HISTORIC STRUCTURE REPORT
Mt. Mc Kinley Park
Headquarters Historic District & Wonder Lake, Vol. 1

NARRATIVE & PHOTOGRAPHS
DENALI NATIONAL PARK & PRESERVE
HISTORIC STRUCTURE REPORT
Mt. McKinley Park
Headquarters Historic District & Wonder Lake, Vol. 1

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ALASKA REGIONAL OFFICE
DIVISION OF CULTURAL RESOURCES
NATIONAL PARK SERVICE
UNITED STATES DEPARTMENT OF THE INTERIOR

JANUARY 1, 1987
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Preface

This document is a direct spin-off from the Mt. McKinley Park Headquarters Design Guidelines and the Mt. McKinley Park Headquarters National Register of Historic Places nomination form. It is a more indepth analysis of fifteen significant rustic style structures, located in Denali National Park and Preserve. All of the structures have been lumped together in the three volume report format because of their obvious proximity and architectural similarities.

A report of this magnitude is somewhat beyond our limited staff and fiscal resources but it has managed to come together into what we hope is a useful, graphic format. Gail Evans was hired in a temporary position and compiled the majority of the history data, but was unable to complete the project because of a lack of funds. Her national register nomination and Dave Snow's architectural guidelines along with this report cover all compliance and historic research aspects of these particular buildings and their associated sites.

D. S.
R. L. S.
Acknowledgements

Peter Tomka:
For his structural recommendations and analysis.

Jack O'Neale:
For assistance in preparing mechanical and electrical estimates and in proofreading the entire report.

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For on site assistance and Building 112 photography.

Denali National Park and Preserve:
For generously providing access to all structures.

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Rough Draft and final typing.

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For field drawings and participation in Historic American Building Survey Drawings.

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For initial survey and photography.

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For his initial inventory.

Randy Skeirik:
For photography, field drawings and participation in Historic American Building Survey Drawings.

Lois V. Hull:
Rough Draft and editing.
Introduction

This report has been prepared to assist the Park Superintendent and his staff in further planning and development in the Denali National Park and Headquarters Area. Furthermore, this report is mandated by National Park Service 28 to comply with the National Historic Preservation Act (NHPA) 1966 as amended 1980, section 106. All recommended treatments in this report have been evaluated and a determination of effect made in accordance with section 800.4(b) of the Advisory Council on Historic Preservation regulations, "Protection of Historic and Cultural Properties".

There is little doubt that rehabilitation will be required in the Headquarters District. All of the buildings are heavily impacted by Park use. This report addresses all of the immediate and long range needs of these existing structures, as well as, Wonder Lake Ranger Station. There is considerable potential for fire in many of the structures from outdated mechanical, electrical and nonfire resistant architectural materials. Rehabilitation of two of the historic structures (101 and 102) has already been undertaken.

Due to the increasing need for space in the Headquarters area it is recommended that new structures be programmed. These structures should meet the criteria set forth in the Mt. McKinley Park Headquarters Historic District Design Guidelines. It is not appropriate to add major additions to historic structures but there is ample guidance available in the aforementioned design guidelines. Compatible design that blends with the natural and historic scene is the recommended solution to the space problem. This does not mean that the existing historic structures should not be rehabilitated; they are park resources. A plan that combines new construction and historic building rehabilitation would seem the most practical.
The Wonder Lake Ranger Station is presented in this report with sound recommendations and the required documentation. This should allow management to make a clear and final decision about the structure's future.

The Headquarters Building (21) and Sign Storage Building (106) are in very poor structural condition and will require immediate programming attention. This report will recommend the best solutions that can be generated in a preliminary design mode for programming and design direction. In depth design documents will have to be prepared in the future, but are beyond the scope of this report and this office.
Administrative Data

1. Background

The preparation of this document was undertaken as the result of ongoing and future building rehabilitation in the newly created Mt. McKinley Park Headquarters Historic District. In addition to fourteen structures in the Headquarters Historic District, the Wonder Lake Ranger Station has been included because of its architectural similarity. This report should aid in future and present planning and will provide the necessary compliance documentation for any immediate recommended actions. All of these historic structures are in the ownership of the National Park Service.

2. Statement of Significance

All of the buildings in this report are being nominated to the National Register of Historic Places. All but Wonder Lake Ranger Station are contained in one nomination which encompasses the structures in the Mt. McKinley Park Headquarters Historic District. A separate nomination is being prepared for Wonder Lake Ranger Station. The Headquarters Historic District National Register form is in the appendix of this report. Though Wonder Lake Ranger Station is not represented in the aforementioned nomination, it is assumed that its significance as a contributing element to the historic scene of Denali National Park and Preserve would be quite similar.
3. **Narrative of Existing Data**

There was a tremendous quantity of existing data that was used in the preparation of this report. Most of the data comes from the Park files. Nearly all of the original drawings and historic photographs were available and are contained in this report. These structures have been quite well documented because they have always been in the Park.

4. **List of Completed Reports**


5. **Planning Documents, Cooperative Agreements**

Draft General Management Plan, April 1986
Land Protection Plan, April 1985
Wilderness Suitability Review, April 1986
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Archeological Data

LANCE HEAD
SITE MMK-035-MILE 74-DENAI PARK ROAD
ARCHAEOLOGICAL DATA

Existing documentation of the historic district has been reviewed to determine archeological values. On-site inspections have been performed, and preliminary assessments of the archeological potential have been drafted. On the basis of these drafts in the region files, the following management actions within the Headquarters district have been taken or are suggested:

This district has been surveyed for prehistoric sites. No sites were found. On this basis, a zone clearance (002-83-DENA) was issued by the regional office for the district (see map). Construction may be performed in this area, but will cease if any prehistoric archeological remains are encountered.

As for historical resources, most of this area is related to the early development of the park. At present, no themes or other historical aspects have been identified that warrant archeological documentation or investigation. As the park history is researched and written over the next several years, it will be necessary to reassess the possible archeological potential of the Headquarters district.

The historical study may identify new themes that will open areas of research or interpretative potential. For instance, remains of the two-year Civilian Conservation Corps (CCC) camp from the 1930s may provide a time capsule of CCC field operations worthy of further investigation. In addition to celebrating harmony with the landscape, the rustic styled
Headquarters area may preserve additional lifeways information on Headquarters society and social structure. The relation of Karsten's original Headquarters to this district may need to be verified.

The basic culture history of the Headquarters area is adequately covered by existing documentation, particularly the draft National Register nomination. The district exists to preserve the commemorative value of the log buildings and the life style that they represent. Until new themes are identified, any additional historical archeological work is not deemed warranted.
KEY: ZONE OF ARCHEOLOGICAL CLEARANCE (002-83-DENA)
HISTORICAL DATA

The heightened tempo of building development at headquarters in the mid-1930s might well have slowed had it not been for the great Depression. In a determined effort to breathe new life into the nation's beleaguered business and agricultural sectors and to relieve unemployment, three-term President Franklin Delano Roosevelt took great strides to revitalize the nation's economy. One of the most popular and long-lived relief programs, initiated during Roosevelt's first 100 days in office was the Civilian Conservation Corps, popularly known as the CCC. Created in March 1933, and continuing into World War II, the CCC aimed at putting a huge army of unemployed men to work on conservation projects on forest and park lands throughout the country and in some U.S. territories. In terms of fire prevention and suppression, and in building, road, and trail construction the impact of the CCC was phenomenal. One historian estimated that "ten years of [the] CCC . . . produced park-conservation work that would have taken something like fifty years without the CCC".

In Mount McKinley National Park, the concentration of money and labor provided by the CCC brought about numerous development projects in the headquarter's area between 1938 and 1940. In addition to extensive work accomplished on roads and utilities, the CCC was fully or partially involved in the construction of no less than four buildings at headquarters. As a result of a sequence of projects accomplished at headquarters by the corpsmen, including the relocation of the Dog Feed Cache and Sled Storage building and the kennels, the construction of new roads and utility lines, and the erection of two residential buildings, the CCC is largely responsible for establishing the present residential area at headquarters. Nineteen hundred and thirty-eight witnessed the construction of two, two-story Employee Residences (Nos. 12 and 13) by the CCC.
Designed by architects in the National Park Service Branch of Plans and Design, a contingent of COC corpsmen began work on both buildings immediately after establishing a COC camp near headquarters. By the end of June, Employee Residence No. 12 was 15 percent completed. Construction progressed rapidly over the next three months: In July, the Employee Residence was 30 percent completed; in August, 80 percent finished; and at the end of September, the building was 90 percent completed. On November 3, 1938, the last contingent of 200 enrollees based at the COC Camp Denali left the park for the season. Left in their wake were two, six-room, single-family residences. In its completed form, Employee Residence deviated only slightly from the blueprint plans: the floor plan for the building was a mirror image reversal of the proposed design, and on the exterior, decorative shutters at the second-floor windows were deleted.

Consistent with the general pattern of evolving uses and appearance of buildings at headquarters, changes in the use of this residence corresponded directly with the extent of physical alteration. Since its construction in 1938, the buildings have retained their use as residences. In 1954, however, Employee Residence (No. 12) was converted from a single family dwelling to a duplex. In May 1954, work was started on Building No. 12 to convert it into two apartments, one on each floor. By the end of June, the interior remodeling was 90 percent completed and the upstairs, four-room apartment (comprised of a living room, kitchen, bedroom, and bathroom) was ready for occupancy. Interior wall treatment and plumbing fixtures have been altered significantly since 1954 as a result of subsequent remodelings.

Exterior alterations to the Employee Residences are relatively minor. Between 1938 and 1950, the outside window trim appeared painted rather than stained. Since the 1950s, one first floor multi-light window sash on the east wall of Building No. 12 has been replaced with a
picture window and a fire escape has been added to the south wall. In recent years, the exterior walls have been painted. Since 1963, wood shakes have replaced the original corrugated metal roofing material.
END NOTES

Buildings No. 12 and 13


3. Superintendent's monthly report, June through September 1938, May 1939, July 1939, February through July 1940, Archives, DENA.

4. Ibid., May 1938.

5. U.S. Department of the Interior, National Park Service, Branch of Plans and Design, "Employees Residence-Headquarters Area, Mount McKinley National Park", 3 May 1938; Building Inventory Form 10-768 for No.12, 21 February 1950, Archives, DENA.

6. Superintendent's monthly report, June 1938, Archives, DENA.

7. Ibid., July, August, and September 1938.

8. Ibid., October 1938; Historic photo file, Archives, DENA.


11. Superintendent's monthly report, May 1954, Archives, DENA.

12. Ibid., June 1954; Building Inventory Form 10-768 for No.12, 21 February 1950, Buildings and Utilities Office, DENA.

13. Historic photo file, Archives, DENA.

14. Building Inventory Form 10-768 for No.12, 10 May 1963, Buildings and Utilities Office, DENA.
Historic Photographs
A CCC crew pours the concrete foundation for Employee Residence No. 12 in the mid-summer of 1938.

Date: Summer 1938  Courtesy Denali National Park and Preserve
The framing of Employee Residence No. 12 neared completion in mid-summer 1938.

Date: Summer 1938  Courtesy Denali National Park and Preserve
In August 1938, the CCC worked to complete the framing of the Employee Residence No. 12.

Date: August 1938  Courtesy Denali National Park and Preserve
A contingent of CCC corpsmen posed in front of Employee Residence No. 12 soon after they completed constructing the building in early fall 1938.

Date: September 1938  Courtesy Denali National Park and Preserve
By early October 1938, the CCC completed two, six-room family residences. The construction of these two buildings initiated the development of a new residential area as well as a new modified expression of the rustic style at Park Headquarters.

Date: September 1938  Courtesy Denali National Park and Preserve
When completed, the exterior of Employee Residence No. 12 closely resembled the original design plans prepared by National Park Service architects. Only the second-story window shutters were never added.

Date: 16 August 1939  Courtesy Denali National Park and Preserve
In the early 1950s, Employee Residence No. 12 appears unaltered since its completion in 1938. The only apparent change in the exterior is the painting of the window trim.

Date: c. 1951  Courtesy Denali National Park and Preserve
A CCC work crew poured the concrete foundation for Employee Residence No.13 in mid-summer 1938.

Date: Summer 1938  Courtesy Denali National Park and Preserve
Construction of Employee Residence No. 13 progressed quickly in the summer of 1938. Here CCC men raise the forms for the two-story, frame building (probably No. 13).

Date: September 1938  Courtesy Denali National Park and Preserve
By August 1938, the OCC completed framing Employee Residence No.13. (Employee Residence No.12 is partially hidden by trees in the background.)

Date: August 1938  Courtesy Denali National Park and Preserve
One year after construction, Employee Residence No.13 (left) and Employee Residence No.12 (right) stand fully completed and occupied.

Date: 16 August 1938  Courtesy Denali National Park and Preserve
Twelve years after its construction, Employee Residence No.13 remains little altered. Snow piled on the front porch suggests the apparent disuse of the first floor entrance on the east elevation.

Date: March 1950  Courtesy Denali National Park and Preserve
By 1985, the open porch on the east elevation of Employee Residence No. 13 had been enclosed and the north porch roof extended eastward. Roof sheathing is presently wood shakes rather than corrugated metal.

Photographer: Kathleen Lidfors  Courtesy Denali National Park and Preserve
ARCHITECTURAL DATA

A. Existing Conditions and Significant Features

1. Structural

Both buildings were constructed with steel reinforced concrete foundations, the concrete stem walls creating basement levels. The main structural system above the concrete is platform framed, wood stud, and joist construction. Dimensional wood sheathing was applied diagonally over wall studs and perpendicular over roof rafters as evidenced in historic photographs. The roof rafters and ceiling joists are dimensional lumber assembled in a conventional gable configuration.

2. Roof

Historically the roof was covered with ribbed metal roofing. There are now cedar shakes on the roof that are in good condition.

3. Windows

Wood sash, multipane windows that were installed historically are extant. The sashes are openable casement type. Building 12 has a main living room window that has the historic sash replaced by fixed glass. This is the only location where a primary historic window has been significantly altered. Storm sashes are in evidence on both structures. Historic working drawings indicate shutters but they were never installed. The multipane windows are significant elements.
4. Doors

It appears the majority of historic doors have been replaced by modern type, hollow core interior and solid core exterior doors.

5. Floor Plan

Both structures were originally designed as single family residences, each residence having three bedrooms with a main bathroom on the second floor. Kitchen, dining and living rooms were located on the first floor. Both structures were converted to one bedroom apartments in the 1950s. The second floors had kitchens installed and the first floors had bathrooms added. With the addition of separate entry porches to the north elevations, the buildings remain in this configuration today.

6. Interior and Exterior Walls and Interior Ceilings

The exterior walls are sheathed with horizontal clapboards on the main level up to the window sill of the second floor. Vertical boards and battens are in place above the clapboards. It is difficult to identify the interior wall covering completely without destructive investigation. It is likely, however, that celotex is used as the primary wall and ceiling sheathing under the variety of modern finishings in evidence.

7. Floors

The floors are covered with carpet or sheet vinyl. It is likely that hardwood tongue and groove floor sheathing exists under these modern floor coverings.
8. Mechanical and Electrical

There has been various updates to mechanical and electrical of both structures over the years. New boilers were installed in Building 12 in 1985, and in Building 13 in 1986. It is assumed, however, that a good portion of the original wiring and plumbing is still in place.

B. Findings

The most significant problem with both Buildings 12 and 13 is the fact that they don't meet today's life safety codes and construction standards. There are also design layout flaws which make use of the structures uncomfortable and unsafe. There is an obvious lack of vapor barrier and insulation in walls. Interior walls appear to be sheathed with highly flammable celotex. Sawdust may have been used in the walls for insulation in some locations according to historic plans. There is a high degree of fire danger in both structures. Structurally the two buildings are in excellent condition. The concrete foundations appear to have been constructed properly when they were built and the soil condition stable. (This is an unusual situation in this area).

Architecturally the most important findings related to life safety are the winding stair treads and abundancy of combustable materials in use. The floor plans, modified from their original configuration, have contributed to an inefficient use of space and poor egress. Fire escapes and fire hoses have been added. In some cases, the fire escape is a rope hanging outside the second floor window. Access to basement by tenants is also a problem because circulation is conflicting between tenants using the same basement.
C. Recommended Treatments

1. Remove all interior sheathing (celotex), and window and door moldings; storing all moldings for future use.

2. Remove all old wiring and plumbing.

3. Reglaze all historic wood primary and storm sash windows and add weather stripping. Repair any damaged sash. Install new storm sashes that match existing sash light configuration.

4. Implement changes in stair design to eliminate winders and add isolated entry to basement. Also install artic entry to the first floor entrance.

5. Implement changes in floor plans to allow efficient egress and use of space. (Create separate access to basement).

6. Install electrical and plumbing to meet appropriate code compliance.

7. Install fiberglass insulation in wall cavity and attic after removal of any existing material.

8. Install adequate vapor barrier in walls and ceilings.

9. Install 1/2 inch type "X" sheetrock in walls and ceilings to meet industry standards.
10. Install historic moldings, replacing any broken ones to match.

11. Program for eventual replacement of wood shakes with historic replica, ribbed, metal roofing to reduce fire hazard and to be in keeping with the historic appearance.

12. Paint exterior National Park Service (NPS) brown to match existing (replace any damaged or rotten siding in kind).

13. Ascertain humidity levels after rehabilitation to see if excess humidity is being introduced through the utilidor (springtime). If this is the case, some manner of dehumidification will have to be implemented.

D. Alternative Treatments

These alternatives take into consideration the fact that funds may not be available for the recommended treatments.

1. No Further Treatment

This alternative would result in continued moisture damage to fabric and keep the current fire and life safety hazards in place. Routine maintenance would continue. (This alternative is not recommended.)
2. **Exterior Preservation Treatments Only**

This alternative would include all work recommended for the exterior. Routine maintenance would continue. (This alternative is not recommended.)

3. **Interior Adaptive Use Treatment Only**

This alternative would include all recommended interior work which would upgrade the code compliance. The structure would be up to accepted standard for housing use and would be much safer for habitation. Additionally, the energy requirements would be less and the addition of a vapor barrier should stop deterioration of walls. Routine maintenance would continue. (This alternative is not recommended.)

Of all the alternative treatments, "3" is the preferred treatment because if these items were accomplished the structures would be safer to live in.

E. **Evaluation of Effect of the Recommended Treatment**

1. **Discussion**

The following determination of effect of the recommended treatments is made in accordance with section 800.4 (b) of the Advisory Council on Historic Preservation regulations, "Protection of Historic and Cultural Properties." The council's criteria reads as follows:

A federal, federally assisted, or federally licensed undertaking shall be considered to have an effect on a National Register property eligible for inclusion in the
National Register (districts, sites, buildings, structures, and objects, including their settings) when any condition of the undertaking causes or may cause any changes, beneficial or adverse, in the quality of the historical, architectural, archeological, or cultural character that qualifies the property under the National Register Criteria.

Buildings 12 and 13 as explained earlier in this report are currently being nominated to the National Register of Historic Places. The architectural and historical qualities described in the National Register Nomination are briefly outlined in the following statements to be used in applying the criteria of effect.

a. "Architecturally, the design, construction materials, and siting of buildings in the Headquarters District are good representative examples of the National Park Service philosophy of rustic style architecture during its zenith and last period of expression".

b. "The Headquarters District possesses integrity of location, design, setting, materials, workmanship, and feeling of association. Of the eighteen buildings in the district, only four are noncontributing resources. Fourteen buildings contribute to the sense of time and place of the Headquarters District".

F. Determination of Effect

1. No Effect

Recommended treatments having no effect on the qualities of Buildings 12 and 13 that qualify
it as a contributing element of the Mount McKinley National Park Headquarters District are as follows:

a. All recommended interior work involving removal of celotex and changes in stair and floor plan configuration.

2. No Adverse Effect

Recommended treatments that are considered as having an overall beneficial effect in Buildings 12 and 13 are as follows:

a. Installation of new wiring and plumbing.
b. Installation of fiberglass and vapor barrier.
c. Installation of 1/2 inch, type "X", sheetrock.
d. Reglazing and repair of window sash.
e. Exterior painting.
f. Installation of new interior stairs with isolated entry.
g. Installation of standing seam metal roof.
h. Installation of new wood storm sashes.

3. Adverse Effect

Recommended treatments that are considered as having an adverse effect on the qualities of Buildings 12 and 13 that qualify it as a contributing element of the Mount McKinley National
Park Headquarters District are as follows:

a. No adverse effect is anticipated from treatments recommended in this report.

G. Recommendations for Further Study

It is recommended that architectural working drawings and specifications be programmed as soon as possible.

H. Material Take Off and Preliminary Cost Estimates

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<th>Unit Total</th>
<th>Cost Total</th>
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Sub Total $128,762  
X.20 Design $25,752  
X.31 Const/Admin $39,916  
TOTAL $194,430
Photographs of Building 12

Photo 1
North elevation of Building 12 looking from the east.
Photographer: Randy Skeirik June 1985

Photo 2
North elevation of Building 12 looking from the west.
Photographer: Randy Skeirik June 1985
Photo 3
West elevation of Building 12, note fire hose storage box between first floor windows.
Photographer: Randy Skeirik June 1985

Photo 4
South elevation of Building 12.
Photographer: Randy Skeirik June 1985
Photo 5
Southeast corner of Building 12, note altered windows on the east elevation which has fixed glass.
Photographer: Randy Skeirik June 1985

Photo 6
East elevation of Building 12, note original shed entry is extant.
Photographer: Dave Snow May 1985
Photo 7
Interior of Building 12, looking from the living room toward the bedrooms.
Photographer: Dave Snow May 1985

Photo 8
Fireplace in Building 12.
Photographer: Barry Sulam September 1981
Photo 9
Interior of Building 12, looking from the living room into the kitchen.
Photographer: Dave Snow May 1985

Photo 10
Basement of Building 12, looking north toward the stairs.
Photographer: Dave Snow May 1985
Photo 11
Second floor interior, looking at entry hall toward stairwell, Building 12.
Photographer: Dave Snow May 1985

Photo 12
Looking down stairwell from second floor in Building 12. Note winding stair treads.
Photographer: Dave Snow May 1985
Photo 13
Bathroom on second floor of Building 12, looking northeast.
Photographer: Dave Snow May 1985

Photo 14
Second floor, Building 12; bedroom to the left and living room to the right.
Photographer: Dave Snow May 1985
Photo 15
Southwest corner of living room, second floor, Building 12.
Photographer: Dave Snow May 1985

Photo 16
Northeast corner of living room, second floor, Building 12.
Photographer: Dave Snow May 1985
Photographs of Building 13

Photo 17
North elevation of Building 13.
Photographer: Randy Skeirik June 1985

Photo 18
East elevation of Building 13, note the rope fire-escape to the right.
Photographer: Randy Skeirik June 1985
Photo 19
South end of the east elevation, Building 13.
Photographer: Randy Skeirik June 1985

Photo 20
South end of east elevation, Building 13.
Photographer: Randy Skeirik June 1985
Photo 21
South elevation of Building 13.
Photographer: Randy Skeirik June 1985

Photo 22
East end of south elevation. Note the difference in window treatments below fire-escape here on Building 13. Building 12 by comparison has only the window to the right.
Photographer: Randy Skeirik June 1985
Photo 23
East elevation of Building 13, note alteration of second floor window.
Photographer: Randy Skeirik June 1985

Photo 24
South elevation of entry shed.
Photographer: Randy Skeirik June 1985
Photo 25
Stairwell at second floor, Building 13. Note winding stair treads.
Photographer: Dave Snow May 1985

Photo 26
Northeast corner of bathroom at the second floor of Building 13.
Photographer: Dave Snow May 1985
Photo 27
Looking north from bedroom, second floor, Building 13.
Photographer: Dave Snow May 1985

Photo 28
Southeast corner of second floor bedroom, Building 13.
Photographer: Dave Snow May 1985
Photo 29
Southeast corner of second floor living room, Building 13.
Photographer: Dave Snow May 1985

Photo 30
West wall of kitchen at second floor of Building 13.
Photographer: Dave Snow May 1985
Photo 31
South wall of first floor alcove, Building 13.
Photographer: Dave Snow May 1985

Photo 32
Fireplace on first floor, Building 13.
Photographer: Dave Snow May 1985
Photo 33
Southwest corner of kitchen, first floor, Building 13.
Photographer: Dave Snow May 1985

Photo 34
Southeast corner, first floor living room, Building 13.
Photographer: Dave Snow May 1985
Photo 35
Window at first floor bedroom, south wall, Building 13.
Photographer: Dave Snow, May 1985

Photo 36
First floor storage area looking east, Building 13.
Photographer: Dave Snow, May 1985
Photo 37
Stairwell of Building 13, looking down from the second floor. Note winding stair treads.
Photographer: Dave Snow May 1985

Photo 38
Oil-fired boiler and water heater in basement of Building 13.
Photographer: Dave Snow May 1985
Photo 39
North wall of basement in Building 13.
Photographer: Dave Snow May 1985

Photo 40
South wall of basement in Building 13.
Photographer: Dave Snow May 1985
Physical History & Analysis
HISTORICAL DATA

The Wonder Lake Ranger Station was built at the end of the park road, near the border and the small mining community of Kantishna. The area of Wonder Lake was the site of a Roadhouse built in 1922 and nearby a border patrol cabin. With increased use of the road through the park and with the proposal for a hotel and lodge on the lake, plans for a Ranger Station at the boundary jelled.

Unfortunately, no site had been selected when, in 1939 a work crew of 200 were available from the CCC. Superintendent Frank T. Been with Ranger Ogston, Architect Davis and CCC Supervisor Fox made a field decision about the buildings location. On June 9, 1939, Superintendent Been wrote Regional Director Kittredge:

Although the building materials are on hand, no location plan for the proposed Ranger Station, CCC project No. 36, Form 7 No.110, is available and as far as can be ascertained no one in the park at this writing is acquainted with the site suggested when the job was proposed and the building designed".¹

Been proposed a site located near the boundary, away from bogs, and on nearly level terrain. Been concluded:

Should the international highway become a reality the Kantishna entrance would in all probability become the most important entrance to the park and with this probability any planning in this area should be done accordingly. With this in mind a site was selected near Mile 87. The site offers a view of the road in both directions, although the building is not right on the road, it offers an interesting
foreground with an outstanding view of the lake and of Mount McKinley in the distance. Water is available by pumping from the lake or by drilling, thus insuring a year round supply. It is believed that this site is the most satisfactory in the area, as it is well situated for summer station and winter patrol...

In view of unsatisfactory conditions closer to the park boundary, the location near Mile 87 is strongly recommended. 2

The location selected, the CCC crews went to work. Within two months, from late June to August, the crews completed the basement and had framed and insulated, walled and roofed the five-room ranger station. By official memo the building was titled Wonder Lake Station. As Superintendent BEEN wrote:

Discussion with the park organization supports my opinion that the new ranger station should be called "Wonder Lake Ranger Station". The final location is several miles from Kantishna, but does present a splendid view of Wonder Lake. Hence, as Kantishna is a misnomer, we shall appreciate adherence to the designation, Wonder Lake Ranger Station. 3

The building immediately became the home of District Ranger John Rumohr and his assistant Ranger Raymond McIntyre. They made the finishing touches on the building with paint and sealer, brought 16 sled dogs, 2 sleds, supplies and other goods necessary for conducting winter patrols. Also, studies of animal life, weather, trapping, and use of that end of the park were initiated for the first time. Ranger Rumohr and McIntyre were "written up" in the Alaska press. One weekly wrote:
HISTORICAL DATA

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Been concluded:

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The Ranger residence at Wonder Lake is a tight five-room cabin built by the CCC this summer so that one looks over Wonder Lake to Mount McKinley. The cabin commands one of the grandest views in the world. Perhaps there is no residence that has such an intimate view of the highest mountain in North America.\(^4\)

District Ranger Rumohr found the ranger station less than satisfactory. The building was exposed to winds on all sides. The heating system wasn't as efficient as hoped, and walls did not hold heat because they were only four inches thick.

In his report to the superintendent, Rumohr complained that the CCC crew was "very, very, slack" and therefore the insulation wasn't as well packed as they were led to believe. Also the woodwork and flooring was not seasoned and had begun to shrink and curl. Then the sewer system froze.\(^5\)

By March 1940, Rumohr reported a major problem, the cracking of the foundation, settling of the south wall, and leaning of the chimney. He detailed the building's problems:

The sewerpipe and cesspool had to be thawed and cut twice during the month. It appears that there is a low place in the pipeline so that it does not drain properly. A small boiler borrowed from a prospector came in handy for this purpose.

Mention has been made before of a crack in the cellar floor thought to be caused by a heave of the ground. It now appears that it is caused by the big chimney settling down in the ground. It is very noticeable that the sitting room floor pitches toward the fireplace, there being a 2 1/2 inch difference between the east and west walls. Also, water on the porch will run in towards the office wall and
then leak down into the cellar. The 7 by 7 post nearest the chimney, that supports the floor beams is now hanging 1/2 inch above the cellar floor by the conduit pipe. The floor beams could be jacked and shims put under them. Unfortunately, no jack is available at present.

Frost has a tendency to form between the outer walls of the office and whenever the weather turns mild it melts and runs down between the celotex and the weather boarding. This will cause an early deterioration, not to mention the nuisance of having the water dripping down into the cellar. Likewise, frost forms under the roof and mild weather causes it to drip all over upstairs. Anything that is stored up there has to be covered by tarpauling. This can be overcome by sealing under the rafters, thus creating an airspace. But nothing outside of enclosing the porch will prevent damage to the walls.

The floors in the house are in bad shape. That was expected for CCC corpsmen. Pearson warned about the poor quality of the lumber and also about it not being dry enough. It would be impossible to dress them down by hand and a "sander" is needed. With all the floors at Headquarters that need to be taken care of every so often, it would be cheaper to buy a "sander" than to rent one as has heretofore been the practice.

It is hoped that the Superintendent does not think the district ranger is complaining too much about the house. But it is felt that by calling attention to the deficiencies in this building, a repetition of them may be prevented in the future construction.
The ranger station was in bad shape. It would be years before another crew spent the entire winter there.

Haphazard repairs occurred during the 1940s. In 1943, rangers were housed there the entire summer, mainly to watch the troop of soldiers stationed at Wonder Lake that summer. Talk of a hotel and lodge also continued during this period and the last private homestead was purchased at the north end of Wonder Lake with the view of locating there. The proposed hotel and enlarged park facilities were never built.

Superintendent Been's annual reports provide an outline of work on the building, basement, the water and sewer system, and the rafters that had become loose because of the settling.

The daily log kept by District Ranger Richard Stenmark and his wife during the late 1950s noted the beginning of some continued care of the building—repainting, patching and general maintenance. Stenmark and family lived at the ranger station from 1959-1962. In that span of time, Stenmark recalls painting the building a tundra reddish brown and installing an oil hot water heater and shower in the basement. The station served as the center for operations on the west end. Seasonal ranger houses had already been built behind the building, as well as dog houses for the patrol teams and the radio tower for contact with headquarters. The park staff located here maintained the campgrounds and completed routine patrols.

Wonder Lake Ranger Station became the focus of, first temporary, then permanent additions to the station area. Tent frames were replaced by cabins and other outbuildings. By the early 1960s the unsightly grounds were landscaped with more trees on the entryway and drive, but
the introduction of haphazard housing and outbuildings despoiled the sites beauty. The need for housing the increased staff at the Wonder Lake Ranger Station caused further impact, even though the West End Ranger residence was removed in the 1970s.

A trailer, generator house, and row of small houses stand behind the ranger station. The building and its site still has the best view of Mount McKinley and Wonder Lake. It also has been and is the major park service presence on the far end of the park road. Its structural problems continue and rangers still write the superintendent about the ranger station's many problems.
Building No.14

1. Superintendent Been to Regional Director Kittredge, June 9, 1939, Archives, DENA.
2. Ibid.
3. Superintendent to Regional Director, July 25, 1939, Archives, DENA.
5. Ranger Rumohr to Superintendent Been, April 4, 1940, Archives, DENA.
6. Ibid.
7. Ranger log, Office, Wonder Lake Ranger Station.
Historic Photographs
Wonder Lake Ranger Station under construction.

Date: August 16, 1939    Courtesy Denali National Park and Preserve
Wonder Lake Ranger Station under construction showing south wall.
Date: August 16, 1939  Courtesy Denali National Park and Preserve
Wonder Lake Ranger Station near completion, showing south and east walls.

Date: c. 1939  Courtesy Denali National Park and Preserve
Wonder Lake Ranger Station, west wall.

Date: ca. 1940-41 Courtesy Denali National Park and Preserve
Wonder Lake Ranger Station.
Photographer: George Peters   September 8, 1949   Courtesy Denali National Park and Preserve
Wonder Lake Ranger Station.

Photographer: George Peters  September 8, 1949  Courtesy Denali National Park and Preserve
ARCHITECTURAL DATA

A. Existing Conditions and Significant Features

1. Structural

Building 14 (Wonder Lake Ranger Station) is in extremely poor condition structurally. The concrete stem walls, which are steel reinforced, have failed due to heaving from soil pressures. The entire front wall of the building has slid off the concrete stem wall and is currently being stabilized with temporary jacks, beams and cribbing.

Above the foundation the structure is in fair condition with the only damage being induced by the foundation failure. This has caused the floor to be out of level and the doors and windows to rack out of square.

The structure is platform framed with wood studs. The outer walls are probably sheathed with diagonally applied dimensional lumber under the exposed siding. The roof is constructed with wood rafters and sheathed with dimensional lumber.

2. Roof

The roofing on Building 14 is the original ribbed metal roof. It is in fair condition considering its age and the recent mounting of solar cells on the front elevation. There are probably leaks in this roof during heavy rains. The metal roof is a significant element.
3. **Windows**

Building 14 has all of its original windows which are double hung and have multiple panes. Three-over-three and four-over-four sashes are in evidence. Decorative, wood plank, shutters are fixed around all but the porch windows. These windows and shutters are significant elements.

4. **Doors**

Interior and exterior doors appear to be original to Building 14's construction. Exterior main entrance doors are vertical plank. One door has a single light and the other has one but it has been covered. Interior doors are wood panel and varnished. The main doors at the entrance and interior panel doors are significant elements.

5. **Floor Plan**

The floor plan of Building 14 is e-shaped with an office and covered porch at the main entry. There are two bedrooms, one bath, a kitchen and living room. The living room has a large functional fireplace. The plan, other than being reversed from the original design, has not been changed since the structure was constructed. The basement is accessed from the interior and exterior at the rear.

6. **Interior and Exterior Walls and Interior Ceilings**

The exterior walls are similar to Buildings 12 and 13 in that the lower portion of the wall is
covered by horizontal clapboard to the window sill level, where the siding changes to board and batten. The walls are painted NPS brown and their present configuration is a significant element. The interior walls and ceilings are sheathed with celotex panels. The panels joints are covered with wood battens. Doors, windows, and baseboards are trimmed with varnished wood. Moldings applied at the finish openings and wall bases are significant elements.

7. **Floors**

The floors in Building 14 are wood sheathing over wood floor joists. The finish floors are covered with linoleum.

8. **Mechanical and Electrical**

Both mechanical and electrical are of the 1940s vintage. There is no operable central heating in the structure at this time. There has been some updating of electrical through the years.

B. **Findings**

As noted under "structural", the foundation of Building 14 is the major concern. It will continue to be susceptible to soil pressures. Catastrophic failure where the structure could come down is unlikely because the foundation is still held together by the steel reinforcing in the concrete and the floor has emergency bracing. The potential hazard from highly combustible materials used for interior wall and ceiling sheathing is of major concern. Celotex is highly flammable and it's not known what is in the wall cavities, it could be sawdust. Additionally, the roof is at least 40 years old and is understandably in poor condition.
C. **Recommended Treatments**

1. Remove all interior sheathing (celotex) removing windows, doors and moldings. (Remove as much live and dead load as possible.)

2. Remove all old wiring and plumbing.

3. Remove all furnishings from basement.

4. Construction of an all weather wood foundation system at an alternate site. This foundation would not have a basement and only a crawl space would be provided for.

5. Detach structure from the original foundation and attach to new all weather wood foundation. The chimneys should be documented, demolished, and rebuilt at the new site. The original foundation can be removed or filled in.

6. All floors would have to be leveled and any structural members sustaining damage would have to be replaced.

7. Rewire and replumb entire structure to meet code.

8. Install fiberglass insulation.

9. Repair and reglaze all window sashes.

10. Reset all doors to meet level floor.
11. Install 1/2 inch type "X" sheetrock and tape finish wall joints. Wood battens could be
reinstalled at joints but sheetrock must be taped first.

12. Install historic window, door, and base moldings, replacing in kind any damaged pieces.

13. Install all electrical and plumbing fixtures.

14. Install new central heating system; assuming original ducting still intact to be reused.

15. If roof is not repairable, it should be replaced with a similar style ribbed metal
roofing that can be replicated in matching color. Solar panels should be removed
completely.

16. All porch elements, columns, decking, steps, and railings should be replaced and repaired
as required to match historic appearance.

17. Paint exterior walls with NPS brown paint.

D. Alternative Treatments

These alternatives take into consideration the fact that funds may not be available for the
recommended treatments.

1. No Further Treatment

This alternative would result in foundation failure causing additional door and window racking
with floor heaving. Current fire hazard would continue to exist. There would continue to be no possibility of winter use as associated with the high energy cost. Constant monitoring of emergency stabilization system would be required in addition to continued routine maintenance. (This alternative is not recommended.)

2. Exterior Preservation Treatment Only

This alternative would include all work recommended for the exterior. Primarily this would involve window, roof, and painting of the exterior. Constant monitoring of the emergency stabilization system would be required in addition to continued routine maintenance. (This alternative is not recommended.)

3. Interior Adaptive Use Treatment Only

This alternative would include all recommended interior work which would upgrade the code compliance and energy efficiency but would not solve the foundation problems. Constant monitoring of the emergency stabilization system and routine maintenance would continue. (This alternative is not recommended.)

4. Foundation Work Only

This alternative would include all recommended work for replacement of the foundation. This would stabilize the building structurally but there would still be the fire hazard created by celotex wall sheathing and the lack of energy efficiency because of inadequate insulation. Routine maintenance would continue. (This alternative is not recommended.)
Of all the alternative treatments "4" is the preferred treatment because it would be the logical first step in stabilizing the structure.

E. Evaluation of Effect of the Recommended Treatment

1. Discussion

The following determination of effect of the recommended treatments is made in accordance with section 800.4 (b) of the Advisory Council on Historic Preservation regulations, "Protection of Historic and Cultural Properties". The council's criteria reads as follows:

A federal, federally assisted, or federally licensed undertaking shall be considered to have an effect on a National Register property eligible for inclusion in the National Register (districts, sites, buildings, structures, and objects, including their settings) when any condition of the undertaking causes or may cause any change, beneficial or adverse, in the quality of the historical, architectural, archeological, or cultural character that qualifies the property under the National Register Criteria.

Building 14 as explained earlier in this report is currently being nominated to the National Register of Historic Places. The architectural and historical qualities described in the National Register Nomination are briefly outlined in the following statements to be used in applying the criteria of effect.

a. Architecturally, the design, construction materials, and siting of the Wonder Lake make
it a good representative example of the National Park Service philosophy of rustic style architecture during its zenith and last period of expression.

b. Building 14 possesses integrity of location, design, setting, materials, workmanship, and feeling of association with buildings in the Headquarters Historic District.

F. Determination of Effect

1. No Effect

Recommended treatments having no effect on the qualities of Building 14 that qualify it for nomination to the National Register of Historic Places are as follows:

a. Any demolition of old mechanical systems in the basement or attic spaces.

2. No Adverse Effect

Recommended treatments that are considered as having an overall beneficial effect on Building 14 are as follows:

a. Replacement of the existing concrete foundation.
b. Removal of all celotex from ceiling and walls.
c. Installation of type "X" sheetrock at all walls and ceilings.
d. Installation of new mechanical and electrical.
e. Repair or replacement of existing roof.
f. Reglazing and repair of all window sash.
g. Repair of existing porch.
h. Repainting.

3. **Adverse Effect:**

Recommended treatments that are considered as having an adverse effect on the qualities of Building 14 that qualify it for the National Register of Historic Places are as follows:

a. If the decision is made to move the structure to another site for other reasons than unbuildable soil conditions, it would be an adverse effect.

G. **Recommendations for Further Study**

It is recommended that architectural working drawings and specifications be programmed as soon as possible.

H. **Material Take-Off and Preliminary Cost Estimates**

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Existing Conditions Photographs
Photo 1
West elevation of Building 14, note later addition of solar cells and radio antenna.
Photographer: Gail Evans July 1985
Photo 2
West elevation showing entrance to the north of the office way.
Photography by: National Park Service June 1985

Photo 3
Detail of window on west elevation, north end.
Photography by: National Park Service June 1981
Photo 4
Detail of window trim in porch area, note racking of casement causing sashes to be out of plumb.
Photography by: National Park Service  June 1981

Photo 5
Northwest corner of porch, note cracks in concrete caused by foundation failure.
Photography by: National Park Service  June 1981
Photo 6
Northwest corner of main house foundation indicating structural failure.
Photography by: National Park Service June 1981

Photo 7
Northwest corner of porch.
Photography by: National Park Service June 1981
Photo 8
Southwest corner of porch showing column detail.
Photography by: National Park Service June 1981

Photo 9
North side of porch.
Photography by: National Park Service June 1981
Photo 10
Southeast corner.
Photography by: National Park Service  June 1981

Photo 11
Northeast corner.
Photography by: National Park Service  June 1981
Photo 12
North end of east elevation.
Photography by: National Park Service June 1981

Photo 13
West end of south elevation.
Photography by: National Park Service June 1981
Photo 14
West wall of living room.
Photography by: National Park Service  June 1981

Photo 15
Interior hallway, note drop in the floor caused by structural movement.
Photography by: National Park Service  June 1981
Photo 16
Heating plant in basement (not used).
Photography by: National Park Service June 1981

Photo 17
Typical window trim at east wall of bedroom.
Photography by: National Park Service June 1981
Photo 18
Crack in basement floor slab near stairs running north to south.
Photography by: National Park Service  June 1981

Photo 19
Floor joist at west foundation wall, note joists have been pulled off foundation wall and are held up with emergency stabilization beam.
Photography by: Dave Snow May 1985
Photo 20
Attic at north end.
Photography by: National Park Service  June 1981

Photo 21
Attic at west end.
Photography by: National Park Service  June 1981
HISTORICAL DATA

In 1934 the National Park Service's San Francisco-based Branch of Plans and Design produced architectural plans for two of the largest, most substantial dwellings built to date in the headquarters area. Reflecting both the park's critical need for employee housing following a May 11, 1934 fire that totally destroyed the existing rangers' residence and the expansion of the Branch of Plans and Designs in the mid-1930s, plans for a two-story employee's quarters and a 34 feet by 34 feet, two-story Ranger Dormitory (No. 21) arrived in the park in the spring and summer of 1934. These two structures may have been the first buildings at headquarters designed by an architect rather than a landscape architect. In overall design and detailing, these two combination log and log veneer buildings characterized the rustic style movement as it entered its final phase of development in the 1930s.

In preparation for the construction of the Ranger's Dormitory, building materials were located and gathered from the late winter to the summer of 1934. In February park rangers cruised for logs and selected a desirable stand of trees located along the Nenana River running along the eastern boundary of the park. In March, the chief ranger along with two rangers established a temporary camp on the bank of the Nenana River from which logging operations progressed for two weeks. During April logs were hauled to headquarters with a caterpillar secured from the Alaska Road Commission. Building materials and supplies of cement and lumber arrived in August with additional railroad carloads received by the park superintendent in September and October.

At the building site, construction began in late summer 1934 and progressed through the fall and winter months. Following excavation of the basement in August, concrete was poured for the foundation walls and floor in September that year. By the end of the month, log work was
completed to the second floor, the first and second floors were laid, and partitions were placed ready to add the roof. October witnessed the completion of the roof, installation of the window and door casings and the pouring of concrete for the fireplace and chimneys. As the severe cold of winter settled over the park, sawdust insulation was installed in the top ceiling of the Ranger Dormitory. At year's end, Superintendent Harry Liek reported that the eight-room dwelling was 60 percent completed. Throughout the first three months of 1935, the park retained one carpenter to work on the interior. Installation of the furnace and heating and plumbing systems was completed.

Finally, after more than a year of actual construction, the Ranger Dormitory was completed in May 1935 with only the walls left to paint and the floors covered with linoleum in the kitchen and bathrooms. In his annual report to the National Park Service Director for fiscal year ending June 1935, Superintendent Harry Liek zealously announced: "the largest building program in the history of the park took place the past year when two of the finest buildings in the interior of Alaska were constructed at park headquarters, consisting of an eight-room ranger's quarters and a five-room employee's residence". (Sadly, the employee's residence which once stood just north of the Rangers Dormitory on the main road into headquarters, was totally destroyed in a devastating fire in 1950.) When completed the Ranger's Dormitory closely resembled the original design, the only modifications included the deletion of both decorative wood shutters at the second-floor windows and stone masonry veneer around the concrete foundation. Corrugated metal rather than the wood shingles called for in architectural drawings, sheathed the roof.

The Rangers Dormitory continued to serve as such for nearly twenty years. Briefly, during the severe winter months of 1942, the dining room was temporarily converted into the park's
Consequently, only minor changes were made to the building in the 1930s. In 1936 measures were taken to waterproof the concrete basement walls and kitchen floor and two years later cement chinking over metal lath was applied to the exterior log walls. In 1950, the interior configuration of rooms remained nearly unaltered.

The first major physical problems with the building were reported in 1950. That year Ranger William Nancarrow noted that both the structural and mechanical condition of the Rangers Dormitory was poor. "The basement walls", wrote Nancarrow, "are breaking up [which] is causing a lot of damage to the frame. The chimney [projecting from the south sloping roof] is tipping and pulling out the west wall". One year later, the Architectural Division of the National Park Service Western Regional Office prepared plans for the replacement of the eight-inch foundation wall with a concrete wall twelve inches thick and the construction of a new chimney. It was not until the summer of 1953 that efforts were made to correct the building's structural problems. By August that year, workmen had torn out and rebuilt the defective chimney. To alleviate foundation problems, caused by the deletion of steel from the original concrete, the building was jacked up and supporting piers and timbers placed so as to remove strain on the weak basement walls. It appears that reconstruction of the foundation walls proposed by the National Park Service Architectural Division was never carried out.

Continuing the tradition of adaptive reuse of buildings in the headquarters area, the Ranger's Dormitory experienced its first change in use in 1954 when it was converted to the park's administration building. Internal partitioning remained remarkably intact, however the use of space changed. Living and sleeping rooms became separate offices. In 1958, the original four, second-floor bedrooms served as separate offices for the chief ranger, chief naturalist,
engineer, and the foreman. On the ground floor, the superintendent, assistant superintendent, administrative officer, and clerk occupied the former dining room, kitchen, and living room (by then split into two offices).  

Since the 1950s the headquarters administration building has undergone considerable interior changes. In recent years, interior partitions on the ground floor have been substantially altered most notably in the southeast quadrant of the building where a portion of the living room and large walk-in closet once existed. By 1958 the closet was a lavatory: nineteen years later, a new bathroom and radio room were completed in this space. In 1976, new ceilings, wall paneling, and carpets were installed. Aside from these interior remodelings, the exterior retains much of its original rustic appearance. Single-paned casement windows replaced the former multi-light window sashes.
END NOTES

Building No. 21

1. Superintendent's monthly report, May 1934, Archives, DENA.
2. Historic photo file, Archives, DENA.
3. Superintendent's monthly report, April and July 1934, Archives, DENA.
4. Ibid., February 1934.
5. Ibid., March 1934.
6. Ibid., March and April 1934.
7. Ibid., August 1934.
8. Ibid., September and October 1934.
9. Ibid., August 1934.
10. Ibid., September 1934.
11. Ibid., October 1934.
12. Ibid., November 1934.
13. Ibid., December 1934.
15. Ibid., May 1935.
16. "Mount McKinley National Park" (Superintendent's annual report), fiscal year 1936, Archives, DENA.
17. Historic photo file, Archives, DENA.

18. Ibid., One photograph taken by Grant Pearson around 1934 (Neg. No. 3-36) and one taken around 1939 (Neg. No. 4-3.7) show no shutters at the windows. U.S. Department of the Interior, National Park Service, Branch of Plans and Design, "Administration Area", part of the "Master Plan of Mt. McKinley National Park", 1937, Buildings and Utilities Office, DENA. The narrative in the "Master Plan", completed less than two years after completion of the building, indicates that the Rangers' Dormitory was one of the three new buildings at headquarters that did not have the prescribed "stone masonry veneer about the foundation which is very necessary to the correct appearance of the buildings . . ." U.S. Department of the Interior, National Park Service, Branch of Plans and Design, "Mount McKinley National Park, Rangers' Dormitory", 29 January 1934, Cultural Resources Division, Alaska Regional Office, National Park Service, Anchorage, Alaska.

19. Superintendent's monthly report, December 1942, Archives, DENA.

20. Ibid., April 1936.

21. Ibid., August 1938.

22. Building Inventory Form 10-768 for No. 21, 8 March 1950, Buildings and Utilities Office, DENA.

23. Ibid., "Master Plan Development Outline, Building Chart", May 1957, both in Archives, DENA.


25. Building Inventory Form 10-768 for No. 21, 28 July 1953 (date of information added later on form), Buildings and Utilities Office, DENA.

monthly report, June 1954. In March 1954, the building was designated as the "Ranger Dorm" on the Master Plan map of headquarters. In June that year, the superintendent noted that stain was applied to the exterior logs of the "new office building (formerly Rangers' Dormitory) . . . ."

27. Building Inventory Form 10-768 for No. 21, 30 January 1958 (date of information added later on form), Buildings and Utilities Office, DENA.

28. Ibid.

29. Ibid., untitled paper inside form folder.
Historic Photographs
Construction work on the Rangers' Dormitory moved inside during the winter of 1934-35. At the end of March 1935, the exterior appeared substantially completed except for the application of vertical rounded plank sheathing on the second floor walls.

Date: March 1935  Courtesy Denali National Park and Preserve
Taken not long after their completion, this photo depicts the Rangers' Dormitory (left) and the five-room employee's residence (right) standing on the west side of the main road into headquarters. Completed in 1935, these two substantial structures were products of the "largest building program in the history of the park."

Date: C. 1941 Courtesy Denali National Park and Preserve
In the early 1940s, the first floor of the employee residence, was pressed into service as the park administrative office.

Date: November 1940  Courtesy Denali National Park and Preserve
Completed in the same year as the Rangers' Dormitory, and resembling that building in design and materials, this photo depicts the employee's residence not long before fire totally destroyed the building in 1950.

Date: Late 1940s  Courtesy Denali National Park and Preserve
When completed, the Rangers' Dormitory deviated only slightly from the original design plans: stone veneer was never applied to the concrete foundation, second-floor windows remained unadorned with decorative, wood shutters and corrugated metal, rather than wood shingles was used as roofing material.

Date: Late 1930s  Photographer: Grant Pearson

Courtesy Denali National Park and Preserve
Park employees pose near the stone veneer fireplace in the living room of the Rangers' Dormitory, not long after the building's construction.
Date: c. 1936  Courtesy Denali National Park and Preserve
In March 1951, the exterior of the Rangers' Dormitor, reveal none of the structural problems that existed in the foundation walls and chimney on the west wall (not visible in this photo).

Date: March 1951  Courtesy Denali National Park and Preserve
ARCHITECTURAL DATA

A. Existing Conditions and Significant Features

1. Structural

Building 21 is constructed on a concrete foundation with a partial basement. Logs are located horizontally on the first floor sill and transmit roof and floor loads directly to the concrete foundation. Above the logs is platform wood framing at the second sill floor which has the roof and ceiling as its primary load. The roof consists of log rafters forming a simple gable with the majority of the roof taking the form of dormer shed roofs, the main gable only evident at the ends. A rubble chimney protrudes near the peak. All floors are dimensional wood joists.

2. Roof

Historically the roof was sheathed with corrugated metal roofing sections. At present the roof has cedar shakes. There are shed porch roofs at both the east and south elevations. The porch at the east end is original to the construction and the other a later addition. Massive twelve inch diameter columns are used in pairs at the east porch, which is the main entrance. These columns are significant elements.

3. Windows

The majority of historic multi-pane windows have been replaced by fixed glass modern windows. The historic windows were double hung, four-over-four lights and the modern ones are two
light, two sash, casement opening windows. The only historic windows left are those at the west end of the north elevation, on the first floor and three at the east gable end, on the second floor. These remaining historic windows are significant elements.

4. **Doors**

With few exceptions, the historic doors have been replaced by modern panel and hollow core doors.

5. **Floor Plan**

Building 21 was originally designed as a ranger dormitory. The plan today still reflects this historic use, but the structure is now used as the administration building for Alaska's busiest park. Changes made to the plan to adapt it to administrative use are partitioning of the main hall downstairs, and the removal of closets on the second floor.

6. **Interior and Exterior Walls and Interior Ceilings**

The exterior walls are saddle jointed logs on the first floor and vertical wood planks on the second level following the change in structural systems from log to frame. The vertical wood planks are half lapped and milled to a rounded shape that is consistent (no taper). The logs have been chinked with mortar. The entire structure is painted NPS brown.

Interior walls appear to be sheathed with celotex and covered with composite paneling. The ceilings are acoustical dropped ceilings with fluorescent lighting hung over celotex. The bathroom walls are covered with marlite sheathing.
7. Floors

The floors are covered with carpeting and vinyl floor coverings. It is possible that under these floor coverings are tongue and groove hardwood floorings.

8. Mechanical and Electrical

Heating is accomplished by two methods, an oil-fired boiler in the summer and steam from a utilidoor in the winter. Both systems use forced air and are old and inefficient.

B. Findings

The most significant finding was that the concrete foundations has no steel reinforcing. There are signs of structural failure evident throughout the basement and also in the attic. This is not a new problem, as structural engineering design drawings were prepared in 1951 to solve the problem, but were only partially carried out. Some of the 1951 lifting beams are still in place today. With no steel in the concrete foundation it cannot resist lateral soil loading. If there were to be significant seismic action there could be catastrophic failure of this foundation. Additionally, there are signs of separation of the roof rafters at the ridge and floor deformation around the chimney. It appears the chimney foundation is resisting settlement whereas the outer walls are not; thus the floor deformation.

The roof is only in fair condition as there appears to be a leak at the chimney. The leak has damaged the second floor ceiling.
Due to the abundant use of celotex throughout the building and unknown (if any) wall insulation there is extreme fire hazard because there are essentially no fire resistive materials. Adding to this problem is an antiquated wiring system that is in need of upgrading.

This structure should be prioritized the highest because of the severity of its structural and life safety problems.

C. Recommended Treatments

1. All possible live loads should be removed from the structure (furnishings and storage items).

2. All possible dead loads should be removed from the structure (all interior wall and ceiling finishes which include celotex, composite paneling, acoustical ceilings, electrical and mechanical fixtures, door and window trim).

3. A lifting system designed and supervised by a structural engineer should be used to lift the structure off the existing foundation.

4. The existing foundation should be removed while the structure is lifted and held in place. The lifting system would have to be designed to not interfere with this process. The chimney should be retained and lifted with the structure.

6. The historic structure would be set onto the new foundation after the foundation had gained sufficient strength (usually about seven days).

7. Backfill around new foundation and reset all porch columns.

8. Fur out all first floor exterior log walls to create wall cavities.

9. Install all new fire warning and fire suppression systems.

10. Install all new mechanical and electrical systems.

11. Install fiberglass insulation and vapor barriers to all specified areas. (Some areas may be insulated for sound, as well as, thermal).

12. Install 5/8 inch type "X" sheetrock with taped joints at all ceilings and walls.

13. Install all window and door trim and true up all casements.

14. Repair or replace all damaged floor coverings.

15. Install all electrical and mechanical fixtures.

16. Roof should be repaired or if deemed necessary it should be replaced with corrugated roofing.

17. Replace all building furnishings.
D. Alternative Treatments

These alternatives take into consideration the fact that funds may not be available for the recommended treatment.

1. No Further Treatment

This alternative could result in catastrophic failure of the foundation and possible loss of life. Because of the aforesaid reasons, this structure could fail at any time with no measures in place to resist or mitigate loss of life and possible damage. There would be continued monitoring of foundation cracks and continued routine maintenance. (This alternative is not recommended.)

2. Exterior Preservation Treatment Only

This alternative would include only recommended roof work. Constant monitoring of foundation cracks and routine maintenance would continue. (This alternative is not recommended.)

3. Interior Adaptive Use Treatment Only

This alternative would include all recommended interior work which would upgrade the code compliance and energy efficiency but would not solve the foundation problems. Constant monitoring of the foundation cracks and routine maintenance would continue. (This alternative is not recommended.)
4. Foundation Work Only

This alternative would include all recommended work for replacement of the foundation. This would stabilize the building structurally but there would still be the fire hazard created by celotex wall sheathing and the lack of energy efficiency because of inadequate insulation. Routine maintenance would continue. (This alternative is not recommended.)

Of all the alternative treatments "4" is the preferred treatment because it would be the logical first choice in stabilizing the structure.

E. Evaluation of Effect of Recommended Treatment

1. Discussion

The following determination of effect of the recommended treatments is made in accordance with section 800.4(b) of the Advisory Council on Historic Preservation regulations, "Protection of Historic and Cultural Properties". The council's criteria reads as follows:

A federal, federally assisted, or federally licensed undertaking shall be considered to have an effect on a National Register property eligible for inclusion in the National Register (districts, sites, buildings, structures, and objects, including their settings) when any condition of the undertaking causes or may cause any change, beneficial or adverse, in the quality of the historical, architectural, archeological, or cultural character that qualifies the property under the National Register Criteria.
Building 21, as explained earlier in this report is currently being nominated to the National Register of Historic Places. The architectural and historical qualities described in the National Register Nomination are briefly outlined in the following statements to be used in applying the criteria of effect.

a. Architecturally, the design, construction materials, and siting of the Building 21 make it a good representative example of the National Park Service philosophy of the rustic style architecture during its zenith and last period of expression.

b. Building 21, possesses integrity of location, design, setting, materials, workmanship, and feeling of association with buildings in the Headquarters Historic District.

F. Determination of Effect

1. No Effect

Recommended treatments having no effect on the qualities of Building 21 that qualify it for nomination to the National Register of Historic Places are as follows:

   a. Any demolition of old mechanical systems in the basement or attic spaces.
   b. Removal of the existing foundation.

2. No Adverse Effect

Recommended treatments that are considered as having an overall beneficial effect on Building 21 are as follows:
a. Replacement of the existing concrete foundation.
b. Removal of all celotex from ceiling and walls.
c. Installation of type "X" sheetrock at all walls and ceilings.
d. Installation of all new mechanical and electrical equipment.
e. Replacement or repair of existing roof.

3. **Adverse Effect**

Recommended treatments that are considered as having an adverse effect on the qualities of Building 21 that qualify it for the National Register of Historic Places are as follows:

a. No adverse effect is anticipated from treatments recommended in this report.

G. **Recommendations for Further Study**

It is recommended that architectural working drawings be programmed as the highest priority to rehabilitate Building 21 as soon as possible.
### H. Material Take Off and Preliminary Cost Estimates

<table>
<thead>
<tr>
<th>Division Number</th>
<th>Division Title</th>
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<td>Repair of existing floor framing</td>
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<td>exterior walls</td>
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<td>Construction of</td>
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<td>lifting system</td>
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<td>TOTAL</td>
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Photographs of Building 21

Photo 1
West elevation.
Photographer: Randy Skeirik June 1985

Photo 2
North elevation, note original window at west end of north elevation, first floor.
Photographer: Randy Skeirik June 1985
Photo 3
South end of west elevation.
Photographer: Randy Skeirik June 1985

Photo 4
Southwest corner.
Photographer: Barry Sulam September 1981
Photo 5
Southeast corner.
Photographer: Dave Snow May 1985

Photo 6
Northeast corner.
Photographer: Randy Skeirik June 1985
Photo 7
East elevation, detail at gable end. Note historic windows.
Photographer: Dave Snow May 1985

Photo 8
Northeast corner, note shed dormer and rubble chimney.
Photographer: Dave Snow May 1985
Photo 9
Detail of log joining at corner.
Photographer: Dave Snow May 1985

Photo 10
East end of north elevation.
Photographer: Dave Snow May 1985
Photo 11
Detail at northeast corner of east porch.
Photographer: Dave Snow May 1985

Photo 12
Typical modern window detail on south elevation.
Photographer: Dave Snow May 1985
Photo 13
Northwest corner, note lifting beam in place and radio tower foundation.
Photographer: Dave Snow May 1985

Photo 14
Northwest corner of foundation, note poor condition.
Photographer: Dave Snow May 1985
Photo 15
Grade beam at north wall covering major foundation failure.
Photographer: Dave Snow May 1985

Photo 16
Basement wall at north elevation, note failed attempts to stabilize concrete stem wall.
Photographer: Dave Snow May 1985
Photo 17
Cracks at north basement wall.
Photographer: Dave Snow May 1985

Photo 18
Southwest basement corner, note separation due to lack of steel reinforcement.
Photographer: Dave Snow May 1985
Photo 19
North basement wall, note placement of emergency stabilization beam.
Photographer: Dave Snow May 1985

Photo 20
North side of chimney foundation, note same stabilization beam described in Photo 19.
Photographer: Dave Snow May 1985
Photo 21
Superintendents office, southeast corner.
Photographer: Dave Snow May 1985

Photo 22
East wall of second floor bathroom, note remaining historic windows.
Photographer: Dave Snow May 1985
Photo 23
East wall of lobby.
Photographer: Dave Snow May 1985

Photo 24
Lobby, looking southwest. Detail of fireplace.
Photographer: Dave Snow May 1985
Photo 25
Lobby/reception area looking northwest.
Photographer: Dave Snow May 1985

Photo 26
Southwest corner of lobby/reception area.
Photographer: Dave Snow May 1985
Physical History & Analysis
Constructed in 1926, the Office Building (No. 22) now stands as the oldest structure at Mount McKinley National Park headquarters. This one-story originally unpeeled log building has no known architect. Only one year after the park headquarters was moved from the McKinley Park Station area to its present location, rangers erected this modest building on the park highway adjacent to the entrance of the main road leading into headquarters. According to the Mount McKinley National Park "Superintendent's Monthly Report" for April 1926:

On April 26th, construction was started on the park office building. Specifications [for] the structure will be in accordance with the blue print submitted to the Director, earlier this year. A fair stand of spruce timber was located within a mile of headquarters and logs were cut . . . and the timber hauled to the headquarters site before construction work was begun. The work is progressing rapidly and will probably [be] completed about the 15th to the 20th of May.  

One month later construction of the building proceeded on schedule yet limited funds threatened to delay the building's completion. In May 1926 park Superintendent Henry Karstens reported that "the foundation, walls, and roof support logs have been placed, as well as, the first floor laid, doors and windows sawn out, and the cellar, 6' 6'' deep, dug out." Regrettably, Karstens noted in the same report that "the whole structure is now ready for the sawed lumber and would probably have been finished . . . but for the fact that a cut was made by our headquarters office in our requisition for money, which now prohibits any purchase of materials until the coming fiscal year".
Limited funding failed to halt completion of the building that year. Utilizing materials "salvaged from railroad construction", (presumably windows, a door and sawn lumber for the roof and interior finish work), the Office Building was completed on the 26th of July 1926 and made ready for occupancy.

For the first decade following completion of the park's administrative headquarters, the Office Building witnessed a series of minor improvements aimed at enhancing the comfort of its two occupants, the superintendent and the clerk. Late in 1926 the interior wood trim was stained a dark brown and varnished. At the same time a railing with a "spring pivoted gate" was constructed in the building. Two years later celotex was installed in the ceiling in an effort to reduce heat loss through the roof which, at that time, consisted of one layer of inch-thick boards and tar paper. As an added measure to conserve heat and save on fuel, the building was chinked with oakum as the weather turned cold in late 1928. In 1931 additional improvements were made to the Office Building: in June the original twelve-inch boards installed for flooring were replaced with new flooring, and in October the roof received a corrugated iron metal which, according to Superintendent Harry Liek, made "a much better appearance".

These and other efforts apparently failed to retard the premature aging of the park's administrative Office Building. Additionally, by the mid-1930s other larger more substantial architect designed buildings were erected nearby and the hurried construction and modest appearance of the Office Building, no doubt, became fully realized. Little more than a decade after its construction, the inadequacies of the Office Building were noted with increasing frequency in Park Service reports. In 1937, in a Master Plan for Mount McKinley National Park, the Branch of Plans and Design critiqued the building as "old and poorly designed". Three years later in 1940, park Superintendent Frank Been criticized the building for its
"unfavorable" and "unsightly" appearance and noted that it was entirely too small and uncomfortable for the expanding park staff. This condition noted Been, "compels the Chief Ranger, Park Naturalist and other personnel to do their office work at home as no office or desk space can be assigned to them". By mid-1941 park administrative staff moved from the then "dilapidated one room building . . . to a residence which stands approximately on the site of the proposed Administration Building [on the main headquarters road just north of the Ranger Dormitory (No. 21)].

Regardless of its "dilapidated" condition, the Office Building continued to be utilized. Like the majority of buildings in the headquarters area, adaptive reuse allowed for the continued existence of the building. By 1942, the Office Building was converted to the first park museum and work area for the park naturalist. During the mid-summer of 1943 when visitation began to experience a gradual resurgence after the prolonged economic depression of the 1930s and early war years, Superintendent Grant Pearson reported that "our little log cabin museum at Park Headquarters is visited by most of our Park visitors. We are adding to our scant collection from time to time and from the fine comments we get it is well worth our time".

Seven years later in 1950, the building seemed destined to experience yet another transformation in use when Assistant Regional Director, Sanford Hill, granted the park superintendent permission to move the structure to the present utility area where it would serve as an office for the construction and maintenance force. Hill noted in his memo: "we are cognizant of the condition that this structure is in and believe you are wise in removing it from public use".

Two years later the old Office Building was once again relocated, this time to its present site on the hill north of the park highway near the Superintendent's Garage (No. 111).
Situated in its new location overlooking its former site, this small log structure resumed its function as the park museum or "exhibit room."\textsuperscript{18}

The old Office Building underwent its final change in use in 1960 when it was converted to employee quarters.\textsuperscript{19} It is likely that at the time of the building's final move in 1952 that the present shed roof porch was constructed. Except for a small 1979 addition to the rear wall, the Office Building appears much as it did after it's 1952 relocation.
END NOTES

Building No. 22

1. Superintendent's monthly report, May 1926; historic photo file, both in Archives (Naturalists' Study Collection), DENA.

2. Superintendent's monthly report, April 1926 Archives, DENA; Pearson, Grant, History of Mount McKinley National Park, Alaska (n.p.: U.S. Department of the Interior, National Park Service, 1953), 42. In his book, Grant Pearson notes that the "log office building, 16 by 20 feet in size, was constructed by rangers of spruce logs, which were cut near headquarters".

3. Superintendent's monthly report, May 1926, Archives, DENA.

4. Superintendent's monthly report, May 1940; "Superintendent's Annual Report, Fiscal Year 1941", both in Archives, DENA.

5. Superintendent's monthly report, July 1926, Archives, DENA.

6. Ibid., December 1926.

7. Ibid., October 1928 and November 1928.

8. Ibid., November 1928.

9. Ibid., June and October 1931.


12. Ibid., May 1940.
13. "Superintendent's Annual Report, Fiscal Year 1941", Archives, DENA.


15. Superintendent's monthly report for July 1943, Archives, DENA.

16. Memorandum from Assistant Regional Director, Planning and Construction to Superintendent, Mount McKinley National Park, 5 September 1950, Buildings and Utilities Office, DENA.

17. Building Inventory Form 10-768 for No. 22, 10 March 1950; "Master Plan Development Outline, Building Chart", May 1957; historic photo file, all in Archives, DENA.

18. Building Inventory Form 10-768 for No. 22, 10 March 1950; "Master Plan Development Outline, Building Chart", May 1957, both in Archives, DENA.

Historic Photographs
Among the first permanent structures built at the new park headquarters site, the Superintendent's Office Building was constructed in 1926 fronting the park road (facing north). On its right is the road leading to the present main headquarters area.

Date: c. 1927  Courtesy Denali National Park and Preserve
Corrugated metal replaced tar paper on the Office Building roof in the fall of 1931.
Date: 1939  Courtesy Denali National Park and Preserve
Here the Office Building reveals what park Superintendent Frank Been referred to as an "unfavorable" and "unsightly" appearance.

Date: November 1940  Courtesy Denali National Park and Preserve
After the park administrative staff relocated to larger more attractive quarters in the early 1940s, the old Office Building was called into service as the park's first museum.

Date: June 1946  Photographer J. Malcolm Greany

Courtesy Denali National Park and Preserve
Here the Office Building (utilized as the park museum in the 1940s) stands at its original site just prior to being moved to the headquarters utility area in 1950.

Date: late 1940s  Courtesy Denali National Park and Preserve
Eight years after its second move, the Office Building displays a shed roof rather than the original extended gable porch roof. The year of this photo witnessed the buildings conversion from a museum to an employee residence.

Date: 11 April 1960  Photographer: Richard Stenmark

Courtesy Denali National Park and Preserve
New metal roofing and fascia board are minor changes made to the Office Building since 1960.

Date: 1985 Photographer: Kathleen Lidfors

Courtesy Alaska Regional Office, National Park Service
Architectural Data

A. Existing Conditions and Significant Features

1. Structural

Building 22 is constructed primarily with native logs. The main logs are load bearing down to the soil. There is a one room wood frame addition to the rear which appears to be connected to an all weather wood foundation. Roof structure, of the log portion, is log rafters on log purlins and dimensional rafters to the wood frame portion. There is a porch constructed with log columns and a dimensional wood framed roof. Dimensional wood sheathing is used for all roofs.

2. Roof

The main roof is covered with a modern ribbed metal roofing and the frame addition and porch roof is covered with rolled composition roofing.

3. Windows

All windows in the log portion have historic multi-pane sashes, three-over-three lights, that appear to be fixed. The wood frame portion of the structure has one small single light modern type window. The multi-pane windows are significant elements.
4. Doors

There is only one entry at the front of the log portion and it is an historic wood plank door with a four-over-four light. This door is a significant element. There is a modern wood panel storm door to the outside of the historic door.

5. Floor Plan

This structure was constructed historically as a one-room office building. There is a recent addition of a bedroom to the rear, and a bathroom and kitchen to the main room. The entire structure is currently used as a residence.

6. Interior and Exterior Walls and Interior Ceilings

All interior walls are covered with composite wood paneling. The ceilings are covered with a combination of marlite, acoustical tiles, and what appears to be sheetrock. The exterior walls are log at the historic portion and plywood with wood battens at the wood frame addition. All exterior surfaces are painted NPS brown.

7. Floors

It is impossible to tell what construction the floors are without destructive investigation. They are covered with vinyl floor coverings.
8. Mechanical and Electrical

There is no central heating system, just a steam radiator connected to the utilidoor. Electrical fixtures and switches are visible.

B. Findings

Building 22 is sitting on the ground with direct soil contact between the historic logs and the ground. The structure has been moved several times which has added to floor damage. The floor is in need of leveling, and a new foundation would be required to stabilize the floor and protect the building from further deterioration.

If foundation work is undertaken, other items in need of upgrading would be; interior finishes, mechanical and electrical systems, and most importantly; new roof framing with compatible metal covering. Currently, the roof has only wood-plank sheathing and no rafters.

C. Recommended Treatments

1. Remove all furnishings.
2. Remove all interior finishes.
3. Remove all mechanical and electrical systems.
4. Lift structure off existing grade and excavate crawlspace.
5. Repair sill logs and floor framing.


7. Lower and anchor structure to new foundation.

8. Install new mechanical and electrical systems.

9. Repair and replace racked door or window casements.

10. Fur out log walls for insulation.

11. Insulate and sheetrock interior with type "X" sheetrock.

12. Install new mechanical and electrical fixtures.

13. Replace roof structure and cover with an appropriate corrugated metal covering over structurally adequate framing.

14. Replace the bedroom window with a modern window that meets the Uniform Building Code fire egress requirement.

D. Alternative Treatments

These alternatives take into the consideration the fact that funds may not be available for the recommended treatment.
1. **No Further Treatment**

This alternative would result in the continued deterioration and seasonal shifting of floor and wall systems. There would be continued routine maintenance.  
(This alternative is not recommended.)

2. **Interior Adaptive Use Treatment Only**

This alternative would result in the rehabilitation of the interior only. There would be continued routine maintenance.  
(This alternative is not recommended.)

3. **Exterior Preservation Work Only**

This alternative would result in roof covering work only. There would be continued routine maintenance. (This alternative is not recommended.)

4. **Foundation and Roof Structural Work Only**

This alternative would include all recommended work for installation of a new steel reinforced concrete foundation and new roof structure. There would be continued routine maintenance.  
(This alternative is not recommended.)

Of all the alternative treatments, "4" is the preferred treatment because it would structurally stabilize the structure.
E. Evaluation of Effect of Recommended Treatment

1. Discussion

The following determination of effect of the recommended treatments is made in accordance with section 800.4 (b) of the Advisory Council on Historic Preservation regulations, "Protection of Historic and Cultural Properties". The council's criteria reads as follows:

A federal, federally assisted, or federally licensed undertaking shall be considered to have an effect on a National Register property eligible for inclusion in the National Register (districts, sites, buildings, structures, and objects, including their settings) when any condition of the undertaking causes or may cause any change, beneficial or adverse, in the quality of the historical, architectural, archeological, or cultural character that qualifies the property under the National Register Criteria.

Building 22, as explained earlier in this report is currently being nominated to the National Register of Historic Places. The architectural and historical qualities described in the National Register Nomination are briefly outlined in the following statements to be used in applying the criteria of effect.

a. "Architecturally, the design, construction materials, and siting of buildings in the Headquarters District are good representative examples of the National Park Service philosophy of rustic style architecture during its zenith and last period of expression".
b. "The Headquarters District possesses integrity of location, design, setting, materials, workmanship, and feeling of association. Of the eighteen buildings in the district, only four are noncontributing resources. Fourteen buildings contribute to the sense of time and place of the Headquarters District".

F. Determination of Effect

1. No Effect

Recommended treatments having no effect in the qualities of Building 22 that qualify it as a contributing element of the Mount McKinley National Park Headquarters are as follows:

   a. All recommended interior work involving removal of nonfire resistant finishings.

2. No Adverse Effect

Recommended treatments that are considered as having an overall beneficial effect on Building 22 are as follows:

   b. Repair of floor framing and replacement of sill logs.
   c. Installation of sheetrock to walls and ceilings.
   d. Insulation of walls and attic.
   e. Installation of new mechanical and electrical.
   f. Installation of new roof (including framing).
   g. Installation of new bedroom window that meets Uniform Building Code.
3. **Adverse Effect**

Recommended treatments that are considered as having an adverse effect on the qualities of Building 22 that qualify it as a contributing element of the Mount McKinley National Park Headquarters District are as follows:

a. No adverse effect is anticipated from treatments recommended in this report.

G. **Recommendations for Further Study**

It is recommended that design work for these treatments be programmed so that structural design can be provided.

H. **Material Take-Off and Preliminary Cost Estimates**

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<td>Division Number</td>
<td>Division Title</td>
<td>Unit Cost</td>
<td>Unit Total</td>
<td>Cost Total</td>
</tr>
<tr>
<td>-----------------</td>
<td>---------------------------------</td>
<td>-----------</td>
<td>----------------</td>
<td>------------</td>
</tr>
<tr>
<td>6</td>
<td>Wood &amp; Plastics</td>
<td></td>
<td></td>
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</tr>
<tr>
<td></td>
<td>Flooring framing</td>
<td>$3/sq.ft.</td>
<td>200 sq.ft.</td>
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<tr>
<td></td>
<td>Sill logs</td>
<td>(lump sum)</td>
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<td>Roof framing</td>
<td>$4/sq.ft.</td>
<td>300 sq.ft.</td>
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<td>Thermal &amp; Moisture Protection</td>
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<td></td>
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</tr>
<tr>
<td></td>
<td>Replace roof covering</td>
<td>$3.50/sq.ft.</td>
<td>10 squares</td>
<td>$3,500</td>
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<tr>
<td></td>
<td>Insulation (assume reuse existing)</td>
<td>$2/sq.ft.</td>
<td>1,221 sq.ft.</td>
<td>$2,440</td>
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<tr>
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<td>Vapor Barrier</td>
<td>$1/sq.ft.</td>
<td>1,770 sq.ft.</td>
<td>$1,770</td>
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<td>Replace existing bedroom window</td>
<td>(lump sum)</td>
<td>each</td>
<td>$1,000</td>
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<td>9</td>
<td>Finishes</td>
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<td></td>
<td></td>
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<td>Removal of interior finishes</td>
<td>$1/sq.ft.</td>
<td>1,221 sq.ft.</td>
<td>$1,200</td>
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<tr>
<td></td>
<td>Installation of sheetrock</td>
<td>$1.50/sq.ft.</td>
<td>1,221 sq.ft.</td>
<td>$1,900</td>
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<tr>
<td>Division Number</td>
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<tr>
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<td>----------------</td>
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<td>15</td>
<td>Mechanical</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Install new heating system (lump sum)</td>
<td>1,221 sq.ft.</td>
<td>$3,000</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Install new plumbing system (lump sum)</td>
<td>1,221 sq.ft.</td>
<td>$4,000</td>
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</tr>
<tr>
<td>16</td>
<td>Electrical</td>
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<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Install all new wiring (lump sum)</td>
<td>1,221 sq.ft</td>
<td>$3,500</td>
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Sub Total $54,985
x.20 Design $10,997
x.31 Const/Admin $17,045
TOTAL $83,027
Photographs of Building 22

Photo 1
Southwest corner.
Photographer: Randy Skeirik June 1985

Photo 2
South elevation.
Photographer: Randy Skeirik June 1985
Photo 3
Northeast corner of log portion.
Photographer: Dave Snow May 1985

Photo 4
East elevation.
Photographer: Barry Sulam September 1981
Photo 5
North end of east elevation.
Photographer: Randy Skeirik June 1985

Photo 6
West end of elevation.
Photographer: Randy Skeirik June 1985
Photo 7
East elevation of south porch.
Photographer: Barry Sulam September 1981

Photo 8
South end of east elevation.
Photographer: Dave Snow May 1985
Photo 9
Interior, looking northwest from living room.
Photographer: Dave Snow May 1985

Photo 10
Interior, looking southwest toward kitchen.
Photographer: Dave Snow May 1985
Photo 11
Northeast corner of bedroom.
Photographer: Dave Snow May 1985

Photo 12
North wall of bathroom.
Photographer: Dave Snow May 1985
Physical History & Analysis
The history of fire at Mount McKinley National Headquarters is an integral part of the physical development of the headquarters area. Fire that denuded the landscape in the vicinity of the first headquarters site near McKinley Park railroad station most likely contributed to the relocation of headquarters to its present location outside the burned area. At least two major structure fires occurred at headquarters in 1931 and again in 1934 when a laborer's cabin and later the rangers' quarters were completely destroyed by flames. Fire took its toll once again in October 1939: that year the two-story log superintendent's residence, built in 1929-30 on the hillside north of and overlooking the park highway, succumbed to flames and burned to the ground.

Within two months after the destruction of his home, Superintendent Frank Been submitted rough plans to the Regional Director for a new superintendent's residence. Although the assignment of a CCC camp to the park was denied for the summer of 1940, the chief of the Alaska Fire Control Service applied its CCC corpsmen to cutting, peeling, and loading onto freight cars, logs for the proposed superintendent's residence. By the end of April 1940, logs for the new building had arrived and were on the ground at the construction site, near the foundation of the burned superintendent's residence.

Disappointing news arrived at the park in May 1940. Superintendent Frank Been reported the news in his monthly report to the Director:

Building the Superintendent's Residence was disapproved for the lack of adequate funds. The available money will be used to erect an employees home, which will
probably serve the Superintendent until an appropriation is provided to build on the site of the house that burned last fall.

In June preliminary plans were approved for construction of Employee Residence (No. 23), sometimes referred to as the ranger residence.

Originally designed as a wood frame structure sheathed with horizontal clapboards, the Branch of Plans and Design prepared an alternate set of plans late July 1940 that called for a log veneer building, no doubt due to the availability of cut logs at the site of the superintendent's burned residence. Following excavation of the basement by the Alaska Road Commission in July, and the pouring of the concrete foundation, workmen began hewing and laying the log walls for the Employee's Residence in August. By September the walls were laid several logs high when, once again, funds ran out. Construction work on the Employee's Residence was immediately halted.

Shortages of both funding and skilled labor were overcome in the spring of 1941. A surplus of money in the regular park appropriation was made available for building construction after the National Park Service office in Washington transferred money to park emergency funds in April. In May the Alaska Territorial Bureau helped the park secure skilled carpenters and a plumber to continue work on the log building. By the end of June 1941 workmen completed exterior construction of the Employee's Residence. Interior work requiring skilled workmen was largely finished. Completion of the seven-room house was to be done by park personnel. Superintendent Been anticipated occupancy in the winter of 1941-42.

The Employee's Residence, however, remained uncompleted through the next two winters. During the winter of 1942-43, two park rangers worked on the residence. In March 1943 all rangers
were occupied with completing the Employee's Residence one month after Grant Pearson assumed the position of acting superintendent of the park. Soon afterward the building was completed. Grant Pearson, who began his association with Mount McKinley National Park as a ranger in the late 1920s, assumed the superintendency in August 1943 and may have been the first occupant of the Employee's Residence.

Since its completion, exterior alterations to the Employee's Residence appears minimal. There have been no additions to the outside walls. The original V-crimp metal roof and one-over-one, double-hung sash windows are intact. The exterior walls have been painted dark brown.

The interior of the Employee's Residence has undergone considerable alteration. Between 1950 and 1952 the interior was remodeled. The purpose of this remodeling may have been to convert the interior from a single family residence to a two-unit apartment. Although an inventory of the building in 1963 indicates that interior walls were sheathed with celotex (probably original) the Employee's Residence had, by then, been divided into two apartments--one on each floor. Three years later in 1966 the Employee's Residence was still listed as a two-unit apartment. Its reconversion to a single-family residence may have taken place in 1975 when the Employee's Residence was, once again, remodeled.
END NOTES

Building No. 23

1. Superintendent's monthly report, March 1931 and May 1934, Archives, DENA.

2. Ibid., May 1930 and October 1939.

3. Ibid., March and April 1940.

4. Ibid., April and May 1940.

5. Ibid., May 1940.

6. Ibid., June 1940.


9. Superintendent's monthly report, July 1940, Archives, DENA.

10. Ibid., August 1940.

11. Ibid., September 1940; historic photo file, Archives, DENA.

12. Superintendent's monthly report, September 1940, Archives, DENA.

13. Ibid., April and May 1941. One consequence of wartime conditions in Alaska was the employment of considerable numbers of skilled labor by the defense airbase program, depleting the labor force in Fairbanks and Anchorage.
14. Superintendent's monthly report, April 1941; "Superintendent's Annual Report, Fiscal Year-1941", both in Archives, DENA.

15. Superintendent's monthly report, May 1941, Archives, DENA.

16. Ibid., June 1941.

17. Ibid., June 1941; "Superintendent's Annual Report, Fiscal Year-1941," both in Archives, DENA.

18. Superintendent's monthly report, February 1941, Archives, DENA.

19. Ibid., February and March 1943.


21. Superintendent's monthly report, August 1943, Archives, DENA.


23. Building Inventory Form 10-768 for No. 23, 10 May 1963, Buildings and Utilities, DENA.


Spruce logs, cut and peeled in the Anchorage vicinity by the CCC, lay on the ground near the construction site of the new Employee's Residence. The availability of these logs predisposed the park to alter the original design plans from a frame, clapboarded structure to a log wall-bearing building.

Date: September 1940  Courtesy Denali National Park and Preserve
Efforts to lift the logs into place on the walls of the new Employee's Residence was facilitated by a gin pole.

Date: September 1940  Courtesy Denali National Park and Preserve
Workmen notched the lower logs of the Employee's Residence.
Date: September 1940 Courtesy Denali National Park and Preserve
After a prolonged delay in construction in the fall and winter of 1940-41 due to wartime shortages of funding and labor, work on the Employee's Residence resumed in the spring of 1941. By early fall that year, exterior construction was substantially completed.

Date: September 1940  Courtesy Denali National Park and Preserve
By the end of 1943, the Employee's Residence stood completed and occupied. This photo shows the main facade (northeast elevation) of the building.

Date: mid-1940s  Courtesy Denali National Park and Preserve
This view of the main facade (northeast elevation) of the Employee's Residence shows the building little altered in 1951, a decade after its completion. Since that time the outside walls have been painted dark brown.

Date: March 1951  Courtesy Denali National Park and Preserve
ARCHITECTURAL DATA

A. Existing Conditions and Significant Features

1. Structural

Building 23 was designed as a wood frame structure but was not constructed exactly as designed. The logs at the first floor level are load bearing and there is platform framing with dimensional lumber at the second floor; this is similar to the way Building 21 is constructed. The logs are anchored to a steel reinforced concrete stem wall. All floors and ceilings are dimensional wood joists and the roof is constructed with simple span rafters. Framing for the first floor is bearing on the concrete stem wall at the north and south elevations.

2. Roof

The roof consists of a main steep gable with intersecting gables at entry porches and a single shed dormer roof at the second floor. The original ribbed metal roofing is extent on all roof surfaces.

3. Windows

All of the historic wood window sashes appear to be extant. There is a combination of fixed and double-hung, single-light sashes with storm sashes to the exterior.
4. Doors

Most of the historic wood panel doors and their hardware are still in use.

5. Floor Plans

This structure has always been used as a residence though the second level was not completed initially. There have been no significant changes in the floor plan from the original design.

6. Interior and Exterior Walls and Interior Design

Exterior walls are horizontal log at the first floor level and north porch gable end. Clapboard is used at the south porch gable end. The main gable ends at the east and west elevations, second floor level, are sheathed with vertical rounded and lapped planks. (This is similar to Building 21.)

Interior walls are sheathed with sheetrock, celotex, and wood paneling. Ceilings are sheathed with various combinations of sheetrock, celotex, and acoustical tile. There are exposed logs in the living room only.

7. Floors

The floors are covered with combinations of vinyl and carpet. Hardwood tongue and groove are probably under these floor coverings but could not be ascertained without destructive investigation.
8. **Mechanical and Electrical**

There is a central forced air heating system for use in the summer which is supplemented by utilidor heat in the winter. The house appears to have 1940s vintage wiring for the most part with various updates.

**B. Findings**

The most significant finding at this time is weather damage of the log joints at the four main corners of the structure. This damage has been caused by the subsequent dry rotting of the log saddle joints. Cross section of logs at these joints can be as little as two inches. Some of the log ends have fallen off, breaking at this minimal cross section. These logs lock the log bearing walls together, thus the corners are seriously weakened by their absence.

The roof is the original ribbed metal roof and does show signs of leaking near the shed dormer. Other items of concern are interior finishes, lack of proper insulation, and vapor barrier. Though the structure appears in generally good condition except for the structural problems at the corners, the roof should be repaired or replaced and the interior should eventually be rehabilitated.

**C. Recommended Treatments (Short Term)**

1. Structural repair of log corners.

2. Repair or replacement of existing metal roofing.
3. Stabilize horizontal checks in logs from weather.

D. **Recommended Treatments** (Long Term)

1. Replace all celotex, wall and ceiling finishes with type "X" sheetrock.

2. Install fiberglass insulation and vapor barrier.

3. Install new wiring.

4. Install new plumbing.

E. **Alternative Treatments**

These alternatives take into consideration the fact that funds may not be available for the recommended treatment.

1. **No Further Treatment**

This alternative would result in the continued deterioration of primary structural log corners. Roof leaks would eventually increase causing increased damage to structural and finished elements. (This alternative is not recommended.)
2. Exterior Preservation Work Only

This alternative would include roof work and log corner rehabilitation. There would be continued routine maintenance. (This alternative is not recommended.)

3. Interior Adaptive Use Treatment Only

This alternative would include all recommended interior rehabilitation treatments. There would be continued routine maintenance. (This alternative is not recommended for short term.)

Of all the alternative treatments, "2" is the preferred treatment because it would structurally stabilize the structure.

E. Evaluation of Effect of Recommended Treatment

1. Discussion

The following determination of effect of the recommended treatments is made in accordance with section 800.4 (b) of the Advisory Council on Historic Preservation regulations, "Protection of Historic and Cultural Properties". The council's criteria reads as follows:

A federal, federally assisted, or federally licensed undertaking shall be considered to have an effect on a National Register property eligible for inclusion in the National Register (districts, sites, buildings, structures, and objects, including
their settings) when any condition of the undertaking causes or may cause any change, beneficial or adverse, in the quality of the historical, architectural, archeological, or cultural character that qualifies the property under the National Register Criteria.

Building 23 as explained earlier in this report is currently being nominated to the National Register of Historic Places. The architectural and historical qualities described in the National Register Nomination are briefly outlined in the following statements to be used in applying the criteria of effect.

a. "Architecturally, the design, construction materials, and siting of Buildings in the district are good representative examples of the National Park Service philosophy of the rustic style architecture during its zenith and last period of expression".

b. "The Headquarters District possesses integrity of location, design, setting, materials, workmanship, and the feeling of association. Of the eighteen buildings in the district, only four are noncontributing resources. Fourteen buildings contribute to the time and place of the Headquarters District".

G. Determination of Effect

1. No Effect

Recommended treatments having no effect on the qualities of Building 23 that qualify it as a contributing element of the Mount McKinley National Park Headquarters are as follows:
a. All recommended interior work involving removal of nonfire resistant finishings.

2. **No Adverse Effect**

All recommended treatments that are considered as having an overall beneficial effect on Building 23 are as follows:

a. Repair of log corners with reversible connections.
b. Installation of sheetrock to walls and ceilings.
c. Insulation of walls and attic.
d. Installation of new mechanical and electrical.
e. Installation of new roof.

3. **Adverse Effect**

Recommended treatments that are considered as having an adverse effect on the qualities of Building 23 that qualify it as a contributing element of the Mount McKinley National Park Headquarters are as follows:

a. No adverse effect is anticipated from treatments recommended in this report.

H. **Recommendations for Further Study**

It is recommended that design work for both long and short term treatments be programmed as soon as possible.
I. Materials Take-Off and Preliminary Cost Estimates

(Short term recommendations)

<table>
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<th>Unit Cost</th>
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<th>Cost Total</th>
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<tr>
<td></td>
<td>Special fabrication</td>
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</tr>
<tr>
<td></td>
<td>of steel connectors</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>for log end retention</td>
<td></td>
<td></td>
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</tr>
<tr>
<td></td>
<td>(lump sum)</td>
<td></td>
<td></td>
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</tr>
<tr>
<td></td>
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<td>4 sets</td>
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<td>Wood &amp; Plastics</td>
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<tr>
<td></td>
<td>New log sections to</td>
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</tr>
<tr>
<td></td>
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<tr>
<td></td>
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<td>(lump sum)</td>
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<td>Thermal &amp; Moisture Protection</td>
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<td></td>
<td>Replacement of</td>
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<td>existing ribbed metal roof</td>
<td>$7.50/sq.ft.</td>
<td>27 squares</td>
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## J. Materials Take-Off and Preliminary Cost Estimates

(Long term recommendations)

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<td>Thermal &amp; Moisture Protection</td>
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<td>Installation of fiberglass and</td>
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<td>vapor barrier</td>
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<td>Remove all existing celotex</td>
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<td>Update heating and plumbing</td>
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<td>1,716 sq.ft.</td>
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<td>systems</td>
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<td>16</td>
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</tr>
<tr>
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<td>Update wiring</td>
<td>(lump sum)</td>
<td>1,716 sq.ft.</td>
<td>$4,500</td>
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Sub Total $68,143  
x.20 Design $13,628  
x.31 Const/Admin $21,124  
TOTAL $102,895
Existing Conditions Photographs
Photographs of Building 23

Photo 1
West end of north elevation.
Photographer: Randy Skeirik June 1985

Photo 2
East end of north elevation.
Photographer: Randy Skeirik June 1985
Photo 3
East end of south elevation.
Photographer: Randy Skeirik June 1985

Photo 4
East elevation.
Photographer: Randy Skeirik June 1985
Photo 5
South east corner, note rotted log end.
Photographer: Dave Snow May 1985

Photo 6
Shed dormer at south elevation, note original roofing.
Photographer: Dave Snow May 1985
Photo 7
South elevation, entry porch.
Photographer: Randy Skeirik June 1985

Photo 8
West end of south elevation.
Photographer: Randy Skeirik June 1985
Photo 9
North end of west elevation.
Photographer: Randy Skeirik June 1985

Photo 10
South end of west elevation.
Photographer: Randy Skeirik June 1985
Photo 11
South east corner, note deterioration of log end.
Photographer: Dave Snow May 1985

Photo 12
Detail of southeast corner, note exterior dry rot and minimal depth at cross section.
Photographer: Dave Snow May 1985
Photo 13
Detail at west end of south porch roof.
Photographer: Dave Snow May 1985

Photo 14
Detail at roof rake, northeast corner.
Photographer: Dave Snow May 1985
Photo 15
Living room, looking southeast.
Photographer: Dave Snow May 1985

Photo 16
Living room, northeast corner.
Photographer: Dave Snow May 1985
Photo 17
Kitchen, looking west.
Photographer: Dave Snow May 1985

Photo 18
Kitchen, looking east.
Photographer: Dave Snow May 1985
Photo 19
North entry vestibule, looking north.
Photographer: Dave Snow May 1985

Photo 20
Northwest corner of Living room: detail of porch connection.
Photographer: Dave Snow May 1985
Photo 21
Basement, looking southeast.
Photographer: Dave Snow May 1985

Photo 22
Typical basement corner at end wall. Logs at left bear on concrete directly. Floor framing and logs at right bear on canted foundation wall.
Photographer: Dave Snow May 1985
HISTORICAL DATA

Unlike the Office Building and most buildings in the headquarters historic district, the Warehouse (No. 101) retained its originally intended use (and historic name) for over fifty years. As an added distinction, the Warehouse constructed in 1928-29, is among the oldest extant buildings in the headquarters area to be erected with the first National Park Service appropriated money for building construction in Mount McKinley National Park.¹ Nineteen hundred and twenty-eight marked the beginning of the first surge in building construction in the headquarters when National Park Service appropriated money for new construction included, in addition to the Warehouse, a ranger's quarters (no longer standing), a Barn (No. 106), and a water and sewer system.²

Standing at the corner of the main headquarters road and the service road, plans for the Warehouse were drawn by the National Park Service, Landscape Engineering Division and approved by Acting Director Arthur Demaray in March 1928.³ The original building plans called for a one-story, square, 32 feet by 32 feet structure constructed of logs resting on concrete footings. A wide, double-bay, sliding door opening onto a log loading platform projected from the south wall of the building. Wood shingles were the intended roofing material.⁴ Photographs of the building taken soon after its completion, however, show the roofing material was dimensional lumber covered with tar paper.⁵

Construction of the Warehouse began in the spring of 1928. In his report to the Director for the month of May, Superintendent Henry Karstens noted that "work was commenced on the . . . warehouse at [the] latter end of the month principally in getting out logs".⁶ With only the
installation of windows and doors remaining by September, work on the building was shutdown for the winter.\(^7\) By the end of November, Superintendent Harry Liek reported:

Work was continued on the Warehouse, windows were cut in the logs, framed, and sashes installed. The doors were completed and hung on a roller track, and a few shelves were constructed. Completion of the warehouse was signaled when supplies and stores were moved from the tents and sheds to the warehouse.\(^8\) The entire structure was built by park rangers.\(^9\)

Compared to other park headquarters' buildings whose evolution in use often brought about physical alterations to the structure, the Warehouse retained its integrity over an extended period. Only minor, nonstructural alterations were made to the building over the years. In the summer of 1931, cement replaced moss for chinking in the log walls and the entire building received a coat of creosote.\(^10\) Again in 1936, creosote was applied to the exterior walls.\(^11\) Park rangers remodeled the Warehouse in the spring and summer of 1943 but this affected only the interior.\(^12\) Finally, in the early 1950s, the Warehouse was reroofed.\(^13\) Then or at a later date, wood shakes replaced the tar paper roof. Presumably in the 1960s, a series of exterior modifications were made. Single and double-light windows replaced multi-light windows, the double-bay vehicle entrance was infilled, single-leaf door access was added on the west elevation, the roof was resheathed with wood shakes, and the exterior was painted dark brown.

The Warehouse was the focus of a major park rehabilitation project in 1982 when Alaska Regional Historical Architect, David Snow, designed and the park's maintenance division
executed major interior construction work that signaled the building's conversion to a new use as office and work space for the park naturalists. In addition to creating interior rooms on both the first and second floors to house offices, a dark room, workrooms, and museum archives, a new concrete foundation was poured under the sill logs.
Building No. 101

1. Pearson, Grant, History of Mount McKinley National Park, Alaska (n.p.: U.S. Department of the Interior, National Park, 1953), 42; Superintendent's monthly report, August 1928; historic photo file, both in Archives, DENA.

2. Superintendent's monthly report, August 1928, Archives, DENA.


4. Ibid., Building Inventory Form 10-768 for No. 101, 10 March 1950; "Master Plan Development Outline, Building Chart", May 1947, both in Archives, DENA.

5. Historic photo file, Archives, DENA.

6. Superintendent's monthly report, May 1928, Archives, DENA.

7. Ibid., September 1928.

8. Ibid., November 1928.

9. Historic photo file, Archives, DENA.

10. Superintendent's monthly report, June 1931, Archives, DENA.

11. Ibid., June 1936.

12. Ibid., April 1943. The superintendent's monthly report notes that the "Park Headquarters Warehouse interior is being remodeled by the rangers during their spare [time]."

13. Building Inventory Form 10-768 for No. 101, 10 March 1950; "Master Plan Development Outline, Building Chart", May 1957, both in Archives, DENA.
Historic Photographs
This photo of the Warehouse taken in the early 1930s shows the loading platform projecting from the south wall and the tar paper roofing material that was substituted for wood shingles called for in the building plans.

Date: early 1930s  Courtesy Denali National Park and Preserve
Built entirely, by park rangers, finishing touches on the Warehouse were completed in late 1928. The original moss chinking is evident in this early photo.

Date: late 1920s    Courtesy of Denali National Park and Preserve
In 1931, the Warehouse received a coating of creosote on the exterior walls and concrete replaced the original moss chinking.

Date: c. 1931  Courtesy of Denali National Park and Preserve
ARCHITECTURAL DATA

A. Existing Conditions and Significant Features

1. Structural

Building 101 was completely rehabilitated in 1982 with a steel reinforced concrete foundation. The structural system was changed from log bearing wall to wood frame bearing walls. The logs are now only a veneer. A second floor was added in the attic space and the roof was strengthened with the addition of 2 inch by 12 inch rafters. The historic logs were left in place.

2. Roof

The roof has cedar shake shingles. Historically the roof was covered with tar paper. The roof is a simple gable roof with exposed log rafters at the eaves.

3. Windows

Unfortunately, all of the historic multi-pane windows were replaced with modern single light windows during the 1982 rehabilitation. These windows were significant elements.

4. Doors

All historic doors, which were exterior, have all been removed through the years. Solid core modern type doors are now in use.
5. **Floor Plans**

The floor plan of Building 101 has changed significantly as the result of the 1982 rehabilitation. What was once a warehouse is now adapted for use as offices and curatorial storage. The addition of a second floor during the 1982 rehabilitation created more usable square footage.

6. **Interior and Exterior Walls and Ceilings**

The exterior consists of horizontal logs with saddle joints at the corners. The logs are painted NPS brown. Interior walls and ceilings are sheetrocked and then covered with composite wood paneling.

7. **Floors**

All floors are plywood covered by modern vinyl floor coverings.

8. **Mechanical and Electrical**

All mechanical and electrical systems were updated in 1982 and should meet current Uniform Building Code requirements.

B. **Findings**

The only significant findings were the replacement of historically significant window sashes and some fairly minor mechanical deficiencies.
C. **Recommended Treatments**

1. Install exhaust fan in restroom.

2. Install fire damper on return air grill in Mechanical Room.

3. Install outside air intake for summer operation of furnace.

D. **Alternative Treatments**

a. **NONE**

E. **Evaluation of Effect of Recommended Treatment**

1. **Discussion**

The following determination of effect of the recommended treatments is made in accordance with section 800.4 (b) of the Advisory Council on Historic Preservation regulations, "Protection of Historic and Cultural Properties." The council's criteria reads as follows:

A federal, federally assisted, or federally licensed undertaking shall be considered to have an effect on a National Register property eligible for inclusion in the National Register (districts, sites, buildings, structures, and objects, including their settings) when any condition of the undertaking causes or may cause any change, beneficial or adverse, in the quality of the historical, architectural,
archeological, or cultural character that qualifies the property under the National Register Criteria.

Building 101, as explained earlier in this report is currently being nominated to the National Register of Historic Places. The architectural and historical qualities described in the National Register Nomination are briefly outlined in the following statements to be used in applying the criteria of effect.

a. "Architecturally, the design, construction materials, and siting of Buildings in the Headquarters are good representative examples of the National Park Service philosophy of rustic style architecture during its zenith and last expression".

b. "The Headquarters District possesses integrity of location, design, workmanship, and feeling of association. Of the eighteen buildings in the district, only four are noncontributing resources. Fourteen buildings contribute to the sense of time and place of the Headquarters District".

F. Determination of Effect

1. No Effect

Recommended treatments having no effect on the qualities of Building 101, that qualify it as a contributing element of the Mount McKinley National Park Headquarters District are as follows:

a. NONE
2. **No Adverse Effect**

Recommended treatments that are considered as having an overall beneficial effect on Building 101 are as follows:

   a. All recommended mechanical work.

3. **Adverse Effect**

Recommended treatments that are considered as having an adverse effect on the qualities of Building 101 that qualify it as a contributing element of the Mount McKinley National Park Headquarters District are as follows:

   a. No adverse effect is anticipated from treatments recommended in this report.

G. **Recommendations for Further Study**

It is recommended that design work and installation of these recommended treatments be implemented by Regional and Park maintenance. An Historic Structure Preservation Guide (H.S.P.G.) should be programmed as soon as possible.
H. Material Take-Off and Preliminary Cost Estimates

<table>
<thead>
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<th>Division Title</th>
<th>Unit Cost</th>
<th>Unit Total</th>
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</tr>
<tr>
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<td>Total</td>
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</table>
Existing Conditions Photographs
Photo 1
South elevation, note historic window has been replaced.
Photographer: Dave Snow May 1985

Photo 2
Detail of the south elevation, note historic six-light window and entry porch roof in place.
Photographer: Dave Snow February 1985
Photo 3
North east corner, note replacement of historic windows on both the north and east elevation.
Photographer: Dave Snow May 1985

Photo 4
Detail of north elevation indicating the historic windows.
Photographer: Barry Sulam September 1981
Photo 5
South elevation from south corner, note board and batten infill with fixed-glass window.
Photographer: Barry Sulam September 1981

Photo 6
South elevation, note change in infill from board and batten to T-111 plywood. A new, smaller window has also been introduced, in addition to a new furnace stack.
Photographer: Dave Snow May 1985
Photo 7
Detail under the eaves.
Photographer: Dave Snow May 1985

Photo 8
Detail of old loading dock support that had rotted off years ago.
Photographer: Dave Snow February 1985
Photo 9
East elevation, note new window.
Photographer: Randy Skierik June 1985

Photo 10
South and east elevations, note historic window on east elevation.
Photographer: Barry Sulam September 1981
Photo 11
Looking west prior to interior rehabilitation.
Photographer: Dave Snow February 1982

Photo 12
North wall prior to interior rehabilitation.
Photographer: Dave Snow February 1982
Photo 13
Looking down from attic toward west wall.
Photographer: Dave Snow February 1982

Photo 14
Attic, looking west, prior to interior rehabilitation.
Photographer: Dave Snow February 1982
Photo 15
South wall of interior prior to interior rehabilitation.
Photographer: Dave Snow February 1982

Photo 16
Looking west at south side of interior prior to rehabilitation.
Photographer: Dave Snow February 1982
Photo 17
Interior, looking northeast at east end, after rehabilitation.
Photographer: Dave Snow May 1985

Photo 18
Second floor ceiling detail after rehabilitation, west end.
Photographer: Dave Snow May 1985
Photo 19
Detail of Darkroom, looking northwest, after interior rehabilitation.
Photographer: Dave Snow May 1985

Photo 20
Mechanical Room, looking south, after interior rehabilitation.
Photographer: Dave Snow May 1985
HISTORICAL DATA

Simultaneous with the construction of the Superintendent's Garage was the construction of the Garage and Repair Shop (No. 102) on the southern perimeter of the utility area at headquarters. Built according to plans drawn by the Park Service, Region IV, Branch of Plans and Design in 1939, the Garage and Repair Shop (sometimes referred to as the Machine Shop and Garage) replaced a vintage machine shop, and attached blacksmith shop, erected in 1927 on the same site. Constructed totally of reinforced concrete (except for a small portion of wood in the gable ends), the substantial appearance and large scale of the two-story building, combined with its orientation towards the Warehouse (No. 101), rather than the main park road, helped fully establish and define the utility area at headquarters. At the same time, the commitment of money and labor expended to erect this 46 feet by 30 feet structure represents the park's corresponding shift from horses and dog-powered vehicles to motorized vehicles for travel in the park.

Using CCC labor and Park Service funds allotted for reconstruction (presumably since this building replaced an earlier structure used for the same purpose), construction of the Garage and Repair Shop began in May 1939. During that month, excavation for the basement was completed and the forms for pouring concrete partially constructed. Only one month later, Superintendent Frank Been noted in his monthly report to the National Park Service Director: "The new, fireproof machine shop and garage is nearing completion." Finishing touches were all that remained at the end of July. When completed this three-bay building became the first and only concrete structure ever erected at headquarters—and one that presented distinct contrast to the log and stone veneer Superintendent's Garage, built by the CCC that same summer.
The expansion and escalating demands for maintenance of the park's burgeoning fleet of motor vehicles, particularly after World War II, taxed the Garage and Repair Shop to its limits. Additional space became a growing need. As early as 1951 an Equipment Storage Shed (No. 118) was proposed as an addition to the west of the Garage. Four years later in 1955, the Park Service contracted George A. Smith to construct such an addition in accordance with National Park Service drawn plans. When completed the new, one-story, concrete block edifice nearly matched the Garage in width and was approximately one and one-half times as long. Unlike the 1939 gable-roof Garage, the Equipment Shed was capped with a low porch shed roof sheathed with wood and three-ply asphalt. Functionally, the new addition remained separate from the Garage and Repair Shop.

In the early 1980s the Equipment Storage building received two additions. In 1980 a small wood frame building (the paint shop) was attached to the rear of the building. Finally in September 1981, construction began to extend the Equipment Shed to the west. The main facade of this most recent wood frame addition is flush with the Equipment Shed and is broken with two wide garage doors. The building, like its neighbor to the east, is capped with a shed roof.

Aside from the more recent additions to the west wall, the machine shop has retained much of its original integrity. The location of vehicle and pedestrian doors, as well as, the configuration and style of windows has remained unchanged. Interior spaces, likewise are unaltered. The most significant changes to the Garage and Repair Shop include the substitution of wood shingles for metal on the roof and the painting of the exterior concrete walls dark brown.
END NOTES

Building No. 102


3. Superintendent's monthly report, February 1940, Archives, DENA.

4. Superintendent's Annual report, Fiscal Year-1940, Archives, DENA.

5. Superintendent's monthly report, May 1939, Archives, DENA.

6. Ibid., June 1939.

7. Ibid., July 1939.


9. Building Inventory Form 10-768 for Nos.102 and 118, Buildings and Utilities Office, DENA; historic photo file, Archives, DENA. The Equipment Shed measures approximately 28 feet by 68 feet.

10. Larry Keith to Gail Evans, personal communication, 19 August 1985.
Historic Photographs
A dog team harnessed and ready for a winter patrol stands in front of the 1927-vintage machine shop that stood on the site of the present Garage and Repair Shop. Date: late 1920s (?) Courtesy Denali National Park and Preserve
This photo, probably taken in the early 1930s, shows the original machine shop and a portion of the attached blacksmith shop (near right) that preceded and stood on the site of the Garage and Repair Shop.

Date: early 1930s (?) Courtesy Denali National Park and Preserve
At the end of June 1939, park Superintendent Frank Been reported "the new, fireproof machine shop and garage is nearing completion." All work was accomplished by the CCC.

Date: June 1939  Courtesy Denali National Park and Preserve
Designed by National Park Service architects and built by the CCC in 1939 Garage and Repair shop became the first and only building at park headquarters constructed totally of reinforced concrete.

Date: 14 August 1939  Courtesy Denali National Park and Preserve
Following World War II, the use of motor vehicles for park operations increased. In the late 1940s the Garage and Repair Shop appeared little altered from the original yet escalating demands for vehicular storage and workspace soon brought about changes to the building.

Date: late 1940s  Courtesy Denali National Park and Preserve.
The new one-story addition constructed nearly flush with main facade of the Garage and Repair Shop extended its length by 60 feet.

Date: late 1950s  Courtesy Denali National Park and Preserve
In 1955, the Park Service contracted George A. Smith to build a six-bay wide addition on to the west wall of the Garage and Repair Shop. Building construction followed design plans prepared by the National Park Service.

Date: July 1955  Courtesy Denali National Park and Preserve.
ARCHITECTURAL DATA

A. Existing Conditions and Significant Features

1. Structural

Building 102 is a cast in place, steel reinforced, concrete structure. The first floor is half buried in the grade and has a concrete floor and ceiling. The second level floor is coffered concrete with integral concrete beams in both directions. The second floor ceiling has transverse concrete beams with dimensional wood frame joists and plaster. The roof was designed with wood rafters supported at mid-span and ridge by three longitudinal trusses running the length of the structure. This roof structure system is significant.

2. Roof

Historically the roof was sheathed with the same ribbed metal roofing as the Superintendent's house is today. Now the roof has cedar shake shingles.

3. Windows

The historic windows are still in place and consist of metal sash with nine and six light configurations. These windows are significant elements.

4. Doors

The historic garage doors have been replaced by modern overhead doors in two instances and by
infill in two others. The historic entry door to the west end of the structure is extant. This door has a single wood panel with four lights.

5. Floor Plan

There have only been minor modifications made to the floor plan. A inside entry has been added to the west wall where there is a 1955 frame addition (this addition is not covered in this report and is not considered significant).

6. Interior and Exterior Walls and Interior Ceilings

All exterior walls are concrete except at the gable ends where there is clapboard siding. All surfaces are painted NPS brown. Interior walls and ceilings are concrete except for the second floor ceiling which is plaster; all surfaces are painted.

7. Floors

All floors are concrete slabs.

8. Mechanical and Electrical

There appear to be updates but overall the mechanical and electrical systems need to be updated.
B. Findings

In general, Building 102 is in excellent structural condition. There are deficiencies, however, in the heating system that prevents the structure from being used year-round. Additionally, the drainage around the structures first level needs to be improved and restroom facilities need to be updated to meet the Uniform Building Code.

C. Recommended Treatments

1. It is recommended that a soil drain and waterproofing be installed where required to keep water out of the first floor.

2. The heating system should be updated to meet current use.

3. The electrical system should be updated to meet modern codes.

4. The roof should be replaced with the historic ribbed metal roofing when the current roof needs to be replaced.

5. Metal window sashes should be rehabilitated with fresh glazing compound.

6. All old pipes should be removed.

7. Rehabilitation of existing toilet facilities.
D. Evaluation of Effect of Recommended Treatment

1. Discussion

The following determination of effect of the recommended treatments is made in accordance with section 800.4 (b) of the Advisory Council on Historic Preservation regulations, "Protection of Historic and Cultural Properties." The council's criteria reads as follows:

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b. "The Headquarters District possesses integrity of location, design, workmanship, and feeling of association. Of the eighteen buildings in the district, only four are noncontributing resources. Fourteen buildings contribute to the sense of time and place of the Headquarters District".

E. Determination of Effect

1. No Effect

Recommended treatments having no effect on the qualities of Building 102 that qualify it as a contributing element of the Mount McKinley National Park Headquarters District are as follows:

a. All recommended interior work involving removal of old mechanical systems.

2. No Adverse Effect

Recommended treatments that are considered as having an overall beneficial effect on Building 102 are as follows:

a. Installation of new soil drain.

b. Installation of new mechanical and electrical systems.

c. Installation of new roof.

d. Rehabilitation of existing toilet facilities.
3. **Adverse Effect**

Recommended treatments that are considered as having an adverse effect on the qualities of Building 102 that qualify it as a contributing element of the Mount McKinley National Park Headquarters District are as follows:

a. No adverse effect is anticipated from treatments recommended in this report.

F. **Recommendations for Further Study**

It is recommended that design work for the specified treatments be programmed as the first priority and a Historic Structure Preservation Guide as the second.

H. **Material Take-Off and Preliminary Cost Estimates**

<table>
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<th>Division Title</th>
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Sub Total $66,600
x.20 Design $13,320
x.31 Const/Admin. $20,646
**TOTAL** $100,566

* Estimates based on continuation of existing cost.
Existing Conditions Photographs
Photographs of Building 102

Photo 1
East elevation.
Photographer: Dave Snow June 1985

Photo 2
South elevation.
Photographer: Dave Snow June 1985
Photo 3
Door at west end of north elevation.
Photographer: Dave Snow May 1985

Photo 4
North elevation.
Photographer: Dave Snow May 1985
Photo 5
South elevation, to right of the center.
Photographer: Dave Snow June 1985

Photo 6
Detail of east end of south elevation.
Photographer: Dave Snow June 1985
Photo 7
South end of east elevation.
Photographer: Dave Snow May 1985

Photo 8
East elevation.
Photographer: Dave Snow May 1985
Photo 9
West end of south elevation, note grade drainage.
Photographer: Dave Snow May 1985

Photo 10
East end of south elevation, note vehicular entry at basement level.
Photographer: Dave Snow May 1985
Photo 11
Detail of window at north end of east wall.
Photographer: Dave Snow May 1985

Photo 12
Window at mid-part of south wall, note storm sash.
Photographer: Dave Snow May 1985
Photo 13
Interior looking northeast, second level.
Photographer: Dave Snow May 1985

Photo 14
Interior looking southeast, second level.
Photographer: Dave Snow May 1985
Photo 15
Looking west, second level, north side.
Photographer: Dave Snow May 1985

Photo 16
Looking west, second level, north side.
Photographer: Dave Snow May 1985
Photo 17
Mechanical room looking north at basement level.
Photographer: Dave Snow May 1985

Photo 18
Basement level, looking north.
Photographer: Dave Snow May 1985