Van Buren described the dilapidated state of Van Ness's garden, in an 1841 letter, writing that it consisted of "a corn field with only here and there a poor tree."[32] Van Buren began a campaign to rebuild and enlarge the garden plot southwest of the house, hiring a gardener to "revive and prepare the old Van Ness plot" in the fall of 1839.[33] No longer extant today, it is likely that Van Buren's garden extended from the Farm Office to the upper fishpond.[34] General descriptions of the garden indicate that it was approximately 150 feet wide and 300 feet long and included vegetables, flowers, fruit trees, and vines enclosed by fences. Should the Van Buren garden be redeveloped, the location of historic features and descriptions of the garden during the historic period should guide the garden plan and layout. Sources include Van Buren's letters and descriptions by visitors, both of which describe the garden walls, greenhouse, and the variety of flowers, herbs, vegetables, and fruits that grew in the garden. The general form and location of the garden is depicted on the 1840 sketch map (Figure 3.20) and the approximate historic footprint is overlaid on a contemporary photo in Figure 3.39.

In 1839 Van Buren made inquiries regarding fence materials and costs for his garden:

> I want him also to ascertain from Col Smith's . . . what the expense was of his brick wall on the North side of his Garden–viz how much a foot or a yard & what its thickness & height. Also whether a fence of equal height made of thick perpendicular slabs well clapboarded so as to be perfectly airtight, would not answer the same purpose–it would, according to the estimate furnished me, be one third cheaper.[35]

The resulting wall, whether brick or wood, may also have stood at the north end of his garden. Perhaps it is the "long wall for espaliers and for the protection of fruit trees" mentioned in an 1841 description of the estate.[36]



Figure 3.39. View southwest across the rear lawn from the entry drive south of the mansion. The white rectangle overlaid on the photo illustrates the approximate footprint of the Van Buren garden. A portion of the Farm Cottage is visible at image right, 2015 (OCLP).



Figure 3.40. Photo simulation depicting the Van Buren garden footprint represented through the planting of a single cover crop, 2015 (OCLP).



Figure 3.41. Photo simulation depicting the Van Buren garden footprint represented through planting a diversity of crops. Construction of a greenhouse would extend the growing season and offer additional interpretive opportunities, 2015 (OCLP).

By 1844 the garden was flourishing with fruits and vegetables:

> "The garden and pleasure grounds have been enlarged and newly laid out–hot-houses have been erected–and a large number of fruit and ornamental trees, shrubbery, & etc. have been planted ... In the garden we noticed fine samples of all the fruits of the season, and some of the finest melons we have ever seen, (so early in the year) in this latitude."[37]

Van Buren also grew cabbages and onions. Other crops grown in small quantities on the farm– beets, beans, peas, and turnips–were likely grown within the garden, along with other household vegetables, herbs, and fruits.[38] Garden flowers included snapdragons, Canterbury bells, petunias, and pink and yellow sweet peas.[39] In 1850 ten pounds of hops were produced on the Lindenwald property, indicating that Van Buren cultivated a modest number of plants in his garden or potentially in the corner of another field.[40]

Van Buren never listed a value for his garden produce in the census returns. The size of his mainstay crops (hay, potatoes, oats, corn, and rye) and the amount they would have earned in the marketplace when compared with the total amount of farm products sold in a year, would indicate that he did not sell his garden produce, keeping it for domestic use instead. If the garden did not produce considerable cash income, it contributed to the household self-sufficiency, as well as to Van Buren's prestige as a gentleman and horticulturist.

Van Buren displayed his wealth and horticultural skill with a greenhouse constructed at Lindenwald in 1841 in which he grew exotic plants, flowers and fruit[41]. A young law clerk who visited Van Buren in 1846 remarked upon it to a friend:

> He has a capital garden, & conservatory, and a couple of artificial ponds, very neat to the eye . . .I was especially pleased with the conservatory of plants & flowers which are watched over by an old Frenchman, who has long been in his employ.[42]

Along with flowers, grapes flourished in the greenhouse. As one visitor reported, "The greenhouse contains a collection of exotic fruits and plants, among which were some fine grapes just ripening."[43] In 1843 Van Buren wrote to John Niles for advice about his grapes:

> I am about planting an additional number of grape cuttings & will be happy to receive the fruits of your experience upon the subject generally with such instructions as [may be] . . . suggested. I planted in the hot House only foreign vines I had had last year the finest grapes I ever tasted. The vines do not look quite so promising this year . . . Those I propose to plant none will be Isabellas & [undeciph.] & they will be placed in the open air. My green House has not [been] well attended during the winter but I have now a first rate Gardner [sic].[44]

Phased approach to reestablishing garden

Information related to the buildings, crops, types of fruit trees, and general location of the garden provides a foundation of information to establish a community garden area that is both experiential and experimental. An experiential educational garden would offer visitors first-hand opportunities to plant, tend, and harvest vegetables, fruits, and flowers. The garden could also highlight contemporary practices such as mulching and composting. This is an outstanding opportunity for interpretation, and could offer hands-on activities for school groups, or public interaction, while reinforcing the connection to agriculture. A structure evocative of the garden wall present during the historic period could be incorporated into the garden area. The reestablishment of the garden is a multi-phase project as further described below.

Lowest Input: Transition lawn area to garden plot

Reestablish a plot of land in the former Van Buren garden area as a garden plot that consists of turf mowed less frequently or a monoculture planting, such as annual rye grass, or one fall crop, such as potato, corn, or other crop grown by Martin Van Buren. Add corner markers and a wayside to explain to visitors the location and composition of the former Van Buren garden area. Associated maintenance practices will include tilling the soil, amending the soil, planting the

crop, weeding, mulching, and harvesting. The crop planted could rotate annually or biannually. This treatment alternative is depicted in Figure 3.40.

Moderate Input: Add flower, vegetables, and fruits, and one garden structure

Greenhouse structures extend the growing season and can be heated or unheated. The addition of a greenhouse would enhance the historic character of the garden area, and provide useful growing space for local produce. In addition, the garden plot described above can serve as a garden plot for flowers, vegetables, and a tree crop described by Martin Van Buren and his guests. This treatment alternative is depicted in Figure 3.41.

Maximum Input: Reestablish all garden structures and associated beds

With a tremendous amount of active agriculture within and surrounding the historic property, the complete restoration of the garden structures would offer useful space to extend the growing season for local farmers. With the support and involvement of a local grower and community group, a variety of flowers, vegetables, and fruits could be grown in the former Van Buren garden area.

HM-VG-4: Restore and preserve tree row along Post Road

During the Van Buren period, the main house was partially visible from the Post Road through the tree row. The grove of eastern white pines screened the view directly in front of the main house.[45] Today, the vegetation along the border of the front lawn and Post Road includes a combination of pine, cherry, locust, linden, cedar, butternut hickory, and maple. The tree line extends along the west side of the Post Road segment, with a wider grove directly in front of the mansion. The row consists of a mixture of mature and recently planted trees, as well as stumps and depressions indicating the location of trees that have been removed



Figure 3.42. View south along the Old Post Road. Note the replanted white pines at image right. Non-historic littleleaf lindens have been planted in the triangular median between the Old Post Road and Route 9H, 2014 (OCLP).

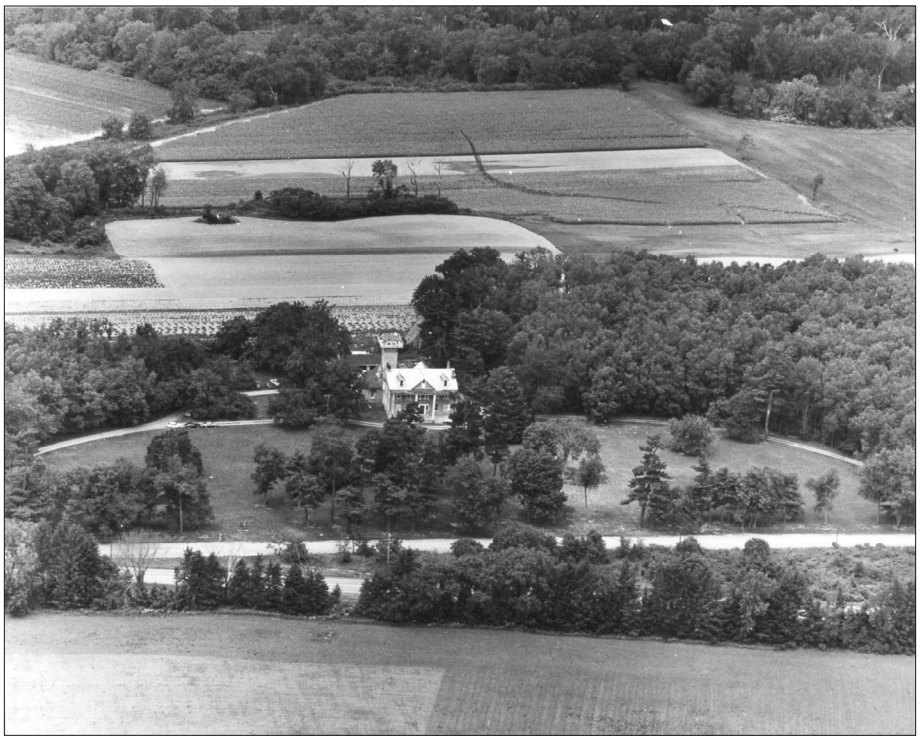


Figure 3.43. Aerial view east, illustrating the deteriorated row of trees and white pine grove along the Old Post Road. Note the missing black locust allée and the open character of the escarpment, 1978 (MAVA archives, 78-2801).

(Figure 3.42). Some portions of the tree row consist of a densely-planted double-row of white pines, planted one to three feet apart and ranging in diameter from approximately eight inches to over twenty inches.

As illustrated in Figure 3.43, by the 1970s, the historic tree row and pine grove along the Post Road had deteriorated; many trees had been removed and invasive vegetation grew in abundance.[46] Today, much of this invasive vegetation has been removed. The front tree row should be managed to develop a consistent character throughout its length. Missing historic trees should be replaced in-kind. Non-historic trees, including the double rows of white pines should be thinned as necessary to promote proper health and vigor in the remaining trees. Extant historic trees should be monitored, and health concerns or diseases should be addressed as needed. Missing trees need to be replanted as detailed on Drawings 3.7 and 3.9.

HM-VG-5: Reestablish the pasture west of the Lindenwald mansion

The pasture located behind the mansion during the historic period now contains contemporary park archives and maintenance buildings, park vehicles and equipment, and is surrounded by a privacy fence (Figure 3.44 and 3.45). These non-historic buildings, associated paths, and fencing should be removed, and the open character of the historic pasture should be restored. Removal of non-historic elements should be carried out in a manner sensitive to archeological resources within the site. After the removal of contemporary elements the area should be reseeded and maintained in a manner consistent with surrounding turf, until



Figure 3.44. View west from the rear of the mansion. The open character of the rear pasture has been altered by the growth of non-historic trees and the construction of several NPS buildings and supporting infrastructure, including an asphalt path and stockade fencing, 2014 (OCLP).



Figure 3.45. View west from the Lindenwald tower, illustrating the intrusion of contemporary NPS infrastructure in close proximity to the mansion. Note the agricultural fields and Catskill Mountains beyond, 2014 (OCLP).

new knowledge from archeology or other sources, or the completion of other treatment tasks dictate a reevaluation of the desired landscape character in this area.

The historic boundaries of this pasture will be more clearly defined as treatment tasks are completed including clearing the woodlot/ orchard establishment, Task HT-VG-1; garden establishment, Task HM-VG-3; and historic circulation route establishment, Tasks PW-CR-1 & 2. Once the surrounding landscape reflects the historic period, it will be necessary to develop management techniques consistent with the desired character of a pasture and operational goals. Alternatives include cyclic mowing, the planting of a demonstration crop, or returning the area to its historic use as a productive pasture.

During the historic period, the north orchard, garden, and south orchard formed the edges of the pasture. The open pasture allowed for a spatial connection, in the form of a view, to the agricultural fields on the upper terrace and the Catskill Mountains beyond.[47] Removal of non-historic features, addressed in Task HM-BS-7, and non-compatible vegetation addressed in Task HM-VG-8 will restore this important visual connection. Thinning of the escarpment vegetation described in Task AG-VG-1 will further enhance the connection.

HM-VG-6: Preserve extant historic trees within the Lindenwald formal landscape

Specimen trees dotted the front lawn of Lindenwald during the historic period. Extant historic trees within the formal landscape and replacements in-kind should be preserved and protected from construction and vehicular traffic. Historic trees should be inspected annually by an arborist and after major storms. The trees should be selectively pruned to remove deadwood, protected with lightning rods, the trunks and branches cabled or braced as needed, and soils aerated to mitigate soil compaction. Both historic and non-historic trees should be monitored

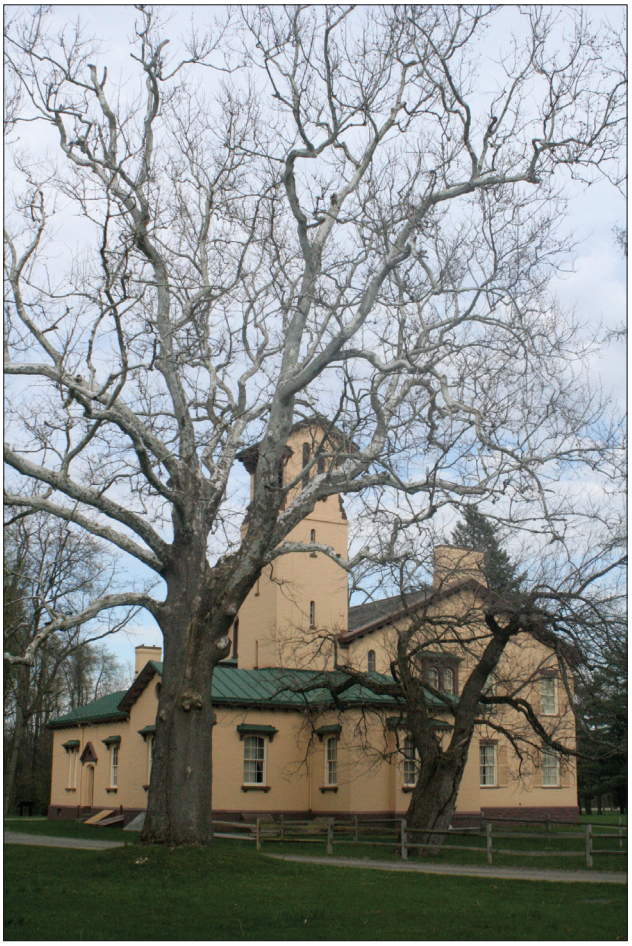


Figure 3.46. View c. 2010 northeast to the mansion. Note the historic sycamore in the foreground and white mulberry, in declining health, closer to the house. The mulberry has since been removed, c. 2010 (OCLP).

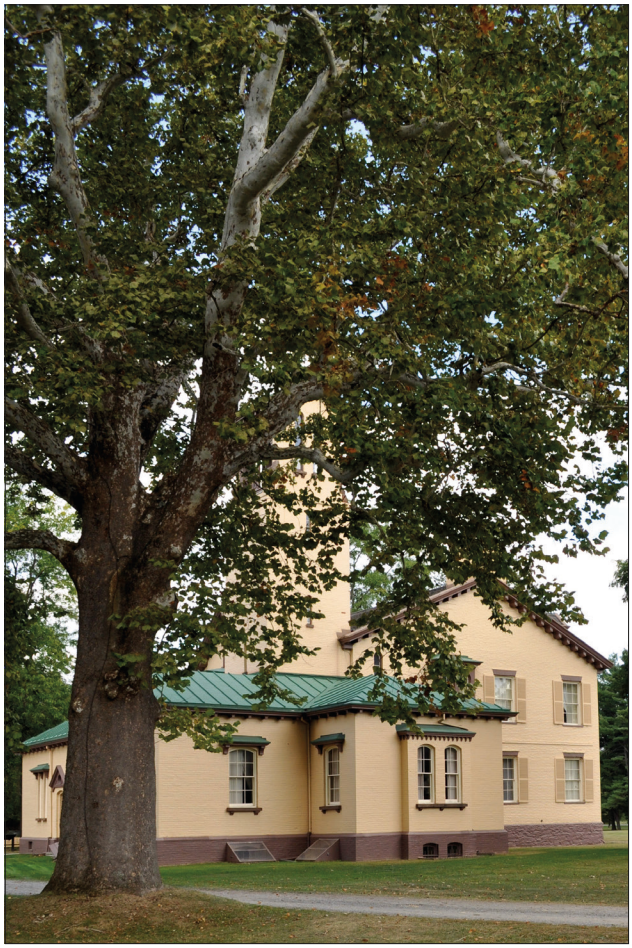


Figure 3.47. View northeast to the mansion. The historic sycamore remains, however note the white mulberry documented in Figure 3.53 has been removed. This missing historic tree has been propagated and should be replanted, 2014 (OCLP).



Figure 3.48. Taken during Wagoner ownership, this photo shows two mature white pines framing the front garden. A young Douglas fir can be seen at image right. Several shrubs border the front garden, c. 1913 (MAVA archives).

for pests and diseases. Historic trees should be propagated as part of lifecycle planning to prepare for replacement. The Vegetation Management Table, found in Appendix A, identifies historic trees to be preserved and a graphic depiction is provided by Drawing 3.9. Of particular importance to the Lindenwald landscape is the historic sycamore (#222) which pre-dates Van Buren's residency.

Historic trees were identified through historic photographs and vegetation surveys completed in 1979, 1992, and observations during field work for this report between 2014 and 2016. A survey completed in 1979 documented the location of trees and stumps. Thirteen years later, the 1992 vegetation survey identified over 230 individual plants of thirty species, within the portion of the historic core that was surveyed. By the time of the 1992 survey, most of the stumps recorded in 1979 had been removed from the property.[48] However, several black locust stumps along the entry drive and along the north border of the Van Buren property were documented in the 1992 survey. In 2014, while conducting field work for this report, the project team noted depressions in several areas consistent with stump locations presented by the 1992 survey, such as the black locust stumps in proximity to the North Gatehouse foundation and north boundary of the Van Buren property. Recent stumps were also recorded. More information on these surveys can be found in the *Martin Van Buren National Historic Site Landscape Preservation Maintenance Plan* (1996). This information is summarized in tabular form in Appendix A, Vegetation Management Table and in Drawing 3.9.



Figure 3.49. View west to the mansion from the front lawn. Note missing white pines framing the front garden that are depicted in Figure 3.56, 2014 (OCLP).

HM-VG-7: Replace missing historic trees within the formal Lindenwald landscape

Missing historic trees should be replaced in-kind within the formal Lindenwald landscape. During the historic period specimen trees dotted the front lawn of the Lindenwald mansion. The location of missing historic trees is documented in historic photos, written accounts, vegetation surveys, and institutional knowledge. These missing trees should be replaced in-kind when possible or by compatible species to preserve the historic character of the formal landscape. Trees identified as dating to the historic period in planning documents should be replaced in-kind when they reach the end of their lifecycle. Trees for replacement are represented in dark green on treatment plans, (Drawing 3.6, 3.7, and 3.8) and on the Vegetation Plan (3.9).This information is summarized in tabular form in the Vegetation Management Table found in Appendix A.

Replacement in-kind: The missing white mulberry tree should be replaced in-kind from propagated stock (Figure 3.46 and 3.47).Three white pines surrounded the front garden during the historic period (Figure 3.48). One was lost by a storm in 1937, and the final two were removed in the 1990s.[49] These three white pines should be replanted (Figure 3.49).

Compatible Replacement: Treatment plans (Drawing 3.6, 3.7, and 3.8) and the Vegetation Plan (Drawing 3.9) graphically depict vegetation to be preserved, replanted or removed. This information is also presented in tabular form (see Appendix A).

HM-VG-8: Remove incompatible non-historic trees.

Since the close of the historic period non-compatible trees have been planted around the mansion. Many of these trees have reached considerable size and

detract from the historic character of the landscape, obscuring views and altering historic mass and spacing patterns (Figure 3.50). Many of these trees should be removed outright, while others should be retained until replacement trees or screening has matured. This information is presented graphically in Drawing 3.6, 3.7, 3.8, and 3.9 and summarized in the Vegetation Management Table found in Appendix A.



Figure 3.50. View northwest from entry drive to the rear lawn, historical open pasture. The non-historic trees south and west of the mansion's formal landscape obstruct historically open views and bisect the site of historic farm roads. Completion of related treatment tasks will necessitate the removal of non-historic vegetation to more accurately evoke the historic landscape character, 2014 (OCLP).



Figure 3.51. View west to the circular front garden and the Lindenwald mansion. The wayside in the foreground highlights architectural changes to the house over time, while the gravel outline of the front garden is visible in the middle ground. The reproduction urn is missing, although the contemporary base remains centrally located in the front garden, 2014 (OCLP).

CIRCULATION

HM-CR-1: Preserve and maintain the circular front garden path

The circular front garden path is a central element of the mansion grounds, reflecting manicured and gracious setting Van Buren crafted in the formal landscape. The combination of symmetrical gatehouses, the semi-circular entry drive, locust allée, clipped front lawn, and the circular front garden created a distinguished appearance for visitors and those who passed by on the well-traveled Albany Post Road. Located east of the entry drive and on axis with the Lindenwald main entrance, the circular garden was historically defined by a circular pedestrian path and enclosed by two benches, three eastern white pines, and several ornamental shrubs. The two-foot wide path that defined the edge of this space was restored in 1998, and should continue to be maintained. At minimum, the path should be edged annually to prevent grass from overgrowing the path, although more frequent edging will maintain a more polished appearance. The path is currently surfaced in stone dust, which is similar in color and texture to what was likely present during the historic period, and should be replenished as needed (Figure 3.51). In addition to the path the white pines and shrubs that helped to define this space historically should be replanted (Task HM-VG-7). An ornate bench depicted in the foreground of the c. 1849 Richard Upjohn rendering of the mansion provides evidence to support relocation of the reproduction benches, currently north of the circular garden, into the garden after the trees mature and provide shade as described in Task HM-SSF-3.

HM-CR-2: Continue to preserve location and alignment of Old Post Road and the semi-circular entry drive

A segment of the Old Post Road continues to parallel the east property line of the original Van Buren estate. The arms of the semi-circular entry drive continue to intersect the Old Post Road near the South Gatehouse and the North Gatehouse foundation after curving away from the Lindenwald mansion. An extension of the drive encircles the mansion, and historically connected to farm roads. This extension now provides access to park maintenance facilities. An archeological survey conducted in 2010 examined the Old Post Road and the north arm of the entry drive. The survey confirmed that the Old Post Road and the entry drive retain their historic alignment and closely reflect their historic dimensions. The Old Post Road may have been approximately three-feet-wider during the historic period than at present. Today both roadways are surfaced with a combination of gravel and compacted soil. The Old Post Road was originally constructed of hard-packed dirt and gravel was added throughout the mid-to-late nineteenth century. No conclusive evidence regarding surfacing methods for the roadway or drive could be drawn from archeological investigation or research, although investigation provided evidence that the Old Post Road was likely never fully



Figure 3.52. View southwest along the entry drive toward the South Gatehouse and Old Post Road. The entry drive retains its original alignment, leading visitors to the Lindenwald mansion just as it did during the historic period, 2014 (OCLP).



Figure 3.53. View west to the circular front garden and Lindenwald mansion, c. 1890s (MAVA archives, 8171).



Figure 3.54. View east from the western edge of the front garden. The reproduction urn located in the center of the garden has since been removed. A portion of the replanted white pine screen along the Old Post Road is visible in the background, c. 2010 (OCLP).

resurfaced at any given time. Investigation revealed that portions of the Old Post Road may have been sealed with asphalt after the close of the historic period. The survey was inconclusive regarding the existence of a drainage ditch paralleling the roadway.[50] The location and alignment of the Old Post Road, the semi-circular entry drive, and the portion that encircles the mansion remains in its historic location and should be preserved (Figure 3.52).

SMALL SCALE FEATURES

HM-SSF-1: Replace the reproduction urn

A decorative urn on a pedestal, surrounded by a circular planting bed, approximately eight feet in diameter, stood at the center of the circular garden during the Van Buren period. The first photographic evidence of the urn dates to the Wagoner period, when the interior of the circular garden was finely manicured grass between one and two inches in height. The surrounding lawn appears to have been maintained between six to eight inches tall during the Wagoner period (Figure 3.53). Evidence suggests that during the Van Buren period the lawn was more closely trimmed. It is unclear what species, if any, were planted in this area



Figure 3.55. The Albany Post Road stone marker is located in the southeast corner of the park along Route 9H. Although the feature post-dates Van Buren's time at the property, it is representative of the series of remnant postal mile marks along the regional corridor that date to 1798, 2014 (OCLP).

during the historic period, however should new knowledge come to light, this area should be replanted. During the Wagoner period, three white pines remained from the Van Buren period and continued to define the space. Five or six shrubs of different species were spaced along the edge of the path.

The twentieth century reproduction urn that was on display in the garden until recently was damaged and removed. The original urn remains in storage. A new reproduction should be made and placed in the center of the circular front garden as shown in Figure 3.54. The National Park Service installed a non-historic limestone base to stabilize the urn. The base does not distract from the historic character of the urn or circular front garden.

HM-SSF-2: Preserve the Albany Post Road stone marker

The Albany Post Road stone marker (LCS 040752) stands at the southeast corner of the park along Route 9H. The marker is considered to be a non-historic, non-contributing object on the site because it post-dates the Van Buren period. The marker is part of a postal mile marker system along the Post Road, and the earliest markers date to 1798. The Lindenwald marker is believed to date to the early 1900s, but was removed from its original site and placed in storage from the 1930s until sometime between 1957 and 1973, when it was placed at its current location, along the road directly east of the South Gatehouse. The original marker is a vertical marble slab with a semi-circular top with the mileage designation "134 To NY" carved on its face. When the marker was reinstalled it was encased in fieldstone surrounded with a concrete slab gable pediment and granite block concrete base (Figure 3.55).

While the marker itself serves as a relatively rare example of an early Post Road marker, it does not contribute to the historic district because it was removed from its original location and its original appearance was significantly altered.[51]

Though non-contributing, the marker remains along the road and is an object of interest to travelers and regional historians who are familiar with the series of remnant postal mile markers. For example, mile posts also remain in Hyde Park in front of the Roosevelt and Vanderbilt sites. The current recommendation is to leave the marker in place because it does not detract from the historic setting and is tied to the regional history of the Albany Post Road. Further research will aid in assigning dates to the components of the current marker, including the marker itself.[52]

HM-SSF-3: Relocate reproduction benches to the circular front garden once restored vegetation has been established

During the Van Buren period cast iron benches were likely located under each of the white pines that flanked the entrance to the main house. These ornate benches



Figure 3.56. View northeast across the front lawn. The two cast iron reproduction benches northeast of the house should be relocated to the front garden once associated treatment tasks, such as the replacement of historic trees, are completed, 2014 (OCLP).



Figure 3.57. View southeast of the north side of the mansion. Visitor donations funded the replacement of the missing mounting block in 2000, 2015 (OCLP).



Figure 3.58. View northwest of the woodlot. Contemporary benches and trash receptacles located immediately north of the mansion detract from the historic character of the grounds and should be considered for relocation or modification as associated tasks are completed, such as the restoration of the front garden and the development of a new visitor center, 2014 (OCLP).

are first depicted in the c.1849 Richard Upjohn rendering of Lindenwald, and are later documented in c.1895 and 1900 photographs.[53] Once the three white pines that surrounded the front garden are replaced and reach a size capable of providing shade, the cast iron benches should be moved back to their historic location in the circular front garden. The circular front garden could be used as a meeting place for tours allowing contemporary site furnishings immediately north of the mansion to be removed (see related Task HM-SSF-5) (Figure 3.56).

HM-SSF-4: Maintain mounting platform

During the historic period a square marble platform, used by Van Buren and others for mounting horses, was located near the north entrance of the mansion. The mounting block disappeared in the mid-twentieth century. A replica of the mounting block was installed in 2000, funded by donations from park visitors. Van Buren was known for his love of horses, especially his prize thoroughbred, Duroc. This replacement marble mounting block should continue to be preserved and maintained (Figure 3.57).

HM-SSF-5: Relocate contemporary garbage receptacle, benches, and picnic tables away from the historic mansion

Contemporary small-scale features located in close proximity to the north entrance of the mansion detract from the historic character of the site. The wood composite benches and trash receptacle accompany a wayside in an area used for tours to gather before they enter the house. While this staging area for visitors to wait for a tour is an important component of the house tour, these benches should either be relocated or replaced with furnishings that do not detract from the historic setting (Figure 3.58). Alternative locations for tours to gather should be explored, as treatment tasks are accomplished. Alternative locations should be considered in the development of the visitor center (Task AD-BS-1), relocation of the reproduction benches to the center circular garden (Task HM-SSF-3), or north orchard restoration (Task HM-VG-1).

BUILDINGS AND STRUCTURES

HM-BS-1: Preserve and maintain the Lindenwald mansion

Originally constructed by Peter Van Ness, the Lindenwald mansion underwent renovations during Van Buren's ownership in 1849. Alterations were designed by architect Richard Upjohn (Figure 3.59). The National Park Service restored the mansion to its 1850s appearance, removing twentieth-century exterior alterations



Figure 3.59. Circa 1849 Richard Upjohn rendering of the mansion, showing the 1850 improvements that altered the Georgian-Federal style home to an Italianate villa during Van Buren ownership, (Columbia Avery Library/ MAVA archives).



Figure 3.60. During Campbell ownership the front porch of the Lindenwald mansion was redesigned, 1969 (MAVA archives).



Figure 3.61. View northwest to the mansion. To the left of the mansion, a portion of the replacement allée and non-historic utility lines are visible. A portion of the north woodlot can be seen in the background, 2014 (OCLP).



Figure 3.62. Circa 1950 view of the North Gatehouse. The North and South Gatehouses marked the entry drive during the historic period. The North Gatehouse was removed in the 1950s. A portion of the foundation remains today, (MAVA archives).



Figure 3.63. View west toward the lower terrace. The North Gatehouse foundation, a portion of the allee and entry drive, and the north woodlot are visible. Note the contrast in the character between the woodlot and a portion of an open field visible at image right, 2014 (OCLP).



Figure 3.64. View south toward the South Gatehouse, presently used for storage but recommended for rehabilitation for interpretive use in the GMP. A portion of the entry drive is visible in the foreground, 2014 (OCLP).

(Figure 3.60). The Lindenwald mansion, identified as a fundamental resource in the *General Management Plan*, should be preserved and maintained (Figure 3.61).[54]

HM-BS-2: Reconstruct the North Gatehouse

Van Buren directed the construction of two matching gatehouses in the mid-1840s, known today as the North and South Gatehouse. These two structures were used to house farm employees during the historic period (Figure 3.62). The South Gatehouse remains in its original location while only the foundation of the North Gatehouse remains. The North Gatehouse was sold during the deProsse period to a family on Post Road who used the lumber in the construction of their house.[55] The North Gatehouse foundation was filled with debris in 1973. The National Park Service stabilized the foundation to prevent further deterioration. Stabilization included removing debris and back-filling with soil to ground level. A one-foot high portion of the foundation remains above grade (Figure 3.63). The park has removed non-historic black cherry trees and other volunteer vegetation to protect the resource. As funding and resources allow reconstruction of this building should be considered. Reconstruction of this building will reestablish the symmetry of the entry drive and provide an opportunity for exhibit space, with a focus on farm life. Until further treatment of this important cultural landscape feature can be initiated the foundation should continue to be preserved.

HM-BS-3: Restore the South Gatehouse to reflect the period of significance

Like the North Gatehouse, the South Gatehouse was built in the mid-1840s under Van Buren's direction. Both buildings, likely constructed by local carpenters, were used as farm employee residences. Since National Park Service acquisition of the property, this building has been partially restored to its 1850s appearance (Figure 3.64). It is presently used for storage. A non-historic but compatible flagstone walk leads to the South Gatehouse. Listed as a fundamental resource in the *General Management Plan*, the exterior will be restored to reflect the 1839 to 1862 period of significance. The building interior will be rehabilitated and used to interpretively explore farm life and the lives of the workers who resided there.[56]

HM-BS-4: Represent the carriage barn in the landscape

The carriage barn, constructed in about 1797 by Peter Van Ness, was located northeast of the mansion. The building was approximately thirty-five feet by sixty-five feet, and one-story tall, with a hay loft overhead. Extensive information regarding the size, layout, construction materials and location of the carriage barn is documented in historic photographs (Figure 3.65 and 3.66) and in descriptions provided in interviews between the National Park Service and Seymore McGee, a lifelong resident of the area who assisted former owners with tree removal,



Figure 3.65. View northeast to the carriage barn from the eastern edge of the upper terrace. Portions of the north orchard and its rail fence are visible to the left of the carriage barn, n.d. 1890-1936 (MAVA archives).



Figure 3.66. View looking north toward the carriage barn c.1940. The structure was burned by the next landowner Dudley Ray Meyer, Jr. in 1947, (MAVA archives).



Figure 3.67. View east from the eastern edge of the upper terrace field, toward the north woodlot and approximate location of the carriage barn. The mansion can be seen in the background of image right, 2014 (OCLP).



Figure 3.68. Pen and ink depiction of the Lindenwald Mansion, c.1880. Two wings appear to extend off of the left and right of the building. Note the circular garden is not depicted, c.1890 (MAVA archives 8171).

grounds care, and building removal at Lindenwald.[57] Further information related to the exact location of the building could be gained through further archeological investigations. Van Buren, an avid horseman, likely used the carriage barn to stable horses. Meyer burned the dilapidated carriage barn in 1947.[58]

Given that the general location and dimensions of the building are known, its physical form should be interpreted to visitors and incorporated into the expanded interpretive trail. Scattered stones mark the general location of the carriage barn site which spans the southwest corner of the north woodlot and a portion of the upper terrace field (Figure 3.67). At minimum, an outline of the stone foundation or treatment of the corners with stacked stones would convey the location and size to visitors. Marking the footprint of the building will allow visitors to better understand the relationships between the mansion, other outbuildings, and historic circulation routes and daily activities. Interpretive signage could provide information on the purpose and appearance of the building.

Alternatively, the site of the carriage barn could be used for a visitor center or maintenance facility. Building on the same footprint, and drawing heavily from historic photographs and drawings, the Van Buren carriage barn could be given life again. Redevelopment of the carriage barn would fill a critical park operational need while enhancing the historic character of the landscape. Should a facility be built, this area should be considered as a potential gathering area for tours.

HM-BS-5: Conduct further research concerning the location of the woodshed and stables

Outbuildings were a critical element of the Van Buren period estate. A woodshed and stables complex were likely attached to the rear of the house or as freestanding structures located behind the house. No physical evidence of

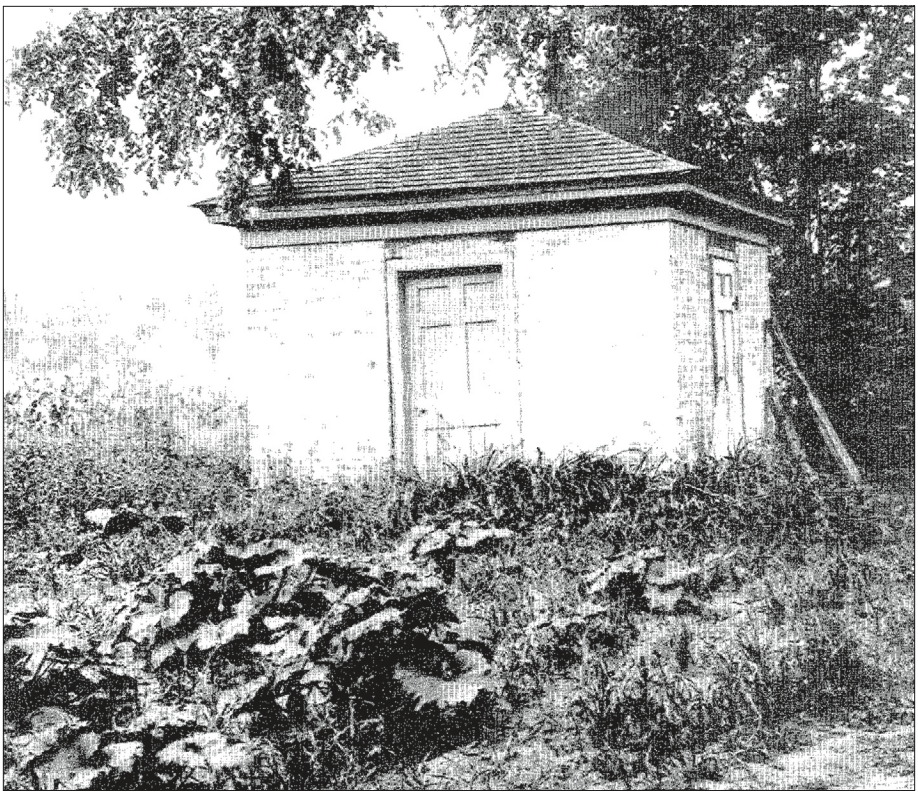


Figure 3.69. The Farm Office during deProsse ownership. The building is surrounded by tall grass amidst and overgrown garden. Rhubarb appears to be growing in the foreground, 1936 (MAVA archives).

their existence remains today and the exact location and layout of the stable and woodshed is undocumented.

Van Buren's stables may be the building located to the rear of the mansion in Figure 3.68, a c. 1890 ink drawing. Construction of the stables is documented in an 1841 letter from Van Buren to Andrew Jackson, 'I have been extremely busy all summer in getting my place in order and have mainly succeeded. The carpenters are however yet on the ground making stables, wood houses, &c'.

Geophysics and conventional archeology should be conducted to discern the location of supporting outbuildings including the woodshed and stables. If archeological studies reveal information relevant to the location, dimensions, and construction materials of these buildings, their locations should be marked and interpreted.

HM-BS-6: Represent the Farm Office in the landscape

Constructed c. 1800 the Farm Office was a one-story building with an eleven by eleven-foot foundation located at the east corner of the garden (Figure 3.69). The building was removed c. 1960, however foundation materials may remain. The footprint of this structure should be located, identified, and revealed. Interpreting the location of this building will allow visitors to further understand the interconnected relationship between the numerous agricultural outbuildings,



Figure 3.70. View west from behind the mansion toward the upper terrace field. The contemporary archives building (pictured) and a maintenance facility obstruct views to the agricultural landscape beyond. The farm cottage is visible in the background at image left, 2014 (OCLP).

historic circulation routes, and daily activities. The footprint of this building should also be incorporated into the expanded circulation route and interpretive trail.

Previous documentation indicates the Farm Office foundation consists of flat stones at grade level now covered with sod.[59] However, no remnants of the structure are visible today, and the accuracy of this information is unknown. If feasible the foundation stones of the structure should be located again, and exposed, or marked above ground with non-historic material reflective of the structures original foundation. Should the concept of redeveloping the Van Buren garden advance, the Farm Office and accompanying outbuildings should be incorporated into the overall design and layout of the garden. Possibilities range from marking their footprints to constructing buildings in their location that are useful to present operations but reflect the historic context.

HM-BS-7: Relocate contemporary National Park Service buildings

Several buildings intended as temporary structures were built between the west side (rear) of the mansion and the upper terrace agricultural field. Mobile homes initially located behind the mansion and used as park offices were removed in 2001 and replaced with new temporary structures in the north field. A pole barn was constructed between 1983 and 1984 as temporary storage for curatorial items



Figure 3.71. Photo simulation depicting the removal of contemporary NPS buildings behind the mansion. Views to the agricultural fields west of the mansion are restored, and the historic character of the site is enhanced, 2015 (OCLP).



Figure 3.72. Photo simulation depicting the removal of contemporary NPS buildings behind the mansion. A portion of the proposed interpretive trail is visible at image left, and a hedgerow has been established. Views to the agricultural fields west of the mansion are restored, and the historic character and visitor experience is enhanced, 2015 (OCLP).

and remains in use. A Campbell era building, used as a park maintenance facility, further detracts from the historic character and view (Figure 3.70). Park vehicles and equipment are stored in a gravel parking lot to the rear of the maintenance facility. A privacy fence surrounding the vehicle storage area further impacts the historic view.

Figure 3.71, a photo simulation, depicts the removal of contemporary buildings to the rear of the Lindenwald mansion. The area should be returned to open lawn or pasture space as it existed during the historic period. Figure 3.72, a photo simulation, depicts the removal of non-historic park buildings and implementation of treatment tasks to rehabilitate hedgerows (Task PW-VG-1) and represent Van Buren period circulation routes (Task PW-CR-1). Removal of these non-historic buildings will dramatically improve the visual connection between the mansion grounds and its agricultural context as described in Task PW-VV-1.

HM-BS-8: Represent the greenhouse and hot house in the landscape if future archeological studies yield substantive evidence

Visitor Isaac Hill writes about Lindenwald in the August 1844 monthly publication, *The Cultivator,* "The garden and pleasure grounds have been enlarged and newly laid out- hot-houses have been erected- and a large number of fruit and ornamental trees, shrubbery, &tc. Have been planted . . . In the garden we noticed



Figure 3.73. View west toward the Farm Cottage, currently used to house Roxbury Farm employees, 2014 (OCLP).

fine samples of all the fruits of the season, and some of the finest melons we have ever seen, (so early in the year) in this latitude."[60]

The greenhouse was constructed during Van Buren ownership in the north corner of the garden. No above-ground physical evidence remains of the building today, and no further details of the building are known.[61] A hot house, constructed at the beginning of the period of significance, was also located in the north corner of the garden. If a community supported garden is developed on the site in the future or a third party takes an interest in developing this garden space, the missing structures should be evoked in the landscape design. Possibilities range from marking the footprints to constructing structures in their location that are useful to proposed or present operations but reflect the historic context.

HM-BS-9: Stabilize the Farm Cottage

The Farm Cottage, constructed by Van Buren in about 1843, remains in its historic location on the west edge of the upper terrace. Both the interior and exterior have been altered since the end of the historic period and the building is in need of maintenance. Today, consistent with use during Van Buren's residency, the building houses farm workers (Figure 3.73). The *General Management Plan* prioritizes the Farm Cottage for stabilization treatment under Alternative C to prevent further deterioration. A Historic Structure Report (HSR) was completed in 2016 and provides further direction to develop an appropriate rehabilitation and maintenance plan. The *General Management Plan* indicates a preference for interior rehabilitation and adaptive reuse for park purposes.[62]

As planning efforts continue to develop for the Farm Cottage, the setting and landscape surrounding the building must be carefully considered. Non-historic intrusions such as parking should be kept to a minimum and carefully sited to not impact historic views or context. Extant non-historic intrusions necessary for agricultural operations will be screened to the extent possible. Proposed locations for additional screening are depicted on Drawing 3.8, the Treatment Plan for the Farm Cottage Area. The Farm Cottage and the surrounding landscape is an important resource to interpret the multiple narratives of daily life at Lindenwald during the historic period.

UTILITIES

HM-UT-1: Relocate overhead utility line crossing the front lawn

A non-historic overhead utility line bisecting the front lawn conflicts with vegetation and detracts from the historic character of the landscape. The utility line crosses the front lawn of the Lindenwald mansion in an east to west fashion.

The utility lines serve the Roxbury Farm agricultural complex southwest of the historic core and should be relocated or buried. Park utilities are buried and do not detract from historic character.

Overhead utility lines enter the site from the Post Road and extend across the front lawn toward the Lindenwald mansion, crossing through the white pine screen along the Post Road and the replanted black locust allée. Near the mansion, the utility line turns west toward the Roxbury Farm agricultural complex, where it crosses the upper terrace field (Figure 3.74).

The presence and obtrusive location of this utility line impacts the historic character of the site. The line bisects the front lawn, fragmenting the open expanse, and adding an inharmonious contemporary feature. Additionally,



Figure 3.74. View west across a portion of the front lawn, toward the mansion and agricultural fields beyond. Note the utility lines that cross the front lawn, and pole located in close proximity to the mansion. Non-historic vegetation and buildings visible in the background further detract from historic character and obstruct views to the west, 2014 (OCLP).



Figure 3.75. View southwest toward the electric transformer located just north of the mansion. Previously the transformer was screened by underbrush in the north woodlot, however today the utility's location is more prominent, 2014 (OCLP).

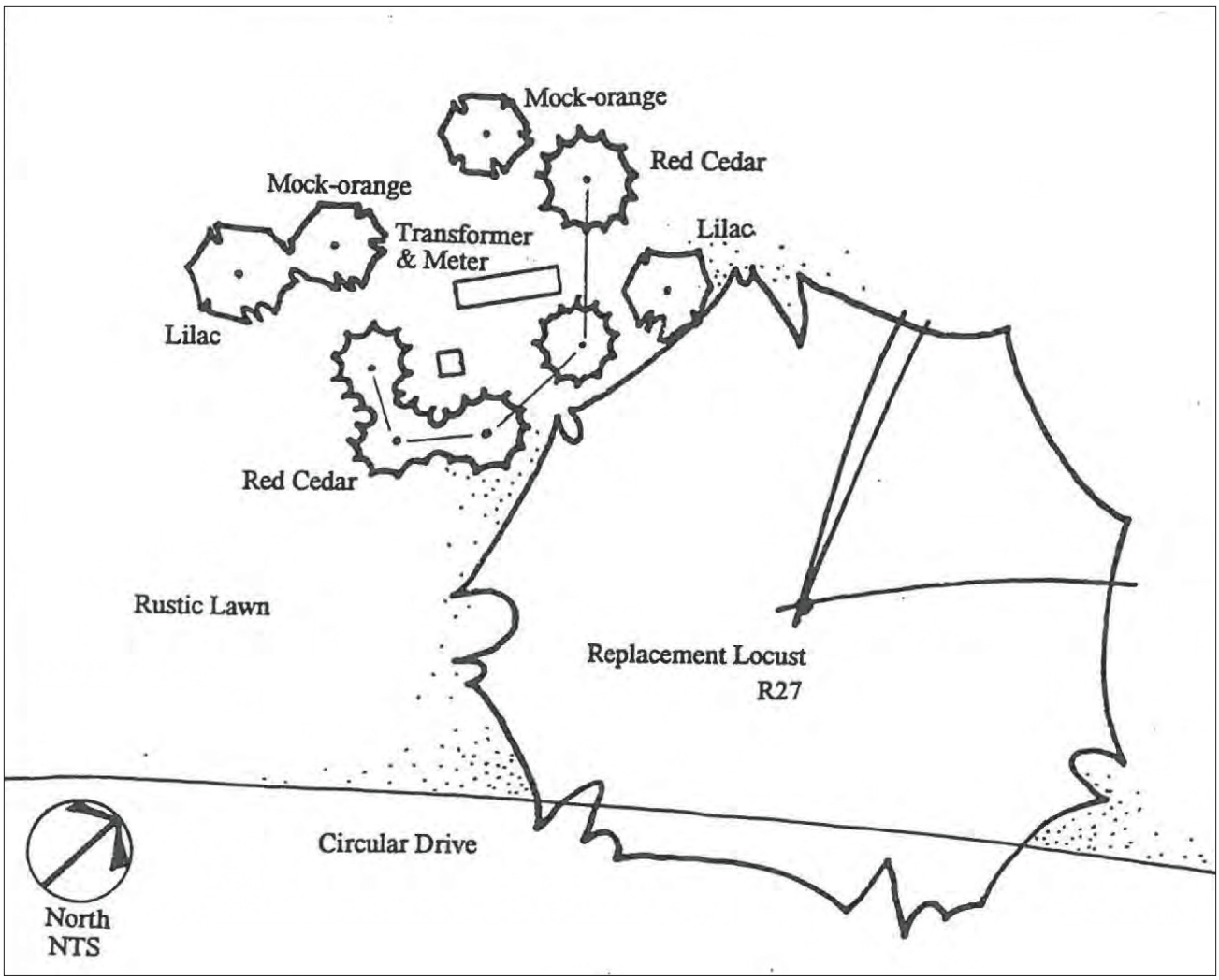


Figure 3.76. Planting plan to screen utilities, 1997 (OCLP/ SUNY ESF).

the utility line conflicts with park efforts to replace missing historic features, specifically, trees within the locust allée and front pine row. In 2014, the utility lines necessitated the removal of a replanted black locust in the allée because the tree had matured to the extent that the crown reached the wires, creating a potential safety risk. Clearance required for the utility lines in the white pine screen along the Old Post Road necessitates a noticeable gap.

Overhead utility lines crossing the front lawn and upper terrace should be relocated or buried. The preferred alternative would be to relocate them off of park property, running or buried along the former Mill Road south of the park. Alternatively the lines could run be buried along the Roxbury Farm access road immediately south of the park (Drawing 3.7).

HM-UT-2: Screen utilities near Lindenwald

Non-historic utilities near the house detract from the historic setting. As recommended in the *Volume II: Treatment Plan*, shrubs were planted to screen the utilities; however, the recommended species and locations were not implemented.

Planting efforts to screen the utilities was only partially successful. Utilities remain largely visible and detract from the historic character of the core (Figure 3.75). Proper screening is essential to reduce the impact of these necessary but detracting contemporary additions located approximately sixty-feet north of the mansion. Completion of tasks including the restoration of the north orchard (Task HM-VG-1) and restoration of the historic circulation system (Task PW-CR-1) will increase the prominence of the utilities, making adequate screening essential. Recommended species are compatible with the historic character and include common lilacs (*Syringa vulgaris*) and mock orange (*Philadelphus coronarius*). The planting plan developed for *Volume II: Treatment Plan* is included in Figure 3.76. Additional screening of the transformer with appropriate vegetation will reduce the impact of this intrusion in close proximity to the mansion. As feasible the National Park Service should consider relocation of the transformer or other means of reducing impact.

HM-UT-3: Remove utility pole near South Gatehouse

Non-historic utility lines and infrastructure in the vicinity of the South Gatehouse detract from historic character and should be removed. The South Gatehouse is served by a utility line connecting directly from the main line. This utility line should be buried if possible. An additional non-functioning line west the South Gatehouse has been removed, however one utility pole remains and is covered by climbing vines. The remaining utility pole and vines should be removed (Drawing 3.7).

HISTORIC TRANSITION ZONE

VEGETATION

HT-VG-1: Evoke the historic quality of the north orchard

Van Buren developed extensive orchards, known as the north and south orchards, through the 1840s. By the mid-1840s, Van Buren had expanded the north orchard to include a portion of the former north field on the upper terrace, the field shown planted in rye on the 1841 sketch map of the estate. In 1846, Van Buren described his orchards, writing to James K. Paulding, "'I do not mean *hundreds* but *thousands* when I speak of my trees. One thousand Pears & 2000 Apples are already in the ground and 8000 apples on their way from Wayne County."[63] Correspondence suggests that Van Buren not only grew apples and pears but also propagated fruit trees on a fairly large scale. In addition to the two primary orchards, Van Buren planted fruit trees in the garden southwest of the house. The north orchard during Van Buren's ownership is depicted in Figure 3.78.



Figure 3.77. This annotated 1948 aerial documents the then surviving remnants of the Van Buren orchard. A 2002 letter from William deProsse described it as an "old pear orchard (older than us)… the rows were spaced widely apart so that vegetables and such could be grown in-between. Behind and to the west of the pear orchard there was an equally old apple orchard." (MAVA archives).

Clear evidence of the remnants of this orchard can be seen in an aerial photograph taken in 1948, (Figure 3.77) and physical evidence of stumps persisted in the landscape through the 1990s. Today little evidence remains in the landscape of Van Buren's productive orchards. All fruit trees have been removed, and the site of the south orchard is a mixture of cultivated farm fields and an agricultural complex which includes buildings, green houses, parking, and evergreens. The western part of the north orchard has been incorporated into a productive agricultural field, and should remain as such (Figure 3.84). The site of the eastern portion of the north orchard, known today as the north woodlot, is the primary focus for treatment (Figure 3.79, 3.84, 3.86).

Historic Orchards: Mid-nineteenth century orchards consisted of trees grafted close to the ground planted in grids with a range of spacing from twenty to thirty-five feet. Trees grew wide unpruned canopies and trunks were long, five or more feet in height.[64] Van Buren's orchards shared this character, distinguishing them from many of the surrounding older, non-commercial, farmyard orchards on nearby properties.

Early commercial fruit growers typically lavished more attention on their orchards than farmers of earlier generations had. However, strict land use separations were not enforced in the mid-nineteenth century. Van Buren may have planted crops between the orchard trees, as was common for the time, "Eighteenth and nineteenth-century farmers typically cultivated rows between trees in orchards, plowing for weed control and/ or planting cover crops such as clover, beans, peas, and other legumes, as \veil as any number of other grain and vegetable crops."[65] Or Van Buren may have pastured cattle in his orchard, which would have limbed up the trees, producing a 'browse-line' above which the cattle could not reach.[66]

Treatment Alternatives: The historic character of the eastern portion of the north orchard should be evoked to improve visitor understanding, enhance interpretive opportunities, and more accurately depict historic landscape conditions. The effort to evoke the qualities of the historic orchard can be approached through a range of options that correlate to the availability of resources. The implications of funding, maintenance needs, and management objectives, will dictate the approach selected for short term and long term implementation. Implementation of this treatment task should be coordinated with replacement of the existing visitor center and administrative facilities and/or additional screening of extant facilities to avoid impacting views from the mansion north. See related tasks AD-BS-1 and AD-BS-2. The reestablishment of the north orchard is a multi-phase project as further described below.

Lowest Input: Transition woodlot to tree grove

Rehabilitating the current woodlot to a tree grove would partially convey the character of a stand of trees, and require the lowest level of intervention and maintenance (Figure 3.80). The existing stand of deciduous trees and understory vegetation, does not allow views or light to pass through. The north woodlot forms a dense screen which acts as a thick curtain behind the allée and obstructs

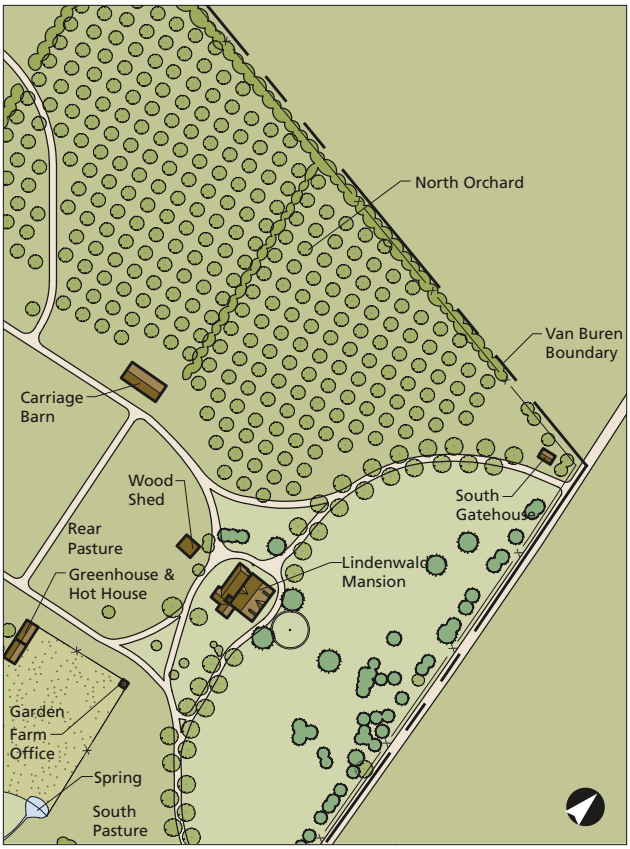


Figure 3.78. Historic Conditions (Van Buren Period). Van Buren's extensive orchards included both apple and pear trees and extended across much of the northern portion of his property, (OCLP).

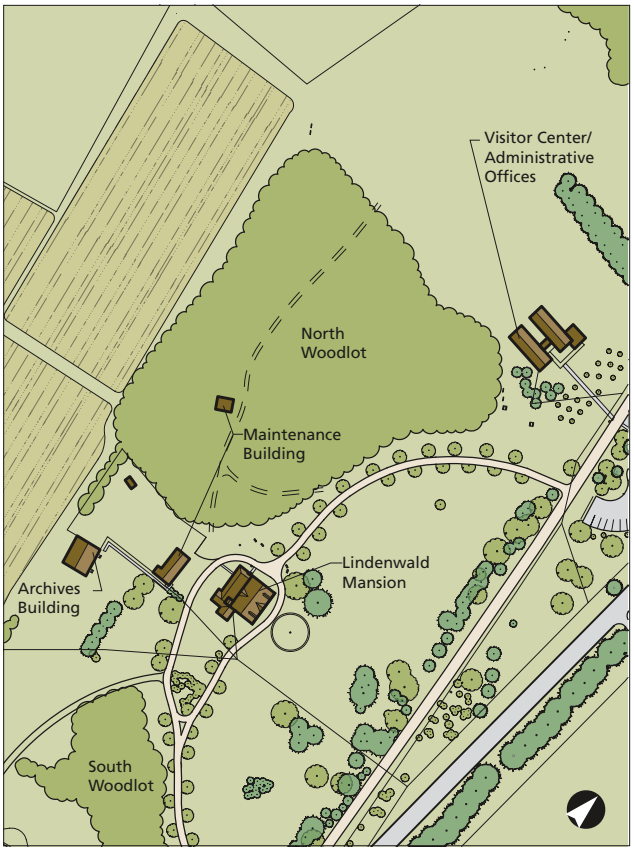


Figure 3.79. Existing Conditions (2015). Van Buren's orchards have been removed. The western portion is actively farmed, the eastern portion has become an overgrown woodlot, (OCLP).

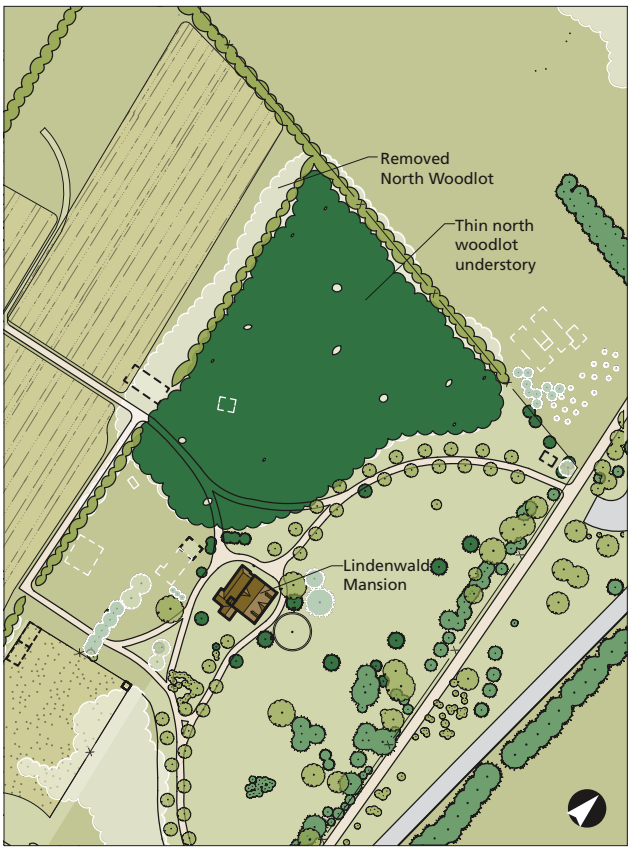


Figure 3.80. Alternative: Transition woodlot to tree grove, (OCLP).

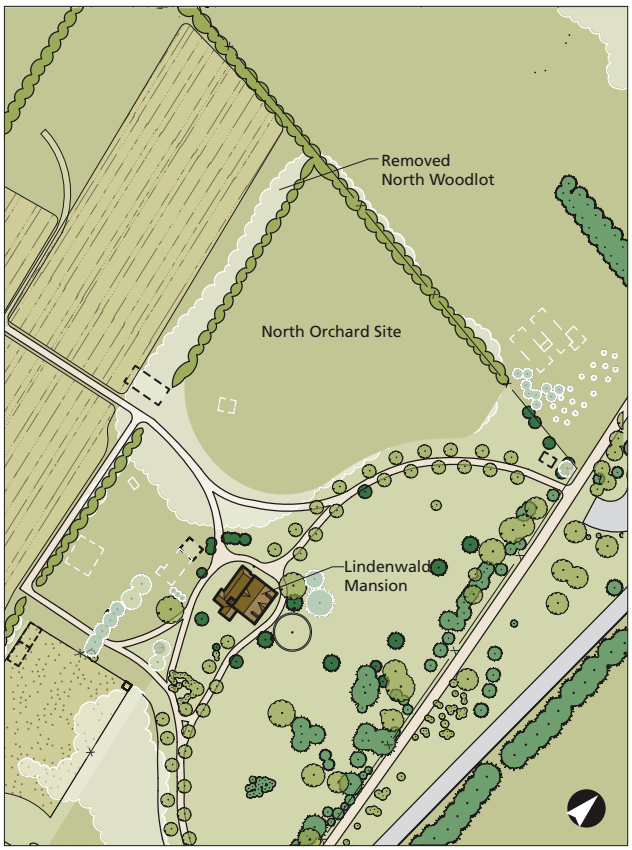


Figure 3.81. Alternative: Eliminate woodlot, do not restore orchard, (OCLP).

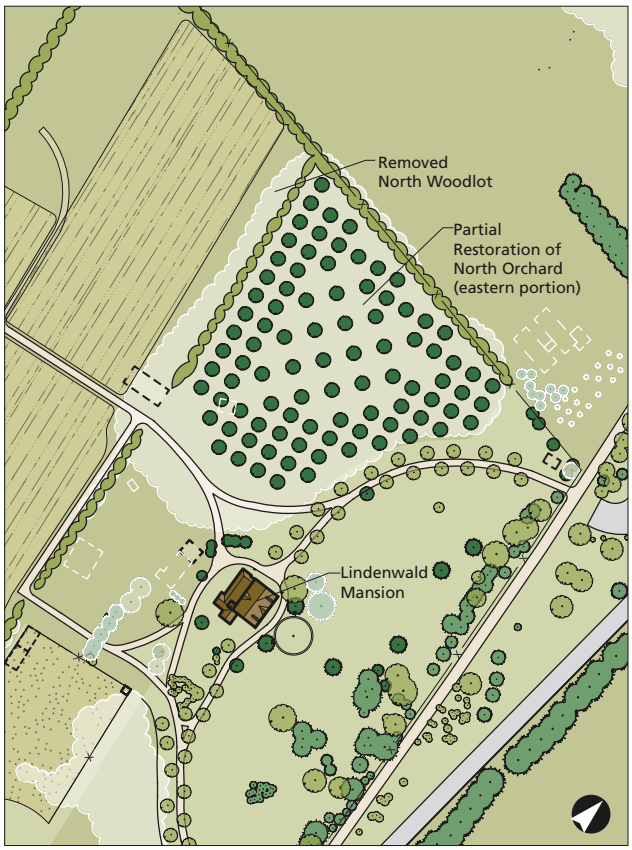


Figure 3.82. Alternative: Partial restoration (eastern part), (OCLP).

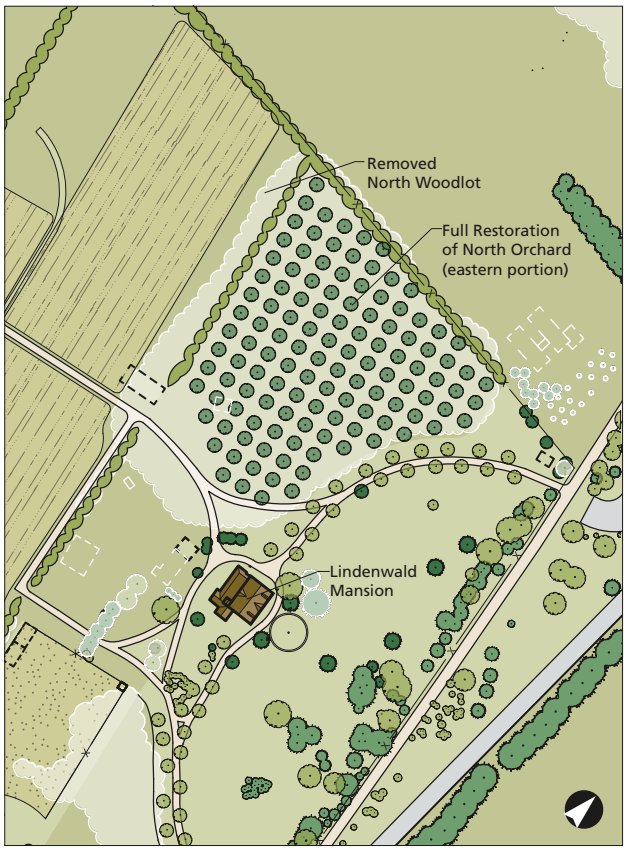


Figure 3.83. Alternative: Full restoration (eastern part), (OCLP).



Figure 3.84. View east from the upper terrace toward the Old Post Road, mansion, and site of the orchard, now the north woodlot. Note the dense massing of the north woodlot, forming a wall of vegetation which contrasts sharply with open character of the surrounding agricultural context. The woodlot detracts from the historic character of the site and hinders historic visual connections. The western portion of the north orchard is now cultivated farmland, 2014 (OCLP).



Figure 3.85. View southwest from near the North Gatehouse foundation, illustrating the density of the vegetation within the north woodlot, which obstructs historically open views. In the foreground, the goats leased during the summer of 2014 to clear vegetation are at work, 2014 (OCLP).

views to the farmland. At minimum, the removal of understory vegetation should continue and the lot should be maintained without understory vegetation, evoking a quality more similar to that of the historic orchard which consisted of trees spaced approximately thirty feet apart with low ground-level vegetation between them, creating a porous backdrop behind the black locust allée. The park has initiated treatment by beginning to remove a dense understory of native and non-native species within the north woodlot. Beginning in the summer of 2014, browsing goats have assisted with removal of the dense understory vegetation (Figure 3.85). Long-term management of the tree grove includes encouraging and preserving trees in a roughly thirty-by-thirty-foot grid pattern, allowing for replacement trees when existing trees are past mature, and removing understory vegetation by mowing or grazing.

Minimal Input: Eliminate the woodlot, do not restore orchard

Restoring the views west toward the Catskills and agricultural fields will partially convey the character of the agricultural landscape, and require a low level of intervention and maintenance (Figure 3.81). The existing north woodlot will be removed by clear cutting the area, grinding stumps, and reseeding with native meadow grasses or a hay field mix. Thereafter the meadow would be mowed two or three times annually, and possibly managed as a hayfield or pasture. The black locust allée would be preserved and views to the west would be enhanced by the removal of the north woodlot. This treatment alternative is depicted in Figure 3.87.

Moderate Input: Partially restore eastern portion of historic orchard

A partial restoration of the eastern portion of the former orchard will enhance the historic setting and fabric of the historic period, and eliminate the non-historic woodlot (Figure 3.82). The western portion of the historic orchard would remain in row-crop production, while the eastern portion of the north orchard, now known as the north woodlot, would be cleared, rehabilitated, and partially replanted as an orchard, with trees planted on a thirty-by-thirty-foot grid. This partial restoration would evoke the character of a historic orchard but not necessitate planting of the full grid. For example, the center of the orchard could be more sparsely planted, which would reduce the total number of trees in the orchard, lower long-term maintenance needs and costs. To minimize orchard management practices, trees with a high resistance to pests and diseases are recommended. A smaller number of historic varieties may be planted for interpretation and comparison. The orchard would be managed for the physical characteristics of the orchard, not for fruit production. Trees will be pruned annually and the orchard area will be mowed or grazed seasonally two or three times a year to ensure that woody trees, shrubs and vines do not persist in the orchard area. The remnant orchard visible in the 1948 aerial (Figure 3.77) indicates that Van Buren's orchard was planted in an orthogonal pattern. For



Figure 3.86. Views southwest of the mansion, North Gatehouse foundation, and north woodlot. Views to agricultural fields west and southwest of the formal Lindenwald landscape are obstructed by the north woodlot, 2014 (OCLP).



Figure 3.87. Photo simulation illustrating the restoration of historic views through the removal of the north woodlot. The north woodlot area has been cleared and a native meadow grass or hay field mix planted, 2016 (OCLP).



Figure 3.88. Photo simulation illustrating the restoration of historic views through the removal of the north woodlot and a partial replanting of the historic orchard area, 2016 (OCLP).



Figure 3.89. The north woodlot acts as a curtain of vegetation behind the restored allée, obstructing views to the south and southwest. Historically, this area was an orchard with widely spaced rows, 2014 (OCLP).



Figure 3.90. Photo simulation illustrating the removal of the north woodlot, and a partial restoration of the north orchard. Note the shift in the hierarchy of vegetation within the landscape, and how the allée is no longer overshadowed by the woodlot, 2016 (OCLP).

this alternative and the maximum input alternative (following) an orthogonal or quincunx planting pattern should be considered. An orthogonal planting pattern would make maintenance such as mowing easier. However, it is likely that a quincunx pattern could provide more screening of non-historic buildings from the mansion area as the orchard trees matured.

Maximum Input: Historic orchard restoration (eastern part)

The eastern portion of the north orchard, now the north woodlot, will be cleared, rehabilitated, and replanted as an orchard (Figure 3.83). Historic fruit tree varieties managed for production will be planted in a thirty-by-thirty-foot grid pattern. The orchard will be managed for fruit production through the use of organic sprays, physical barriers, and other integrated pest management strategies to yield marketable heirloom fruit varieties that were common in the mid-1800s and specifically described by Van Buren. Trees will be pruned annually and the orchard area mowed or grazed seasonally two or three times a year to ensure that woody trees, shrubs and vines do not persist in the orchard area. The western portion of the historic orchard will continue to be actively farmed in row crops. This treatment alternative is depicted in Figure 3.88, 3.90).

Given Van Buren's connection to urban markets and his interest in horticulture, it is probable that Van Buren grew some of the more popular and commercially-grown apple varieties of the time, for example Newton Pippin and Esopus Spitzenburg, which were among the first apples sold in New York City or Baldwin,



Figure 3.91. View southwest from the rear of the mansion toward the south woodlot, upper fish pond, and the site of Van Buren's garden. Note the mature trees of the woodlot and dense underbrush. Historically this area was open pasture, 2014 (OCLP).

the "most widely grown apple variety in the northeastern United States between 1852 and late 1920s.[67] Van Buren also planted his orchard with pears, some of which were imported from Germany. According to one visitor to the property, "I saw a great variety of young pear trees, ordered from Hamburgh eight weeks before, and now in the ground, healthy and flourishing; they were of those fine kinds lately introduced by the improvers of the pear, who are making it the most delicious of all table fruits, and a table fruit of all seasons."[68] Van Buren may have also planted the Seckel pears on the hillside behind the Farm Cottage documented in later period. Seckel pears are an American variety, developed near Philadelphia in the seventeenth century.[69]

HT-VG-2: Reestablish south pasture

The south woodlot is a non-historic landscape feature, composed of successional woodland growth, which is primarily black locust and black cherry. During the historic period this area was an open pasture that adjoined the historic garden. The woodlot does not reflect the historic character, blocks views of adjacent farm fields, and creates an enclosed feeling not present in the historic period (Figure 3.89).

Reestablishment of the south pasture should be undertaken in a manner that does not adversely impact significant natural resources such as wetlands or rare, threatened, or endangered species within the woodlot (Figure 3.91).[70] Treatment in this area should be conducted in close partnership with natural resource specialists. Delineation of wetland by an expert may be necessary. If wetland is found, the area should not be disturbed other than to remove invasive species. Designated wetland areas are surrounded by a 100-foot buffer where selective clearing may occur in consultation with natural resource experts. Areas beyond



Figure 3.92. View northwest toward the Van Ness grave marker. The grave marker is located on the western edge of the upper terrace field and surrounded by clipped grass, 2014 (OCLP).



Figure 3.93. View northwest toward the Van Ness grave marker. The grave marker is surrounded by a low fence. Vegetation in the escarpment forms the background, c. early 20th century (MAVA archives).



Figure 3.94. View west to the Farm Cottage and Red Barn, c. 1900 (MAVA archives).

the buffer zone should be cleared of woody vegetation to reestablish the historic open character, with the exception of vegetation that screens the road and non-historic farm buildings.

To restore the pasture, the land that does not fall within the wetland buffer should be tilled and planted with pasture grasses or as a rye field. Grazing animals could be located in the area, but fenced out of the wetland. Alternatively, this area could be used to cultivate other crops with similar quality and characteristics.

HT-VG-3: Do not replant trees to surround the Van Ness grave

After his death in 1804, Peter Van Ness was buried near the western edge of the upper terrace. During the historic period, the Van Ness grave stood amidst " ... a clump of trees within a small enclosure..." behind the main house.[71]

Currently, the Van Ness grave marker is surrounded by clipped grass. To the west the trees and successional vegetation of the escarpment form a backdrop. There is surface indication of former stump sites, although it is unknown if these stump locations date to the historic period (Figure 3.92). A photograph from the early twentieth-century depicts a low post and rail fence surrounding the monument (Figure 3.93). This report recommends not replanting trees due to insufficient information about their location. In addition, mature trees would diminish the productivity of the adjacent agricultural field. A low post and rail fence could be constructed to protect the monument; however, an opening should be included to allow maintenance of the turf surrounding the monument. Care should be taken to keep turf mowing and trimming equipment away from the monument surfaces.

SMALL SCALE FEATURES

HT-SSF-1: Preserve and maintain Van Ness Grave

Peter Van Ness's grave remains in a prominent central location, behind the mansion on the edge of the upper terrace, from which both the main house and the stone house, both Van Ness's homes, were visible.[72] Today the view of the grave from the mansion grounds is obscured by contemporary intrusions; however, these will likely be removed as described in Task PW-VV-1 and HM-BS-7.

Historic documentation indicates that a timber fence surrounded the Van Ness grave during the deProsse period, and it is likely that the area was fenced during the historic period (Figure 3.93).[73] The grave site should remain undisturbed by contemporary agricultural operations. The stone marker should be evaluated for impacts from natural factors such as weathering and freeze-thaw cycles and repairs made as necessary.

BUILDINGS AND STRUCTURES

HT-BS-1: Locate and interpret footprint of the Red Barn

Van Buren constructed the Red Barn in 1849 to house animals and store crops on the escarpment hillside west of the Farm Cottage.[74] Meyer demolished the building in the 1950s. Remains of the Red Barn foundation are still extant, however they are covered with dense successional growth. The Red Barn remnants should be located, cleared of encroaching vegetation, and interpreted



Figure 3.95. View southwest toward the upper fish pond. Note the duckweed covering the water. The access road to the contemporary barn complex is visible at image right, 2014 (OCLP).

though the developing interpretive trail described in Task PW-SSF-1. The approximate location, roof, and orientation of the Red Barn are documented in a c.1900 photograph (Figure 3.94).

CONSTRUCTED WATER FEATURES

HT-WF-1: Conduct water quality testing on ponds

Water quality testing is needed to evaluate the health of the ponds. Of the two Van Buren period ponds, only the upper pond remains although it was modified during the Meyers period. Meyers dug several additional ponds for irrigation. Meyer took advantage of chemical fertilizers, pesticides, and herbicides to increase crop yields, and the water quality of ponds should be tested.[75] The ponds could have been used for chemical or fertilizer dumps and a proper diagnosis of ecosystem health is necessary before a more specific treatment task can be developed.

As of summer 2014 the upper pond was covered in a dense green layer of duckweed and algae (Figure 3.95). Excessive vegetation is often an indicator of excessive nutrients and ecosystem imbalance. Water quality testing should be done, and alternatives for corrective action examined. If water quality if restored, the upper pond should be stocked with fish and used for special events.

NATURAL FEATURES

HT-NF-1: Preserve soil as a cultural resource

See treatment Task AG-NF-1, page 128.

AGRICULTURAL ZONE

VEGETATION

AG-VG-1: Manage escarpment vegetation to restore historic character and views to the Catskills

A steep escarpment divides the upper and lower terrace. The lower fields are obscured by the escarpment and the tall vegetation growing on its steep slope. It is likely that the species present, density, and massing of the escarpment have shifted since the historic period.[76] Documented accounts from visitors during the historic period reference open views of the Catskills and fields from the mansion area. Today, the best vantage point is from the north end of the upper



Figure 3.96. View southwest across the upper terrace toward the lower terrace, Kinderhook Creek, and the Catskill Mountains. This vantage point, north of the north woodlot and west of the visitor center provides the most scenic view across the property, however overgrown vegetation in the escarpment blocks a substantial portion of the mountain range beyond, 2015 (OCLP).



Figure 3.97. Photo simulation depicting the improved view of the Catskill Mountains after escarpment vegetation has been thinned, 2015 (OCLP).



Figure 3.98. Aerial view of Lindenwald, looking southwest in 1978. Note the sparse vegetation of the escarpment, which consists primarily of shrubs and grasses, 1978 (MAVA archives, 78-2801).



Figure 3.99. View west from the lower terrace toward the wooded escarpment, upper terrace, and mansion. Note the trees growing on the slope, have become taller and more dense since the 1978 aerial photograph, 2014 (OCLP).



Figure 3.100. View southwest along lower farm road to Kinderhook Creek. The Black Hay Barn, burned in 1948 under Meyer ownership, was located between a cultivated agricultural field and a farm road in the lower terrace. The barn site is in the left foreground of this image, 2014 (OCLP).

terrace field near the park boundary where views are not restricted by escarpment vegetation (Figure 3.96). Selective removal of vegetation within the escarpment is recommended to enhance the historic character of the landscape and visual connections. A photo simulation (Figure 3.97) illustrates how selective removal of escarpment vegetation would enhance views westward.

While the exact character during the Van Buren period is unknown, it is likely that this area was used for firewood production as it was during the deProsse period. The vast majority of the property was in agricultural production, and wood was a scarce commodity, perhaps only located within the steep escarpment at the center of the property and areas too wet to plow.[77]

Historic photographs document changes in the vegetative cover of the escarpment over time. Figure 3.98 documents the sparse and low vegetation that composed the escarpment in 1978. Today the escarpment consists of a combination of mature trees and underbrush (Figure 3.99).



Figure 3.101. View north of the Black Hay Barn and cornfield. A board and rail gate leads to the farm road, which runs in front of the barn. Kinderhook Creek is further north, c.1930 (MAVA archives).

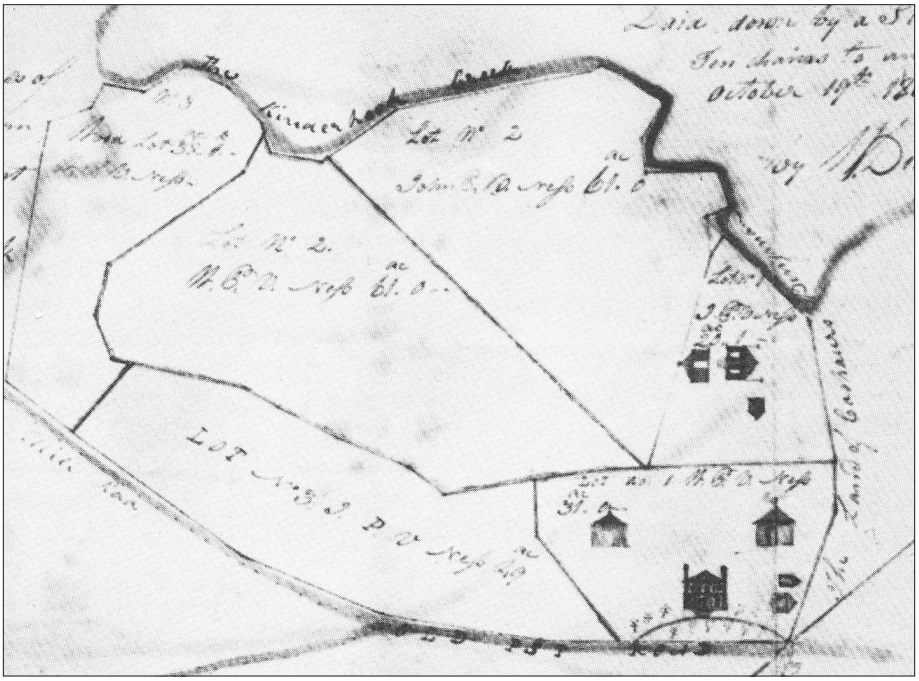


Figure 3.102. The 1805 Voorman Map of Kinderhook depicts the location of several buildings on the property, including the mansion, outbuildings, and the Old Stone House in the lower terrace, 1762 (MAVA archives).



Figure 3.103. Panoramic photo looking northeast across the northern lower terrace field. Kinderhook Creek is west beyond the line of trees at image left and the historic northern property line is marked by hedge remnants visible at the far end of the agricultural field. The vegetation of the north woodlot and escarpment can be seen in the right half of the photo. The Old Stone House site is in the foreground, 2014 (OCLP).

BUILDINGS AND STRUCTURES

AG-BS-1: Interpret site of Black Hay Barn

Van Buren built the Black Hay Barn in the spring 1844 for crop storage. Meyer burned the barn in 1948 and the site is now situated between cultivated agricultural field and a farm road. The general location of the site can be determined from the slight change in topography and variation in soil color, which is apparent in aerial photographs (Figure 3.100 and 3.101). It is likely that archeological investigation will provide information regarding the precise footprint of the Black Hay Barn. If located, the footprint of this site should be represented above ground in a manner that does not impeded agricultural use.

See Task PW-SSF-1 for a more detailed description of how the Black Hay Barn site can be part of an interpretive trail, with a wayside to convey information about the early building.

AG-BS-2: Interpret Old Stone House foundation site

The Van Alstynes built a stone house on the lower terrace in the eighteenth century, which is recorded on the 1762 Voorman map of Kinderhook (Figure 3.102). It is unknown if the building was used during Van Buren's ownership or if it had already been abandoned or demolished. The stone house site is now cultivated farmland and its exact location is unknown. Archeological studies may yield additional information. Little is known regarding the design and appearance of the stone house and other possible seventeenth-century buildings on the lower terrace (Figure 3.103).

See Task PW-SSF-1 for a more detailed description of how the stone house site can be part of an interpretive trail, with a wayside to convey information about the early home site.

CONSTRUCTED WATER FEATURES

AG-WF-1: Interpret Van Buren's farming practices including the network of ditches through the interpretive trail and waysides within the lower terrace

A network of ditches extends across the lower terrace, some of which date to the Van Buren period of farming. The hand-dug Van Buren ditches are generally not visible to the casual observer, however their linear channels can be clearly identified in aerial photography from 1948 (Figure 3.104) and today (Figure 3.105). The ditches are barely discernible to the eye, but help convey the dedication of Van Buren to cultivating his land. Van Buren's ditches allowed him to farm the fertile soil in the adjacent wet meadows as described by a correspondent for

the *New York Commercial Advertiser* in 1841. The article describes Van Buren's improvements as ongoing: "the process of making into good meadows the moist lands covered with useless bushes, is going on with great activity."

The fields on the lower terrace in the southwestern portion of the farm were fairly wet, as several streams are shown in this area on the 1841 sketch map of the estate (Figure 3.20). Not only was Van Buren clearing the "moist lands" but the process of turning them into "good meadows" required that he drain the land and seed it with hay. The whole process was explained as an example of profitable and progressive agriculture in the *Cultivator:*

> "Perhaps the most important improvements which have taken place on the farm, have been made on a tract of *bog land,* thirteen acres of which have been thoroughly reclaimed, and are covered with luxuriant crops of grass or oats. Three years ago, this land was almost worthless. It was first drained by ditches. The stumps, bushes, & etc. were then cut out and burned, and the ashes spread on the land. It was afterwards sown to grass -using a mixture of timothy and red-top seed- three pecks to the acre. The whole cost of reclaiming was thirty-eight dollars per acre, and the land will now pay the interest of a hundred to a hundred and fifty dollars per acre. In this Mr. Van Buren has set a good example, which we hope will be followed by other farmers in the neighborhood who have lands similarly situated."[78]

Apparently, this initial drainage project did not completely solve the problem of wet fields. Van Buren employed 'Ditchers' during the summer of 1847 in



Figure 3.104. Ditch traces dating to Van Buren's ownership of the property can be seen on this 1948 aerial photo within a lower terrace field. Three primary ditches bisect a field, 1948 (MAVA archives).



Figure 3.105. Traces of Van Buren era ditches can be discerned on this annotated aerial imagery from 2012. Additionally, note the absence of hedges present in the aerial imagery from 1948 (Figure 3.104) and migration of the course of Kinderhook Creek, 2012 (Bing Maps).

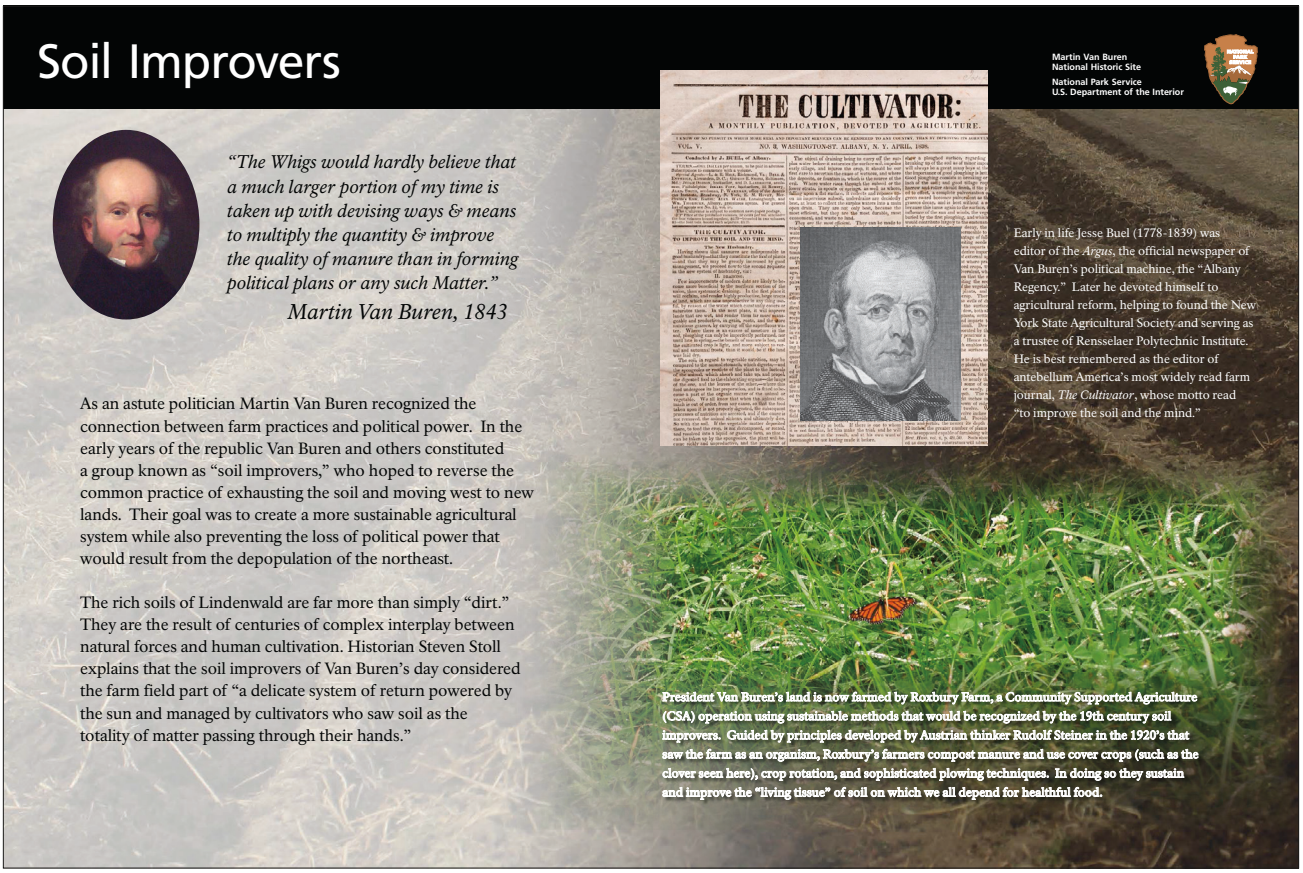


Figure 3.106. This newly developed wayside will interpret the important role that soil health played in progressive agriculture during Van Buren's time through agriculture today, 2014 (MAVA).

a continued effort to develop adequate drainage within the lower terrace for agricultural crops. Exaggerating in a letter to Worth, Van Buren boasts of creating a "thousand miles of Ditches, by the aid of an Old Englishman and four Paddies, at the cost of 500 Dollars." Additionally, Van Buren likely added new ditches to drain the wet area between the Red Barn and Black Hay Barn by running tile drains through this 28-acre parcel he had purchased from Dingman. While the exact location of these drains is unknown, an aerial photograph of the farm taken in 1948 reveals the possible presence of underground structures forming two or three courses across one of the lower fields before draining into the creek (Figure 3.104). It is possible that this ditch was altered ten years after Van Buren's death and dug again in the twentieth century, but its general location may date from Van Buren's tenure.[79] An archeological study should be undertaken to better understand the location, composition, and age of the numerous ditches that cut across and around the lower terrace fields. As detailed in Task PW-SSF-1 a wayside on the lower terrace will help convey information about Van Buren's farming practices in situ and in proximity to one of the historic ditch traces.

NATURAL FEATURES

AG-NF-1: Preserve soil as a cultural resource

The agricultural soils that comprise the Lindenwald fields have been managed for centuries and are classified a cultural resource reflective of a long history of human intervention, in particular during the Van Buren period when soil 'improvement' became a hallmark of progressive farm management. Today, the soils in the Van Buren fields have been cultivated for nearly 300 years. The continuation of active farming through the preservation of viable soil will help provide visitors with an understanding of the agricultural landscape of Lindenwald in the nineteenth century and the present value of historic farm fields.[80] The soils should continue to be preserved as a cultural resource through continued sustainable agricultural use (Figure 3.106).

Van Buren and his contemporaries were part of a constituent known as "soil improvers," who hoped to reverse the common practice of exhausting the soil and moving west to new land. The group developed in response to poor farming practices that depleted soil nutrients, led to pest infestation, and lower crop yields. Concurrently, the Erie Canal and the railways shifted much of the population and agricultural production into western New York and beyond. Fortunately, innovative farming techniques developed to improve soil health, and diversification of crops combined with a rapidly growing urban population, supported farms in the Hudson Valley like Van Buren's. Regarding the development of manure and compost at Lindenwald, Van Buren wrote in 1843, "The Whigs would hardly believe that a much larger portion of my time is taken up with devising new ways & means to multiply the quantity & improve the quality of manure than in forming political plans of any such Matter."

ADMINISTRATIVE ZONE

VEGETATION

AD-VG-1: Replace showy ornamentals surrounding parking area with a historically compatible palette

Located between Route 9H and the Old Post Road the visitor parking area is partially screened from the historic core by vegetation. Plantings include rhododendrons, crabapples, lilacs, hydrangeas, cherry trees, and white pines. At certain times of the year, the showy flowers of the rhododendrons and crabapples draw visual attention to the parking area and are not compatible with the historic character of the landscape (Figure 3.107, 3.108, and 3.109).



Figure 3.107. View southwest across the parking lot toward the mansion. Vegetation is used to screen the parking area from the formal grounds, 2014 (OCLP).



Figure 3.108. View east across the parking lot toward Route 9H. The parking lot, flagpole, and park sign are easily seen from Route 9H, 2014 (OCLP).



Figure 3.109. View west across the parking lot toward the visitor center and administrative offices, 2014 (OCLP).



Figure 3.110. View northeast to the park sign. Rout 9H is visible at image right, 2016 (OCLP).

As this is a minor issue, and the parking lot layout is currently under evaluation, existing healthy plants should not be removed. However, in the long term, screening plants should be compatible with the historic plant palette. Recommended species include white pine, linden, Mazzard cherry, lilac, and mock orange.

SMALL SCALE FEATURES

AD-SSF-1: Maintain flagpole and NPS signs

In 2003, the park moved the contemporary flagpole and entry sign from a location along the Old Post Road near the mansion to a more compatible location near the parking lot. The park replaced the entry sign in 2014. These contemporary features should stay remain in the Administrative Zone outside of the historic core (Figure 3.109 and 3.110).

BUILDINGS AND STRUCTURES

AD-BS-1: Construct new administrative and visitor services structure

The temporary trailers acquired in 2001 for a visitor center do not meet park operational needs or provide adequate space for visitor services or administrative functions. At present, visitor orientation is provided in the 625-square-foot structure added to the temporary trailers. The space cannot accommodate groups larger than ten and the trailers detract from the park setting (Figure 3.111, 3.112, and 3.113).

A new visitor center should be built that can provide adequate space to meet the needs of park staff and offer space for visitor programming. The National Park Service estimates approximately 1,400 square feet is necessary for visitor services, and approximately 2,450 square feet for administrative space. The National Park Service is also considering alternatives for the relocation of maintenance facilities.

Suitable space is needed for adult and school group programs including indoor lectures and demonstrations. The new visitor center will provide comprehensive visitor orientation, through permanent and changing exhibits. The new building should be sited in a manner that does not detract from historic views or damage historic resources, integrates with existing infrastructure, including the contemporary entry drive and parking lot, and accommodates associated infrastructure. Described in Task HT-VG-1, clearing the north woodlot and evoking the porous massing of the north orchard will expand views west to the agricultural fields and Catskill Mountains, offering a stunning backdrop and an excellent starting place for visitor engagement. Based on needs, the new structure could house a visitor center, administrative offices, and serve as a maintenance facility. A variety of options regarding the location of the structure as well as general guidelines are outlined below and supported by diagrams (Figures 3.114, 3.115, 3.116, 3.117, 3.118, and 3.119).



Figure 3.111. Visitor center existing conditions, 2016 (OCLP).

General Guidelines and Goals:

- Preserve the character of the historic parcel
- Minimize disturbance to above and below ground historic resources
- Develop a harmonious design and siting, connecting the structure to the surrounding landscape context including agriculture and the Catskills
- Utilize sustainable design and infrastructure
- Utilize existing infrastructure and/or previously disturbed areas when applicable such as roadways, driveways, and parking areas
- Provide appropriate screening as necessary
- Provide an accessible route
- Develop a meaningful visitor experience



Figure 3.112. View west toward the park visitor center and administrative offices from the Old Post Road. The park visitor center does not provide adequate space for programming needs, 2014 (OCLP).



Figure 3.113. View southwest toward the park visitor center and administrative offices from the parking lot access road. A portion of the parking lot can be seen in the foreground, and the Old Post Road is visible in the middle ground. The dense curtain of the north woodlot forms the background, 2014 (OCLP).

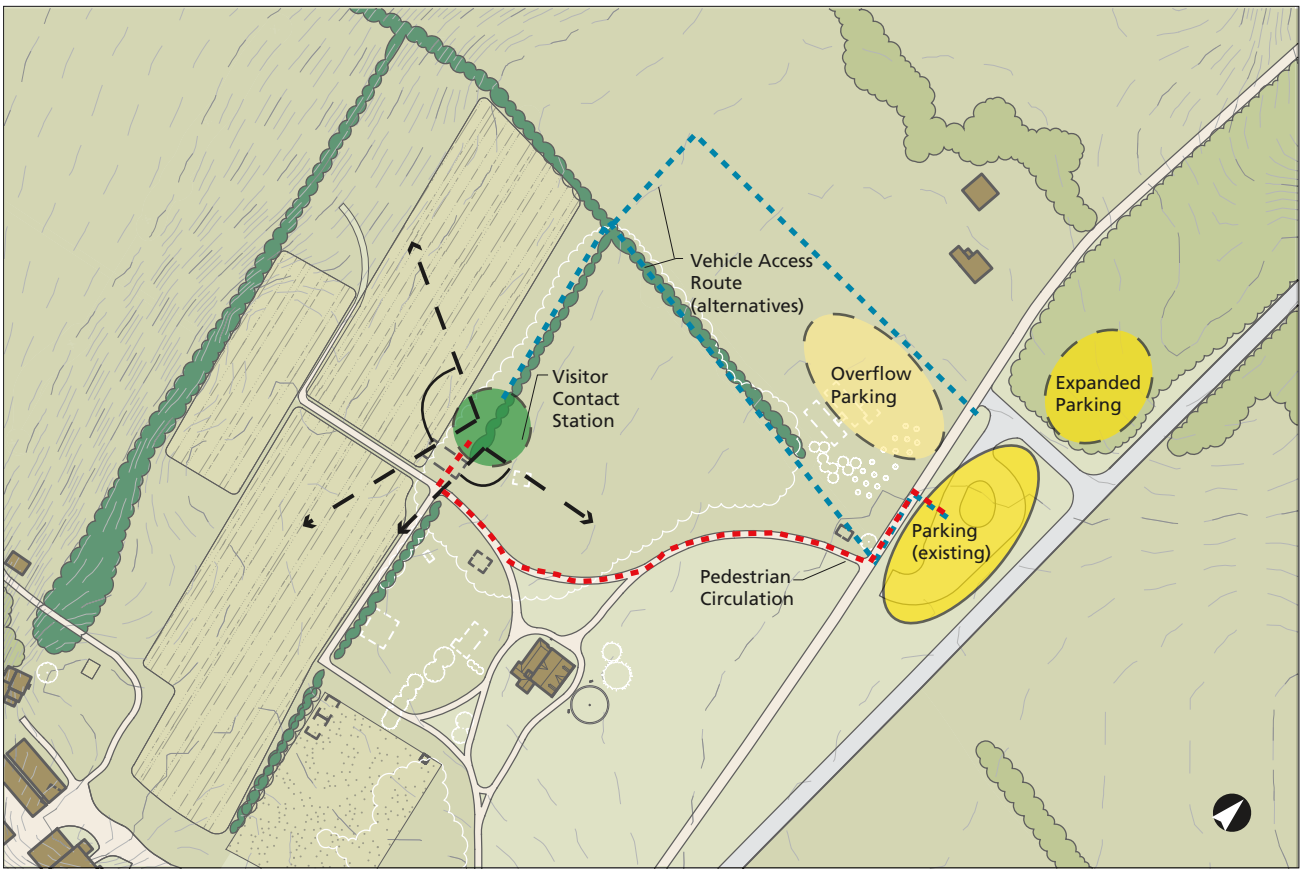


Figure 3.114. Alternative A: visitor center, 2016 (OCLP).

Alternative A: Visitor Orientation and Park Administration at Carriage Barn Site

Opportunities:

- Strong visual connection to Catskills and agricultural landscape.
- Central location offers proximity to mansion and expanded trail system.
- Visitors are immediately brought into the landscape and historic core.
- Mimics the arrival sequence during the historic period, bringing guests from the Old Post Road, up the entry drive, and toward the mansion. A trail representative of the farm roads present during the historic period could then bring visitors to the Visitor Center.
- Exterior could reflect the proportions and style of the missing carriage barn.

Constraints:

- The Visitor Center would be nearly 1/4 mile from the parking lot, making access difficult.
- Location could lack a visual connection to the parking lot.
- Will require additional handicap parking on west side of the Old Post Road near Visitor Center, however an accessible route/roadway could be linked into a spur trail for the K-S-S and screened to reduce impact.

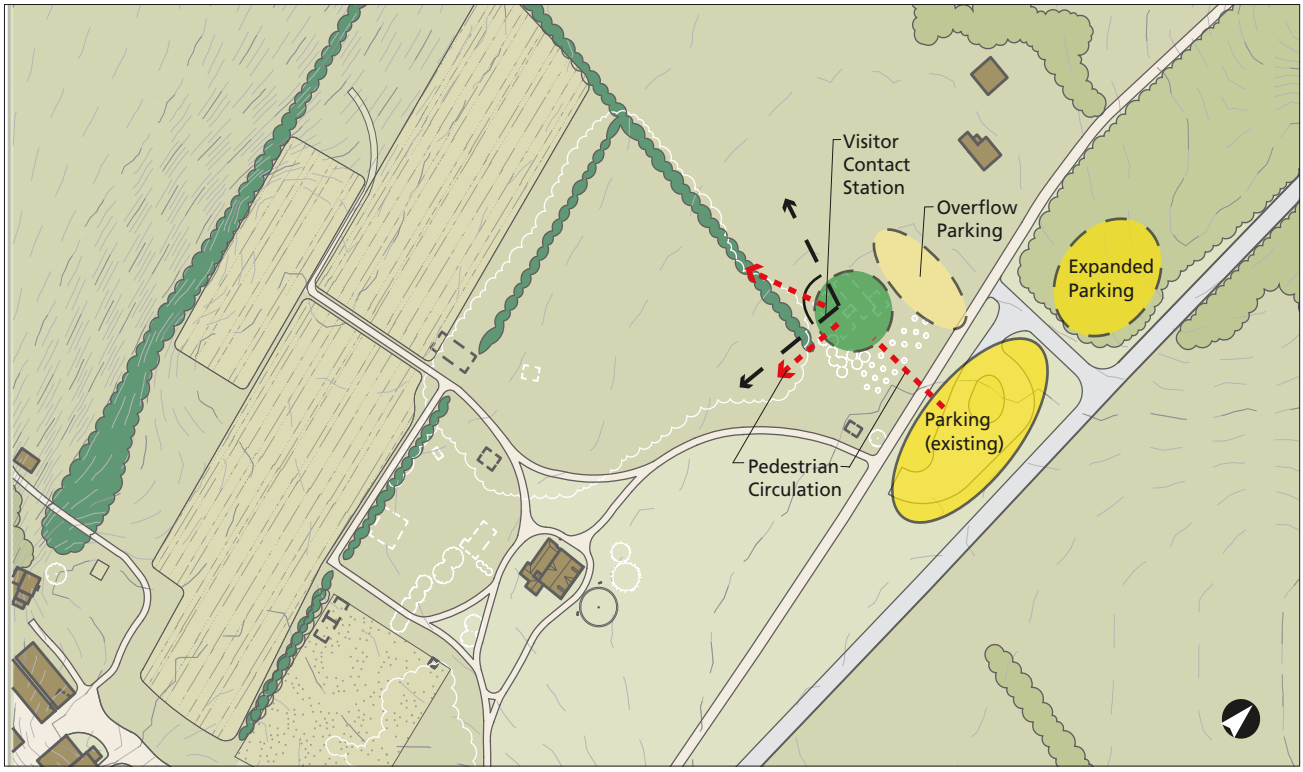


Figure 3.115. Alternative B: visitor center, 2016 (OCLP).

Alternative B: Permanent Building on Existing Site

Opportunities:

- Avoids construction within the historic parcel.
- Close proximity to extant parking area, offering ease of accessibility and visual connection between parking area and visitor services.
- Opportunity for parking expansion within NPS owned land.
- Opportunity to develop an overflow parking area near the Visitor Center for special events, but would not require the construction of an additional accessible parking facility west of the Post Road.
- Flexibility regarding entrance and exit route from the Visitor Center to the Lindenwald grounds (visitors could enter through the east side and exit via the east or south), an alternative to the current out and back route.
- Easily integrated with the proposed K-S-S trail system, regardless of which route is selected through the park.

Constraints:

- Construction of the building will detract from the historically open character of the landscape; however, a harmoniously designed new facility would be a marked improvement from the extant structure on the site.
- Not representative of the historic circulation or visitor arrival sequence, without visitors backtracking out the entrance path to the Old Post Road before walking up the entry drive.

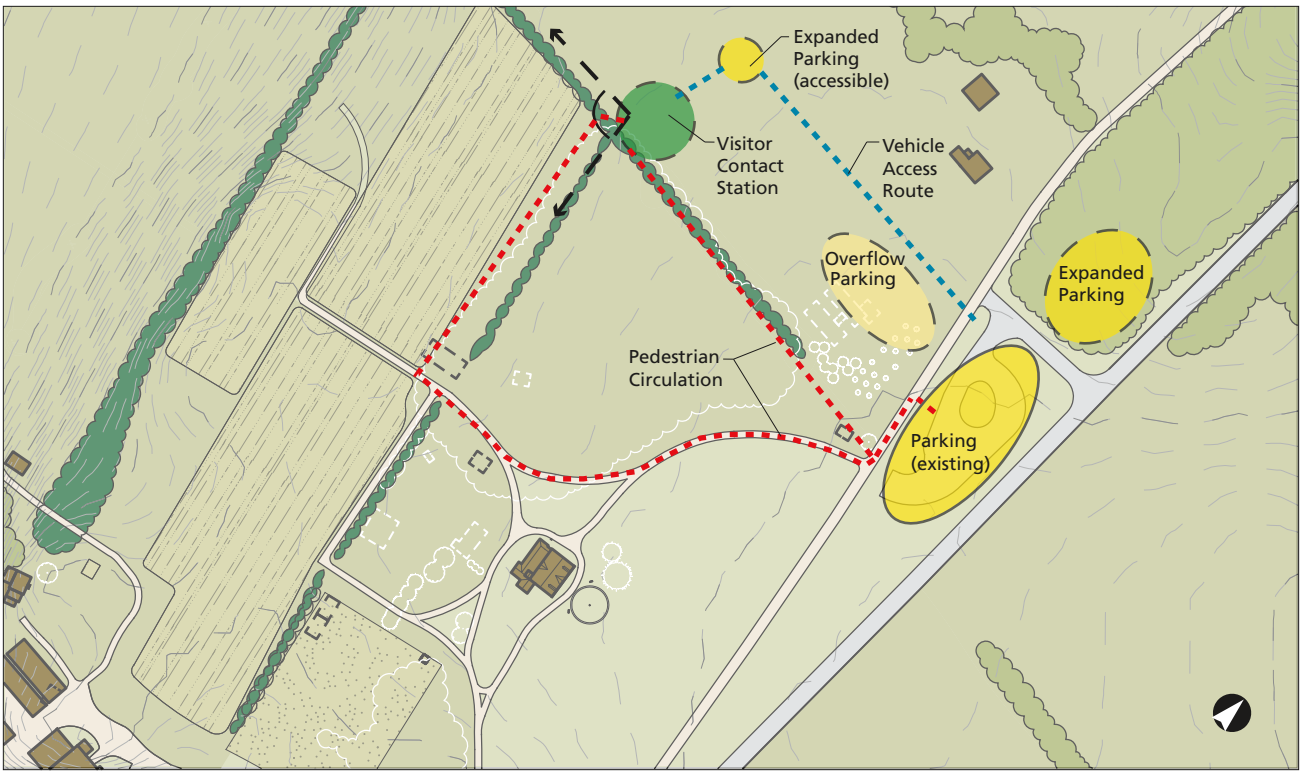


Figure 3.116. Alternative C: visitor center, 2016 (OCLP).

Alternative C: Building at View Point

Opportunities:

- Views to the Catskills and agricultural landscape.
- Restricts new construction to non-historic parcel.
- Could be integrated into expanded trail system and proposed K-S-S trail system.

Constraints:

- Would not easily tie into extant or historic circulation routes.
- Would likely require the construction of a non-historic pedestrian circulation route for visitor access along the historic north property boundary.
- The site is a considerable distance from the parking lot, likely creating a need for accessible parking west of the Old Post Road.
- Potential to impact historic views, dependent on proposed design of the new structure and supporting infrastructure.
- Screening may be necessary to reduce the impact of an access road.

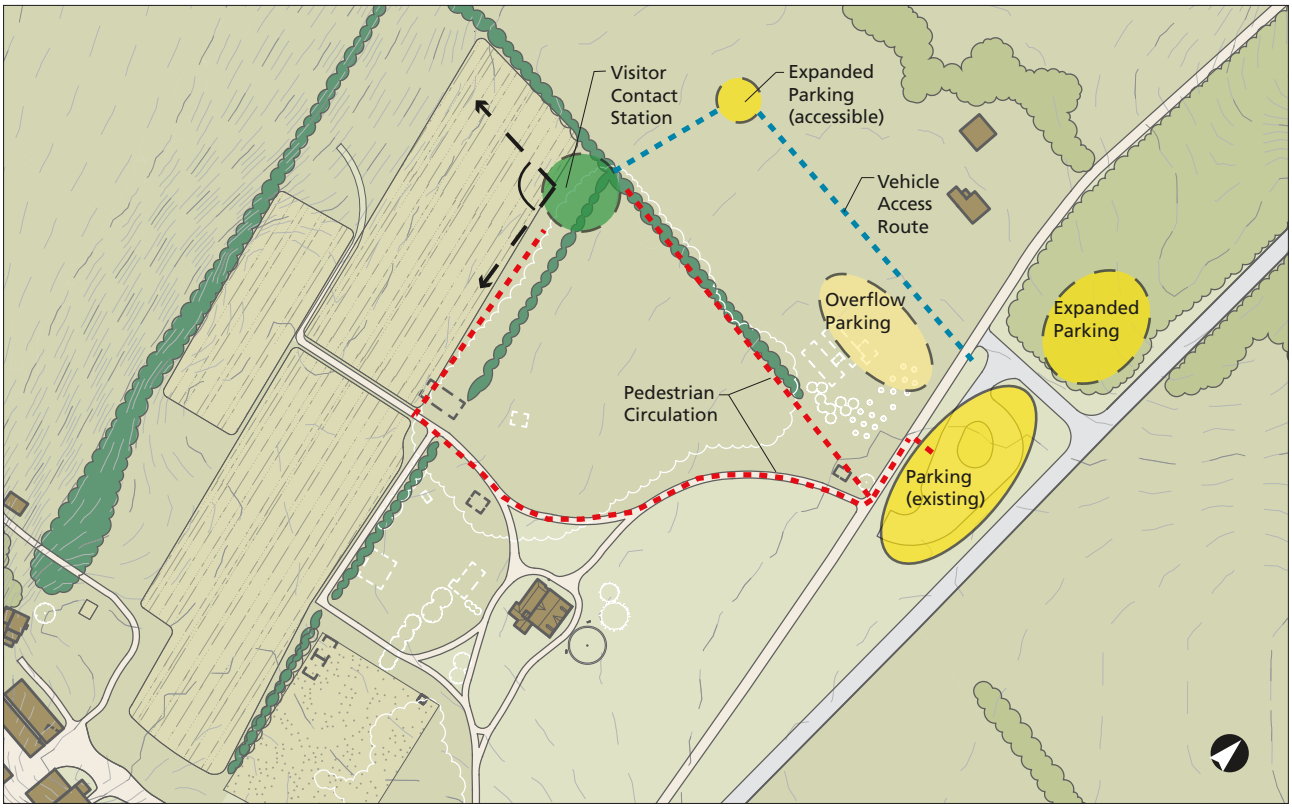


Figure 3.117. Alternative D: visitor center, 2016 (OCLP).

Alternative D: Building at Field/ Orchard Edge

Opportunities:

- Views to the Catskills and agricultural landscape.
- Potential to site discreetly and reduce impact to views.
- Potential to utilize a combination of historic circulation routes or new paths for visitor access.
- Provision for overflow parking west of the Old Post Road and expansion of parking within NPS owed property east of the Old Post Road.

Constraints:

- Significant distance from parking lot will likely necessitate the construction of an access road and accessible parking.
- Supporting infrastructure including access road and parking has potential to impact historically open view unless a harmonious design is selected.

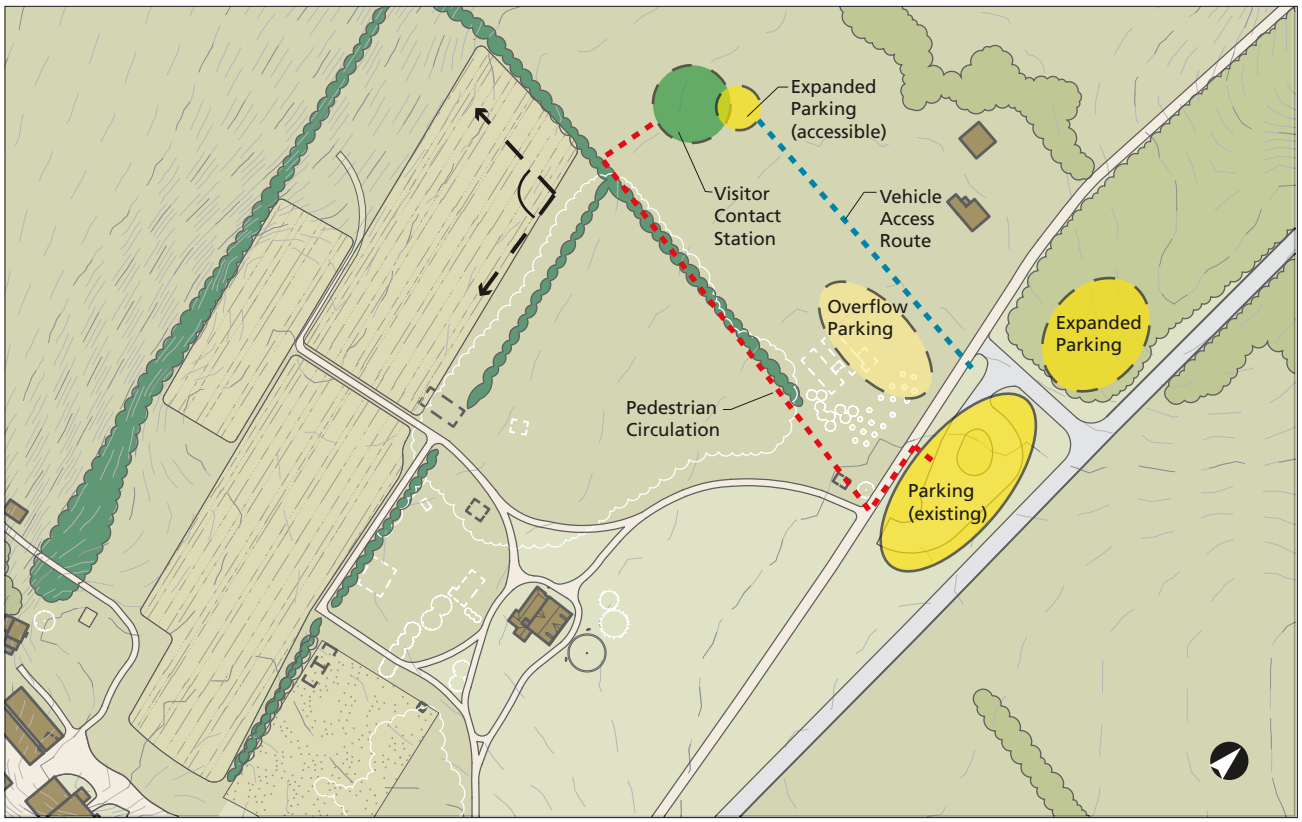


Figure 3.118. Alternative E: visitor center, 2016 (OCLP).

Alternative E: Building in North Field (west of extant temporary site)

Opportunities:

- Access road could be screened (hedge etc.).
- Views to the Catskills and agricultural landscape.
- Provision for overflow parking west of the Old Post Road and expansion of parking within NPS owed property east of the Old Post Road.

Constraints:

- Isolated from the core of the park.
- Significant distance from parking lot will likely necessitate the construction of an access road and accessible parking. Supporting infrastructure including access road and parking has potential to impact historically open view unless a harmonious design is selected.



Figure 3.119. The extant visitor center and administrative offices are screened from the historic core by a mixture of evergreen and deciduous vegetation, however unsightly utility poles and wires are not. New construction should be complimented by underground utilities to reduce impact to the historic character of the site, 2014 (OCLP).

AD-BS-2: Develop a designated area for overflow parking

According to the *General Management Plan*, park staff and a 2008 facility analysis report indicate the park has insufficient special event parking. The existing lot between Route 9H and the Old Post Road, used by visitors and employees, accommodates thirty-eight cars and two buses. During special events, such as Harvest Day and Winter Celebration, and during especially busy days, employees move their vehicles to overflow parking areas and direct visitors to these areas, including behind park headquarters, behind the mansion, and along the Old Post Road. The National Park Service anticipates increased visibility and programming, related to the boundary expansion and improved visitor services, will lead to an increase in park visitation, which will place additional strain on already limited parking infrastructure. [81] Alternatives for increased parking areas and overflow are outlined below.

Redesign of the Current Parking lot: The current parking lot should be reconfigured for more efficient parking. Further study of this alternative is required, and depending on the expected demand, it is unclear if this solution alone will satisfy the demand for parking. The current parking lot is located within the wedge shaped 01-107 parcel east of the Old Post Road and west of Route 9H. The extant parking lot is accessed by a short segment of Town owned road to the north.

Plan for overflow parking within parcel 01-108: Establishing a designated overflow parking area within Parcel 01-108 would meet the need for additional parking during special events occurring primarily in July, August, and December.



Figure 3.120. The northern portion of parcel 01-107, located west of Route 9H and east of the Old Post Road may be a suitable location for additional parking, 2016 (OCLP).

Parcel 01-108 would be used for overflow parking two to three times a year and accommodate approximately 120 cars. Depending on park needs and seasonal use, parking in this field may be an appropriate and low impact solution for overflow parking.

Create an overflow lot within parcel 01-107, north of the Town access road: North of the Town owned access road, the balance of parcel 01-107 could be developed into an additional parking lot. The new lot would be accessed by the Town owned road to the south. Development of this area would not detract from the historic setting of the Lindenwald mansion and grounds, however this alternative is not preferred because of concerns raised by neighboring landowners and disruption of the Dutch Heritage Trail (Figure 3.120).

UTILITIES

AD-UT-1: Submerge utilities

Utility lines were not present during the historic period. When the park establishes a permanent visitor center, maintenance facility, and administrative offices, associated utilities should be supplied by underground conduits if the facility is visible from the historic core of the park. Installing the utilities underground will enhance the historic character of the property and setting.

Table 3.1. Landscape Treatment Tasks

Task ID	Task	Page	Related Tasks
PARK WIDE			
Views and Vistas			
PW-VV-1	Restore historic views from and to the mansion	40	HM-VG-3, 8, 9, & 10; AG-VG-1,
PW-VV-2	Restore view of Catskill Mountains along proposed visitor circulation route	45	PW-CR-1; HM-VG-1; AG-VG-1
PW-VV-3	Screen incongruous views adjacent to the mansion grounds	45	AD-VG-1; HM-UT-1
Vegetation			
PW-VG-1	Rehabilitate historic hedgerows to enhance historic character, provide wildlife habitat, and contribute to sustainable farming practices	47	--
Circulation			
PW-CR-1	Construct an interpretive trail representative of circulation routes present during the Van Buren period	55	PW-SSF-1; PW-CR-2
PW-CR-2	Develop circulation routes through the park that connect with regional and adjoining trail systems	59	PW-CR-2
Small-scale Features			
PW-SSF-1	Expand interpretation as additional features are located and marked by waysides, brochures, and/or digital media (apps)	63	PW-CR-1; HM-BS-4, 5, 6, & 8; HM-VG-4
PW-SSF-2	Replace missing fences and evoke the character of historic fence lines	67	--
Archeological Features			
PW-AR-1	Implement long-term strategy for collecting geophysical data and conducting archeological investigations	73	--
HISTORIC MANAGEMENT ZONE			
Vegetation			
HM-VG-1	Implement a turf management strategy	74	PW-CR-1; HM-BS-4, 5, 6, & 8; HM-VG-4
HM-VG-2	Preserve the historic character of the black locust allée	77	HM-UT-1
HM-VG-3	Develop an interactive garden in the area of Van Buren's garden	78	--
HM-VG-4	Restore and preserve tree row along Old Post Road	82	HM-VG-7, 10
HM-VG-5	Reestablish the pasture west of the Lindenwald mansion	83	--
HM-VG-6	Preserve extant historic trees within the Lindenwald formal landscape	85	--
HM-VG-7	Replace missing historic trees within the Lindenwald formal landscape	87	HM-VG-4, 10
HM-VG-8	Remove incompatible non-historic trees	87	HM-VG-4, 9
Circulation			
HM-CR-1	Preserve and maintain the circular front garden path	88	HM-VG-7; HM-SSF-3
HM-CR-2	Continue to preserve location and alignment of Old Post Road and entry drive	89	HM-UT-1
Small-scale Features			
HM-SSF-1	Replace the reproduction urn	91	--
HM-SSF-2	Preserve the Albany Post Road stone marker	92	--
HM-SSF-3	Relocate reproduction benches to the circular front garden	92	--
HM-SSF-4	Maintain mounting platform	94	--
HM-SSF-5	Relocate contemporary trash receptacles, benches, and picnic tables away from historic mansion	94	--

Task ID	Task	Page	Related Tasks
Buildings and Structures			
HM-BS-1	Preserve and maintain the Lindenwald mansion	94	--
HM-BS-2	Reconstruct the North Gatehouse	97	--
HM-BS-3	Restore the South Gatehouse to reflect the period of significance	97	--
HM-BS-4	Represent the Carriage Barn in the landscape	97	--
HM-BS-5	Conduct further research concerning the location of the woodshed and stables	99	--
HM-BS-6	Represent the Farm Office in the landscape	100	--
HM-BS-7	Relocate contemporary NPS buildings	101	--
HM-BS-8	Represent the greenhouse and hothouse in the landscape if future archeological studies yield substantive evidence	103	--
HM-BS-9	Stabilize the Farm Cottage	104	--
Utilities			
HM-UT-1	Relocate overhead utility lines crossing the front lawn.	104	AD-UT-1
HM-UT-2	Screen utilities near mansion	106	--
HM-UT-2	Remove utility pole near South Gatehouse	107	--
HISTORIC TRANSITION ZONE			
Vegetation			
HT-VG-1	Evoke the historic quality of the north orchard	107	--
HT-VG-2	Reestablish south pasture	116	--
HT-VG-3	Do not replace trees to surround the Van Ness grave	118	--
Small-scale Features			
HT-SSF-1	Preserve and maintain Van Ness grave	118	--
Buildings and Structures			
HT-BS-1	Locate and interpret footprint of the Red Barn	119	PW-SSF-1
Constructed Water Features			
HT-WF-1	Conduct water quality testing on ponds	120	PW-SSF-1
Natural Features			
HT-NF-1	Preserve soil as a cultural resource	120	AG-NF-1
AGRICULTURAL ZONE			
Vegetation			
AG-VG-1	Manage escarpment vegetation to restore historic character and views to the Catskills	120	--
Buildings and Structures			
AG-BS-1	Interpret Black Hay Barn site	125	--
AG-BS-2	Interpret Old Stone House foundation site	125	--
Constructed Water Features			
AG-WF-1	Interpret Martin Van Buren's farming practices including the network of ditches	125	PW-SSF-1
Natural Features			
AG-NF-1	Preserve soil as a cultural resource	128	HT-NF-1

Task ID	Task	Page	Related Tasks
ADMINISTRATIVE ZONE			
Vegetation			
AD-VG-1	Replace showy ornamentals surrounding parking area with a historically compatible palette	128	--
Small-scale Features			
AD-SSF-1	Maintain flagpole and NPS signs	130	--
Buildings and Structures			
AD-BS-1	Construct new administrative and visitor services center	130	PW-CR-1, 2
AD-BS-2	Develop a designated area for overflow parking	138	PW-CR-1, 2
Utilities			
AD-UT-1	Submerge utilities	139	HM-UT-1, 2



Cultural Landscape Report

Martin Van Buren National Historic Site

Kinderhook, New York

Period Plan: 1839-1864

National Park Service
Olmsted Center for Landscape Preservation
www.nps.gov/oclp

SOURCES

1. Orthophotos, NYS GIS Clearinghouse, 2014
2. NPS GIS data, Nigel Shaw 2003
3. MAVA CLR Volume I & II, David Uschold, 1995, 1997
4. Farmlands CLR, Searle, 2004
5. Site visit, field notes, and photography, 2014-2016

DRAWN BY

Alexandra von Bieberstein, CAD 2015, Illustrator 6, 2016.

LEGEND

- Turf
- Gravel Roadway
- Building
- Cultivated Field
- Water Feature
- NPS Boundary
- Van Buren Era Boundary
- Coniferous Tree
- Deciduous Tree

NOTES

1. All features shown in approximate scale and location.
2. Contours are shown in one foot intervals.

0’ 125’ 250’ 500’

Drawing 3.2

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- Van Buren Era Boundary
- Coniferous Tree
- Deciduous Tree

NOTES

1. All features shown in approximate scale and location.
2. Contours are shown at one foot intervals.

0′ 25′ 50′ 100′

Drawing 3.3

Kinderhook Creek
Ditch Traces
Irrigation Ditch
Farm Road
Lower Terrace Field
Escarpment
Lower Terrace Field
Woodland Area
Farm Road
Barn
Farm Cottage
Upper Terrace Field
Curatorial Storage
North Woodlot
Maintenance Buildings
Albany Avenue (County Route 25)
Roxbury Farm Complex
South Woodlot
Lindenwald Mansion
Administration/ Visitor Services
Old Post Road
Trailhead
Route 9-H
Martin Van Buren Nature Area Trailhead

Cultural Landscape Report

Martin Van Buren National Historic Site

Kinderhook, New York

Existing Conditions: 2016

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2. NPS GIS data, Nigel Shaw 2003
3. Martin Van Buren NHS CLR Volume I & II, David Uschold, 1995, 1997
4. Preservation Maintenance Plan for Martin Van Buren NHS, Britzel et. all, 1996.
5. Site visits, field notes, photography, 2014- 2016.

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LEGEND

- Turf
- Gravel Roadway
- Building
- Bituminous Concrete
- Cultivated Field
- Water Feature
- NPS Boundary
- Coniferous Tree
- Deciduous Tree

NOTES

1. All features shown in approximate scale and location.
2. Contours are shown in one foot intervals.

0' 125' 250' 500'

Drawing 3.4

Wayside Content (Extant)	
1	Welcome!
2	Uncovering the Past
3	Lindenwald and Old Post Road
4	A House Transformed
5	Farmhands and Fishing
6	Farm Operations
7	An Agrarian Lifestyle
8	Bustling Household
9	Fertile Political Ground
10	A Farmer in my Native Town

Upper Terrace Field
Contemporary Wire Fencing
Benches
Hedgerow
Overhead utility lines
Curatorial Storage Storage Unit
Maintenance Building
Maintenance Garage
North Woodlot
Upper Fish Pond
Spring
Access road to Roxbury Farm
South Woodlot
Lindenwald
Benches
Transformer
Benches
Front Garden
Administration/ Visitor Services
Picnic Tables & Benches
White Pine Screen
Southgate House
North Gatehouse Foundation
Lindenwald Historic Sign
Old Post Road
Gate
NPS sign
Trail Sign
Fence Segment
Mailbox
Flagpole
Parking Lot
Trail Kiosk
NPS Park Sign
Trail Sign
Route 9H

Cultural Landscape Report

Martin Van Buren National Historic Site

Kinderhook, New York

Existing Conditions: 2016

National Park Service
Olmsted Center for Landscape Preservation
www.nps.gov/oclp

SOURCES

1. Orthophotos, NYS GIS Clearinghouse
2. NPS GIS data, Nigel Shaw 2003
3. Martin Van Buren NHS CLR Volume 1 & II, David Uschold, 1995,1997
4. Preservation Maintenance Plan for Martin Van Buren NHS, Bitzel et. all, 1996
5. Site visit, field notes, and photography, 2014-2016

DRAWN BY

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LEGEND

- Turf
- Gravel Roadway
- Building
- Bituminous Concrete
- Cultivated Field
- Water Feature
- NPS Boundary
- Coniferous Tree
- Deciduous Tree
- Wayside

NOTES

1. All features shown in approximate scale and location.
2. Contours are shown in one foot intervals.

0' 25' 50' 100'

Drawing 3.5



Cultural Landscape Report

Martin Van Buren National Historic Site

Kinderhook, New York

Treatment Plan

National Park Service

Olmsted Center for Landscape Preservation

www.nps.gov/oclp

SOURCES

1. Orthophotos, NYS GIS Clearinghouse
2. NPS GIS data, Nigel Shaw 2003
3. Martin Van Buren NHS CLR Volume I & II, David Uschold, 1995, 1997
4. Preservation Maintenance Plan for Martin Van Buren NHS, Britzel et. all, 1996
5. Site visits, field notes, photography, 2014- 2016

DRAWN BY

Alexandra von Bieberstein, CAD 2015, Illustrator 6, 2014-2016.

LEGEND

- Turf
- Gravel Roadway
- Building
- Bituminous Concrete
- Cultivated Field
- Water Feature
- NPS Boundary
- Replacement Vegetation (proposed)
- Coniferous Tree
- Deciduous Tree
- Feature (interpret)
- Feature (remove)

NOTES

1. All features shown in approximate scale and location.
2. Contours are shown in one foot intervals.

0′ 125′ 250′ 500′

Drawing 3.6

HT-NF-1: Preserve soil as a cultural resource

PW-VV-3: Screen incongruous views adjacent to the mansion grounds

PW-CR-1: Construct an interpretive trail representative of circulation routes present during the Van Buren period

HM-BS-4: Represent the carriage barn in the landscape

HM-BS-7: Relocate contemporary NPS maintenance sheds

PW-VG-1: Rehabilitate historic hedgerows to enhance historic character, provide wildlife habitat, and contribute to biodynamic farming practices

HM-VG-3: Develop an interactive garden in the area of Van Buren's garden.

HM-BS-8: Represent the greenhouse and hothouse in the landscape if future archeological studies yield substantive evidence

HC-VG-5: Reestablish the pasture behind the Lindenwald mansion

HM-BS-7: Relocate contemporary NPS maintenance sheds

HM-BS-5: Conduct further research concerning location of the woodshed and stables

PW-SSF-2: Replace missing fences and evoke the character of missing fence lines

HM-VG-8: Remove incompatible non-historic vegetation

HM-BS-6: Represent the farm office in the landscape

HT-VG-1: Evoke the historic quality of the north orchard

HM-BS-1: Preserve and maintain the Lindenwald mansion

HT-VG-3: Reestablish south pasture

HM-UT-2: Screen utilities near house

PW-VV-1: Restore Historic Views from the mansion

HM-UT-1: Relocate overhead utilityes lines crossing front lawn and at South Gatehouse

HM-SSF-5:Relocate contemporary garbage receptacles, benches, and picnic tables

HM-SSF-4: Maintain mounting platform

HM-BS-3: Restore the South Gatehouse to reflect the period of significance

HM-SSF-3: Relocate reproduction benches to the circular front garden once restored vegetation has been established.

HM-SSF-1: Replace the reproduction urn

HM-CR-1: Continue to preserve and maintain the circular front garden path

HM-VG-6: Preserve extant historic trees within the formal Lindenwald landscape.

AD-BS-1: Construct new visitor center

AD-BS-2: Develop a designated area for overflow parking

HM-VG-2: Preserve the historic character of the black locust allee.

HM-CR-2: Continue to preserve location and alignment of semi-circular entry drive

HM-VG-1: Implement a turf management strategy

HM-VG-7: Replace missing historic trees within the formal Lindenwald landscape.

HM-VG-4: Restore and preserve white pine row along the Post Road

HM-BS-2: Reconstruct the North Gatehouse

AD-UT-1: Submerge utilities

HT-SSF-1: Maintain flagpole and NPS signs

HM-SSF-2: Preserve the Albany Post Road stone marker

AD-VG-1: Replace showy ornamentals surrounding parking area with a historically compatible pallet

Cultural Landscape Report

Martin Van Buren National Historic Site

Kinderhook, New York

Treatment Plan

National Park Service

Olmsted Center for Landscape Preservation

www.nps.gov/oclp

SOURCES

1. Orthophotos, NYS GIS Clearinghouse
2. NPS GIS data, Nigel Shaw 2003
3. Martin Van Buren NHS CLR Volume I & II, David Uschold, 1995, 1997
4. Preservation Maintenance Plan for Martin Van Buren NHS, Britzel et. all, 1996
5. Site visits, field notes, photography, 2014- 2016

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LEGEND

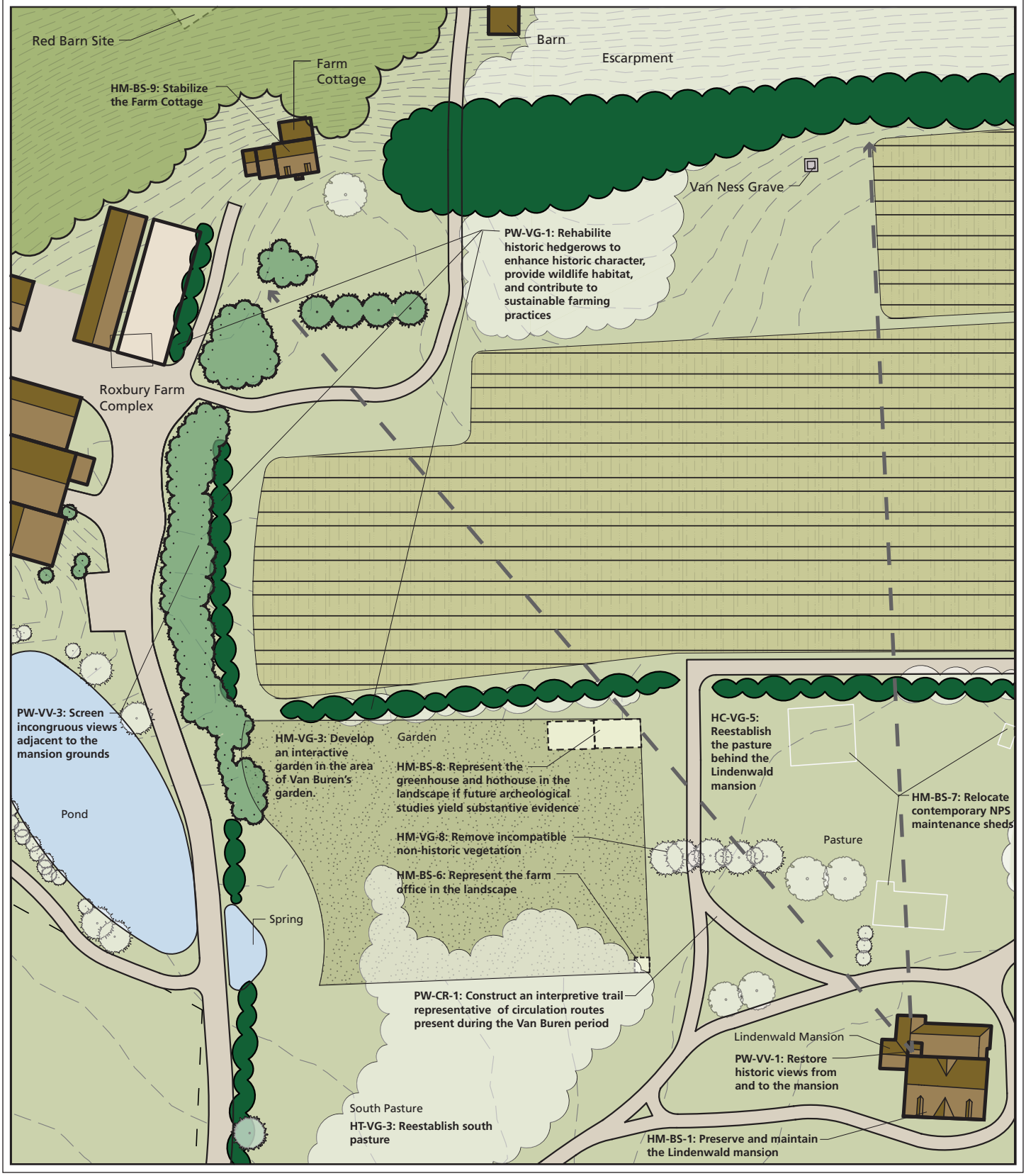
- Turf
- Gravel Roadway
- Building
- Bituminous Concrete
- Cultivated Field
- Water Feature
- NPS Boundary
- Replacement Vegetation (proposed)
- Coniferous Tree
- Deciduous Tree
- Feature (interpret)
- Feature (remove)
- Wayside (extant)
- Wayside (proposed)

NOTES

1. All features shown in approximate scale and location.
2. Contours shown in one foot intervals.

0' 25' 50' 100'

Drawing 3.7



DRAWN BY
Alexandra von Bieberstein, OCLP, 2016
CAD 2015, Illustrator 6

NOTES
1. All features are shown in approximate scale and location.
2. Contours are shown in one foot intervals

SOURCES
1. Orthophotos, NYS GIS Clearinghouse
2. NPS GIS data, Nigel Shaw, 2003
3. Martin Van Buren NHS CLR Volume I & II, David Uschold 1995, 1997
4. Site visits, field notes, photography 2014-2016

National Park Service
Olmsted Center for Landscape Preservation
www.nps.gov/oclp

LEGEND

- Turf
- Gravel Roadway
- Building
- Bituminous Concrete
- Cultivated Field
- Water Feature
- Replacement Vegetation (proposed)
- Coniferous Tree
- Deciduous Tree
- Feature (interpret)
- Feature (remove)

Cultural Landscape Report
Martin Van Buren National Historic Site

Treatment Plan
Farm Cottage Area

0′ 25′ 50′ 100′

Drawing 3.8

Cultural Landscape Report

Martin Van Buren National Historic Site

Kinderhook, New York

Vegetation Plan

National Park Service

Olmsted Center for Landscape Preservation

www.nps.gov/oclp

SOURCES

1. Orthophotos, NYS GIS Clearinghouse
2. NPS GIS data, Nigel Shaw 2003
3. Martin Van Buren NHS CLR Volume I & II, David Uschold, 1995, 1997
4. Preservation Maintenance Plan for Martin Van Buren NHS, Britzel et. all, 1996
5. Site visits, field notes, photography, 2014- 2016

DRAWN BY

Alexandra von Bieberstein, CAD 2015, Illustrator 6, 2016

LEGEND

- Turf
- Gravel Roadway
- Building
- Bituminous Concrete
- Cultivated Field
- Water Feature
- NPS Boundary
- Replacement Vegetation (proposed)
- Coniferous Tree
- Deciduous Tree
- Feature (interpret)
- Feature (remove)

NOTES

1. All features shown in approximate scale and location.
2. Contours shown in one foot intervals.

0′ 25′ 50′ 100′

Drawing 3.9

Endnotes

1. From Isaac Hill's The Cultivator, Demaree, 290. Quoted in Searle, 2004, 58.
2. Sam Earnshaw, Hedgerows for California Agriculture: A resource guide (Davis, California: Community Alliance with Family Farmers, 2004), 6.
3. GMP, 18-19, 66.
4. A.J. Downing, *Cottage Residences* (New York: Wiley and Putnam, 1842), 86.
5. William Crozier and Peter Henderson, *How the Farm Pays: The experiences of forty years of successful farming & gardening* (Ottowa, Ontario, Canada: Algrove Publishing Limited, 2001 originally 1884), 223.
6. Earnshaw, 2004, 16.
7. Ibid, 15-17.
8. The Oregon State Extension program provides guidance on establishing hedgerows. A first step for establishing a hedgerow across an existing pasture is to apply a thin layer of manure compost, followed by several layers of cardboard, and then mulch or straw. In larger areas cover crops may be more effective for establishment. The cover crops will improve soil fertility, reduce weeds, and attract beneficial insects. The ideal time for hedgerow planting is early spring for ideal root growth. J. Hobbs and D. McGrath, 1998, 2.
9. GMP, iiv-iv.
10. Jeff Olsen et al. Kinderhook-Stuyvesant-Stockport Inter-Municipal Trail Feasibility Study (Albany, New York: University at Albany Regional Planning Studio, 2010), 1.
11. Ibid, 26.
12. Ibid, 31.
13. Kinderhook Community Trail Brochure, no date.
14. Searle, 2004, 127.
15. William B Hesseltine and Larry Gara, "A Visit to Kinderhook" New York History 34 (April 1954), 177-182. Quoted in Searle, 2004, 53.
16. Isaac Hill, "A Day in the Country: Visit to Lindenwald," reprinted in Albert Lowther Demaree, The American Agricultural Press, 1818-1860 Philadelphia: Porcupine Press, 1974), 290-292. Cited in Searle, 2004, 37.
17. *New York Commercial Advertiser*, November 1841, quoted in William A.

Stokinger and Patricia E. Rubertone, *Lindenwald: Historic Grounds Report Volume I Documentary Section* (National Park Service, 1981), 61-2 and in Searle, 2004, 37.

18. Demaree, 291, original emphasis, in Searle, 2004, 37-38.

19. Accounts, 16 April 1840, Van Buren Papers, Columbia County Historical Society; Demaree, 291, cited in Searle, 2004, 56.

20. Henry D. Gilpin to Martin Van Buren, 21 April 1843, Van Buren papers, quoted in Searle, 2004, 56.

21. William Paulding to Martin Van Buren, 1 April 1839 (Deed); Lambert, James, Jane Ann, and Maria Dingman to Martin Van Buren (Deed), 25 July 1843, both at Columbia County Historical Society. Cited in Searle, 2004, 57.

22. U.S. Department of Agriculture, "Statistics of Fences in the United States," Annual Report, 1871, reprinted in Wayne D. Rasmussen, ed. Agriculture in the United States: A Documentary History (New York: Random House, 1975), 1391-2, in Searle, 2004, 57.

23. From Isaac Hill," A Day in the Country: Visit to Lindenwald," reprinted in Albert Lowther Demaree, The American Agricultural Press, 1819-1860 (Philadelphia: Porcupine Press, 1974) 290-292, in Searle, 2004, 16.

24. George A. Martin, *Fences, Gates and Bridges: A Practical Manual* (Chambersburg, Pennsylvania: Alan C. Hood & Company, Inc., 1887 reprinted in 1992).

25. Crozier and Henderson, 1884, 222-223.

26. Searle, 2004, 56-57.

27. Martin Van Buren to Levi Woodbury, 24 July 1841, Francis P. Blair Papers, Library of Congress; Martin Van Buren Papers, Syracuse University; Martin Van Buren to Levi Woodbury, 1 September 1839, Levi Woodbury Papers, Library of Congress, in Uschold and Curry, 1995, 19.

28. Martin Van Buren to Levi Woodbury, 24 July 1841, Francis P. Blair Papers, Library of Congress.

29. New York Commercial Advertiser, 1841, in Uschold and Curry, 1995, 43.

30. From Sara Mytton Maury, The Statesmen of America in 1846 (London, 1847) 118, in Matthew Quirey, Charles Pepper, and A. Martin Petrovic. Turf Management Plan for Martin Van Buren National Historic Site (Boston: Olmsted Center for Landscape Preservation, 2010), 5.

31. William B., Albany Cultivator (reprinted in Farmer's Monthly Visitor, 30 September, 184, in Turf Management Plan, 2010, 5.

32. Martin Van Buren to Levi Woodbury, 24 July 1841, quoted in John D. R. Platt, Historic Resource Study: Lindenwald, Martin Van Buren National Historic Site (Denver: National Park Service, 1982) 16-2; Searle, 2004, 51.

33. Martin Van Buren to Levi Woodbury, 1 September 1839, quoted in Platt, 55; Searle, 2004, 51.

34. Uschold and Curry, 1995, 96.

35. Martin Van Buren to Levi Woodbury, 1 September 1839, quoted in Platt, 55; Searle, 2004, 52.

36. New York Commercial Advertiser, November 1841, quoted in Stokinger, 61-62; Searle, 2004, 52.

37. Demaree, 290. Quoted in Searle, 2004, 52.

38. New York Commercial Advertiser, November 1841, quoted in Stokinger, 61-62; Searle, 2004, 52.

39. Uschold and Curry, 1995, quoted in Searle, 2004, 52.

40. Searle, 2004, 91-92.

41. Accounts, 16 April 1840, Van Buren Papers, Columbia County Historical Society, quoted in Searle, 2004, 52.

42. William B. Hesseltime and Larry Gara, "A Visit to Kinderhook," New York History 34 (April 1954), 177-182, quoted in Searle, 2004, 53.

43. Demaree, 290. Quoted in Searle, 2004, 53.

44. Martin Van Buren to John M. Niles, 16 April 1843, quoted in Platt, 68; Searle, 2004, 53.

45. Uschold and Curry, 1995, 173.

46. Ibid, 95.

47. Ibid, 48.

48. Eustance and Horowitz, Survey for Martin Van Buren National Historic Site, 1979; with update by Raymond Lubianetsky, containing tree and stump information, 1980. Cited in Uschold and Curry, 1995, 206

49. Uschold and Curry, 1995, 95.

50. Anthony J. McNichol MA, et al., *Archeological and Historical Investigation for the Old Post Road Rehabilitation Project*, Martin Van Buren National Historic Site (Burlington, New Jersey: URS Corporation, 2010), 6.1-6.3.

51. National Register Amendment, 2012, 12.

52. Additional sources on the mile posts, stephanielarosephotography.com/galleries/mile_markers_rt9/, accessed Nov 7, 2014.

53. Uschold and Curry, 1995, 180, f96.

54. GMP, 17.

55. Uschold and Curry, 1995, 84.

56. GMP, 63.

57. July 2, 1990 meeting- MAVA Chief of Maintenance Ouellette and Seymore McGee, MAVA Archives; Searle, 2004, 162.

58. Searle, 2004, 111, 155.

59. Uschold and Curry, 1995, 115, Figure 5.9.

60. Demaree, 290.

61. Searle, 2004, 163.

62. GMP, vi.

63. James K. Paulding to Martin Van Buren, 2 May 1846, in Aderman, 431; Martin Van Buren to James K. Paulding, n.d. [spring 1846], in Aderman, 429-30, original emphasis. Cited in Searle, 2004, 54.

64. Heidi Cope, *Orchard Management Plan for Morristown NHP: Wick Farm Orchard* (Boston: National Park Service, draft 2002). Cited in Searle, 2004, 55.

65. Searle, 2004, 55; Cope, draft 2002, 3.

66. John Stilgoe, Common Landscape of America, 1580-1845 (New Haven: Yale University Press, 1982), 200-01. Cited in Searle, 2004, 55.

67. Cope, 14. Quoted in Searle, 2004, 56.

68. New York Commercial Advertiser, November 1841. Quoted in Stokinger, 61-2; quoted in Searle, 2004, 56.

69. Hatch, 103. Quoted in Searle 2004, 56.

70. The 1997 CLR recommends that the boundaries of the wetland be delineated. In addition, in accordance with Section 7 of the Endangered Species Act, the NPS must consult with the US Fish and Wildlife Service to ensure that no endangered species will be adversely affected by this task (Uschold and Curry, 1997, 63).

71. Edward A. Collier, *A History of Old Kinderhook*, (New York: The Knickerbocker Press, 1914), 391. Cited in Uschold and Curry, 1995, 24.

72. Uschold and Curry, 1995, 24.

73. Ibid, 1995, 104.

74. Searle, 2004, 165.

75. Ibid, 2004, 113.

76. Ibid, 2004, 147,153.

77. Ibid, 2004, 33.

78. Demaree, 291. Cited in Searle, 2004, 38.

79. Searle, 2004, 37-38.

80. GMP, 23.

81. Ibid, 17, 50.

4. Treatment Implementation

Treatment tasks identified and described in the preceding chapter are summarized in the following table. Tasks have been prioritized as high, medium, or low to assist park management in planning efforts and funding requests (see Table 4.1). Additional columns in the table rank complexity and identify project status as of 2016. The ranking factors are defined below.

Priority:

High priority tasks are defined as those that:

- Address life-safety issues
- Address fundamental, character-defining features of the historic landscape
- Substantially enhance visitor experience and understanding
- Substantially improve universal access

Medium priority tasks are defined as those that:

- Address features that, while contributing to the historic character of the landscape, are not character-defining
- Considerably enhance visitor experience and understanding though new interpretive potential
- Improve the overall landscape condition with only minimal enhancements to the visitor experience
- Have high potential to yield new knowledge

Low priority tasks are defined as those that:

- Minimally enhance visitor experience and understanding
- Minimally improve overall landscape condition and desired landscape character
- Initiation of treatment requires completion of related treatment task(s) such as development of an expanded interpretive trail, and/or additional research including archeological survey

Complexity:

High: Requires extensive planning, funding, and/or extensive research

Medium: Requires moderate planning and additional funds, or additional research

Low: Ready today, or project/proven methodology already implemented

Status:

(0)- No progress, project has not been initiated

(1)- Initiated: Planning efforts (beyond conceptual) or funding requests have been initiated

(2)- Underway: Project is actively in progress, including planning efforts or physical changes to the landscape

(3)- Continue/ maintain: Project/ process is ongoing- typically related to care and perpetuation of landscape features or character

Table 4.1. Landscape Treatment Implementation Priorities

Task ID	Priority	Complexity	Task	Status	Page	Related Tasks
PARK WIDE						
Views and Vistas						
PW-VV-1	H	M/H	Restore historic views from and to the mansion	1	40	HM-VG-3, 8, 9, & 10; AG-VG-1,
PW-VV-2	L	H	Restore view of Catskill Mountains along proposed visitor circulation route	0	45	PW-CR-1; HM-VG-1; AG-VG-1
PW-VV-3	H	M	Screen incongruous views adjacent to the mansion grounds	1	45	AD-VG-1; HM-UT-1
Vegetation						
PW-VG-1	H	M	Rehabilitate historic hedgerows to enhance historic character, provide wildlife habitat, and contribute to sustainable farming practices	0	47	--
Circulation						
PW-CR-1	M	M/H	Construct an interpretive trail representative of circulation routes present during the Van Buren period	0	55	PW-SSF-1; PW-CR-2
PW-CR-2	L	M	Develop circulation routes through the park that connect with regional and adjoining trail systems	0	59	PW-CR-2
Small-scale Features						
PW-SSF-1	M	M	Expand interpretation as additional features are located and marked by waysides, brochures, and/or digital media (apps)	0	63	PW-CR-1; HM-BS-4, 5, 6, & 8; HM-VG-4
PW-SSF-2	M	M/H	Replace missing fences and evoke the character of historic fence lines	0	67	--
Archeological Features						
PW-AR-1	H	L	Implement long-term strategy for collecting geophysical data and conducting archeological investigations	0	73	--

Task ID	Priority	Complexity	Task	Status	Page	Related Tasks
HISTORIC MANAGEMENT ZONE						
Vegetation						
HM-VG-1	H	L	Implement a turf management strategy	2	74	PW-CR-1; HM-BS-4, 5, 6, & 8; HM-VG-4
HM-VG-2	H	L/M	Preserve the historic character of the black locust allée	3	77	HM-UT-1
HM-VG-3	M	H	Develop an interactive garden in the area of Van Buren's garden	0	78	--
HM-VG-4	H	L	Restore and preserve tree row along Old Post Road	3	82	HM-VG-7, 10
HM-VG-5	H	H	Reestablish the pasture west of the Lindenwald mansion	1	83	--
HM-VG-6	H	L	Preserve extant historic trees within the Lindenwald formal landscape	3	85	--
HM-VG-7	H	M	Replace missing historic trees within the Lindenwald formal landscape	1	87	HM-VG-4, 10
HM-VG-8	M	M	Remove incompatible non-historic trees	1	87	HM-VG-4, 9
Circulation						
HM-CR-1	H	L	Preserve and maintain the circular front garden path	3	88	HM-VG-7; HM-SSF-3
HM-CR-2	H	L	Continue to preserve location and alignment of Old Post Road and entry drive	3	89	HM-UT-1
Small-scale Features						
HM-SSF-1	M	M	Replace the reproduction urn	1	91	--
HM-SSF-2	H	L	Preserve the Albany Post Road stone marker	3	92	--
HM-SSF-3	L	L	Relocate reproduction benches to the circular front garden	0	92	--
HM-SSF-4	H	L	Maintain mounting platform	3	94	--
HM-SSF-5	M	L	Relocate contemporary trash receptacles, benches, and picnic tables away from historic mansion	0	94	--
Buildings and Structures						
HM-BS-1	H	L/M	Preserve and maintain the Lindenwald mansion	3	94	--
HM-BS-2	M	M	Reconstruct the North Gatehouse	0	97	--
HM-BS-3	M	M	Restore the South Gatehouse to reflect the period of significance	0	97	--
HM-BS-4	L	H	Represent the Carriage Barn in the landscape	0	97	--
HM-BS-5	M	M	Conduct further research concerning the location of the woodshed and stables	0	99	--
HM-BS-6	L	H	Represent the Farm Office in the landscape	0	100	--
HM-BS-7	H	H	Relocate contemporary NPS buildings	1	101	--
HM-BS-8	L	H	Represent the greenhouse and hothouse in the landscape if future archeological studies yield substantive evidence	0	103	--
HM-BS-9	H	M	Stabilize the Farm Cottage	2	104	--
Utilities						
HM-UT-1	H	M	Relocate overhead utility lines crossing the front lawn.	1	104	AD-UT-1
HM-UT-2	H	L	Screen utilities near mansion	1	106	--
HM-UT-2	M	L	Remove utility pole near South Gatehouse	0	107	--

Task ID	Priority	Complexity	Task	Status	Page	Related Tasks
HISTORIC TRANSITION ZONE						
Vegetation						
HT-VG-1	H	M/H	Evoke the historic quality of the north orchard	0	107	--
HT-VG-2	L	M/H	Reestablish south pasture	0	116	--
HT-VG-3	H	L	Do not replace trees to surround the Van Ness grave	3	118	--
Small-scale Features						
HT-SSF-1	H	L	Preserve and maintain Van Ness grave	3	118	--
Buildings and Structures						
HT-BS-1	M	M	Locate and interpret footprint of the Red Barn	0	119	PW-SSF-1
Constructed Water Features						
HT-WF-1	M	L	Conduct water quality testing on ponds	0	120	PW-SSF-1
Natural Features						
HT-NF-1	H	L	Preserve soil as a cultural resource	3	120	AG-NF-1
AGRICULTURAL ZONE						
Vegetation						
AG-VG-1	H	M	Manage escarpment vegetation to restore historic character and views to the Catskills	1	120	--
Buildings and Structures						
AG-BS-1	L	M	Interpret Black Hay Barn site	0	123	--
AG-BS-2	L	M	Interpret Old Stone House foundation site	0	125	--
Constructed Water Features						
AG-WF-1	L	L	Interpret Martin Van Buren's farming practices including the network of ditches	0	126	PW-SSF-1
Natural Features						
AG-NF-1	H	L	Preserve soil as a cultural resource	3	127	HT-NF-1
ADMINISTRATIVE ZONE						
Vegetation						
AD-VG-1	L	M	Replace showy ornamentals surrounding parking area with a historically compatible palette	0	128	--
Small-scale Features						
AD-SSF-1	H	L	Maintain flagpole and NPS signs	3	128	--
Buildings and Structures						
AD-BS-1	H	H	Construct new administrative and visitor services center	1	130	PW-CR-1, 2
AD-BS-2	M	M	Develop a designated area for overflow parking	1	138	PW-CR-1, 2
Utilities						
AD-UT-1	H	M	Submerge utilities	0	139	HM-UT-1, 2

The National Park Service uses the Facility Management Software System (FMSS) to manage park resources, track costs, prioritize projects, and create funding requests and work orders.

INTEGRATING TREATMENT RECOMMENDATIONS WITH FMSS

For the Martin Van Buren National Historic Site cultural landscape, FMSS is essential for generating funding requests for all rehabilitation, restoration, repair, and capital improvement projects through the National Park Service Project Management Information System (PMIS). This section provides a crosswalk between the treatment recommendations in the previous chapters and FMSS.

Physical features or "Assets" of the cultural landscape that are tracked in FMSS through "Locations" and a variety of "Asset Types." Asset types associated with the cultural landscape include: maintained landscape (with an asset code of 3100), circulation (1100), and buildings (4100). Within Martin Van Buren National Historic Site four locations have been identified (and are depicted in Figure 4.1):

- MAVA Landscape (77372)
- The Farm (no #)
- Agricultural Landscape (no #)
- Regional Trail (no #)

Within the maintained landscape asset type (3100), the park has identified assets and assigned tracking numbers as depicted in Figure 4.2. As illustrated in the Maintained Landscape Location & Assets Hierarchy chart (Figure 4.2), the MAVA Landscape Location has been populated with Assets, while The Farm and Agricultural Landscape Locations have yet to be populated in detail. The Regional Trail Location has not yet been defined. Note that assets include historic and non-historic landscape features.

Extant Assets already populated in FMSS provide an excellent starting point for continuing the development of the Martin Van Buren National Historic Site FMSS system. As treatment tasks recommended in this report are completed, especially beyond the historic core, new assets will need to be identified and added to the system.

Delving further into the FMSS data, Table 4.3 summarizes the landscape treatment tasks included in this report according to FMSS Asset Type, Location, and asset as a first step in translating cultural landscape treatment recommendations into project funding requests. Several tasks are already entered into the PMIS system as specified in the table. When feasible, quantities have been included to facilitate cost estimating. Additional professional services, such as design or construction oversight, are required to implement some tasks. Relevant FMSS work types and sub-types are summarized and defined in Table 4.2.

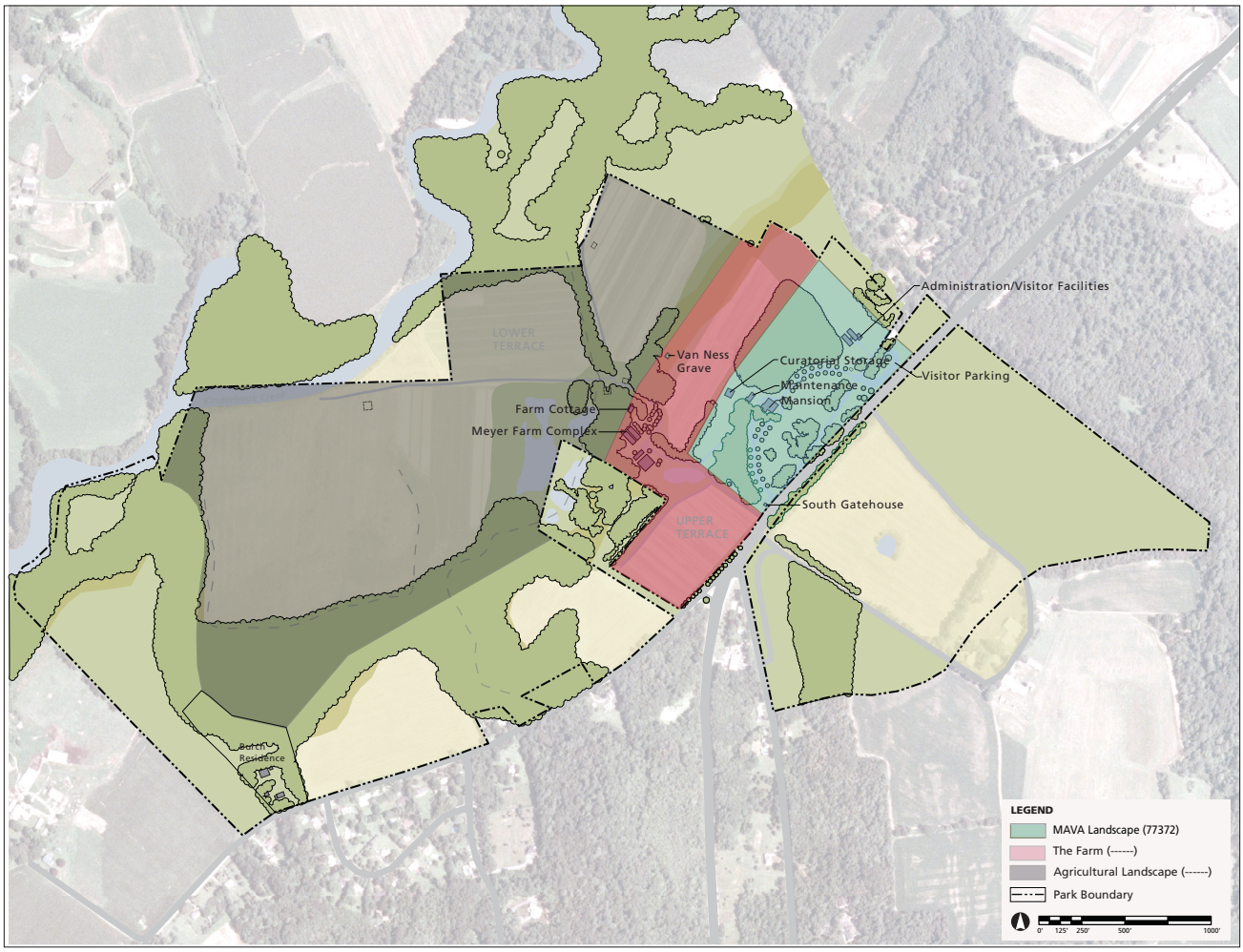


Figure 4.1. Four Locations (3 depicted above) are identified in the FMSS system at Martin Van Buren National Historic Site. Physical boundaries for the Regional Trail Landscape will be determined as planning efforts evolve, 2012, modified 2016 (OCLP).

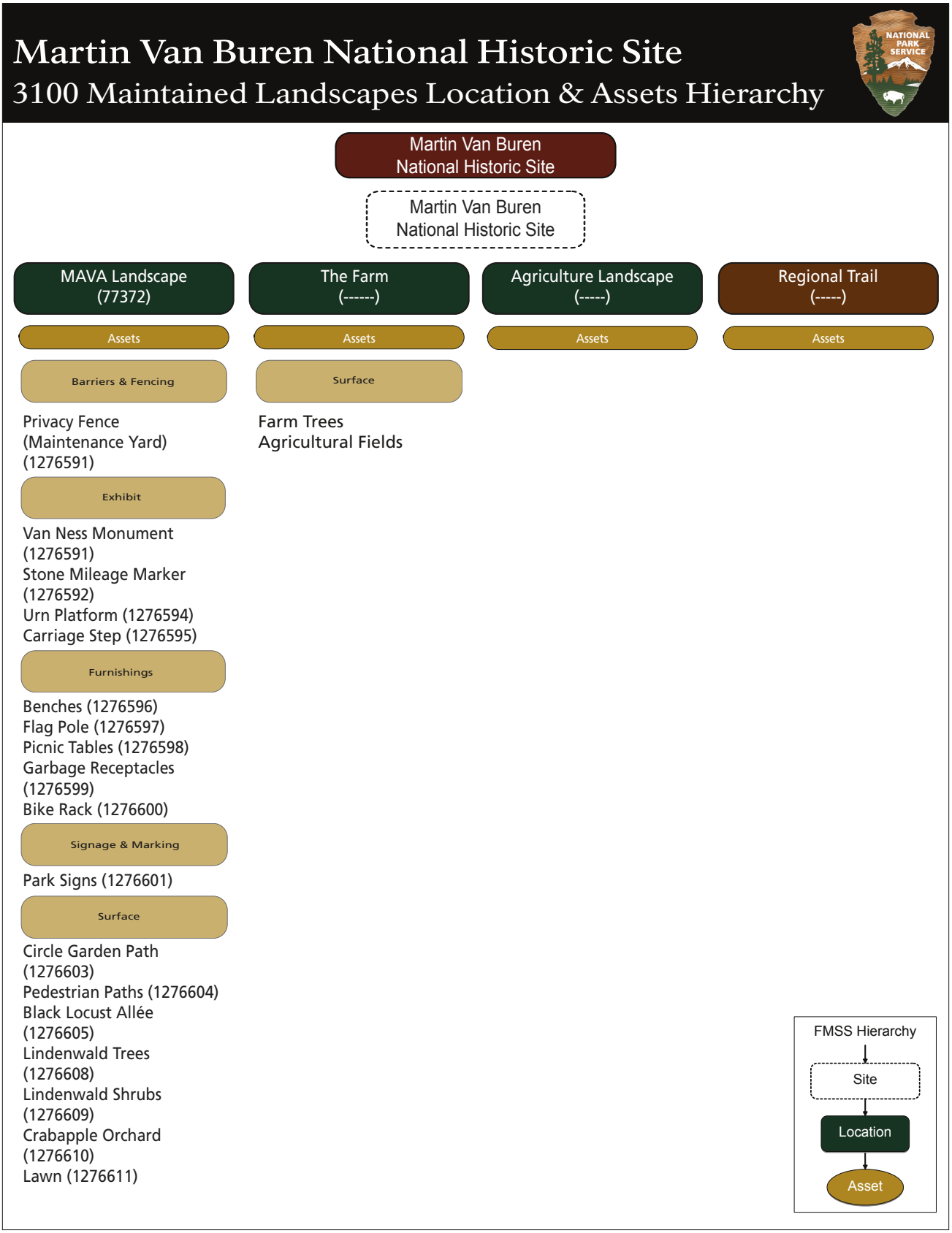


Figure 4.2. Maintained Landscapes Location (3100) & Assets Hierarchy for Martin Van Buren National Historic Site. The Farm, Agricultural Landscape, and Regional Trail will require further classification of Assets as landscape treatment tasks are implemented, 2012 (OCLP).

Table 4.2. Glossary of Relevant FMSS Work Types and Sub-types

Work Type/ Sub-type	Definition	Key
FACILITY MAINTENANCE WORK TYPE		
Day-to-day activities, as well as the planned work required to preserve an asset in such a condition that it may be used for its designated purpose over its expected life cycle. Examples include routine replacement of HVAC filters, repairing a roof that was damaged in a storm, and building a ramp to meet accessibility laws.		FM
- Relevant Facility Maintenance Sub-types		
- Component Renewal	The planned replacement of a component or system that will reach the end of its useful life based on condition and life cycle analysis within the facility's lifetime.	CR
- Demolition	Removal of an asset that has been determined to be unsafe or no longer meets mission goals. Removal of an NPS is determined by management in conjunction with NPS planning procedures.	DEM
- Deferred Maintenance	Maintenance that was not performed when it should have been, or was scheduled and was put off or delayed. Continued deferment of maintenance will result in deficiencies.	DM
- Legis. Mandate Accessibility	Deficiencies that must be corrected in response to regulatory requirements. These activities include retrofitting for accessibility.	LM
- Preventative Maintenance	Regular scheduled periodic maintenance activities (within 1 year) on selected equipment.	PM
FACILITY OPERATIONS WORK TYPE		
Work activities performed on a recurring basis related to the normal performance or function of an asset throughout the year which intends to meet daily operational needs and activities for which a facility or item of Installed Building equipment (IBE) is intended to be used. Typical work performed under operations includes janitorial and custodial services, snow removal, purchase of utilities (water, sewer, electricity), grounds keeping, waste management, etc.		FO
- Relevant Facility Operations Sub-type		
- Grounds Care	Official definition forthcoming from the FMSS Maintained Landscape Work Group, but likely to capture short-timed tasks performed in the landscape that are required to meet daily operational needs, such as sweeping, raking, and dead-heading.	GC
CAPITAL IMPROVEMENTS WORK TYPE		
Alterations or new construction that helps an asset better meet its intended purpose. Examples include paving an unpaved parking area and replacing portable restrooms with a permanent facility in a frequently visited area.		CI
- Relevant Capital Improvements Sub-type		
- New Construction	Construction that adds to the existing footprint of an asset, or creates a new asset.	NC

Table 4.3. Landscape Treatment Tasks and the Martin Van Buren National Historic Site FMSS Hierarchy

CLR Treatment Task/FMSS Work Order	CLR Treatment Task Component/ FMSS Tasks	Units	FMSS Asset Type/ Location/ Asset	FMSS Work Type/ Sub-type	Existing PMIS Project	Recurring Maintenance Needed
Views and Vistas						
PW-VV-1. Restore historic views from and to the mansion: - West of mansion	1. Relocate maintenance garage	2 bldgs	4100/ 75897	FM/ DEM	-	Maintain circulation routes and pasture
	2. Relocate archives building	1 bldg	4100/ 75901	FM/ DEM		
	3. Relocate parking and equipment storage	1 struc	1300/ TBD	FM/ DEM		
	4. Remove stockade fence	1 struc	3100/ 1276591	FM/ DEM		
	5. Reestablish historic circulation routes and pasture	1,200 LF of road 70,000 SF pasture	TBD	CI/ NC		
- North and Northwest of mansion	1. Remove north woodlot	203,800 SF	3100/ 77372	FM/ DM	-	Maintain orchard and pasture
	2. Establish orchard and pasture	171,000 SF	TBD			
- East of mansion	1. Remove incompatible trees	# trees	3100/ 1276608	FM/ PM	-	Maintain replanted and specimen trees
	2. Replant missing trees	# trees	3100/ 1276608			
	3. Manage specimen trees	# trees	3100/ 1276608			
- South and Southwest of mansion	1. Remove trees, shrubs, and vines from historic garden and pasture area	15 trees	TBD	FM/ DM	-	Maintain pasture and garden
	2. Reestablish pasture and garden area	70,000 SF/ 50,000 SF	TBD			
PW-VV-2. Restore view of Catskill Mountains along proposed visitor circulation route	1. Thin escarpment vegetation	40,000 SF	TBD	FM/ DM	-	Maintain escarpment vegetation and hedgerow
	2. Establish low hedgerow along pedestrian corridor	600 LF	TBD			
PW-VV-3. Screen incongruous views adjacent to the mansion grounds	1. Maintain screen plantings and replace as needed	600- 2,100 LF	TBD	FM/ DEM	-	Maintain screen plantings
	Also refer to tasks for Utilities	-				
- North of mansion	1. Maintain screen plantings and replace as needed	175-700 LF	3100/ 1276608	FM/ DEM	-	Maintain screen plantings
- West of mansion	1. Maintain screen plantings and replace as needed	600-1,200 LF	3100/ 1276608	FM/ DEM	-	Maintain screen plantings
PW-VG-1. Rehabilitate historic hedgerows to enhance historic character, provide wildlife habitat, and contribute to biodynamic farming practices	1. Remove existing trees	TBD	3100/ 1276608	FM/ DM	-	Maintain height and species composition of hedgerows
	2. Establish hedgerow	TBD	TBD			

CLR Treatment Task/FMSS Work Order	CLR Treatment Task Component/ FMSS Tasks	Units	FMSS Asset Type/ Location/ Asset	FMSS Work Type/ Sub-type	Existing PMIS Project	Recurring Maintenance Needed
HM-VG-1. Implement a turf management strategy	1. Maintain turf at Zone 1 height	263,000 SF	3100/ 1276611	FM/ PM	-	Maintain turf
	2. Maintain turf at Zone 2 height	212,000 SF				
	3. Maintain turf at Zone 3 height	95,000 SF				
HM-VG-2. Preserve the historic character of the black locust allée	1. Preserve extant trees including monitoring for pests and diseases, and removing deadwood	# trees	3100/ 1276605	FM/ PM	-	Maintain locust trees and monitor for pests and diseases
	2. Grind stumps of removed trees					
	3. Replant missing trees					
	Also refer to tasks for Utilities					
HM-VG-3. Develop an interactive garden in the Van Buren's garden area	TBD	TBD	TBD	CI/ NC	-	TBD
HM-VG-4. Restore and preserve tree row along Old Post Road	1. Preserve extant trees including monitoring for pests and diseases and removing deadwood	# trees	3100/ 1276608	FM/ PM	-	Maintain extant white pines and historic specimen trees, replace as needed, monitor composition for desired characteristics
	2. Replant missing trees	# trees				
HM-VG-5. Reestablish the pasture west of the Lindenwald mansion	See PW-VV-1, west view	-	TBD	FM/ DM	-	Maintain pasture
HM-VG-6. Preserve extant historic trees within the Lindenwald formal landscape	See PW-VV-1, east view	-	3100/ 1276608 & 1276605	FM/ PM	-	Maintain historic trees
HM-VG-7. Replace missing historic trees within the Lindenwald formal landscape	See PW-VV-1, east view	-	3100/ 1276608 & 1276605	FM/ DM	-	Maintain replacement trees
HM-VG-8. Remove incompatible non-historic trees	See PW-VV-1, east view	-	3100/ 1276608	FM/ DM	-	N/A
HT-VG-1. Evoke the historic quality of the north orchard	TBD	-	TBD	FM/ DM	-	TBD
HT-VG-2. Reestablish south pasture	See PW-VV-1, south and southwest views	-	TBD	FM/ DM	-	Maintain pasture
HT-VG-3. Do not replace trees to surround the Van Ness grave	No action required.	-	N/A	N/A	-	N/A
AG-VG-1. Manage escarpment vegetation to restore historic character and views to the Catskills	See PW-VV-1, west view	-	TBD	FM/ DM	-	Manage escarpment vegetation to achieve desired character and maintain views

CLR Treatment Task/FMSS Work Order	CLR Treatment Task Component/ FMSS Tasks	Units	FMSS Asset Type/ Location/ Asset	FMSS Work Type/ Sub-type	Existing PMIS Project	Recurring Maintenance Needed
AD-VG-1. Replace showy ornamentals surrounding parking area with a historically compatible palette	No immediate action required	-	-	-	-	Maintain replacement plantings
Circulation						
PW-CR-1. Construct an interpretive trail representative of circulation routes present during the Van Buren period	1. Select appropriate route to provide a safe and meaningful visitor experience without impacting agricultural production	TBD	TBD	CI/ NC	143798	Maintain interpretive trail
	2. Construct accessible trail of a historically compatible material					
PW-CR-2. Develop circulation routes through the park that connect with regional and adjoining systems	1. Determine connection points to regional trail system within park boundary	TBD	TBD	CI/ NC	-	Maintain circulation routes and connections with regional trail system
	2. Develop accessible trail system that provides safe access to farmland and does not inhibit agricultural production					
HM-CR-1. Preserve and maintain the circular front garden path	1. Edge path annually	375 LF	3100/ 1276603	FM/ PM	-	Maintain edges of path, weed as need, resurface when necessary
	2. Weed as needed	375 SF				
	3. Reapply stone dust as needed	375 SF				
HM-CR-2. Continue to preserve location and alignment of the Old Post Road and the semi-circular entry drive	1. Maintain existing alignment	-	1100/ 394715 & 1100/ 396033	FM/ PM	-	Intermittent resurfacing with gravel as necessary
	2. Resurface as needed	31,000 SF				
Small-scale Features						
PW-SSF-1. Expand interpretation as additional features are located and marked by waysides, brochures, and/or digital media (apps)	TBD	TBD	TBD		176156	TBD
HM-SSF-1. Replace the reproduction urn	TBD	1 unit	3100/ 1276594 & TBD	FM/ CR	-	-
HM-SSF-2. Preserve the Albany Post Road stone marker	TBD	-	3100/ 1276592	FM/ PM	-	-
HM-SSF-3. Relocate reproduction benches to the circular front garden	1. Move reproduction benches to the circular front garden	-	3100/ 1276596	-	-	-
HM-SSF-4. Maintain mounting platform	TBD	-	3100/ 1276595	FM/ PM	-	-
HM-SSF-5. Relocate contemporary trash receptacles, benches, and picnic tables away from historic mansion	-	-	3100/ 1276598, 1276596, and 1276598	-	-	-
HT-SSF-1. Preserve and maintain Van Ness grave	-	-	3100/ 1276931	FM/ PM	-	-

CLR Treatment Task/FMSS Work Order	CLR Treatment Task Component/ FMSS Tasks	Units	FMSS Asset Type/ Location/ Asset	FMSS Work Type/ Sub-type	Existing PMIS Project	Recurring Maintenance Needed
AD-SSF-1. Maintain flagpole and NPS signs	-	-	3100/ 1276597 and 1276601	FM/ PM	-	-
Archeological Features						
PW-AR-1. Implement long-term strategy for collecting geophysical data and conducting archeological investigations	1. Develop priority listing for archeological investigations	TBD	TBD		209032	Protect and monitor archeological resources and sites
	2. Conduct archeological investigations and geophysics according to priority listing and NER archeologist recommendations					
Buildings and Structures						
HM-BS-1. Preserve and maintain the Lindenwald mansion	TBD	-	4100/ 75833	FM/ PM	-	TBD
HM-BS-2. Reconstruct the North Gatehouse	TBD	-	TBD		38331, research	TBD
HM-BS-3. Restore the South Gatehouse to reflect the period of significance	TBD	-	4100/ 75892	FM/ DM	-	TBD
HM-BS-4. Represent the Carriage Barn in the landscape	TBD	-	TBD		209032	TBD
HM-BS-5. Conduct further research concerning the location of the woodshed and stables	TBD	-	TBD		209032	N/A
HM-BS-6. Represent the Farm Office in the landscape	TBD	-	TBD		-	TBD
HM-BS-7. Relocate contemporary NPS maintenance sheds	1. Determine appropriate alternative locations for archival and equipment storage	-	4100/ 75901, 75910, and 75897	FM/ DEM	214433	TBD
	2. Remove buildings and supporting infrastructure (paths, fences etc.)					
	3. Grade site as needed and seed with desired ground cover					
HM-BS-8. Represent the Greenhouse and Hothouse in the landscape if future archeological studies yield substantive evidence	TBD	-	TBD	CI/ NC	-	TBD
HM-BS-9. Stabilize the Farm Cottage	TBD	-	4100/ 238237	FM/ DM	-	
HT-BS-1. Locate and interpret footprint of the Red Hillside Barn	TBD	-	TBD		209032	TBD
AG-BS-1. Interpret Black Hay Barn site	TBD	-	TBD		209032	TBD
AG-BS-2. Interpret Old Stone House foundation site	TBD	-	TBD		163000	TBD
AD-BS-1. Construct new visitor center	TBD	-	TBD	CI/ NC	214673A	TBD
AD-BS-2. Develop a designated area for overflow parking	TBD	-	TBD		-	TBD

CLR Treatment Task/FMSS Work Order	CLR Treatment Task Component/ FMSS Tasks	Units	FMSS Asset Type/ Location/ Asset	FMSS Work Type/ Sub-type	Existing PMIS Project	Recurring Maintenance Needed
Utilities						
HM-UT-1. Relocate overhead utility lines crossing front lawn and at South Gatehouse	TBD	-	TBD	FM/ DEM	-	TBD
HM-UT-2. Screen utilities near mansion	1. Screen utilities with appropriate plantings	-	TBD		-	Maintain plantings
AD-UT-1. Submerge utilities	1. During planning and construction phase of new visitor center ensure utilities are buried	-	TBD	-	-	TBD
Constructed Water Features						
AG-WF-1. Interpret Van Buren's farming practices including the network of ditches	-	-	TBD	-	-	TBD
HT-WF-1. Conduct water quality testing on ponds	-	-	TBD	FM/ DM	-	TBD
Natural Features						
HT-NF-1. Preserve soil as a cultural resource	1. Perpetuate sustainable agricultural practices that build soil health	-	-	-	-	Perpetuate sustainable agricultural practices

5. RECORD OF TREATMENT

Martin Van Buren National Historic Site has undertaken a number of physical improvement projects enhancing the historic character of the property grounded in recommendations provided in *Cultural Landscape Report for Martin Van Buren National Historic Site, Volume II: Treatment Plan* (1997). This chapter documents completed treatment work for future reference. Each record of treatment narrative contains a brief overview of historic conditions during the circa 1850 treatment period, the existing conditions prior to treatment, the rationale for treatment actions, and the as-built appearance after treatment implementation. The as-built narrative description is accompanied by corresponding photographs, plans, and diagrams. For contemporary park infrastructure and support facilities not present during the treatment period, the narrative reviews the operational issues that treatment addressed. This work is organized by landscape characteristics and features within larger zones, consistent with the preceding Treatment Tasks chapter.

HISTORIC MANAGEMENT ZONE

Surface treatment of Old Post Road and entry drive

The historic location and alignment of the Old Post Road and the semi-circular entry drive has continued to be preserved and maintained as specified in *Volume II: Treatment Plan*.[1] The Old Post Road and entry drive are important features of the historic landscape. The Old Post Road, semi-circular drive east of the mansion, and the portion of the drive encircling the mansion retain their mid-1880s alignments. Treatment recommendations provided in *Volume II: Treatment Plan* call for preservation of the entry drive's compacted soil surface treatment and the addition of compacted gravel to accommodate universal access. This treatment recommendation is consistent with recommendations provided in *Archeological and Historical Investigation for the Old Post Road Rehabilitation Project in the Martin Van Buren National Historic Site* completed in 2010.[2]

The semi-circular portion of the entry drive was resurfaced with compacted gravel in 1996. Resurfacing was done in conjunction with the development of a staff and visitor parking area. The compacted gravel surface was selected to meet park needs and accommodate universal access. Although the applied surface was slightly different from the historically compacted soil surface, it retained a rustic appearance.[3]



Figure 5.1. View south to the mansion. The entry drive is surfaced in a fine gravel. The replanted black locust allée lines the drive, 2014 (OCLP).



Figure 5.2. In the 1990s, the entry drive had course gravel surface. Note the allée has not yet been replanted, 1996 (OCLP).



Figure 5.3. The south entry drive is used less frequently by vehicles and pedestrians. Portions of the drive have begun to develop two-track characteristics, 2014 (OCLP).

At present, the entry drive is surfaced with fine dark gravel and used by pedestrian visitors and park vehicles to access maintenance facilities (Figure 5.1). The current gravel surface has a finer texture than the surface documented in a 1996 photograph (Figure 5.2). The north half of the drive receives more pedestrian and vehicle traffic than the south half and portions immediately in front of the mansion. Portions of the south drive and near the mansion, seldom used by vehicles or pedestrians have developed two-track characteristics (Figure 5.3). Gravel is added to the Old Post Road and entry drive annually. Potholes are filled and the surface is graded as needed.



Figure 5.4. A portion of the utility lines near the South Gatehouse were removed, although a pole covered in vines remains (image right), 2014 (OCLP).



Figure 5.5. Utility lines bisect the front lawn, impacting the historic character and conflicting with vegetation in the front pine row and the allée, 2014 (OCLP).

Relocation of non-historic utility lines

Volume II: Treatment Plan recommends removal of overhead utility lines which cross the front lawn and are in proximity to the South Gatehouse.[4] In the South Gatehouse area, the document recommends removal of the portion of the utility line which extends past the gatehouse toward the site of a removed non-historic structure. Since 1997, the National Park Service has removed overhead wires and poles with the exception of one pole (Figure 5.4). Overhead utility lines crossing the front lawn have not been removed. They continue to detract from the landscape's historic character, and remain a priority for treatment, as described in Task HM-UT-1 (Figure 5.5). The *Volume II: Treatment Plan* recommendation to bury the utility line serving the South Gatehouse has not been completed, and is reemphasized in Task HM-UT-1. Recommendations for feature removal provided in *Volume II: Treatment Plan* are depicted graphically in the Feature Removal Plan (Figure 5.7).

Relocation of non-historic flagpole and NPS sign

In 2003, following recommendations provided in *Volume II: Treatment Plan*, the park relocated a contemporary flagpole and the park sign from the front pine row (see Figure 5.7) to the parking area in the non-historic parcel between the Old Post Road and Route 9H.[5] Relocation of these features from the historic core

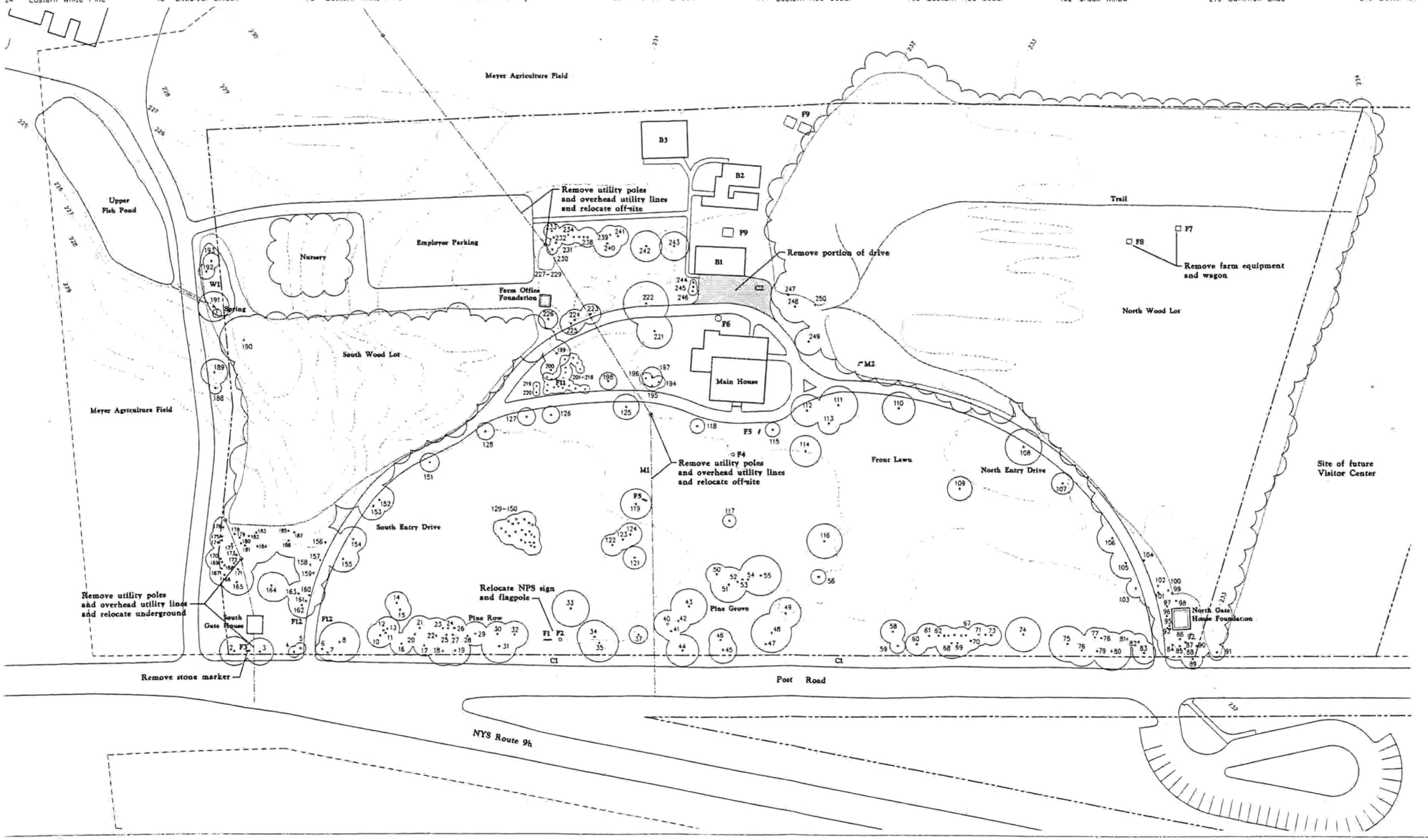


Figure 5.6. The flagpole and NPS sign were relocated to the visitor parking area in 2003, 2014 (OCLP).

Existing Plants

CLR VI #

	Common Name
1	Black Locust
2	Black Locust
3	Black Locust
4	Eastern Red Cedar
5	Eastern Red Cedar
6	Eastern Red Cedar
7	Eastern Red Cedar
8	Eastern White Pine
9	Eastern White Pine
10	Eastern White Pine
11	Eastern White Pine
12	Eastern White Pine
13	Eastern White Pine
14	Eastern Red Cedar
15	Eastern Red Cedar
16	Black Cherry
17	Black Cherry
18	Black Locust
19	Mazzard Cherry
20	Eastern White Pine
21	Eastern White Pine
22	Eastern White Pine
23	Eastern White Pine
24	Eastern White Pine
25	Eastern White Pine
26	Eastern White Pine
27	Eastern White Pine
28	Eastern White Pine
29	Eastern White Pine
30	Eastern White Pine
31	Black Cherry
32	Eastern White Pine
33	Kentucky Coffee-tree
34	Red Maple
35	Eastern White Pine
36	Eastern White Pine
37	Eastern White Pine
38	Eastern White Pine
39	American Linden
40	Eastern White Pine
41	Eastern White Pine
42	Eastern White Pine
43	Eastern White Pine
44	Eastern White Pine
45	American Linden
46	American Linden
47	Littleleaf Linden
48	Littleleaf Linden
49	Bitternut
50	Black Cherry
51	Eastern White Pine
52	Eastern White Pine
53	Eastern White Pine
54	Eastern White Pine
55	Eastern White Pine
56	Eastern White Pine
57	Eastern White Pine
58	Eastern White Pine
59	Eastern White Pine
60	Eastern White Pine
61	Eastern White Pine
62	Eastern White Pine
63	Eastern White Pine
64	Eastern White Pine
65	Eastern White Pine
66	Eastern White Pine
67	Eastern White Pine
68	American Linden
69	American Linden
70	Eastern White Pine
71	Red Maple
72	Eastern White Pine
73	Eastern White Pine
74	Black Cherry
75	Black Cherry
76	Black Cherry
77	Eastern White Pine
78	Eastern White Pine
79	Black Cherry
80	Black Cherry
81	Black Cherry
82	Black Cherry
83	Black Cherry
84	Black Cherry
85	Black Cherry
86	Black Cherry
87	Black Cherry
88	Black Cherry
89	Black Cherry
90	Black Cherry
91	American Elm
92	Black Cherry
93	Black Cherry
94	Black Cherry
95	Black Cherry
96	Black Cherry
97	Black Cherry
98	Black Cherry
99	Common Lilac
100	Black Locust
101	Black Cherry
102	Black Cherry
103	Black Cherry
104	Black Cherry
105	American Elm
106	Black Cherry
107	Littleleaf Linden
108	American Linden
109	White Mulberry
110	Horse-chestnut
111	Common Honey-locust
112	Black Locust
113	Eastern White Pine
114	Douglas-fir
115	Eastern White Pine
116	American Elm
117	Eastern White Pine
118	Eastern White Pine
119	Kentucky Coffee-tree
120	American Linden
121	Eastern Red Cedar
122	Eastern Red Cedar
123	Eastern Red Cedar
124	Eastern Red Cedar
125	White Mulberry
126	Littleleaf Linden
127	Littleleaf Linden
128	Black Locust
129	Eastern Red Cedar
130	Eastern Red Cedar
131	Eastern Red Cedar
132	Eastern Red Cedar
133	Eastern Red Cedar
134	Eastern Red Cedar
135	Eastern Red Cedar
136	Eastern Red Cedar
137	Eastern Red Cedar
138	Eastern Red Cedar
139	Eastern Red Cedar
140	Eastern Red Cedar
141	Eastern Red Cedar
142	Eastern Red Cedar
143	Eastern Red Cedar
144	Eastern Red Cedar
145	Eastern Red Cedar
146	Eastern Red Cedar
147	Eastern Red Cedar
148	Eastern Red Cedar
149	Eastern Red Cedar
150	Eastern Red Cedar
151	Black Locust
152	Black Cherry
153	Common Honey-locust
154	Common Honey-locust
155	Common Honey-locust
156	Common Honey-locust
157	Black Cherry
158	Black Cherry
159	Common Honey-locust
160	Black Cherry
161	Black Cherry
162	Black Cherry
163	Black Cherry
164	Black Cherry
165	Black Cherry
166	Black Locust
167	Eastern Red Cedar
168	Eastern Red Cedar
169	Black Locust
170	Easter Red Cedar
171	Black Cherry
172	Black Cherry
173	Red Maple
174	Red Maple
175	Black Cherry
176	Black Cherry
177	Black Locust
178	Black Cherry
179	American Elm
180	Black Locust
181	Black Locust
182	Red Maple
183	Black Locust
184	Black Locust
185	Black Locust
186	Black Locust
187	Black Cherry
188	White Spruce
189	Red Maple
190	Crack Willow
191	Crack Willow
192	Crack Willow
193	Crack Willow
194	Common Lilac
195	Common Lilac
196	Common Lilac
197	American Elm
198	Flowering Dogwood
199	White Mulberry
200	White Mulberry
201	Virginal Mock-orange
202	Virginal Mock-orange
203	Virginal Mock-orange
204	Virginal Mock-orange
205	Common Lilac
206	Common Lilac
207	Common Lilac
208	Common Lilac
209	Common Lilac
210	Common Lilac
211	Virginal Mock-orange
212	Virginal Mock-orange
213	Virginal Mock-orange
214	Virginal Mock-orange
215	Common Lilac
216	Common Lilac
217	Common Lilac
218	Common Lilac
219	Common Lilac
220	Common Lilac
221	White Mulberry
222	Sycamore
223	American Larch
224	American Larch
225	American Larch
226	Black Locust
227	Forsythia
228	Common Hop
229	Virginia Creeper
230	White Spruce
231	Common Lilac
232	Eastern White Pine
233	Eastern White Pine
234	Eastern White Pine
235	Eastern White Pine
236	Eastern White Pine
237	Eastern Red Cedar
238	Eastern White Pine
239	Eastern Red Cedar
240	Butternut
241	Eastern White Pine
242	Butternut
243	Butternut
244	Eastern Red Cedar
245	Eastern Red Cedar
246	Eastern Red Cedar
247	Eastern White Pine
248	Black Cherry
249	Black Locust
250	Black Cherry



B1 Maintenance Garage
B2 Mobile Homes
B3 Pole Barn
M1 Farm Complex Electric Lines
M2 Electrical Transformer
C1 Visitor Parking
C2 Universal Access Parking
W1 Small Pond
F1 Park Sign
F2 Flagpole
F3 Stone Marker
F4 Urn
F5 Bench
F6 Historic Well
F7 Wagon
F8 Farm Equipment
F9 Aluminum Sheds
F11 Linear Brick Feature
F12 Circular Brick Feature

Symbol Key

- Property Line
- Conservation Easement
- Tree Canopy Edge
- Understory Vegetation Edge
- Wood Land
- Trail
- Topographic Contour
- Power Line
- Features to be removed

No.	Revision	Date	Appvd.
Designed by	Drawn by BVE	Checked by	
CAD checked by	File MVB-F1c.dwg		
Scale 1" = 50'	Date February 1997		

Project Title

Cultural Landscape Report
Martin Van Buren NHS
Volume 2
Treatment Plan

Lindenwald
Kinderhook, Columbia County, New York

Issued for
Olmsted Center for Landscape Preservation
United States Department of the Interior
National Park Service

Drawing Title

Feature Removal Plan

Drawing Number

sf

0 25 50 100 ft.

Figure 5.7. Feature Removal Plan, 1997 (1997 CLR Fig. 3).

to the parking area enhanced the character of the historic core and increased visibility of park signs to passing traffic on Route 9H. In 2014, the park enlarged and updated the sign to match National Park Service messaging standards. These non-historic features are located in close proximity to the visitor parking area and denote the entry point to the park (Figure 5.6).

Re-establishment of locust allée

The reestablishment of the black locust allée in 2002 based on recommendations in *Volume II: Treatment Plan* has dramatically enhanced the quality of the historic landscape.[6] The original allée, planted by Peter Van Ness, lined the two arching arms of the entry drive, and was approximately forty-years-old when Van Buren purchased the property. The declining allée was removed by the deProsse family in the 1930s.[7] Nearly sixty years passed before the stately landscape feature was replanted. The location, massing, and character of the historic allée is documented in historic photos and narratives (Figure 3.22), which were used to determine the spacing and number of trees to be replanted. Today, nearly fifteen years after the replacement allée was planted, the rapidly growing trees have begun to allude to their mature form. The branches of opposing trees reach toward each other, and have begun to evoke an arched ceiling above the entry drive, offering shade and expressing the stately character present during the historic period (Figure 5.8 and 5.9).



Figure 5.8. View northeast along the entry drive and replanted allée, 2014 (OCLP).

Prior to replanting the allée, non-historic vegetation along the driveway was cleared. A variety of species were removed within a twenty-foot-wide swath along the drive to allow adequate space for planting and growth of the allée. General guidance for vegetation removal was provided in the Vegetation Removal Plan (Figure 5.10) included in *Volume II: Treatment Plan*. The plan identified forty-seven non-historic trees to be removed near the drive before replanting the black locust allée. Species included black cherry, common lilac, black locust, American elm, littleleaf linden, horse-chestnut, honey locust, white mulberry, and flowering dogwood. The majority of these trees were removed in conjunction with the replanting of the allée.

Guidance for replanting of the allée was provided in the Feature Restoration Plan (Figure 5.11) and Planting Plan (Figure 5.12). *Volume II: Treatment Plan* identified thirty-nine missing black locust to be replanted in the landscape. The park planted twenty of these trees (#253-272, formerly #R3-R22 in *Volume II: Treatment Plan*) along the south arc of semi-circular drive and nineteen along the north arc of the semi- circular drive (#275-293, formerly #R25-R43 *Volume II: Treatment Plan*). The trees were planted twenty-three feet apart on alternating sides along the drive and fifteen feet from the centerline of the drive. Conditions today are summarized by Figure 5.11 and Drawing 3.5.

As recommended in *Volume II: Treatment Plan*, the historic black locust (#112), part of the original allée, remains. The stately tree is the last tree on the west side of the north portion of the entry drive, closest to the house. Shortly after establishment, the newly planted black locust trees were infested with locust

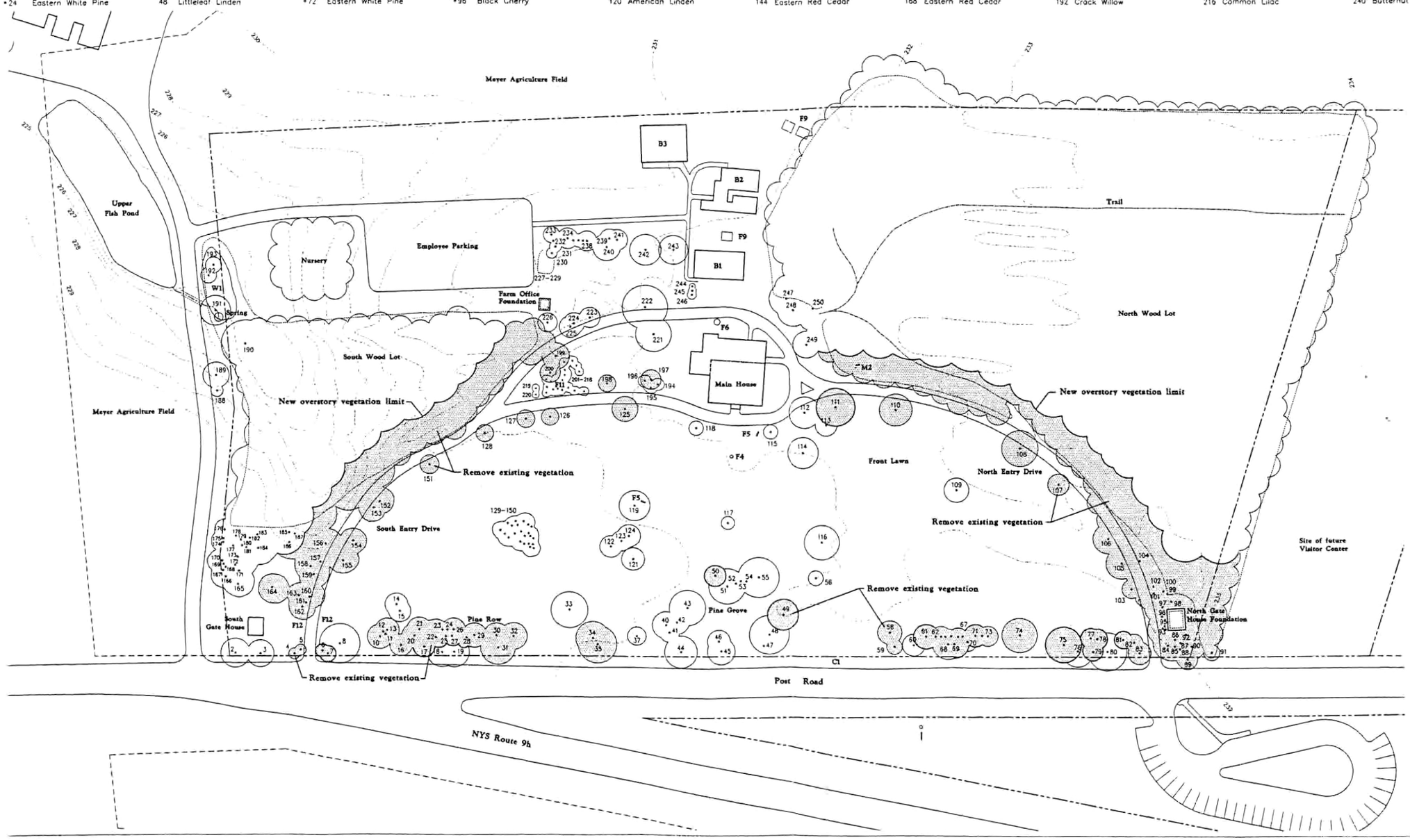


Figure 5.9. View west to Lindenwald. The replanted allée grows along the drive and is backed by the north woodlot, 2014 (OCLP).

Existing Plants

CLR Vi #	Common Name
1	Black Locust
2	Black Locust
3	Black Locust
*4	Eastern Red Cedar
*5	Eastern Red Cedar
*6	Eastern Red Cedar
*7	Eastern Red Cedar
8	Eastern White Pine
9	Eastern White Pine
*10	Eastern White Pine
*11	Eastern White Pine
*12	Eastern White Pine
*13	Eastern White Pine
14	Eastern Red Cedar
15	Eastern Red Cedar
*16	Black Cherry
*17	Black Cherry
18	Black Locust
19	Mazzard Cherry
*20	Eastern White Pine
*21	Eastern White Pine
*22	Eastern White Pine
*23	Eastern White Pine
*24	Eastern White Pine
*25	Eastern White Pine
*26	Eastern White Pine
*27	Eastern White Pine
*28	Eastern White Pine
*29	Eastern White Pine
*30	Eastern White Pine
*31	Black Cherry
*32	Eastern White Pine
33	Kentucky Coffee-tree
*34	Red Maple
*35	Eastern White Pine
36	Eastern White Pine
37	Eastern White Pine
38	Eastern White Pine
39	American Linden
40	Eastern White Pine
41	Eastern White Pine
42	Eastern White Pine
43	Eastern White Pine
44	Eastern White Pine
45	American Linden
46	American Linden
47	Littleleaf Linden
48	Littleleaf Linden
*49	Bitternut
*50	Black Cherry
51	Eastern White Pine
52	Eastern White Pine
53	Eastern White Pine
54	Eastern White Pine
55	Eastern White Pine
56	Eastern White Pine
57	Eastern White Pine
*58	Eastern White Pine
*59	Eastern White Pine
60	Eastern White Pine
*61	Eastern White Pine
*62	Eastern White Pine
*63	Eastern White Pine
*64	Eastern White Pine
*65	Eastern White Pine
*66	Eastern White Pine
*67	Eastern White Pine
*68	American Linden
*69	American Linden
70	Eastern White Pine
*71	Red Maple
*72	Eastern White Pine
*73	Eastern White Pine
*74	Black Cherry
*75	Black Cherry
76	Black Cherry
*77	Eastern White Pine
*78	Eastern White Pine
*79	Black Cherry
80	Black Cherry
*81	Black Cherry
*82	Black Cherry
*83	Black Cherry
*84	Black Cherry
*85	Black Cherry
*86	Black Cherry
*87	Black Cherry
*88	Black Cherry
*89	Black Cherry
*90	Black Cherry
*91	American Elm
*92	Black Cherry
*93	Black Cherry
*94	Black Cherry
*95	Black Cherry
*96	Black Cherry
*97	Black Cherry
*98	Black Cherry
*99	Common Lilac
*100	Black Locust
*101	Black Cherry
*102	Black Cherry
*103	Black Cherry
*104	Black Cherry
*105	American Elm
*106	Black Cherry
*107	Littleleaf Linden
*108	American Linden
109	White Mulberry
*110	Horse-chestnut
*111	Common Honey-locust
112	Black Locust
113	Eastern White Pine
114	Douglas-fir
115	Eastern White Pine
116	American Elm
117	Eastern White Pine
118	Eastern White Pine
119	Kentucky Coffee-tree
120	American Linden
121	Eastern Red Cedar
122	Eastern Red Cedar
123	Eastern Red Cedar
124	Eastern Red Cedar
*125	White Mulberry
*126	Littleleaf Linden
*127	Littleleaf Linden
*128	Black Locust
129	Eastern Red Cedar
130	Eastern Red Cedar
131	Eastern Red Cedar
132	Eastern Red Cedar
133	Eastern Red Cedar
134	Eastern Red Cedar
135	Eastern Red Cedar
136	Eastern Red Cedar
137	Eastern Red Cedar
138	Eastern Red Cedar
139	Eastern Red Cedar
140	Eastern Red Cedar
141	Eastern Red Cedar
142	Eastern Red Cedar
143	Eastern Red Cedar
144	Eastern Red Cedar
145	Eastern Red Cedar
146	Eastern Red Cedar
147	Eastern Red Cedar
148	Eastern Red Cedar
149	Eastern Red Cedar
150	Eastern Red Cedar
*151	Black Locust
*152	Black Cherry
*153	Common Honey-locust
*154	Common Honey-locust
*155	Common Honey-locust
*156	Common Honey-locust
*157	Black Cherry
*158	Black Cherry
*159	Common Honey-locust
*160	Black Cherry
*161	Black Cherry
*162	Black Cherry
*163	Black Cherry
*164	Black Cherry
165	Black Cherry
166	Black Locust
167	Eastern Red Cedar
168	Eastern Red Cedar
169	Black Locust
170	Easter Red Cedar
171	Black Cherry
172	Black Cherry
173	Red Maple
174	Red Maple
175	Black Cherry
176	Black Cherry
177	Black Locust
178	Black Cherry
179	American Elm
180	Black Locust
181	Black Locust
182	Red Maple
183	Black Locust
184	Black Locust
185	Black Locust
186	Black Locust
187	Black Cherry
188	White Spruce
189	Red Maple
190	Crack Willow
191	Crack Willow
192	Crack Willow
193	Crack Willow
194	Common Lilac
195	Common Lilac
196	Common Lilac
*197	American Elm
*198	Flowering Dogwood
*199	White Mulberry
*200	White Mulberry
201	Virginal Mock-orange
202	Virginal Mock-orange
203	Virginal Mock-orange
204	Virginal Mock-orange
205	Common Lilac
206	Common Lilac
207	Common Lilac
208	Common Lilac
209	Common Lilac
210	Common Lilac
211	Virginal Mock-orange
212	Virginal Mock-orange
213	Virginal Mock-orange
214	Virginal Mock-orange
215	Common Lilac
216	Common Lilac
217	Common Lilac
218	Common Lilac
219	Common Lilac
220	Common Lilac
221	White Mulberry
222	Sycamore
223	American Larch
224	American Larch
225	American Larch
226	Black Locust
227	Forsythia
228	Common Hop
229	Virginia Creeper
230	White Spruce
231	Common Lilac
232	Eastern White Pine
233	Eastern White Pine
234	Eastern White Pine
235	Eastern White Pine
236	Eastern White Pine
237	Eastern Red Cedar
238	Eastern White Pine
239	Eastern Red Cedar
240	Butternut
241	Eastern White Pine
242	Butternut
243	Butternut
244	Eastern Red Cedar
245	Eastern Red Cedar
246	Eastern Red Cedar
247	Eastern White Pine
248	Black Cherry
249	Black Locust
250	Black Cherry

Note:
* Denotes trees to be removed



Symbol Key

- Property Line
- Conservation Easement
- Tree Canopy Edge
- Understory Vegetation Edge
- Wood Land
- Trail
- Topographic Contour
- Power Line
- Features to be removed

No.	Revision	Date	Appvd.
Designed by	Drawn by BVE	Checked by	
CAD checked by	File MVB-F3d.dwg		
Scale 1" = 50'	Date February 1997		

Project Title

Cultural Landscape Report
Martin Van Buren NHS
Volume 2
Treatment Plan

Lindenwald
Kinderhook, Columbia County, New York

Issued for

Olmsted Center for Landscape Preservation
United States Department of the Interior
National Park Service

Drawing Title

Vegetation Removal Plan

Drawing Number

of

0 25 50 100 ft.

Figure 5.10. Vegetation Removal Plan, 1997 (1997 CLR Fig. 8).

Existing Plants

CLR VI #	Common Name
1	Black Locust
2	Black Locust
3	Black Locust
8	Eastern White Pine
9	Eastern White Pine
14	Eastern Red Cedar
15	Eastern Red Cedar
18	Black Locust
19	Mazzard Cherry
33	Kentucky Coffee-tree
36	Eastern White Pine
37	Eastern White Pine
38	Eastern White Pine
39	American Linden
40	Eastern White Pine
41	Eastern White Pine
42	Eastern White Pine
43	Eastern White Pine
44	Eastern White Pine
45	American Linden
46	American Linden
47	Littleleaf Linden
48	Littleleaf Linden
51	Eastern White Pine
52	Eastern White Pine
53	Eastern White Pine
54	Eastern White Pine
55	Eastern White Pine
56	Eastern White Pine
57	Eastern White Pine
60	Eastern White Pine
70	Eastern White Pine
76	Black Cherry
80	Black Cherry
109	White Mulberry
112	Black Locust
113	Eastern White Pine
114	Douglas-fir
115	Eastern White Pine
116	American Elm
117	Eastern White Pine
118	Eastern White Pine
119	Kentucky Coffee-tree
120	American Linden
121	Eastern Red Cedar
122	Eastern Red Cedar
123	Eastern Red Cedar
124	Eastern Red Cedar
129	Eastern Red Cedar
130	Eastern Red Cedar
131	Eastern Red Cedar
132	Eastern Red Cedar
133	Eastern Red Cedar
134	Eastern Red Cedar
135	Eastern Red Cedar
136	Eastern Red Cedar
137	Eastern Red Cedar
138	Eastern Red Cedar
139	Eastern Red Cedar
140	Eastern Red Cedar
141	Eastern Red Cedar
142	Eastern Red Cedar
143	Eastern Red Cedar
144	Eastern Red Cedar
145	Eastern Red Cedar
146	Eastern Red Cedar
147	Eastern Red Cedar
148	Eastern Red Cedar
149	Eastern Red Cedar
150	Eastern Red Cedar
165	Black Cherry
166	Black Locust
167	Eastern Red Cedar
168	Eastern Red Cedar
169	Black Locust
170	Easter Red Cedar
171	Black Cherry
172	Black Cherry
173	Red Maple
174	Red Maple
175	Black Cherry
176	Black Cherry
177	Black Locust
178	Black Cherry
179	American Elm
180	Black Locust
181	Black Locust
182	Red Maple
183	Black Locust
184	Black Locust
185	Black Locust
186	Black Locust
187	Black Cherry
188	White Spruce
189	Red Maple
190	Crack Willow
191	Crack Willow
192	Crack Willow
193	Crack Willow
194	Common Lilac
195	Common Lilac
196	Common Lilac
201	Virginal Mock-orange
202	Virginal Mock-orange
203	Virginal Mock-orange
204	Virginal Mock-orange
205	Common Lilac
206	Common Lilac
207	Common Lilac
208	Common Lilac
209	Common Lilac
210	Common Lilac
211	Virginal Mock-orange
212	Virginal Mock-orange
213	Virginal Mock-orange
214	Virginal Mock-orange
215	Common Lilac
216	Common Lilac
217	Common Lilac
218	Common Lilac
219	Common Lilac
220	Common Lilac
221	White Mulberry
222	Sycamore
223	American Larch
224	American Larch
225	American Larch
226	Black Locust
227	Forsythia
228	Common Hop
229	Virginia Creeper
230	White Spruce
231	Common Lilac
232	Eastern White Pine
233	Eastern White Pine
234	Eastern White Pine
235	Eastern White Pine
236	Eastern White Pine
237	Eastern Red Cedar
238	Eastern White Pine
239	Eastern Red Cedar
240	Butternut
241	Eastern White Pine
242	Butternut
243	Butternut
244	Eastern Red Cedar
245	Eastern Red Cedar
246	Eastern Red Cedar
247	Eastern White Pine
248	Black Cherry
249	Black Locust
250	Black Cherry

Replaced Plants

CLR VI #	Common Name
R-1	Eastern White Pine
R-2	Eastern White Pine
R-3	Black Locust
R-4	Black Locust
R-5	Black Locust
R-6	Black Locust
R-7	Black Locust
R-8	Black Locust
R-9	Black Locust
R-10	Black Locust
R-11	Black Locust
R-12	Black Locust
R-13	Black Locust
R-14	Black Locust
R-15	Black Locust
R-16	Black Locust
R-17	Black Locust
R-18	Black Locust
R-19	Black Locust
R-20	Black Locust
R-21	Black Locust
R-22	Black Locust
R-25	Black Locust
R-26	Black Locust
R-27	Black Locust
R-28	Black Locust
R-29	Black Locust
R-30	Black Locust
R-31	Black Locust
R-32	Black Locust
R-33	Black Locust
R-34	Black Locust
R-35	Black Locust
R-36	Black Locust
R-37	Black Locust
R-38	Black Locust
R-39	Black Locust
R-40	Black Locust
R-41	Black Locust
R-42	Black Locust
R-43	Black Locust
R-44	Eastern White Pine
R-46	Eastern White Pine
R-51	Eastern White Pine
R-54	Eastern White Pine
R-55	Eastern White Pine
R-58	Eastern White Pine
R-59	Eastern White Pine
R-60	Eastern White Pine
R-61	Eastern White Pine
R-62	Eastern White Pine
R-63	Eastern White Pine
R-66	Eastern White Pine
R-67	Eastern White Pine
R-68	Eastern White Pine
R-69	Eastern White Pine
R-70	Eastern White Pine
R-71	Eastern White Pine
R-73	Black Locust
R-75	Eastern White Pine
R-76	Eastern White Pine
R-77	Eastern White Pine
R-78	Eastern White Pine
R-80	Eastern White Pine
R-81	Eastern White Pine
R-82	Eastern White Pine
R-83	Eastern White Pine
R-84	Eastern White Pine
R-85	Eastern White Pine

Notes:
R denotes a replacement plant. Existing plant list is cumulative, showing completion of previously recommended tasks (within this document, CLR V2)

B1 Maintenance Garage
B2 Mobile Homes
B3 Pole Barn
C1 Visitor Parking
W1 Small Pond
F1 Park Sign
F2 Flagpole
F4 Urn
F5 Bench
F6 Historic Well
F9 Aluminum Sheds
F11 Linear Brick Feature
F12 Circular Brick Feature
M2 Electrical Transformer

Meyer Agriculture Field
Upper Fish Pond
Nursery
Employee Parking
Farm Office Foundation
Spring
South Wood Lot
Meyer Agriculture Field
Main House
Trail
North Wood Lot
Restored Locust Allee
Front Lawn
North Entry Drive
South Entry Drive
Restored Pine Row and Pine Grove
Pine Grove
Pine Row
South Gate House
North Gate House Foundation
Post Road
NYS Route 9h

Symbol Key
- Property Line
- Conservation Easement
- Tree Canopy Edge
- Understory Vegetation Edge
- Wood Land
- Trail
- Topographic Contour
- Power Line
- Features Added

No.	Revision	Date	Appvd.
Designed by	Drawn by BVE	Checked by	
CAD checked by	File MVB-F4a.dwg		
Scale 1" = 50'	Date February 1997		

Project Title
Cultural Landscape Report
Martin Van Buren NHS
Volume 2
Treatment Plan

Lindenwald
Kinderhook, Columbia County, New York

Issued for
Olmsted Center for Landscape Preservation
United States Department of the Interior
National Park Service

Drawing Title
Feature Restoration Plan

Drawing Number
of

0 25 50 100 ft

Figure 5.11. Feature Restoration Plan, 1997 (1997 CLR Fig. 3).

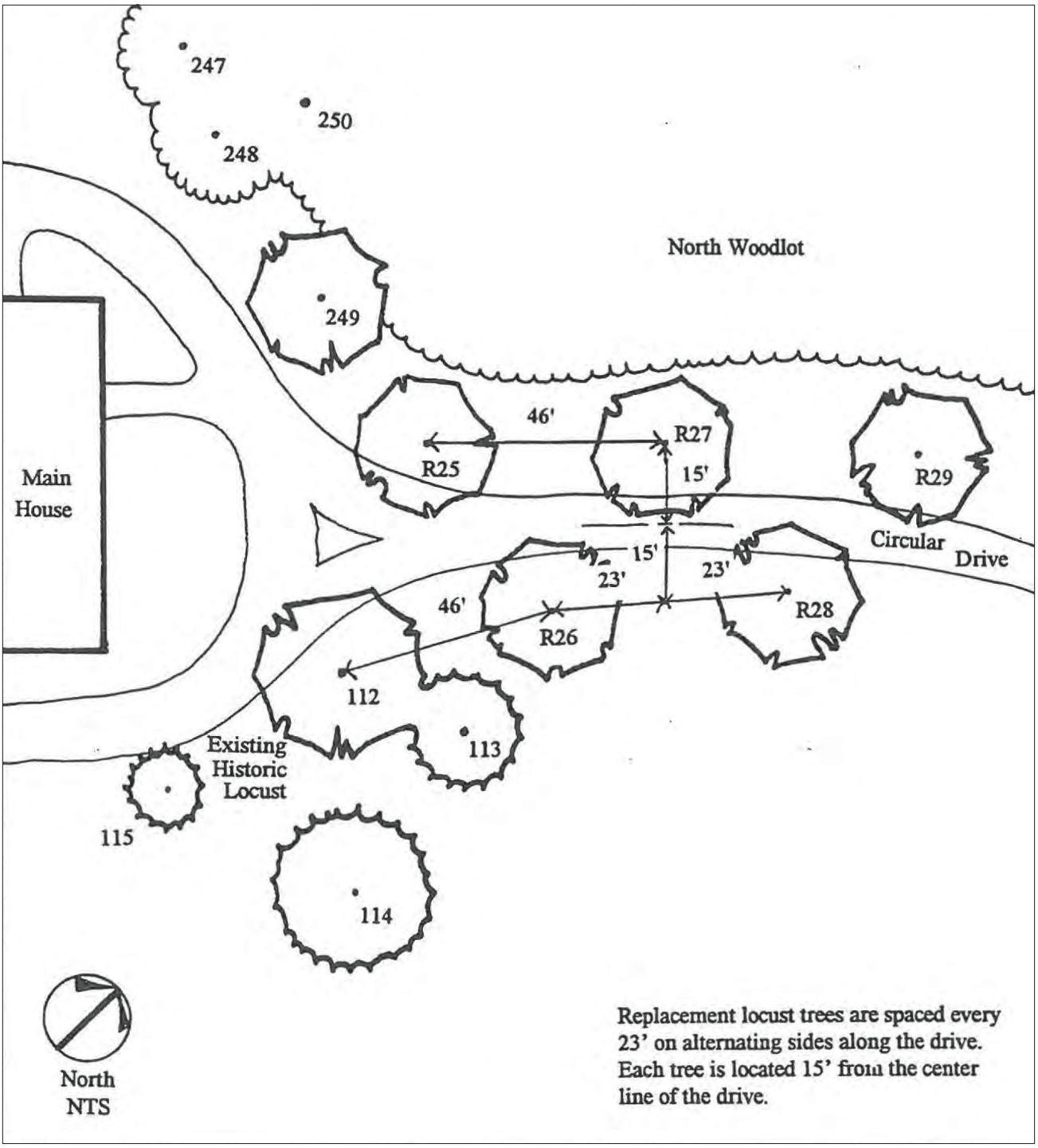


Figure 5.12. Locust allée planting plan. Note the preservation of tree #112, a portion of the original allée, which remains today, 1997 (OCLP).

borers. A systemic pesticide was applied and most of the trees recovered, although several were replanted. Tree #282 (formerly #R32), located on the north entry drive, is missing and should be replanted. Today, non-historic vegetation, primarily the north and south woodlots, shades portions of the allée. This shade has led to stunted development within portions of the allée, when compared to non-shaded trees within the allée. Historically these areas consisted of widely spaced fruit trees and open pasture, respectfully, and the trees in the allée received equal amounts of light. Equal light is necessary for consistent and symmetrical growth patterns characteristic of an allée. To the trained eye, subtle differences are already noticeable, however if inconsistent growing conditions continue, deficiencies in the form and stature of the heavily shaded trees will be perceptible to visitors, despite the intended effect of a uniform planting.

Restoration of the pine row and pine grove

Since the recommendation provided in *Volume II: Treatment Plan* to restore the pine row and grove, a considerable amount of tree removal and replanting along the eastern edge of the front lawn has occurred. Conditions of the pine row and grove are characterized in *Volume II: Treatment Plan* as 'an irregular hedgerow with a wider grove of trees directly in front of the main house, dense in some areas and sparse in others.'[8] Historic photographs and drawings, such as a c.1849 sketch by architect Richard Upjohn (Figure 3.59) and a c.1895 photo (Figure 3.34) indicate that during the historic period, the plantings were more symmetrical, and consisted of a single row of primarily Eastern white pine (*Pinus strobus*) with a grove of white pine directly in front of the house. Replanting efforts, described below, are strategically specified in *Volume II: Treatment Plan*, to fill gaps in the front pine row and grove to evoke historic character.

Volume II: Treatment Plan recommends preservation of the white pines and several other species including black locust, mazzard cherry and American linden. The plan recommends preservation of four non-historic trees that do not detract from the spatial organization of the area and removal of forty-six non-historic volunteer and invasive species within the pine row and pine grove (Figure 5.10). However, many of these trees remain today. *Volume II: Treatment Plan* recommends removal of many of the closely planted white pines that developed as a double row (Trees 10-12, 16-17, 20-32 and 61-73). While documentation indicates during the historic period there was a single row of trees, these trees contribute to the historic character, serving as a partial screen between the mansion and the Old Post Road and the non-historic Route 9H. As the replanted white pines mature, the necessity of the double row of white pines should be reevaluated. Selective removal of white pines in densely planted areas will benefit long-term tree health. Removal should be balanced with preserving the historic character of the planting.



Figure 5.13. View northeast to the pine row along the Old Post Road, 1996 (OCLP).



Figure 5.14. View looking northeast to the pine row along the Old Post Road. Note the replacement white pine at image right, 2014 (OCLP).



Figure 5.15. View southeast along the Old Post Road. Replanted portions of the white pine row are visible at image right. Route 9H and non-historic littleleaf linden plantings are visible at image left, 2014 (OCLP).

The following species are recorded in *Volume II: Treatment Plan* in the white pine row and grove: pine, cherry, locust, linden, cedar, bitternut hickory, and maple. Figure 5.13 illustrates a portion of the hedgerow in 1996, and Figure 5.14 depicts the same portion in 2014. Note the young white pine at image right, planted in response to recommendations outlined in *Volume II: Treatment Plan*. During the process of removing non-historic trees, arborists found many of the remaining historic trees to be in decline, with large cavities, and thus classified them as hazardous trees. As a result, trees including the black locust (#18) and mazzard cherry (#19) were removed. Following selective removal of non-historic trees and hazardous historic trees, the park and tree crew replanted twenty-nine missing historic trees (Figure 5.15).

Re-establishment of the front garden

While the exact appearance of the circular front garden during the Van Buren period is unknown, documentation indicates the garden consisted of a circular pathway, benches, a central urn, manicured turf, and was surrounded by trees and shrubs which framed both the house and garden (Figure 5.16). In 1998, following recommendations provided in *Volume II: Treatment Plan* (Figure 5.17) the park partially reestablished the front garden by installing a two-foot-wide circular compacted stone dust path (Figure 5.18).[9] Specifics regarding the character of the front lawn and the front garden are described under the next completed treatment recommendation 'Restoration of the front lawn.'



Figure 5.16. Front garden and mansion during Wagoner ownership. Note the mature white pines framing the house, c. 1913 (MAVA archives).

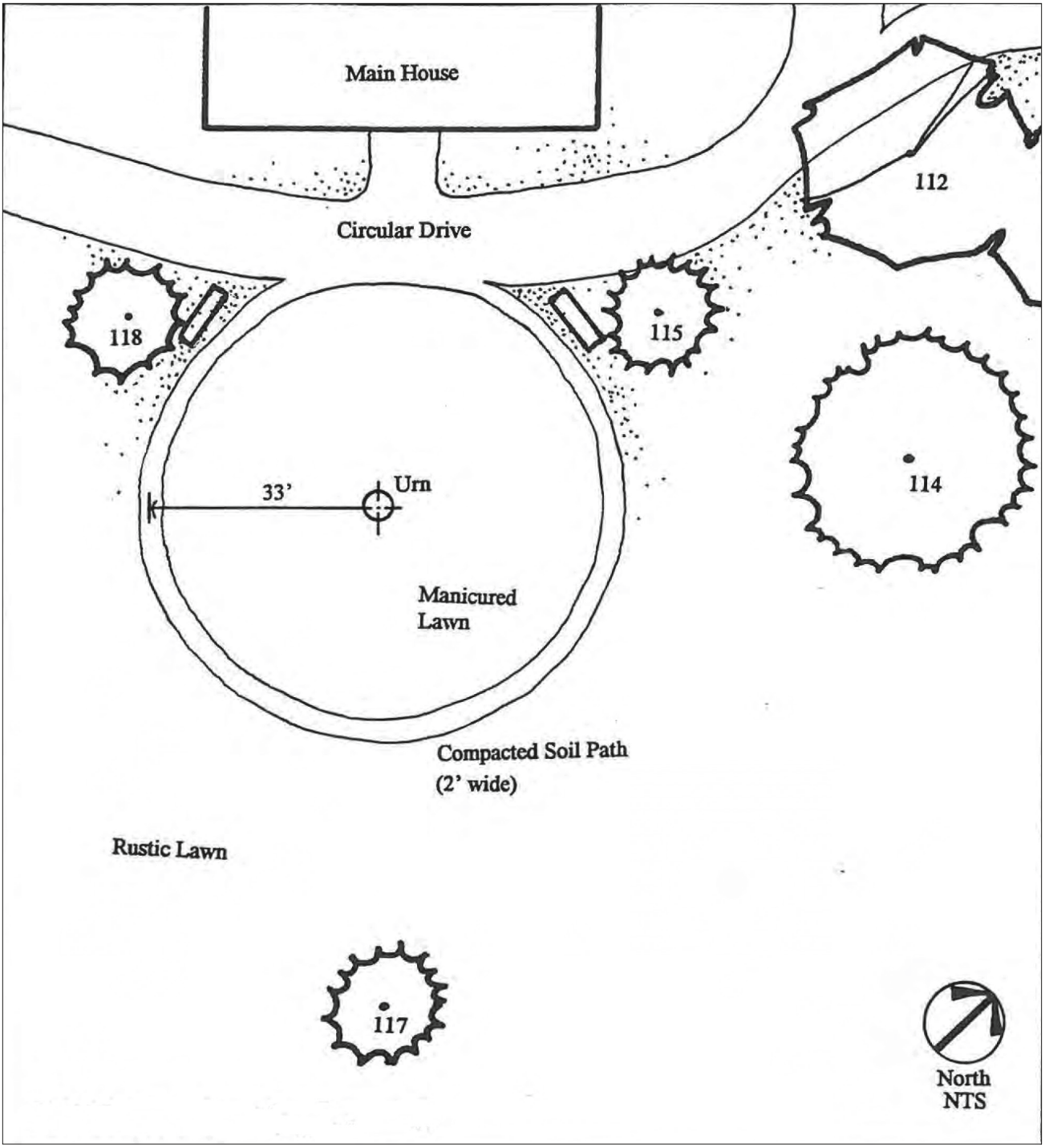


Figure 5.17. Plan for front garden restoration, 1997 (OCLP).



Figure 5.18. View west to the mansion. The restored circular path around the front garden is in the foreground. The reproduction urn and white pines are missing, 2014 (OCLP).

During the historic period an urn stood at the center of the garden. The National Park Service placed a replica of the urn in the garden in the mid-1990s. The original urn remains in the park's collection. In 2014 the reproduction urn was removed after it cracked. The park is currently pursuing a replacement. As described in Task HM-SSF-1, replacement of the missing reproduction urn in the front garden will enhance the historic character of the site.

Volume II: Treatment Plan documents the removal of two of the three white pines that framed the front garden during the historic period in 1993 and the third in 1995 (Trees #115,#117, and #118). These three pines were replanted shortly after the originals were removed, however the replacement trees were damaged and misshapen. *Volume II: Treatment Plan* recommends replacement (for a second time) of tree #115 and #118 in-kind, because the leaders of each tree had broken several times and the trees had developed a globular shape. The misshapen white pines were removed c.2008 and have not yet been replaced. The Douglas fir (#114) on the north side of the garden remains, as recommended in *Volume II: Treatment Plan*. The plan recommends preservation of tree #114 until such time that it interferes with the growth of vegetation in the front garden or the locust allée (note tree #114 to the right of the Lindenwald mansion in Figure 5.18). The douglas fir is not historically significant.

The *Volume II: Treatment Plan* recommendation to move the two reproduction benches to the front garden is elaborated on in Task HM-SSF-3.

Restoration of the front lawn

The recommendation to restore the lawn to its rustic character by allowing the grass to grow to at least six inches before cutting in *Volume II: Treatment Plan* is superseded by recommendations provided in the *Turf Management*



Figure 5.19. View northwest to the mansion across the front lawn dotted with specimen trees, 2014 (OCLP).



Figure 5.20. View northeast to the North Gatehouse foundation. The area was cleared of vegetation during the replanting of the allée. The parking lot is visible beyond, 2014 (OCLP).

Plan produced in 2010 by the Olmsted Center in cooperation with Cornell University.[10] Following the initial recommendation in *Volume II: Treatment Plan*, the park experimented with an altered mowing frequency, but was challenged because most mowing equipment is designed to cut grass to a two to three inch height. Reducing the frequency strained the mowing equipment and visitors and neighbors commented on the unkempt appearance of the property.

Fortunately, new knowledge presented in the *Turf Management Plan,* has restored the historically accurate manicured appearance of the front lawn (Figure 5.19). The park has heeded the guidance provided by the *Turf Management Plan* and integrated many of the suggestions into management. However, as described in Task HM-VG-1, this plan provides updated guidance of the maintenance of the formal landscape at Lindenwald. Through this plan, the turf management zones

developed in the 2010 report have been modified to better meet operational needs and react to functional deficiencies in previous guidance.

Remove non-historic trees surrounding the North Gatehouse

Removal of non-historic trees surrounding the North Gatehouse was recommended in *Volume II: Treatment Plan* as part of a larger effort to reconstruct the North Gatehouse.[11] While efforts to reconstruct the North Gatehouse are not anticipated in the short-term, recommendations to clear non-historic vegetation were executed. Three volunteer trees, including one black locust (#100) and two cherry trees (#101-102) were removed c.2000. In addition to the recommendation for the removal of non-historic vegetation, *Volume II: Treatment Plan* recommends preservation of a lilac (#99). However, this potentially historic specimen is no longer extant. During the historic period it is likely that lilacs and five black locusts (#336-340, formerly #R86-90) grew in close proximity to the North Gatehouse. Existing conditions today are documented in Figure 5.20.

Removal of Dingman fence remnants

Removal of existing elements of the Dingman fence along the north border of the north woodlot was specified in *Volume II: Treatment Plan*. Removal of the fence was combined with the recommendation to re-establish the north orchard.[12] Extant portions of the fence, consisting primarily of wire segments, were removed c.2005. According to park maintenance staff, one post remains in the woodlot. Replacement of the Dingman fence was recommended in *Volume II: Treatment Plan*, however updated guidance is provided in this report under Task PW-SSF-2.[13]



Figure 5.21. Prior to a vegetation removal project, the electric transformer was partially screened by low underbrush, 1996 (OCLP).



Figure 5.22. The close proximity of the electric transformer (image right) to the house and entry drive necessitates additional screening, 2014 (OCLP).

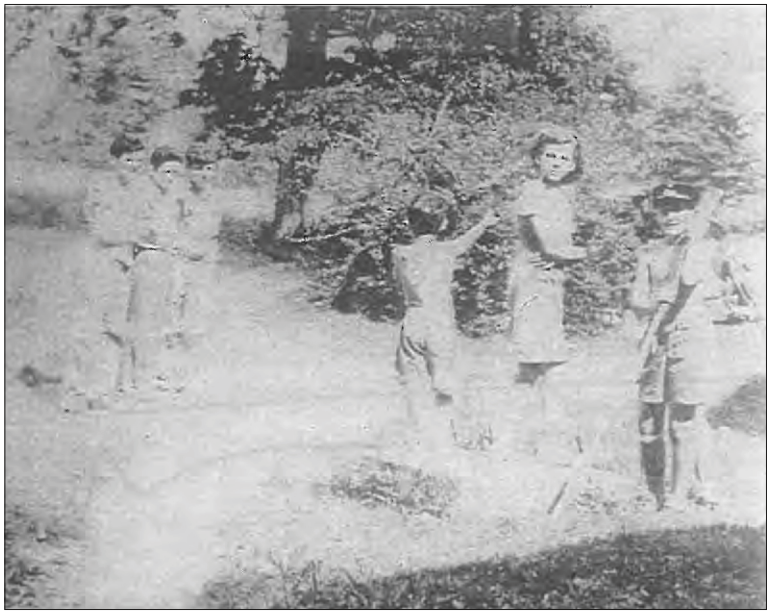


Figure 5.23. Mounting platform during the deProsse period, c. 1930 (MAVA archives).



Figure 5.24. View of a portion of the north facade of the Lindenwald mansion. Note the replacement mounting platform visible at image right, 2014 (OCLP).

Screening views of electric transformer

Screening views of the parks electric transformer was originally described in *Volume II: Treatment Plan*, however further guidance for this partially completed task is provided in Treatment Task HM-UT-2. Recommendations detailed in *Volume II: Treatment Plan* call for the transformer to be screened from view using plantings typical of the period of significance, including common lilac, virginal mock-orange, and Eastern red cedar. A combination of deciduous and coniferous plantings that offer dense screening were recommended to screen the utility transformer during all seasons.

The provided guidance was developed to complement recommendations for clearing of a portion of the north woodlot (Figure 5.10). Figure 5.21 documents the screening provided by the woodlot in 1996, prior to a substantial clearing project. Figure 3.76 is the recommended planting plan included in *Volume II: Treatment Plan* . Existing conditions are documented in Figure 5.22, which illustrates how the current plant palette does not adequately screen the transformer. Updated guidance for appropriate methods to screen this non-historic intrusion in close proximity to the mansion is provided in Task HM-UT-2.

Replacement of mounting platform

Replacement of the missing mounting platform used by Van Buren and others was recommended in *Volume II: Treatment Plan*.[14] During the historic period the stone was located at the north entry to the main house (Figure 5.23). The stone was removed in the 1960s, and today the whereabouts of the original stone is unknown. A replacement stone, funded by donations from visitors, was placed in the historic location in 2000 (Figure 5.24).

Endnotes

1. Uschold and Curry, 1997, 11.
2. McNichol, et al., 2010, 6.1-6.3.
3. Uschold and Curry, 1997, 11-12.
4. Ibid, 1997, 12.
5. Ibid, 1997, 13.
6. Ibid, 1997, 19.
7. Ibid, 1997, 95.
8. Ibid, 1997, 22.
9. Ibid, 1997, 22.
10. Uschold and Curry, 1997, 32; Quirey et al., 2010.
11. Uschold and Curry, 1997, 36.
12. Ibid, 1997, 47.
13. Ibid, 1997, 49.
14. Ibid, 1997, 52.

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APPENDIX A: VEGETATION MANAGEMENT TABLE

The following table builds on previous vegetation surveys to document existing conditions and provide a recommended treatment approach for vegetation within the historic core of Martin Van Buren National Historic Site. This table and accompanying Vegetation Plan (Drawing 3.9) present a streamlined numbering system linked to a data set that will allow park managers to record changes to vegetation including maintenance, removal, and replanting. The collection and graphic presentation of this data lays the foundation for the development of a digital or geographic information system (GIS) based management system.

The table builds upon the vegetation inventory conducted by David Uschold and the State University of New York College of Environmental Science and Forestry (SUNY-ESF) in Syracuse, New York in the 1990s. Detailed condition assessments of trees 1-250 can be found in the *Preservation Maintenance Plan for Martin Van Buren National Historic Site* produced in 1996 by the Olmsted Center for Landscape Preservation. This table also cross-references a separate numbering system developed by the National Park Service in 1980. The numbers assigned in 1980 were tagged to trees using metal fasteners, several of which were located during fieldwork between 2014 and 2016.

This table and accompanying drawing provides an initial vegetation survey for the historic core. As funding and staffing opportunities arise, additional information should be added to this data set including diameter and updated condition assessments. The location of additional trees or new plantings not identified in the 1995/1997 Cultural Landscape Report, Historic Plant Inventory, or this document should be recorded sequentially.

Recommended actions:

- Establish digital records.
- Conduct a complete vegetation inventory within the historic core, including DBH, circumference and height.
- Collect GPS data for all vegetation.
- Establish procedures for updating the database on a cyclic basis.

ID # 2016	ID # 1993	ID # 1980	Scientific Name	Common Name	ESF survey plant-ing date	NPS Surevey Plant-ing Date	Status (2016)	Action	Priority	Location
2	2	36	*Rhobinia pseudoacacia*	Black Locust	c. 1901	pre 1867	Present	Maintain	M	South Gatehouse
3	3	35	*Robinia pseudoacacia*	Black Locust	c. 1902		Present	Maintain	M	South Gatehouse
10	10		*Pinus strobus*	Eastern White Pine			Present	Maintain	M	Pine Row
11	11		*Pinus strobus*	Eastern White Pine			Present	Maintain	M	Pine Row
12	12		*Pinus strobus*	Eastern White Pine			Present	Maintain	M	Pine Row
13	13		*Pinus strobus*	Eastern White Pine			Present	Maintain	M	Pine Row
14	14	3	*Juniperus virginiana*	Eastern Red Cedar	c. 1830	pre 1846	Present	Maintain	M	Front Lawn
15	15	4	*Juniperus virginiana*	Eastern Red Cedar			Present	Maintain	M	Front Lawn
16	16		*Prunus serotina*	Black Cherry			Present	Maintain	L	Pine Row
17	17		*Prunus serotina*	Black Cherry			Present	Maintain	L	Pine Row
18	18		*Robinia pseudoacacia*	Black Locust			Replanted c. 2007, 4" black locust	Maintain	M	Pine Row
20	20		*Pinus strobus*	Eastern White Pine			Present	Maintain	M	Pine Row
21	21		*Pinus strobus*	Eastern White Pine			Present	Maintain	M	Pine Row
22	22		*Pinus strobus*	Eastern White Pine			Present	Maintain	M	Pine Row
23	23		*Pinus strobus*	Eastern White Pine			Present	Maintain	M	Pine Row
24	24		*Pinus strobus*	Eastern White Pine			Present	Maintain	M	Pine Row
25	25		*Pinus strobus*	Eastern White Pine			Present	Maintain	M	Pine Row
26	26		*Pinus strobus*	Eastern White Pine			Present	Maintain	M	Pine Row
27	27		*Pinus strobus*	Eastern White Pine			Present	Maintain	M	Pine Row
28	28		*Pinus strobus*	Eastern White Pine			Present	Maintain	M	Pine Row
29	29		*Pinus strobus*	Eastern White Pine			Present	Maintain	M	Pine Row
30	30		*Pinus strobus*	Eastern White Pine			Present	Maintain	M	Pine Row
31	31		*Prunus serotina*	Black Cherry			Present	Maintain	M	Pine Row
32	32		*Pinus strobus*	Eastern White Pine			Present	Maintain	M	Pine Row
33	33		*Gymnocladus dioicus*	Kentucky Coffee-tree	c. 1928		Present	Maintain	M	Pine Row
34	34		*Acer rubrum*	Red Maple			Present	Maintain		Pine Row
35	35		*Pinus strobus*	Eastern White Pine			Present	Maintain		Pine Row

ID # 2016	ID # 1993	ID # 1980	Scientific Name	Common Name	ESF survey plant-ing date	NPS Surevey Plant-ing Date	Status (2016)	Action	Priority	Location
37	37	7	*Pinus strobus*	Eastern White Pine		pre 1866	Present	Maintain	M	Pine Row
40	40		*Pinus strobus*	Eastern White Pine			Present	Maintain	M	Pine Row
41	41		*Pinus strobus*	Eastern White Pine			Present	Maintain	M	Pine Row
42	42		*Pinus strobus*	Eastern White Pine			Present	Maintain	M	Pine Row
43	43	12	*Pinus strobus*	Eastern White Pine		pre 1866	Removed, replanted c. 2006	Maintain	M	Pine Row
44	44	11	*Pinus strobus*	Eastern White Pine		pre 1866	Present	Maintain	H	Pine Row
45	45	34	*Tilia americana*	American Linden	c. 1880	pre 1866	Present	Maintain	H	Pine Row
46	46		*Morus alba*	White Mulberry	post 1900		Removed, replaced with little leaf linden, planted c. 2005?	Maintain	L	Pine Row
48	48		*Tilia cordata*	Littleleaf Linden	post 1900		Present	Maintain	L	Pine Row
49	49		*Carya cordiformis*	Bitternut			Present	Maintain	L	Pine Row
51	51	13	*Pinus strobus*	Eastern White Pine	c. 1814	pre 1866	Present	Maintain	H	Pine Row
52	52	9	*Pinus strobus*	Eastern White Pine	c. 1913	pre 1866	Present	Maintain	H	Pine Row
53	53	14	*Pinus strobus*	Eastern White Pine		pre 1866	Present	Maintain	H	Pine Row
54	54	10	*Pinus strobus*	Eastern White Pine		pre 1866	Resent	Maintain	H	Pine Row
55	55	16	*Pinus strobus*	Eastern White Pine		pre 1866	Removed c. 1998	Replant	H	Pine Row
58	58		*Pinus strobus*	Eastern White Pine			Present	Maintain	H	Pine Row
59	59		*Pinus strobus*	Eastern White Pine			Present	Maintain	H	Pine Row
60	60		*Pinus strobus*	Eastern White Pine			Present	Maintain	H	Pine Row
61	61		*Pinus strobus*	Eastern White Pine			Present	Maintain	H	Pine Row
62	62		*Pinus strobus*	Eastern White Pine			Present	Maintain	H	Pine Row
63	63		*Pinus strobus*	Eastern White Pine			Present	Maintain	H	Pine Row
64	64		*Pinus strobus*	Eastern White Pine			Present	Maintain	H	Pine Row
66	66		*Pinus strobus*	Eastern White Pine			Present	Maintain		Pine Row
68	68		*Tilia americana*	American Linden			Present	Maintain		Pine Row
70	70		*Pinus strobus*	Eastern White Pine			Present	Maintain		Pine Row

ID # 2016	ID # 1993	ID # 1980	Scientific Name	Common Name	ESF survey plant-ing date	NPS Surevey Plant-ing Date	Status (2016)	Action	Priority	Location
71	71		*Acer rubrum*	Red Maple			Present, split trunk	Maintain	M	Pine Row
72	72		*Pinus strobus*	Eastern White Pine			Present, split trunk	Maintain	M	Pine Row
73	73		*Pinus strobus*	Eastern White Pine			Present	Maintain	H	Pine Row
74	74		*Prunus serotina*	Black Cherry			Present	Maintain	M	Pine Row
75	75		*Prunus serotina*	Black Cherry			Present	Maintain	M	Pine Row
76	76		*Prunus serotina*	Black Cherry	c. 1929		Present	Maintain	M	Pine Row
77	77		*Pinus strobus*	Eastern White Pine			Present	Maintain	M	Pine Row
78	78		*Pinus strobus*	Eastern White Pine			Present	Maintain	M	Pine Row
80	80		*Prunus serotina*	Black Cherry			Present	Maintain	M	Pine Row
89	89		*Prunus serotina*	Black Cherry			Present	Remove, when black locust trees are replanted	M	North Gatehouse
99	99		*Syringa vulgaris*	Common Lilac	pre 1900		Removed c. 1999	Replant, if conditions are appropriate	M	North Gatehouse
100	100		*Robinia pseudoacacia*	Black Locust			Removed c. 1999	replant, if conditions are appropriate	n/a	Allée
109	109		*Morus alba*	White Mulberry		pre 1923	Replanted (verify variety)	Maintain	M	Front Lawn
112	112	33	*Robinia pseudoacacia*	Black Locust	c. 1883	pre 1866	Present	Preserve	H	Allée
113	113		*Pinus strobus*	Eastern White Pine			Present	TBD- marked for removal in 1995/1997 CLR	L	Allée
114	114	28	*Pseudotsuga menziesii*	Douglas Fir	c. 1883	pre 1866	Present	Maintain	L	Front Lawn
115	115		*Pinus strobus*	Eastern White Pine			Removed	Replant	H	Front Lawn
117	117		*Pinus strobus*	Eastern White Pine			Removed	Replant	H	Front Lawn
118	118		*Pinus strobus*	Eastern White Pine			Removed	Replant	H	Front Lawn
121	121		*Juniperus virginiana*	Eastern Red Cedar	c.?		Present	Maintain	H	Front Lawn
122	122		*Juniperus virginiana*	Eastern Red Cedar	c. 1791		Present	Maintain	H	Front Lawn
123	123		*Juniperus virginiana*	Eastern Red Cedar	c. 1824		Present, three stem	Maintain	H	Front Lawn
124	124		*Juniperus virginiana*	Eastern Red Cedar			Present, one trunk has been removed	Maintain	H	Front Lawn
129	129		*Juniperus virginiana*	Eastern Red Cedar	pre 1900		14 remain of 129-150	Maintain extant	H	Front Lawn
130	130		*Juniperus virginiana*	Eastern Red Cedar	pre 1900		14 remain of 129-150	Maintain extant	H	Front Lawn

ID # 2016	ID # 1993	ID # 1980	Scientific Name	Common Name	ESF survey plant-ing date	NPS Surevey Plant-ing Date	Status (2016)	Action	Priority	Location
131	131		*Juniperus virginiana*	Eastern Red Cedar	pre 1900		14 remain of 129-150	Maintain extant	H	Front Lawn
132	132		*Juniperus virginiana*	Eastern Red Cedar	pre 1900		14 remain of 129-150	Maintain extant	H	Front Lawn
133	133		*Juniperus virginiana*	Eastern Red Cedar	pre 1900		14 remain of 129-150	Maintain extant	H	Front Lawn
134	134		*Juniperus virginiana*	Eastern Red Cedar	pre 1900		14 remain of 129-150	Maintain extant	H	Front Lawn
135	135		*Juniperus virginiana*	Eastern Red Cedar	pre 1900		14 remain of 129-150	Maintain extant	H	Front Lawn
136	136		*Juniperus virginiana*	Eastern Red Cedar	pre 1900		14 remain of 129-150	Maintain extant	H	Front Lawn
137	137		*Juniperus virginiana*	Eastern Red Cedar	pre 1900		14 remain of 129-150	Maintain extant	H	Front Lawn
138	138		*Juniperus virginiana*	Eastern Red Cedar	pre 1900		14 remain of 129-150	Maintain extant	H	Front Lawn
139	139		*Juniperus virginiana*	Eastern Red Cedar	pre 1900		14 remain of 129-150	Maintain extant	H	Front Lawn
140	140		*Juniperus virginiana*	Eastern Red Cedar	pre 1900		14 remain of 129-150	Maintain extant	H	Front Lawn
141	141		*Juniperus virginiana*	Eastern Red Cedar	pre 1900		14 remain of 129-150	Maintain extant	H	Front Lawn
142	142		*Juniperus virginiana*	Eastern Red Cedar	pre 1900		14 remain of 129-150	Maintain extant	H	Front Lawn
143	143		*Juniperus virginiana*	Eastern Red Cedar	pre 1900		14 remain of 129-150	Maintain extant	H	Front Lawn
144	144		*Juniperus virginiana*	Eastern Red Cedar	pre 1900		14 remain of 129-150	Maintain extant	H	Front Lawn
145	145		*Juniperus virginiana*	Eastern Red Cedar	pre 1900		14 remain of 129-150	Maintain extant	H	Front Lawn
146	146		*Juniperus virginiana*	Eastern Red Cedar	pre 1900		14 remain of 129-150	Maintain extant	H	Front Lawn
147	147		*Juniperus virginiana*	Eastern Red Cedar	pre 1900		14 remain of 129-150	Maintain extant	H	Front Lawn
148	148		*Juniperus virginiana*	Eastern Red Cedar	pre 1900		14 remain of 129-150	Maintain extant	H	Front Lawn
149	149		*Juniperus virginiana*	Eastern Red Cedar	pre 1900		14 remain of 129-150	Maintain extant	H	Front Lawn
150	150		*Juniperus virginiana*	Eastern Red Cedar	pre 1900		14 remain of 129-150	Maintain extant	H	Front Lawn
166	166		*Robinia pseudoacacia*	Black Locust	c. 1893		Present	Maintain		South Gatehouse
169	169		*Robinia pseudoacacia*	Black Locust			Present	Maintain	M	South Gatehouse
194	194		*Syringa vulgaris*	Common Lilac	c. 1800		Verify	Maintain	M	Mansion
195	195		*Syringa vulgaris*	Common Lilac	c. 1800		Present	Maintain	M	Mansion
196	196		*Syringa vulgaris*	Common Lilac	c. 1800		Removed	Replant	M	Mansion
201	201		*Philadelphus x virginalis*	Virginal Mock-orange	c. 1800		TBD	Species present, specific specimen ID numbers TBD	M	Mansion

ID # 2016	ID # 1993	ID # 1980	Scientific Name	Common Name	ESF survey plant-ing date	NPS Surevey Plant-ing Date	Status (2016)	Action	Priority	Location
202	202		*Philadelphus x virginalis*	Virginal Mock-orange	c. 1800		TBD	Species present, specific specimen ID numbers TBD	M	Mansion
203	203		*Philadelphus x virginalis*	Virginal Mock-orange	c. 1800		TBD	Species present, specific specimen ID numbers TBD	M	Mansion
204	204		*Philadelphus x virginalis*	Virginal Mock-orange	c. 1800		TBD	Species present, specific specimen ID numbers TBD	M	Mansion
208	208		*Syringa vulgaris*	Common Lilac	c. 1800		TBD	Species present, specific specimen ID numbers TBD	M	Mansion
209	209		*Syringa vulgaris*	Common Lilac	c. 1800		TBD	Species present, specific specimen ID numbers TBD	M	Mansion
210	210		*Syringa vulgaris*	Common Lilac	c. 1800		TBD	Species present, specific specimen ID numbers TBD	M	Mansion
211	211		*Philadelphus x virginalis*	Virginal Mock-orange	c. 1800		TBD	Species present, specific specimen ID numbers TBD	M	Mansion
212	212		*Philadelphus x virginalis*	Virginal Mock-orange	c. 1800		TBD	Species present, specific specimen ID numbers TBD	M	Mansion
213	213		*Philadelphus x virginalis*	Virginal Mock-orange	c. 1800		TBD	Species present, specific specimen ID numbers TBD	M	Mansion
214	214		*Philadelphus x virginalis*	Virginal Mock-orange	c. 1800		TBD	Species present, specific specimen ID numbers TBD	M	Mansion
215	215		*Syringa vulgaris*	Common Lilac	c. 1800		TBD	Species present, specific specimen ID numbers TBD	M	Mansion
216	216		*Syringa vulgaris*	Common Lilac	c. 1800		TBD	Species present, specific specimen ID numbers TBD	M	Mansion

ID # 2016	ID # 1993	ID # 1980	Scientific Name	Common Name	ESF survey plant-ing date	NPS Surevey Plant-ing Date	Status (2016)	Action	Priority	Location
217	217		*Philadelphus x virginalis*	Virginal Mock-orange	c. 1800		TBD	Species present, specific specimen ID numbers TBD	M	Mansion
218	218		*Philadelphus x virginalis*	Virginal Mock-orange	c. 1800		TBD	Species present, specific specimen ID numbers TBD	M	Mansion
219	219		*Philadelphus x virginalis*	Virginal Mock-orange	c. 1800		TBD	Species present, specific specimen ID numbers TBD	M	Mansion
220	220		*Syringa vulgaris*	Common Lilac	c. 1800		Present	Maintain	M	Mansion
221	221	22	*Morus alba*	White Mulberry	c. 1861	pre 1866	Removed 2013, previously damaged	Replant	H	Mansion
222	222	23	*Plantus sp.*	Sycamore	c. 1793	pre 1866	Present	Preserve	H	Mansion
223	223		*Larix laricina*	American Larch			Present	Remove	M	Mansion
225	225		*Larix laricina*	American Larch			Present	Remove	M	Mansion
228	228		*Humulus lupulus*	Common Hop			Present	Maintain	H	Maintenance
231	231		*Syringa vulgaris*	Common Lilac			Present	Maintain	L	Maintenance
233	233		*Pinus strobus*	Eastern White Pine			Present	Remove, once archives building is removed	M/H	Maintenance
234	234		*Pinus strobus*	Eastern White Pine			Present	Remove, once archives building is removed	M/H	Maintenance
235	235		*Pinus strobus*	Eastern White Pine			Present	Remove, once archives building is removed	M/H	Maintenance
236	236		*Pinus strobus*	Eastern White Pine			Present	Remove, once archives building is removed	M/H	Maintenance
237	237		*Juniperus virginiana*	Eastern Red Cedar			Present	Remove, once archives building is removed	M/H	Maintenance
238	238		*Pinus strobus*	Eastern White Pine			Present	Remove, once archives building is removed	M/H	Maintenance
239	239		*Juniperus virginiana*	Eastern Red Cedar			Present	Remove, once archives building is removed	M/H	Maintenance

ID # 2016	ID # 1993	ID # 1980	Scientific Name	Common Name	ESF survey plant-ing date	NPS Surevey Plant-ing Date	Status (2016)	Action	Priority	Location
240	240		*Juglans cinerea*	Butternut	1941		Present	Remove, once archives building is removed	M/H	Maintenance
241	241		*Pinus strobus*	Eastern White Pine			Present	Remove, once archives building is removed	M/H	Maintenance
242	242		*Juglans cinerea*	Butternut	1941		Present	Remove, once archives building is removed	M/H	Maintenance
243	243		*Juglans cinerea*	Butternut	1941		Present	Remove, once archives building is removed	M/H	Maintenance
244	244		*Juniperus virginiana*	Easter Red Cedar			Present	Remove, once archives building is removed	M/H	Maintenance
245	245		*Juniperus virginiana*	Easter Red Cedar			Present	Remove, once archives building is removed	M/H	Maintenance
246	246		*Juniperus virginiana*	Easter Red Cedar			Present	Remove, once archives building is removed	M/H	Maintenance
247	247	24	*Pinus strobus*	Eastern White Pine		pre 1866	Removed 2013, after storm damage	Replant	M	Maintenance
251	R-1		*Pinus strobus*	Eastern White Pine			Present, replanted	Maintain	M	South Gatehouse
252	R-2		*Pinus strobus*	Eastern White Pine			Present, replanted	Maintain	M	Pine Row
253	R-3		*Robinia pseudoacacia*	Black Locust			Present, replanted 2002	Maintain	H	Allée
254	R-4		*Robinia pseudoacacia*	Black Locust			Present, replanted 2002	Maintain	H	Allée
255	R-5		*Robinia pseudoacacia*	Black Locust			Present, replanted 2002	Maintain	H	Allée
256	R-6		*Robinia pseudoacacia*	Black Locust			Present, replanted 2002	Maintain	H	Allée
257	R-7		*Robinia pseudoacacia*	Black Locust			Present, replanted 2002	Maintain	H	Allée
258	R-8		*Robinia pseudoacacia*	Black Locust			Present, replanted 2002	Maintain	H	Allée
259	R-9		*Robinia pseudoacacia*	Black Locust			Present, replanted 2002	Maintain	H	Allée
260	R-10		*Robinia pseudoacacia*	Black Locust			Present, replanted 2002	Maintain	H	Allée

ID # 2016	ID # 1993	ID # 1980	Scientific Name	Common Name	ESF survey plant-ing date	NPS Surevey Plant-ing Date	Status (2016)	Action	Priority	Location
261	R-11		*Robinia pseudoacacia*	Black Locust			Present, replanted 2002	Maintain	H	Allée
262	R-12		*Robinia pseudoacacia*	Black Locust			Present, replanted 2002	Maintain	H	Allée
263	R-13		*Robinia pseudoacacia*	Black Locust			Present, replanted 2002	Maintain	H	Allée
264	R-14		*Robinia pseudoacacia*	Black Locust			Present, replanted 2002	Maintain	H	Allée
265	R-15		*Robinia pseudoacacia*	Black Locust			Present, replanted 2002	Maintain	H	Allée
266	R-16		*Robinia pseudoacacia*	Black Locust			Present, replanted 2002	Maintain	H	Allée
267	R-17		*Robinia pseudoacacia*	Black Locust			Present, replanted 2002	Maintain	H	Allée
268	R-18		*Robinia pseudoacacia*	Black Locust			Present, replanted 2002	Maintain	H	Allée
269	R-19		*Robinia pseudoacacia*	Black Locust			Present, replanted 2002	Maintain	H	Allée
270	R-20		*Robinia pseudoacacia*	Black Locust			Present, replanted 2002	Maintain	H	Allée
271	R-21		*Robinia pseudoacacia*	Black Locust			Present, replanted 2002	Maintain	H	Allée
272	R-22		*Robinia pseudoacacia*	Black Locust			Missing, replanted 2002, removed 2015	Replant	H	Allée
275	R-25		*Robinia pseudoacacia*	Black Locust			Present, replanted 2002	Maintain	H	Allée
276	R-26		*Robinia pseudoacacia*	Black Locust			Present, replanted 2002	Maintain	H	Allée
277	R-27		*Robinia pseudoacacia*	Black Locust			Present, replanted 2002	Maintain	H	Allée
278	R-28		*Robinia pseudoacacia*	Black Locust			Present, replanted 2002	Maintain	H	Allée
279	R-29		*Robinia pseudoacacia*	Black Locust			Present, replanted 2002	Maintain	H	Allée
280	R-30		*Robinia pseudoacacia*	Black Locust			Present, replanted 2002	Maintain	H	Allée
281	R-31		*Robinia pseudoacacia*	Black Locust			Present, replanted 2002	Maintain	H	Allée

ID # 2016	ID # 1993	ID # 1980	Scientific Name	Common Name	ESF survey plant-ing date	NPS Surevey Plant-ing Date	Status (2016)	Action	Priority	Location
282	R-32		*Robinia pseudoacacia*	Black Locust			Missing, replanted 2002, stump present	Replant	H	Allée
283	R-33		*Robinia pseudoacacia*	Black Locust			Present, replanted 2002	Maintain	H	Allée
284	R-34		*Robinia pseudoacacia*	Black Locust			Present, replanted 2002	Maintain	H	Allée
285	R-35		*Robinia pseudoacacia*	Black Locust			Present, replanted 2002	Maintain	H	Allée
286	R-36		*Robinia pseudoacacia*	Black Locust			Present, replanted 2002	Maintain	H	Allée
287	R-37		*Robinia pseudoacacia*	Black Locust			Present, replanted 2002	Maintain	H	Allée
288	R-38		*Robinia pseudoacacia*	Black Locust			Present, replanted 2002	Maintain	H	Allée
289	R-39		*Robinia pseudoacacia*	Black Locust			Present, replanted 2002	Maintain	H	Allée
290	R-40		*Robinia pseudoacacia*	Black Locust			Present, replanted 2002	Maintain	H	Allée
291	R-41		*Robinia pseudoacacia*	Black Locust			Present, replanted 2002	Maintain	H	Allée
292	R-42		*Robinia pseudoacacia*	Black Locust			Present, replanted 2002	Maintain	H	Allée
293	R-43		*Robinia pseudoacacia*	Black Locust			Present, replanted 2002	Maintain	H	Allée
294	R-44		*Robinia pseudoacacia*	Black Locust			Replanted, white pine	Maintain	L	Pine Row
296	R-46		*Pinus strobus*	Eastern White Pine			Present, replanted c. 2002	Maintain	M	Pine Row
301	R-51		*Pinus strobus*	Eastern White Pine			Replanted, little leaf linden	Maintain	L	South Gatehouse
304	R-54		*Pinus strobus*	Eastern White Pine			Present, replanted c. 2002	Maintain	M	Pine Row
305	R-55		*Pinus strobus*	Eastern White Pine			Present, replanted c. 2002	Maintain	M	Pine Row
308	R-58		*Pinus strobus*	Eastern White Pine			Present, replanted c. 2002	Maintain	L	Pine Row
309	R-59		*Pinus strobus*	Eastern White Pine			Present, replanted c. 2002	Maintain	L	Pine Row

ID # 2016	ID # 1993	ID # 1980	Scientific Name	Common Name	ESF survey plant-ing date	NPS Surevey Plant-ing Date	Status (2016)	Action	Priority	Location
310	R-60		*Pinus strobus*	Eastern White Pine			Present, replanted c. 2002	Maintain	L	Pine Row
311	R-61		*Pinus strobus*	Eastern White Pine			Present, replanted c. 2002	Maintain	L	Pine Row
312	R-62		*Pinus strobus*	Eastern White Pine			Present, replanted c. 2002	Maintain	L	Pine Row
313	R-63		*Pinus strobus*	Eastern White Pine			Present, replanted c. 2002	Maintain	L	Pine Row
314	R-64		*Pinus strobus*	Eastern White Pine			Missing	Replant	M	Front Lawn
315	R-65		*Pinus strobus*	Eastern White Pine			Missing	Replant	M	Front Lawn
317	R-67		*Pinus strobus*	Eastern White Pine			Present, replanted c. 2002	Maintain	L	Pine Row
318	R-68		*Pinus strobus*	Eastern White Pine			Present, replanted c. 2002	Maintain	L	Pine Row
319	R-69		*Pinus strobus*	Eastern White Pine			Present, replanted c. 2002	Maintain	M	Pine Row
320	R-70		*Pinus strobus*	Eastern White Pine			Present, replanted c. 2002	Maintain	M	Pine Row
321	R-71		*Pinus strobus*	Eastern White Pine			Present, replanted c. 2002	Maintain	M	Pine Row
323	R-73		*Pinus strobus*	Eastern White Pine			Present, replanted c. 2002	Maintain	M	Pine Row
324	R-74		*Pinus strobus*	Eastern White Pine			Missing	Replant	M	Front Lawn
327	R-77		*Pinus strobus*	Eastern White Pine			Present, replanted c. 2002	Maintain	M	Pine Row
328	R-78		*Pinus strobus*	Eastern White Pine			Present, replanted c. 2002	Maintain	M	Pine Row
331	R-81		*Pinus strobus*	Eastern White Pine			Present	Maintain	M	Pine Row
332	R-82		*Pinus strobus*	Eastern White Pine			Present	Maintain	M	Pine Row
333	R-83		*Pinus strobus*	Eastern White Pine			Present	Maintain	M	Pine Row
336	R-86		*Robinia pseudoacacia*	Black Locust			Planting recommended in 1995/1997 CLR, no action taken	Replant	M	North Gatehouse
337	R-87		*Robinia pseudoacacia*	Black Locust			Planting recommended in 1995/1997 CLR, no action taken	Replant	M	North Gatehouse

ID # 2016	ID # 1993	ID # 1980	Scientific Name	Common Name	ESF survey plant-ing date	NPS Surevey Plant-ing Date	Status (2016)	Action	Priority	Location
338	R-88		*Robinia pseudoacacia*	Black Locust			Planting recommended in 1995/1997 CLR, no action taken	Replant	M	North Gatehouse
339	R-89		*Robinia pseudoacacia*	Black Locust			Planting recommended in 1995/1997 CLR, no action taken	Replant	M	North Gatehouse
340	R-90		*Robinia pseudoacacia*	Black Locust			Planting recommended in 1995/1997 CLR, no action taken	Replant	M	North Gatehouse
341	R-91		*Pinus strobus*	Eastern White Pine			Missing	Replant	L	Front Lawn
342	R-92		*Pinus strobus*	Eastern White Pine			Missing	Replant	L	Front Lawn
343	R-93		*Pinus strobus*	Eastern White Pine			Missing	Replant	L	Mansion
344	R-94		*Pinus strobus*	Eastern White Pine			Missing	Replant	L	Mansion
345	R-95		*Pinus strobus*	Eastern White Pine			Missing	Replant, after maintenance shed is relocated	M	Maintenance
346	R-96		*Pinus strobus*	Eastern White Pine			Missing	replant after maintenance shed is relocated	M	Maintenance
347	R-97		*Pinus strobus*	Eastern White Pine			Missing	replant after maintenance shed is relocated	M	Maintenance
388	n/a		*Pinus strobus*	Eastern White Pine			Present	Maintain, not recommended in 1995-1997 CLR	L	Pine Row
389	n/a		*Robinia pseudoacacia*	Black Locust			Present	Maintain, not recommended in 1995-1997 CLR	M	Allée
390	n/a		*Robinia pseudoacacia*	Black Locust			Present	Maintain, not recommended in 1995-1997 CLR	M	Allée
391	n/a		*Robinia pseudoacacia*	Black Locust			Present	Maintain, not recommended in 1995-1997 CLR	M	Allée

APPENDIX B: HEDGEROW SPECIES TABLE

Scientific Name	Common Name	Native	Habit	Mature Height	Mature Width	Pruning Requirements	Distinguishing Characteristics
Aronia arbutifolia	Red chokeberry	Yes	Shrub	6-10'	4'	Remove suckers as needed	Clusters of white flowers in spring, attracts pollinators, glossy red fruit ripens in late summer, brilliant red autumn
Aster novae-angliae	New England aster	Yes	Wildflower	24"-6'	3'	None, thin as desired	Blooms in late summer/ fall
Aster novi-belgii	New York aster	Yes	Wildflower	1-3'	3'	None, thin as desired	Blooms in late summer/ fall
Ceanothus americanus	New Jersey tea	Yes	Shrub, mulitstem	3'	3'	As needed or desired	Small flowers in early summer attract numerous insects including bees. Attracts butterflies and moths.
Cephalanthus occidentalis	Buttonbush	Yes	Shrub/ tree, open habit	9'	9'	As needed or desired	Six inch long white flowers in summer, nutlets persist through winter and attract wildlife
Clethra alnifolia	Summersweet	Yes	Shrub, columnar-shape, mulitstem	6-7'	6'	Annual pruning required to maintain desired size	Fragrant flowers in the middle of summer attract hummingbirds, butterflies, and birds
Hamamelis virginiana L.	American witchhazel	Yes	Shrub/ tree, open habit, elongated branches	20'	20'	As needed or desired	Yellow autumn leaves and flowers in to mid-late autumn
Ilex verticillata	Winterberry	Yes	Shrub/ tree, multistem, dense branching	5-15'	10'	As needed or desired	Red berries in fall and winter attract wildlife, male and female shrubs must be planted within 40' for adequate pollination
Lindera benzoin var. benzoin	Spicebush	Yes	Shrub/ tree	10'	10'	As needed or desired	White fragrant flowers in mid/late spring, capsule fruit, attracts butterflies

Scientific Name	Common Name	Native	Habit	Mature Height	Mature Width	Pruning Requirements	Distinguishing Characteristics
Monarda didyma	Beebalm	Yes*	Forb/ herb	36-48"	Single stem	None, although this hardy species can take over less robust plants in moist soil, remove as necessary	Attracts hummingbirds, pollinating insects, and pest controlling insects
Rubus idaeus	Raspberry	Yes	Cane	24"-48"	2'	Spreads, thin/ remove as necessary	White flowers, red fruit maturing between July and August
Viburnum dentatum (v. lucidum or recognitum)	Arrowwood	Yes	Shrub/ tree	10'	10'	Spreads by root suckers, remove as necessary	White flowers in late spring attract insects, fall berries attract birds, attractive fall foliage

* Native to New York State but not Columbia County.

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