

Lincoln Boyhood Allee Trail Renovation: Incorporating Modern Accessibility Features into a Historic Landscape

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Figure 1. View of green lawn, flagpole, and two tree-lined trails through the Olmsted landscape of the Lincoln Boyhood Allee. (NPS/Rhonda Schier)

The National Park Service strives to help every visitor find a connection to the significance of national parks, engage equally and fully in the resources and opportunities available, and discover personal meaning and value in every park experience. This report for the 2022 Olmsted Landscapes and Legacies Symposium will help to achieve those goals by sharing how Lincoln Boyhood National Memorial integrated accessibility features into a historic cultural landscape to make it welcoming to all. What we first thought would be a simple trail improvement process was not simple at all due to our commitment to protect the physical features and intended visitor experience as designed in 1927 by Frederick Law Olmsted, Junior. Looking back on the surprising complexity and spontaneous complications we encountered along the way, and the effective solutions that were the result of our parallel paths of group thinking and collaborative planning, crucial concepts for success became evident.

These project components are previewed in the pre-reading vocabulary list below to support the details in the narrative that follows. This C¹² list, as it is identified due to its alliterative form, is intended to support the readers' comprehension, and hopefully help other parks and organizations successfully implement landscape improvements that create parks for all people in the spirit of the Olmsted mission.

ALLITERATION: The occurrence of the same letter or sound at the beginning of closely connected words.

1. **COMMITMENT:** The state of being dedicated to a cause Commitment to protection and preservation, to creating a Lincoln Memorial, to accessibility
2. **CONCEPT:** A plan, intention, idea, notion, something conceived in someone's mind
Local citizens' concept for a Lincoln memorial park followed by Olmsted's 1927 preliminary conceptual plan for a landscaped Lincoln Memorial commemorating his boyhood in Indiana

3. CONUNDRUM: A confusing or difficult problem or question
How to incorporate modern accessibility features into a protected 1927 historic landscape (Should the stairs as an accessibility barrier in the historic design be removed or retained?)
4. COLLABORATION: To work jointly, especially to create something
Teamwork with NPS professionals, specialists, and subject matter experts to seek solutions
5. CONSULTATION: To seek advice or information
Input from park users, park visitors, people living with disabilities, and accessibility advocates
6. COMPLIANCE: The act of obeying a rule or order, obedience
Compliance to National Environmental Policy Act (NEPA) and Section 106 of the National Historic Preservation Act (NHPA) for the Planning, Environment and Public Comment (PEPC) Project #89905
7. CONTRACTING: To enter into a formal and legally binding agreement
Work with NPS Regional Contracting Office and Missouri Major Acquisition Buying Office (MABO) for a 120-day construction project, contract #140P6220C0009
8. CONSTRUCTION: To build something
Proceed with AAECON General Contracting LLC, Louisville, Kentucky and their subcontractors
9. COST: The amount paid
\$635,520.00 using Repair and Rehab funding for the Project Management Information System (PMIS) project #227170
10. COMMUNITY: A group of persons having a common history or interests
The staff, partners, volunteers, visitors, historians, scholars, re-enactors, and recreation users who participate in the enhanced, assessable and equal opportunities of the Community of Lincoln
11. COMMITMENT CONTINUED: Remaining dedicated to future accessibility planning and development to make parks welcoming to all people
Self-Evaluation Transition Plan for Accessibility (SETP), the Heartland Inventory and Monitory Network Reforestation Plan, and the Interpretation, Education and Volunteerism Accessibility Collaboration Team (ACT)
12. CRUCIAL QUESTION(S): Sentences worded to elicit information
“What would Rick (Olmsted) think?”

COMMITMENT: The state of being dedicated to a cause

National Park Service Commitment to Preservation and Protection

As superintendent of Lincoln Boyhood National Memorial in southern Indiana, I am responsible for the management of one of the over 400 National Park sites of the National Park Service and am one of the almost 20,000 NPS employees who are committed to protecting our nation’s natural and cultural resources and preserving the places and things that represent who we are as a country, what we have done, what we have learned, and what we value. At national parks we collect and share our national stories from multiple perspectives, integrate crucial stories that are often untold, and invite our public to co-create the full range of teaching and learning opportunities about the nation’s legacy and heritage with the belief that a keen understanding of the past will help us effectively face the challenges of the present and the future.

The burial site of Abraham Lincoln’s mother is the primary destination for park visitors and the reason the commemorative area was established and maintained as a destination for the visiting public. At the cemetery visitors find the trailheads to the Lincoln Boyhood trail and the Trail of Twelve Stones to

continue their park experience enroute to the Lincoln Living Historical Farm where they observe and participate in pioneer-life demonstrations representative of Lincoln's 14 years in the forest and fields of Indiana.



Figure 2. Two adult visitors walk hand-in-hand on one of the renovated woodland trails with improved surface and optional routes. (NPS/Rhonda Schier)

The landscape where visitors walk today to reflect on the memory and the influence of the 16th president is the same environment where the young Abraham Lincoln developed in his youth the curiosity, intellect, philosophy, dreams, and goals that guided his thoughts and actions as an adult and a national leader. We feel privileged at Lincoln Boyhood to provide people with extraordinary immersions into nature and history. We see how the environment inspires visitors' thoughtful analysis of natural and human events of the past, present and future while they enjoy the great outdoors, historic architecture, art and artifacts.

Preservation of the National Park Service Legacy

Frederick Law Olmsted, Jr., one of the landscape designers we honor at the Landscapes and Legacies Symposium, was a passionate advocate for the preservation of natural areas throughout the country and is credited with providing the key language of the 1916 Organic Act which created the National Park Service and defines our commitment and directs our work.

"To conserve the scenery and the natural and historic objects and the wildlife 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."¹

An example of the legacy of Olmsted's language of the Organic Act is that the first operating standard for all design operations of the NPS Denver Service Center is, "All designs shall adhere to the Organic Act."

¹ 39 Stat. 535, 16 U.S.C. 1

Olmsted appreciated the participatory experience in the world of nature. He often spoke about his goal to design and define the Indiana site as a place that would foster a reflective connection to the significance of Lincoln's boyhood years, and lead people to feel they are part of a memorialization of the foundation of Lincoln's ideas and ideals.

My colleagues and I can relate to much of what Olmsted said and believed about what we call "the Power of Place." We are delighted to recognize his dedication to those ideals in his correspondence and his quotes, many which are included in this report, and that serve as primary source material for learning about his work and his beliefs about the interrelationship of people and nature.

Commitment to Preserving the Story of Significance of Lincoln's Youth in Indiana

The story of Lincoln's youth in Indiana begins in 1816 when his father Thomas moved his family from Kentucky to the new state of Indiana in search of reliable land ownership rights and rules and an environment free from slavery. Two years after the family carved out a homestead in the wilderness, felling trees for crop fields and cabin site, Nancy Hanks Lincoln died at age 34 when Abraham was nine and his sister Sara was eleven. Mrs. Lincoln was buried on a knoll not far from the family cabin, joining others of the close-knit community who also succumbed to milk sickness, unknowingly passed to humans through dairy products from cows who ate the white snakeroot plant. When Tom Lincoln later married the widow Sarah Bush Johnston with three children of her own, a new blended family was created. By all accounts, Sara was a loving mother to Abraham, saying, "He was the best boy I ever knew."



Figure 3. Two teen-age boys in historical attire sit and stand at barn entrance as they portray pioneer life on the farm. (NPS/Rhonda Schier)

The years of Abraham's youth constitute our Lincoln story about work on a pioneer farm and the ways his family and community shaped his philosophies and beliefs. It was in the Indiana woods where he developed his intellect, his curiosity, his penchant for reading, his story telling, even his oratorical skills by telling stories and repeating sermons for his friends. It was also during these years he developed yearnings for an intellectual life in law and politics rather than a future of hard physical labor with axe and plow.



Figure 4. The reproduction log cabin represents an 1820 pioneer home like the Lincoln family lived in. (NPS/Rhonda Schier)

After Lincoln served as Illinois legislator and American president and was assassinated in 1865 interest grew in his childhood home. Visitors came to see where the pioneer boy lived. Civil War veterans came to pay homage to their fallen commander-in-chief. Visitors to the grave of Nancy Hanks Lincoln were sometimes referred to as pilgrims, as they paid homage to Lincoln's sainted mother, a popular theme in the Victorian era, which led Olmsted in later years to refer to the burial site as a sacred sanctuary.

Commitment to Creating a Lincoln Memorial

After many years and several attempts to install a suitable marker for Nancy's grave, Peter Studebaker of the Studebaker Carriage Makers bought a tombstone in 1879 for \$50.00. Stewardship of the gravesite passed among state and county governments, memorial associations, and boards of commissioners. As caretaking ideas came and went, and additional property was secured, commitment to the site waned and wavered. Development and management of the area transitioned many times over the years, the upkeep of the site repeatedly cycling into a state of disrepair and then receiving renewed attention. In 1903 Robert Lincoln, the only surviving son on Abraham Lincoln, donated \$1,000 for the upkeep of his grandmother's grave. In 1907 a state board of commissioners took over the care and hired a local landscape architect to prepare a design document for site improvements.



Figure 5. A tapered white marble gravestone marks Nancy Lincoln's grave in a small cemetery surrounded by a black iron fence. (NPS/Rhonda Schier)

Utilizing the architect's plans, the state installed an iron fence, elaborate entry gates with life-sized lions, columns with eagles, decorative urns along the walkway, and a new macadamized roadway for easy automobile access to the cemetery picnic grounds among all the existing buildings, school, church, hotel, houses and roads of what was known as Lincoln City.

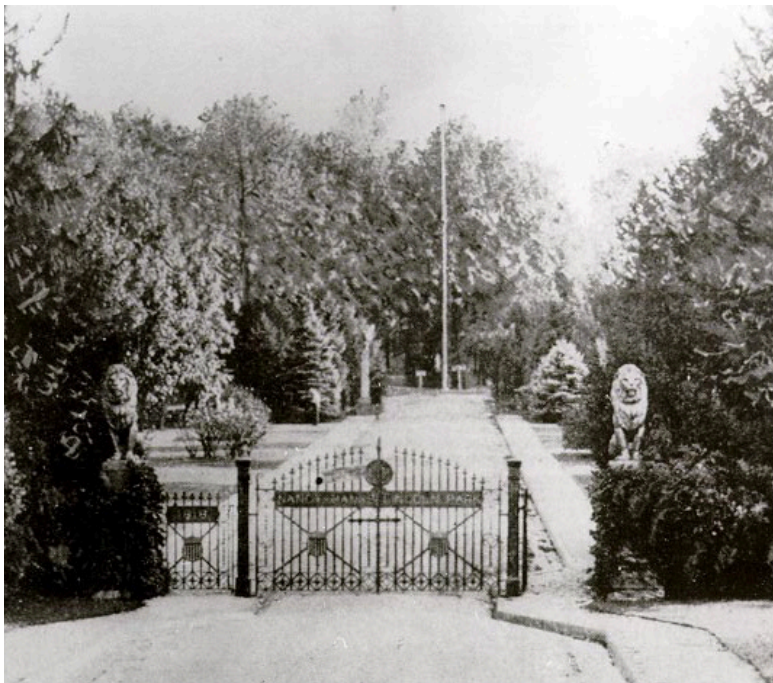


Figure 6. Lion sculptures on both sides of an iron gate mark the entrance to the Nancy Hanks Lincoln Park. Two sculpted eagles sit on two columns in the background on each side of road leading to the pioneer cemetery. (Lincoln Boyhood Archives)

A crucial question to consider about the initial design and management of the property might be, “What would Rick Olmsted think?”

Local citizens began to envision a formalized memorial. In 1926 the Governor created the Indiana Lincoln Union under the supervision of the Department of Conservation so that “the people of the state in mighty unison could rear a national shrine honoring the Lincolns.”

“At one of its initial meetings in 1927, the Indiana Lincoln Union, having been named the stewards of the memorial grounds, decided to hire the Olmsted Brothers, a well-known landscape architecture firm from Brookline, Massachusetts, to prepare a general sketch of preliminary plan that “would indicate quite clearly and definitely the general lines of character of the development.”²



Figure 7. Rick Olmsted smoking a pipe sits at his desk with pen in hand working on a landscape map. (Lincoln Boyhood Archives)

“Olmsted’s preliminary sketches were accompanied by multitudinous pages explaining his concept of the memorial, the vehicle by which the people of Indiana could state their respect and appreciation for Lincoln and his mother and their Indiana heritage. Olmsted visited the Lincoln site in March 1927 and returned to present his preliminary concept to the ILU on May 7, 1927. The ideas were received with great enthusiasm.”³

In August of that same year, boosters of another plan for a presidential memorial gathered with President Calvin Coolidge in the Black Hills of South Dakota at the base of Rushmore Rock to mark the beginning of Gutzon Borglum’s carving of giant likenesses of George Washington, Theodore Roosevelt, Thomas Jefferson and Abraham Lincoln, a memorial that became another commemorative landscape and another national park to demonstrate to future generations the heritage of presidential history. My grandfather Charles J. Buell spoke at that ceremony about the reasons Washington would be carved on the mountain. President Coolidge presented the first drill bits to Mr. Borglum who climbed the

² A Noble Avenue, Lincoln Boyhood National Memorial Cultural Landscape Report, Marla McEnaney, 2001

³ Friendly Trees, Hallowed Grounds: An Expression of Sentiment and Reason, Historic Grounds Report, Jill York, 1984

mountain and set in stone the points that would become the eyes of the first president. Two innovative ideas for commemorative parks in 1927 became two national park sites in my history of service.

CONCEPT: A plan, intention, abstract idea, or notion, something conceived in the mind

Olmsted's 1927 Preliminary Conceptual Plan for Lincoln Boyhood Memorial

Olmsted's assessment of the existing commemorative landscape was not very favorable, though he acknowledged the significance of the site and recognized that simplicity was the key to creating a distinguished memorial.

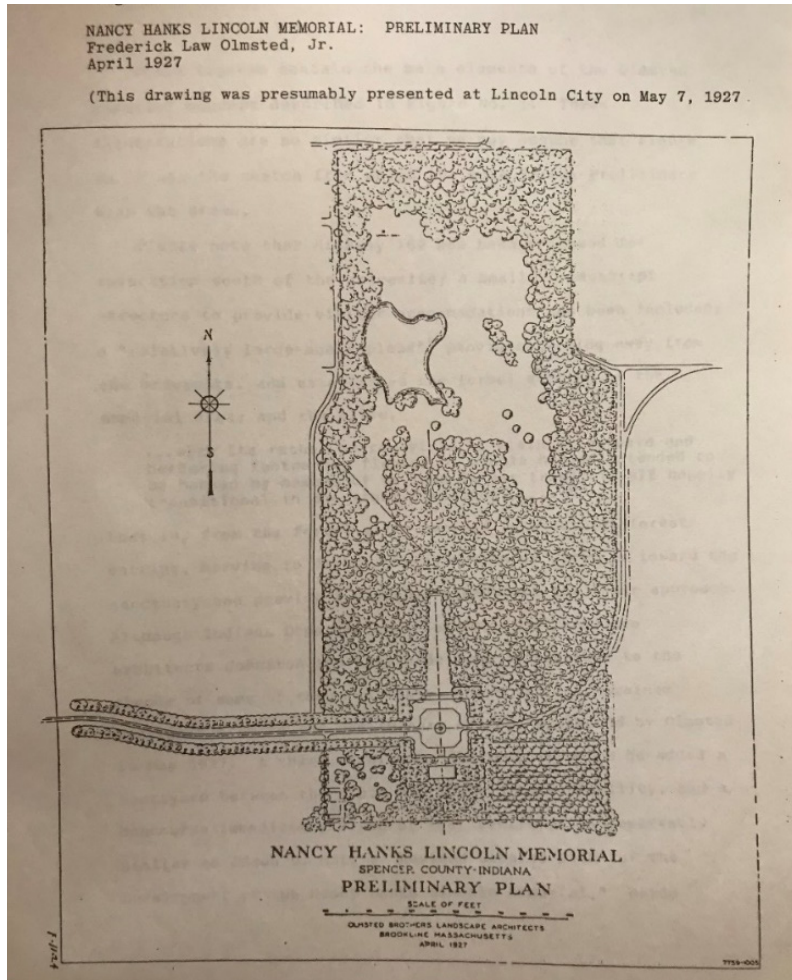


Figure 8. A landscape map presumably presented by Olmsted to the ILU in 1927 showing Allee path and surrounding forest. (Lincoln Boyhood Archives)

Olmsted wrote, "It is most unfortunately true that present conditions, at and around the site, themselves confuse and distract the visitor's attention from thought of Lincoln and of the significance of all that befell him here. These distracting sights are the results of mischance and neglect, of the intrusion of utilitarian structures of a very different period from Lincoln's, and also of the well-meant but misapplied efforts of some of our predecessors to express, as well as they knew how, their desire to honor Lincoln's memory. Of the former class are the branch railway track and the state highway with its rushing automobiles, bisecting the space between the cabin site and the grave of Lincoln's mother, and the buildings scattered on and around the site. Of the latter class are the cast iron gates with their

gilded concrete lions, the bits of gardenesque lawn with exotic shrubs and conifer, and the general slicking up of the remnant of second growth woodland around the grave into the semblance of a town picnic grove or a conventional landscape cemetery. The first task is to eliminate or obscure all such distracting elements, while avoiding to the utmost the risk of introducing new distractions of our own creation, and to leave the surrounding of the cabin and the grave quiet, peaceful and assertively beautiful.”

As a first step to improving the site, Olmsted attempted to set guidelines for simplifying the area surrounding the grave and cabin sites. He termed these areas “the Sanctuary,” and felt that they should be similarly treated. The immediate Sanctuary “should be freed of every petty, distracting, alien, self-asserting object.” This called for removing all traces of Lincoln City, as well as the ornamental shrubs and other plants that had been planted at the grave. He directed that the state highway and railroad bed be rerouted from between the grave and cabin site so that no vehicles or other intrusions would distract from visitor’s contemplative experience. Olmsted felt the design should focus on making it easy and natural for people to be stimulated to their own inspiring thoughts and emotions about Lincoln.

Olmsted directed that the parking areas should be somewhat removed from the core of the memorial, so that visitors could proceed “on foot into the Sanctuary under conditions favorable for producing the right impression.”

Because the site itself did not possess physical qualities that would render it to a visitor’s memory, Olmsted knew that his design would have to overcome the rather ordinary character of its surroundings. The landscape must be designed simply to inspire contemplation and inspiration based on immersion in the landscape of Lincoln’s pioneer youth.

“It demands something of a frankly and boldly artificial and monumental sort in the approach. I have in mind, such elements as large and well-proportioned vistas and spaces of turf enframed by noble avenues of masses of trees. Such a feature would not only focus attention on the Sanctuary; it would also function as an organizing element for moving visitors through the site and provide a visual transition between the highway and the grave.”⁴

Olmsted wrote, “I am inclined to believe that one and only one large and conspicuous object, idealistic in significance, could be used as the dominant object in such a composition without impertinence to the Sanctuary within. That object is a great flagpole bearing the American Flag.”⁵

Olmsted proposed restoring part of the native forested landscape to form the backdrop for the formal design. A recreated forest would symbolize the primeval conditions that the pioneers struggled against and was “the only one of now vanished features of the place characteristic of Lincoln’s time which can be reproduced without sham or falsehood.”

⁴ A Noble Avenue, Lincoln Boyhood National Memorial Cultural Landscape Report, Marla McEnaney, 2001. Written report from Frederick L. Olmsted to Colonel Richard Lieber and the Indiana Lincoln Union, 24 March 1927. Park History Files, Lincoln Boyhood National Memorial.

⁵ A Noble Avenue, Lincoln Boyhood National Memorial Cultural Landscape Report, Marla McEnaney, 2001

The Concept of Olmsted's Vision of a Controlling Purpose

"The controlling purpose in designing the completion of the entrance composition should be to lead visitors, progressively and continuously, from the highway to that grave in the woods under conditions which will reinforce its inherent impressiveness as the culminating place of interest." ⁶

"The controlling purpose in the treatment of everything along the line of movement of people from the plaza to the grave should be to prepare them as well as possible to appreciate the inherent impressiveness of the latter, then one of the most important qualities of the approach, and one of the main justifications for making them walk the considerable distance from where they leave their cars, is that they should have time, before entering the woods and coming upon the grave, to shake off, as it were, the busyness and preoccupation of contemporary life, . . . progressively slowing down their tempo and tending to put them in a quiet mood receptive to the subtle suggestions of a bygone time when at length they shall have entered the old wood-lot." ⁷

Department of Conservation Landscape Architect Donald Johnston was responsible for developing Olmsted's preliminary concept into a working design for phase one from 1927 to 1938. Landscape Architect Edson Nott accomplished the landscape design for phase two from 1938 to 1944 including the construction of a memorial building. The evolutionary process of the evolving landscape remained true to Olmsted's preliminary concepts.

As Olmsted's guidance was embraced, the lions and eagles gate was removed. We read in local historic accounts that "the lions, now headless, rest in nearby Lincoln Lake, and the fate of the gilded plaster eagles remains unknown."

Another Look at Commitment to Accessibility in the Evolving Landscape Plan

Other vital commitments in the work of National Park Service, not established as priorities or laws in 1927, are to the standards of the 1968 Architectural Barriers Act, the Rehabilitation Act of 1973, and the requirements of the 1990 Americans with Disabilities Act. To support ABA and ADA compliance and make our parks welcoming to all people, The National Park Service launched a five-year initiative from 2015 to 2020 called "NPS ALL IN" to move forward in identifying accessibility barriers and implementing mitigations following the guidelines of Universal Design to make park opportunities as equal an experience as possible for all visitors. The All-In initiative was built around three goals:

- Create a welcoming environment for visitors with disabilities
- Ensure that new facilities and programs are accessible
- Upgrade existing facilities to improve accessibility

While the significant work needed to improve access to parks was not completed by 2020, the goals and strategies of the initiative motivated necessary change. Our accessibility objectives at the park level are based also on the recommendations made in 2011 by the Accessibility Assessment of Lincoln Boyhood National Memorial by the International Center for Accessibility.

⁶ Friendly Trees, Hallowed Grounds: An Expression of Sentiment and Reason, Historic Grounds Report, Jill York, 1984.

⁷ Friendly Trees, Hallowed Grounds: An Expression of Sentiment and Reason, Historic Grounds Report, Jill York, 1984

“We are committed to having this project demonstrate the best of what we have learned about physical and intellectual accessibility and Universal Design to empower all visitors to feel welcome and at home and able to fully enjoy the resources of their national park.” Superintendent Schier, May 2019

CONUNDRUM: A confusing or difficult problem or question

How to incorporate modern accessibility features into Olmsted’s 1927 protected historic landscape

Conundrum One: The two sets of stairs at the culmination of the two parallel graveled trails of the Allee which provide access to the upper level of the park and all its commemorative features are barriers requiring mitigation. There was an old spur trail leading from the culmination of the East Allee Trail to the Trail of Twelve Stones, and this spur could be used by visitors using wheelchairs, but with considerable effort, as an approach to the Pioneer Cemetery and the continuing trails. However, this was an unsatisfactory solution because of the steep ascent and loose-graveled surface.

Nevertheless, the east side of the Allee had been identified as the alternate approach to the stairs for visitors with disabilities and marked at the visitor center parking lot as wheelchair accessible, while still proving difficult and frustrating for visitor use. If visitors missed the identifying sign, and took the west parallel Allee trail instead, they would find only stairs at the trail’s end, and face no other option but to turn around and return to the parking lot.



Figure 9. Visitors encounter stairs at the culmination of the two parallel trails of the Allee that lead to the park’s upper level. (NPS/Rhonda Schier)

Conundrum Two. Having learned at previous parks that stairs are a barrier and a safety risk as they were at Mount Rushmore’s Presidential Trail, at the approach to the second floor of Independence Hall where many visitors tripped and fell, at the site of Washington’s Headquarters at Valley Forge where an alternate sloped approach was required, and at the top of the Gateway Arch as the final approach to the Observation Deck, our first thought at Lincoln Boyhood was to eliminate the stairs and replace them with a gradual and graded slope that would be fully accessible and support the mission of Universal Design.

We soon learned that an extended gradual slope from the parking lot to cemetery hill was impractical and not affordable. It was also damaging to the intent of the Olmsted landscape. We learned

from our Cultural Resource Specialists that removing the stairs would be an adverse effect to the historic property. I learned that my responsibility as superintendent was to preserve the historic cultural landscape and Olmsted's columnar design with the straight lines of the design including those two sets of stairs that had been constructed at the end of each Allee trail. The stairs serve as a focal point of the Allee's final boundary and visually support the change in elevation from one level to the next. Our responsibility to our commitment to the preservation of the Olmsted historic formal landscape with all its design features made perfect sense. We agreed to preserve the stairs while brainstorming an acceptable alternate approach to the upper level.

Conundrum three: How will we incorporate the necessary curved lines of additional spur trails as alternatives to the stairs while honoring the straight lines of Olmsted's columnar design?



Figure 10. A new spur trail to the upper level of the park is hidden in the trees from the visitors' first long-range view of the Allee. (NPS/Rhonda Schier)

We reviewed our park's guiding documents, consulted with our designers and cultural resource specialist, looked at previous landscape design proposals, and eventually saw the light, so to speak, with what we called the "Modified Lightbulb" design to include one, or at best, two curved side trails hidden in the trees from the visitors' initial view from the parking lot of the Allee.

Upon arrival to the new spur trails, visitors using mobility devices can now turn, avoid the stairs, and proceed comfortably to the upper level to the Pioneer Cemetery and other features of the park. As a Universal Design feature, the trails also allow visitors pushing infants in strollers and pulling toddlers in wagons to proceed easily, as well as allow visitors with hidden disabilities like weak knees and sore hips to proceed more comfortably.

While we were progressing in the spirit of compromise and with an eye on economy I wrote to the Cultural Resource Management (CRM) team, "It is not necessary to create an additional accessible route on the west side with a new trail installation if we are satisfied with the current solution of an additional improved accessible spur trail on the east side, and if we advise visitors verbally and with signs that accessibility is only available on the east side of the Allee lawn. I received a voice mail in return with the crucial question, "Who determines if we are satisfied?"

I saw the light, again, and realized as superintendent I was not satisfied with only one new spur trail on the east side. Upon further conversations an agreement was reached to proceed with additional design work with a request for additional funding to create two new spur trails in the Modified Lightbulb design for not one, but two symmetrical side trails for equal accessibility for both trails of the historic Allee, the two trails enclosing the “filament” of the tall flagpole rising 120 feet in the middle.



Figure 11. A 90-degree turn offers an alternate curved and sloped path in the woods for the visitor approaching in a wheelchair. (NPS/Rhonda Schier)

“The Modified Lightbulb Design would provide symmetrical curved and accessible trails on both sides of the stairs, concealed from view in the trees until arrival to the optional turn, so people approaching on either the East or West Allee trails from the parking lot and visitor center can proceed to the cemetery and approach the upper levels in a manner equal to other park visitors who may choose either the East or West Allee Trail as their approach.”--Superintendent Schier, December 2019

COLLABORATION: To work jointly, especially to create something

The project proceeded with an extraordinary team effort of collaboration among NPS staff, including Natural and Cultural Resource Specialists, Project Managers, Fund Source Managers, Facilities Managers, Accessibility Specialists, Contract Specialists, Roads and Trails staff, Landscape Architects, Historic Landscape Architects, Regional Director, Deputy Directors, and Associate Directors. Throughout the project there were many collaborative conference calls, site visits, consultations, and problem-solving discussions. As an example, below are the “Let’s Leave With” itinerary items for a conference call facilitated by regional staff and supported by 30 photographs provided by Lincoln Boyhood staff. Meeting introduction: “Lincoln Boyhood seeks to include universal access to parts of the memorial located atop a sloping hill. The effort is being designed and managed by regional staff with considerable input from park and regional cultural resource staff. The purpose of this meeting is to weigh competing designs, discuss the pros and cons of each alternative, and determine the final design and product. We will also discuss contracting requirements and timelines.

Let’s Leave With an understanding of the current design so that all participants are aware of the need for changes.

Let's Leave With an understanding of the memorials' formal designation so that we all agree as to the pathway for changes and the role of NPS and SHPO.

Let's Leave With a decision as to the trail surface.

Let's Leave With a decision whether to retain the steps.

Let's Leave with a decision on the design and location of the trail.

Let's Leave With a determination of the staff roles moving forward.

Let's Leave With an understanding of the contracting needs and requirements."

The meeting progressed successfully and concluded with a meeting participant saying he felt like Santa Claus, being able to help put into place the fundamentals for a successful project.

CONSULTATION: To seek advice and information

In order to recruit input from community members, the staff created a display in the visitor center with historic landscape drawings, current concept plans, maintenance challenges and alternate solutions, possible trail surfaces, and Universal Design standards. Possible trail surfaces were displayed including creek gravel, flat concrete, concrete pavers and exposed aggregate. The contractor poured three concrete samples to demonstrate options for added color. Comment cards were provided. Though we wondered at first if people would prefer the way the trails had always been, the overwhelming response was in favor of trail improvements and in support of changes.



Figure 12. Two people using wheelchairs on the trail share with 3 staff in uniform their preferences for trail surface and routes. (NPS/Rhonda Schier)

The Lincoln Boyhood staff hosted an on-site visit for park neighbors who live with disabilities and use mobility devices so people could review first-hand the options for trail surface and consider the proposed new routes. The response from the visitors who use wheelchairs surprised us. We expected them to prefer smooth concrete for easy maneuverability, but they told us that the concrete with exposed aggregate would provide much better gripping and traction for wheelchairs. This was a bonus to moving forward, having heard from our Cultural Resource Manager, "Of the paving options, only the exposed aggregate is compatible with the historic landscape."

COMPLIANCE: The act of obeying a rule or order, obedience

Through a standard 36 CFR Part 800 consultation, the compliance review process helped us evaluate the possible effects on our historic property and guided us in rethinking and redesigning the project as necessary. The feedback such as the ones below from Resource Specialists were vital to the progress of decision-making until a preferred design plan was reached.

Landscape Architect

Based on revised schematic materials submitted and later discussions with park and regional staff, a conditional finding of No Adverse Effect with the exception that details will be reviewed by the CRM team when they are developed to ensure the final design meets the Secretary of Interior Standards. No Adverse Effect.

Historical Landscape Architect

Update: Based on our conversations and revision to the design, this project is now consistent with SOI standards for rehabilitation. It retains historic fabric, provides barrier free access in a manner consistent with the exiting historic design, and utilizes compatible new materials to provide a stable surface. The proposal as conceptually shown has no adverse effect. I would appreciate being able to review the site construction drawings as they evolve to see how drainage issues and railings have been addressed.

Update: Final design minimizes changes to topography, vegetation, views, and circulation related to the historic designed landscape. The formal symmetry of the flanking walks is consistent with the overall design concept of the allee. No Adverse Effect

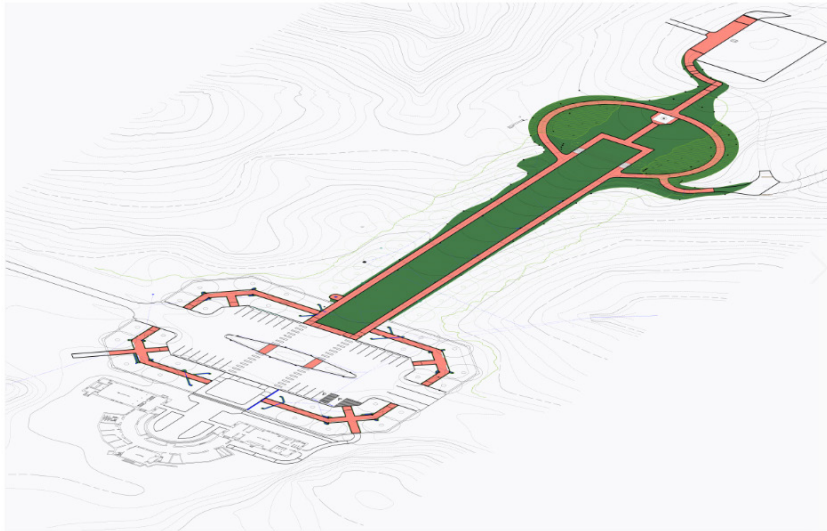


Figure 13. Map of the concrete pour for the "Lightbulb" shaped design for accessible trails from the Visitor Center to the Cemetery. (NPS)

State Historic Preservation Office

“Considering my staff’s site visit to the property to discuss the project, and analysis of plans and information provided to our office, we do not believe the characteristics that qualify Lincoln Boyhood Memorial for inclusion in the National Register of Historic Places will be diminished because of this undertaking. Therefore, we concur with the National Park Service finding that no historic buildings, structures, districts, objects, or archaeological resources within the area of potential effect will be adversely affected by the above indicated project. We commend the Park Service for its efforts to provide barrier free access from the visitor center to the cemetery that is sensitive to the historic landscape of the memorial.”

After review by regional Cultural Resource Specialists and agreement from SHPO with the NPS decision of no adverse effect, compliance was marked closed and complete in Planning, Environment & Public Comment (PEPC).

CONTRACTING: To enter into a formal and legally binding agreement.

Working with Interior Region 3, 4 & 5 Contract Specialists and with the Missouri Major Acquisition Buying Office (MABO) Contracting Officers, Contract #140P6220C0009 was awarded September 2020 to Aaecon General Contracting LLC, Louisville, Kentucky, to complete within 120 calendar days after receiving notice to proceed. The Lincoln Boyhood Facility Manager will serve as Point of Contact (POC) for the Memorial and the Contracting Officer Representative (COR) supervising the construction process and progress.

Contract Overview: “The work consists of removing the existing aggregate walkways with an approximate 9-inch profile depth within the parking area, Allee, flagpole terrace, and walkway to the cemetery viewing area. All walkways are to be newly constructed with a 6-inch reinforced colored concrete with exposed aggregate finish over a compacted 6-inch aggregate subbase. Two new additional walkways are to be field staked and graded into the flanking woodlands off the allee which will serve as the accessibility routes to the upper terrace. Woodland walkways will include construction of ABA ramps and limited stone retaining walls under 2-feet in height where necessary to minimize encroachment towards existing mature sycamore trees. Walkways shall be 8 feet wide through the Allee, upper terrace and cemetery access with woodland flanking walkways constructed to 6-feet in width approximate total area of new concrete walkways and patios of 21,000 square feet. The project contract was awarded on September 26, 2020. The construction was launched in December 2020. The project was completed by deadline on April 27, 2021.”

CONSTRUCTION: To build something

The renovations include an upgrade from a gravel tread to an all-weather surface for the trails and a viewing pad at the Pioneer Cemetery. Improvements were made to the infrastructure of the trails for long-term sustainability against the forces of water, runoff, and erosion. The formal grounds with its parallel trails of the main Allee designed by Frederick Olmsted were preserved as contemporary modifications were implemented to meet modern needs.



Figure 14. Trail to the flagpole terrace and cemetery are framed in wood forms and ready for the concrete pour. (NPS/Rhonda Schier)



Figure 15. The new colored concrete-aggregate is poured and pretty surrounded by the lawn of the formal landscape of the Allee. (NPS/Rhonda Schier)

Associate Regional Director for Facilities, Planning, and Infrastructure summarized:

- Construction is complete of a fully accessible trail at Lincoln Boyhood National Memorial which will allow park visitors of all abilities and preferences access to the two parallel trails through the cultural landscape of the park.
- Project was completed on time (April 24, 2021) and on contracted budget.

- Project design was completed with in-house regional staff, working through WR Contracting for obligation and construction.
- Superintendent is satisfied with the project which provides accessible access through the memorial landscape and up to Lincoln’s mother’s grave site.
- Project provides a significant ABA improvement in the park for those of all abilities and will be a catalyst toward future accessible trails.
- The project was a success.

COST: The amount paid

Repair/Rehab funding was used in the amount of \$635,520.00

COMMUNITY: A group of persons having a common history or interests

The resulting trail system is a beautiful addition to the park and seen as a model for other park improvement and accessibility projects. The trails are used and appreciated daily by walkers and joggers, athletes in training, and neighbors with dogs on leash. Vacationing families push babies in strollers and pull toddlers in wagons for their tours of the park. Visitors who use wheelchairs and walkers have equal access to the historic Allee, the Pioneer Cemetery and the Lincoln homestead beyond. Universal Design features allow visitors of all abilities, disabilities, and preferences to choose their preferred options between path or stairs, sun or shade, and direct or indirect routes. The renovated trails welcome those who repeatedly visit the park and those who love the park on their first visit as they marvel at the opportunity to be immersed in the history and nature where a self-educated boy lived and worked for 14 years among his family and friends in the Indiana woods.



Figure 16. Two visitors examine plants trailside demonstrating that Universal Design features of the landscape make resources welcoming and engaging for everyone visiting the parks. (NPS/Rhonda Schier)

COMMITMENT CONTINUED: The state of remaining dedicated to a cause



Figure 17. The combined NPS Denver Service Center and Lincoln Boyhood SETP team travel on foot and with wheelchair on the new accessible Allee trail. (NPS/Rhonda Schier)

SETP (Self Evaluation Transition Plan for Accessibility)

Commitment to accessibility continues with the development of a Self-Evaluation Transition Plan in partnership with the NPS Denver Service Center. Pre-visit conference calls were held to do reviews and evaluations of park facilities, services, programs, and publications. An on-site visit was held to complete assessments and evaluations of accessibility barriers. DSC staff created and submitted for Lincoln Boyhood review a draft of the Facilities and Services, Programs, Policies, Practices, Communication and Training barriers and mitigations as we progress toward the establishment of immediate, short-term, mid-term and long-term goals to create full accessibility and improved accessibility wherever possible.

Reforestation Project

Commitment to reforestation project per Olmsted's original recommendations continues in partnership with the Interior Regions 3, 4 & 5 Heartland Inventory and Monitoring Network, proceeding with a multi-year project to plant baby oaks to create an oak-hickory forest on the 12 acres nearest the Pioneer Cemetery where mature oaks stand. This will create a forest that demonstrates the prevalent species of the Lincoln era. Plans continue for improved accessibility of the park trails through the forest and farm.

IE&V ACT

Interpretation, Education and Volunteerism Accessibility Collaboration Team (IE&V ACT) continues to bring awareness, training and mitigation strategies to managers and field workers. Superintendent Schier is a member of the committee and served as host for an eight-part webinar series in partnership with Indiana University about effectively serving visitors, staff, and volunteers on the autism spectrum in the committee's broad approach to creating more welcoming parks. The committee is currently working on a planning and training initiative to support program and park managers with

knowledge about effectively seeking funding for programmatic and intellectual accessibility from the beginning stages of project planning.

Lincoln Boyhood's renovation of visitor center restrooms for accessibility is funded for construction during fiscal year 2022. Lincoln Boyhood will pursue funding and effective designs for continued trail improvements and tactile wayfinding models, as well as accessible exhibits, publications, and programming opportunities for visitors with limited vision and hearing and to meet the needs for intellectual accessibility.

CONCLUSION with an invitation

Please come to Lincoln's childhood home to explore history and reflect on the impact and inspiration of the many generations and the many faces of our Community of Lincoln.



Figure 18. A visitor using a walker now has comfortable access through the Allee landscape and the park features beyond. (NPS/Rhonda Schier)

CRUCIAL QUESTION: What would Rick think?



Figure 19. A visitor on foot and a visitor using a wheelchair on the trail demonstrate the Olmsted 200 theme, "Parks for All People." (NPS/Rhonda Schier)

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Universal Design principles relevant to the Lincoln Boyhood Allee Trail Project

PRINCIPLE ONE: Equitable Use: The design is useful to people with diverse abilities

- 1a. Provide same means of use for all users: identical whenever possible; equivalent when not.
- 1b. Avoid segregating or stigmatizing any users.
- 1d. Make the design appealing to all users

PRINCIPLE TWO: Flexibility in Use: The design accommodates a wide range of individual preferences and abilities.

- 2a. Provide choice in methods of use.

Pedestrian Routes/Entrance

- All users follow the same routes through the site and facility.

- The primary entrances (visitor and employee) of newly constructed facilities do not have steps.