

Table of Contents

EXECUTIVE SUMMARY	5
<i>Statement of Purpose</i>	5
<i>Project Team Members</i>	5
<i>Investigative History and Methodology</i>	5
<i>Use Program</i>	6
<i>Project Goals</i>	6
DEVELOPMENTAL HISTORY	7
<i>Introduction</i>	7
<i>Statement of Significance</i>	7
<i>Period of Significance</i>	8
<i>Historic Photographs</i>	9
<i>Drawings</i>	9
<i>Century of Progress Architectural District – A Comparison of Integrity</i>	9
EVALUATION OF CHARACTER DEFINING FEATURES	11
<i>Spatial Organizations</i>	11
<i>Main House – Room Function & Appearance</i>	12
<i>Guest House – Room Function & Appearance</i>	13
EXISTING CONDITIONS	15
<i>Site Features</i>	15
Main House	17
<i>Field Photographs</i>	17
<i>Structure</i>	34

<i>Exterior Envelope</i>	35
<i>Interior</i>	35
<i>Plumbing Systems</i>	36
<i>Heating Systems</i>	36
<i>Electrical Systems</i>	37
<i>Kitchen Appliances</i>	37
<i>Furnishings</i>	37
<i>Accessibility Assessment</i>	37
<i>Life Safety Evaluation</i>	37
Guest House	38
<i>Field Photographs</i>	38
<i>Structure</i>	45
<i>Exterior Envelope</i>	46
<i>Interior</i>	46
<i>Plumbing Systems</i>	47
<i>Heating Systems</i>	47
<i>Electrical Systems</i>	47
<i>Kitchen Appliances</i>	47
<i>Furnishings</i>	47
<i>Accessibility Assessment</i>	48
<i>Life Safety Evaluation</i>	48
ULTIMATE TREATMENT	49

TREATMENT RECOMMENDATIONS	50
<i>Site Features</i>	50
Main House	51
<i>Structure</i>	51
<i>Exterior Envelope</i>	53
<i>Interior</i>	55
<i>Plumbing Systems</i>	56
<i>Heating Systems</i>	57
<i>Electrical Systems</i>	58
<i>Kitchen Appliances</i>	58
<i>Accessibility Assessment</i>	58
<i>Life Safety Evaluation</i>	59
<i>Proposed floor plans for Kitchen, Bath, and Screened Porch</i>	59
Guest House	66
<i>Structure</i>	66
<i>Exterior Envelope</i>	68
<i>Interior</i>	69
<i>Plumbing Systems</i>	70
<i>Heating Systems</i>	71
<i>Electrical Systems</i>	72
<i>Kitchen Appliances</i>	72
<i>Accessibility Assessment</i>	72
<i>Life Safety Evaluation</i>	72

<i>Proposed floor plans for Kitchen & Bath</i>	73
SUMMARY OF TREATMENT RECOMMENDATIONS	77
APPENDIX A – Context	
Century of Progress Architectural District	
A. HABS Large-Format Photographs	
B. HABS Written Historical and Descriptive Data	
APPENDIX B – Historical Data	
Cypress Log Cabin	
A. HABS Large-Format Photographs	
B. HABS Written Historical and Descriptive Data	
C. Reduced Copies of Measured Drawings	
Cypress Log Cabin, Guest House	
D. HABS Large-Format Photographs	
E. HABS Written Historical and Descriptive Data	
F. Reduced Copies of Measured Drawings	
APPENDIX C – National Register Nomination	
APPENDIX D – Exhibits	
A. <i>A Century of Progress</i>	
B. <i>Pecky Cypress – Its Nature and Uses</i>	
APPENDIX E – Draft Cultural Landscape Plan & Photos	
REFERENCES	

EXECUTIVE SUMMARY

Statement of Purpose

The purpose of this document is to present the existing conditions and treatment recommendations for the rehabilitation of the Cypress Log Cabin and Guest House which were constructed for the 1933 Century of Progress Exhibition. This report will offer alternative treatments for key issues while proposing treatments that will preserve the buildings for the use and enjoyment of future generations.

Project Team Members

Information and Management Assistance:
Indiana Dunes National Lakeshore (INDU)
Superintendent Dale B. Engquist
Chief of Resource Management Bob Daum
Chief of Maintenance Pete Amodei
Historian Dori Partsch

Midwest Regional Office (MRWO)
Chief of Cultural Resources Craig Kenkel
Historical Architect Alan W. O'Bright
Historical Architect Jana Gross

Historic Landmarks Foundation of Indiana (HLFI)
Northern Regional Office Director Todd Zeiger

Investigative History and Methodology

The first investigation of the Cypress Log Cabin is believed to have been done for the General Management Plan (GMP) of Indiana Dunes National Lakeshore. This plan was completed in February of 1980. The GMP addressed each of the Century of Progress houses separately, and stated that, "The Cypress House's principal significance is that it was in the Chicago World's Fair. Not especially innovative, it is an example of the "rustic style" popularized by the National Park Service between 1915 and 1940."¹ The report noted that if the Cypress house, along with the Lustron houses and the Armco-Ferro House, were nominated to the National Register they would be moved to another location within the national lakeshore and operated as hostels or park housing after the expiration of the Reservations of Use and Occupancy.

In 1985 the Midwest Regional Office completed research on the Century of Progress houses and prepared the National Register nomination for the Beverly Shores Century of Progress Architectural District. See Appendix C.

¹ General Management Plan, Indiana Dunes National Lakeshore, (National Park Service, Department of the Interior, February 1980), 21-22.

In 1992 the Maintenance Division of the national lakeshore assessed the log cabins in an effort to determine how much money would be required to stabilize the structures, and submitted a request for funding.²

Further investigation and research was completed in 1993 when the national lakeshore contracted with the Historic American Buildings Survey (HABS) to complete a set of as-built measured drawings, large-format photographs, and written histories of the Century of Progress homes, including the Cypress Log Cabin and Guest House. See Appendices A and B.

The 1997 General Management Plan, a compilation of management plans covering three distinct areas of the national lakeshore, was completed in August of that year. The stance taken by the national lakeshore was that long-term leases would be sought for each house, requiring strict maintenance of the buildings and occasional tours. It also stated that if the Rostone and Florida Tropical houses were threatened by shoreline erosion they would be moved to the south side of Lake Front Drive.³

In 1998 and 1999 this author, with the assistance of Todd Zeiger of Historic Landmarks Foundation of Indiana (HLFI), completed assessments of the buildings in preparation for the completion of this report.

Use Program

In an effort to preserve the Century of Progress houses and the integrity of the historic district, the national lakeshore entered into a Memorandum of Understanding (MOU) with HLFI. Through this MOU, it is the intent of the national lakeshore and HLFI that the Century of Progress houses, including the Cypress Log Cabin and Guest House, be protected and maintained under the auspices of a residential licensing program. It is also the intent of the national lakeshore that these houses be open to the general public, on an annual basis, for visitation. To facilitate this program, the national lakeshore licensed all of the Century of Progress houses, with the exception of the Armco-Ferro-Mayflower House, to HLFI for a period of 35 years; in turn, HLFI is responsible for recruiting potential lessees for each house. (The Armco-Ferro-Mayflower House will also be licensed to HLFI when the Reservation of Use and Occupancy expires in 2005.) The individual houses would be leased to interested parties for a period of 30 years. The lessees would be responsible for completing the recommended treatment within the first 3 years of the lease following the Secretary of the Interior's Standards.

Project Goals

The goal of this report is to assess the condition of the remaining historic fabric and to propose treatment recommendations that will be consistent with the Secretary of the Interior's Standards and the use program, and that will provide serviceable, safe, and enjoyable structures for the occupants and park visitors.

² Maintenance Division files, Indiana Dunes National Lakeshore.

³ General Management Plan, Indiana Dunes National Lakeshore (National Park Service, Department of the Interior, August 1997), 34.

DEVELOPMENTAL HISTORY

Introduction

The Cypress Log Cabin and Guest House were originally constructed for the 1933 Century of Progress Exposition. “The . . . Exposition opened in May of 1933 directed by the theme of science and its role in industrial advancement. Within the Home and Industrial Arts Group were model houses which featured modern materials, building methods and innovative home appliances, including the Armco-Ferro-Mayflower, Wieboldt-Rostone and Florida Tropical houses, and the House of Tomorrow. All utilized new techniques of design, construction and prefabrication in an attempt to bring the out-of-date housing industry into line with more efficient manufacturing practices such as those used by the auto industry.”⁴

The Cypress Log Cabin was sponsored by the Southern Cypress Manufacturers’ Association of Jacksonville, Florida, and, unlike the other houses, it “. . . was built . . . as an exhibition house to demonstrate the many uses of cypress . . .” and “. . . is unique in that it was built using traditional materials rather than the experimental materials used elsewhere in the exhibition. . .”⁵ “Ironically, the Cypress House was the only building in the Home and Industrial Arts group that actually served as a home;”⁶ the ell having been occupied during both fair seasons by the representative of the Association and his wife.

After the close of the Exposition in 1934, Robert Bartlett, a Northwest Indiana real estate developer, purchased the Cypress Log Cabin and Guest House and moved them, along with several other structures from the Exposition, to his new residential development in Beverly Shores, Indiana. Bartlett owned the Cypress Log Cabin and Guest House until November 1942. The houses were sold several times between the years of 1942 and 1970 when they came into the possession of the Indiana Dunes National Lakeshore. Please refer to Appendices A and B, Context and Historical Data, for further historical information.

Statement of Significance

The Cypress Log Cabin and Guest House are located in the Beverly Shores Century of Progress Architectural District, a National Register District.

The National Register nomination, dated October 21, 1985, states, “The Beverly Shores Century of Progress Architectural District is significant because it encompasses houses from the 1933-34 Chicago Century of Progress Exposition that comprised a portion of an exhibit known as the Home and Industrial Arts Group. Many of these structures were innovative and displayed engineering and construction technologies that have become an integral part of modern residential architecture.” The authors of the nomination stated, “In spite of . . . minor changes, all of the structures retain their integrity of design.” The authors focused on changes made to the

⁴ Maria F. Ali, *The Century of Progress Documentation Project* (Washington, D.C.: Historic American Buildings Survey, Department of the Interior, 1994), 1, HABS No. IN-239. Appendix A.

⁵ Maria F. Ali, *The Century of Progress Documentation Project* (Washington, D.C.: Historic American Buildings Survey, Department of the Interior, 1994), 1, HABS No. IN-241. Appendix B.

⁶ Ali, 3, HABS No. IN-241. Appendix B.

Florida Tropical, Wieboldt-Rostone, and Cypress houses, noting that the Florida Tropical and Wieboldt-Rostone houses had been set on basements due to soil conditions and that “the unrestrained growth around the Cypress Log Houses at Beverly Shores achieves the overgrown forest effect only partly achieved in the Exhibition of 1933.”⁷

Although the National Register nomination states that the significance of the structures is unrelated to their current location, the role of the Century of Progress houses in the development of Beverly Shores has become apparent. A Determination of Eligibility recently completed on a property located in Beverly Shores included a concise history of the development of the town.⁸ It stated that Beverly Shores, developed by Frederick and Robert Bartlett of Chicago, was “One of the most ambitious recreational investments in the duneland” area.⁹ It was the 1920’s, and the Bartletts envisioned Beverly Shores as a grand resort such as those of Florida.

Beverly Shores was established by Frederick Bartlett in 1927. His “. . . plans proposed construction of two ‘large and modern hotels to rival the hostelryes of Atlantic City’ and a south Shore railroad station.”¹⁰ By 1930, he had built the administration building, the rail road station, and a clubhouse for the golf course. “To attract buyers, Bartlett established the Theater of the Dunes as summer headquarters for Chicago’s Goodman Theater Company.”¹¹

Robert Bartlett, Frederick’s younger brother, purchased Frederick’s interest in Beverly Shores in 1933. His purchase brought a second phase of development, with the construction of a large hotel, a beach casino, infrastructure, and extensive landscaping projects along the major thoroughfares. Bartlett utilized aggressive marketing tactics to sell real estate in a Depression-battered market. “Mirroring the wild promotional schemes of the 1920’s real estate boom, . . .”¹² he moved the Century of Progress houses to Beverly Shores by barge and truck. Bartlett thought these high-profile structures would attract buyers to the development during a harsh business climate.

In 1946, Bartlett sold most of his Beverly Shores real estate holdings, but continued to use his home located there. The residents of Beverly Shores went to the polls in 1946 voting to incorporate as a town. The incorporation was certified on January 2, 1947.

Period of Significance

The period of significance, as stated in the National Register nomination, was the years of 1933 and 1934, when the Cypress Log Cabin was located at the Exposition site in Chicago. Although the Century of Progress homes were moved from their original location, the new setting and spatial relationships of the homes have developed their own significance as cornerstones in the development of the town of Beverly Shores. Thus, the period of significance extends to 1947, including the years when Robert Bartlett was instrumental in the development of Beverly Shores.

⁷ National Register Nomination, Appendix C.

⁸ Janice Slupski, *17 West Service Avenue: An Illustration of Dunes Area Recreational Development* (Indiana Dunes National Lakeshore, Department of the Interior, 1997), paraphrased.

⁹ Slupski, 4.

¹⁰ Slupski, 5.

¹¹ Slupski, 5.

¹² Slupski, 7.

After the incorporation of Beverly Shores in 1947, Bartlett's involvement with the town lessened.

Historic Photographs

See Appendix D - Exhibits

Drawings

Few drawings have ever been completed of the Cypress Log Cabin and Guest House. The first known drawings of the main house were sketches used in brochures for the Exposition. A set of as-built measured drawings were completed by the Historic American Buildings Survey (HABS), National Park Service, in the summer of 1993. These drawings included plans, elevations, and sections. See Appendix B, Historical Data.

Century of Progress Architectural District – A Comparison of Integrity

Of the remaining Century of Progress Exposition buildings, the Cypress Log Cabin and Guest House have seen only a few changes since their move to Beverly Shores in 1935, the most prominent being the change in the spatial relationship between the houses and the additions to both houses. Owners of the houses enclosed the original porch area of the main house for use as a bedroom, added a screened porch area, and closed a door between the exhibit room/living room and the display room/kitchen allowing for the addition of the kitchen, all completed prior to 1951.¹³ The interior spatial organization of the guest house was also modified, prior to 1951, from its original use as a workshop and display area to its Beverly Shores use as a guest house, and three additions were constructed.¹⁴

In comparison, the House of Tomorrow has seen the most changes since the houses were moved to Beverly Shores, most notably in interior spatial relationships and replacement of exterior and interior finish materials. These changes, completed between 1935 and the early 1990's, range from removing the fixed glass wall system on the second and third floor, to adding screened enclosures and a carport, to adding and moving interior walls, to significantly changing interior wall finish materials.

The Wieboldt-Rostone House has seen only a few changes in its design since it was moved to Beverly Shores. It was set on a basement rather than on a flat concrete slab, and in 1950 it went through a major change in appearance when Perma-stone was installed over the original Rostone panels. Since the national lakeshore vacated the house in the late 1970's, it has experienced severe water damage, resulting in the deterioration of interior finish materials including Rostone panels, stair treads, and risers.

The Florida Tropical House was also set on a basement after its move to Beverly Shores, and there were minor changes to the spatial organization of the first floor. The original bar area was

¹³ Interview with Joel Miller, February 19, 1999.

¹⁴ Interview with Joel Miller, February 19, 1999.

modified to include a stair to the basement, a powder room, and a small dining area, and the butler's pantry located adjacent to the kitchen was removed.

Finally, the Armco-Ferro-Mayflower House's original garage/display area was enclosed for use as a den, and due to lack of regular maintenance of the flat roof, roof leaks have developed over the years. The leaks have resulted in deterioration of interior plaster finishes on the first and second floor and in deterioration of some of the corrugated steel panels that comprise the structural system.

EVALUATION OF CHARACTER DEFINING FEATURES

Spatial Organizations

External

The spatial relationships between the Century of Progress homes have remained unchanged since their placement in Beverly Shores in 1935. However, due to natural succession, additions of landscaping features by subsequent owners, and a lack of regular maintenance, the once open lawns between the Cypress Log Cabin, the House of Tomorrow, and the Armco-Ferro-Mayflower House have become overgrown.

The integrity of the cultural landscape of the Century of Progress Architectural District has not yet been evaluated by Historical Landscape Architects. The national lakeshore has requested funding for the evaluation and the completion of a Cultural Landscape Report.

The spatial relationship between the Cypress Log Cabin and the Guest House as it existed at the Exposition was altered at the Beverly Shores site. Bartlett changed the relationship between the main house and guest house by altering their placement on site at the Beverly Shores location, and he did not recreate the complex landscape and its amenities as it had existed at the Exposition. The landscape at the Exposition had included fences, pergolas, bridges, and gardens which created a mountain lodge atmosphere. It does appear, however, that owners of the house, either Bartlett or subsequent, planned an elaborate garden, and included parts of the original pergola.

Internal

The internal spatial relationships of the main house and guest house were modified, however details concerning the modifications are not available. It is not evident whether the changes were made by Bartlett or by subsequent owners, but sometime before 1951 several changes were made to the houses that resulted in the current spatial relationships.

As stated, no documentation exists detailing each alteration of the main house; however, it has been discerned from an oral history interview with Joel Miller,¹⁵ resident of the House of Tomorrow from 1951 to 1998, and from inspection that: the northern-most door between the display room/kitchen and the exhibit room/living room was closed, allowing for the addition of the kitchen; the original gable-roofed porch area to the west of the exhibit room was enclosed for use as a bedroom; and a flat-roofed screened enclosure was added to the west of the original gable-roofed porch.

The interior spatial relationships of the guest house have been greatly modified from the original configuration at the Exposition. It was originally designed as an exhibit area and workshop probably with only three rooms - the main room and two wings, with the wings having multiple overhead garage-style doors. After having been moved to Beverly Shores, the exterior walls of the wings were redesigned with traditional window and door openings. One wing was subdivided into bedrooms and a bath, while the other was subdivided into a kitchen and a bedroom. There were also three additions to the guest house: one room on the east end and one

¹⁵ Interview with Joel Miller, February 19, 1999.

on the south side, both accessible only from the outside; and a screened enclosure on the south side of the house. These modifications, according to Mr. Miller's oral history, also took place prior to 1951.

Room Function & Appearance

Main House

The following briefly describes the historic and most recent room functions and significant features. Changes made to the spaces prior to 1995, when the Reservation of Use and Occupancy expired, can be found within the Existing Conditions and Treatment Recommendations sections of this report. The intent of these summaries is to assist the reader in developing a mental image of how the rooms appear. Specific information with regard to elements and building materials can also be found within the Existing Conditions and Treatment Recommendations sections of this report. Names given to each room are current and historic use names, respectively.

Living Room/Exhibit Room

This room was used as the main exhibit room while at the Century of Progress Exposition. After the house was moved to Beverly Shores, it was used as a living room and occasionally a sleeping area when large groups of people visited. The stone-veneered fireplace is the focal point of the room. The walls are covered with cypress paneling with battens and the floor with 6-inch laminated cypress slats. The ceiling rises to the height of the roof's ridge, with exposed roof decking of cypress and trusses constructed of rough sawn cypress.

Kitchen/Display Room

This room was used as a display room while at the Exposition. After the house was moved to Beverly Shores, it was used as a kitchen and dining room. The walls are covered with pecky cypress¹⁶ paneling, as is the back side of the fireplace. Half of the floor is covered with 2-inch laminated cypress slats while the other half is covered with red and green asbestos tile. The installation date of the asbestos tile is unknown. The ceiling rises to the height of the roof's ridge, and the exposed cypress decking was painted white.

Bedroom

Ironically, the Cypress Log Cabin, originally designed specifically to house construction material exhibits and historic artifacts, was the only building actually used as a home at the Exposition. The representative of the Southern Cypress Association and his wife used the ell, which contained the bedroom, hall/pantry, and bath, as living quarters during both seasons of the fair. The bedroom has extensive built-in storage, including a large closet with cabinets above as well as cabinets above the adjacent bathroom's ceiling. The walls are covered with cypress paneling and the floor with 2-inch laminated cypress slats. The ceiling rises to the height of the roof's ridge, and the exposed cypress decking was painted white.

¹⁶ Appendix D – Exhibits B. *Pecky Cypress – Its Nature and Uses*

Hall/Pantry

This room was used as a pantry while at the Exposition. The walls are covered with cypress paneling, and the floor with red and green asbestos tile of unknown date. The ceiling is very low and is covered with cypress paneling.

Bath

This room was used as a bathroom while at the Exposition, however the original layout of the fixtures is unknown. After the house was moved to Beverly Shores, it was again used as a bathroom. The walls are covered with cypress paneling and the floor with red and green asbestos tile. The installation date of the asbestos tile is unknown. The ceiling is very low and is covered with cypress paneling.

West Bedroom/Porch

This room was used as an open porch at the Exposition. Sometime after the house was moved to Beverly Shores, it was enclosed for use as a bedroom. The original log columns that supported the roof were incorporated into the walls as decorative elements. The three new exterior walls were covered with cedar paneling. The original exterior wall of the house was slightly modified. The cypress siding was removed from the eave line to the ridge, and it was replaced with cedar shingles. The floor is covered with asbestos tile, date unknown.

Room Function & Appearance**Guest House****East Wing (2 Bedrooms, Bath)/Exhibit Area**

While at the Exposition, this area was probably a large exhibit area and workroom, with three overhead doors in the exterior wall allowing for pedestrian circulation. After the house was moved to Beverly Shores, the exterior wall was framed, providing for conventional door and window openings, and interior partitions were added, creating two bedrooms and a ¾ bathroom. The walls and ceilings are finished with plywood paneling, and the floor in the bedrooms is covered with carpeting, while the bath has asbestos tile.

Living Room/Exhibit Area

While at the Exposition, this room was probably used as an exhibit space. After the house was moved to Beverly Shores, this area was used as a living room. The walls and ceilings are finished with plywood paneling, and the floor is covered with carpeting.

West Wing (Kitchen, Bedroom)/Exhibit Area

While at the Exposition, this area was probably a large exhibit area and workroom with three garage-style overhead doors in the exterior wall allowing for pedestrian circulation. After the house was moved to Beverly Shores, the exterior wall was framed, providing for conventional door and window openings, and interior partitions were added, creating a kitchen and a bedroom. The walls and ceilings are finished with plywood paneling, and the floor is carpeted.

East Addition

This addition was constructed sometime after the house was moved to Beverly Shores. It is only accessible from the exterior of the building, and it was probably used as a utility/laundry room. The walls and ceiling are finished with drywall, and the floor is exposed concrete.

South Addition

This addition was constructed sometime after the house was moved to Beverly Shores. It was only accessible from the exterior of the building, and its original use is unknown. It is now inaccessible because the roof has collapsed.

EXISTING CONDITIONS

Site Features

Siting

The main house is sited on a dune, on the south side of Lake Front Drive, overlooking Lake Michigan, and to the northeast of the House of Tomorrow. The guest house is situated parallel to the main house and to the south.

Due to the construction type and surrounding vegetation, this site is highly flammable.

Soils

“This sand dune area is comprised of Oakville fine sand with slopes of 18 to 40 percent. This type of soil, typically found on lake plains, low sand dunes, and beaches ridges, is deep and well drained. . . . In a typical profile, the surface layer is dark grayish brown fine sand about 5 inches thick. The subsoil is about 30 inches thick. . . . Some areas of this soil are strongly acid in the surface layer and subsoil. . . . This soil has low available water capacity and very rapid permeability. The organic matter content of the surface layer is moderate. Surface runoff is rapid. . . . Most of the acreage of this soil is in woodland. Trees have stabilized the sand movement in these areas. . . . This soil has severe limitations for building sites because of the slope. . . . Foundations and footings should be constructed to provide stability for the structure and may need to be placed on pilings.”¹⁷

Grade

The site is relatively flat under the houses, lying on a northeast-southwest axis parallel to Lake Front Drive. The adjacent lot, to the southwest, is relatively flat with an abrupt slope, at the west end, up to the site of the House of Tomorrow. The site in question has an abrupt slope down from the front yard to Lake Front Drive on the northwest. The site is accessed either by a set of 27 concrete steps from Lake Front Drive, or from Carol Lane on the southeast side of the site, which runs parallel to Lake Front Drive. There is an abrupt rise of approximately one and one-half feet from Carol Lane up to the site at the east end of the Guest House. Concrete pavers, placed randomly along the path from the Lane to the Cabin, are now covered with top soil and grasses.

Vegetation

The site is heavily wooded and overgrown and was at one time a planned landscape, as noted on the draft cultural landscape plan by Sherda Williams, NPS Historical Landscape Architect, June 1993, Appendix E. It is unknown who completed the landscape planning or during what time period.

The surrounding trees and shrubs are affecting the integrity of the buildings. They are located too close to the buildings, some actually rubbing on the walls and rafter tails, causing deterioration and a build-up of moisture resulting in mold and vegetation growth on the wood.

¹⁷ Department of Agriculture, Soil Conservation Service, and Purdue University, Agricultural Experiment Station, Porter County Soil Survey, n.d.

Exterior Furniture

1. Remnants of the cypress pergolas, used at the Exposition as enhancements to the entries, are located on site but are not set up. Photographs of the site after the houses were moved to Beverly Shores have not been located, so it is not known whether these were used as an entry piece or as an enhancement to the garden.
2. There are concrete garden pavers placed randomly on site. They are now covered with top soil and grasses due to the lack of regular maintenance.
3. The concrete sidewalks in front of the Main House, and between the Main and Guest houses are in good condition.
4. The patio grill, located to the east of the main house, was built with a stone veneer and has severely deteriorated.

Miscellaneous

There is evidence of woodchuck and raccoon inhabitation under the houses.

Field Photographs – Main House

TRACT: 65-107 _____

PHYSICAL ADDRESS:

Lake Front Drive _____

Beverly Shores, Indiana _____

DATE PHOTOGRAPHED:

November 1999 _____

PHOTOGRAPHER:

Judith E. Collins _____

Images:

1. Northwest Perspective View
2. North Elevation, Front Door

TRACT: 65-107 _____

PHYSICAL ADDRESS:

Lake Front Drive _____

Beverly Shores, Indiana _____

DATE PHOTOGRAPHED:

November 1999 _____

PHOTOGRAPHER:

Judith E. Collins _____

Images:

3. North Elevation, Proximity of Trees
4. North Elevation, Proximity of Trees

TRACT: 65-107 _____

PHYSICAL ADDRESS:

Lake Front Drive _____

Beverly Shores, Indiana _____

DATE PHOTOGRAPHED:

November 1999 _____

PHOTOGRAPHER:

Judith E. Collins _____

Images:

5. East Elevation, Proximity of Trees
6. East Elevation, Proximity of Trees

TRACT: 65-107 _____

PHYSICAL ADDRESS:

Lake Front Drive _____

Beverly Shores, Indiana _____

DATE PHOTOGRAPHED:

November 1999 _____

PHOTOGRAPHER:

Judith E. Collins _____

Images:

7. Southeast Perspective View
8. Chimney

TRACT: 65-107 _____

PHYSICAL ADDRESS:

Lake Front Drive _____

Beverly Shores, Indiana _____

DATE PHOTOGRAPHED:

November 1999 _____

PHOTOGRAPHER:

Judith E. Collins _____

Images:

- 9. Chimney
- 10. Screened Enclosure

TRACT: 65-107 _____

PHYSICAL ADDRESS:

Lake Front Drive _____

Beverly Shores, Indiana _____

DATE PHOTOGRAPHED:

November 1999 _____

PHOTOGRAPHER:

Judith E. Collins _____

Images:

11. Screened Enclosure
12. Looking into Kitchen

TRACT: 65-107 _____

PHYSICAL ADDRESS:

Lake Front Drive _____

Beverly Shores, Indiana _____

DATE PHOTOGRAPHED:

November 1999 _____

PHOTOGRAPHER:

Judith E. Collins _____

Images:

13. Kitchen, West Interior Elevation
14. Kitchen, North Interior Elevation

TRACT: 65-107 _____

PHYSICAL ADDRESS:

Lake Front Drive _____

Beverly Shores, Indiana _____

DATE PHOTOGRAPHED:

November 1999 _____

PHOTOGRAPHER:

Judith E. Collins _____

Images:

15. Pantry, East Interior Elevation
16. Bathroom, Northeast View

TRACT: 65-107 _____

PHYSICAL ADDRESS:

Lake Front Drive _____

Beverly Shores, Indiana _____

DATE PHOTOGRAPHED:

November 1999 _____

PHOTOGRAPHER:

Judith E. Collins _____

Images:

17. Bedroom, Northwest View
18. Bedroom, Southwest View

TRACT: 65-107 _____

PHYSICAL ADDRESS:

Lake Front Drive _____

Beverly Shores, Indiana _____

DATE PHOTOGRAPHED:

November 1999 _____

PHOTOGRAPHER:

Judith E. Collins _____

Images:

19. Bedroom, Closet
20. Bedroom, Interior of Closet

TRACT: 65-107 _____

PHYSICAL ADDRESS:

Lake Front Drive _____

Beverly Shores, Indiana _____

DATE PHOTOGRAPHED:

November 1999 _____

PHOTOGRAPHER:

Judith E. Collins _____

Images:

21. Kitchen, South Elevation
22. Kitchen, Southeast View

TRACT: 65-107 _____

PHYSICAL ADDRESS:

Lake Front Drive _____

Beverly Shores, Indiana _____

DATE PHOTOGRAPHED:

November 1999 _____

PHOTOGRAPHER:

Judith E. Collins _____

Images:

23. Living Room, East Interior Elevation and Chimney
24. Living Room, Chimney

TRACT: 65-107 _____

PHYSICAL ADDRESS:

Lake Front Drive _____

Beverly Shores, Indiana _____

DATE PHOTOGRAPHED:

November 1999 _____

PHOTOGRAPHER:

Judith E. Collins _____

Images:

25. Living Room Ceiling, Deterioration of
Roof
26. Living Room, West View

TRACT: 65-107 _____

PHYSICAL ADDRESS:

Lake Front Drive _____

Beverly Shores, Indiana _____

DATE PHOTOGRAPHED:

November 1999 _____

PHOTOGRAPHER:

Judith E. Collins _____

Images:

27. Living Room Trusses
28. Living Room, Southwest View

TRACT: 65-107 _____

PHYSICAL ADDRESS:

Lake Front Drive _____

Beverly Shores, Indiana _____

DATE PHOTOGRAPHED:

November 1999 _____

PHOTOGRAPHER:

Judith E. Collins _____

Images:

- 29. Living Room, Southwest View
- 30. Living Room, South Interior Elevation

TRACT: 65-107 _____

PHYSICAL ADDRESS:

Lake Front Drive _____

Beverly Shores, Indiana _____

DATE PHOTOGRAPHED:

November 1999 _____

PHOTOGRAPHER:

Judith E. Collins _____

Images:

31. West Bedroom, Southwest View
32. West Bedroom, Northwest View

TRACT: 65-107 _____

PHYSICAL ADDRESS:

Lake Front Drive _____

Beverly Shores, Indiana _____

DATE PHOTOGRAPHED:

November 1999 _____

PHOTOGRAPHER:

Judith E. Collins _____

Images:

- 33. West Bedroom, Exterior Door
- 34. West Bedroom, Southeast View

EXISTING CONDITIONS – Main House

Structure

General Building Description

The house is a one-story, L-shaped, wood-framed structure sheathed with cypress half-log siding. One side of the roof has cypress shingles laid in an undulating pattern and the other side has cedar shingles laid in a straight pattern.

The building is in good condition, and will require relatively few repairs.

Foundations

According to the HABS history, it was originally thought that the house sat on a concrete slab foundation due to the exposed concrete that surrounds the building. However, in examining the building in early 1998 it appeared that it may have been set directly on the ground with a shallow crawl space beneath. This would explain the severe settling of the building and the deterioration of the wood sill plates. It was determined in late 1998, through the inspection of a woodchuck borrow, that what was originally thought by HABS to be a foundation is actually a concrete sill that surrounds the house. A thorough inspection will have to be completed to determine the extent of the concrete sill, its purpose, and its condition.

Exterior Walls

There have been few changes to the exterior of the house from its original appearance at the Century of Progress Exposition, with the exception of the additions.

The cypress log header, located at the southwest corner of the building, has deteriorated, there are several areas of cypress siding and trim that have deteriorated, and there are several pieces of decorative cypress that are missing, most notably knees, which were located on beam ends.

Framing

The framing of the house, a traditional wood frame system, has remained intact, however the structure is settling possibly due to the lack of a proper foundation. Areas of the framing that are visible appear to be in good condition with the exception of the sill plates under the ell. A thorough inspection has not been completed.

Insulation

There is no insulation in the house. It was probably uninsulated at the time of construction as the building was intended for exhibit purposes only.

Additions

1. The construction type and deterioration of the screened enclosure, built between 1935 and 1951, is affecting the structural integrity of the building. Its flat roof, which abuts the wall of the building, does not facilitate drainage. This allows water to build-up, infiltrating the exterior finish materials of the building and possibly the structural fabric.

2. The original porch area at the west end of the house was enclosed for use as a bedroom and portions of the half-log siding were replaced with cedar shingles.

Exterior Envelope

Roofing

The original cypress roof shingles on the south roof slope, which had been laid in an undulating pattern, were replaced with cedar laid in a straight pattern.

Gutters & Downspouts

There are no gutters and downspouts on the house, as it was originally designed without.

Porch & Stoops

1. The concrete stoops located at the kitchen and front doors, date unknown, are in good condition.
2. The rusted iron railings located at the entry doors are not original, date unknown.

Windows & Vents

The wood frame windows and screens, all of which are original, are deteriorating.

Exterior Doors

The exterior doors and screen doors are in good condition even though they have received some damage from vandalism and forced entry.

Chimney

The cut stone veneer on the chimney has deteriorated and has separated from the severely deteriorated brick substrate.

Interior

Partition Framing

The condition of the framing has not been inspected.

Finishes

Most of the finish materials are original with the exception of a few pieces of paneling in the exhibit room/living room. The integrity of the materials is excellent.

Interior Trim

Most of the trim is original and is in excellent condition.

Floors

1. There is a small amount of deterioration of wood flooring.

2. The original wood floors in the kitchen and bathroom were covered with asbestos tile, date unknown. Asbestos tile was laid in the west bedroom, date unknown, over another material yet to be determined.

Interior Doors

1. The north door opening between the living room/exhibit room and the kitchen/display room was closed off to provide wall space for kitchen cabinets and appliances.
2. All other interior doors are original and are in good condition.

Cabinets/Built-in Furniture

1. The cabinets located in the kitchen are metal, date unknown.
2. One of the original, built-in, twin size bed frames was enlarged to accommodate a full size mattress.

Fireplace

The fireplace is in excellent condition, see the Chimney section for details concerning its condition.

Plumbing Systems

Water Supply

The Main House and Guest House are currently serviced by a well. The location, equipment type, condition, and water quality have not been determined.

Sanitary Sewer System

The Main House and Guest House are currently serviced by a septic tank. The location, condition, and possible equipment types (i.e. lift stations) have not been determined.

Plumbing & Fixtures

1. The plumbing in the kitchen and bathroom, which probably does not meet current building codes, will require inspection and possible repair and/or replacement.
2. The existing bathroom, date unknown, is probably not the original. When Bartlett moved the Century of Progress houses to Beverly Shores, he removed equipment, such as kitchens and bathrooms, and sold it to cover moving expenses.¹⁸ The existing bathroom fixtures are severely deteriorated.

Heating Systems

There was no heating system in the original structure as it was used only for exhibit purposes. A gas room heater and flue was installed in the living room, date unknown.

¹⁸ Interview with Maria F. Ali, July 1994.

Electrical Systems

Power Supply & Distribution

The electrical wiring and distribution panel, circa 1935, do not meet current building codes.

Fixtures and Devices

Most of the original light fixtures, which were freestanding lamps and wall sconces, have been removed from the house. One existing fixture located in the kitchen, circa 1930's, could be an original. The other existing fixtures, circa 1950's and 1960's, are deteriorated and do not meet current building codes.

Kitchen Appliances

The only kitchen appliance in existence is an electric stove, date unknown. Because the building was originally used for exhibit purposes there were no appliances.

Furnishings

During the Exposition, the main house contained exhibits of cypress construction materials and historic artifacts. The last resident of the house, prior to the expiration of the Reservation of Use and Occupancy in 1995, furnished the main house with pieces of Indiana Hickory, and sofas and chairs circa 1930's and 1940's. Freestanding furniture is considered a personal possession, so when the ROU expired the residents removed it. The house currently stands empty.

Accessibility

At present, the house is not accessible to wheelchairs due to several factors, including grade changes at the stoops, threshold design, and insufficient width of interior doors.

Life Safety

The house was not designed as a private residence but does provide the opportunity for safe and expedient egress in case of fire. The main house has three openings, including one that is 42 inches wide and two sets of double doors without center supports, leading to the exterior. Most of the windows are low enough to the floor and grade to provide for safe egress.

Field Photographs – Guest House

TRACT: 65-107 _____

PHYSICAL ADDRESS:

Lake Front Drive _____

Beverly Shores, Indiana _____

DATE PHOTOGRAPHED:

November 1999 _____

PHOTOGRAPHER:

Judith E. Collins _____

Images:

1. Northwest Perspective View
2. North Elevation, Front Door

TRACT: 65-107 _____

PHYSICAL ADDRESS:

Lake Front Drive _____

Beverly Shores, Indiana _____

DATE PHOTOGRAPHED:

November 1999 _____

PHOTOGRAPHER:

Judith E. Collins _____

Images:

3. East Elevation, Proximity of Trees
4. Southeast Perspective View

TRACT: 65-107 _____

PHYSICAL ADDRESS:

Lake Front Drive _____

Beverly Shores, Indiana _____

DATE PHOTOGRAPHED:

November 1999 _____

PHOTOGRAPHER:

Judith E. Collins _____

Images:

5. South Elevation
6. Screened Enclosure

TRACT: 65-107 _____

PHYSICAL ADDRESS:

Lake Front Drive _____

Beverly Shores, Indiana _____

DATE PHOTOGRAPHED:

November 1999 _____

PHOTOGRAPHER:

Judith E. Collins _____

Images:

7. East Bedroom, Southeast View
8. East Bedroom, Southeast View

TRACT: 65-107 _____

PHYSICAL ADDRESS:

Lake Front Drive _____

Beverly Shores, Indiana _____

DATE PHOTOGRAPHED:

November 1999 _____

PHOTOGRAPHER:

Judith E. Collins _____

Images:

9. Center Bedroom, Southeast View
10. Living Room, Northeast View

TRACT: 65-107 _____

PHYSICAL ADDRESS:

Lake Front Drive _____

Beverly Shores, Indiana _____

DATE PHOTOGRAPHED:

November 1999 _____

PHOTOGRAPHER:

Judith E. Collins _____

Images:

11. Living Room, Southwest View
12. Kitchen, Southeast View

TRACT: 65-107 _____

PHYSICAL ADDRESS:

Lake Front Drive _____

Beverly Shores, Indiana _____

DATE PHOTOGRAPHED:

November 1999 _____

PHOTOGRAPHER:

Judith E. Collins _____

Images:

13. West Bedroom, Southwest View
14. West Bedroom, West Interior Elev.

EXISTING CONDITIONS – Guest House

Structure

General Building Description

The house is a one-story, long, narrow, wood-framed structure. The house is sheathed with cypress half-log siding. The roof is sheathed partially with cedar shingles and partially with tar paper, allowing water to infiltrate the roof structure and walls, causing severe deterioration. The building is in extremely poor condition, and will require extensive repairs and replacement of deteriorated structural members, finish materials, and systems.

The carved fascia on the east end of the original house was removed when the east addition was added, date unknown. The fascia was reused on the eave of the addition.

Foundations

According to the HABS history, it was originally thought that the house sat on a concrete slab foundation due to the exposed concrete that surrounds the building. However, in examining the building in early 1998 it appeared that it may have been set directly on the ground with a shallow crawl space beneath. This would explain the severe settling of the building and the deterioration of the wood sill plates. It was determined in late 1998, through the inspection of a woodchuck borrow, that what was originally thought by HABS to be a foundation is actually a concrete sill that surrounds the house.

Exterior Walls

There have been few changes to the exterior of the house from its original appearance at the Century of Progress Exposition, with the exception of the additions described below.

There are several areas of cypress siding and trim that have deteriorated, and there are several pieces of decorative cypress that are missing, most notably knees, which were located on beam ends.

Framing

The framing of the house, a traditional wood frame system, has remained intact; however, the roof joists and many of the wall studs have deteriorated due to water infiltration.

Insulation

There is no insulation in the house. It was probably uninsulated at the time of construction as the building was intended for exhibit purposes only.

Additions

1. The construction type and deterioration of the screened enclosure, built between 1935 and 1951, is affecting the structural integrity of the building. Its flat roof, which abuts the wall of the building, does not facilitate drainage. This allows water to build-up, infiltrating the exterior finish materials of the building and possibly the structural fabric.

2. The roof of the addition on the south side of the house, date unknown, has collapsed resulting in a loss of structural integrity of the addition and further deterioration of the building.
3. The locked addition on the east end of the house is not accessible from the interior of the house, having no door between them; however, a visual inspection was completed of the interior through existing windows. The interior appears to be in good condition.

Exterior Envelope

Roofing

The original roof was replaced, date unknown. The roof is sheathed partially with cedar shingles and partially with tar paper, allowing water to infiltrate the roof structure and walls, causing severe deterioration.

Gutters & Downspouts

There are no gutters and downspouts on the house, as it was originally designed without.

Porch & Stoops

1. The concrete stoops located at the three exterior doors, date unknown, are in good condition.
2. The rusted iron railings located at the front doors are not original, date unknown.

Windows & Vents

The wood frame windows and screens are deteriorating.

Exterior Doors

The exterior doors and screen doors are in good condition even though they have received some damage from vandalism and forced entry.

Interior

Partition Framing

The condition of the framing has not been inspected.

Finishes

All of the interior wall and ceiling finish materials (plywood) has deteriorated beyond repair due to roof leaks and water infiltration.

Interior Trim

The trim, including baseboards and batten strips covering the joints between pieces of plywood paneling, is beyond repair due to roof leaks and water infiltration.

Floors

The finished flooring materials, carpet and vinyl circa 1950's and 1960's, have deteriorated beyond repair. The subflooring has not been inspected.

Interior Doors

Several of the original interior doors have been replaced, date unknown, and are severely deteriorated due to water infiltration.

Cabinets

There is one cabinet in the kitchen area, date unknown. Because the structure was built for exhibit purposes, there were no cabinets originally.

Plumbing Systems

Water Supply & Sanitary Sewer System

See the Main House Water Supply and Sanitary Sewer System sections of this report.

Plumbing & Fixtures

1. The plumbing in the kitchen and bathroom will require inspection and possible repair and/or replacement.
2. The bathroom does not meet current codes, and the existing fixtures are severely deteriorated.

Heating Systems

There was no heating system in the original structure because it was used only for exhibit purposes. A gas room heater and flue was installed in the living room, date unknown.

Electrical Systems

Power Supply & Distribution

The electrical wiring and distribution panel, circa 1935, do not meet current building codes.

Fixtures and Devices

There is no documentation on the original fixtures, and the existing fixtures are severely deteriorated (circa 1950's and 1960's) and do not meet current building codes.

Kitchen Appliances

The kitchen appliances are deteriorated beyond repair.

Furnishings

It is unknown how the house was furnished during the Exposition, but the last resident, prior to the expiration of the Reservation of Use and Occupancy in 1995, furnished it as a summer cottage with cast-off and mismatched pieces of furniture. Freestanding furniture is considered a personal possession, so when the ROU expired the residents removed it. The house currently stands empty.

Accessibility

At present, the house is not accessible to wheelchairs due to several factors, including grade changes at the stoops, threshold design, and insufficient width of interior doors.

Life Safety

The house was not designed as a private residence but does provide the opportunity for safe and expedient egress in case of fire. The house has four openings leading to the exterior, of which two are double doors without center supports. Most of the windows are low enough to the floor and grade to provide for safe egress.

ULTIMATE TREATMENT

This author is recommending Rehabilitation as the preferred method of treatment, within the guidelines set forth by the Secretary of the Interior, for the Cypress Log Cabin and Guest House.

Preservation, as a method of treatment, is not recommended for the following reasons:

- ◆ the lack of foundations under either structure.
- ◆ the level of deterioration of the guest house.

Restoration of the houses to the period of significance is not recommended for the following reasons:

- ◆ the houses were moved from their original location, at the Exposition site in Chicago, to Beverly Shores and have lost their original context.
- ◆ there is little information available concerning the history of the houses, including photographs, after the move to Beverly Shores.
- ◆ the integrity of the guest house has been severely compromised due to the level of deterioration of the roof and interior finish materials.
- ◆ most importantly, to provide continuity within the Century of Progress Architectural District, as the rehabilitation of the Florida Tropical House is already in progress; and, as the investigation and analysis of the Wieboldt-Rostone House and House of Tomorrow were done concurrently with the Cypress Log Cabin, rehabilitation probably will be recommended in subsequent reports for those houses also.

TREATMENT RECOMMENDATIONS

Site Features

Vegetation

Since the site is heavily wooded and overgrown, with surrounding trees and shrubs affecting the integrity of the buildings and hindering the construction of the new foundations, the preferred treatment is to remove the trees, shrubs, and ground covers, as noted in the Draft Cultural Landscape Site Plan, Appendix E. All vegetation has been documented, and the documentation is on file at the national lakeshore. All vegetation would be replaced in kind after the rehabilitation of the buildings has been completed, allowing proper clearance from the buildings and maintaining appropriate heights. The Midwest Region's Historical Landscape Architect will be consulted in the planning and subsequent phases of this project.

Exterior Furniture

1. Cypress Pergolas - The preferred treatment is to add a sample piece to the national lakeshore's museum collection, and safely store the other pieces until photographs can be found to determine their exact use and location at the Beverly Shores site. If it is found that these remnants are not salvageable, due to the level of deterioration, the best piece should be added to the national lakeshore's museum collection and the others should be disposed of.
2. Garden Pavers - The preferred treatment is to document their locations and securely store them until the entire rehabilitation project is completed. They would be placed on pallets and covered with moisture resistant tarps. After completion of the project, they would be returned to their original locations.
3. Sidewalks - The preferred treatment is to require that all contractors protect them from damage during any exterior work, including raising the houses and constructing new foundations.
4. Patio Grill - The preferred method of treatment is to protect it during the rehabilitation work and repair it at a later date.

Miscellaneous

1. Due to the construction type and surrounding vegetation, there will be absolutely no smoking allowed on the site, or in adjacent areas, during the rehabilitation work.
2. Woodchuck and raccoon inhabitation under the houses will hinder the construction of the new foundations. The preferred treatment is to live trap them and move them to other locations within the national lakeshore, and back-fill all burrow entries. The construction of concrete block foundation walls and poured concrete footings will alleviate this problem in the future.

TREATMENT RECOMMENDATIONS – Main House

Structure

General Building Description

The building is in good condition, and will require relatively few repairs.

Foundations

The preferred method of treatment is to first excavate and determine the function of the concrete sill surrounding the building. A course of action would have to be determined at that time; however, current building codes require that a new foundation be constructed under the building. The code requires that the depth of the footings be below frost line and that enough space be provided for a crawl space.

To meet the requirements of the code, the building would have to be lifted and the area below excavated for the construction of the footings and concrete block foundation walls, and installation of foundation drains. The existing concrete sill may have to be removed to accommodate the excavation, but possibly could be replicated during the construction of the new foundation walls. The deteriorated wood sill plates would be repaired and/or replaced in kind before the house is set on the new foundation (note excessive damage in hallway). The new foundation would not elevate the house above the existing grade elevation.

Exterior Walls

Since there are several areas of cypress siding and trim that have deteriorated, and several pieces of decorative cypress that are missing, the preferred method of treatment is to replace all deteriorated and missing pieces of cypress in kind.

[Please Note For All References To Cypress and/or Pecky Cypress (Exterior and Interior Finishes and Trim, and Flooring): Due to the nature of the material (its unique characteristics are the result of an infestation by a fungus), the changing environmental conditions in the low land areas of the southeast United States, the limited quantities available, and state regulations regarding the harvesting of cypress, cypress and/or pecky cypress may not be available as a replacement material. HLF I is currently seeking advice from the Cypress Association. An alternative material would probably have to be found that would be compatible to cypress in its characteristics, i.e. grain pattern, life span, permeability, working characteristics, etc.]

Framing

When the house is raised for the construction of the foundation, the framing members can be inspected and repaired and/or replaced in kind if necessary.

Insulation

Because there is no insulation in the building it is anticipated that the heating and cooling costs for four-season inhabitation would be prohibitive. The walls and ceilings could be insulated through the careful removal and reinstallation of original building fabric, see Alternative #1. However, the long-term effects on building fabric from potential trapped moisture within the

walls and ceilings is unknown. The permeability of the wall and ceiling systems should be evaluated before the building is insulated.

Alternative #1 (Preferred): The preferred treatment is to insulate the building providing for its four-season use. Insulating it would be accomplished by removing the top piece of siding and blowing insulation in the walls. The floor would be insulated while the building is raised during the construction of the foundation. The roof would be insulated by installing rigid insulation under the exposed roof decking, between the trusses, allowing space for ventilation. Another layer of decking would be installed over this insulation between the trusses, matching the original in appearance. This installation would reduce the exposure of the truss by approximately 3 inches. To reduce the potential for deterioration of roofing materials due to moisture retention, 1½ inch round vents would be installed in the exterior walls between each truss.

When the building is insulated, it is imperative that it not be completely sealed, i.e. installation of vapor barriers and caulking of all open joints, as the lack of natural ventilation could result in a build-up of condensation and deterioration of the building's fabric. Moisture levels within the building's fabric should be monitored during the first heating season to determine if the building requires additional ventilation, thus protecting the structure from future deterioration.

This alternative meets the requirements within the Secretary's Standards for Rehabilitation.

Option: Investigate the possibility of utilizing a continuous layer of insulation over the existing cypress roof decking, and under the shingles. This type of installation would maintain the integrity of the interior finish materials and the architectural character.

Alternative #2: Do not insulate the building. The building would only be habitable for three seasons due to the expense of heating it during the winter. This will have implications on the desirability of leasing the building due to the limited amount of time it would be habitable.

Additions

1. The construction type and deterioration of the screened enclosure is affecting the structural integrity of the building by allowing water to infiltrate the exterior finish materials and possibly the structural fabric. Replacing the existing construction type in kind is not an alternative. In a case, such as this, where a flat roof abuts another building the roof does not provide adequate drainage resulting in water pooling against the building causing severe damage to materials. To replace this addition in kind would be merely repeating a mistake that has resulted in damage to the building.

Alternative #1 (Preferred): The preferred treatment is to remove the enclosure and slab foundation, and repair any damage to the cypress siding on the building or replace it in kind. Although the screened enclosure is more than 50 years old, its removal is necessary and

justified for the repair of exterior materials and for the long-term protection of the structural fabric and interior finish materials.

Alternative #2: To improve the desirability of leasing the building, the deteriorated enclosure would be removed and a new screened enclosure would be constructed for contemporary use that is sympathetic to the design of the building, yet distinct from it as required by the Secretary's Standards. The new enclosure would not be larger than the existing deteriorating enclosure, in width or length, and would utilize the existing slab on grade foundation. See sketches at the end of this section.

2. The original porch area at the west end of the house was enclosed for use as a bedroom. The preferred treatment is to maintain the enclosure, repairing any deteriorated materials or replacing them in kind.

Exterior Envelope

Roofing

Alternative #1 (Preferred): The preferred method of treatment is to patch any holes in the roof deck from vents and/or flues, replace deteriorated roof decking with like material, replace missing and/or deteriorated cypress shingles on the north facing slope in kind, and replace the cedar shingles on the south facing slope with cypress, laid in an undulating pattern to match the original. (A contractor might be located in the Charlevoix, Michigan, area.) This alternative meets the requirements within the Secretary's Standards for Rehabilitation.

Alternative #2: Due to the possibility cypress might not be available, and the expense of it if it is available, the existing cedar shingles on the south facing slope would be replaced with cedar shingles laid in an undulating pattern to match the original pattern. This alternative also meets the requirements within the Secretary's Standards for Rehabilitation.

Alternative #3: Due to the added expense of matching the undulating pattern, the existing cedar shingles on the south facing slope would be replaced with cedar shingles laid in a straight pattern. This alternative also meets the requirements within the Secretary's Standards for Rehabilitation.

Gutters & Downspouts

Since there are no gutters and downspouts on the house, the preferred treatment, as noted under the Foundation section, is to install foundation drains to facilitate drainage away from the building.

Porch & Stoops

1. Stoops - The preferred treatment is to securely store them and protect them from being damaged during the rehabilitation work. They would be placed on pallets and covered with

moisture resistant tarps. After completion of the work they would be returned to their original locations.

2. Iron Railings - The preferred treatment is to retain the railings, clean, scrape, and repaint them.

Windows & Vents

Since the wood frame windows and screens are deteriorating, the preferred method of treatment is to remove them from the structure in preparation for their restoration. The glass should be removed, catalogued and stored. The frames should be sanded, repaired, and repainted, and the original glass reinstalled and reglazed.

Alternative #1 (Preferred): Exterior storm windows would be installed on all windows for four-season use of the building and to protect the building from extremes in temperature. It is impossible to utilize interior storm windows due to the type of latch hardware used on the windows. A window type would be chosen that will not deter from the design of the original windows, and that will protect the wood frames and sashes from a build-up of condensation that could cause deterioration. This alternative meets the requirements within the Secretary's Standards for Rehabilitation.

Alternative #2: Do not utilize storm windows. As without insulation, the building would only be habitable for three seasons due to the expense of heating it during the winter. This will have implications on the desirability of leasing the building due to the limited amount of time it would be habitable.

Exterior Doors

Even though the exterior doors are in good condition, the preferred treatment is to remove them from the structure in preparation for their restoration. The glass should be removed, catalogued and stored. The doors and frames should be sanded, repaired, and repainted, and the original glass reinstalled and reglazed.

Chimney

The veneer on the chimney and the brick substrate have severely deteriorated. The preferred method of treatment is to inspect the flue and repair or replace in kind, reconstruct the brick substrate, and replace missing pieces of the cut stone veneer in kind. (Replacement material might be available in Wabash County, Indiana.) The flashing should be replaced, matching the original in type and size.

Before the house is raised for the construction of the foundation, the roof and floor surrounding the chimney and fireplace will have to be cut back, providing room for the house to be lifted without coming into contact with them. The chimney, fireplace, and their foundation shall be protected from physical damage and water infiltration during the construction. A wood frame with wood sheathing shall be constructed around the entire chimney, fireplace, and existing foundation to protect them.

Interior

Partition Framing

When the house is raised for the construction of the foundation, the framing members can be inspected, and repaired and/or replaced in kind if necessary.

Finishes

Since most of the materials are original and are in excellent condition, the preferred treatment is to clean the paneling and thoroughly inspect it for damage and/or deterioration. If any damage and/or deterioration is found, the paneling should be repaired and/or replaced in kind.

Interior Trim

Since the trim is in excellent condition, the preferred treatment is to clean it and thoroughly inspect it for damage and/or deterioration. If any damage and/or deterioration is found, the trim should be repaired and/or replaced in kind.

Floors

1. Less than 10 percent of the wood flooring is deteriorated. The preferred treatment is to repair and/or replace the deteriorated flooring in kind.
2. Asbestos Tile - The preferred treatment is to remove all of the asbestos tile located in the kitchen, bathroom, and west bedroom, repair the wood flooring in the kitchen if necessary for reuse, and lay vinyl tile in the bathroom and west bedroom, matching the existing colors and patterns.

Interior Doors

1. The north door opening between the living room/exhibit room and the kitchen/display room was closed off to provide wall space for kitchen cabinets and appliances.

Alternative #1 (Preferred): The preferred treatment is to replace the existing in-fill panel with a panel that compliments the original interior paneling, and redesign the kitchen for contemporary use utilizing all available wall space. This alternative maintains the overall character of the living room and kitchen as they have evolved since the original construction, and meets the requirements within the Secretary's Standards for Rehabilitation.

Alternative #2: Remove the in-fill panel and construct doors for both openings between the living room and kitchen, utilizing the original doors at the west end of the living room as models for the new doors. Redesign the kitchen for contemporary use, allowing for the use of both door openings. This option provides for privacy and a more controlled area for heating and cooling efficiency, yet does not maintain the overall character of the rooms as they have evolved or provide enough wall area for an efficient design of a contemporary kitchen. This alternative also meets the requirements within the Secretary's Standards for Rehabilitation.

Alternative #3: Remove the in-fill panel, reopening the north door between the two rooms, and redesign the kitchen area for contemporary use. This option would provide a

closer appearance to the original design, yet would not provide for efficient heating and cooling of the spaces or provide enough wall area for an efficient design of a contemporary kitchen.

2. Since all of the other interior doors are original, and are in good condition, the preferred treatment is to repair any damage found and clean the wood surfaces with an approved cleaning product. If necessary, the doors could be sanded and refinished in kind.

Cabinets/Built-in Furniture

1. Kitchen Cabinets - The preferred treatment is to permanently remove them, and redesign the kitchen for contemporary use. See the Interior Door section of this report.
2. One of the original, built-in, twin size bed frames was enlarged to accommodate a full size mattress. The preferred treatment is to remove the full size frame and replicate the original twin size frame.

Fireplace

The fireplace is in excellent condition, see the Chimney section for details concerning its repair.

Plumbing Systems

Water Supply

It will be the responsibility of the Lessee to locate the existing well, and determine if it is potable. If it is found to be unsatisfactory, the Lessee will be responsible for having a new well dug, following Section 106 review and approval.

Sanitary Sewer System

HLFI has received preliminary approval from the Porter County Health Department allowing the Lessee to install a new below-grade septic system. The proposed location would be in the lot between the Cypress Log Cabin and the House of Tomorrow, following Section 106 review and approval.

Plumbing & Fixtures

1. Kitchen and Bathroom Plumbing - The preferred treatment is to investigate the condition of the plumbing and repair as necessary or replace in kind, bringing up to current building codes for contemporary use. See the descriptions below concerning redesigning the bathroom, and refer to the Kitchen section of this report.
2. Bathroom - The plumbing probably does not meet current building codes, the existing fixtures are severely deteriorated, and the design does not facilitate contemporary use.

Alternative #1 (Preferred): The preferred treatment is to remove the existing fixtures and install new fixtures including a toilet, sink, and shower or small tub/shower combination for contemporary use, see sketch at the end of this section. Since the building would be utilized as a private residence, and will only be open to the public one day a year (with port-a-johns supplied), accommodating the requirements of the

accessibility codes would be unnecessary, see the Accessibility section of this report. The existing hall would be used to accommodate the water heater and furnace, see the Heating section of this report for alternatives. This alternative meets the requirements within the Secretary's Standards for Rehabilitation.

Alternative #2: Remove the existing fixtures and install a new toilet and tub for contemporary use. The existing hall would accommodate the counter and sink. This alternative would be considered if the Lessees choose to install a boiler system in the Guest House that would provide heat for both buildings. This alternative also meets the requirements within the Secretary's Standards for Rehabilitation.

Heating Systems

The existing gas room heater, installed in the living room, is not sufficient to heat the entire building. When the new system is installed in the building it is imperative that the building not be completely sealed, i.e. installation of vapor barriers and caulking of all open joints, as the lack of natural ventilation could result in a build-up of condensation and deterioration of the building's fabric. Moisture levels within the building's fabric should be monitored during the first heating season to determine if the building requires additional ventilation, thus protecting the structure from future deterioration.

Alternative #1 (Preferred): The preferred treatment is to remove the gas heater and flue and install a new forced-air furnace in the hall, with ductwork under the floor in the new crawl space. The return air duct could be located in the wall between the living room and kitchen, depending upon recommendations from the Mechanical Engineer. The building would then be efficiently used as a four-season residence. This alternative meets the requirements within the Secretary's Standards for Rehabilitation.

Alternative #2: Install a radiant heat system between the existing floor joists. Install a boiler in the existing bathroom of the Guest House that would provide heat for both buildings. Supply lines for the Main House would be laid underground between the buildings. The installation of the radiant heat system and supply lines in the crawl space would be less invasive than a forced-air system. This alternative would ultimately be more cost effective for both buildings and would allow for a more flexible use of the hall in the Main House as a dressing room area. This alternative also meets the requirements within the Secretary's Standards for Rehabilitation.

Alternative #3: Install a boiler system in the existing bathroom of the Guest House that would provide heat for both buildings. Supply lines for the Main House would be laid underground between the buildings. The installation of supply lines in the crawl space and base board units would be less invasive than a forced-air system. This alternative would ultimately be more cost effective for both buildings and would allow for a more flexible use of the hall in the Main House as a dressing room area. This alternative also meets the requirements within the Secretary's Standards for Rehabilitation.

Alternative #4: The building could be used as a three-season residence, utilizing the fireplace as a source of heat. Although this would be more accurate within the standards for preservation, this alternative would make the building less attractive to potential lessees.

Electrical Systems

Power Supply & Distribution

The preferred treatment is to remove the original wiring and distribution panel (for deposit in the national lakeshore's museum collection), and rewire bringing up to current building codes. This could be done from below when the house is raised, or the wiring could be placed behind the existing baseboards. Additional outlets will be required and should be installed at the same height as the original in all areas except the kitchen and bath. The kitchen and bath outlets should be located to facilitate the new designs and contemporary use, and meet current building codes.

Fixtures and Devices

Alternative #1 (Preferred): The preferred treatment is to retain the one existing fixture, circa 1930's, and remove the circa 1950's and 1960's fixtures replacing them with replicas of the original or ones that are appropriate to the 1930's and the architectural design.

Alternative #2: The Lessee would be given the option to install fixtures that are not of the period, or that do not reflect the architectural design, with the prior approval of the National Park Service.

Kitchen Appliances

The preferred treatment is to permanently remove the stove and redesign the kitchen for contemporary use. See the Interior Door section of this report for recommendations and alternatives.

Accessibility

Because the building will be used as a private residence, with public visitation limited to one day a year, the preferred treatment is to utilize portable ramps to allow limited access during the annual house tour. The kitchen, living room, and west bedroom/porch of the house could be made accessible with the installation of portable ramps. The ramps should be placed in front of the stoop at the kitchen door and at the front door, allowing access to the kitchen, living room and west bedroom.

Additional access to the interior of the house would adversely affect the historic integrity and appearance of the house, because the present doors are not wide enough by present standards. To make the interior, including the bathroom, accessible would entail loss of historic fabric and degradation of character. To interpret areas of the houses that are not accessible, photographic displays would be produced and exhibited during the annual house tour.

Life Safety

The house was not designed as a private residence but does provide the opportunity for safe and expedient egress in case of fire. The main house has three openings, including one that is 42 inches wide and two sets of double doors without center supports, leading to the exterior. Most of the windows are low enough to the floor and grade to provide for safe egress. It is required under the licensing agreement with HLFH that residents maintain fire extinguishers in the house.

This author further recommends:

1. Extinguishers should be placed in all rooms of the house.
2. A security system should be installed that includes a smoke detection system.

Proposed floor plans for Kitchen, Bath, and Screened Porch

TREATMENT RECOMMENDATIONS - Guest House

Structure

General Building Description

The building is in extremely poor condition, and will require extensive repairs and replacement of deteriorated structural members, finish materials, and systems.

Foundations

The preferred method of treatment is to first excavate and determine the function of the concrete sill surrounding the building. A course of action would have to be determined at that time; however, current building codes require that a new foundation be constructed under the building. The code requires that the depth of the footings be below frost line and that enough space be provided for a crawl space.

To meet the requirements of the code, the building would have to be lifted and the area below excavated for the construction of the footings and concrete block foundation walls, and installation of foundation drains. The existing concrete sill may have to be removed to accommodate the excavation, but possibly could be replicated during the construction of the new foundation walls. The deteriorated wood sill plates would be repaired and/or replaced in kind before the house is set on the new foundation (note excessive damage in hallway). Insulation would be installed under the floor. The new foundation would not elevate the house above the existing grade elevation.

Exterior Walls

Since there are several areas of cypress siding and trim that have deteriorated, and several pieces of decorative cypress are missing, the preferred method of treatment is to replace all deteriorated and missing pieces of cypress in kind.

[Please Note For All References To Cypress and/or Pecky Cypress (Exterior and Interior Finishes and Trim, and Flooring): Due to the nature of the material (its unique characteristics are the result of an infestation by a fungus), the changing environmental conditions in the low land areas of the southeast United States, the limited quantities available, and state regulations regarding the harvesting of cypress, cypress and/or pecky cypress may not be available as a replacement material. HLF I is currently seeking advice from the Cypress Association. An alternative material would probably have to be found that would be compatible to cypress in its characteristics, i.e. grain pattern, life span, permeability, working characteristics, etc.]

Framing

The preferred treatment is to replace all deteriorated structural members in kind after the removal of the roof and interior finish materials. When the house is raised, for the construction of the foundation, the floor joists and sills can be inspected, and repaired and/or replaced in kind if necessary.

Insulation

Because there is no insulation in the building it is anticipated that the heating and cooling costs

for four-season inhabitation would be prohibitive. The walls and ceilings could be insulated after the removal of deteriorated building fabric, see Alternative #1. However, the long-term effects on building fabric from potential trapped moisture within the walls and ceilings is unknown. The permeability of the wall and ceiling systems should be evaluated before the building is insulated.

Alternative #1 (Preferred): The preferred treatment is to insulate the building providing for its four-season use. Insulating it would be accomplished by removing the deteriorated wall and ceiling finish materials and installing batt insulation. Prior to insulating the walls and ceilings the new wiring, HVAC, and plumbing would be installed. The floor would be insulated while the building is raised during the construction of the foundation.

When the building is insulated, it is imperative that it not be completely sealed, i.e. installation of vapor barriers and caulking of all open joints, as the lack of natural ventilation could result in a build-up of condensation and deterioration of the building's fabric. Moisture levels within the building's fabric should be monitored during the first heating season to determine if the building requires additional ventilation, thus protecting the structure from future deterioration.

This alternative meets the requirements within the Secretary's Standards for Rehabilitation.

Alternative #2: Do not insulate the building. The building would only be habitable for three seasons due to the expense of heating it during the winter. This will have implications on the desirability of leasing the building due to the limited amount of time it would be habitable.

Additions

1. The construction type and deterioration of the screened enclosure is affecting the structural integrity of the building by allowing water to infiltrate the exterior finish materials and possibly the structural fabric. The preferred treatment is to remove the enclosure and slab foundation, and repair any damage to the cypress siding on the building or replace it in kind. Although the screened enclosure is more than 50 years old, its removal is necessary and justified for the repair of exterior materials and for the protection of the structural system and interior materials. Replacing the existing construction type in kind is not an alternative. In a case such as this, where a flat roof abuts another building the roof does not provide adequate drainage resulting in water pooling against the building causing severe damage to materials. To replace the addition in kind would be merely repeating a mistake that has resulted in damage to the building.
2. The roof of the addition on the south side of the house has collapsed, resulting in a loss of structural integrity.

Alternative #1 (Preferred): The preferred treatment is to remove the remains of the roof and stabilize the addition until rehabilitation can proceed. The addition would be utilized to expand the usable square footage of the building as an additional bedroom and the bathroom. This would be accomplished by removing two existing closets in the

building, creating a hall, and cutting a door between the building and the addition. This would not alter the exterior appearance of the building. See the sketches at the end of this section and the alternatives listed within the Plumbing Systems and Heating Systems sections of this report for additional information. Since the addition is a secondary space within the building, this alternative meets the requirements within the Secretary's Standards for Rehabilitation.

Alternative #2: Demolish the addition due to the level of deterioration and loss of structural integrity.

3. East End Addition - The preferred method of treatment is to first gain access to the addition and determine the condition of the structural fabric and finish materials. A potential use for the room could then be determined, dictating whether or not a door would be cut between the building and the addition.

Alternative #1 (Preferred): Do not cut a door between the building and the addition. The room within the building would be used as a bedroom (see sketches at the end of this section), and the addition would be used as unheated storage.

Alternative #2: Cut a door between the building and the addition. This alternative would reduce the usable square footage within the building, as the potential bedroom would become a hall, and it would increase the square footage requiring heating and cooling.

Exterior Envelope

Roofing

Alternative #1 (Preferred): The preferred method of treatment, due to the severe level of deterioration, is to remove the existing structural components and roofing, and replace them with new structural members, decking, and cypress shingles, matching the original shingles in type and pattern.

Alternative #2: Utilize cedar shingles rather than cypress because all of the original cypress shingles have been removed from the building, and the availability or cost of cypress might be prohibitive. This alternative is consistent with the alternatives given within the recommendations for the Main House and is the most cost effective solution.

Gutters & Downspouts

Since there are no gutters and downspouts on the house, the preferred treatment, as noted under the Foundation section of this report, is to install foundation drains to facilitate drainage away from the building.

Porch & Stoops

1. Stoops - The preferred treatment is to securely store them and protect them from being damaged during the rehabilitation work. They would be placed on palettes and covered with

moisture resistant tarps. After completion of the work they would be returned to their original locations.

2. Iron Railings - The preferred treatment is to retain the railings, clean, scrape, and repaint them.

Windows & Vents

Since the wood frame windows and screens are deteriorating, the preferred method of treatment is to remove them from the structure in preparation for their restoration. The glass should be removed, catalogued and stored. The frames should be sanded, repaired, and repainted, and the original glass reinstalled and reglazed.

Alternative #1 (Preferred): Exterior storm windows would be installed on all windows for four-season use of the building and to protect the building from extremes in temperature. It is impossible to utilize interior storm windows due to the type of latch hardware used on the windows. A window type would be chosen that will not deter from the design of the original windows, and that will protect the wood frames and sashes from a build-up of condensation that could cause deterioration. This alternative meets the requirements within the Secretary's Standards for Rehabilitation.

Alternative #2: Do not utilize storm windows. As without insulation, the building would only be habitable for three seasons due to the expense of heating it during the winter. This will have implications on the desirability of leasing the building due to the limited amount of time it would be habitable.

Exterior Doors

Even though the exterior doors and screen doors are in good condition, the preferred treatment is to remove them from the structure in preparation for their restoration. The glass should be removed, catalogued and stored. The doors and frames should be sanded, repaired, and repainted, and the original glass reinstalled and reglazed.

Interior

Partition Framing

After the deteriorated interior finish materials have been removed the framing members can be inspected, and repaired and/or replaced in kind if necessary.

Finishes

The wall and ceiling finish materials have deteriorated beyond repair due to roof leaks and water infiltration.

Alternative #1 (Preferred): Since there is no documentation on the original wall and ceiling finish materials, the preferred method of treatment is to replace the deteriorated plywood with drywall because it will provide a greater level of fire resistance, and it is more cost effective.

Alternative #2: Replacing the plywood paneling in kind is an alternative, however it would

be cost prohibitive. Its use may also present future disadvantages if wiring, HVAC, water lines or structural members require repair and/or replacement. Plywood would require more time, effort, and expense to repair and/or replace versus drywall.

Interior Trim

Since the trim has deteriorated beyond repair due to roof leaks and water infiltration, the preferred treatment is to repair and/or replace all of it in kind.

Floors

Since the finished flooring materials have deteriorated beyond repair, the preferred treatment is to remove the existing floor coverings to determine if any historic materials lie beneath. If any wood flooring is found, it should be repaired and/or replaced in kind. If asbestos tile is found, it should be removed and replaced with vinyl, matching the original colors and patterns.

Interior Doors

Since the interior doors are severely deteriorated due to water infiltration, the preferred treatment is to repair and/or replace any original doors in kind. Those that are not original should be removed and replaced with a style matching the existing original doors in design and materials.

Cabinets

Kitchen - The preferred treatment is to permanently remove the cabinet and redesign the kitchen for contemporary use.

Plumbing Systems

Water Supply & Sanitary Sewer System

See the Main House Water Supply and Sanitary Sewer System sections of this report.

Plumbing & Fixtures

1. The preferred treatment is to investigate the condition of plumbing and repair as necessary or replace in kind, bringing up to current building codes for contemporary use. See the descriptions below concerning redesigning or relocating the bathroom, and refer to the Kitchen Appliance section of this report.
2. The bathroom fixtures are severely deteriorated, the plumbing does not meet current codes, and the room is far too small for contemporary use.

Alternative #1 (Preferred): The preferred treatment is to remove the existing fixtures and install new fixtures for contemporary use, however if the Lessees choose to utilize one boiler to heat both buildings this treatment would not be possible as the boiler would be located in the existing bathroom space.

Alternative #2: Relocate the bathroom to the addition located on the south side of the house allowing for the use of the existing bathroom space as an HVAC closet. This alternative would not alter the exterior appearance of the building, and it would make the building more attractive to potential lessees. See the sketches at the end of this section.

Since the addition is a secondary space within the building, this alternative meets the requirements within the Secretary's Standards for Rehabilitation.

Heating Systems

The existing gas room heater, installed in the living room, is not sufficient to heat the entire building. When the new system is installed in the building, it is imperative that the building not be completely sealed, i.e. installation of vapor barriers and caulking of all open joints, as the lack of natural ventilation could result in a build-up of condensation and deterioration of the building's fabric. Moisture levels within the building's fabric should be monitored during the first heating season to determine if the building requires additional ventilation, thus protecting the structure from future deterioration.

Alternative #1 (Preferred): The preferred treatment is to remove the gas room heater and flue, and install a new HVAC system. The ductwork would be placed within the shallow attic area, or within the new crawl space below the floor. The location of the furnace would be determined at a later date but it would probably be centrally located. (Note: if the existing bathroom is to be relocated to the addition on the south side of the building then the existing bathroom space could be used as an HVAC closet.) The house would then be efficiently used as a four-season residence. This alternative meets the requirements within the Secretary's Standards for Rehabilitation.

Alternative #2: Install a radiant heat system between the existing floor joists. Install a boiler in the existing bathroom of the Guest House that would provide heat for both buildings. Supply lines for the Main House would be laid underground between the buildings. The installation of the radiant heat system and supply lines in the crawl space would be less invasive than a forced-air system. This alternative would ultimately be more cost effective for both buildings and would allow for a more flexible use of the hall in the Main House as a dressing room area. This alternative also meets the requirements within the Secretary's Standards for Rehabilitation.

Alternative #3: Install a boiler system in the existing bathroom of the Guest House that would provide heat for both buildings. Supply lines for the Main House would be laid underground between the buildings. The installation of supply lines in the crawl space and base board units would be less invasive than a forced-air system. This alternative would ultimately be more cost effective for both buildings and would allow for a more flexible use of the hall in the Main House as a dressing room area. This alternative also meets the requirements within the Secretary's Standards for Rehabilitation.

Alternative #4: Do not install HVAC in this building. Although this would be more accurate within the standards for preservation, this alternative would make the building less attractive to potential lessees.

Electrical Systems

Power Supply & Distribution

The preferred method of treatment is to remove the electrical wiring and distribution panel and rewire to bring up to current building codes. The new wiring would be installed after the finish materials have been removed. Additional outlets will be required and should be installed at the same height as the original in all areas except the kitchen and bath. The kitchen and bath outlets should be located to facilitate the new designs and contemporary use, and meet current building codes.

Fixtures and Devices

There is no documentation on the original fixtures.

Alternative #1 (Preferred): The preferred treatment is to remove the existing fixtures and replace them with ones that are appropriate to the 1930's and the architectural design.

Alternative #2: The Lessee would be given the option to install fixtures that are not of the period, or that do not reflect the architectural design, with the prior approval of the National Park Service.

Kitchen Appliances

The preferred treatment is to permanently remove them and redesign the kitchen for contemporary use.

Accessibility

Because the building will be used as a private residence, with public visitation limited to one day a year, the preferred treatment is to utilize portable ramps to allow limited access during the annual house tour. The living room of the house could be made accessible with the installation of a portable ramp. The ramp should be placed in front of the main entry into the living room, allowing access to the level living room floor.

Additional access to the interior of the house would adversely affect the historic integrity and appearance of the house, because the present doors are not wide enough by present standards. To make the interior, including the bathroom, accessible would entail loss of historic fabric and degradation of character. To interpret areas of the houses that are not accessible, photographic displays should be produced and exhibited during the annual house tour.

Life Safety

The house was not designed as a private residence but does provide the opportunity for safe and expedient egress in case of fire. The house has four openings leading to the exterior, of which two are double doors without center supports. Most of the windows are low enough to the floor and grade to provide for safe egress. It is required under the licensing agreement with HLF, that residents maintain fire extinguishers in the house.

This author further recommends:

1. Extinguishers should be placed in all rooms of the house.
2. A security system should be installed that includes a smoke detection system.

Proposed floor plans for Kitchen and Bath

SUMMARY OF TREATMENT RECOMMENDATIONS

Use Program

Through a Memorandum of Understanding with Historic Landmarks Foundation of Indiana, it is the intent of the national lakeshore and HLFi that the Century of Progress houses, including the Cypress Log Cabin and Guest House, be protected under the auspices of a residential licensing program. It is also the intent of the national lakeshore that these houses be open to the general public, on an annual basis, for visitation. To facilitate this program, the national lakeshore licensed all of the Century of Progress houses, with the exception of the Armco-Ferro-Mayflower House, to HLFi for a period of 35 years; in turn, HLFi is responsible for recruiting potential lessees for each house. The individual houses would be leased to interested parties for a period of 30 years. The lessees would be responsible for completing the rehabilitation project within the first 3 years of the lease following the Secretary of the Interior's Standards.

Four-Season vs. Three-Season Use of the Buildings

The residential licensing program is the key to the long-term use, and ultimately preservation, of not only the Cypress Log Cabin and Guest House but all of the Century of Progress houses. Because the national lakeshore does not have the financial resources to preserve, restore, or rehabilitate these buildings, the licensing program provides the catalyst for their long-term preservation.

Because the Cypress Log Cabin and Guest House are not insulated, it is anticipated that the heating and cooling costs for four-season inhabitation by a lessee would be prohibitive. If the buildings are left uninsulated, following the Standards for Restoration and Preservation, they would only be available for three-season use which would ultimately limit the possibility of leasing them. Insulating the buildings, following the Standards for Rehabilitation, is a key factor in their long-term preservation under the auspices of the residential licensing program.

Insulating the Main House would not alter its exterior appearance, and would only slightly modify its interior appearance. The exposure of the roof joists, visible in the living room and kitchen areas, would be reduced by approximately three inches. Insulating the Guest House would not alter the exterior or interior appearance as the insulation would be hidden in the floor, walls, and ceiling. The installation of exterior storm windows on both buildings if properly designed would not alter the exterior appearance of either building, as the profile of the frames would match the profile of the original windows.

The long-term effects on the building fabric from potential trapped moisture is unknown. Thus, all possible avenues of protection from moisture retention and deterioration would be utilized for both buildings. First, the permeability of the wall and ceiling systems would be evaluated before the buildings are insulated. Second, when the buildings are insulated they would not be completely sealed, i.e. installation of vapor barriers and caulking of all open joints, as the lack of natural ventilation could result in a build-up of condensation and deterioration of the buildings' fabric. Third, to reduce the potential for moisture retention in the roofing materials of the Main House, 1½ inch round vents would be installed in the exterior walls between each truss. Fourth, moisture levels within the buildings' fabric would be monitored during the first heating and

cooling seasons to determine if the buildings require additional ventilation, thus protecting them from future deterioration.

Accessibility

Since the buildings are to be used as a private residence and guest house and would only be open one day a year for public visitation, accessibility would be accommodated in alternative ways.

Construction of accessible routes to and within the Main House and Guest House would adversely affect the historic integrity and appearance of the site and buildings. The historic front entrance to the site, located on Lake Front Drive, is not accessible and the construction of a sidewalk from Carol Street to the buildings would adversely affect the cultural landscape. A clear path will be provided, as will the services of a volunteer or staff member, to assist any visitors requiring assistance. Portable ramps will be placed at the entries to provide limited access to the interiors.

To make the building's interiors, including the bathroom, code-accessible would entail the loss of historic fabric, and degradation of historic character. The floor plan would have to be severely redesigned to accommodate an accessible bathroom, wall fabric would be lost and much of the affected door trim would need to be replaced to provide accessible doorways. To provide interpretation of the areas which are not accessible, photo displays will be utilized during the tours. To provide for restroom accessibility, port-a-johns would be placed on or near the site for public use.

Fire Suppression

The buildings would be protected with a smoke detection system connected to an alarm system. The alarm company, a subsidiary of NIPSCO, would notify the local fire departments including Beverly Shores, with which the national lakeshore currently has a mutual aid agreement. The keypad for the alarm system would be located near the kitchen entry for ease of access. Smoke detectors would be installed in at least the hallway, kitchen, and west porch/bedroom areas.

Site Features

- ◆ Remove vegetation for construction of foundation and replace in kind.
- ◆ Add a sample piece of pergola to national lakeshore's museum collection and store remaining pieces until photographs can be found for possible reconstruction.
- ◆ Remove and store garden pavers during rehabilitation. Return to original locations after completion of project.
- ◆ Protect sidewalks during rehabilitation.
- ◆ Protect patio grill during rehabilitation for repair at a later date.
- ◆ Back-fill all woodchuck burrows.

[Please Note For All References To Cypress and/or Pecky Cypress (Exterior and Interior Finishes and Trim): Due to the nature of the material (its unique characteristics are the result of an infestation by a fungus), the changing environmental conditions in the low land areas of the southeast United States, the limited quantities available, and state regulations regarding the harvesting of cypress, pecky cypress may not be available as a replacement material. HLFII is currently seeking advice from the Cypress Association. An alternative material would probably

have to found that would be compatible to cypress in its characteristics, i.e. grain pattern, life span, permeability, working characteristics, etc.]

Main House Structure

- ◆ Raise building, excavate and construction foundation with crawl space.
- ◆ Replace all deteriorated and missing pieces of exterior cypress in kind.
- ◆ Repair and/or replace framing members in kind after inspection.
- ◆ Insulate the ceiling, walls, and floor of the building.
- ◆ Remove deteriorated screened enclosure and replace with new construction as per sketches.
- ◆ Repair and/or replace deteriorated cypress and cedar in west porch enclosure (bedroom).

Exterior Envelope

- ◆ Repair and/or replace deteriorated roof decking, and replace deteriorated cedar shingles with cypress laid in an undulating pattern.
- ◆ Install foundation drains to facilitate drainage away from building.
- ◆ Remove and store concrete stoops during rehabilitation. Return to original locations after completion of project.
- ◆ Clean, scrape and repaint iron railings.
- ◆ Restore all window frames and sashes.
- ◆ Install exterior storm windows.
- ◆ Restore exterior doors and frames.
- ◆ Inspect flue and repair and/or replace in kind. Reconstruct brick substrate of chimney and replacing missing stone veneer in kind.

Interior

- ◆ Repair and/or replace framing members in kind after inspection.
- ◆ Clean interior finishes, inspect for damage, and repair and/or replace deteriorated pieces in kind.
- ◆ Clean interior trim, inspect for damage, and repair and/or replace deteriorated pieces in kind.
- ◆ Repair and/or replace deteriorated wood flooring in kind.
- ◆ Remove all asbestos tile in kitchen, bathroom and west bedroom. Repair underlying wood floor in kitchen. Lay vinyl tile in bathroom and west bedroom, matching existing colors and patterns.
- ◆ Replace existing in-fill panel in door between living room and kitchen, matching original cypress paneling. Redesign kitchen for contemporary use.
- ◆ Restore all interior doors and frames.
- ◆ Remove existing kitchen cabinets, and redesign kitchen for contemporary use.
- ◆ Remove existing full size bed frame, and replace with twin to match existing original.

Plumbing Systems

- ◆ Install new well (Section 106 clearance is in progress).
- ◆ Install new septic system (Section 106 clearance is in progress).
- ◆ Replace plumbing to bring up to code.
- ◆ Remove deteriorated bathroom fixtures, and redesign for contemporary use.

Heating Systems

- ◆ Remove existing gas heater, and install new forced-air furnace with ductwork under floor. See alternatives within report for boiler installation.

Electrical Systems

- ◆ Remove original wiring, and rewire to bring up to current codes.
- ◆ Retain the one remaining original fixture, and replace others with replicas of originals or ones that are appropriate to the 1930's and the architectural design.

Kitchen Appliances

- ◆ Remove appliance, and redesign kitchen for contemporary use.

Guest House**Structure**

- ◆ Raise building, excavate and construction foundation with crawl space.
- ◆ Replace all deteriorated and missing pieces of exterior cypress in kind.
- ◆ Repair and/or replace framing members in kind after inspection.
- ◆ Insulate the ceiling, walls, and floor of the building.
- ◆ Remove deteriorated screened enclosure.
- ◆ Stabilize south addition. Remove two closets in building, cut door between building and addition, and rehabilitate addition into bedroom and bathroom, as per sketch.
- ◆ East addition currently inaccessible. Gain access, inspect addition and determine course of action, preferably (as previous) unheated storage.

Exterior Envelope

- ◆ Remove deteriorated structural members, decking and roofing. Replace structural members and decking in kind. Replace roofing with cedar shingles laid in a straight pattern.
- ◆ Install foundation drains to facilitate drainage away from the building.
- ◆ Remove and store concrete stoops during rehabilitation. Return to original locations after completion of project.
- ◆ Clean, scrape and repaint iron railings.
- ◆ Restore all window frames and sashes.
- ◆ Install exterior storm windows.
- ◆ Restore exterior doors and frames.

Interior

- ◆ Repair and/or replace framing members in kind after inspection.

- ◆ Remove all plywood wall and ceiling finish material and replace with drywall.
- ◆ Remove all deteriorated interior trim and replace in kind.
- ◆ Remove all finished flooring materials including carpeting and asbestos tile. If any underlying wood flooring is found repair and/or replace in kind. If any underlying asbestos tile is found remove and replace, matching original in color and pattern.
- ◆ Restore original doors and frames. Replace non-original doors with doors matching original in design and materials.
- ◆ Remove kitchen cabinets, and redesign kitchen for contemporary use.

Plumbing Systems

- ◆ Replace plumbing to bring up to code.
- ◆ Remove deteriorated bathroom fixtures, relocate bathroom to south addition, and design for contemporary use.

Heating Systems

- ◆ Remove existing gas heater and install new forced-air furnace with ductwork in shallow attic or under floor. See alternatives within report for boiler installation.

Electrical System

- ◆ Remove original wiring, and rewire to bring up to current codes.
- ◆ Remove existing fixtures, and replace with ones that are appropriate to the 1930's and the architectural design.

Kitchen Appliances

- ◆ Remove appliance, and redesign kitchen for contemporary use.

APPENDIX A – Context

Century of Progress Architectural District

A. HABS Large-Format Photographs

B. HABS Written Historical and Descriptive Data

APPENDIX B – Historical Data

Cypress Log Cabin

- A. HABS Large-Format Photographs
- B. HABS Written Historical and Descriptive Data
- C. Reduced Copies of Measured Drawings

Cypress Log Cabin, Guest House

- D. HABS Large-Format Photographs
- E. HABS Written Historical and Descriptive Data
- F. Reduced Copies of Measured Drawings

APPENDIX C – National Register Nomination

APPENDIX D – Exhibits

A. *A Century of Progress*

B. *Pecky Cypress – Its Nature and Uses*

APPENDIX E - Draft Cultural Landscape Site Plan¹⁹

¹⁹ Sherda Williams, Historical Landscape Architect. Midwest Regional Office, National Park Service.

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