National Park Service
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Isle Royale National Park
Keweenaw County, Michigan



Rock Harbor Guest House: Historic Structure Report

October 13, 2023
Prepared By: Seven Generations Architecture + Engineering
In Consultation with: Ratio Architects, WLA Studio, H.F. Lenz Company, Lawson & Elser Inc.

Under the direction of: The National Park Service, Regions 3, 4, 5

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About the cover: View of the Guest House from Rock Harbor.

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Isle Royale National Park

Rock Harbor Guest House: Historic Structure Report

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Part 0. Executive Summary

Developmental History, Condition Assessment, and Treatment Plan

Project Purpose, Need, and Current Use

The project includes preparing a Developmental History, Condition Assessment and Treatment Plan for the Rock Harbor Guest House on Isle Royale in Keweenaw County, Michigan. Part 1 includes Part 1.A: Historical Background and Context, Part 1.B: Chronology of Development and Use, Part 1.C: Physical Description, Part 1.D: Evaluation of Significance. The Condition Assessment / Treatment Plan includes Part 2.A Condition Assessment and Part 2.B Treatment Plan. These sections provide a condition assessment and treatment recommendations for the building that are organized using Uniformat.

The objectives identified for this project include preserving the building and providing for the future use of the building as an affordable, "hostel-type" lodging alternative at Rock Harbor Guest House. This proposed use necessitates consideration of upgrades to the buildings systems and other alterations to meet applicable building codes and standards.

The Guest House is located on the east side of Rock Harbor between the Rock Harbor Lodge and the Greenstone Grill. Constructed in 1922-1923, the Guest House is a two-story, wood frame, gable roof structure situated on the shoreline and sitting on concrete foundations. It is occupied during the late spring through early autumn and is naturally ventilated with no mechanical HVAC systems. The building contains approximately 3,900 square feet of interior floor space and is approximately 29 feet in height from grade to the roof ridge.

The Rock Harbor Guest House is considered an underutilized structure. Its original function was visitor lodging, but it has not been visitor-occupied since the early 1970s. The Guest House is currently assigned under a concession contract managed by the concessioner, Aramark Destinations (formerly Forever Resorts Properties.) The concessioner currently uses most first floor bedrooms for employee housing. Second floor bedrooms are mostly used for general storage. The main room of the Guest House, the Lobby, remains open to park visitors and guests staying at the Rock Harbor Lodge. However, the restrooms and bedroom corridors on the first and second floors are restricted to concessioner's employees use only.

The current contract with Aramark covers the period of January 1, 2020 through December 31, 2031, with the possibility of extensions through December 31, 2036. The rehabilitation recommendations in this report do not affect the terms and conditions of this Contract. It is understood that the Concessioner must approve of any substantive contract changes, including the implementation of this project.

The 2022 Isle Royale National Park Nonwilderness Cultural Resource Management Plan and Environmental Assessment articulates a long-term strategy for managing nonwilderness cultural resources in the park. According to the preferred alternative, "the Rock Harbor Guesthouse would change from administrative use to public use and would be restored to its historic function as a public lodging facility. The restored structure would operate as a hostel, offering mid-range overnight accommodations, serving the backpacker market, and offering park visitors reduced cost alternatives and variety in overnight accommodations in the park."[1]

Methodology and Research

Report production involved a thorough level of historical research, building investigation, for this HSR/Condition Assessment/Treatment. Research included the use of readily available published sources that are easily accessible and known to be of high yield, brief interviews of readily available

1. National Park Service, *Isle Royale National Park Nonwilderness Cultural Resources Management Plan / Environmental Assessment* (Michigan: Isle Royale National Park, 2019), 30.

persons, review of historical documentation, review of pertinent studies, and research in local and state archives. The building investigation was non-destructive except for the limited extraction of paint samples. During the consulting team's visit to Michigan, Keyes Williamson with WLA Studio met with Jeremiah Mason, the archivist with the Lake Superior Collection Management Center and photographed documents from the ISRO records collection.

Members of the consulting team for the HSR, Alex Hokkanen (Seven Generations), David Kroll and Chris Friend (RATIO Architects), Mike Lawson (Lawson Elser), Paul Petrilli (HF Lenz), Lem Weyer (Terracon), and Keyes Williamson (WLA Studio) performed a site visit to the island in September 2022. The purpose of the site visit was to record existing conditions at Rock Harbor Guest Lodge and to record associated constructed features and surroundings. Park staff consulted with the project team during this visit and provided the team with additional research materials. Building documentation included field notes about exterior and interior features, materials, and building construction. The team took digital photographs and recorded a digital scan of the interior and exterior of the building. The following week, staff with Woolpert, visited the site to collect information to create a topographic survey of the study area around the building.

Summary of Existing Conditions

While the building retains a high degree of historic integrity, it is generally in fair to poor physical condition. From a historic integrity perspective, the building retains much of its original materials and original architectural features. Alterations to the building have been minor and are, for the most part, reversable. These alterations impacted the interior of the building more than the exterior; they include the replacement of ceiling and wall material and the alteration of the bathrooms' configuration. Regarding the physical condition of the building, several of the components of the building were deemed to be in poor condition by the project team. Items in poor condition include the foundation piers and the structural frame of the first floor. The project team judged most other elements of the building, including the interior finishes and exterior cladding to be in fair condition.

Summary of Treatment Recommendations

See Part 2.B Treatment Plan. Rehabilitation is the recommended treatment to convert the building into hostel style housing. Reestablishing public use of the Guest House will require major upgrades to the life safety features of the building (including the introduction of a fire suppression system), making the building ADA accessible, stabilizing the foundations and structural framing systems, and addressing the water infiltration issues at the roof with a new roofing system. With the lodging use, the building's finishes will need to be addressed throughout to ensure they can withstand the repeated use.

Project Data

Administrative and Location Data

Building Name:	Rock Harbor Guest House
Location:	NW Isle Royale E. Lake Superior
CRIS Number:	073121
Park: National Park	Isle Royale
Structure's County:	Keweenaw
Structure's State:	Michigan
NPS Region:	Interior Region 3
Cluster:	Great Lakes

National Register / Cultural Resource Data

The Rock Harbor Guest House is not currently listed on the National Register of Historic Places. However, the Michigan State Historic Preservation Office has determined that it is most likely eligible. Additionally, the Michigan State Historic Preservation Office has determined that Spruces Cabin and the Rock Harbor Dinner Bell are also likely eligible. According to the 2021 revised Cultural Landscape Inventory for Rock Harbor

Lodge Historic District, the Rock Harbor Lodge area should be evaluated as the Mission 66-era resources reach 50 years old. This document provides information on the building's historic development, its historic significance, and its integrity. This document also provides a brief overview of the development of the Snug Harbor landscape and assessment of the Mission 66-era cultural landscape. Isle Royale National Park can use this information in the future to prepare an individual nomination of the building or to prepare a district nomination for Rock Harbor.

Related Studies

"Minong Historic District." National Register of Historic Places Registration Form. Isle Royale National Park, Michigan: National Park Service, U.S. Department of the Interior, December 1, 2018.

National Park Service. *Cultural Landscape Inventory Rock Harbor Lodge Historic District*. Michigan: National Park Service, Isle Royale National Park, 2002 / Revised 2021.

National Park Service. *General Management Plan and Environmental Impact Study*. Michigan: Isle Royale National Park, 1998.

National Park Service. *Isle Royale National Park Nonwilderness Cultural Resources Management Plan / Environmental Assessment*. Michigan: Isle Royale National Park, 2019.

National Park Service. *Foundation Document Isle Royale National Park*. Keweenaw County, Michigan: Isle Royale National Park, 2016.

Scarpino, Philip V. *Cultural Resources on Isle Royale National Park: An Historic Context*. Indianapolis: Indiana University / Purdue University, 2010.

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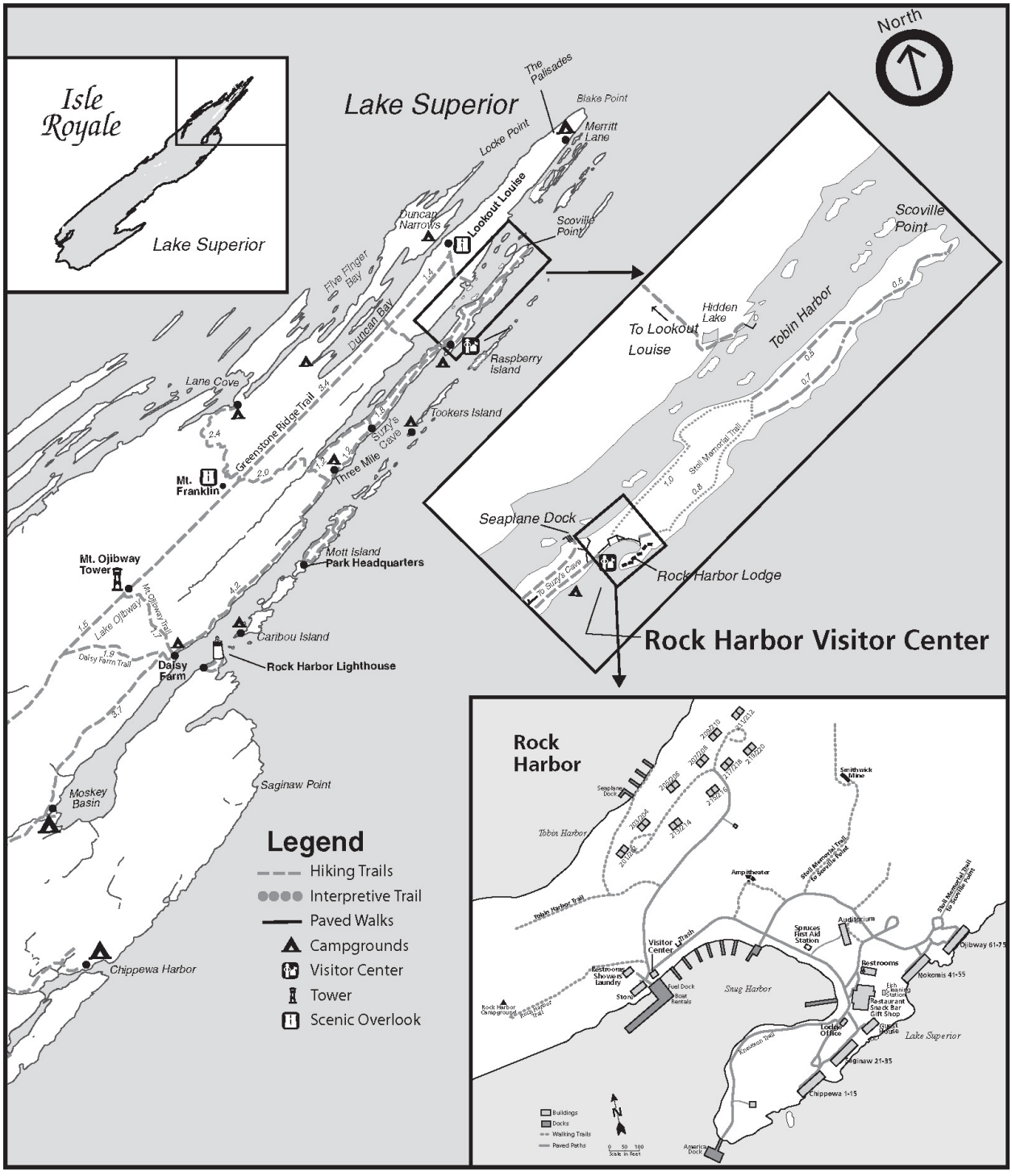


Figure 0.1: Isle Royale National Park map showing the Rock Harbor area

Part 1.A Historical Background and Context

Context and History of Isle Royale

Geological History and Topography of Isle Royale

Isle Royale is an archipelago composed of more than 400 small islands located in Lake Superior, the largest of the Great Lakes. Isle Royale is situated approximately 14 miles from the Canadian shoreline, towards the northwest edge of the lake. The islands comprise a total of 133,788 acres of land, and Isle Royale National Park includes the surrounding water, a combined 571,790 acres. The island is in a transitional zone between the boreal coniferous forest and northern hardwood forest biomes. Boreal coniferous forest vegetation exists on the northeast side of the island, while northern hardwood forest vegetation dominates the southwest side of the island. The biodiversity of the island is fairly limited due to its geographic isolation. Since the 1940s, Isle Royale has been host to wolf and moose populations, which have been studied extensively as an example of predator and prey dynamics.[1]

The island's topography contains ridges and valleys that run northeast to southwest, and the ridges are frequently crosscut by ravines and depressions that run perpendicular to the length of the island. Many of the valleys are home to small lakes, ponds, swamps, and bogs.[2] The topography of Isle Royale is the result of hundreds of millions of years of geological forces that shaped the island. Ecologist and geographer Napier Shelton summarizes these forces as follows:

> Some 1.2 billion years ago, the earth's crust cracked along a great rift zone that stretched through the middle of the area now occupied by Lake Superior…Through this series of cracks poured molten lava, forced up by pressures deep within the earth. A hundred times or more, flaming sheets flowed out from the fissures… As they did, the land along the rift zone sank, forming a basin. In the quiet periods between flows, rock material was washed from the rim of this great basin toward its center…These events left a rock record consisting, beneath, of the thick layers of volcanic rock alternating with thin layers of sandstone and conglomerate…[3]

Over time, pressure from inside the earth "forced hot, mineral-bearing solutions up into the cavities and cracks in the rock," giving Isle Royale its abundance of copper deposits.[4] These forces are also responsible for the island's abundance of chlorastrolite, often referred to as greenstones, which formed in the basalt rock created by the lava flows.[5] Sometime later, a fault in the earth's crust thrust a section of these sedimentary and volcanic layers upwards. The layers of rock that form Isle Royale tilt between 5 and 50 degrees. The exposed layers of sedimentary rock eroded more quickly than the volcanic rock, and erosion between these layers created the long valley and ridges that span Isle Royale. Glacial erosion and scouring also created large depressions that formed lakes, while other were further deepened by streams.[6] The northwest-facing slopes are steeper and precipitous, while the southeast-facing slopes tend to be gentler.[7] During the Ice Age, Isle Royale was hidden beneath glacial ice. The island first began emerging from the receding glaciers around 11,000 years ago, and "By 5,000 years ago…Siskiwit Lake (on the south shore) had been cut off from the big lake and the island had nearly reached its present configuration."[8]

1. "Foundation Document, Isle Royale National Park, Keweenaw County, Michigan" (National Park Service, U.S. Department of the Interior, January 2016), 3–4.
2. N. King Huber, "The Geologic Story of Isle Royale National Park" (U.S. Department of Agriculture, Geological Survey, 1975), 5–7.
3. Napier Shelton, The Life of Isle Royale (Washington, D.C.: U.S. Department of the Interior, National Park Service, 1975), 5.
4. Shelton, The Life of Isle Royale, 6.
5. Huber, "The Geologic Story of Isle Royale National Park," 58.
6. Shelton, The Life of Isle Royale, 6–9.
7. Huber, "The Geologic Story of Isle Royale National Park," 5.
8. Shelton, The Life of Isle Royale, 7.

Precontact Isle Royale

The end of the Ice Age coincides with the earliest evidence of human habitation in the Great Lakes region. The earliest evidence of human interaction with the region is attributed to the Paleo-Indians, dating from 12,000 BCE to 8,000 BCE. The Paleo-Indians were hunter-gatherers, who lived in small, highly mobile groups. They hunted large and small game, using spears with fluted stone points. As the Ice Age ended and the glaciers receded, they gradually migrated north throughout the Great Lakes region.

By the Early Archaic Period (circa 8,000 BCE – 6,000 BCE), the climate of the Great Lake region had become warmer and drier and hardwood forests began to grow. This changing climate was accompanied by new mammal populations that migrated into the area, and the early peoples of the time transitioned from hunting large game, like mastodons, to small game, including "moose, caribou, deer, and bear," and projectile points from this period became smaller, "designed to be more effective in killing smaller, faster-moving game."[9] During the Middle Archaic Period (6,000 BCE – 3,000 BCE), settlements became larger and more permanent. Fish became an important dietary staple, more efficient stone tools were crafted, and pestles were used to grind different plant materials. The Late Archaic Period (3,000 BCE – 1,000 BCE) was accompanied by several important advancements. Stable and abundant food sources enabled continued population growth, and different groups formed expansive trade networks. Copper was mined and used to manufacture tools, which were then disseminated along trade networks. The Late Archaic Period also likely saw "an increase in ritual and ceremonial activity," as well art and decoration.[10]

By the time the glacier receded to reveal Isle Royale, native peoples had already begun to inhabit the Upper Great Lakes. However, it is unknown when humans first made their way to Isle Royale. The earliest evidence of human activity on the island dates to the Late Archaic Period, no less than 5,000 years ago. Archaeological evidence of precontact human activity on Isle Royale includes more than one thousand shallow pits native peoples used to mine copper. According to archaeologists, early native explorers likely stumbled upon copper deposits, rather than purposefully seeking them out. They used cobbles from the lake shore to manually beat the ore deposits free. Numerous examples of these stone cobbles have been recovered at precontact mining sites on the island (Figure 1A.1).[11] The copper was then "cold-hammered into knives, points, and a variety of ornaments, either on Isle Royale or taken to the mainland and then worked."[12] Archaic people traded copper goods, which reached nearby Great Lake states and New England.[13]

In addition to mining copper ore, native peoples likely visited Isle Royale for its variety of other natural resources, "hunting, fishing, and gathering plants and berries."[14] These natural resources were a draw for native peoples in the area for thousands of years. However, there is no evidence that they established long term settlements on the island, and the remoteness and climatic conditions of the island limited human activity to a seasonal basis during warmer months.[15]

The beginning of the Woodland Period (1,000 BCE – 700 CE) is distinguished by the introduction of coil-constructed ceramics. By the Middle Woodland Period (beginning around 300 BCE), pottery was crafted in a greater variety of shapes, with different surface and decorative treatments.[16] In the Upper Great Lakes region, this period is associated with the Laurel people, who occupied

9. James A. Clifton, George L. Cornell, and James M. McClurken, *People of the Three Fires: The Ottawa, Potawatomi and Ojibway of Michigan* (Grand Rapids, MI: The Michigan Indian Press Grand Rapids Inter-Tribal Council, 1986), iii-iv.
10. Clifton, Cornell, and McClurken, *People of the Three Fires: The Ottawa, Potawatomi and Ojibway of Michigan*, iv.
11. "Archaeological History of Isle Royale and Ancient Copper Mining," National Park Service, Isle Royale National Park, September 24, 2020, https://www.nps.gov/articles/000/archaeological-history-ancient-copper-mining.htm.
12. Lawrence Rakestraw, "Historic Mining of Isle Royale" (Isle Royale Natural History Association and the National Park Service, 1965), 1.
13. Rakestraw, "Historic Mining of Isle Royale," 1.
14. "Foundation Document, Isle Royale National Park, Keweenaw County, Michigan," 4.
15. Kathryn E. Franks and Arnold A. Alanen, "Historic Structures at Isle Royale National Park, Historic Contexts and Associated Property Types" (Omaha, NE: National Park Service, Midwest Regional Office, 1999) v.
16. Caven Clark, "Initial Woodland," Isle Royale National Park Cultural Resource Interactive Mapping Project, March 12, 2017, http://iri.forest.mtu.edu/Natives/Pages/InitialWoodland.htm.



Figure 1A.1: 1954 image of hammerstones found at McCargoe Cove in Isle Royale (Source: NPS, "Archaeological History of Isle Royale," National Visual Inventory Cards 50-545, https://www.nps.gov/articles/000/archaeological-history-ancient-copper-mining.htm).

a large stretch of territory in southern Canada and the northern United States, including Quebec, Ontario, Manitoba, Minnesota, Wisconsin, and Michigan. Apart from the introduction of ceramics, there was little change in the copper and lithic technology among the peoples this region.[17] The Terminal Woodland Period began around 600 CE and lasted until European contact. Trends that emerged during the Terminal Woodland Period included "increased localized cultural differentiation, measurable in increments of stylistic variability and raw material use," as well as a general population increase.[18] According to archaeologist Caven Clark, the Terminal Woodland Period was "the time of the most intensive use of the island's resources," and fragments of Woodland Period pottery have been found on Isle Royale.[19]

Postcontact Isle Royale

European explorers first encountered Isle Royale in the seventeenth century. Around 1669 Jesuit missionary Claude Dablon recorded local Native American tales "regarding 'an island called Menong [Minong], celebrated for its copper'," referencing the Ojibwe name for Isle Royale.[20] According to former park ranger and park historian Timothy Cochrane (who is responsible for considerable research about how Native Americans and the Ojibwe people interacted with the Isle Royale), the island was likely used by several different pre-historic Native American tribes over time, perhaps by ancestors of later tribal groups that resided in the area. However, by the time European explorers encountered the island, Isle Royale was Ojibwe territory.[21]

It is estimated that the Ojibwe reached the Great Lakes region sometime between 1000 and 1650 CE. According to oral traditions, the Ojibwe, along with the Ottawa and Potawatomi tribes, were originally from the eastern United States, somewhere within the Atlantic seaboard. Roughly one thousand years ago, these tribes began to migrate westward, eventually settling in the Great Lakes. The Ojibwe, Ottawa, and Potawatomi were closely related, and "spoke similar dialects of the same Algonquian language and shared many cultural beliefs." They referred to themselves collectively as the Anishinaabe and formed the Three Fires Confederacy.[22] The Ojibwe occupied a large land area, including parts of Michigan's upper and lower peninsulas, Wisconsin, Minnesota, Quebec, Ontario, and Manitoba. According to Cochrane, while the island was likely visited by members of several different Ojibwe clans, Isle Royale was considered to be the territory of the North Shore Ojibwe, who lived along the northern shore of Lake Superior.[23]

Minong (Isle Royale) and its surrounding waters were recognized as a Traditional Cultural Property belonging to the Ojibwe people, as part of the Grand Portage Bank of Lake Superior Chippewa's ancestral land, in 2019. For the Ojibwe people, Minong was, and is, an important cultural heritage site with spiritual significance.[24]

17. Clark, "Initial Woodland."
18. Caven Clark, "Terminal Woodland," Isle Royale National Park Cultural Resource Interactive Mapping Project, March 12, 2017, http://iri.forest.mtu.edu/Natives/Pages/TerminalWoodland.htm.
19. Clark, "Terminal Woodland."
20. Huber, "The Geologic Story of Isle Royale National Park," 2.
21. Timothy Cochrane, *Minong--The Good Place: Ojibwe and Isle Royale* (East Lansing, MI: Michigan State University Press, 2009), 71-72.
22. Clifton, Cornell, and McClurken, *People of the Three Fires: The Ottawa, Potawatomi and Ojibway of Michigan*, v.
23. Cochrane, *Minong--The Good Place: Ojibwe and Isle Royale*, 17.
24. "Minong Historic District," National Register of Historic Places Registration Form (Isle Royale National Park, Michigan: National Park Service, U.S. Department of the Interior, December 1, 2018).



Figure 1A.2: 1848 Recreation of Claude Dablon's map of Lake Superior, note that Isle Royale is labeled "I Minong" (Source: Wisconsin Historical Society, "Lac Superior et autres lieux ou sont les missions des Peres de la Compagnie de Jesus comprises sous le nom D'outaouacs," https://content.wisconsinhistory.org/digital/collection/maps/id/43).

In 1671 Claude Dablon, along with fellow missionary Claude-Jean Allouez, produced a map of Lake Superior as they explored the area (Figure 1A.2). The French were the first wave of European explorers to seek control of the region, laying claim to "Lake Huron and Superior and all of the lands adjacent and beyond, both discovered and undiscovered, for Louis XIV" as part of New France in 1671.[25] Initially, French explorers were attempting to find a passage to the eastern rim of Asia in order to trade directly with Japan and China. However, the French soon recognized the region as one with its own valuable resources, particularly furs.[26] Isle Royale was situated near one end of an important route into Canada's interior, which the Ojibwe called "Gitchi Onigaming," meaning "Great Carrying Place." Now referred to as Grand Portage, this passage followed the Pigeon River inland and was an important route for Native Americans and later European traders.[27] At Isle Royale, the French were attracted to the island's abundant animal populations, including "beaver, muskrat, otter, mink, hare, coyote, fox, and lynx."[28]

Throughout the eighteenth century, Isle Royale was host to French, English, and American traders. During the Colonial Period, these various colonial forces engaged with the local Ojibwe people, relying heavily on them for navigation and trade. According to Cochrane, it is likely that the Ojibwe assisted, or perhaps even travelled with, Dablon

25. Russell M. Magnaghi, *French in Michigan* (East Lansing, MI: Michigan State University Press, 2016), 7–8.
26. Caven Clark, "18th Century," Isle Royale National Park Cultural Resource Interactive Mapping Project, March 12, 2017, http://iri.forest.mtu.edu/Natives/Pages/Eighteenth.htm.
27. "Foundation Document Grand Portage National Monument, Minnesota" (National Park Service, U.S. Department of the Interior, December 2016), 3.
28. "Cultural Landscape Inventory, Rock Harbor Lodge Historic District, Isle Royale National Park," 2002, 26.

and Allouez when they explored and mapped the area.[29] The Ojibwe were also instrumental in the fur trade, acting as guides and trappers, and Cochrane notes that "The fur trade was built upon aboriginal knowledge, routes, and important places."[30] By the mid-eighteenth century, the colonial ambitions of France and England were often at odds with one another, as both vied for control of fur trading in the Americas, eventually culminating in the onset of French and Indian War in 1754. The Ojibwe and other members of the Anishinaabe allied with the French. However, the French were defeated and the English assumed control of the region following the 1763 Treaty of Paris.[31] The relationship between the Ojibwe and the English was tense, and the Ojibwe allied with other Great Lakes tribes in an attempt to retain their own autonomy in 1763, which ultimately proved unsuccessful. The English maintained control of the region until the Revolutionary War, at which point control of the island was transferred to the newly formed United States as a result of the 1783 Treaty of Paris.

Isle Royale as American Territory

Despite the fact that Isle Royale was consistently utilized to procure goods for European and American fur markets, Isle Royale was relatively unknown outside of the trade networks of the Great Lakes region. According to Cochrane, Grand Portage, a trading post on the north shore of Lake Superior, was known in European cities like London and Paris for its importance in the international fur trade, but Isle Royale remained undistinguished. In fact, it appears there were no meaningful efforts to map the island during the late eighteenth-century, and "Despite the flourishing of the fur trade in the 1770s, 1780, 1790s, and even into the 1800s, the level of expressed geographic knowledge of Isle Royale remained crude and essentially reliant . . . upon the Jesuit maps of more than a hundred years earlier."[32] There were no efforts to produce accurate, detailed maps of IsleRoyale until the first copper boom in the 1840s.[33]

Although the presence of copper on Isle Royale was known, there is no substantial evidence of French of English mining activities on the island during the Colonial Period, and attempts to establish permanent copper mines on the island did not occur until the 1840s.[34] In 1843, the first of three copper booms swept the island as industrialization increased the demand for copper.[35] In 1843 the *Detroit Free Press* published an article containing information about the Michigan Upper Peninsula and Isle Royale. The article notes that although "The prevailing impression is, that the country is too far North for the habitation of man. . .At Isle Royale, opposite Eagle River. . .the ores [are] found to be as productive as at any point."[36] Two years later, the *Detroit Free Press* again reported on the copper deposits on Isle Royale, saying "the richest portion of the copper region, as far as it is explored, is reputed to be Isle Royale, in Lake Superior," which is described as "singularly rich in copper, which is constantly cropping out on the surface."[37]

Copper Mining

The copper boom of the 1840s was a key motivating factor in the federal government's efforts to seize control of the region from local Native American groups. In the early 1840s the superintendent of Indian Affairs for Michigan, Robert Stuart, began negotiations with Lake Superior and Mississippi River Ojibwe in order to secure land cessions. Stuart likely failed to include the Grand Portage Ojibwe among the thousands of tribal members with whom he reportedly met. Despite their lack of representation, the first Treaty of LaPointe was signed on October 4, 1842, in the town of LaPoint on Madeline Island in Lake Superior's Apostle Islands. Although the Treaty does not mention Isle Royale by name, Article I of the 1842 Treaty dictated that all islands within Lake Superior were ceded to the United States.[38]

In light of the fact that the potential for copper mining in the Great Lakes region was one of the key motivating factors in the United States' efforts

29. Cochrane, *Minong--The Good Place: Ojibwe and Isle Royale*, 41.
30. Cochrane, *Minong--The Good Place: Ojibwe and Isle Royale*, 10–11.
31. Clifton, Cornell, and McClurken, *People of the Three Fires: The Ottawa, Potawatomi and Ojibway of Michigan*, 104-105.
32. Cochrane, *Minong--The Good Place: Ojibwe and Isle Royale*, 37.
33. Cochrane, *Minong--The Good Place: Ojibwe and Isle Royale*, 37-39.
34. Cochrane, *Minong--The Good Place: Ojibwe and Isle Royale*, 39.
35. Philip V. Scarpino, "Cultural Resources on Isle Royale National Park: An Historic Context," 2010, 8.
36. "Lake Superior Country," *Detroit Free Press*, November 27, 1843.
37. "The Copper Region," *Detroit Free Press*, August 9, 1845.
38. Cochrane, *Minong--The Good Place: Ojibwe and Isle Royale*, 121–123.

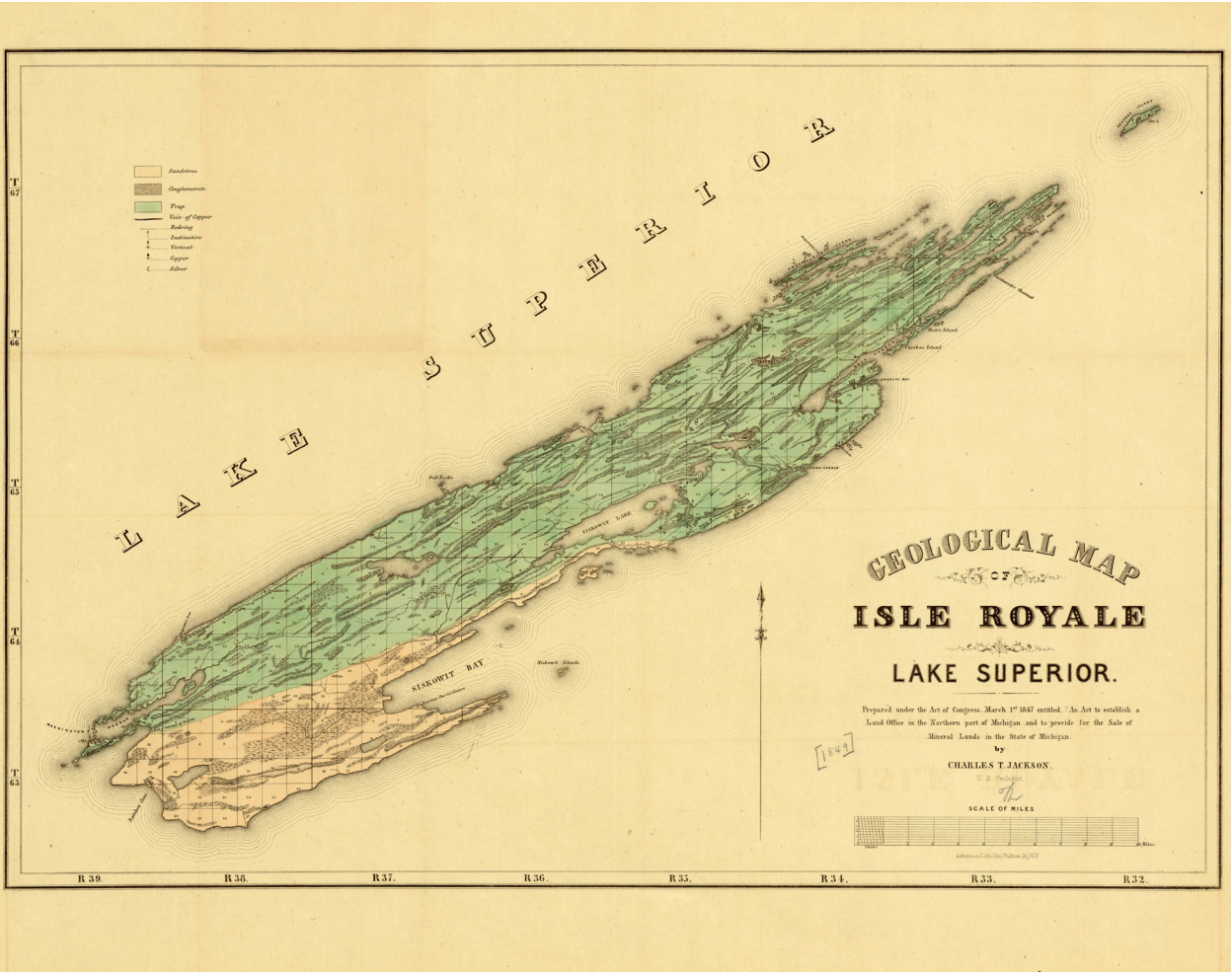


Figure 1A.3: "Geological Map of Isle Royale, Lake Superior," 1847, by Charles T. Jackson, U.S. Geologist (Source: University of Wisconsin-Milwaukee Library, American Geographical Society Library Digital Map Collection, https://collections.lib.uwm.edu/digital/collection/agdm/id/11981/).

to dispossess the Ojibwe from their territory, it is important to note that early attempts to establish a copper mining industry on Isle Royale were largely dependent on the Ojibwe and their knowledge of the island.[39] By the time the Grand Portage Ojibwe were made aware that Isle Royale had been ceded, efforts seeking compensation for the island were stymied by the federal government's attempts to claim that the Grand Portage Ojibwe were British citizens and therefore not entitled to payment. Eventually, the Grand Portage Ojibwe were able to refute these claims, successfully negotiating for some compensation, first in 1844 and then again in 1854.

While the Grand Portage Ojibwe were trying to secure compensation for the unsanctioned forfeiture of their territory, the federal government moved quickly to encourage exploration and copper mining on Isle Royale. By the summer of 1843 the government granted thirty to forty leases for copper mining on Isle Royale. Produced by a geological survey of the island conducted in 1847, an early American map of Isle Royale provides an accurate depiction of the island's topography and complex coastline. The 1847 map illustrates the geological composition of the island, the location of copper veins, and the locations of copper and silver deposits. The 1847 map also highlights the locations of the various companies already operating on Isle Royale at that time (Figure 1A.3).

Various mining companies tried their luck during three separate copper booms on the island in the mid- to late-nineteenth century: 1843-1855, 1873-1881 and 1889-1893. Early companies active on the island included "Smithwick, the Ohio and

39. Cochrane, *Minong--The Good Place: Ojibwe and Isle Royale*, 102.

Isle Royale, the Pittsburgh and Isle Royale, and the Siskowit Mining Company."[40] However, none of these attempts were long-lasting, and mining efforts on the island were abandoned permanently by the end of the nineteenth century. As noted by geologist N. King Huber, copper deposits on Isle Royale were widespread, but they were not necessarily abundant. The island did not possess copper lodes large enough to sustain the early mines. Although there were several large copper masses found on Isle Royale, such as those found at the Minong Mine, "the copper was too sparse and widely distributed to be mined profitably" (Figure 1A.4).[41]



Figure 1A.4: Undated image of a 6,000 lbs. copper deposit found by the Minong Mining Company at McCargoe Cove on Isle Royale (Source: Michigan Technological University Archives and Copper Country Historical Collections, https://cchi.mtu.edu/copper-country-image-detail?duid=3b8cdb38-32e5-48b7-bade-528d548af8c3&width=1242&height=732&nid=24304).

Commercial Fishing and Ojibwe Influences

Overlapping with the early copper boom, fishing became an important commercial activity on the island by the mid-nineteenth century. Like the extractive industries pursued by European and American explorers, the success of commercial fishing was dependent on the knowledge of native peoples. European and American businesspeople employed local Ojibwe in jobs on the island that were in part reliant on the Ojibwe peoples' traditional knowledge of resource location and methods of harvesting.[42] The Ojibwe were skilled fisherman who possessed intimate knowledge of the fish populations around Isle Royale, understanding when and where different fish populations would live, and what methods would best serve to catch them. According to Cochrane, the Ojibwe caught "pike, walleye, sturgeon, and white and redhorse suckers during the summer months," using spears in shallow water areas, and in deeper waters, they used nets to catch "trout, whitefish, bourbot, and longnose suckers," or trolled for trout with their canoes.[43] Inland on the island, "Ojibwe made small fish traps or weirs to catch brook trout in streams."[44]

The American Fur Company established the first commercial fishing enterprise on Isle Royale 1837, located on Belle Isle. They quickly expanded to several areas in Siskiwit Bay, and Checker Point "became the primary fishing station, with a barracks building, cooper shop, warehouse, salt storage, fish house, and administrative office."[45] According to Cochrane, the American Fur Company was led to this location by the North Shore Ojibwe, who knew that the area had a sizeable population of siscowet fish. The Ojibwe called this area Siskawekaning, which was anglicized as Siskiwit Bay. Siscowet were highly prized and sold for higher prices than whitefish or trout. Additionally, siscowet were very oil rich, and rendered siscowet oil was a popular product that could be employed for a variety of uses.[46] By 1839 there were thirty-three fishermen working for the company on Isle Royale, and the company hired Ojibwe women to clean the fish.[47] Despite initial successes, the economic crisis that followed the Panic of 1837 caused fish prices to fall, and the company closed its outposts on Isle Royale in 1839.[48]

40. "Cultural Landscape Inventory, Rock Harbor Lodge Historic District, Isle Royale National Park," 26.
41. Huber, "The Geologic Story of Isle Royale National Park," 56–57.
42. Cochrane, *Minong--The Good Place: Ojibwe and Isle Royale, 75.*
43. Cochrane, *Minong--The Good Place: Ojibwe and Isle Royale*, 75.
44. Cochrane, *Minong--The Good Place: Ojibwe and Isle Royale*, 75–76.
45. Franks and Alanen, "Historic Structures at Isle Royale National Park," 43.
46. Cochrane, *Minong--The Good Place: Ojibwe and Isle Royale, 77–78.*
47. Scarpino, "Cultural Resources on Isle Royale National Park: An Historic Context," 41.
48. Franks and Alanen, "Historic Structures at Isle Royale National Park," 43.

Despite the failure of the first commercial fishing venture on Isle Royale, there were still a number of seasonal fishermen that continued to fish off the island. In the 1840s the growing mining industry on Isle Royale created a dedicated consumer base and helped sustain the fishing industry on the island.[49] The growth of the mining industry and concurrent increases in shipping activity to and from Isle Royale also helped support commercial fishing activities on the island, and "increased lake traffic provided better opportunities for commercial fishermen to market their goods."[50]

Nearly a decade after the American Fur Company abandoned its fishing venture on Isle Royale, businessman and fur trader Hugh H. McCullough, who owned a host of trading posts in the area, established a larger fishing operation on Isle Royale, which operated from 1848 to 1857. According to Cochrane, McCullough employed "as many as three hundred North Shore Ojibwe."[51] The early fur trade and the later mining and fishing industries contributed to a rapid transformation of traditional Ojibwe lifestyles. Fishing companies hired Ojibwe fishermen to fish late into the fall, which interrupted cyclical subsistence patterns. This interruption prevented them from harvesting traditional resources and in turn made them more reliant on purchased goods. Overall, these patterns contributed to the Ojibwe becoming "more dependent on a cash economy" and less reliant on a traditional, subsistence lifestyle.[52]

Ojibwe and Treaty Impacts

The terms of the 1842 Treaty of La Point and the subsequent 1854 renegotiations negatively impacted Ojibwe traditional culture and subsistence practices. Under this treaty, the government established permanent reservations for the "Lake Superior Chippewa," which included the Grand Portage Band and granted annuity payments to tribe members. The government made these payments in the form of coins, or "goods, furniture, cooking utensils, agricultural implements and cattle, building tools, schools, guns, beaver traps, ammunition, and clothing."[53]

The forced transition to a sedentary, farm-based lifestyle was difficult for the Ojibwe, and the annuity payments were not sufficient to fully support this change. The result was widespread hunger and hardship, which Cochrane refers to as the "Hungry years."[54] Competition from traders and white settlers decreased the availability of important game animals, such as caribou and moose, and depleted the nearby fish populations.[55] The Dawes Act of 1887 further disrupted traditional Ojibwe lifestyles. The act provided land allotments to tribal members to encourage farming, and "it was hoped Indians would quickly acculturate to American ways and give up their tribal and communal social structure." According to Cochrane, "The message was clear: Grand Portage Ojibwe were supposed to break with their past, live in one place, and become like whites."[56] A key impact of this coerced assimilation and the transition to a sedentary lifestyle was to disincentivize Ojibwe people from travelling to and from Minong.[57]

Scandinavian Immigration to the Great Lakes Region and Isle Royale

During the latter half of the nineteenth century, Isle Royale and the surrounding region saw a substantial influx of Scandinavian immigrants, primarily from Sweden and Norway. There were a variety of factors that brought substantial numbers of Scandinavian immigrants to the Great Lakes region, including political turmoil, social unrest, crop failures, and economic pressures. In the mid-nineteenth century, Sweden was in the midst of a national population crisis, as the nation's population had doubled between 1750 and 1850. As a result, "Tillable land became more and more scarce, and famine swept the nation." In just a twenty-year span between 1861 and 1881, 150,000 Swedish immigrants came to the

49. Franks and Alanen, "Historic Structures at Isle Royale National Park," 44.
50. Franks and Alanen, "Historic Structures at Isle Royale National Park," 44–45.
51. Cochrane, *Minong--The Good Place: Ojibwe and Isle Royale*, 102–103.
52. Cochrane, *Minong--The Good Place: Ojibwe and Isle Royale*, 103.
53. Cochrane, *Minong--The Good Place: Ojibwe and Isle Royale*, 136–138.
54. Cochrane, *Minong--The Good Place: Ojibwe and Isle Royale*, 140.
55. Cochrane, *Minong--The Good Place: Ojibwe and Isle Royale,* 138–141.
56. Cochrane, *Minong--The Good Place: Ojibwe and Isle Royale*, 149.
57. Cochrane, *Minong--The Good Place: Ojibwe and Isle Royale*, 149.

United States.[58] Similarly, Norway's population also double between 1750 and 1850, creating land scarcity in a nation that is mountainous and heavily forested, with limited productive land to support to growing populace.[59] In the 1880s, 176,000 Norwegians immigrated to the United States, accounting for "one-ninth of Norway's entire population."[60] Compounding the population stressors facing both nations, there were also a series of crop failures in the 1850s and 1860s that contributed to widespread hunger.[61] Many Scandinavian immigrants turned to the United States as a potential source of land and economic opportunity.

The wave of Scandinavian immigrants in the late nineteenth century followed several smaller successive waves of immigration, many of whom had settled in the Great Lakes region. Oftentimes, earlier Scandinavian settlers wrote to their families in Europe in what are often referred to as "America letters," encouraging them to immigrate and join them in the United States. Additionally, railroad companies encouraged immigration in order to boost business, while local governments recruited immigrants to settle remote areas within their jurisdiction.[62] Michigan and other states even "employed people whose sole responsibility was to attract new immigrants," publishing pamphlets that contained "information about agricultural outputs, schools, government, and weather."[63] Coupled with the various issues facing Swedish and Norwegian people in their homelands, these outside influences further encouraged immigration to the United States during the late nineteenth century.

By the 1880s the regional influx of Scandinavian immigrants reached Isle Royale. Many found the landscape of Isle Royale to be familiar, reminding them of their home countries. When they arrived, "They joined the small number of Germans, Irish, English, French Canadians, and Ojibwe who fished the island's waters for Lake Superior whitefish, trout, and herring."[64] Many Scandinavians on Isle Royale were employed by the A. Booth Company, which ran a larger fishery out of Washington Harbor (Figure 1A.5). As a result, the Washington harbor population was largely Scandinavian. By the early twentieth century the area contained a relatively large fishing settlement of about twenty families. The A. Booth Company used its employment as leverage to maintain control over its workforce. The A. Booth Company would extend credit to new employees, essentially tying them to the island through debt. They then paid their employees with goods and supplies rather than money, making it hard for fishermen to become financially independent.[65] Outside of Washington Harbor, Scandinavian settlers established their own small fisheries.[66] Many Scandinavian immigrants established seasonal, and even some permanent, residences on the island, and a majority of the commercial fishermen in Isle Royale were Scandinavian by the end of the century (Figure 1A.6).[67]

Scandinavian immigrants brought with them new, impactful fishing methods, most notably hook-line fishing. The hook-line method is described as follows: "The technique involved stringing a 1,600 foot long main line, parallel to, but just below the surface of the water, anchored at each end. At intervals of 40 feet, a line with a large weighted bell hook that was baited with herring would be let out 100 to 200 feet," and "The hooklines could hold 400 baited hooks."[68] Although this process was more labor intensive, hook-line fishing allowed for greater returns and could "bring in 200 pounds of fish per day on average," making it easier for many Scandinavian fishermen to stay on Isle Royale through the winter.[69]

Scandinavian fishermen and their families continued to live on the island through the first half of the twentieth century. When control of the island was turned over to the National Park Service in the 1930s, there was considerable

58. "The Swedes," Library of Congress, accessed September 27, 2022, https://www.loc.gov/classroom-materials/immigration/scandinavian/the-swedes/.
59. Jeffrey W. Hancks, *Scandinavians in Michigan* (East Lansing, MI: Michigan State University Press, 2006), 37–38.
60. "The Norwegians," Library of Congress, accessed September 27, 2022, https://www.loc.gov/classroom-materials/immigration/scandinavian/the-norwegians/.
61. Hancks, *Scandinavians in Michigan*, 37–38.
62. "The Swedes."
63. Hancks, *Scandinavians in Michigan*, 26.
64. Hancks, *Scandinavians in Michigan*, 52–53.
65. Franks and Alanen, "Historic Structures at Isle Royale National Park," 56–57.
66. Franks and Alanen, "Historic Structures at Isle Royale National Park," 56–57.
67. Hancks, *Scandinavians in Michigan*, 52–53.
68. Franks and Alanen, "Historic Structures at Isle Royale National Park," 67.
69. Franks and Alanen, "Historic Structures at Isle Royale National Park," 60.



Figure 1A.5: View of Booth Company Fisher Buildings, circa 1930 (Source: Isle Royale Institute, Isle Royale National Park Cultural Resource Interactive Mapping Project, "Booth Fishery," http://iri.forest.mtu.edu/Historic_Fisheries/Pages/Washington_Harbor/Booth.htm).



Figure 1A.6: View of Mattson Fishery, c 1935 (Source: Isle Royale Institute, Isle Royale National Park Cultural Resource Interactive Mapping Project, "Mattson Fishery," Wolbrink, ACC#ISRO-00614, Box 49, ISRO Archives, http://iri.forest.mtu.edu/Historic_Fisheries/Pages/Rock_Tobin_Harbor/Mattson.htm).

frustration and animosity among the islanders. Many were required to sell their land to the government for undercut prices, and many of their buildings were subsequently torn down.[70] Others were granted leases that permitted them to maintain their residence on the island until the time of their death, but Cochrane notes that what was ultimately lost "was the sense of continuing, renewable community" on the island.[71] Around this time, commercial fishing on the island was further jeopardized by the invasive lamprey species, which were found in Lake Superior by 1938. By the end of the following decade, the lamprey infestation had caused a steep decline in local fish populations and devastated the commercial fishing industry. Fisheries around Isle Royale were among those last impacted by the lamprey, as they "did not reach the Western end of Lake Superior in substantial numbers until the 1950s."[72]

Despite the decline of the commercial fishing industry beginning in the 1930s, many Scandinavian families maintained their fisheries on the island, some even through the 1970s. Peter Oikarinen's *Island Folk: The People of Isle Royale* is a valuable collection of oral histories from members of the Scandinavian community and longtime residents of Isle Royale.

70. Hancks, *Scandinavians in Michigan*, 52–53.
71. Timothy Cochrane, "Places, People, and Folklore: An Isle Royale Case Study," *Western Folklore* 46, no. 1 (January 1987): 4.
72. Scarpino, "Cultural Resources on Isle Royale National Park: An Historic Context," 38–39.

Tourism and Recreation on Isle Royale

The growth of the tourism industry on Isle Royale was the result of several larger trends occurring regionally and nationally. Throughout the nineteenth century, there was growing popular interest in nature and wilderness tourism. Many were seeking to experience Romantic conceptions of the picturesque and sublime, while others saw the outdoors as an important source of health and revitalization, serving as a respite from increasingly dense and industrialized cities. Although initially created to meet the demands of mining and commercial fishing, improved transportation networks in and around Lake Superior helped facilitate increased passenger transit through the region by the mid-nineteenth century, creating the basis for a growing tourism industry. Early excursions to Isle Royale were typically limited to brief day trips for curious visitors touring Lake Superior. However, by the end of the nineteenth century Isle Royale emerged as a popular summer destination with several permanent resorts and second homes.

Early Tourism

Opportunities for adventure in the remote wilderness of the Great Lakes drew early tourists who ventured to the Lake Superior area in the mid-nineteenth century. Early tourists were attracted to the sense of adventure offered by the remote wilderness of the Great Lakes. One of the earliest recreational travelers to visit Lake Superior was Chandler Gilman, who toured the lake in 1835. Unlike other early explorers, who were typically surveying the land for economic potential or

scientific observations, Gilman was a "Literary Traveler" who came to Lake Superior with romantic notions of the picturesque and sublime qualities of wilderness. Gilman published sketches and a narrative of his trip in *Life on the Lakes: Being Tales and Sketches Collected During a Trip to the Pictured Rocks of Lake Superior, Vol. 1* in 1836.[73]

By the 1850s tours of Lake Superior began to advertise day trips to various locations, including Isle Royale. In 1853 the *Detroit Free Press* published an advertisement for a "Pleasure Excursion" on Lake Superior. As described in the advertisement, "the *Sam Ward* will stop at Grand Island, Copper Harbor, Ontonagon, Fond du Lac, Pigeon River, Marquette, Eagle River, La Pointe, Isle Royale, Prince's Bay, and Michicopotin, -- thus giving the excursionists an opportunity to witness the wonders of Lake Superior."[74] The completion of the Sault St. Marie canal in 1855 further facilitated tourism in Lake Superior, making it accessible to larger vessels and steam ships traveling from Lake Huron and Lake Michigan. The copper and fishing industries that operated throughout Lake Superior were the primary drivers for improved transportation networks, but this increased demand for commercial transportation also facilitated increased passenger and recreational travel.[75]

Improved Access to Lake Superior

While the Sault Sainte Marie canal opened Lake Superior to passenger ships from nearby cities like Chicago and Detroit, passenger rail also expanded into the Great Lakes regions, and rail companies utilized existing commercial rail networks. To attract passengers, rail companies published pamphlets and brochures advertising the "scenic beauty of the wilderness along their routes, touting the wild beauty of the north. . .and romanticizing Lake Superior."[76] Some railroad companies even offered their passengers steamer travel on the Great Lakes as well, such as the Great Northern Railway, which operated the Northern Steamship Company. Between rail and steamer, residents of large midwestern cities had ready access to the pristine wilderness of Lake Superior. The growing resort industry was an important economic boon for the entire state of Michigan. The state government, local governments, and private companies all actively promoted the growing tourism industry, and Michigan's board of health even "published a directory of approximately 125 summer and health resorts, mineral springs, and sanitaria, identifying railroad and steamboat connections and hotels at each."[77]

Extolled Northwoods Health Benefits

A growing emphasis on the healing properties of nature and the outdoors, particularly as a foil to industrialized city landscapes, encouraged wilderness tourism in the Great Lakes region. Many people adopted the belief that the outdoors had "restorative powers" and were good for their overall health.[78] At the time, tuberculosis was a leading cause of death in America, and many believed fresh air would help treat the disease. In addition to relief from tuberculosis, many viewed the Great Lakes region as a place of respite for people with hay fever, and many people sought "to spend their summers in the cool, pollen-free north woods."[79] Medical professionals such Dr. Daniel Drake and Charles Christian Schieferdecker also touted the healing properties of water itself, and Drake in particular promoted the Great Lakes region as a healthful destination. At the same time, Progressives like Theodore Roosevelt advocated for a "strenuous live" and encouraged outdoor activity, while "many industrial recreation experts advocated the extension of children's play through to adult life," initiating the notion of "summer vacation."[80]

Excursions and Cruises

While resort communities did begin to appear along the shoreline of Lake Superior during the mid-nineteenth century, Isle Royale remained a remote outpost. Vacationers that did visit the island usually did so only for brief periods as part

73. Troy Henderson, *Lake Superior Country: 19th Century Travel and Tourism*, Images of America (Charleston, South Carolina: Arcadia Publishing, 2002), 42–43.
74. "Pleasure Excursion," *Detroit Free Press*, August 11, 1853.
75. Scarpino, "Cultural Resources on Isle Royale National Park: An Historic Context," 70–71.
76. Franks and Alanen, "Historic Structures at Isle Royale National Park," 95.
77. Franks and Alanen, "Historic Structures at Isle Royale National Park," 94-96.
78. Franks and Alanen, "Historic Structures at Isle Royale National Park," 93.
79. Franks and Alanen, "Historic Structures at Isle Royale National Park," 94.
80. Franks and Alanen, "Historic Structures at Isle Royale National Park," 93–94.

of larger lake excursions or pleasure cruises.[81] In 1865, the *Detroit Free Press* published an advertisement for a lake tour aboard the steamship *Meteor*, which would visit "La Point, Bayfield, Isle Royale, Ontonagon, and all intermediate ports."[82] The advertisement boasted that "This will be one of the finest opportunities that will be offered this season for pleasure seekers."[83] In 1874, the *Detroit Free Press* published an advertisement for "Grand Pleasure Excursions to Lake Superior," offered by the Union Steamboat Company and the Atlanta, Duluth & Pacific Lake Company.[84] These companies provided semi-weekly trips on Lake Superior from several major cities and port towns, including Buffalo, Erie, Cleveland, Detroit, Port Huron, and Sarnia. Two of the steamers, the *Winslow* and *Pacific*, offered extended trips to Isle Royale.[85]

In 1877 the Minneapolis *Star Tribune* published an advertisement for pleasure excursions to Lake Superior. The advertisement describes several modes of transportation, including the Minneapolis & Duluth Railroad, the steamship *Manistee*, and an omnibus to escort travelers between the two. The advertisement describes the trip as follows: "The trip will occupy Seven Days, and embrace 300 miles railroad and 750 miles lake travel," taking passengers to "Bayfield, La Point, Ashland, and (in the copper district) Ontonagon, Eagle River, Eagle Harbor, Houghton and Hancock; and (on the north shore) Prince Arthur's Landing, Isle Royale, Silver Islet and Fort William."[86] The advertisement also touts the amenities offered on the boat, including "all the delicacies of the season" and a "String Band."[87] Franks and Alanen note that steamships were an attraction in and of themselves, often more so than the wilderness of Lake Superior. Guests sought to experience the "grand scale entertainment that was offered on board the ship, in the form of all night parties, bands, and orchestras," and although "passenger ships would circle Isle Royale and occasionally allow travelers to go ashore for a few hours. . .most travelers were not interested in 'roughing it' on Isle Royale."[88]

On Isle Royale, increased commercial shipping activity to and from Isle Royale facilitated the burgeoning interest in tourism on the island. The A. Booth Company was one of the first to establish regular steam ship passage to and from the island that delivered provisions to the company's fishery in Washington Harbor.[89] These steamers, including the *Hiram Dixon* and *T.H. Camp*, also offered passage for travelers. In 1902 A. Booth Company purchased the *America*, a large vessel that allowed the company to "dominate not only fish wholesaling but also transportation of passengers and mail and supplies to and from Isle Royale until the late 1920s."[90] The establishment of regular shipping services to and from the island provided the infrastructure for the resort era to begin.[91] In the 1880s, the Isle Royale Land Company began considering possibilities for a "wilderness resort" on Isle Royale at Rock Harbor, with proposed amenities including hotels, bath houses, a theatre, pavilion, and dance hall. However, these plans never came to fruition.[92] In 1890 *The Weekly Palladium* out of Benton Harbor, Michigan, published a note in the "Town Talk" article that "Mr. John O. Plank has the backing for a $350,000 hotel to be built on Isle Royale."[93] While there is no evidence that this resort came to fruition, clearly there was growing interest in the potential for a resort on Isle Royale.

First Isle Royale Resorts

The earliest attempts to capitalize on the growing tourism industry came from the fisherman already living on Isle Royale, who rented out rooms in their own homes to summer vacationers. Many fishermen offered meals and acted as fishing guides

81. Franks and Alanen, "Historic Structures at Isle Royale National Park," 96.
82. "For Lake Superior and the North Shore," *Detroit Free Press*, July 27, 1865.
83. "For Lake Superior and the North Shore."
84. "Grand Pleasure Excursions to Lake Superior," *Detroit Free Press*, July 15, 1874.
85. "Grand Pleasure Excursions to Lake Superior."
86. "Excursion," *Star Tribune*, August 20, 1877.
87. "Excursion."
88. Franks and Alanen, "Historic Structures at Isle Royale National Park," 96.
89. Franks and Alanen, "Historic Structures at Isle Royale National Park," 54.
90. Scarpino, "Cultural Resources on Isle Royale National Park: An Historic Context," 44.
91. "Rock Harbor Lodge Great House, Isle Royale National Park, Keweenaw County, Michigan," Historic American Buildings Survey (National Park Service, Midwest Regional Office, 1985).
92. Franks and Alanen, "Historic Structures at Isle Royale National Park," 96–97.
93. "Town Talk," *The Weekly Palladium*, October 24, 1890.

for their guests to supplement their incomes.[94] John F. Johns established the first resort on Isle Royale on Barnum Island in Washington Harbor in 1892. Johns was "a miner-turned-fisherman-turned resort owner."[95] Aptly named Johns Hotel, the resort initially consisted of several small log cabins, built by Johns and his sons. They later added a communal building, referred to as the "hall," as well as a barn, dining room, a joint store and post office, and several other small outbuildings (Figure 1A.7).[96]

Tobin Harbor Resort soon followed Johns Hotel. Scandinavian fisherman Gus Mattson established Tobin Harbor Resort on Minong Island around 1900 (Figure 1A.8). Tobin Harbor Resort offered visitors a rustic experience, and "Wood frame sleeping cottages, most consisting of only one room, provided the bulk of the accommodations."[97] Guests also had access to two communal spaces, a log dining room and a log sitting room, outfitted with a fireplace and piano. Tobin Harbor Resort was intentionally rustic, "aimed toward those who came to Isle Royale for the wilderness, not luxurious accommodations."[98]

As noted by Franks and Alanen, the Scandinavian fishermen on Isle Royale were instrumental to the success of the tourism industry on Isle Royale. In addition to operating their own places of accommodation and acting as fishing guides, fishermen worked a variety of different jobs related to the summer resort economy. For example, "Fishermen helped summer residents maintain their summer properties, by fixing buildings, motors, refinished boats, building docks, etc.," and some even built cabins and cottages for seasonal residents.[99]

Peak Isle Royale Resort Period

Large-scale resorts soon followed the small-scale tourism ventures established by the local fisherman, and by the 1904 there were six large-scale resorts operating on Isle Royale.[100] The development of large-scale resorts depended on the availability of land, and mining and fishing company owned a majority of the property on the island. By the late nineteenth century, the Isle Royale Land Corporation, a mining company that owned large quantities of land on the island, began selling off its holdings.[101] Additionally, several especially wealthy investors and individuals purchased land to establish private clubs and family enclaves. The Washington Club was a private club in Washington Harbor, established by "twenty of



Figure 1A.7: Undated image of Johns Hotel (Source: Isle Royale Institute, Isle Royale National Park Cultural Resource Interactive Mapping Project, "Johns Hotel," Johns Hotel (#351): R.E. Johns Collection, ACC#ISRO-00644, ISRO Archives, http://iri.forest.mtu.edu/Resorts/Pages/JohnsHotel.htm).



Figure 1A.8: 1905 image showing a view of the Tobin Harbor Resort (Source: Isle Royale Institute, Isle Royale National Park Cultural Resource Interactive Mapping Project, "Mattson's/ Tobin Harbor Resort/Minong Lodge," Dassler Collection, ACC#ISRO-00644, Box 58, ISRO Archives, http://iri.forest.mtu.edu/Resorts/Pages/TobinsHarbor.htm).

94. Franks and Alanen, "Historic Structures at Isle Royale National Park," 97.
95. Franks and Alanen, "Historic Structures at Isle Royale National Park," 97.
96. Franks and Alanen, "Historic Structures at Isle Royale National Park," 97–98.
97. Franks and Alanen, "Historic Structures at Isle Royale National Park," 98.
98. Franks and Alanen, "Historic Structures at Isle Royale National Park," 98.
99. Franks and Alanen, "Historic Structures at Isle Royale National Park," 107.
100. "Rock Harbor Lodge Great House, Isle Royale National Park, Keweenaw County, Michigan."
101. "Rock Harbor Lodge Great House, Isle Royale National Park, Keweenaw County, Michigan."



Figure 1A.9: Postcard with an image of the Belle Isle Lodge (Source: Isle Royale Institute, Isle Royale National Park Cultural Resource Interactive Mapping Project, "Belle Isle Resort," Belle Isle Resort Postcard, ISRO Archives, http://iri.forest.mtu.edu/Resorts/Pages/BelleIsle.htm).

Duluth's powerful business leaders" in 1902.[102] Around the same time, millionaire George G. Barnum purchased Barnum Island to build a vacation home, which soon became an enclave for his wealthy acquaintances.[103]

Amenities offered by Isle Royale resorts changed after the opening of Fred Schofield's Belle Isle Resort in 1912 (Figure 1A.9). Located on Belle Isle (called Fish Isle at the time), Belle Isle Resort set a new standard for resort accommodations on the island. The resort had a main lodge and four cottages. The sitting room of the main lodge "was decorated with oriental rugs, hunting trophies, photographs, and lake trout on the walls."[104] Amenities at the resort included a small golf course, a tennis court, shuffleboard court, and a walled-off swim area in the lake. The success of Belle Isle Resort forced other resorts on Isle Royale to compete with a higher standard of accommodation, setting the stage for the eventual construction of the Rock Harbor Lodge Guest House.[105]

Declining Isle Royale Tourism

A variety of factors contributed to the decline in tourism on Isle Royale during the 1930s. One major event was the sinking of the *America* on June 7, 1928, after the ship struck bottom near Washington Harbor. For twenty-five years, Isle Royale had relied on the *America* for bi-weekly trips to and from island, bringing with it guests and critical provisions. The sinking of the *America* devastated the island's resort industry. A smaller ship, the *Winyah*, began operating in its place, but this ship was a commercial fishing vessel and not as elegant as the *America*, making it less appealing to would-be resort goers. Passenger ships with better accommodations were not available on a consistent basis, and they were typically only accessible via Port Arthur, Ontario (present-day Thunder Bay). Reaching Port Arthur was its own challenge, and for an American tourist to reach Port Arthur, "one had to take a train to Duluth, then travel all

102. Franks and Alanen, "Historic Structures at Isle Royale National Park," 101.
103. Franks and Alanen, "Historic Structures at Isle Royale National Park," 106.
104. Franks and Alanen, "Historic Structures at Isle Royale National Park," 109.
105. Franks and Alanen, "Historic Structures at Isle Royale National Park," 109–10.

night over land, or by steamer."[106] In the wake of the *America's* sinking, there were few convenient or comfortable options to reach Isle Royale, and "nearly every year resort brochures had to explain a new access plan" to would-be visitors.[107]

The advent of the personal automobile and the expansion of public roadway infrastructure further compounded the problems caused by the sinking of the *America*. The construction of the Minnesota North Shore Highway facilitated trucking in the region, which diminished the need to transport goods across Lake Superior via steamers. It also allowed for private passenger travel and tourism via the automobile rather than via rail and steamer. As a result, "Privately owned recreational cabins and cottages were built along lakeshore highways instead of being confined to areas near boat docks and railroad stations."[108] These alternatives further disincentivized people from making the long and arduous journey to and from Isle Royale. The onset of the Great Depression in 1929 further cemented the decline of tourism on Isle Royale, as the economy could no longer support the leisurely resort lifestyle that had been characteristic of many of Isle Royale's wealthy summer guests.[109]

Creation of Isle Royale National Park

While Isle Royale did not officially become a national park until 1940, the notion of turning the island into a park first emerged in the 1920s following a visit by two employees of the *Detroit News* in 1921. Albert Stoll, Jr. was the outdoor editor of the paper, as well as an officer for the Michigan Department of Conservation, and George Miller was the editor of the paper. Later that year, Stoll published an article promoting Isle Royale's potential as a national park, and he continued to advocate for a wilderness park at Isle Royale throughout the 1920s and 1930s. Stoll's article eventually found its way to the first director of the National Park Service, Stephen T. Mather. Mather visited Isle Royale in 1924 and determined that Isle Royale had the necessary qualities to become a national park, but he was concerned that the land acquisition process was a complicated and difficult task.[110]

In 1922 the Island Copper Company sold 66,500 acres to a logging company, the Minnesota Forest Products Company of Duluth. The potential threat of logging spurred residents of Isle Royale to action, and many summer residents and resort owners organized to form the Isle Royale Property Owners' Association (also referred to as the Citizen's Committee of Isle Royale).[111] Residents were fearful that logging activity on the island would damage the scenic qualities of the island and diminish recreational opportunities.[112] In 1922 residents on the northeast end of the island "adopted a resolution that the State of Michigan take over the island as a timber and game preserve," and by 1924 "more than 56,000 acres of the island's total of 134,000 acres — roughly the eastern half — were promised to the federal government without charge."[113] The resolution read as follows:

> Resolved, That the members of the Citizens' Committee of Isle Royale, collectively and individually, make every effort to have Isle Royale controlled by the National Government as a 'forest preserve' and thus be maintained in the condition that nature has left it; and that we solicit, in the accomplishment of this result, the assistance of every one who is interested in the preservation of the beauties of nature and of animal life.
>
> And also resolved, That a copy of these resolutions be posted in every dwelling on the island and be sent to each member of the association and to as many tourists as can be reached.[114]

106. Franks and Alanen, "Historic Structures at Isle Royale National Park," 114.
107. Franks and Alanen, "Historic Structures at Isle Royale National Park," 114.
108. Franks and Alanen, "Historic Structures at Isle Royale National Park," 113.
109. Franks and Alanen, "Historic Structures at Isle Royale National Park," 113.
110. Thomas P. Gale and Kendra L. Gale, *Isle Royale: A Photographic History* (Houghton, Michigan: Isle Royale Natural History Association, 1995), 139–40.
111. Gale and Gale, *Isle Royale: A Photographic History*, 142; Scarpino, "Cultural Resources on Isle Royale National Park: An Historic Context," 5.
112. Gale and Gale, *Isle Royale: A Photographic History*, 142.
113. Gale and Gale, *Isle Royale: A Photographic History*, 140.
114. Scarpino, "Cultural Resources on Isle Royale National Park: An Historic Context," 5.

As negotiations with the remaining landowners continued through the 1920s, effectively stalling the project, the state legislature of Michigan established the Isle Royale National Park Commission. The Commission was tasked with acquiring all of the land in Isle Royale, whether it be by purchase or condemnation and seizure.[115]

On March 3, 1931, Congress authorized the creation of Isle Royale National Park, which was subsequently approved by President Herbert Hoover.[116] Lack of funding during the Great Depression halted land acquisition efforts during the early 1930s. However, in 1935 the George W. Mead Timber Operations company established a logging camp in Siskiwit Bay and began felling trees. Under the renewed threat of logging, the National Park Service began to pursue land acquisition on the island more aggressively. That year, President Franklin D. Roosevelt authorized $705,000 of federal funds to purchase property on Isle Royale, with the state of Michigan providing any necessary additional funds.[117] President Roosevelt also authorized the creation of Civilian Conservation Corps (CCC) camps on the island, which allocated an additional $600,000 for federally sponsored projects on the island that helped establish important elements of the park's infrastructure.[118] CCC activity on the island is summarized as follows:

> The CCC crews constructed Park Service administrative buildings, employee housing, recreational facilities, and also worked on trail development, the construction of docks, campgrounds, fire towers, and day markers that were used as navigational aids. Additionally, the recruits conducted wildlife surveys, caught island moose for mainland repopulation projects, and fought forest fires.[119]

The CCC established several different camps on the island, including three main "base" camps (at Camp Siskiwit, Camp Rock Harbor, and Camp Windigo), as well as several smaller "satellite" camps around the island.[120] In 1935 the CCC camps on Isle Royale hosted nearly 200 recruits, followed by another 400 in 1936. When a large wildfire broke out on the island in the summer of 1936, Isle Royale hosted 1,800 men from the CCC, Forest Service, Navy, and Coast Guard. During the three months it took to extinguish the fire, it had consumed one-fifth of the island's forests.[121]

Negotiations with property owners on Isle Royale continued through the 1930s, and many landowners struggled to reach an agreement with the federal government. Property owners were "asked to donate or sell their holdings to the Park Service for one dollar per acre for mineral rights and four dollars per acre for surface rights."[122] The government offered these same terms to individuals who did not own land but had a personal history of activity on the island. The government offered increased compensation for buildings and other types of improvements, as well as life leases in exchange for the sale and special use permits for resort owners and fishermen.[123] Ultimately, the government acquired the entirety of Isle Royale by 1940 and grated thirty life leases and thirty-five special use permits. On April 3, 1940, the federal government officially established Isle Royale National Park.[124]

Isle Royale National Park, to present

The creation of Isle Royale National Park corresponded with changing ideas about the wilderness and how to interact with it. The creation and intended character of the park was "influenced by changing concepts of wilderness recreation in the 1930s."[125] In contrast with the developed and curated resorts that had come to characterize recreation on Isle Royale, conceptions for the

115. Gale and Gale, *Isle Royale: A Photographic History*, 140.
116. "Foundation Document, Isle Royale National Park, Keweenaw County, Michigan," 6.
117. Gale and Gale, *Isle Royale: A Photographic History*, 141.
118. Franks and Alanen, "Historic Structures at Isle Royale National Park," 163.
119. Franks and Alanen, "Historic Structures at Isle Royale National Park," 165.
120. Franks and Alanen, "Historic Structures at Isle Royale National Park," 165.
121. Franks and Alanen, "Historic Structures at Isle Royale National Park," 169–70.
122. Franks and Alanen, "Historic Structures at Isle Royale National Park," 164.
123. Franks and Alanen, "Historic Structures at Isle Royale National Park," 164.
124. Gale and Gale, *Isle Royale: A Photographic History*, 141.
125. Franks and Alanen, "Historic Structures at Isle Royale National Park," 115.

new national park were primarily concerned with island's natural resources As a result, there was an emphasis on minimizing the human impact and presence on the island to enhance the natural environment. Part of this new ethos meant that development on the island would be minimal moving forward.[126]

After the creation of Isle Royale National Park, the NPS continued to operate two of the existing resorts on the island, Rock Harbor Lodge and Belle Isle Resort, while opting to build a new facility at Washington Harbor, the Windigo Inn. The NPS hired Bertha Farmer, the previous owner/manager of Rock Harbor Lodge, as a concessioner, tasked with running the three resorts. For would-be tourists, access to the island was a problem. The transition to a National Park and decreasing commercial activities further disincentivized shipping to and from the island, while railroads and automobiles continued to supplant travel via passenger steamers. During the early years of the park, the NPS was only able to afford an old cutter called the *Ranger*, which "was not capable of sailing heavy seas and could only accommodate a few passengers."[127]

Due to the logistical challenges of visiting Isle Royale National Park, Bertha Farmer struggled to keep the island's resorts profitable. Farmer found herself frustrated with the NPS's management of Isle Royale and felt that the government was not adequately promoting the park as a destination for tourists. At the same time, the NPS was not satisfied with Farmer's work as concessioner, and her management reportedly "generated complaints from park visitors."[128] The NPS chose not to renew Farmer's contract and she was subsequently replaced. However, the next concessioner was also unable to make the resorts profitable, and the NPS eventually shuttered both Belle Isle and the Windigo Inn. Although Rock Harbor Lodge continued to operate at a loss, it remained open.[129]

Tourism on Isle Royale continued to struggle through the 1950s. Only 2,830 people visited the park in 1952, and those that did visit often expressed dissatisfaction with the services and amenities offered on the island. By the following decade, however, tourism on Isle Royale began to experience a resurgence. As described by Franks and Alanen, "The decision by the Park Service to remove the bowling alleys, tennis courts, and golf courses were vindicated in the mid-1960s as the recreation boom in the United States continued to emphasize the 'back-to-nature' movement."[130] Activities like backpacking, canoeing, and hiking were becoming more popular, and Isle Royale became an ideal destination for people seeking those experiences. Additionally, the NPS constructed a wide array of facilities on Isle Royale under the Mission 66 program. Facilities included marinas, housing for staff and visitors, visitor centers, and numerous hiking trails. With increased interest and improved facilities, visitation to the island increased. The NPS accommodated increasing demand, introducing the *Ranger III*, which was able to ferry nearly 100 people and made visits to island three times per week. Between 1959 and 1971, visitor numbers tripled, and "by 1991 had stabilized at approximately 14,000 visitors every year."[131]

126. Franks and Alanen, "Historic Structures at Isle Royale National Park," 115.
127. Franks and Alanen, "Historic Structures at Isle Royale National Park," 116.
128. Franks and Alanen, "Historic Structures at Isle Royale National Park," 116–17.
129. Franks and Alanen, "Historic Structures at Isle Royale National Park," 116–17.
130. Franks and Alanen, "Historic Structures at Isle Royale National Park," 117.
131. Franks and Alanen, "Historic Structures at Isle Royale National Park," 117–18.

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Part 1.B Chronology

Developmental History of Rock Harbor Lodge

Kneut Kneutson and Park Place

Kneut Kneutson, a Norwegian immigrant, established a successful career in the insurance industry in Minnesota. In 1901 Kneut Kneutson journeyed to Isle Royale seeking relief from the symptoms of his hay fever. Kneutson sailed to the island via an A. Booth Company steamer, which departed from Duluth, Minnesota. Upon his arrival, Kneutson stayed at Gus Mattson's Tobin Harbor Resort and noticed an immediate improvement in his hay fever symptoms. According to Kneutson's own recollections, he borrowed a small sailboat from Mattson, which he sailed to Mott Island in search of the island's famous greenstones. On his return journey from the island, he encountered such strong winds that he could not sail through them. As the wind increased, water entered the boat and Kneutson became worried that he would have to abandon the vessel. Fortunately, however, Kneutson found calmer waters in a small bay, which he dubbed "Snug Harbor." He was able to row the boat to shore before making his way back to Tobin Harbor on foot. Describing the location where he harbored the boat, Mattson noted that it was one of the prettiest places on Isle Royale. Struck by his experience, Kneutson soon bought a mile of Rock Harbor land facing Snug Harbor.[1]

In 1902 *The Minneapolis Journal* published a notice alerting readers that a Minneapolis corporation called the Isle Royale Outing Association had purchased land at Rock Harbor from the Isle Royale Land Syndicate, out of England. According to the article, the purchased tract of land was "one of the most picturesque spots on the island," and "The new company intends to erect a forty-room summer hotel" on the site.[2] The article notes that "K. Kneutson" and trustees "J. W. Earl, John E. Tappan, A. K. Godfrey" formed the Isle Royale Outing Association.[3] In John E. Tappan's biography, it is noted that he was an enthusiastic investor in the project. Isle Royale "was exactly the sort of wild and undeveloped country Tappan loved to get away to," and he saw the potential to profit from future development on the island.[4]

Kneutson called the newly established resort Park Place. With the help of his son, Kneutson platted out streets, with lots available for purchase and a designated area for cabins and guest tents. Rustic structures made of wood frames and canvas walls comprised the earliest guest accommodations at Park Place. In 1902 the Isle Royale Outing Association published an advertisement for staff to work at the newly established resort in the *Minneapolis Daily Times*. The advertisement, published in February of that year, read "WANTED-Capable man and wife at summer resort, May to October."[5] In July of 1903 *The Minneapolis Journal* published an article discussing different vacation options on Isle Royale. According to the article, "the Isle Royale Outing association has now about twenty-five cottages in its hay fever settlement at Rock Harbor."[6] On July 28, 1903, the Isle Royale Outing Association published an advertisement for prospective guests, outlining the costs and travel details. The advertisement described Rock Harbor as "The world's greatest trolling ground" and "The only place where the 'Green Stone' gem is found."[7] The advertisement notes that "$9.00 per week will secure a cottage and board," and guests could contact rail companies in Duluth to make travel arrangements, with steamer trips available three times per week.[8]

1. Thomas P. Gale and Kendra L. Gale, *Isle Royale: A Photographic History* (Houghton, Michigan: Isle Royale Natural History Association, 1995), 120–23.
2. "Isle Royale: Option on Picturesque Rock Harbor Lands Taken by Minneapolitans," *The Minneapolis Journal*, April 17, 1902.
3. "Isle Royale: Option on Picturesque Rock Harbor Lands Taken by Minneapolitans."
4. Kenneth Lipartito and Carol Heher Peters, *John Elliott Tappan and the Origins of American Express Financial Advisors* (New York, New York: Palgrave, 2001), 132.
5. "Wanted," *Minneapolis Daily Times*, February 20, 1902.
6. "North Shore Joys," *The Minneapolis Journal*, July 20, 1903.
7. "Outings. Rock Harbor-Isle Royale," *Minneapolis Daily Times*, July 28, 1903.
8. "Outings. Rock Harbor-Isle Royale."

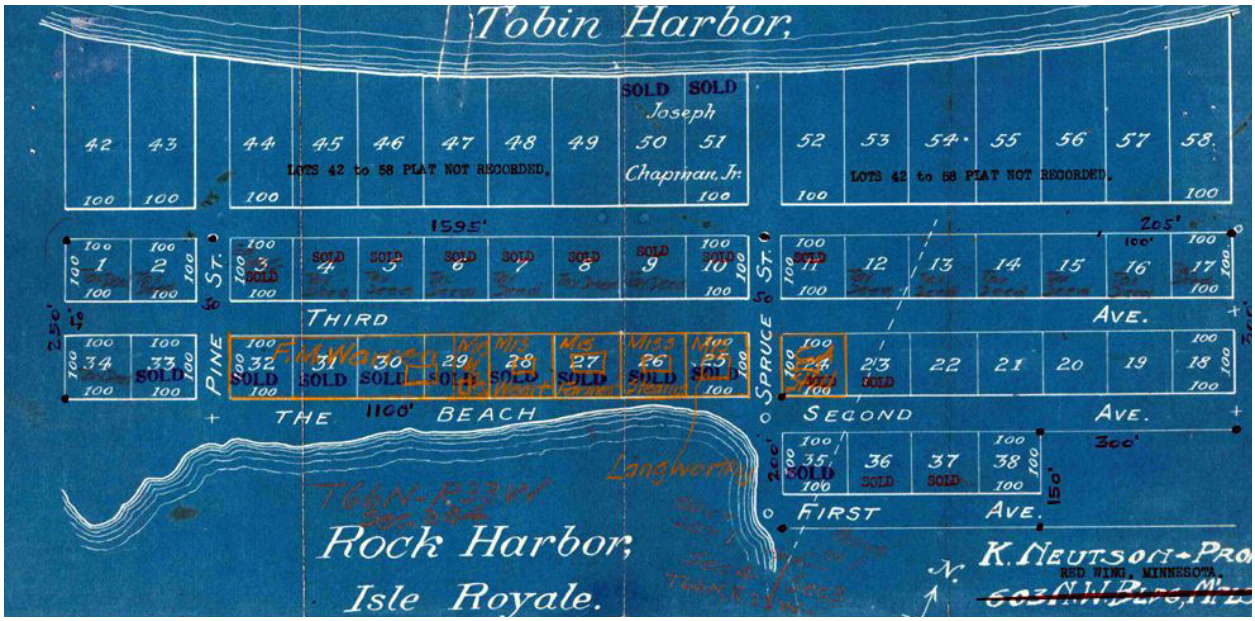


Figure 1B.1: Rock Harbor Plat, June 20, 1908 (Source: Isle Royale Institute, Isle Royale National Park Cultural Resource Interactive Mapping Project, "Rock Harbor Plat, June 20, 1908," Farmer Collection, ISRO Archives, http://iri.forest.mtu.edu/Resorts/Pages/ParkPlace.htm).

On September 21, 1907, Kneutson and his wife, Theresa, filed a "Plat of Rock Harbor" that recorded their intent to subdivide part of the Rock Harbor property into thirty-eight lots.[9] The Isle Royale National Park archives contain several maps showing the subdivision, including three dated to 1908. One version of the map suggests that Kneutson considered a fifty-eight lot subdivision, but according to a note on the map, "lots 42 to 58 plat not recorded" (Figure B.1).[10] The thirty-eight lots Kneutson laid out were arranged in three rows on the northwest side of the harbor, stretching up the slope of a low ridge that framed the west side of Snug Harbor (see Figure B.1 and Figure B.2).[11] The maps show roads between the rows of lots—First, Second, and Third Avenue—that ran approximately south to north. Two perpendicular roads, Pine Street and Spruce Street, bisected the subdivision stretching between Snug Harbor and Tobin Harbor.

By 1910 Kneutson began to expand the offerings at the Park Place resort. Between 1908 and 1910, Kneutson added a dining room and a multi-purpose lodge and office building on the site. Around this time, Kneutson also replaced the canvas structures with small wood frame cabins. These cabins "were bright and colorful" and furnished to "give the atmosphere of miniature homes."[12] They ranged from one- to three-bedroom, heated by a wood stove or fireplace. Among these was Spruces Cabin (also referred to as Spruce's Cabin), which Kneutson constructed in 1911. Spruces Cabin is still extant, and it is the only resort cabin from this period that remains on the site.[13]

As the tourism industry on Isle Royale continued to expand during the 1910s, new resorts like Belle Isle, located off Isle Royale's northeastern shore, created competition for earlier establishments like Park Place. Unlike the more rustic accommodations at earlier resorts, Belle Isle offered guests a golf course, tennis court, shuffleboard, and a designated swim area. The

9. This plat is located in the ISRO Archives in Box 5, Series 003 Central Files, Acc. No. ISRO-00614 Cat. No. ISRO 111, Coll. No. 00001.
10. These maps are available online at the Isle Royale National Park Cultural Resource Interactive Mapping Project's website: Isle Royale Cultural Resource Interactive Mapping Project (mtu.edu).
11. For a point of reference, the subdivision began near the current location of the NPS ranger quarters and extended north towards the current location of the housekeeping cabins.
12. Kathryn E. Franks and Arnold A. Alanen, "Historic Structures at Isle Royale National Park, Historic Contexts and Associated Property Types" (Omaha, NE: National Park Service, Midwest Regional Office, 1999), 125.
13. Franks and Alanen, "Historic Structures at Isle Royale National Park," 125–26.

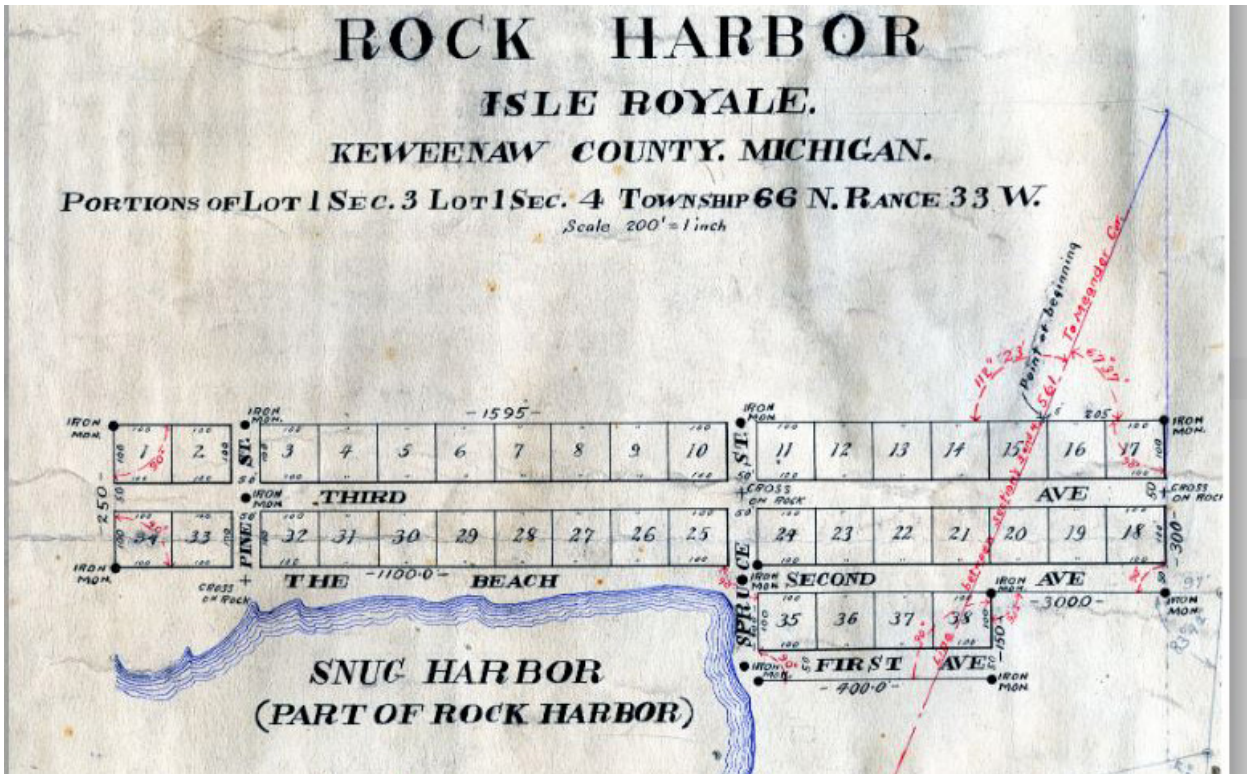


Figure 1B.2: Plat of Rock Harbor dated June 30, 1908 (Source: Isle Royale Institute, Isle Royale National Park Cultural Resource Interactive Mapping Project, "Rock Harbor Plat, June 20, 1908," Farmer Collection, ISRO Archives, http://iri.forest.mtu.edu/Resorts/Pages/ParkPlace.htm).

resort also had a well decorated dining room and two bathing facilities with electricity and toilets. These amenities contributed to changing standards of accommodation and raised guests' expectations. In the midst of these advancements occurring at other resorts, Kneutson was away from the island during the duration of World War I and Park Place suffered from poor management during his absence. Seeing that Park Place was no longer on par with some of the newer resorts, Kneutson appointed his daughter, Mrs. Bertha Farmer, as manager. Mrs. Farmer spearheaded a campaign to modernize the resort's accommodations and rebranded the site 'Rock Harbor Lodge.'[14]

Rock Harbor Lodge

Under the management of Mrs. Bertha Farmer, the resort at Snug Harbor underwent a substantial transformation. Now referred to as Rock Harbor Lodge rather than Park Place, Kneutson added new guest facilities at the behest of Mrs. Farmer. The most substantial addition was the construction of the Rock Harbor Lodge Guest House, which began in 1922 (Figure B.3). A professional carpenter built the guest house with some assistance from Westy Farmer, Kneutson's grandson. It is believed that Kneutson and Mrs. Farmer designed the building.[15]



Figure 1B.3: Photograph of the Rock Harbor Lodge Guest House during construction, circa 1922 (Source: Isle Royale Institute, Isle Royale National Park Cultural Resource Interactive Mapping Project, "Park Place/Rock Harbor Lodge," Farmer Collection, ISRO Archives, http://iri.forest.mtu.edu/Resorts/Pages/ParkPlace.htm).

14. Franks and Alanen, "Historic Structures at Isle Royale National Park," 109–10.

15. "Rock Harbor Lodge Great House, Isle Royale National Park, Keweenaw County, Michigan," Historic American Buildings Survey (National Park Service, Midwest Regional Office, 1985).



Figure 1B.4: Photo of the Rock Harbor Lodge Guest House from the water, circa 1947 (Source: Isle Royale Institute, Isle Royale National Park Cultural Resource Interactive Mapping Project, "Park Place/Rock Harbor Lodge," C.E. Humberger [NVIC: 40-123], ISRO Archives, http://iri.forest.mtu.edu/Resorts/Pages/ParkPlace.htm).



Figure 1B.6: View of the Rock Harbor Lodge Guest House Lobby, circa 1925 (Source: ISRO Archives, Farmer Collection, #04).



Figure 1B.5: Image of the lobby fireplace, circa 1924 (Source: Isle Royale Institute, Isle Royale National Park Cultural Resource Interactive Mapping Project, "Park Place/Rock Harbor Lodge," Farmer Collection, ISRO Archives, http://iri.forest.mtu.edu/Resorts/Pages/ParkPlace.htm).



Figure 1B.7: View of the Rock Harbor Lodge Guest House Lobby and Stairway, circa 1925 (Source: ISRO Archives, Farmer Collection, #05).

The new Guest House was a two-story Craftsman style building, positioned on the edge of the small peninsula that separated Snug Harbor from Rock Harbor. It served as a statement piece for the resort, painted bright white and facing outward towards Rock Harbor to greet any incoming visitors (Figure B.4). The building contained a communal lobby space and sixteen guest bedrooms. The Guest House contained several notable amenities, including electricity, indoor toilets, indoor showers, and sinks with hot and cold water in each room.[16]

In addition to the new Guest House, Mrs. Farmer also insisted on fostering a more refined and upscale atmosphere. Under her management, "Employees were asked not to socialize with guests" and "Social dances and berry picking or greenstone gathering expeditions were scheduled activities."[17] Rock Harbor Lodge also added a tennis court to its growing list of amenities, and guests could take tennis lessons from summer resident Coach Osborn, "a high school teacher form Elgin, Illinois, who stayed at a summer cottage in Snug Harbor and acted as the lodge athletic director."[18] Westy Farmer recalls that his mother installed a radio in the dining room in 1922, which attracted visitors from around the island.[19]

16. Franks and Alanen, "Historic Structures at Isle Royale National Park," 110.

17. Franks and Alanen, "Historic Structures at Isle Royale National Park," 110.

18. Gale and Gale, *Isle Royale: A Photographic History*, 123.

19. Peter Oikarinen, *Island Folk: The People of Isle Royale* (Minneapolis, MN: University of Minnesota Press, 2008), 125.

These new amenities were important selling points in advertisements for Rock Harbor Lodge. On May 28, 1922, the *Star Tribune* out of Minneapolis published an advertisement for Rock Harbor Lodge, noting that the resort was located in "the Beauty Spot of Isle Royale."[20] Guests would have access to "Sleeping quarters in attractive separate cottages" and a "large Lodge with fireplace and easy chairs," and they could expect "splendid meals, Tennis, croquet, dancing, cruising, picnics," as well as a "Radio receiving station."[21] A similar advertisement for Rock Harbor Lodge ran in *The Star Tribune* on July 2, 1922, emphasizing the fact that the lodge and dining room had electricity and access to a radio.[22] These advertisements preceeded the opening of the Guest House because the building was still under construction during the summer of 1922 and 1923. The Guest House began receiving visitors on July 15, 1924.

In 1924 Rock Harbor Lodge began publishing advertisements that included mention of the new Guest House. On June 22, 1924, *The Minneapolis Journal* published an advertisement for Rock Harbor Lodge, noting that the "new hotel contains electric lights, hot and cold running water, shower baths, every convenience" would be ready to host guests on July 15.[23] In 1926 *The Star Tribune* published an advertisement for Rock Harbor Lodge that featured a picture of the resort and a steamer that ferried visitors to and from the resort.[24] *The Star Tribune* and *The Minneapolis Journal* routinely published advertisements for Rock Harbor Lodge during summer months throughout the 1920s.

Guest House Interior

The Isle Royale National Park archives have several photographs taken soon after the Guest House opened, circa 1924. These images provide a view of various interior spaces as they were originally configured and decorated. An image of the lobby fireplace shows that it has remained essentially unchanged over time (Figure B.5). The firebox is made of brick and the hearth is made of concrete.

20. "Rock Harbor Lodge on Isle Royale in Lake Superior," *Star Tribune*, May 28, 1922.
21. "Rock Harbor Lodge on Isle Royale in Lake Superior."
22. "Rock Harbor Lodge Isle Royale," *Star Tribune*, July 2, 1922.
23. "Rock Harbor Lodge Isle Royale," *The Minneapolis Journal*, June 22, 1924.
24. "Rock Harbor Lodge Is Popular Isle Royal Resort This Year," *Star Tribune*, June 27, 1926.



Figure 1B.8: View of a typical Guest House bedroom interior circa 1925 (Source: ISRO Archives, Farmer Collection, #03).

The surrounding mantel is made of mortared rough-cut stone slabs. The stone on the mantel face and legs is horizontal, but there is a row of vertical stone on the mantel face directly above the firebox. This photo also shows linoleum floors, which have a light and dark checkerboard pattern. This photograph also shows the two windows on either side of the chimney. Although they are only partially visible, they appear to have simple wood surrounds and sills. A different photo of the Guest House lobby and fireplace shows two hanging lights with semi-opaque white pendants (Figure B.6). A third photo of the lobby faces the stairs and corridor hallway. This photo shows the stair balusters and square newel post, which are still extant. This image also shows a closet under the stairs with a cased opening and a cloth privacy curtain. There also appear to be curtains hanging in the corridor threshold (Figure B.7).

An image from 1925 shows the interior of one of the bedrooms in the Guest House (Figure B.8). This image shows a ceramic wall-mounted sink with a small shelf and mirror above. The sink has separate hot and cold water faucets. There is a small three-column cast iron radiator in the corner of the room. Right next to the radiator, there is a wooden folding desk fastened to the wall. There is also a small wooden closet hutch with privacy curtains. The top of the wooden hutch, which also serves as an additional storage shelf, has a simple decorative molding. There is a window, which appears to have painted wooden casings and a painted wooden sill. The window is partially obscured by curtains, but wooden muntins are visible. The floors are painted wood, and there are decorative wooden base boards with an ogee base cap, which is also painted. There is a small hanging

pendant light in the center of the room.

Field observations indicate that all guest rooms have retained their wall-mounted sinks, while most have retained the shelf, mirror, folding desk, and closet hutch. The shelves, folding desks, and closet hutches are all painted blue. All rooms have retained their hardwood floors, which are still painted. The first-floor hardwood flooring is painted blue, while the second-floor hardwood flooring is painted brown. All rooms, excepting the first-floor guest room that was temporarily used to expand the lobby, have retained their wooden baseboards and ogee base caps. The windows have all retained their wood casings and wooden windowsills. The baseboards and window trim are painted blue, matching the paint color of the shelves, folding tables, and closet hutches. The hanging pendant lights and radiators have all been removed. No records have been recovered that pinpoint the exact date at which these features were removed.[25] Presumably, they were removed when the electrical and mechanical systems in the building were modernized.

Guest Experiences at Rock Harbor Lodge

For guests that wanted a taste of outdoor adventure, Rock Harbor Lodge offered fishing excursions, sometimes led by Kneut Kneutson himself. Mrs. Farmer also hired island resident John Linklater, "who took guests on excursions to the old Minong Mine site at McCargoe Cove," after which guests were "treated to an overnight at Linklater's fishery at Birch Island, where they slept in tents and used fir boughs as bedding."[26] John Linklater and his wife Helen (also known by her Ojibwe name Tchi-ki-wis) were both members of the Ojibwe tribe and had ancestral ties to the island. The Linklaters were "The last Ojibwe couple to reside on the island" by the onset of the resort era on Isle Royale (Figure B.9).[27] The Linklater's operated a fishery on Birch Island alongside the Hansen family during the warmer months, while John often worked as guide for



Figure 1B.9: Undated photo of John Linklater and his wife Tchi-ki-wis, also known as Helen (Source: Isle Royale Institute, Isle Royale National Park Cultural Resource Interactive Mapping Project, "Francis/Linklater and Hansen," Warren/Anderson Collection, Isle Royale National Park, http://iri.forest.mtu.edu/Historic_Fisheries/Pages/North_Shore/Birch_Island.htm).

visitors to the island.[28] Other local fishermen, such as Milford and Arnold Johnson, offered similar services, such as "boat rental and guide services for Rock Harbor Lodge guests."[29] Local fishermen were also instrumental in feeding the guests at Rock Harbor Lodge, selling their fish directly to the resort.[30] Produce was available from the nearby Daisy Farm (at the former Ransom Mine and townsite).[31]

Under Mrs. Farmer's management, Rock Harbor Lodge reached its peak during the Resort Era. The new Guest House "set new standards for Isle Royale large-scale resorts with its electrical service, running water, and the first indoor flush toilets on the island."[32] Rock Harbor Lodge's ability to compete with other resorts on the island was partially due to the natural advantages of its location, as large passenger steamers could dock there, even the *South American*, "the largest passenger ship on Lake Superior."[33]

In 1926 Mrs. Farmer commissioned a site plan depicting the layout of the Rock Harbor Lodge

25. Mr. Kim Alexander stated during the team's site visit that he remembers removing the radiators in the early 1970s.
26. Franks and Alanen, "Historic Structures at Isle Royale National Park," 110–12.
27. Timothy Cochrane, "Places, People, and Folklore: An Isle Royale Case Study," *Western Folklore* 46, no. 1 (January 1987): 157.
28. Cochrane, "Places, People, and Folklore: An Isle Royale Case Study," 157–58.
29. Franks and Alanen, "Historic Structures at Isle Royale National Park," 113.
30. Franks and Alanen, "Historic Structures at Isle Royale National Park," 113.
31. Philip V. Scarpino, "Cultural Resources on Isle Royale National Park: An Historic Context," 2010, 33–34.
32. Franks and Alanen, "Historic Structures at Isle Royale National Park, Historic Contexts and Associated Property Types," 125-126.
33. Franks and Alanen, "Historic Structures at Isle Royale National Park," 112.

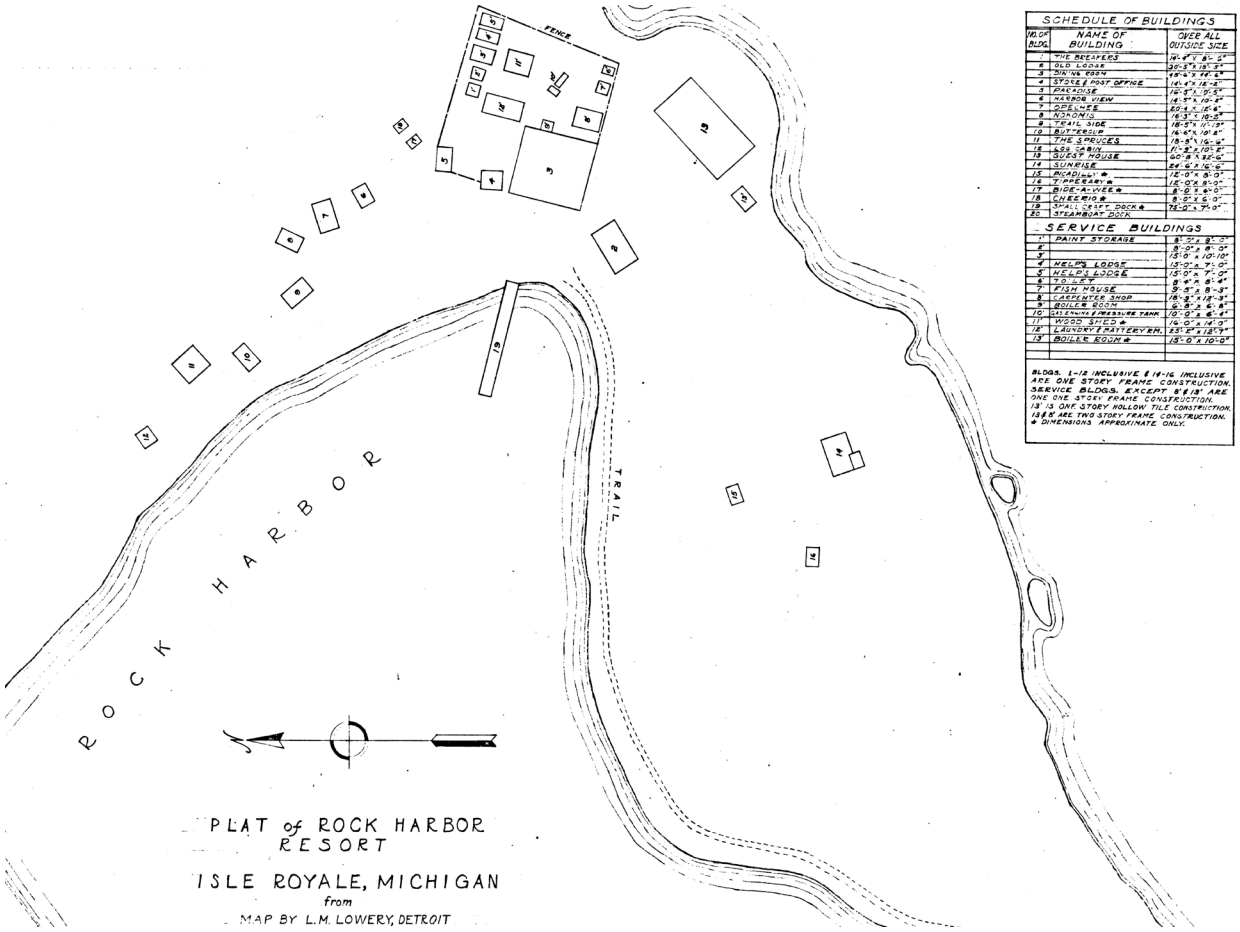


Figure 1B.10: 1926 Site Plan of Rock Harbor Lodge resort, "Plat of Rock Harbor Resort, Isle Royale, Michigan," drawn by L.M. Lowery, of Detroit, on August 25, 1926 (Source: NPS, ISRO Archives, eTIC 1057922-ISRO_139_1012_0001_of_0001).

resort, produced by surveyor L.M. Lowery of Detroit (Figure B.10). This 1926 site plan shows the location of guest buildings, service buildings, docks, and trails. Communal guest buildings at this time include the Guest House, Old Lodge, Dining Room, joint Store and Post Office, and a small building by the steamboat dock called the Breakers. There is a small Boiler Room just southwest of the Guest House, likely built to house the water heaters and other mechanical systems needed for the Guest House (Figure B.12). The Boiler Room is no longer extant, and research has not uncovered documentation of how or when it was removed.

Decline of the Resort Era on Isle Royale

Like the other resorts on the island, Rock Harbor Lodge struggled to attract guests by the late 1920s. The transition to the personal automobile led to the creation of highway-adjacent lakeshore developments, and a general decline in steamer travel, coupled with the sinking of the *America*, made access to Isle Royale difficult. Meanwhile, the tourism industry in general suffered during the Great Depression. All of these factors contributed to the end of the resort era on Isle Royale. In response to the looming threat of logging on the island, concerned residents of Isle Royale organized to have the federal government assume control of the island and manage it as a preserve, laying the foundations for the eventual creation of Isle Royale National Park.

Transfer to the National Park Service

As noted previously, the land acquisition process proved to be especially challenging for the National Park Service. Although residents of the island helped initiate the transition to federal management of the island, there was considerable hesitancy among property owners when it came time to relinquish their ownership. In 1935 E. G. Willemin, who served as the Land Purchaser for the National Park Service, recorded notes from a discussion he had with Mrs. Farmer about the acquisition of her property.

According to Willemin's notes, Mrs. Farmer had extensive questions about how the NPS would manage the property. In his notes Willemin writes the following:

> First, she wished to know who was to assume the cost of fire protection, who to assume its maintenance. She also wished to know what assurance could be given her that if a concession arrangement was to be worked out, whether the NPS would allow her to use her discretion as to types of buildings to be erected to take care of increased demand for accommodations…She also wanted to be assured that if the business should demand it later that she could sublet to a third party subject to Park Service approval.[34]

Mrs. Farmer's questions seem to indicate that she had expectations that she would continue to occupy and run the Rock Harbor Lodge resort after NPS acquired the property. Willemin also notes that Mrs. Farmer "is not willing to consider a 10 year concession as she does not think that if she is asked to make improvements or additions to the layout that she would have an opportunity to realize upon her investment in that time."[35] Clearly, Mrs. Farmer expected a long-term tenure at Rock Harbor Lodge after NPS acquired the resort. Photographs taken of the building in 1935 record the appearance during the negotiations between NPS and Mrs. Farmer (Figure B. 11 and Figure B. 12).

Mrs. Farmer also discussed pricing with Mr. Willemin, including the appraised value of the park as well as its potential revenue value. Willemin notes that the total appraised value of Rock Harbor Lodge was determined to be $32,704. Apparently, Mrs. Farmer asserted that Rock Harbor Lodge was worth $75,000, and she proposed reducing that price by 25% to secure her role as concessioner. In his notes, Willemin responded to Mrs. Farmer that "I [Willemin] did not think that the return from the maximum of 4 months in any one season would justify any such figures."[36] Willemin does not elaborate as to where Mrs. Farmer came to the number $75,000, but his response makes it clear that Mrs. Farmer's proposed asking price was well above what the National Park Service intended to pay for the property.



Figure 1B.11: Photograph of the southeast elevation of the Guest House taken in 1935 ((Source: Isle Royale Institute, Isle Royale National Park Cultural Resource Interactive Mapping Project, "Guest House" Wolbrink Collection (Sheet 2, Photo B), ISRO Archives.



Figure 1B.12: Photograph of the west elevation of the Guest House taken in 1935; note presence of the boiler room with a shed roof next to the southwest elevation of the Guest House (Source: Isle Royale Institute, Isle Royale National Park Cultural Resource Interactive Mapping Project, "Guest House" Wolbrink Collection (Sheet 6, Photo D), ISRO Archives)

Correspondence between Mrs. Farmer and representatives of the National Park Service indicate that the negotiation process involved a somewhat tense back and forth between the two parties. On January 25, 1937, Mrs. Farmer wrote to E.G. Willemin, requesting additional information about the terms of her agreement to sell or donate land to the National Park Service. One of her questions concerns the value of her property, as determined by the NPS, asking, "May I have an itemized appraisal of the real estate and buildings,

34. E. G. Willemin, "Tract #32 Also Lot 27, Plat of Rock Harbor. Mrs. Bertha Farmer, 2515 Chamberlain Ave, Madison, Wis.," August 24, 1935, Acc. No. ISRO-00614 Cat. No. ISRO 111 Coll. No. 00001, Box No. 5, Isle Royale National Park Resource Management Records.
35. Willemin, "Tract #32 Also Lot 27," August 24, 1935.
36. Willemin, "Tract #32 Also Lot 27," August 24, 1935, 32.

so that I may know how you arrive at the figure of $25,089.03; which part for land and which for buildings and how is the building appraisal distributed?"[37] The sum of $25,089.03 is below the $32,704 appraisal Mrs. Farmer had received two years prior, and it is well below the $75,000 she had requested for the property.

Another question concerned her continued occupancy and lease on the property after NPS assumes ownership, about which she asks, "What terms of lease for my continued tenancy of the property are provided in this offer? My correspondence with Mr. Harper during the summer of 1935 mentions a free 20 year tenancy, such concession to be transferable by me to a third party with Natl. Park Service approval."[38] Mr. Willemin's notes about his conversation with Mrs. Farmer do not reference a conversation she may have had with Mr. Harper, who was the Secretary of the Isle Royale National Park Commission at the time, but they did note that she would not be willing to accept a concessioner term as short as ten years.

Upon receiving Mrs. Farmer's letter, Mr. Willemin wrote two letters on January 27, 1937. One was in response to Mrs. Farmer, and the other was addressed to Mr. Harper. In his response to Mrs. Farmer, Mr. Willemin included an itemized list outlining the value allotted to each building and structure (including hardware, equipment, and improvements) at Rock Harbor Lodge, as well as the value of the land. On this list, the Guest House is appraised at $9632.74, and Rock Harbor Lodge is appraised at $23,707.88 in total.[39] Mr. Willemin goes on to refute Mrs. Farmer's assertion that she was offered a long term lease for the property. In the letter, Mr. Willemin says the following:

> …the offer made to you by letter dated January 18 makes no provision whatever for a lease of the Rock Harbor Lodge property to be run as a commercial resort. The offer is based upon delivery of Warranty deed in fee simple title to the land or interest therein; which means that the offer is based on an outright purchase with title satisfactory to the United States. No figures have been set up to make you an offer based on a concession or on a lease for the use of this property over a term of years It is my understanding that plans of development for the Park do not contemplate the use of any of the existing commercial resorts for the accommodation of tourists visiting the Park… In case, a proposition is to be entertained for a concession or a lease of Rock Harbor Lodge; the offer on such a basis would be the sum of the money that would represent the difference between $24,887.53 and the cash value of a concession or lease of the property for the term of years provided in the lease.[40]

In his letter to Mr. Harper, Mr. Willemin includes his correspondence with Mrs. Farmer. Mr. Willemin's letter briefly outlines some of Mrs. Farmer's expectations, and to what extent he thinks they are reasonable. In his letter, Willemin says the following:

> Mrs. Farmer now raises the question about a lease or concession on the resort property. I am fairly sure that any negotiations on the basis of a lease for ten years or so will prove to be a lot of useless work. It is true that an offer can be made on that basis; but if it is seriously considered. I think that we should start at the Washington end and find out definitely just what they will or will not approve in the way of a lease. It is my impression that the National Park Service would much prefer to have her deed outright and have nothing more to do with a commercial resort at Rock Harbor Lodge. A review of the correspondence that she refers to does not show that any definite proposals or commitments were made about a concession or life lease. It would of course please Mrs. Farmer if she could manage to get a concession along with the price offered to her for outright deed.

37. Mrs. Matt Farmer, "Letter to Mr. E.G. Willemin, Land Purchaser, Isle Royale National Park Comm. Landsing, Mich. Re: Tract #32.," January 25, 1937, Acc. No. ISRO-00614 Cat. No. ISRO 111 Coll. No. 00001, Box No. 5, Isle Royale National Park Resource Management Records.
38. Farmer, "Letter to Mr. E.G. Willemin," January 25, 1937.
39. E.G. Willemin, "Letter to Mrs. Matt Farmer, 2515 Chamberlain Avenue, Madison, Wisconsin. Re: Isle Royale - Tranct No. 32.," January 27, 1937, Acc. No. ISRO-00614 Cat. No. ISRO 111 Coll. No. 00001, Box No. 5, Isle Royale National Park Resource Management Records.
40. Willemin, "Letter to Mrs. Matt Farmer," January 27, 1937.

> It appears to me that she expects to make her main objections to the values placed on her unimproved land as she will cite the high prices that she obtained at one time for such frontage. I do not believe that she will be able to convince any jury that her land is worth such high prices when land adjoining has been purchased at prices as low as $5 per acre.[41]

In short, Mr. Willemin appears to be informing his colleague that Mrs. Farmer's expectations concerning the value of her land and her future role at the park do not match the plans of the National Park Service. Willemin's response also clearly states that, at that time, the NPS wanted "nothing more to do with a commercial resort at Rock Harbor Lodge."[42] On an undated document recording the estimated value of improved property, there is a note at the bottom informing the reader that "Mrs. Farmer has stated at one time that she would donate on basis of life lease on the property shown above. However this offer will be undoubtedly contingent upon her reaction to the offer made on her resort property for which she has asked an exorbitant figure."[43] Clearly, there was some concern (and perhaps frustration) about the expectations of Mrs. Farmer.

Mrs. Farmer also expressed her frustrations with how the National Park Service treated residents on the island during the land acquisition process. Despite being an early and ardent proponent of converting the island to a national park, Mrs. Farmer was not entirely satisfied with the terms of the arrangement. Mrs. Farmer was not alone in her frustrations and "some of the original advocates of the national park balked at the process offered for their holdings."[44] According to John J. Little, who wrote extensively about the NPS land acquisition process, "Bertha Farmer particularly protested the offers made for Rock Harbor Lodge and other family properties. She also expressed fear that the lodge would likely be torn down." She even went so far as to write to Mr. Harper directly, informing him that she did not appreciate the "ruthless autocratic attitude" of the government in its treatment of the island's residents.[45]

NPS Documentation of Rock Harbor Lodge

While negotiations were ongoing, a National Park Service representative drew floorplans of the Rock Harbor Lodge Guest House in May of 1936 (Figure B.13, Figure B.14, Figure B.15, and Figure B.16). These plans show that the floorplan of the Guest House in 1936 is generally the same as it is today, with a few noticeable differences. The first-floor lobby is shown as having the same configuration that exists presently. There is a single door entry on the northwest wall of the lobby and a double door entry framed by windows on the southwest wall. The stairs to the second floor are in their present location. The walls and ceilings in the lobby are plaster, while the floors are linoleum. The lobby is equipped with two electrical lights mounted on the ceiling, three base panel electrical outlets, and one light switch. The stone fireplace is shown in its present location. There are two radiators on opposite ends of the room to provide heat. One notable change is the absence of the currently present fire door and wall dividing the lobby from first-floor corridor. It appears that this was an open threshold when the NPS acquired the building.

On the 1936 plans of the first-floor, there are four rooms on the northwest side of the corridor and three rooms on the southeast side of the corridor (Figure B.13). There is an exterior door at the southwest end of the corridor. The four rooms on the northwest side (from left to right) include the bathroom, two bedrooms, and an office. The office has the same shape and configuration as the other bedrooms, and functions as a bedroom presently. It is possible this room was used as a bedroom originally and converted to make-shift office space as needed. The three rooms on the southeast side (from left to right) include a bedroom, a double bedroom, and a bedroom. The bedrooms and

41. E.G. Willemin, "Letter to Mr. Harry F. Harper, Secretary, Isle Royale National Park Commission, Lansing, Michigan. Re: Isle Royale - Tract No. 32. Mrs. Farmer.," January 27, 1937, Acc. No. ISRO-00614 Cat. No. ISRO 111 Coll. No. 00001, Box No. 5, Isle Royale National Park Resource Management Records.
42. Willemin, "Letter to Mr. Harry F. Harpe," January 27, 1937.
43. "Vicinity of Rock Harbor Recapitulation - Estimated Cost of Improved Property," n.d., Acc. No. ISRO-00614 Cat. No. ISRO 111 Coll. No. 00001, Box No. 5, Isle Royale National Park Resource Management Records.
44. John J. Little, "Island Wilderness: A History of Isle Royale National Park" (Toledo, Ohio, The University of Toledo, 1978), 134.
45. Little, "Island Wilderness: A History of Isle Royale National Park," 135.

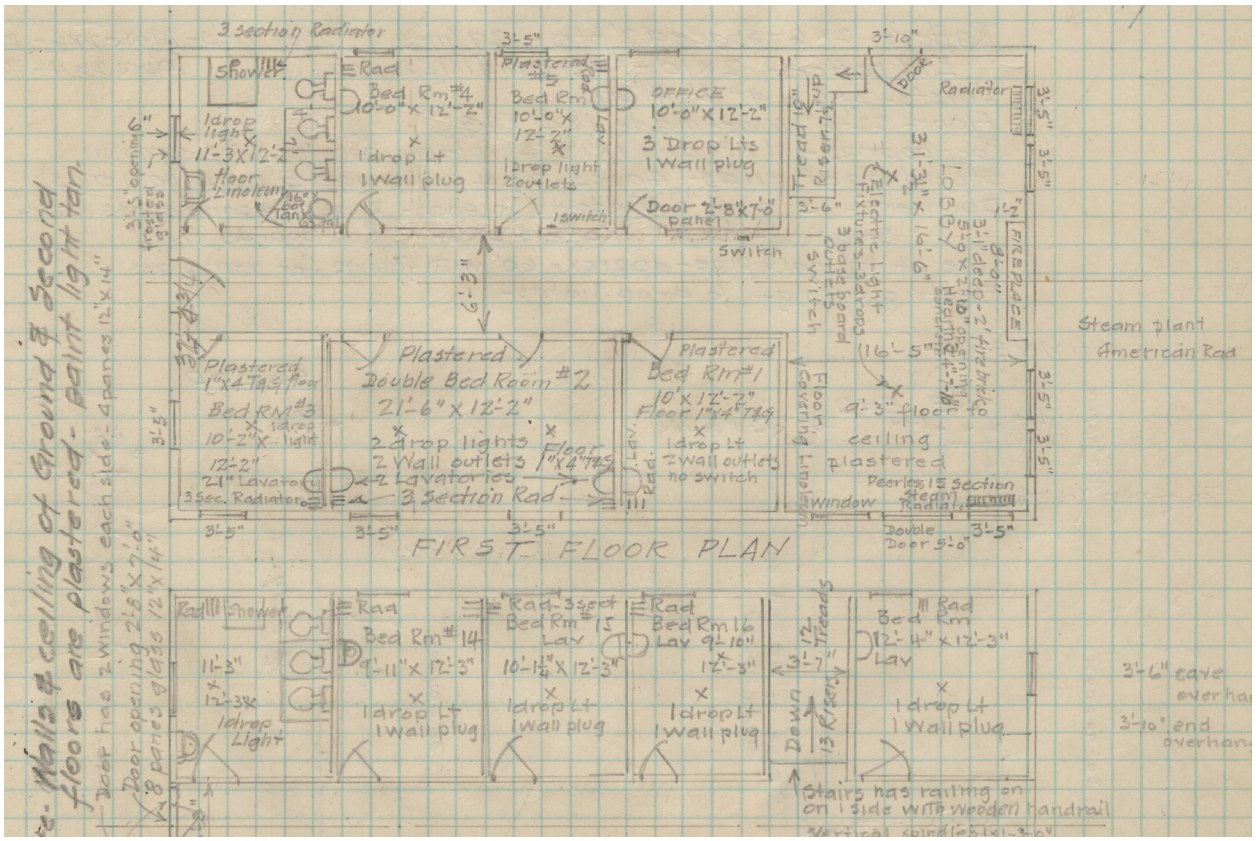


Figure 1B.13: First-floor plan drawing of the Guest House, May 20, 1936 (Source: Isle Royale National Park Resource Management Records, 001.03-010--Rock Harbor Lodge Appraisal Records--Sheet 7 page 13--Guest House--5.20.36, Acc. No. ISRO-00614 Cat. No. ISRO 111 Coll. No. 00001, Box No. 5).

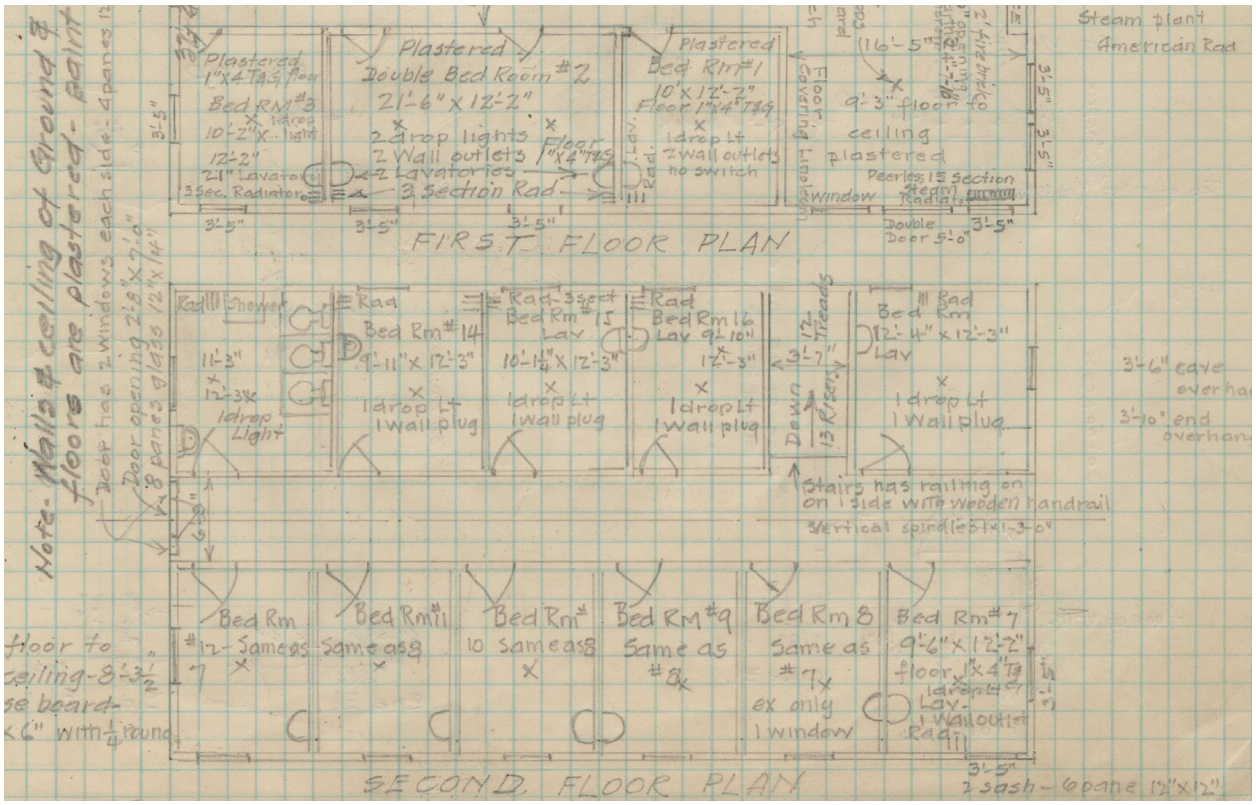


Figure 1B.14: Second-floor plan drawing of the Guest House, May 20, 1936 (Source: Isle Royale National Park Resource Management Records, 001.03-010--Rock Harbor Lodge Appraisal Records--Sheet 7 page 13--Guest House--5.20.36 Acc. No. ISRO-00614 Cat. No. ISRO 111 Coll. No. 00001, Box No. 5).

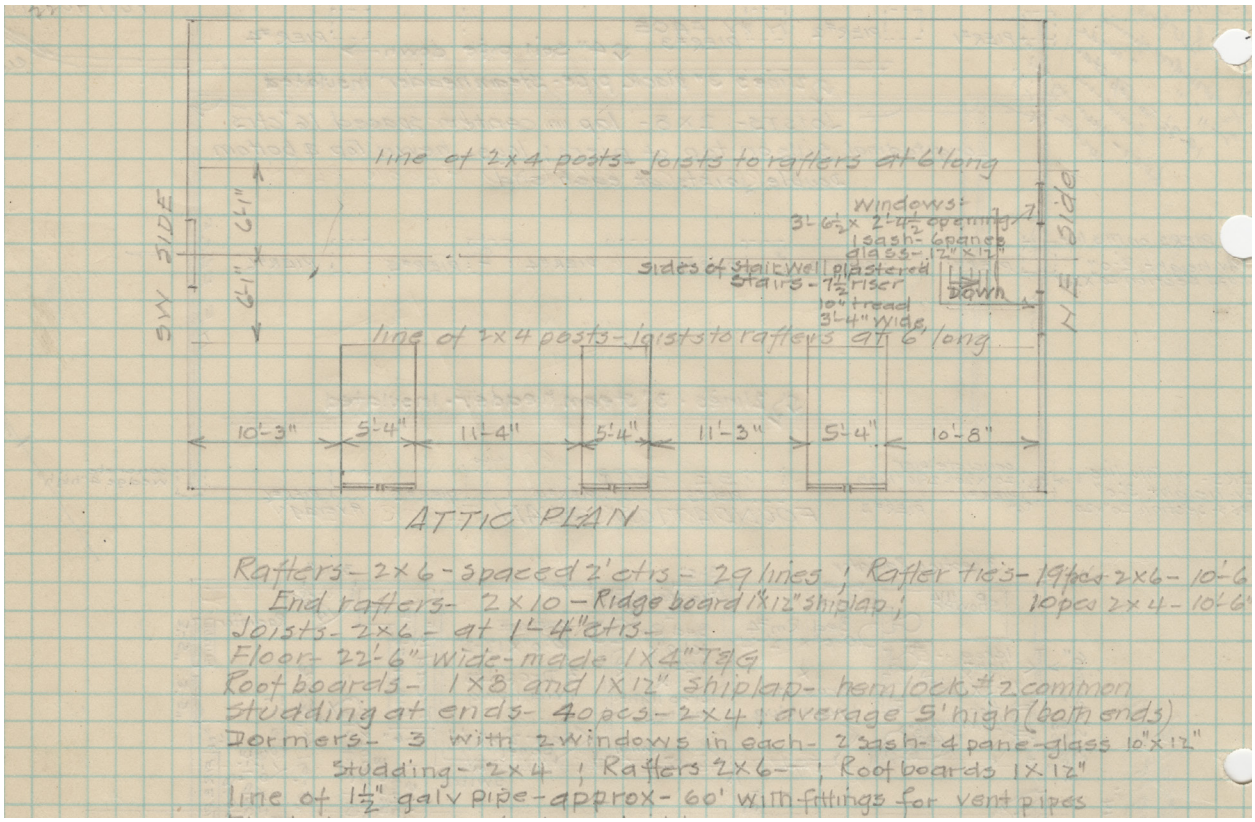


Figure 1B.15: Attic plan drawing of the Guest House, May 20, 1936 (Source: Isle Royale National park Resource Management Records, 001.03-010--Rock Harbor Lodge Appraisal Records--Sheet 7 page 14--Rock Harbor Lodge [Guest House]--5.20.36 Acc. No. ISRO-00614 Cat. No. ISRO 111 Coll. No. 00001, Box No. 5).

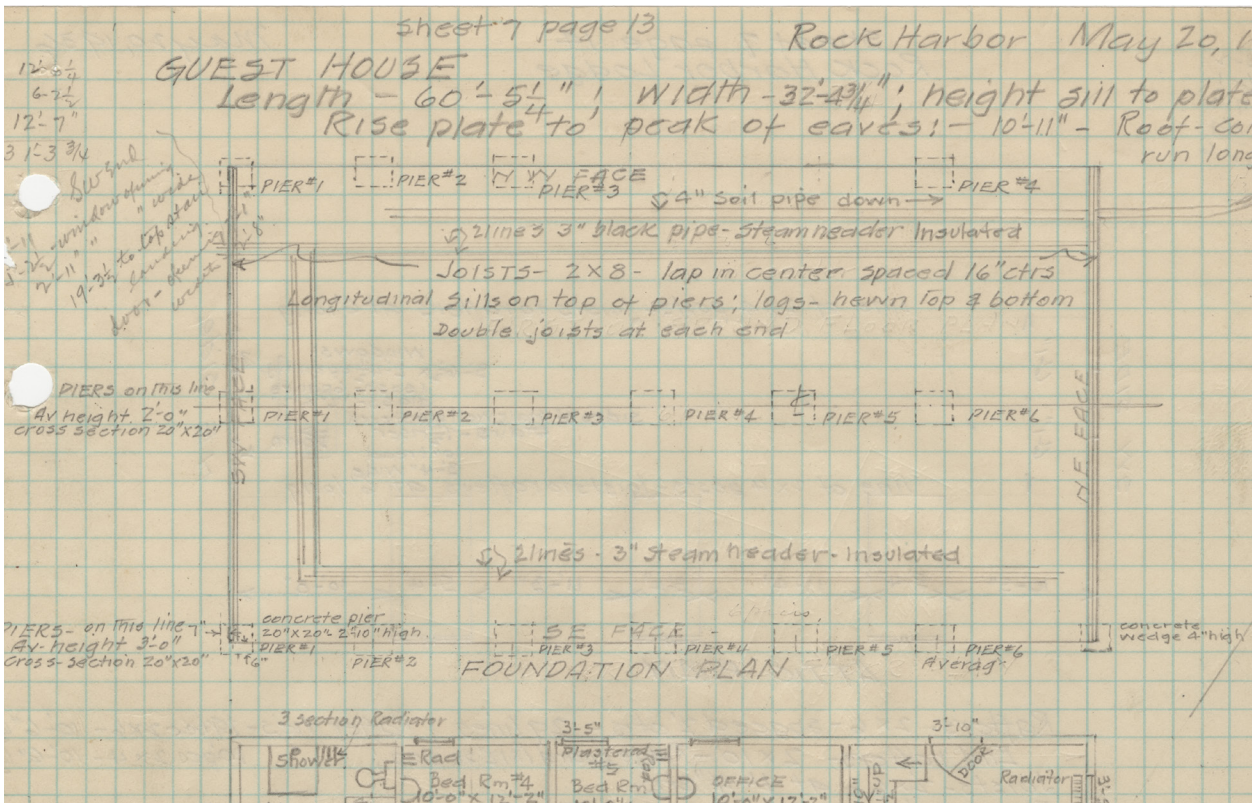


Figure 1B.16: Foundation plan drawing of the Guest House, May 20, 1936 (Source: Isle Royale National Park Resource Management Records, 001.03-010--Rock Harbor Lodge Appraisal Records--Sheet 7 page 13--Rock Harbor Lodge [Guest House]--5.20.36 Acc. No. ISRO-00614 Cat. No. ISRO 111 Coll. No. 00001, Box No. 5).

office are all equipped with a sink and radiator, with the double bedroom having two of each. The single bedrooms have one droplight and one to two outlets, while the double bedroom has two of each. The office is shown to have three droplights. The bathroom is shown to have three toilets, one sink, one shower, a small closet with a water tank, and a radiator. All windows on the first-floor appear to match their present locations.

The second floor appears to match its present configuration, with only a few minor changes (Figure B.14). The current fire door at the northeast end of the second-floor corridor did not originally exist, but it appears to have been an open threshold. There is an exterior door with sidelights on the southwest end of the corridor that opens onto a balcony, similar to current conditions though the door has been replaced. There are five rooms on the northwest side of the corridor, and six rooms on the southeast side of the corridor. The five rooms on the northwest side (from left to right) include the bathroom and four bedrooms. The six rooms on the southeast side include six bedrooms. The bedrooms all have a sink, radiator, one drop light, and one wall outlet. The bathroom has three toilets, one sink, one shower, and a radiator. All windows on the second floor appear to match their present locations.

The stairs to the attic and the adjacent storage closet are not present on the second-floor plans. However, the attic plans show the stairs, which appear to reflect their current location and configuration (Figure B.15). These floor plans indicate that the attic level was an open space, with no built-in storage closets. The foundation plans indicate that there were six foundation piers running southwest to northeast under the southeast face of the building, six foundation piers running southwest to northeast under the center axis of the building, and four foundation piers running southwest to northeast under the northwest face of the building (Figure B.16). All foundation piers are made of concrete and measure 20” x 20”. A sketch of the building and the site shows a deck that wraps around from the lobby entrance on the northeast face of the building to the double entrance on the southeast face (Figure B.17). The sketch does not show the balcony on the southwest elevation, which is present in historic photographs.

Despite the frustrations of the landowners on Isle Royale and the sometimes tense negotiations between different parties, government acquisition continued, and by 1940 the federal government owned all of Isle Royale. Research has not uncovered the exact date of the sale, or the amount the NPS awarded Mrs. Farmer for Rock Harbor Lodge. However, the NPS did grant Mrs. Farmer a concessioner contract and special use permit for Rock Harbor Lodge in 1938, which continued to serve as a place of accommodation for visitors to the island (this suggests that the NPS successfully purchased the property in 1938). In addition to Rock Harbor Lodge, the NPS also awarded Mrs. Farmer the concessioner contracts for the Belle Isle Resort, the new Windigo Inn at the old Washington Club, and a store on Mott Island.[46]

End of Bertha Farmer’s Management of Rock harbor Lodge

Quickly, though, the relationship between Mrs. Farmer and the National Park Service began to sour. Mrs. Farmer’s management style was not what NPS employees and officials were accustomed to. As described by Little, Farmer “had traditionally run her operation in a warm and casual manner that had won the affection and respect of a small number of guests. This very quality that produced loyalty among guests of Rock Harbor Lodge led to difficulties with federal agents who expected a more businesslike management.”[47] From Mrs. Farmer’s perspective, she became frustrated with how the National Park Service chose to (or chose not to) advertise the park. According to Franks and Alanen, Mrs. Farmer was “disappointed in the unwillingness of the Park Service to promote Isle Royale, as she had hoped it would become a park that would rank among Yellowstone or Yosemite.”[48] Little cites one instance of conflict between Mrs. Farmer and George Baggley, the representative-in-charge for the National Park Service. According to Little, Mrs. Farmer was hoping to promote Isle Royale

46. Little, “Island Wilderness: A History of Isle Royale National Park,” 150–51.
47. Little, “Island Wilderness: A History of Isle Royale National Park,” 150.
48. Franks and Alanen, “Historic Structures at Isle Royale National Park, Historic Contexts and Associated Property Types,” 116–117.

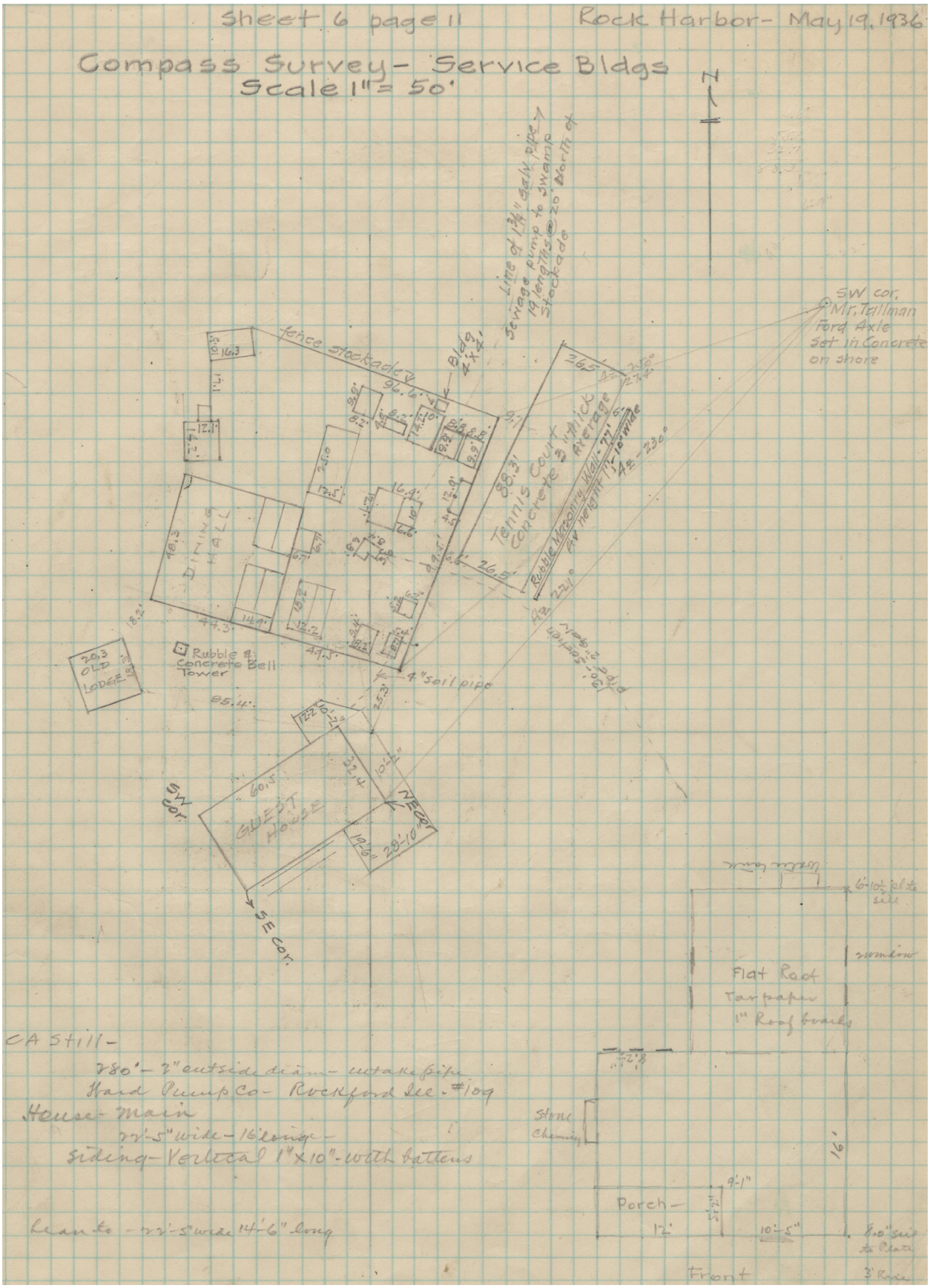


Figure 1B.17: Site plan drawing of Rock Habor Lodge and the Guest House, May 19, 1936 (Source: Isle Royale National Park Resource Management Records, 001.03-010--Rock Harbor Lodge Appraisal Records--Sheet 6 page 11--Compass Survey Service Buildings--5.19.36 Acc. No. ISRO-00614 Cat. No. ISRO 111 Coll. No. 00001, Box No. 5).

at the 1938 Chicago World's Fair, which Baggley discouraged. Apparently, Baggley felt the logistical challenges of getting to and from Isle Royale would not be able to accommodate larger numbers of tourists, and he questioned Farmer's ability to host large numbers of visitors.[49]

Baggley's concerns about Mrs. Farmer's aptitude were one of the primary sources of tension in their relationship. Little notes that Baggley "favored a more institutional and less personal approach" to his work at Isle Royale, and he found Mrs. Farmer's more informal disposition and methods very concerning.[50] Eventually, Baggley requested that superiors from the National Park Service come investigate Mrs. Farmer's management. The Park Service sent E.C. Eccleston, who toured the properties managed by Mrs. Farmer. Eccleston's findings indicated that management under Mrs. Farmer was poor, and there were multiple instances where Mrs. Farmer failed to provide guests with sufficient food, and the meals that Farmer did manage to provide were of poor quality. Additionally, Eccleston found that Mrs. Farmer "had violated minimum wage and hours laws. . .arranged subcontract agreements without Park Service approval," offered guests inconsistent lodging rates, and failed to properly maintain government equipment.[51] Although Eccleston was sympathetic to Mrs. Farmer and even found her to be a "charming hostess," his findings confirmed Baggley's frustrations, and the Park Service made the decision not to renew Mrs. Farmer's contract in 1942.[52]

Mrs. Farmer's fears about the fate of the building were not unfounded. In 1941, the NPS produced a new site plan of Rock Harbor Lodge as part of a larger Master Plan for the Isle Royale National Park. This 1941 site plan shows a new Lodge building where the Guest House is located (Figure B.18). A small, hyphenated rectangle indicates the footprint of the Guest House. Despite the NPS's planning efforts in the early 1940s, the NPS made few significant changes to the Rock Harbor Lodge landscape during that period. Although the NPS did make some improvements to individual buildings and upgrade utility infrastructures on the island, the overall character of the landscape remained relatively unchanged. Based on evidence visible in 1930s photographs, it appears that vegetation patterns, spatial orientation, building arrangement, and circulation systems were left in place.

Management Under National Park Concessions, Inc.

After Mrs. Farmer's departure, the NPS awarded the concessioner contract for the facilities on Isle Royale to National Park Concessions, Inc., out of Kentucky. The new concessioner made several important changes to the management of the Isle Royale facilities, including several at Rock Harbor Lodge. Improvements instituted by National Park Concessions, Inc. included "new kitchen and power generating equipment, repairs to the guest cabins, a small boat dock, and needed work on the deep water dock."[53] The Guest House was also subject to a series of remodels and updates during the 1940s.

NPS Documentation of Guest House in 1947

A 1947 survey of the building indicates that the first-floor guest room on the southeast side of the corridor, directly adjacent to the lobby, was removed in 1943 to expand the lobby space. This room is outlined in red on the floor plans included with the survey (Figure B.19). Aside from the expansion of the lobby and the removal of the adjacent guest bedroom, these floorplans indicate that very little had changed since the set of floorplans produced in 1936. However, one notable change is that the former office space is now listed as a guest bedroom. The first-floor double room is also still intact at this time.[54]

49. Little, "Island Wilderness: A History of Isle Royale National Park," 146.
50. Little, "Island Wilderness: A History of Isle Royale National Park," 150.
51. Little, "Island Wilderness: A History of Isle Royale National Park," 152.
52. Little, "Island Wilderness: A History of Isle Royale National Park," 151–152.
53. Little, "Island Wilderness: A History of Isle Royale National Park," 153.
54. "Survey of Guest House for Visitors" (National Park Service, U.S. Department of the Interior, October 31, 1947), Isle Royale National Park Resource Management Records.

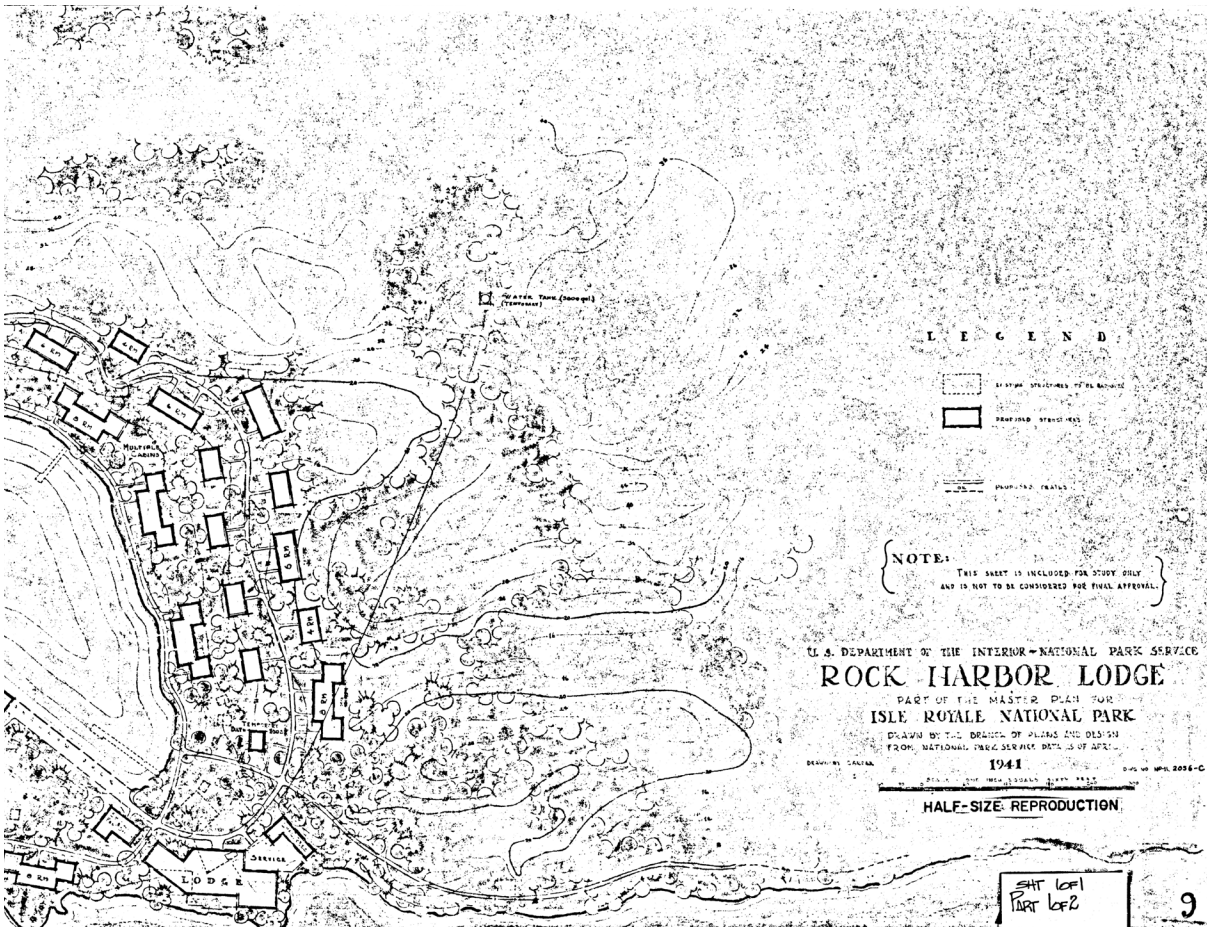


Figure 1B.18: 1941 Site Plan, produced by the National Park Service as part of a Master Plan for Rock Harbor Lodge; the new lodge building and footprint of the Guest House are located in the bottom right corner (Source: NPS, ISRO Archives, eTIC 22852-ISRO_139_2056_C).

According to the 1947 survey, the NPS used "regular park funds" to complete the remodel of the Guest House.[55] Use of the Guest House was supposed to be temporary, and the NPS only intended to use the building until they constructed a new lodge at the site. Additional notes in the survey indicate that the building was a wood-framed structure situated on masonry piers, with a drop siding exterior and asphalt roll roof. The survey describes the interior walls as "Wall board and cold water paint" with "2x4 studding."[56] The ceilings were plaster, and the floors were a combination of tongue and groove wood and linoleum. The survey notes that the concessioner painted the building's exterior white with green trim in 1947.[57]

The survey also outlines different mechanical systems in the building, including sanitary, heating, and electrical systems. At the time of the survey, sanitary systems included "6 toilets, 18 lavatories," and the concessioner spent $1,710 to install a new septic tank in 1946.[58] Heating systems in the building consisted of twenty-one radiators, and "Heat is furnished by a hot water boiler located outside the building."[59] The survey notes, however, that the existing heating system was inadequate and struggled to heat the building. A 63-gallon hot water tank provides hot water for the building. Electrical systems included "Lights and convenience outlets."[60] Fire safety systems were limited to hand extinguishers, and the building did not have a sprinkler system. The survey notes that a hose box and hydrant are located approximately 150 feet away from the building, and the addition

55. "Survey of Guest House for Visitors."
56. "Survey of Guest House for Visitors."
57. "Survey of Guest House for Visitors."
58. "Survey of Guest House for Visitors."
59. "Survey of Guest House for Visitors."
60. "Survey of Guest House for Visitors."

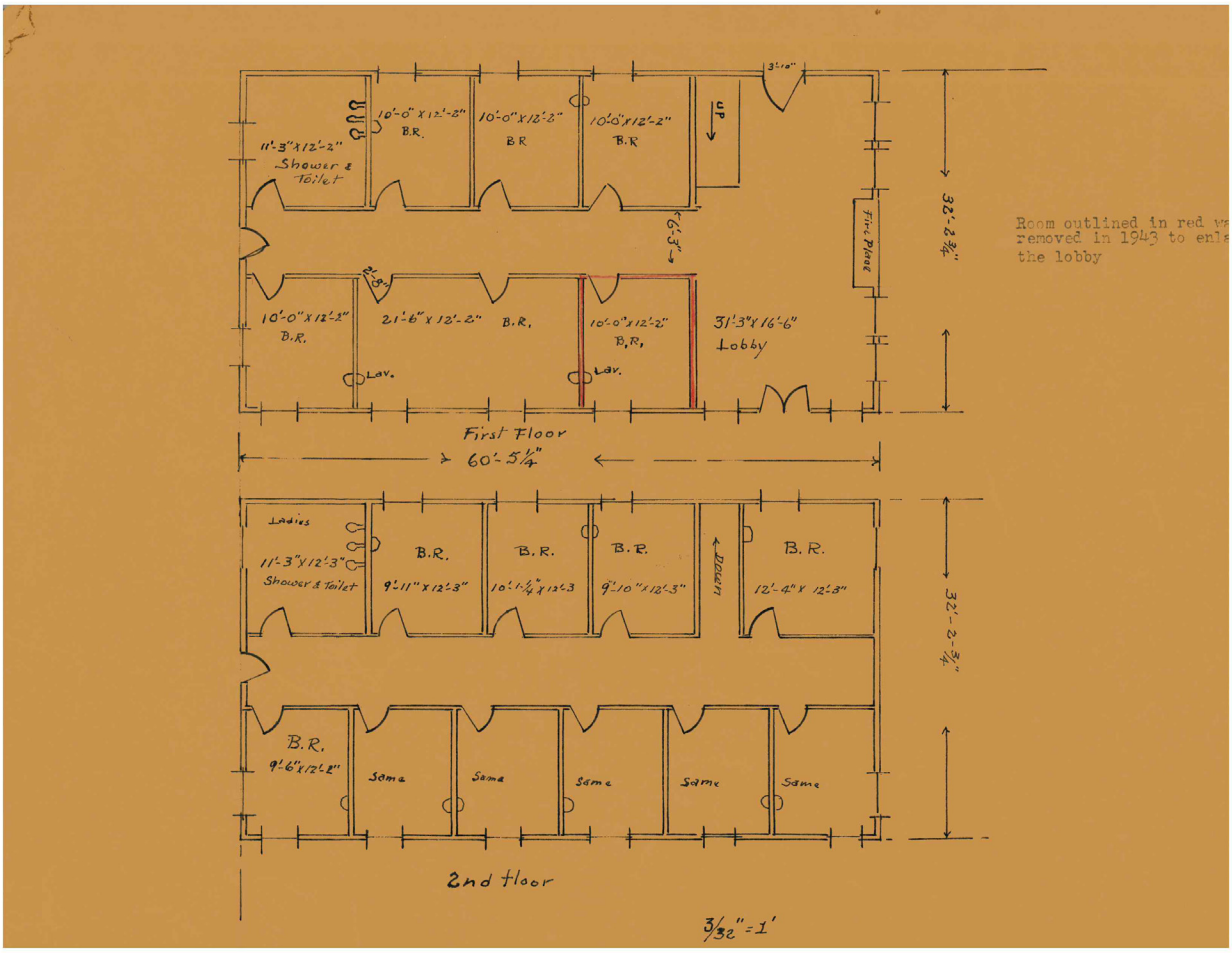


Figure 1B.19: Floor plan included in the 1947 Survey of the Rock Harbor Guest House (Source: ISRO Archives).

of these features inside the building would be "an improvement, however, the main water supply is not sufficient for adequate protection needs."[61] In general, though, the survey describes the structural and mechanical systems of the building as "Fair."[62]

NPS Master Plan Concepts

Despite the recent remodel, the NPS continued to consider options that involved demolishing the Guest House. In 1949 a site plan of Rock Harbor Lodge, again "Part of the Master Plan, Isle Royale National Park," shows a rendering of Rock Harbor Lodge that is absent the Guest House (Figure B.20). This site plan shows a new lodge building, northeast of where the Guest House is located.

National Park Concessions, Inc. continued to operate the property through the early 1950s. Franks and Alanen note that the company encountered the same problems that frustrated Mrs. Farmer, and "the concessionaire was not able to manage the three operations profitably."[63] In order to mitigate financial losses, the NPS and the concessioner closed the Belle Isle and Windigo facilities. However, Rock Harbor Lodge continued to operate at a loss and the concessioner attempt to end its contract in 1953.[64] A timeline provided in the 2021 Cultural Landscape Inventory Report of the Rock Harbor Lodge Historic District indicates that the concessioner contract with National Park Concessions, Inc. was terminated in 1953.[65] However, Little asserts that the NPS successfully persuaded the company to stay, based "on the promise that greater efforts would be made to

61. "Survey of Guest House for Visitors."
62. "Survey of Guest House for Visitors."
63. Franks and Alanen, "Historic Structures at Isle Royale National Park," 117.
64. Franks and Alanen, "Historic Structures at Isle Royale National Park," 117.
65. "Cultural Landscape Inventory, Rock Harbor Lodge Historic District, Isle Royale National Park," 2002, 37.

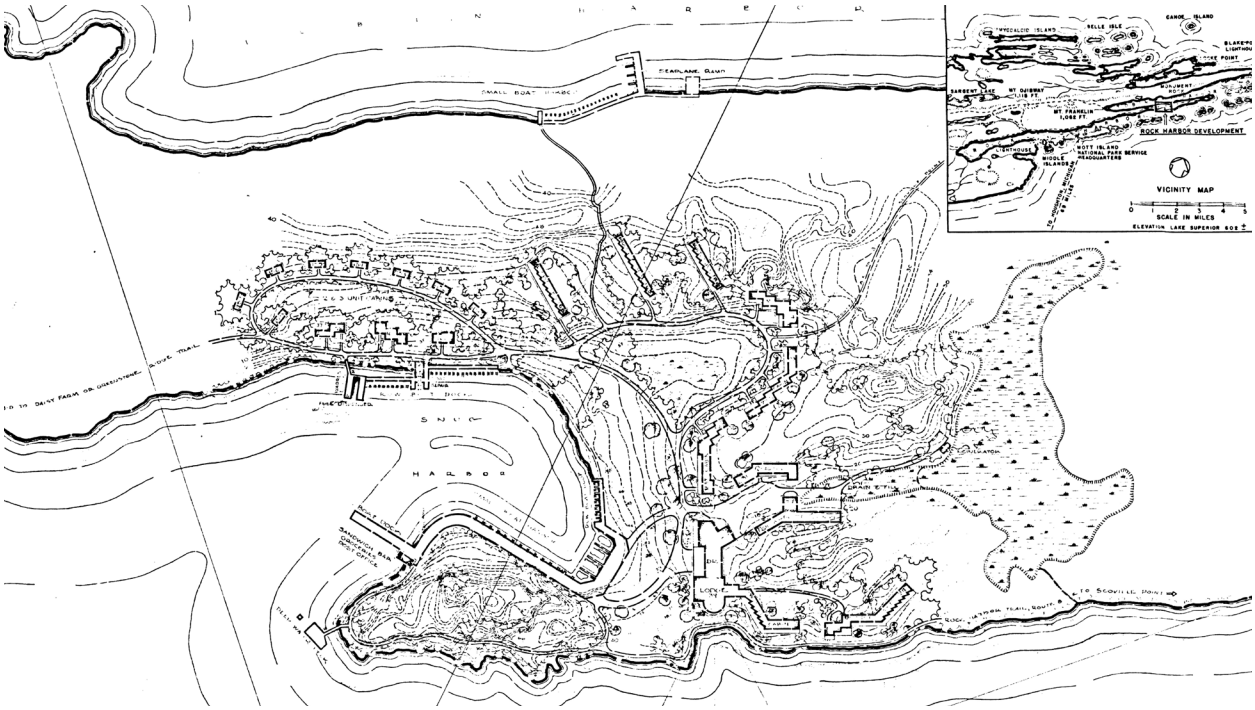


Figure 1B.20: 1949 Site Plan, produced by the National Park Service as Part of the Master Plan for Isle Royale; the Guest House is not depicted on the rendering (Source: NPS, ISRO Archives, eTIC 1057971-ISRO_139_2056_E).

bring more people to the island."[66] Research has not located any other secondary sources have that confirm this fact, but Little cites multiple NPS Superintendent records and correspondence between NPS employees.[67]

Mission 66 Era

In 1953 writer Bernard DeVoto wrote an article for *Harper's Magazine*, lamenting the state of the National Parks he visited out west. DeVoto brought attention to the fact that visitor numbers in several western parks doubled their intended capacities, which "resulted in a rapid deterioration of the roads and buildings as well as much of scenic, scientific, and historical areas."[68] DeVoto also noted a general decline in staff morale, hastening existing issues, and his work helped bring attention to the pressing needs for improvement within the National Park System. Capitalizing on the momentum created by DeVoto's writing, NPS Director Conrad L. Wirth proposed a new initiative to improve the parks in 1955. Commonly referred to as the Mission 66 Program, Conrad proposed a ten-year improvement plan that would culminate in 1966, coinciding with the 50th anniversary of the National Park Service. Aided by the support of President Eisenhower, the Mission 66 Program received over one billion dollars in funding, with over three million dollars allotted to Isle Royale. The NPS made a number of important changes at Rock Harbor Lodge, including the addition of twenty "housekeeping cabins," four new multiple cabin units, and several important infrastructure improvements.[69]

Mission 66 era Completion Reports held at the Isle Royale National Park archives indicate that the NPS painted the Rock Harbor Lodge Guest House a dark color in 1956. According to records, the "Old Rock Harbor Lodge building exterior [was] painted in September 1956 to harmonize with new structures."[70] A black and white photograph included in the Complete Report shows the Guest House painted a dark color, possibly brown (Figure B.21). Apart from painting the exterior, however,

66. Little, "Island Wilderness: A History of Isle Royale National Park," 154.
67. Little, "Island Wilderness: A History of Isle Royale National Park," 154.
68. Little, "Island Wilderness: A History of Isle Royale National Park," 157.
69. Little, "Island Wilderness: A History of Isle Royale National Park," 157–60.
70. See ISRO Archives Box 25, Series 003, Acc. No. ISRO-00614 Cat. No. ISRO 111, Coll. No. 00001., Construction Project Completion Reports, 1956.



Figure 1B.21: 1956 Completion Report photograph showing the Rock Harbor Lodge Guest House painted a dark color, possibly brown (Source: NPS, ISRO Archives, Archives Box 25, Series 003, Acc. No. ISRO-00614 Cat. No. ISRO 111, Coll. No. 00001).

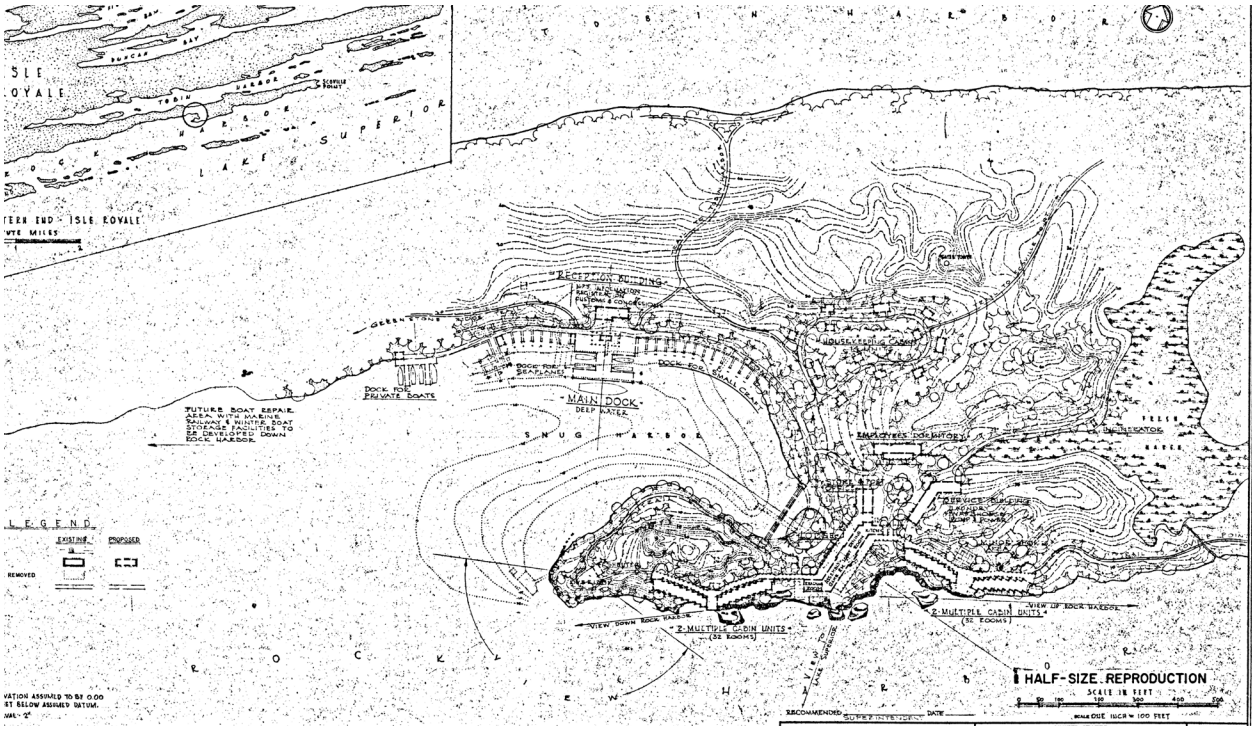


Figure 1B.22: 1955 Site Plan of Rock Harbor (Source: NPS, ISRO Archives, eTIC 1057972-ISRO_139_2056_F).

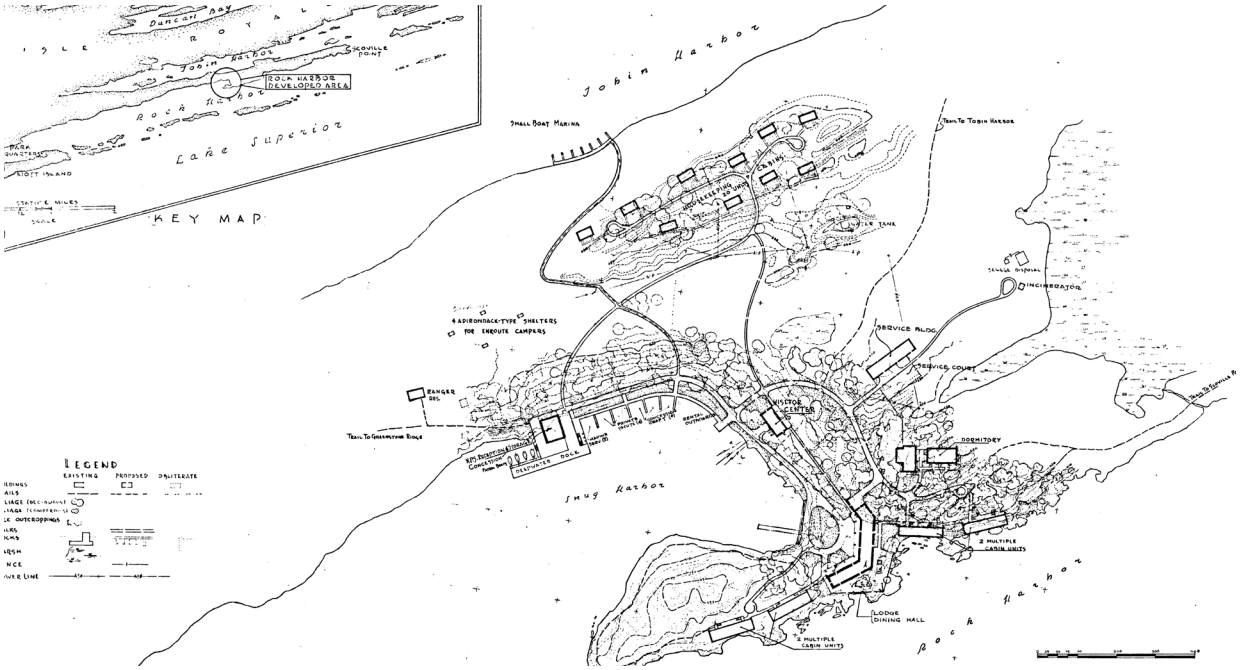


Figure 1B.23: 1958 Site Plan of Rock Harbor (Source: NPS, ISRO Archives, eTIC 1057974-ISRO_139_2056_H).

the NPS did not make any substantial changes to the Guest House building during the Mission 66 era. However, there were substantial changes made to the overall landscape of Rock Harbor and the Guest House's setting.

During the duration of the Mission 66 program, lasting from 1955 to 1966, the NPS transformed the greater Rock Harbor Landscape. The NPS constructed several new buildings, installed a new circulation network, and constructed a new dock system on Snug Harbor. While some features of the former landscape remained, the NPS changed the overall character of the landscape in a way that was reflective of the Mission 66 era.

There are numerous prospective site plans dating to the Mission 66 era that proposed major changes to Rock Harbor Lodge, including plans recommending the demolition of the Guest House. A 1955 site plan of the "Rock Harbor Developed Area" shows a drastically transformed version of Rock Harbor Lodge, with several new buildings and circulation features. The plans do not illustrate the Guest House, suggesting that the NPS was proposing demolition (Figure B.22). A 1958 site plan shows a new Lodge and Dining Hall building that overlaps with the location of the Guest House (Figure B.23). This plan also features the four new multiple cabin units that the NPS built soon after (Chippewa, Saginaw, Nokomia, and Gibway), as well as several new circulation features. Later site plan maps drafted in 1960 and 1963 reproduce these elements (Figure B.24 and Figure B.25).

1958 Mission 66 site plan makes it clear that the NPS had no intention of preserving the existing buildings at Rock Harbor. The plan depicts the footprints of historic buildings in dashed lines. According to the plan's legend, this indicates that the NPS planned to demolish these buildings. All of the remaining private cottages on the west side of the harbor were slated for removal, as well as all of the buildings associated with Rock Harbor Lodge, including the cabins, Dining Room, and Guest House. Research did not reveal when the NPS removed the historic cabins, and it is possible that their removal occurred over a multi-year period.

The Isle Royale National Park archives contains construction records that allude to building demolition. One example is a completion report that references "demolition of undesirable struct. [sic]," dated to July 1962. A narrative description of the trail building project to reach the Nokomis and Gibway cabins includes the comment that "The construction of the trails consisted of preparation of site by removing several old frame buildings with

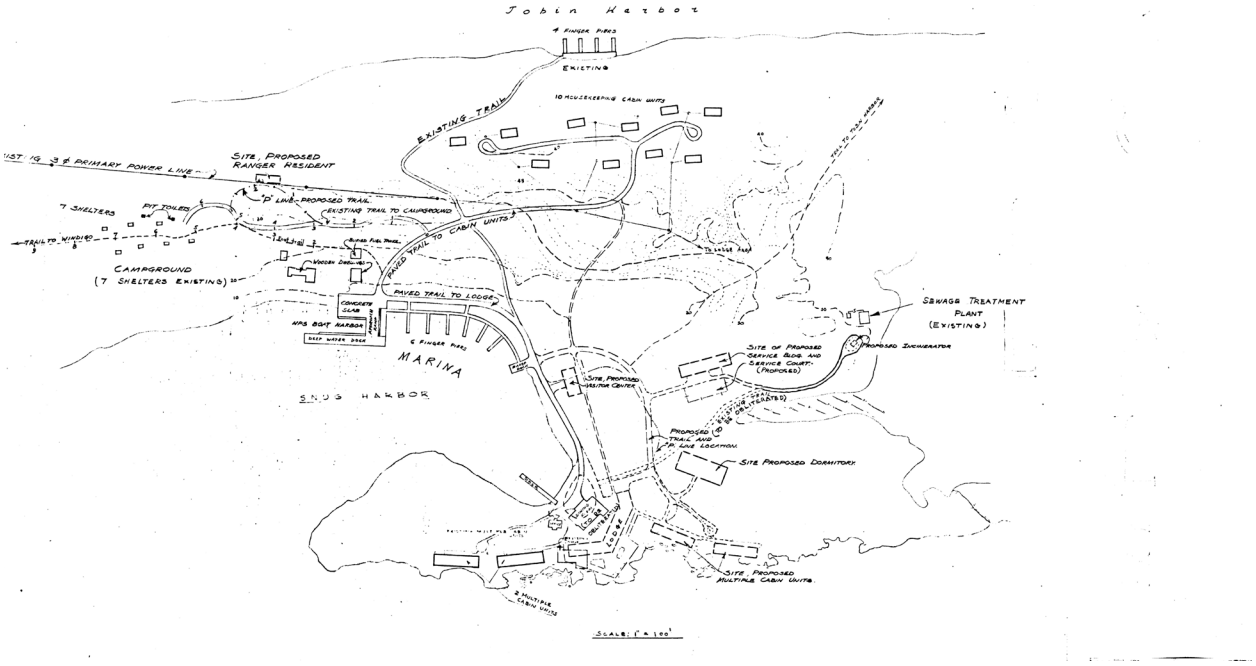


Figure 1B.24: 1960 Site Plan of Rock Harbor (Source: NPS, ISRO Archives, eTIC 1058204-ISRO_139_3035).

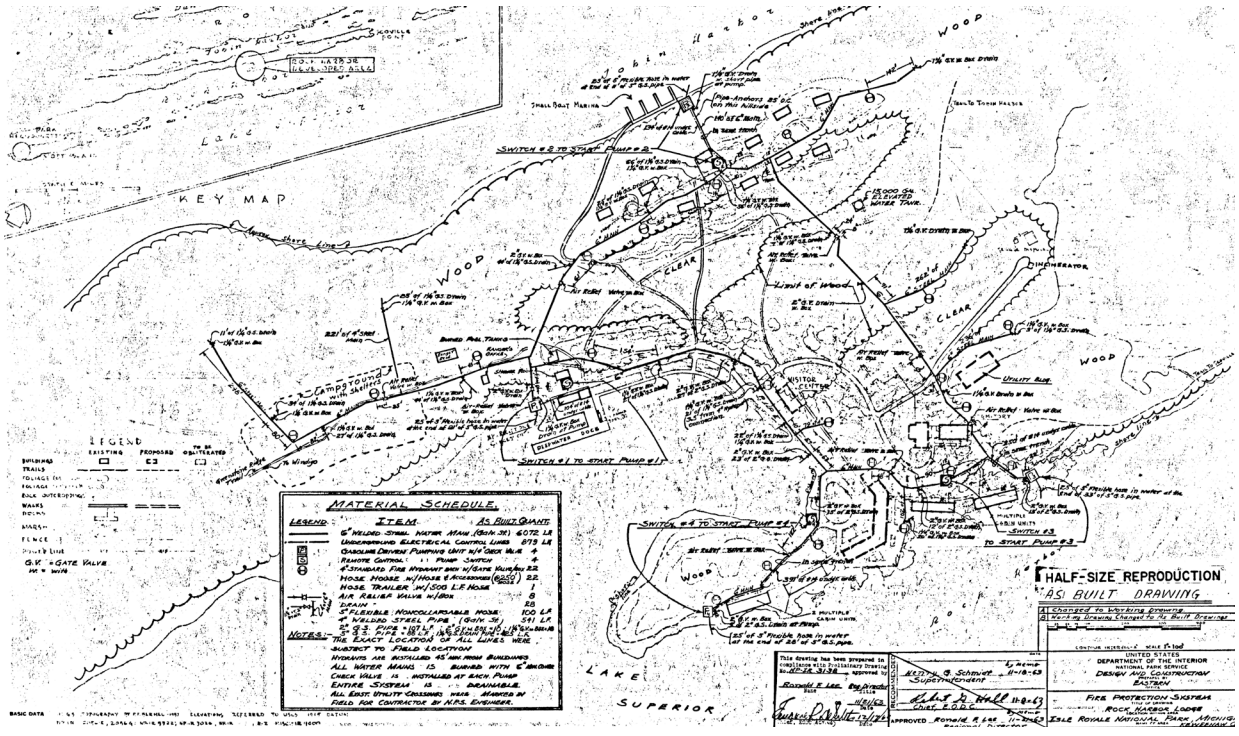


Figure 1B.25: 1963 Site Plan of Rock Harbor (Source: NPS, ISRO Archives, eTIC 63032-ISRO_139_3138_B).

their foundation."[71] It appears that a few of the historic buildings remained on site based on their ownership status, but the NPS removed most of the historic buildings in their possession during the Mission 66 period. The few buildings that survived this period included a few cottages still privately owned, as well as a few of the historic Rock Harbor Lodge buildings, including the Guest House and Dining Room.[72]

For a more detailed history of changes made to the larger Rock Harbor landscape, refer to Appendix F: History and Analysis of Rock Harbor Lodge Landscape.

Post-Mission 66, to Present

An undated timeline of maintenance projects at the Guest House indicates that the building continued to house guests through the early 1970s. Sometime during the early 1970s, the concessioner converted the Guest House to staff housing (research has not uncovered an exact date of this conversion). The timeline also noted that after the concessioner converted the Guest House to staff housing, the second floor was deemed "unsafe" and subsequently used for storage space.[73]

NPS Condition Assessments and Surveys of Guest House

On June 13, 1975, Michael G. Healy completed an "Individual Building Data" form for the National Park Service. According to this form, the interior ceilings had painted Celotex on them, likely fixed to the original plaster ceilings using an adhesive. Other interior elements appear to have remained unchanged since the 1947 Survey, including the interior floors, which remained a combination of wood and linoleum in the 1970s. The exterior materials of the building also appear to have changed very little between the 1940s and 1970s. Like the 1947 survey, the 1975 form indicates that the exterior walls remained drop siding, the roof consisted of asphalt roll, the building had a concrete pier foundation. The 1975 form notes that the "Building has [a] coal fired heater which is not presently used," and describes the mechanical conditions of the building as "Poor."[74] Addressing the fire safety systems of the building, the 1975 form notes that there was one fire hydrant with a distance of 70 feet. It is unclear if the distance of 70 feet is in reference to the hydrant's distance from the building or the length of the hose. The form also does not indicate the location of the hydrant. The form also notes that there are hand extinguishers with CO_2 and chemical fire suppressants.[75]

In August of 1975 Jane A. McLuckie completed a "Building Structure Inventory Form" for the Michigan History Division of the Michigan Department of State. This form included floorplans, which show several important changes from those produced during the 1947 Survey (Figure B.26 and Figure B.27). The 1975 floor plans indicate that the lobby expansion was reversed, and the borrowed space was converted back to a guest bedroom. Additionally, the double room is shown to have a dividing wall separating the two halves. The dividing wall appears to have a doorway or threshold that provided the two rooms with access to one another. Apart from these changes, the overall floor plan of the Guest House appears to have remained unchanged. The form notes that the overall condition of the building is "Fair," and the most notable threat to the building was "deterioration."[76] Pictures included with this form indicate that the building had been painted a dark color (likely brown) by this time.[77]

In 1981 structural engineer Richard Ohmstede completed a "Structural Inspection Report" for several buildings on Isle Royale, including the Rock Harbor Lodge Guest House. Ohmstede notes that at the time of the report, the concessioner used the Guest House as a staff dormitory. Ohmstede's findings indicate that the building was facing

71. The project reports are located in Box 25, Series 003 Central Files, Acc. No. ISRO-00614 Cat. No. ISRO 111, Coll. No. 00001.
72. The Isle Royale National Park archives contains a photograph of the Langworthy cottage from 1966. The building was in very poor condition at that time. The Langworthy family retained a life lease on the property, which they voluntarily relinquished and turned the property over to the NPS in 1978.
73. "Guest House Timeline" (National Park Service, U.S. Department of the Interior, n.d.), Isle Royale National Park Resource Management Records.
74. Michael G. Healy, "Individual Building Data" (National Park Service, U.S. Department of the Interior, June 13, 1975), Isle Royale National Park Resource Management Records.
75. Healy, "Individual Building Data."
76. Jane A. McLuckie, "Building - Structure Inventory Form" (Michigan History Division, Michigan Department of State, August 1975), Isle Royale National Park Resource Management Records.
77. McLuckie, "Building - Structure Inventory Form."

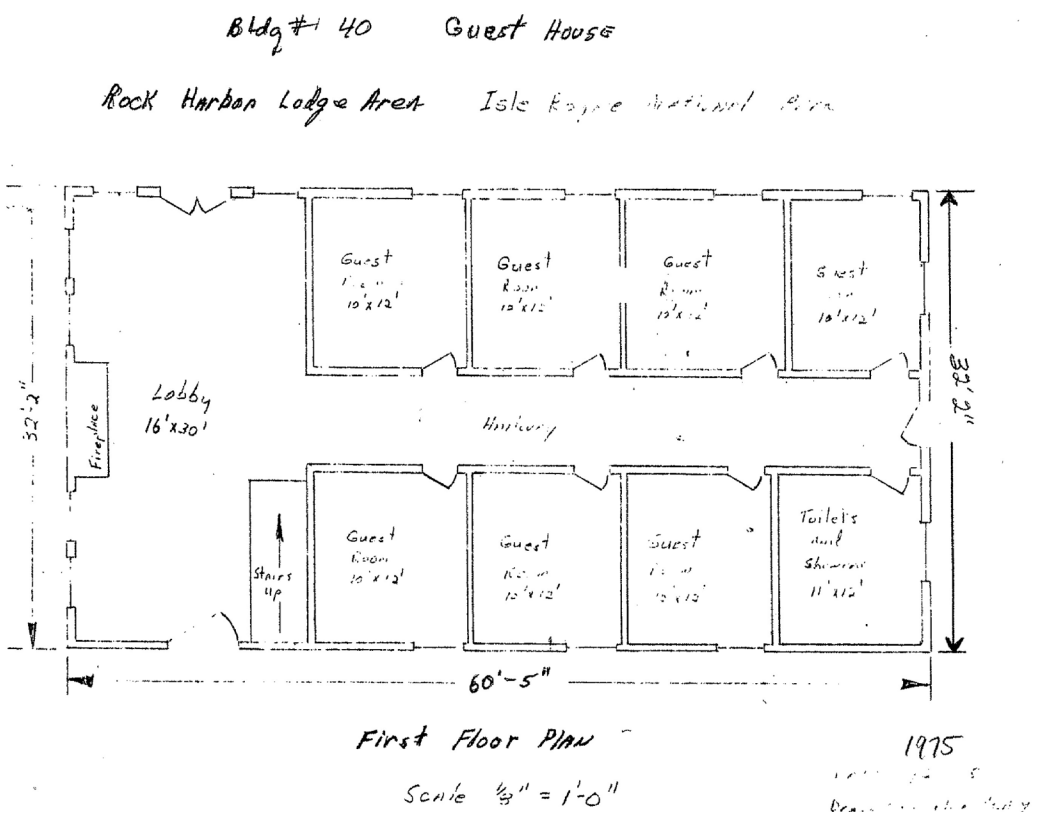


Figure 1B.26: Guest House first - floor plans, 1975 (Source: ISRO Archives, "Building-Structure Inventory Form").

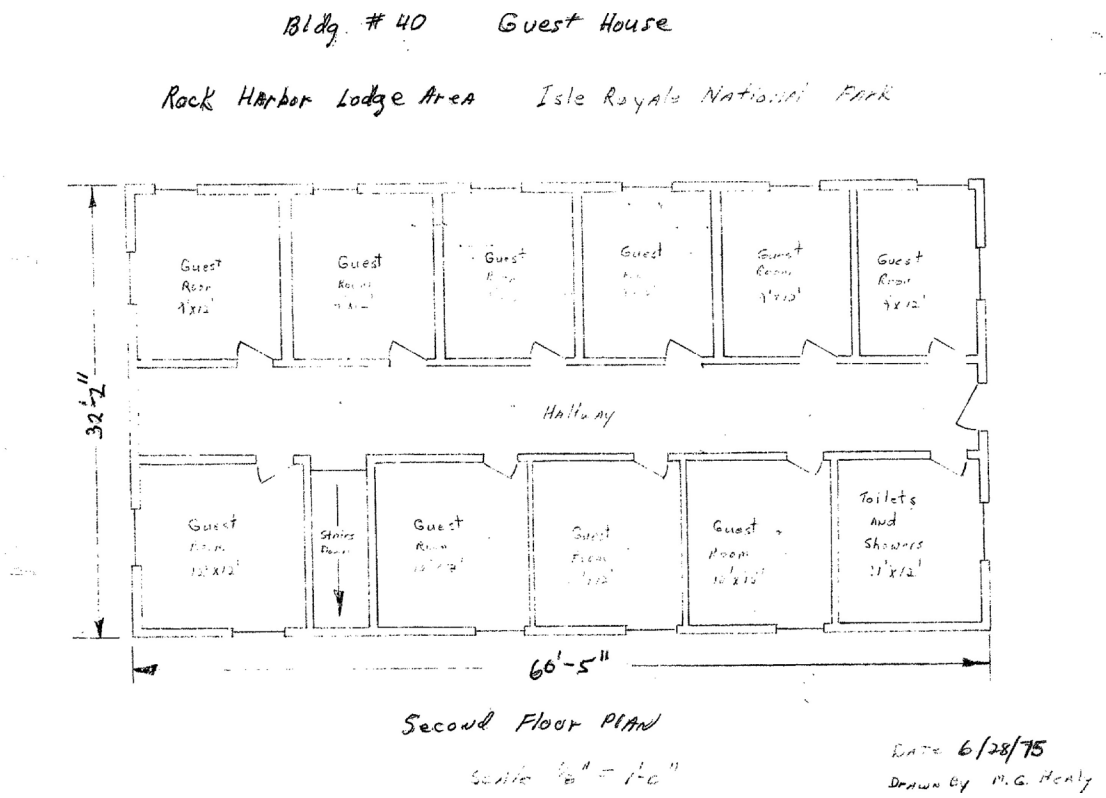


Figure 1B.27: Guest House second - floor plans, 1975 (Source: ISRO Archives, "Building-Structure Inventory Form").

numerous structural issues at this time, primarily related to the poor condition of the building's foundation.[78] Ohmstede's describes the state of the building's foundation as follows:

> The building is supported by 1'-8" square concrete piers. . .The concrete piers bear on solid rock, loose rock, soil, whichever happened to be available at their locations. These piers are not deeply embedded, extending only a few inches into the base material. Over the years the piers have settled, heaved, tilted and fallen, causing problems throughout the structure. Recently a support pier on the backside of the structure was undermined by water erosion, causing the pier to tip over.[79]

The crumbling foundation contributed to several noticeable interior issues, including "uneven floors, sagging structural members, doors that don't fit, and cracked plaster exist throughout the building."[80] Ohmstede also notes that the floor joists in the lobby are likely overloaded, and a previous "attempt to shore these joists by placing logs under the mid-span has been unsuccessful." Ohmstede found that the lobby floor joists were adequate for a "40 lb./sq. ft. live load," which was "less than the value recommended by building codes."[81] Ohmstede records that the wood posts supporting the deck had several structural problems and were unsafe for guests and employees. In addition to being inadequately sized and heavily rotted, the bases of the wood posts were situated directly on top of the rocks, without any positive attachment. Additionally, Ohmstede notes that the building had fire safety issues, with "many obvious shortcomings such as inadequate exits and non-fire rated doors."[82]

In his conclusion, Ohmstede asserts that "Any attempt to correct the foundation problems would be costly and difficult," and "major rehabilitation of the building's interior probably would be required to bring it up to current codes."[83] Ohmstede's report includes simple floor plans for the first and second floors of the Guest House. These plans are virtually identical to those produced in 1975 (Figure B.28). These plans do not represent the party door between the two halves of the former double room, but it was likely still in place.[84]

On November 12, 1981, Michael W. Fees, the Regional Architect for Midwest Region, wrote a letter titled "Clarification of structural inspection report, Isle Royale National Park, Michigan" (it is unclear who this letter was addressed to). In this letter, Fees references an earlier conversation, saying, "As per our conversation, I contacted Structural Engineer Richard Ohmstede, of the Denver Service Center, requesting more information."[85] The additional information included in Fees' letter outlines several specific repairs and maintenance issues for each building, including the Guest House. The letter makes the claim that the Guest House's "structural deterioration eliminates any cost-effective restoration."[86] However, Ohmstede's recommendations are as follows:

> Dismantle existing wood-floor deck and stone fireplace.
>
> Install temporary I-beams under the 8"-diameter log stringers and hydraulically or mechanically raise the entire building. The stringers are spliced at several points along their length, requiring several extra jacks, and there is no guarantee that the building's large mass would remain structurally stable.
>
> Remove existing timber pilings and install 1'-0"-diameter reinforced concrete piers, keyed to solid bedrock.
>
> Inspect log stringers and joists, replace as required.

78. Richcard Ohmstede, "Structural Inspection Report: Rock Harbor Guest House, Brule Lodge at Windigo, Windigo Lodge Office" (Isle Royale National Park, Michigan: Denver Service Center, National Park Service, October 1981), 1, Isle Royale National Park Resource Management Records.
79. Ohmstede, "Structural Inspection Report," 1–2.
80. Ohmstede, "Structural Inspection Report."
81. Ohmstede, "Structural Inspection Report."
82. Ohmstede, "Structural Inspection Report," 2.
83. Ohmstede, "Structural Inspection Report," 3.
84. Ohmstede, "Structural Inspection Report," 5.
85. Michael W. Fees, "Clarification of Structural Inspection Report, Isle Royale National Park, Michigan" (National Park Service, Midwest Region, November 12, 1981), Isle Royale National Park Resource Management Records.
86. Fees, "Clarification of Structural Inspection Report."

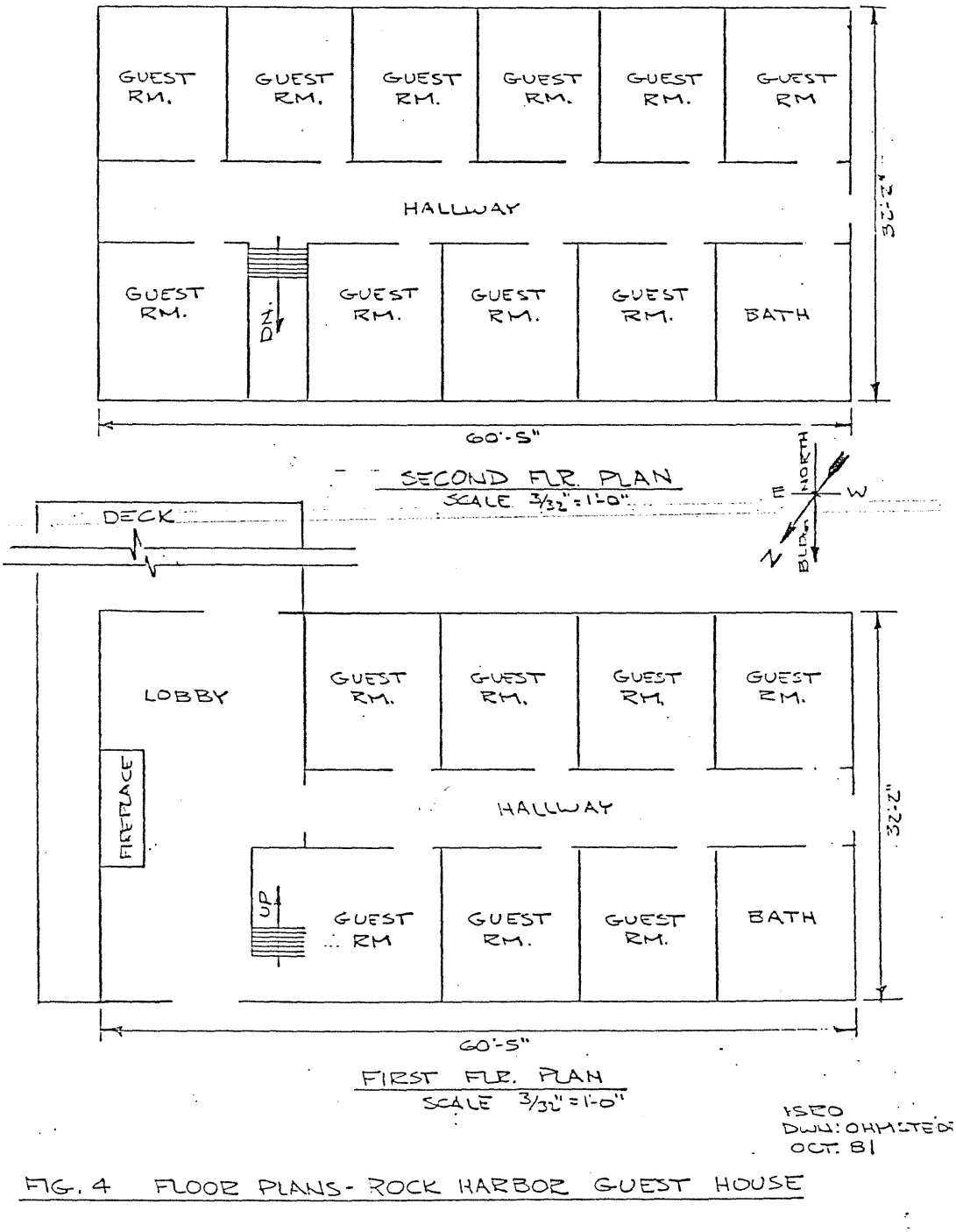


Figure 1B.28: Guest House floor plans of the Guest House by Richard Ohmstede, October 1981 (Source: ISRO Archives, "Structural Inspection Report").

> Lower building and anchor log stringers to pilings. Remove I-beams.
>
> Install new foundations for chimney and deck; reconstruct.
>
> This work should be performed by specialists and the contracted costs are estimated at $80,000 to $100,000 for the structural repairs only.[87]

On February 17, 1982, the Regional Director of the Midwest Region wrote a memorandum to the Superintendent of Isle Royale, on the subject of the "Proposed Demolition of the Rock Harbor Guest House, Brule Lodge, and the Windigo Lodge Office." In the memorandum, the Regional Director (unnamed), says the following: "We are in receipt of Structural Engineer Richard Ohmstede's report and recommendations for the above referenced buildings. While we are in agreement with his proposal to demolish Brule lodge, we have reservations about the demolition of the Rock Harbor Guest House and the Windigo Lodge Office."[88] Although the memorandum acknowledges the "deteriorated condition" of the buildings, "The high cost of construction at Isle Royale and the present lack of adequate funding for new construction will prohibit the replacement of these structures for some length of time," and the isolation of the site would further increase costs.[89] Noting the financial and logistical challenges of constructing new buildings on Isle Royale, the memorandum requests that "further investigations be made to determine the various available alternatives" and more cost-effective options.[90]

A draft of a "Building Data Capsule" produced by Isle Royale National Park in May of 1983 contains information from a second inspection conducted in 1982, while also addressing some of the findings in Ohmstede's 1981 report. The "Center for Architectural Inspection Team," lead by Grant Curtis, conducted the second inspection.

87. Fees, "Clarification of Structural Inspection Report."
88. "Proposed Demolition of the Rock Harbor Guest House, Brule Lodge, and the Windigo Lodge Office" (National Park Service, Midwest Region, February 17, 1982), Isle Royale National Park Resource Management Records.
89. "Proposed Demolition of the Rock Harbor Guest House."
90. "Proposed Demolition of the Rock Harbor Guest House."

The "Building Data Capsule" draft identified the Guest House as building number 40. The executive summary section of this form contains information that pertains to a different building, but the subsequent information in the draft is clearly in reference to the Guest House. The document lists National Park Concessions as the concessioner, suggesting they had maintained management of the building since the 1940s. At the top of the first page, there is a handwritten note that says, "Isle Royale has asked for $300,000 in 1985 FY [fiscal year] To rehab. The Rock Harbor guest house to meet health and safety codes can you help? See attached reports. Paul Gerrish."[91] Paul Gerrish is listed as the "National Park Service Information Contact" and as the "Chief of Management."[92] It is unknown who this note was addressed to, but it clearly indicates that managerial priorities were aimed at rehabilitating the building rather than demolishing it.

The "Building Data Capsule" lists various aspects of the building and its setting in several major categories: Site, Exterior Envelope, Interior Envelope, Fire Safety/Life Safety, Handicapped Accessibility, Health, Heating/Ventilating/Air Conditioning, Plumbing, and Electrical. Generally, the report describes most of the elements listed for the Guest House as "Fair," however there are some exceptions. Addressing site features, the report rates the pedestrian walkway around the Guest House as "Poor." Regarding the building envelop, the report rates the siding condition as "Poor." For these issues, the report determined that required action was "Minor." The report notes the condition of the Guest House deck, describing it as "Poor," with required action being "Serious." The report also notes several issues in the Fire and Life Safety category, including egress lighting and fire detection systems (fire alarms are noted to be battery operated). For both of these issues, required actions are deemed "Critical." The "Building Data Capsule" also notes that electrical systems were updated in 1979 when the building was rewired.[93]

91. "Building Data Capsule Draft, Guest House 40" (National Park Service, Midwest Region, May 6, 1983), Isle Royale National Park Resource Management Records.
92. "Building Data Capsule Draft."
93. "Building Data Capsule Draft."

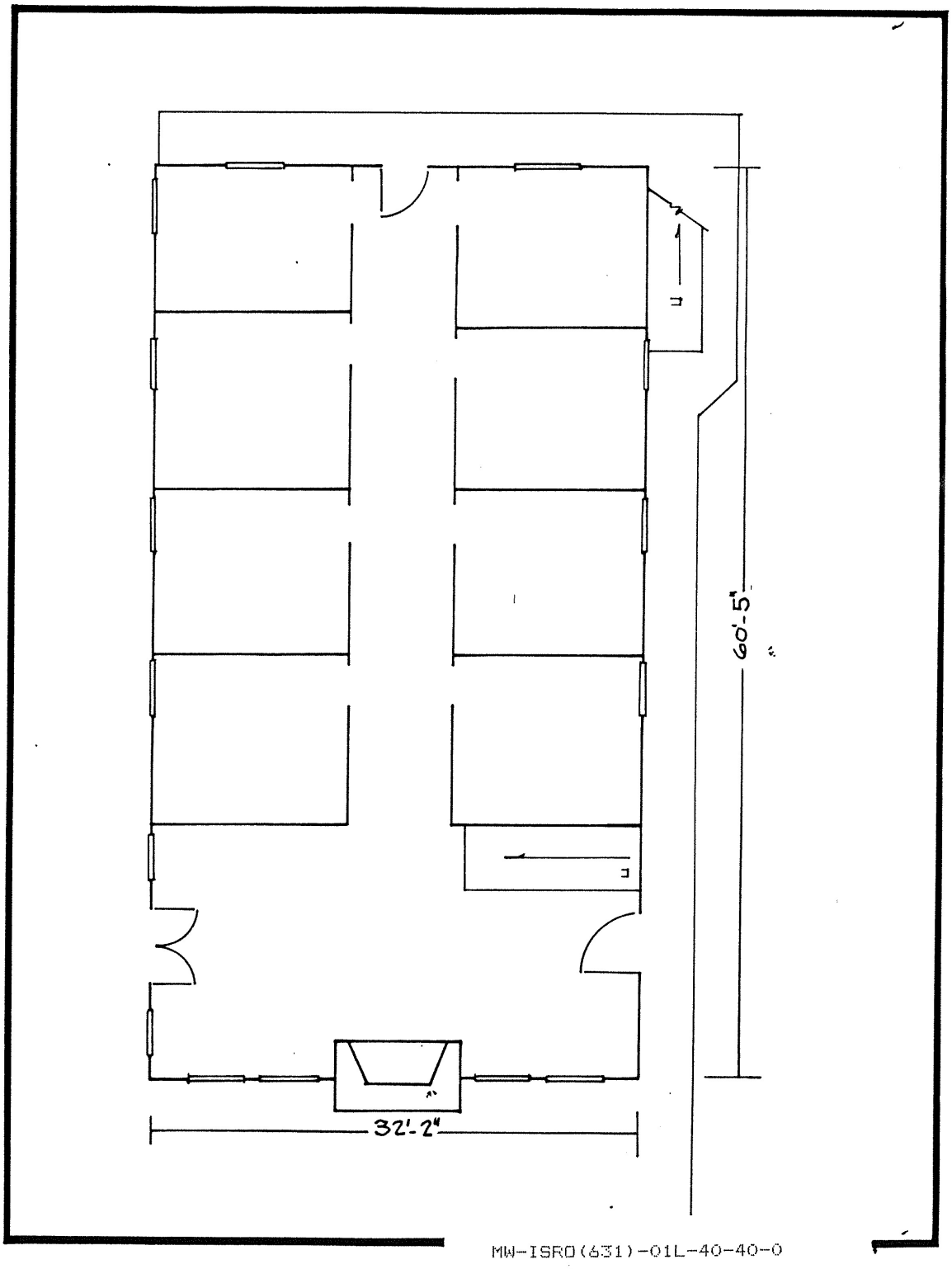


Figure 1B.29: Guest House first - floor plan, 1983 (Source: ISRO Archives, "Building Data Capsule").

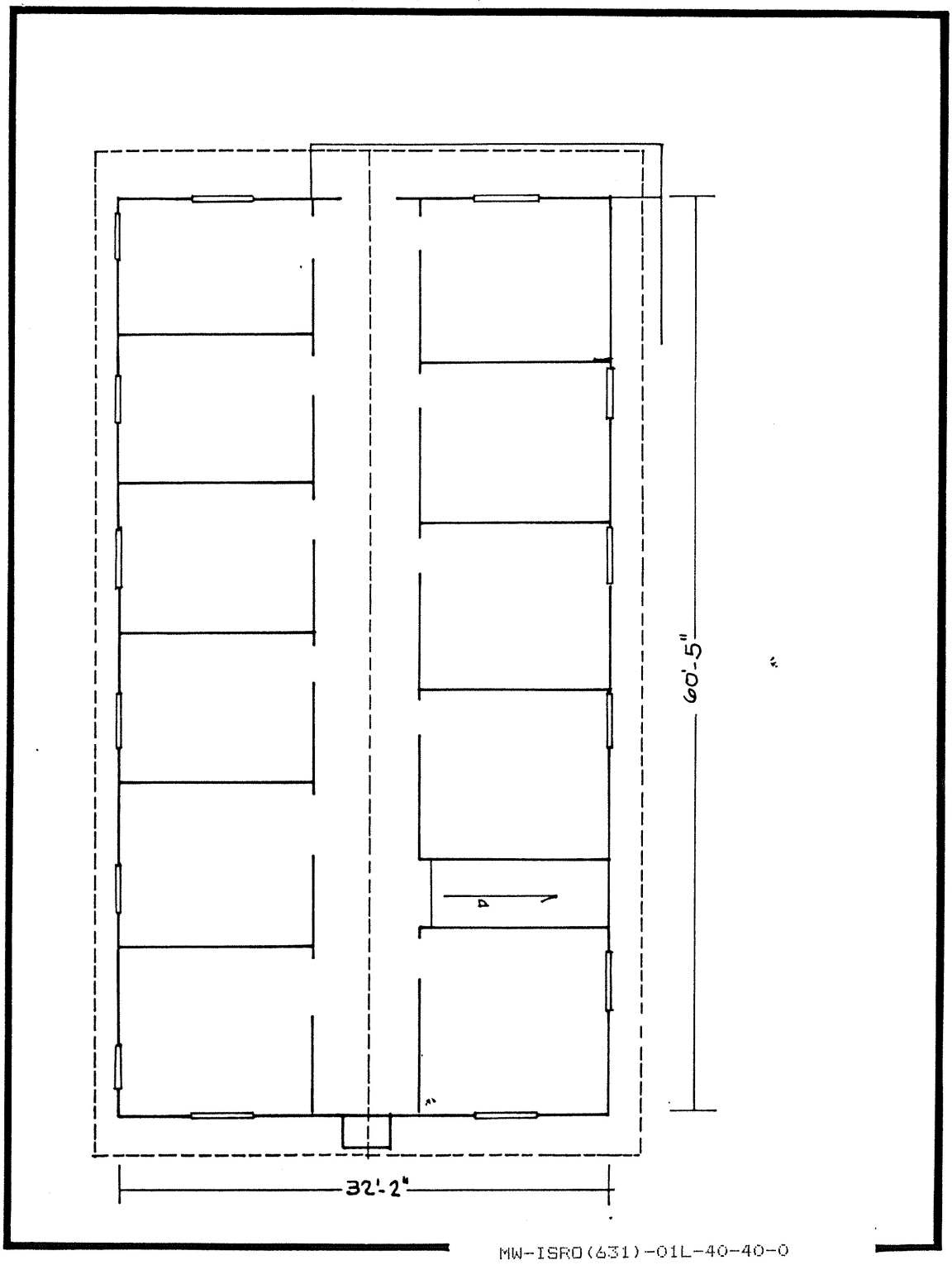


Figure 1B.30: Guest House second - floor plan, 1983 (Source: ISRO Archives, "Building Data Capsule").



Figure 1B.31: 1983 Southeast Elevation drawings (IRNP RMR--003.15-016#06--Sheet 10 [Guest House south elevation]--1983).

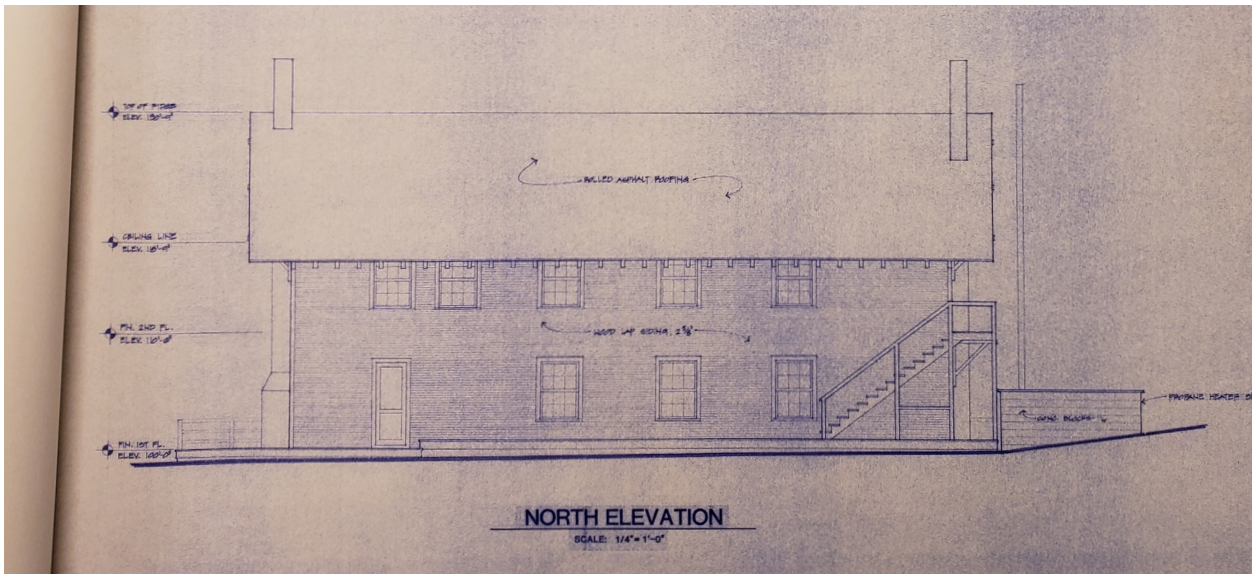


Figure 1B.32: 1983 North Elevation drawings (Source: IRNP RMR--003.15-016#06--Sheet 11 [Guest House north elevation]--1983

The "Building Data Capsule" goes on to outline treatment priorities into two main categories: Serious and Minor. The Serious priority concern was the Guest House deck. According to the report, the "Rear deck and its foundation are completely rotten," and proposed treatment included replacing the porch and its foundation.[94] The Minor priority was the state of the Guest House's exterior siding. Proposed treatment was to repair an area with rotten siding on one of the rear corners. The report does not mention the Fire Safety and Life Safety issues in this list of treatment priorities despite needing "Critical" action.[95]

The "Building Data Capsule" includes a set of simple floor plans. Like those from 1975 and 1981, they indicate that the interior layout of the building remained virtually unchanged (Figure B.29 and Figure B.30). However, these floor plans are notable for their inclusion of the second-story balcony and rear staircase on the northwest elevation of the building. Historic photographs

94. "Building Data Capsule Draft."

95. "Building Data Capsule Draft."

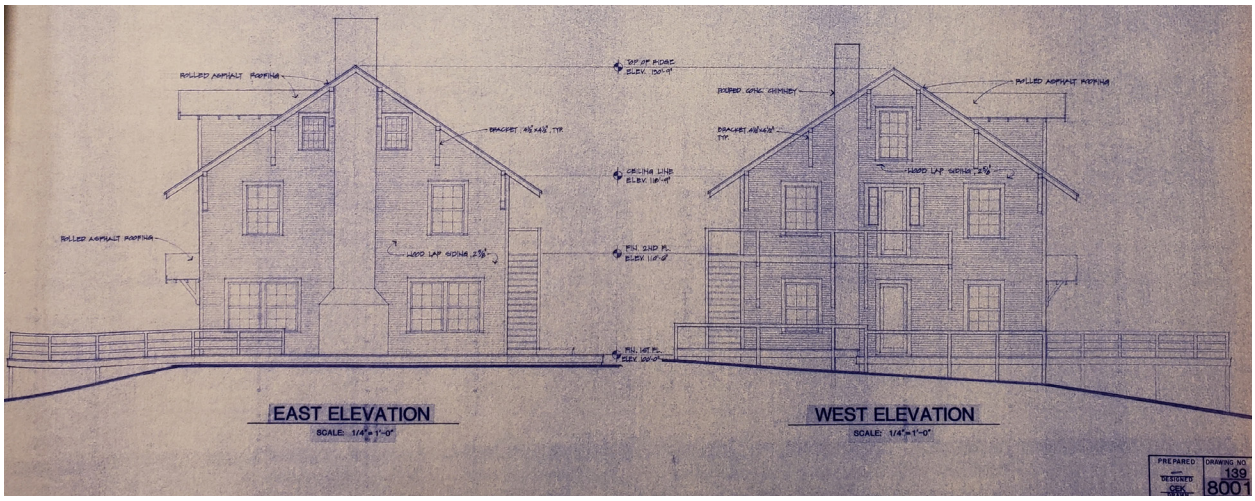


Figure 1B.33: 1983 Northeast and Southwest Elevation drawings (Source: IRNP RMR--003.15-016#06--Sheet 12 [Guest House east and west elevations]--1983).

indicate that these features were extant on the building, likely since it was constructed, but they have not been depicted on any of the previous floor plans.

The undated timeline indicates that a second structural inspection of the Guest House was completed in 1983, which determined that the building was "structurally unsafe and that it failed to meet current life safety codes."[96] It is possible that this is in reference to the "Building Data Capsule" report, but research has not found any other sources that reference this inspection or have additional information about its findings.

A set of floor plans and elevation drawings produced in July and August of 1983 provide more detailed representations of the Guest House than those shown in earlier examples (Figure B.31, Figure **B.32**, Figure B.33, Figure B.34, Figure B.35, and Figure B.36). Although there is very little information about the purpose of these drawings, they appear to show the existing conditions of the building at that time. The plans indicate that an individual named Fees checked them, presumably Regional Architect for the Midwest Region Michael W. Fees. These floor plans provide the most detailed depictions of the interior floor plans up to that point, and the elevation drawings are the earliest example of exterior drawings of the building.

96. "Guest House Timeline."

The elevation drawings show the building essentially the same as it exists today (Figure B.31, Figure **B.32**, and Figure B.33). One notable difference is the presence of the "propose heater bldg.," located on the northwest corner of the building. These drawings are the first that include illustrations of this building. According to the northwest elevation drawings, this building was approximately a half-story tall and made of concrete blocks. A small, but notable difference, is the windowpane pattern of the attic windows on the northeast elevation. According to the 1983 drawings, these windows are both double-hung, with an eight-over-eight pane pattern. However, field observations indicate that these windows are fixed, with a two-by-three pane pattern. It is unknown if these windows are replacements or if the 1983 elevation drawings misrepresented them.

The floor plans show a number of important details and changes that are not depicted in earlier floor plans. It is possible that the earlier floor plans were intentionally simplistic, providing a straightforward schematic of the building's interior layout rather than detailed floor plans. It is possible that some of the differences illustrated in these 1983 plans were present at the time of earlier floor plans but were not represented due to the lower level of detail. However, it is also possible that some of these differences represent recent changes made to the building when the 1983 drawings were produced. Unfortunately, research has not found evidence confirming when these individual changes were made. However, it is helpful to know what changes were in place by August of 1983. Based on

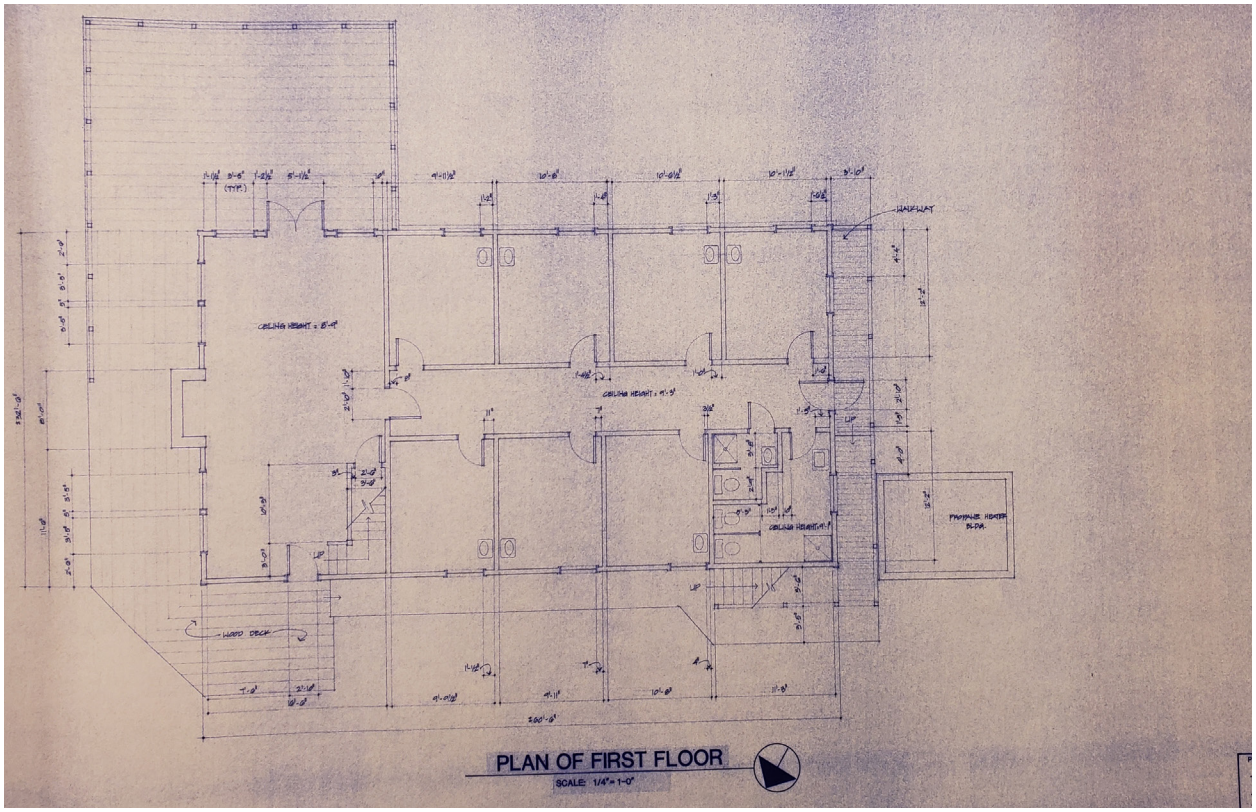


Figure 1B.34: 1983 First - Floor drawings (Source: IRNP RMR--003.15-016#06--Sheet 7 [Guest House first floor plan]--1983).

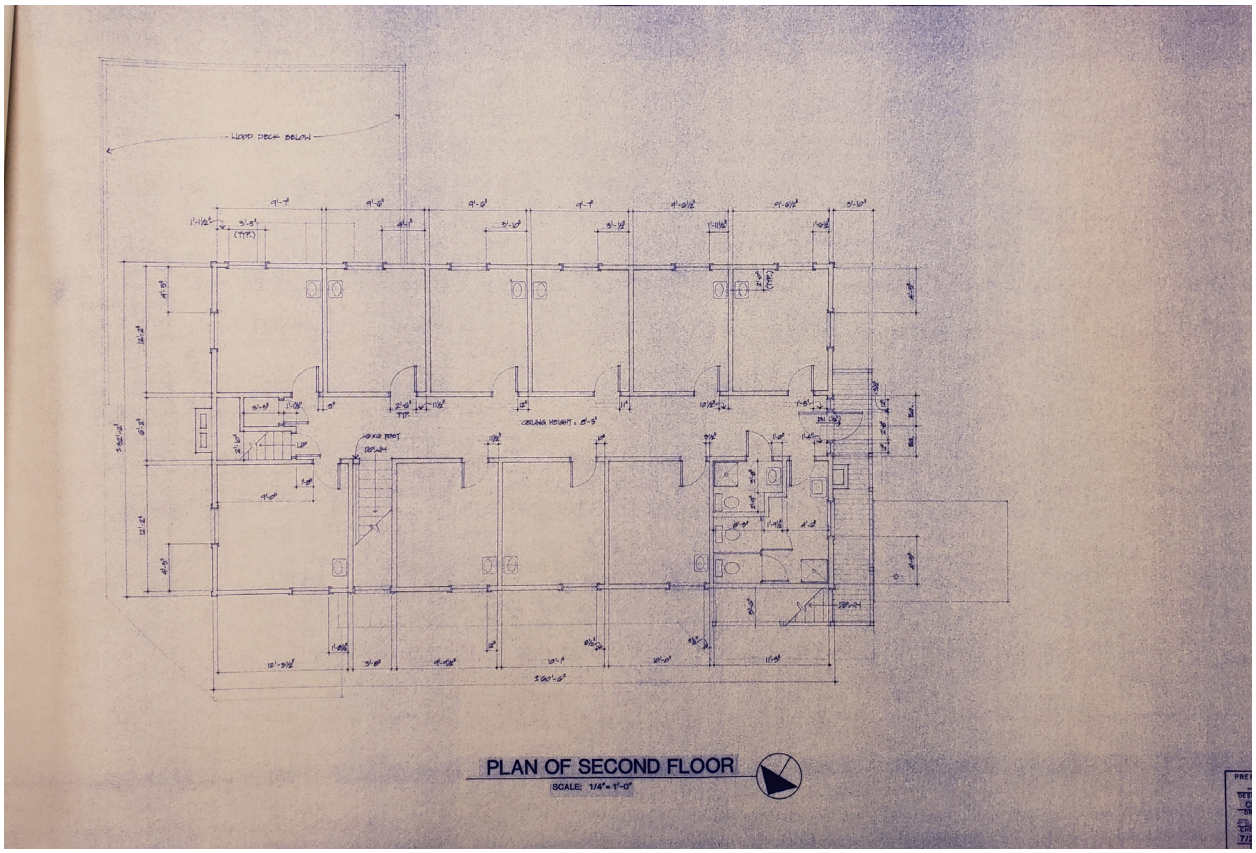


Figure 1B.35: 1983 Second - Floor drawings (Source: IRNP RMR--003.15-016#06--Sheet 8 [Guest House second floor plan]--1983).

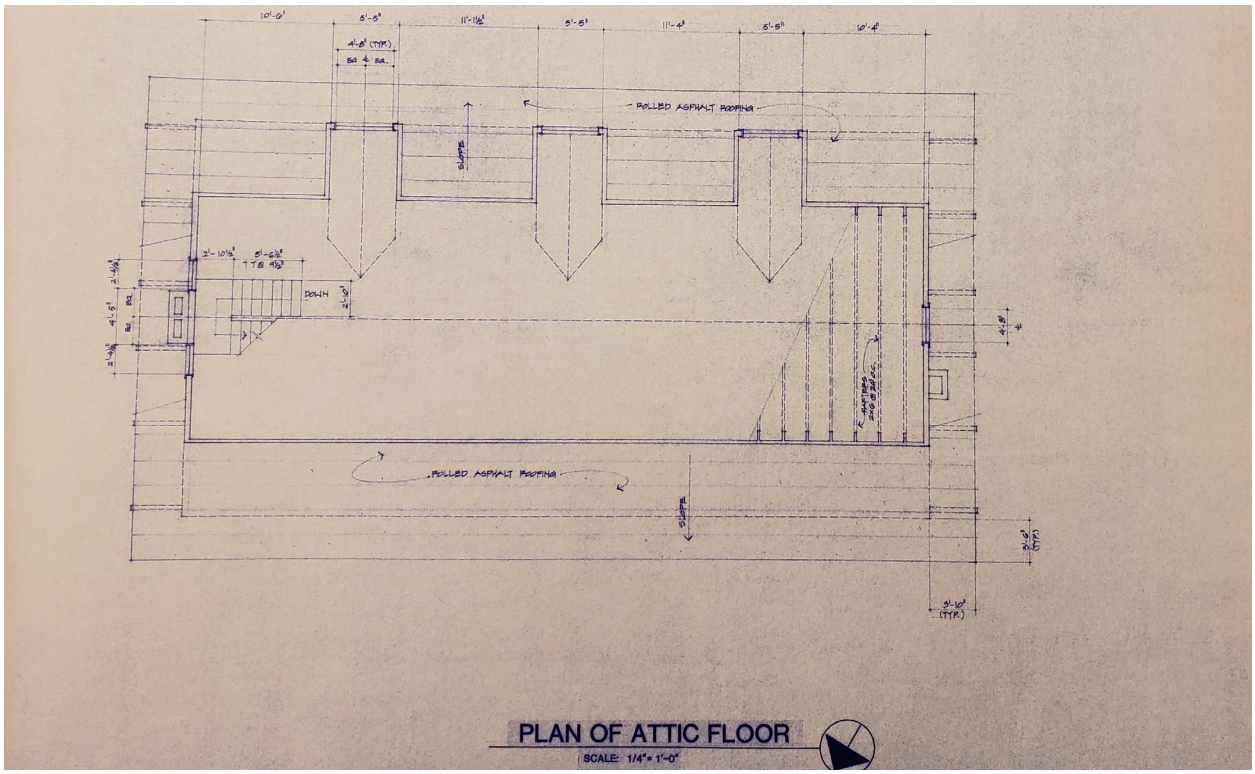


Figure 1B.36: 1983 Attic Floor Plan drawings (Source: IRNP RMR--003.15-016#06--Sheet 9 [Guest House attic plan]--1983).

these plans, it appears that the interior and exterior configurations of the Guest House have changed very little since 1983.

There are several important details and differences on the first-floor plans of the Guest House (Figure B.34). One is the depiction of a small storage closet beneath the lobby stairs, which is still extant today. Historic photographs provided by Kneut Kneutson's granddaughter Theresa Farmer show the closet in a 1924 photograph. In this photograph, the closet has an open threshold covered by a cloth curtain. The 1983 floor plan indicates that the closet has a hinged door by this point. The 1983 floorplan also shows a dividing wall with a hinged door separating the lobby from the first-floor corridor. According to the plans, this door swings into the corridor (the door that is there presently swings into the lobby).

Another notable difference is the configuration of the bathroom. The 1983 floor plans show that the room has been subdivided into two bathrooms. The new bathroom was inserted into the southeast corner of the original bathroom; it contained a single toilet, sink, and standing shower. This new room had its own doorway to the corridor, next to the original bathroom doorway. The remainder of the original bathroom had two toilets, a shower, and a sink. This is essentially the current configuration of the bathrooms.

The configuration of the guest bedrooms also appears to have remained unchanged, with a few minor exceptions. The doorway for the guest bedroom that was temporarily used to expand the lobby has moved and is no longer directly across from the doorway on the opposite side of the corridor. This change likely occurred when the room was converted back into a bedroom. Also, the doorway in the dividing wall between the two sides of the former double bedroom is not depicted on these plans.

On the 1983 plans, the doorway at the southwest end of the first-floor corridor is shown to have two doors, one swinging into the corridor, and the other swinging outside. Currently, however, there is only one door at the end of the corridor, which swings outward. This door appears to be a modern metal door.

The second-floor plans from 1983 show important details that were not depicted in earlier versions

(Figure B.35). The 1983 plans are the first to show the stairs to the attic and the storage closet at the northeast end of the second-floor corridor. The 1983 plans also indicate that the second- floor bathroom had been subdivided, matching the alteration made in the first-floor bathroom. The 1983 floor plans show that the second-floor bathroom has been subdivided into two separate bathrooms. The new bathroom is shown occupying the southeast corner of the former bathroom; it contained a single toilet, sink, and standing shower. This new room has its own doorway to the corridor, next to the original bathroom doorway. The remainder of the original bathroom had two toilets, a shower, and a sink. This is essentially the current condition of the two bathrooms on the second floor.

The configuration of the second-floor bedrooms appears to have remained unchanged. The doorway at the southwest end of the corridor opens out onto a balcony, which connects to a wood staircase on the northwest elevation of the building. This doorway is also shown to have two doors, one that swings into the corridor and one that swings out onto the balcony. Field observations indicate that these doors are still in place. The inner door is an eight-light door with a single panel below, and the outer door is a two-panel screen door. Both appear to be original.

The 1983 plans of the attic show the staircase at the northeast end (Figure B.36). These plans do not provide a detailed view of the interior attic space, but it appears that the attic was an open space. This indicates that the small storage rooms in the attic presently were not there at this time. The attic plans list the roof materials as "rolled asphalt roofing."

In 1984 Carol L. Maass completed a "Classified Structure Field Inventory Report" that documented the Rock Harbor Lodge Guest House. The report contains a brief physical description and history of the building. Maass confirms that the building has been painted brown by this time, noting that the "Exterior is drop siding painted coffee bean brown with green trim."[97] Generally, Maass' description of the building's exterior is reflective of current conditions. Maass' descriptions also provide some additional information not previously recorded. Discussing the chimney on the southwest elevation, Maass notes that it was "at one time connected to the tile boiler building" next to the Guest House. Maass' description implies that the chimney was disconnected from the boiler building by this time. This chimney is still extant, but it does not appear to be functional.[98]

Discussing the interior of the building, Maass incorrectly notes the walls to be "wallboard," however, the walls and ceiling were both made of plaster. The floors were tongue and groove wood boards, which were "covered with linoleum in most of the building."[99] Maass goes onto describe interior finishes of the individual guest bedrooms, saying the following:

> Interior woodworking is milled hardwood. A sample room generally has a small porcelain basin with plumbing exposed, a hardwood half-closet space in one corner with curtain covered opening. Each room has at least one window and a single hung ceiling lamp. A bed, small shelf above the sink, small mirror above the sink and built in writing tables with a chair complete the typical furnishings of the Guest rooms.[100]

Maass' description of the guest bedrooms matches the 1924 image provided by Theresa Farmer, and largely matches current conditions. The main exception would be the hanging ceiling lamps, which did not appear in field observations. Maass

97. Carol L. Maass, "Classified Structure Field Inventory Report" (National Park Service, U.S. Department of the Interior, September 30, 1984), Isle Royale National Park Resource Management Records. The Classified Structure Field Inventory Report was a two-page form used by NPS staff in the past to perform field inventories of historic structures. The form included fields for NPS staff to evaluate whether the structure met National Register of Historic Places criteria for historic significance and whether the building retained historic significance. A "Classified Structure" refers to the structure being evaluated or "classified" according to National Register of Historic Places criteria.
98. Maass, "Classified Structure Field Inventory Report."
99. Maass, "Classified Structure Field Inventory Report."
100. Maass, "Classified Structure Field Inventory Report."

also does not mention the painted Celotex ceiling tiles mentioned in the 1975 "Individual Building Data" report.

NPS Consideration of Guest House Historic Significance

In the report, Maass provides an evaluation of the Guest House's historic significance and potential eligibility for listing on the National Register of Historic Places. Contrary to later assessments, Maass argues that "The historic significance of the Guest House to the theme of Resort era on Isle Royale and in the region is minimal," and "the alteration to the interior make its historic integrity questionable."[101] Maass also notes that the surrounding landscape has changed considerably, and "The Guest House now sits in a very altered setting with encroachment of modern lodge units making it look out of place."[102] Additionally, the Guest House was so rundown that park employees considered it hazardous. In summary, Maass asserts that "The Rock Harbor Lodge Guest House does not meet National Register criteria, does not meet park management purposes but it should be recorded as a Category D in the park's LCS to document this last of the large resort era structures."[103] The LCS, or "List of Classified Structures." Category D refers to buildings that are low priority and do not warrant preservation efforts.[104]

1985 HABS Documentation of Guest House

In 1985 the Historic American Building Survey (HABS) recorded the Rock Harbor Lodge Guest House. The survey includes sections addressing the "Historic Context," "Physical History," and "Architectural Description" of the Guest House, as well photographs documenting the building's exterior and interior (Figure B.37, Figure B.38, Figure B.39, Figure B.40, Figure B.41, Figure B.42, Figure B.43, and Figure B.44).

According to the survey, Charles Eschbach took the photographs in 1985, and the data contained within the report was adapted from Carol L.



Figure 1B.37: 1985 HABS Photo (Source: Historic American Buildings Survey, Library of Congress Prints and Photographs Division, https://www.loc.gov/item/mi0184/).



Figure 1B.38: 1985 HABS Photo (Source: Historic American Buildings Survey, Library of Congress Prints and Photographs Division, https://www.loc.gov/item/mi0184/).



Figure 1B.39: 1985 HABS Photo (Source: Historic American Buildings Survey, Library of Congress Prints and Photographs Division, https://www.loc.gov/item/mi0184/).

101. Maass, "Classified Structure Field Inventory Report."
102. Maass, "Classified Structure Field Inventory Report."
103. Maass, "Classified Structure Field Inventory Report."
104. "Saving Our History: A Review of National Park Cultural Resource Programs" (Washington, D.C.: National Academy of Public Administration, 2008), 30.



Figure 1B.40: 1985 HABS Photo (Source: Historic American Buildings Survey, Library of Congress Prints and Photographs Division, https://www.loc.gov/item/mi0184/).



Figure 1B.41: 1985 HABS Photo (Source: Historic American Buildings Survey, Library of Congress Prints and Photographs Division, https://www.loc.gov/item/mi0184/).



Figure 1B.42: 1985 HABS Photo (Source: Historic American Buildings Survey, Library of Congress Prints and Photographs Division, https://www.loc.gov/item/mi0184/).



Figure 1B.43: 1985 HABS Photo (Source: Historic American Buildings Survey, Library of Congress Prints and Photographs Division, https://www.loc.gov/item/mi0184/).



Figure 1B.44: 1985 HABS Photo (Source: Historic American Buildings Survey, Library of Congress Prints and Photographs Division, https://www.loc.gov/item/mi0184/).

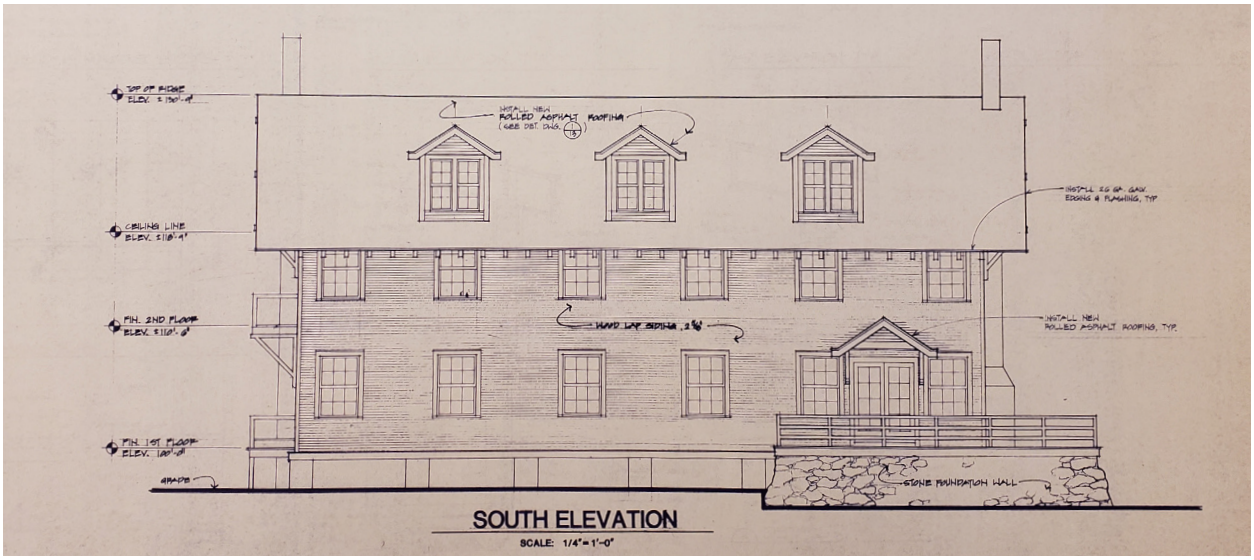


Figure 1B.45: 1985 Southeast Elevation drawings (IRNP RMR--003.15-016#05--Sheet 14 [Guest House south elevation]--1985).

Maass's "Classified Structure Field Inventory Report." According to the HABS survey, "This documentation was produced to mitigate the removal of the Rock Harbor Lodge Guest House."[105] However, the HABS survey does not reference any plans to remove the building.

While the HABS survey may have been completed to mitigate future demolition plans, a partial set of construction drawings from 1985 indicate that measures were taken to address the health and safety issues in the Guest House (Figure B.45, Figure B.46, Figure B.47, and Figure B.48). These drawings are generally the same as the 1983 floorplans and elevation drawings, but have several proposed changes listed on them. These drawings indicate that they were checked by "MWF," likely the initials of Regional Architect for the Midwest Region Michael W. Fees.

The 1985 drawings of the southeast elevation are essentially the same as those produced in 1983 (Figure B.45). However, this 1985 drawing has notes with leader lines pointing the roof structures of the main body, gable dormers, and gable doorway hood, saying "install new rolled asphalt roofing." There is also a leader line pointing to the roof eave, with instructions to install new galvanized metal edging and flashing. These instructions are repeated on the northwest elevation drawing, which includes a more detailed drawing of the proposed roofing material with installation instructions (Figure B.46). The instructions say to remove the existing roofing to expose the roof deck, then repair deteriorated areas with plywood. The proposed roof would consist of several layers, including a base sheet, steep asphalt, asphalt felt, and a mineral surfaced cap sheet.

The interior floor plans include several interior changes from the 1983 plans. These interior changes are still in place, and the 1985 floor plans appear to reflect the present interior configuration. The first-floor interior floor plans include a door schedule for three new doors to be installed in the building, all of which are hollow metal (Figure B.47). One of the replacement doorways was located at the northeast end of the first-floor corridor, between the corridor and lobby. The previous door is shown swinging into the corridor, while the new hollow metal door would swing into the lobby. At the southwest end of the first-floor corridor, the 1985 plans show the removal of the two doors (one that swings into the corridor, and one that swings outward). A single hollow metal door would replace these two doors, with the new door swinging outward. Both of these changes reflect current conditions.

105. "Rock Harbor Lodge Guest House, Isle Royale National Park, Keweenaw County, Michigan," Historic American Buildings Survey (Omaha, Nebraska: National Park Service, Midwest Regional Office, 1985), Isle Royale National Park Resource Management Records.

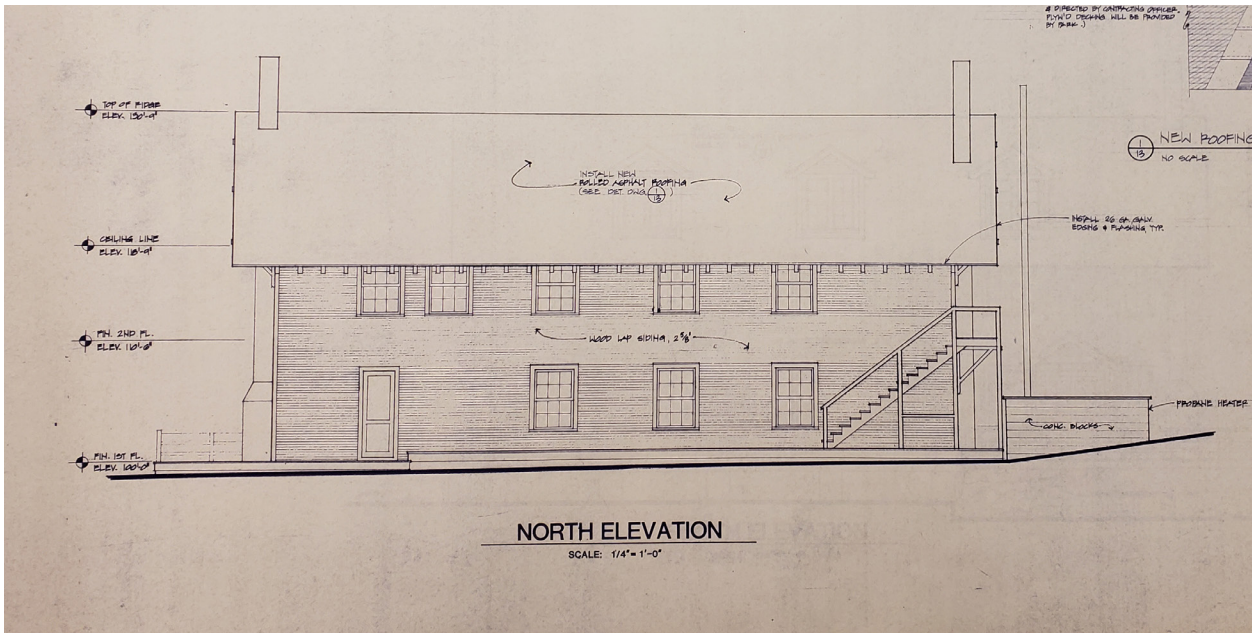


Figure 1B.46: 1985 North Elevation drawings (Source: IRNP RMR--003.15-016#05--Sheet 13 [Guest House north elevation]--1985).

On the second floor, these drawings show a new doorway located towards the northeast end of the corridor, just southwest of the first-floor stairwell (Figure B.48). This new doorway is listed as a hollow metal door, and it is set in a wall addition that infills the corridor around the doorway. This change matches current conditions. Although not stated explicitly in these plans, it is likely that these new doors were fire-rated and intended to help improve the health and safety issues of the building. In addition to the new doorways, these plans also propose the addition of smoke detectors in the corridors, guest bedrooms, and lobby, with instructions to use the "photoelectric sensor alarm" type.

NPS Consultation with the Michigan SHPO

Despite efforts to address the health and safety issues associated with the Guest House, correspondence records indicate that there were ongoing discussions and debates about the historic significance of the building and its potential demolition. On July 18, 1985, Martha M. Bigelow, the Director of the State Historic Preservation Office (SHPO), wrote to Stuart L. Croll, the Superintendent of Isle Royale National Park. In the letter, Bigelow informs Croll that the SHPO feels that "the Rock Harbor Guest House may meet the criteria for listing in the National Register of Historic Places."[106] Additionally, the Bureau instructs that the National Park Service to "record in photographs to HABS/HAER standards the Rock Harbor Guest House in order to mitigate the effect of the demolition."[107]

On July 25, 1985, a "Memorandum of Telephone Call" mentions a meeting held among Isle Royale staff. In the meeting, staff discussed a new project which involved "the construction of the new Rock Harbor Lodge."[108] The new lodge "will consist of a visitor lobby, concession office public restrooms, registration office, and housing for the concession manager."[109] The new project had a reported $750,000 in funding through the Visitor Facility Funding (VFF) budget, with construction to begin in 1987.[110] On August 28, 1985, National Park Concessions, Inc. published a "Waiver of Possessor Interest."[111] In this waiver, the concessioner noted that they had been informed that "the Guest House, Building #40, located at Rock Harbor,

106. Martha M. Bigelow, "Letter to Mr. Stuart L. Croll, Acting Superintendent, Isle Royale National Park.," July 18, 1985, Isle Royale National Park Resource Management Records.
107. Bigelow, "Letter to Mr. Stuart L. Croll," July 18, 1985.
108. "Memorandum of Telephone Call," July 25, 1985, Isle Royale National Park Resource Management Records.
109. "Memorandum of Telephone Call."
110. "Memorandum of Telephone Call."
111. "Memorandum of Telephone Call."

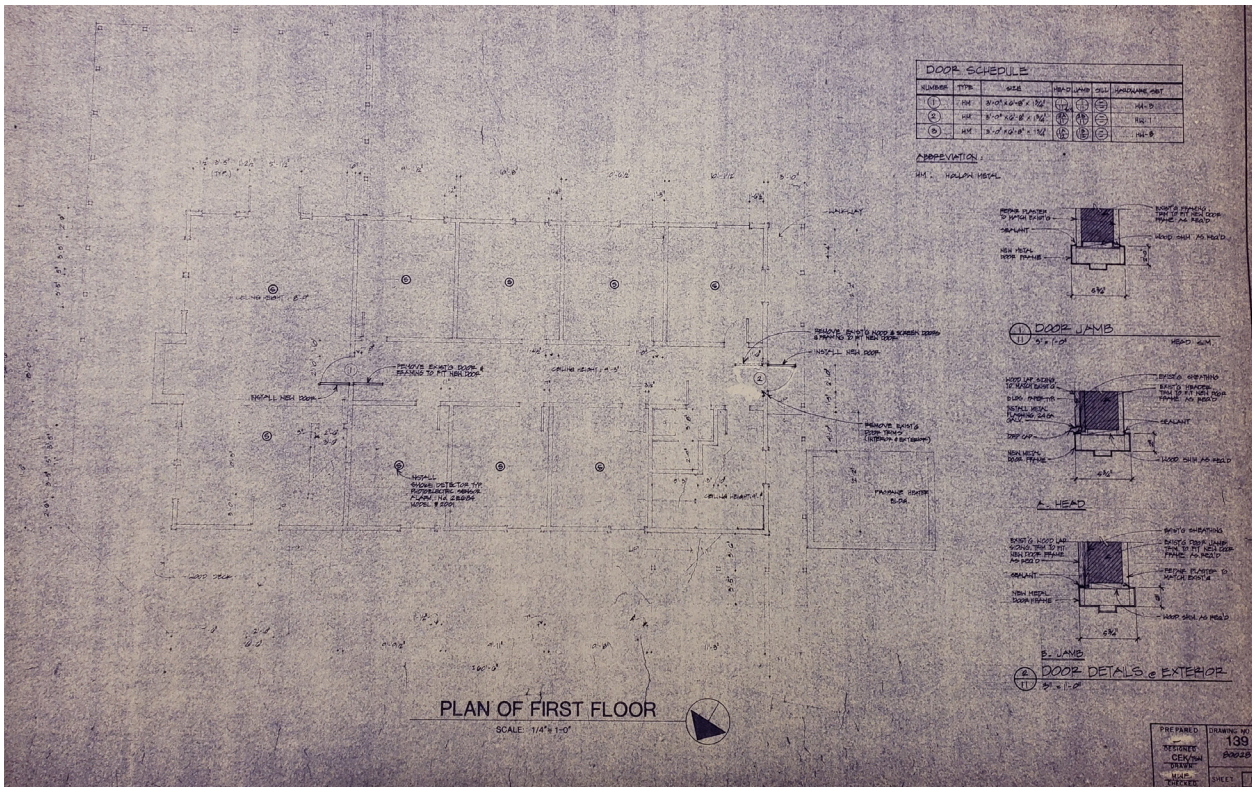


Figure 1B.47: 1985 First - Floor drawings (Source: IRNP RMR--003.15-016#05--Sheet 11 [Guest House first floor plan]--1985).

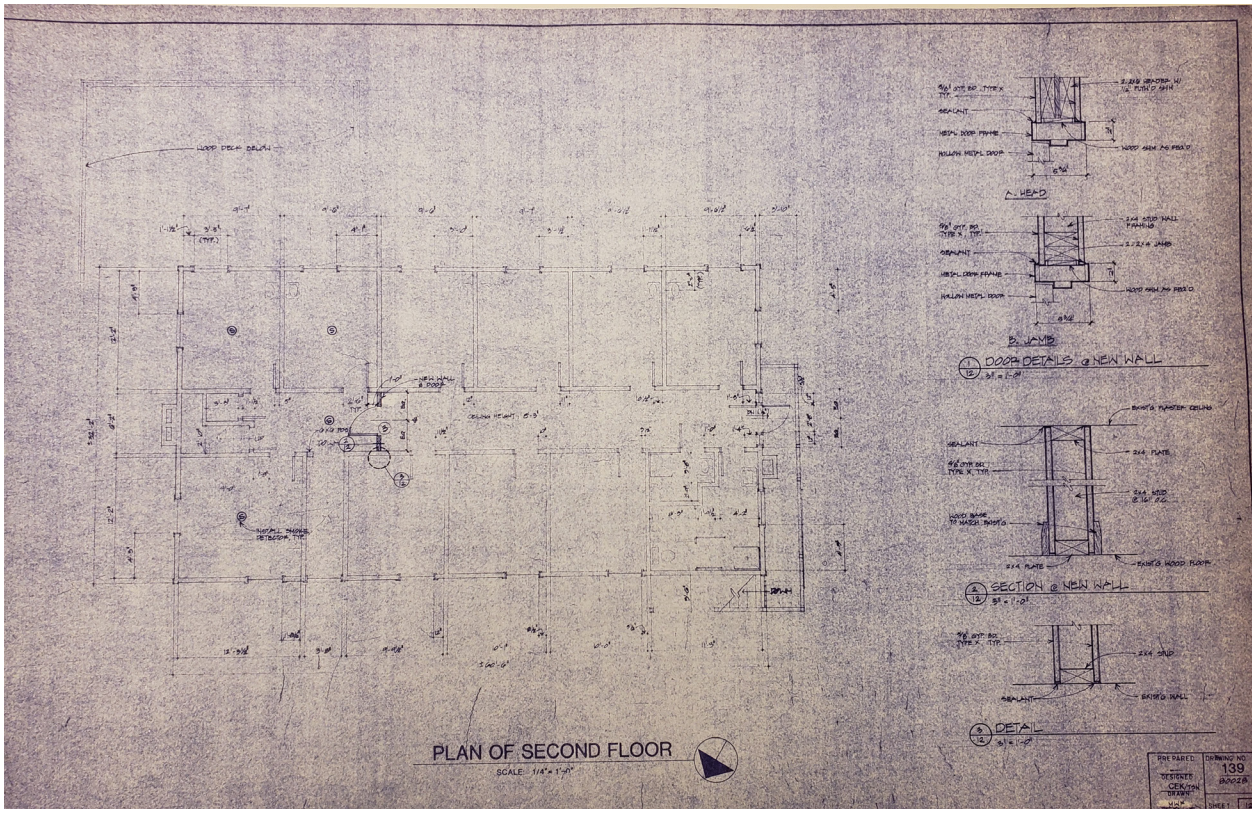


Figure 1B.48: 1985 Second - Floor drawings (Source: IRNP RMR--003.15-016#05--Sheet 12 [Guest House second floor plan]--1985).

Isle Royale National Park has been approved for replacement," with funding that would require the concessioner to waive their interest in the property.[112] In this waiver, the concessioner "claims possessory interest in the Guest House and hereby waives and relinquishes such interest effective on the first day of the fiscal year in which any preliminary planning or design commences."[113]

On September 20, 1985, Isle Royale Park Historian David L. Snyder wrote to Kathryn B. Eckert, the Deputy State Historic Preservation Officer at the Michigan Historic Division. In this letter, Snyder confirms that that Charles Eshbach was documenting the Guest House and had been instructed to adhere to HABS photographic standards. In the letter, Snyder says he trusts "that these photographs and negatives will meet the requirements that your office set forth to mitigate the effects of the Guest House's proposed demolition."[114]

By the following year, the NPS paused plans to demolish the Guest House. In a memo recording a phone conversation with Kathryn Eckert, it is noted that Eckert advised against demolishing the Guest House until a comprehensive survey was completed and "to see if perhaps the structure is deemed significant by the folks at the Mid American Research Center (Loyola)."[115] Additionally, Eckert was informed "that the structure had been stabilized (good paint, new roof) and that it was still being used."[116] Additionally, "the visitor facility fund which would have funded the Guest House's replacement was eliminated," and "the demolition of the Guest House [was] not imminent."[117] The loss of the VFF funding was likely the result of federal budget cuts that reduced funding for the National Park Service. On January 24, 1985, *The Herald-Palladium* out of Saint Joseph, Michigan, published an article highlighting the reduction of funding for Isle Royale National Park. According to the article, the Reagan administration reduced the National Park Service budget as part of an effort to address the federal deficit. At Isle Royale National Park, these cutbacks reduced the $1.5 million annual budget of the park by $81,000.[118]

NPS Consultation with Advisory Council on Historic Preservation

In September of 1987 Don H. Castleberry, the Regional Director of the Midwest Region, wrote to Dr. Martha Bigelow to discuss future plans to remove the Guest House. According to Castleberry, "The Guest House would require extensive renovation to meet current life safety code requirements," costing an estimated $1,163,000. Castleberry also stated that the renovations would "be so extensive that little historic fabric would remain." In summary, "Because of the exorbitant costs involved in renovating the Guest House, and because the structure, once rehabilitated, and would not meet our needs at Rock Harbor, its retention and renovation are not feasible."[119]

In response to Castleberry's letter, Bigelow responded on September 24 with a request for additional information, asking the following questions, "1) What is the current physical condition of the structure? 2) What are the renovation plans that resulted in the high cost estimate?" and "3) What is the breakdown of the cost estimate?"[120] On October 22, 1987, James D. Workman, the new Acting Regional Director, responded to Bigelow's questions. In this letter, Workman asserted that "The current physical condition of the guest house is poor…Please note that the only substantial work that has been completed since the report was prepared is the replacement of the roof and minor life safety improvements. However, the condition of the structure has deteriorated since that time." According to Workman, "our experience has

112. "Memorandum of Telephone Call."
113. G.B. Hanson, "Waiver of Possessory Interest" (National Park Concessions, Inc., August 28, 1985), Isle Royale National Park Resource Management Records.
114. David L. Snyder, "Letter to Kathryn B. Eckert, Deputy State Historic Preservation Officer, Michigan History Division, Department of State.," September 20, 1985, Isle Royale National Park Resource Management Records.
115. "Phone Call with Kathryn Eckert, 2/25/86 Re. Guest House," February 25, 1986, Isle Royale National Park Resource Management Records.
116. "Phone Call with Kathryn Eckert."
117. "Phone Call with Kathryn Eckert."
118. "Isle Royale Slashing Services Due to Cutback in Federal Funds," The Herald-Palladium, January 24, 1985.
119. Don H. Castleberry, "Letter to Dr. Martha Bigelow, State Historic Preservation Officer, Director, Michigan History Division," September 24, 1987, Isle Royale National Park Resource Management Records.
120. Martha M. Bigelow, "Letter to Mr. Don H. Castleberry, NPS - Midwest Region," September 24, 1987, Isle Royale National Park Resource Management Records.

shown that the cost of construction at Isle Royale is 50-60 percent higher than on the mainland." Workman also includes a detailed list of construction costs, with the projected cost being $1,105,00.[121]

On December 30, 1987, Park Historian David L. Snyder wrote to preservationist Betsy Updike at the Advisory Council on Historic Preservation, seeking professional guidance regarding the Rock Harbor Lodge Guest House and asking her to advise the Michigan SHPO to allow for its eventual demolition. In his letter, Snyder argues that the Guest House did not meet the needs of the National Park Service. Apparently, guests found the accommodations offered by the building "outmoded and undesirable," and the proposed multi-purpose building that would be built in its place would better serve visitors.[122] Discussing the state of the building, Snyder makes the following claims, "Much consideration has been given to rehabilitating the Guest House, which, because of its poor foundation, would require complete disassembly down to the foundation. A new, stable foundation would be constructed and the building reconstructed using as much original fabric as possible."[123] While earlier assessments all noted the poor state of the foundation, research has not found any report presenting a scenario that required the Guest House to be disassembled and rebuilt. While it is possible that Snyder is referencing a document not recovered during the research process, research has not recovered evidence to support this claim. There is also no indication that the Guest House was ever disassembled to repair the foundation.

On January 25, 1988, Castleberry received a response from Don Klima on behalf of the Advisory Council on Historic Preservation (ACHP). In his letter to Castleberry, Klima argues against the demolition of the Guest House, saying the following:

> The series of historic and current photographs clearly illustrate the architectural quality of the building which was not evident in the original documentation sent to us. The house is an excellent example of the Craftsman style and has retained its integrity of design and materials. Because of this, the social historical associations with the Craftsman movement are unusually apparent.
>
> Although we understand that the building is presently under-utilized because of its inadequate mechanical and electrical systems and structural instability, we believe that the Park Service has not thoroughly addressed all the consequences posed by demolition. The Guest House appears to be the focal point along the shoreline, not only because of its central location, but also because of its historic character. Demolition of the house and construction of a new multi-purpose facility will destroy the rustic quality found along the shore, the entranceway to the National Park. Furthermore, it appears from the information submitted to the Council that the public has not been notified of your plans for demolition.
>
> At this point in consultation, we are unable to agree that demolition of the structure is warranted. We understand that the Park Service has not identified a park related need for the Guest House; however, it appears that you have not considered the potential reuse of the property for other purposes, nor sought out organizations, institutions, or individuals that might be interested in considering such use…[124]

Castleberry wrote his response to the ACHP nearly a month later, on February 19, 1988. While Castleberry again acknowledges that the Guest House might be eligible for listing on the National Register, he remains adamant that the Guest House was incompatible with the needs and future plans of the park. In his letter, Castleberry recalls a meeting with several concerned parties, including historians and staff members of the Michigan SHPO, to discuss potentially eligible properties. During this meeting, "the parties agreed the Spruces cabin and the guest house appeared

121. James D. Workman, "Letter to Dr. Martha M. Bigelow, Director, Bureau of History and State Historic Preservation Officer," October 22, 1987, Isle Royale National Park Resource Management Records.
122. David L. Snyder, "Letter to Ms. Betsy Updike, Historic Preservation Specialist," December 30, 1987, Isle Royale National Park Resource Management Records.
123. Snyder, "Letter to Ms. Betsy Updike," December 30, 1987.
124. Don L. Klima, "Letter to Mr. Don H. Castleberry, Regional Director, National Park Service," January 25, 1988, Isle Royale National Park Resource Management Records.

to meet the Register's criteria for inclusion," and "While we agreed the Spruces cabin could probably be utilized in the Rock Harbor development plan, we informed Deputy State Historic Preservation Officer Kathryn Eckert that preliminary analysis of space needs at Rock Harbor suggested it might not be possible to utilize the guest house."[125] According to Castleberry, the NPS and SHPO representatives agreed that "the guest house's removal would be satisfactorily mitigated by documenting the building to Historic American Building Survey (HABS) standards."[126]

Castleberry also pushes back against the claim that the Guest House is an exceptional example of the Craftsman style. While Castleberry notes that "the building has some interesting Craftsman-style eave details," he argues that "the building lacks common details of either high-style or pattern book Craftsman, so we disagree that it is an 'excellent example' of the style."[127] Castleberry also argues against Klima's description of the Guest House as a "focal point along the shoreline," saying that, "In fact, the focal point for visitors arriving at Rock Harbor is the Snug Harbor marina and the Ranger III dock and visitor registration facilities."[128] Castleberry goes on to argue that the "rustic quality" identified in Klima's letter "has long since disappeared" due to the addition of later buildings nearby.[129] In summary, Castleberry says the following:

> We continue to believe the removal of the guest house is the most feasible solution to our development needs at Isle Royale. The restricted development area, the great expense of rehabilitation, and the fact that rehabilitation would not address all of our identified needs for the structure are the reasons that lead to the conclusion that rehabilitation of the guest house is not a responsible use of our limited funds or space.[130]

125. Don H. Castleberry, "Letter to Mr. Don Klima, Advisory Council on Historic Preservation," February 19, 1988, Isle Royale National Park Resource Management Records.
126. Castleberry, "Letter to Mr. Don Klima," February 19, 1988.
127. Castleberry, "Letter to Mr. Don Klima," February 19, 1988.
128. Castleberry, "Letter to Mr. Don Klima," February 19, 1988.
129. Castleberry, "Letter to Mr. Don Klima," February 19, 1988.
130. Castleberry, "Letter to Mr. Don Klima," February 19, 1988.

Castleberry maintains his position that utilization of the Guest House is not feasible due to the high construction costs, and even if the building was improved, it would still not meet the needs of the park.

National Parks and Conservation Association Weighs In

A month after Castleberry's response, the National Parks and Conservation Association (NPCA) offered their opinion on the matter. On March 16, 1988, NPCA Cultural Resources Coordinator Bruce Craig wrote to Castleberry to express opposition to the proposed demolition of the Guest House. In his letter, Craig says the following:

> After extended conversations with park and regional personnel, the Advisory Council for Historic Preservation and having reviewed the materials forwarded by them, we question the necessity to demolish the Guest House at Rock Harbor in order to provide upgraded visitor facilities. Perhaps more importantly though, we feel the "need" for additional new facilities at Rock Harbor has not been clearly demonstrated. We believe the $1.4 million that is proposed to be spent on this project, more properly should be spent on resource preservation and structural rehabilitation rather than on new construction.[131]

Craig goes on to note that the projected price of renovating the Guest House, an estimated $1.1 million, was less than the projected cost of a new facility, projected to cost $1.4 million.[132] Craig also criticizes the treatment of the building over time, saying the following:

> This high cost is due in part to the poor maintenance treatment that the structure has received in the past by the Service and the concessionaire. We do not condone neglect of historic structures, nor do we believe that the NPS or it's concessionaires should, in essence,

131. Bruce Craig, "Letter to Mr. Don H. Castleberry, Regional Director, National Park Service," March 16, 1988, Isle Royale National Park Resource Management Records.
132. Craig, "Letter to Mr. Don H. Castleberry," March 16, 1988.

be rewarded with a new structure for failing to protect historic resources under their care.[133]

Fundamentally, Craig questioned the claim that the park needed a new facility at all. In the letter, Craig argues that "Given the seasonal nature of the Isle Royale operation, the relatively low number of visitors that come to the island, and the even fewer number that use the concession residential facilities…we seriously question the economic feasibility and cost/benefit ratio that leads the Service to even consider spending $1.4 million on this project." Furthermore, given that the NPS was going to manage Isle Royale as wilderness, Craig discouraged the Park from pursuing a site plan that required "intensive development on the 2% of the remaining lands reserved for visitor services." Craig argues that the park should instead opt for "low impact visitor accommodations," such as campgrounds.[134]

Craig also points out that the General Management Plan, created in 1966, was out of date and inadequate and failed to adequately address the ecosystem of the island. As Craig states, "scientific understanding of island ecosystems and visitor use management has advanced considerably," and best practices should "first seek to the protect the island ecosystem, second preserve the historic resources on the island, and third only construct new facilities that would have a minimum impact." In summary, Craig says "we oppose any development proposal that fails to preserve existing historic resources or squanders tax payer monies on the construction of new uneconomical, unnecessary concession facilities under the pretence [sic] of providing 'visitor needs'."[135]

Another major point of contention was how a public workbook distributed by the park for public input presented the Guest House. Research has not recovered copies of this workbook, but Klima, Castleberry, and Craig all reference it in their correspondences. In his January 25, 1988, letter to Castleberry, Klima requests information about the efforts the park has made to gather public input.[136] In his response on February 19, 1988, Castleberry mentions the public workbook distributed by the park, saying, "we presented an alternatives workbook for public review; the workbook presented an alternative which provided for restoration and utilization of the guest house as a conference/meeting room."[137] However, Castleberry concedes that the workbook failed to properly identify that the Guest House and the Spruces Cottage were historically significant and potentially eligible for listing on the National Register. Castleberry estimates that the park distributed three hundred workbooks to "previous park visitors, recreational and environmental interest groups, tourism organizations, and local government offices," and there were seventy-seven respondents.[138] Of those, two "requested that no Rock Harbor buildings be removed," and "Two others specifically requested that the guest house be retained and remodeled."[139]

In Craig's letter to Castleberry, dated March 16, 1988, Craig expresses frustration about the failure of the public workbook to properly identify the Guest House as a historically significant building, and because of this omission, "local and national historic preservationists have not been provided the opportunity to express their views on this proposed demolition." He goes on to point out that "Frankly, we are amazed that even two out of the seventy-seven public responses were able to recognize the significance of the building," and "If the public were aware of the significance of the structure, we feel far more responses would have advocated [for] preservation of the structure."[140] Clearly, Craig feels that the park failed to properly inform the public about the historic significance of the Guest House, and this failure undermined the validity of the public input to the extent that it should not serve as justification for the demolition of the Guest House.

133. Craig, "Letter to Mr. Don H. Castleberry," March 16, 1988.
134. Craig, "Letter to Mr. Don H. Castleberry," March 16, 1988.
135. Craig, "Letter to Mr. Don H. Castleberry," March 16, 1988.
136. Klima, "Letter to Mr. Don H. Castleberry," January 25, 1988.
137. Castleberry, "Letter to Mr. Don Klima," February 19, 1988.
138. Castleberry, "Letter to Mr. Don Klima," February 19, 1988.
139. Castleberry, "Letter to Mr. Don Klima," February 19, 1988.
140. Craig, "Letter to Mr. Don H. Castleberry," March 16, 1988.

In a response to Craig's letter dated April 1, 1988, Castleberry assured Craig that many of his concerns would likely be addressed in the "draft Development Concept Plan (DCP)," which would be released to the public in the spring of that year. Castleberry also conveyed that the failure to mention that the Guest House was eligible for listing on the National Register was accidental, and "There was no malice or oversight in our lack of identification."[141] Castleberry noted that "The revised DCP clearly states the guest house is eligible for inclusion on the National Register."[142]

Research has recovered a document entitled, "Public Workbook: Rock Harbor Development Concept Plan." This document does not contain any reference to converting the Guest house into a conference or meeting room, so it is likely not the same public workbook mentioned in the correspondences between Klima, Castleberry, and Craig discussed previously. The workbook is not dated, but it references data from a five-year span beginning in 1982, which suggests the document was produced sometime during or after 1987. The public workbook offers readers a brief explanation about Isle Royale and its significance as a national park, emphasizing its purpose as a wilderness area with important natural resources. The document outlines the park's planning goals for Rock Harbor, such as clustering buildings by use, improving circulation networks, and improving the "general visual quality of the entire area."[143] The narrative mentions The Spruces Cottage at Rock Harbor Lodge, saying that "Adaptive reuse of historic structures, most notable 'The Spruces,' the last remaining cottage from the 'Resort Era,' is central to park planning."[144] However, there is no mention of the Guest House as a significant historic building from the same period.[145]

The public workbook contains an Existing Conditions map, which serves as a base map for three alternatives site plans (Figure B.49, Figure B.50, Figure B.51, and Figure B.52). Alternative A would concentrate "visitor contact facilities near the Ranger III dock," on the north shore of Snug Harbor. This plan proposes the addition of several buildings clustered around the dock to serve as an entry point for visitors, including an auditorium and a store. A new building northeast of the Guest House would serve as the "NPC Manager's Quarters," while the NPS would rehabilitate the Guest House and convert it into additional space for guests. Alternative B would "retain existing functional locations with new construction and facility rehabilitation." The most dramatic change in this plan would be the construction of a new "NPC Lodge Area" for employees, just east of the Guest House. This plan calls for the demolition of both the Guest House and the Dining Hall. Alternative C claims it would "make extensive use of existing structures through rehabilitation." However, the site plan indicates that the NPS would demolish the Guest House in this scenario. The demolition of the Guest House would make room for a large addition to the Dining Hall, containing a registration office, dining facilities, lounge, and gift shop. It does not appear that the park pursued any of these alternatives, and the Existing Conditions map closely reflects the existing configuration of buildings and structures. The public workbook lists Thomas O. Hobbs as the Superintendent of Isle Royale National Park at this time.[146]

Continued ACHP Communications with NPS

Discussions about the potential demolition of the Guest House continued on into the early 1990s. On July 24, 1990, Klima wrote to Castleberry inquiring about the status of the Development Concept Plan, (DCP). In his letter, Klima references a letter and video documentation of the building, submitted to the ACHP on July 16, 1990. Klima conveys that although the DCP for Rock Harbor Lodge is undergoing revisions, the plan still calls for the demolition of the Guest House. Klima informs Castleberry that the ACHP will "continue to object

141. Don H. Castleberry, "Letter to Mr. Bruce Craig, Cultural Resources Coordinator, National Parks and Conservation Association," April 1, 1990, Isle Royale National Park Resource Management Records.
142. Castleberry, "Letter to Mr. Bruce Craig," April 1, 1990.
143. "Public Workbook: Rock Harbor Development Concept Plan" (Isle Royale National Park, National Park Service, n.d.), Isle Royale National Park Resource Management Records.
144. "Public Workbook."
145. "Public Workbook."
146. "Public Workbook."

to demolition of this structure."[147] Klima elaborates on the contents of the videotape documenting the Guest House, which provided evidence that the Guest House had "substantial structural integrity, despite systemic problems that need correction," and "While the building is in need of rehabilitation, its condition alone does not warrant demolition."[148]

Ongoing Maintenance and Repairs

Klima notes that the most recent DCP draft dates to 1987, and the ACHP is still awaiting an updated draft on which to comment. Klima also requests records of the NPS's correspondences with the National Parks and Conservation Association (NPCA) and any other "interested parties," as well as any public input regarding the Guest House gathered since 1987. In summary, Klima says the following: "since the videotape of the Guest House does not document a pressing need for demolition, and since all of our other documentation on the DCP is two to three years old, it is impossible for us to proceed with our review without having full documentation on current project planning."[149] On September 14, 1990, Klima received a letter from William W. Schenk, the Regional Director of the Midwest region at the time. In this letter, Schenk references the DCP and informs Klima that "The National Park Service is currently re-evaluating this plan and is in the process of gathering additional data."[150] No further correspondence between the NPS, ACHP, or NPCA was recovered during the research process. Presumably, though, plans to redevelop Rock Harbor Lodge and demolish the Guest House were abandoned.

Maintenance documents from 1997 indicate the Guest House was subject to routine maintenance projects by the concessioner, National Park Concessions, Inc., who continued to manage the property. The "Form for Assessment of Actions Having an Effect of Cultural Resources" document describes a project to "Repair Guest House exterior deck and steps."[151] According to the form, the repairs would "Replace historic features/ elements in kind." According to the project description, "Only the upper deck and stairs of the structure will be repaired. Lumber of the same size and kind will be used and replacement will be in the same design as existing."[152] The form was prepared by Elizabeth Valencia, listed as the Branch Chief of Cultural Resource Management, on June 30, 1997.

147. Don L. Klima, "Letter to Mr. Don H. Castleberry, Regional Director, Midwest Region," July 24, 1990, Isle Royale National Park Resource Management Records.
148. Klima, "Letter to Mr. Don H. Castleberry," July 24, 1990.
149. Klima, "Letter to Mr. Don H. Castleberry," July 24, 1990.
150. William W. Schenk, "Letter to Mr. Don Klima, Chief Eastern Office of Project Review, Advisory Council on Historic Preservation," September 14, 1990, Isle Royale National Park Resource Management Records.
151. Elizabeth Valencia, "Form for Assessment of Actions Having an Effect on Cultural Resources," June 30, 1997.
152. Valencia, "Form for Assessment of Actions Having an Effect on Cultural Resources."

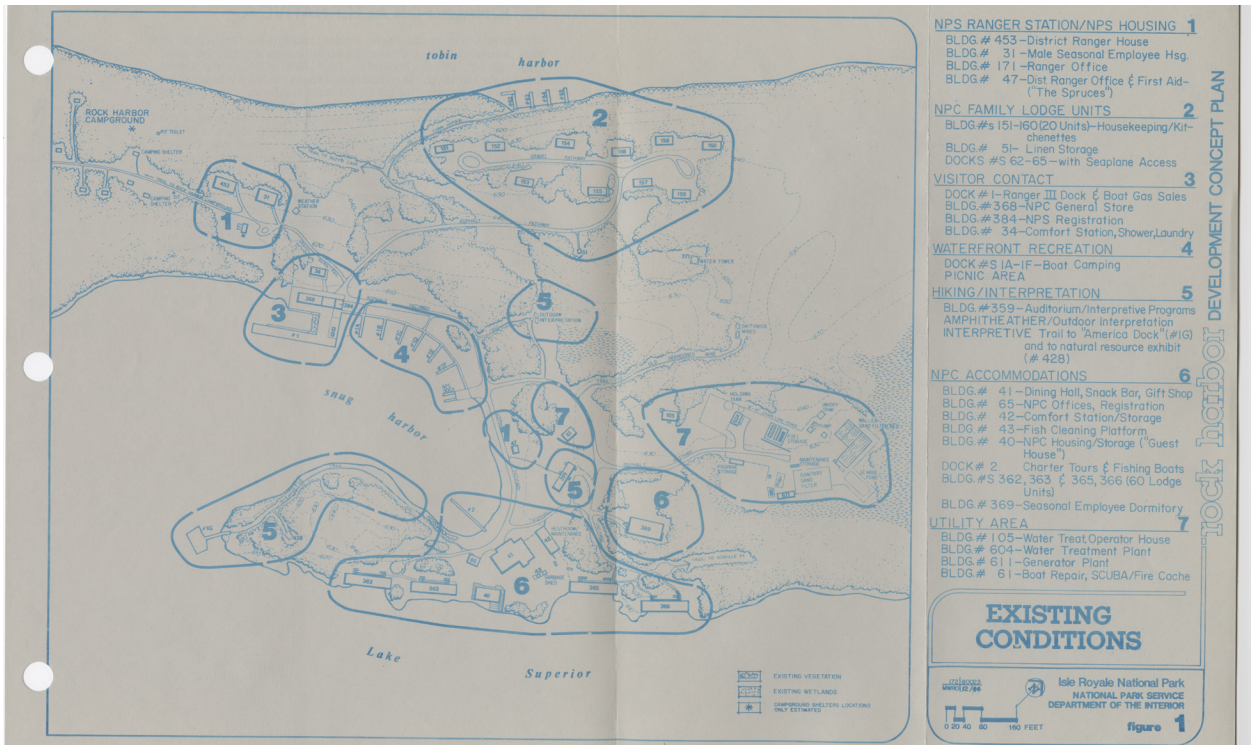


Figure 1B.49: Existing Conditions Map included in the undated Public Workbook (Source: IRNP RMR--005.03.01.01-057--RH DCP Public Workbook--Figure 1--1986, provided by Liz Valencia).

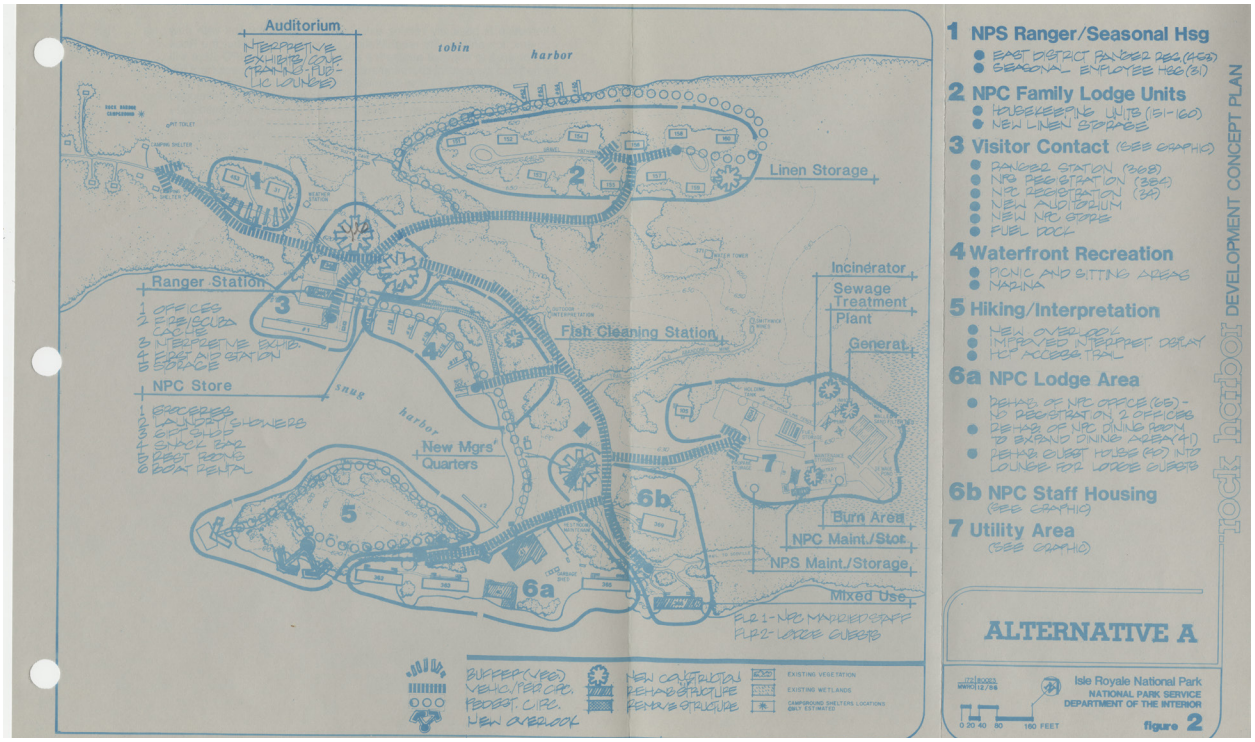


Figure 1B.50: Alternative A Site Plan Map included in the undated Public Workbook(Source: IRNP RMR--005.03.01.01-057--RH DCP Public Workbook--Figure 2--1986, provided by Liz Valencia).

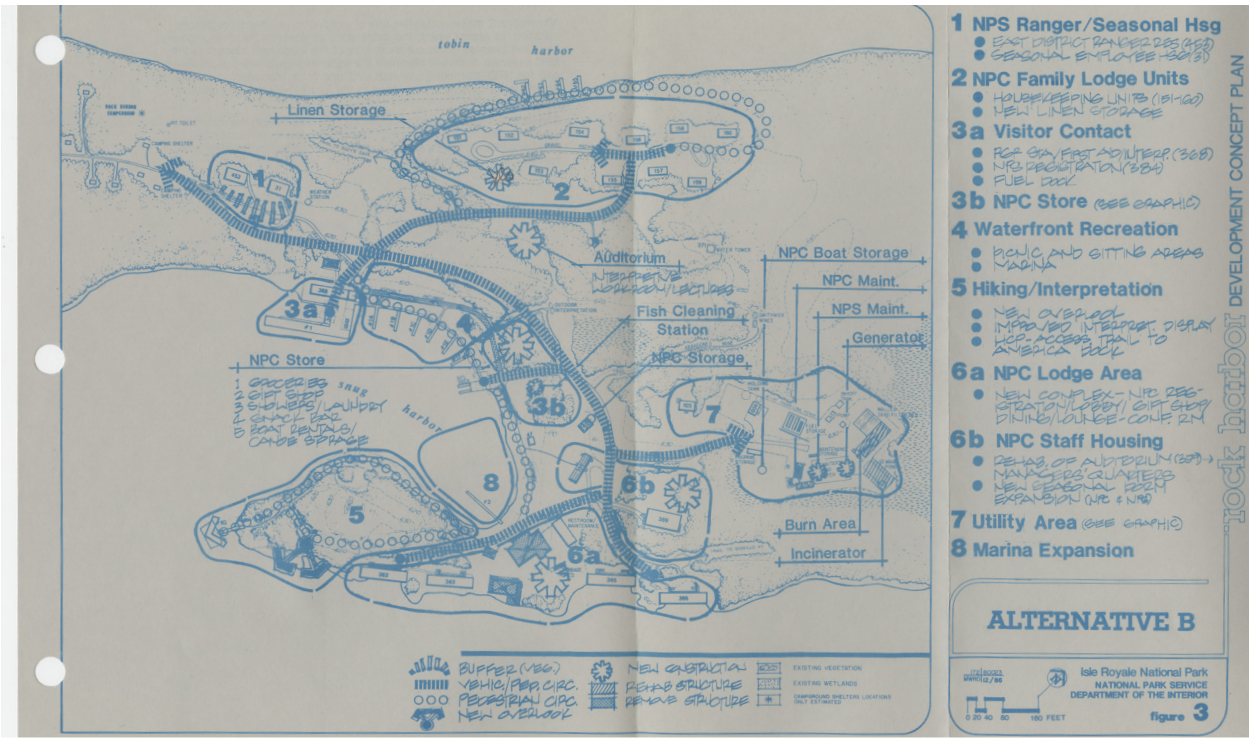


Figure 1B.51: Alternative B Site Plan Map included in the undated Public Workbook (Source: IRNP RMR--005.03.01.01-057--RH DCP Public Workbook--Figure 3--1986, provided by Liz Valencia).

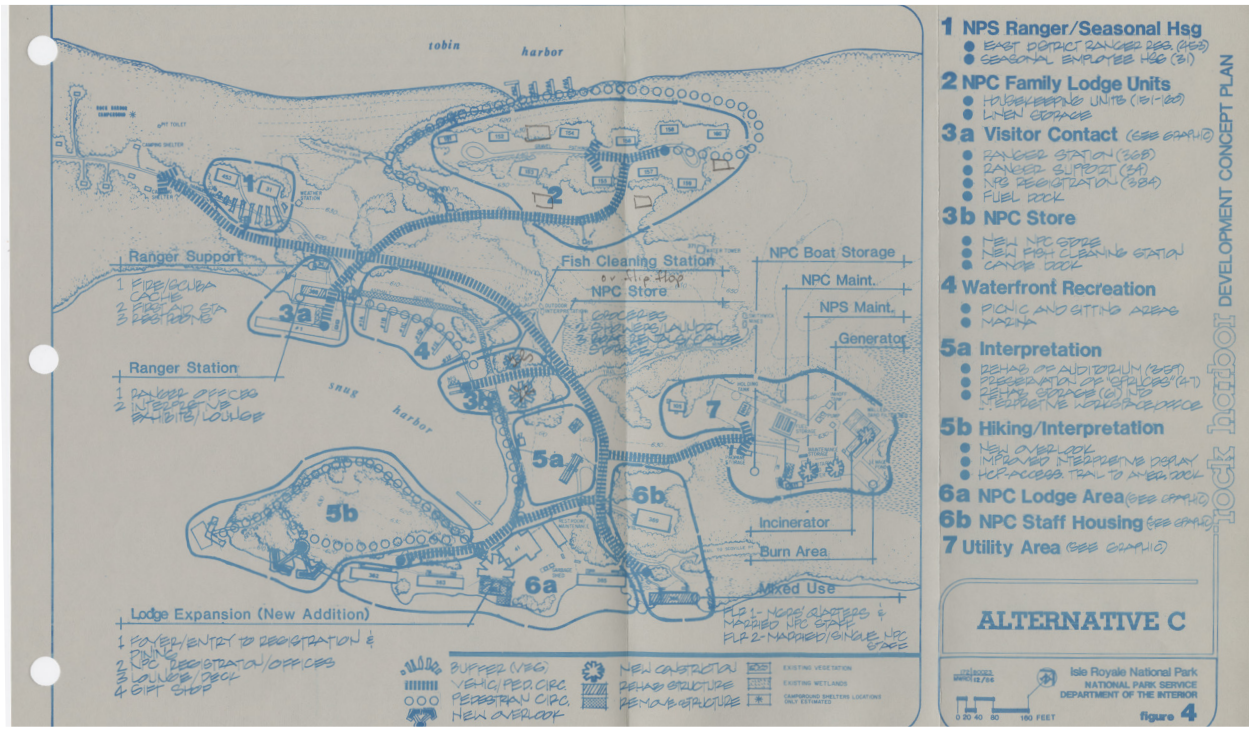


Figure 1B.52: Alternative C Site Plan Map included in the undated Public Workbook(Source: IRNP RMR--005.03.01.01-057--RH DCP Public Workbook--Figure 4--1986, provided by Liz Valencia).

Rock Harbor Lodge Guest House Timeline

ca. 1901	Kneut Kneutson visits Isle Royale seeking relief from symptoms of hay fever and stays at Tobin Harbor Resort
ca. 1902	The Isle Royale Outing Association purchases land at Rock Harbor; Kneut Kneutson, John E. Tappan, and other investors establish Park Place Hotel at Rock Harbor
ca. 1903	Twenty-five guest cottages are available at Park Place
ca. 1908-1910	A dining room and lodge are built at Park Place
ca. 1920	Park Place is renamed Rock Harbor Lodge
1922-1923	Construction of the new Rock Harbor Lodge Guest House spans two seasons.
July 1924	Construction of the Rock Harbor Lodge Guest House is complete, hosting its first guest on the 15th of that month
1926	A site plan of the Rock Harbor Lodge resort grounds is drawn
1928	The America sinks while approaching the dock; the onset of the Great Depression. Both events contributed to the end of the resort era of Isle Royale
ca. 1935	Land acquisition efforts by the National Park Service (NPS) begins; NPS begins negotiations with Bertha Farmer, Kneut Kneutson's daughter
1935	A close-up map of the resort is drawn, see eTIC ISRO_139_1009_0001
1936	Floor plans of the Rock Harbor Lodge Guest House are produced by a NPS employee during ongoing negotiations
1937	A full topographic survey report of the site is produced, field work and drawing completed in 1937 and traced in 1941. See eTIC ISRO_139_5322
1938-1943	Rock Harbor Lodge and the other resorts on Isle Royale are purchased by the NPS
1938	Bertha Farmer is granted a concession contract to manage Rock Harbor Lodge, the Windigo Inn at the Washington Club, and a store on Mott Island
1941	A Master Plan produced by NPS proposes demolishing the Rock Harbor Lodge Guest House, see ETIC 22852-ISRO_139_2056_C
1942	Bertha Farmer's contract as concessioner ends
1943-1953	Rock Harbor Lodge is managed by National Park Concessions, Inc.
1943	The Guest House is remodeled using "regular park funds." A floorplan has a note "Room outlined in red was removed in 1943 to enlarge the lobby."

1946	A new septic tank is added
1947	The exterior of the building is painted white with green trim by the concessioner
1947	Note - The Guest House was originally painted white. It is not known if trim originally had contrasting color. Photographs dated 1935 show light colored window and door trim (likely light green based on paint analysis. A survey of the building is conducted by NPS. Guest House operated by "National Park Concessions Inc." Building structural and mechanical deemed "fair." Survey provides information about walls, finishings, floors, mechanical equipment, including "heat furnished by a hot water boiler located outside the building." There was also a 1-1/2" hydrant 150' distance. No sprinklers and four hand operated fire extinguishers. The survey includes floor plan drawings and notes about changes made to the floor plan.
1948	NPS prepares drawings to replace "Heater Room and Fuel Supply Tank" located to the rear of the adjacent Dining Room Kitchen. See ETIC ISRO_139_8007_0001
1949	Site master plan map of Rock Harbor Lodge drawn, showing significant changes to the property; never actualized. See ETIC 139_2056_E_0001
1955	Topographic survey of the site produced. See ETIC ISRO_139_5322_B_0001
1956	Second ambitious and unrealized site plan for the site drawn; NPS constructs multiple cabin units and, in September, paints Guest House exterior brown to harmonize with new structures
1957	Notes made on a 1957 topographic survey showing proposed location of new buildings and existing buildings. See ETIC 139_5322_A
1956-1966	Mission 66 era, new buildings constructed on the site and old buildings demolished
1963	NPS prepares "as built drawings" of Fire Protection System. Map shows another building in the location of the Guest House, but shows location of fire suppression pumps, lines, and hose locations. See ETIC 139_3138_B
Early 1970s	Guest House converted from overnight visitor lodging to concessioner staff lodging
1967-1973	Parkscape USA period (post-Mission 66); implementation of minor improvements, no major initiatives; no significant changes to Guest House
June 13, 1975	Michael G. Healy, "Individual Building Data" form produced; indicates that the original plaster ceilings has been covered with glue-on Celotex tiles
August 1975	Jane A. McLuckie, Michigan History Division, "Building Structure Inventory Form" includes updated floorplans that indicate the lobby expansion had been reversed and the borrowed space was converted back into a guest bedroom, in addition to other changes discussed in the narrative. Photographs show the building painted a dark color with light trim

1975	NPS inspects building on 6/13/1975. Records information about interior finishings: e.g. ceiling was painted Celotex; the building has 16 guest rooms at this point. The number of guest rooms changes over time; the HABS report says that "The interior was built with seventeen guest rooms, later changed to fifteen rooms, and then changed back to sixteen."
1975	Michigan History Division inspects the building in August, which includes a sketch of the floorplan and a photograph showing the building painted dark color with light trim.
1979	The Guest House's electrical systems are rewired in May, June; and repairs are made to the building's foundation piers: "constructed pier foundation and constructed cement block pier to replace damaged pier beneath building" (1947_ Building Survey).
1981	Structural engineer Richard Ohmstede, Denver Service Center, "Structural Inspection Report;" noted that the building was facing several structural issues and argues that solutions would be "costly and difficult"
1981	Michael W. Fees, Regional Architect for the Midwest Region, writes a letter referencing specific recommendations made by Ohmstede for the Rock Harbor Lodge Guest House, claiming that the buildings is essentially beyond repair
February 17, 1982	Memorandum to the Superintendent of Isle Royale; notes the high price of constructing new building and park facilities, requests addition information about available options and more cost-effective options
1982	Building inspection conducted by the Center for Architectural Inspection Team, under team leader Grant Curtis
May 1983	Draft "Building Data Capsule" report; outlines existing conditions and treatment issues, includes a set of floor plans
August 1983	Detailed floor plans and elevation drawings produced (see Figures B.26-B.31); these plans indicate several notable changes, discussed in detail in the narrative
1983	Scaled drawings prepared of the building. See folder RH GH Drawings from ISRO Archives folder. There are two other sketches of the building in the folder, see "hand drawing 1" and "hand drawing 2." Hand drawing 1 shows the first-story bathroom as one room with four stalls. The 1983 drawing shows the bathroom subdivided into two rooms, presumable one for men and one for women.
1984	Carol L. Maass, "Classified Structure Field Inventory Report;" confirms that the building has been painted coffee brown with green trim, determines that the building has minimal historic significance. Maass recommends adding the Guest House to the park's List of Classified Structures (LCS), under Category D
1984	NPS inspects building on 9/30/1984-- Classified Structure Field Inventory Report. Records that the "exterior is drop siding painted coffee bean brown with green trim." The inspection report provides a detail description of the building. Includes information about mechanical systems, building finishings, etc.

1985	Rock Harbor Lodge Guest House recorded as part of the Historic American Building Survey (HABS) as mitigation for its planned demolition; the exterior and interior of the building is photographed
1985	Detailed elevation drawings of the Rock harbor Lodge Guest House produced by NPS
1985	New asphalt roofing installed on the main roof, dormers, and porch overhang; new roofing consisted of 90lb. mineral surface asphalt with hot tar application. Drawings also call for 26 ga galvanized edging and flashing
1985	The 1985 drawings include references to several fire code compliance upgrades, including new metal fire safe doors at the east and west ends of the first-floor corridor, a new partition wall and metal fire safe door at the east end of the second-floor corridor, and the installation of smoke detectors in guest bedrooms.
1985	New roof materials applied (90lb. mineral surface asphalt roofing with hat tar application after repair of wood sheathing (water soiling appears in photographs of attic); new roofing was installed on main roof, dormers, and deck overhang). Drawings also call for 26 ga galvanized edging and flashing. (1947_Building Survey.pdf and 1985 drawings).
1985	The other notes on the 1985 drawing include several fire code compliance upgrades: First -floor: installing new door on hallway to swing out; installing smoke detectors in rooms, removing trim and screen doors on end of hallway to allow door to swing out (calls for metal jams); Second-floor: new partition wall and door in hallway to isolate two exits; smoke detectors; possibly a new door at end of hallway.
1986	HABS documentation transmitted to LOC; The historical information was adapted from Classified Structure Field Inventory Report from 1985; included photographs from 1985
1987	"Public Workbook: Rock Harbor Development Concept Plan" distributed by NPS to gather public input; fails to properly identify the Guest House as a historically significant building
1988	Don Klima, of the Advisory Council on Historic Preservation (ACHP), advocates against the demolition of the Guest House
1990	NPS begins to reevaluate plans to demolish the Guest House
1997	Maintenance documents indicate that the building was subject to routine maintenance by National Park Concessions, Inc., who repaired the exterior deck and steps around this time
1999	"Historic Structures at Isle Royale National Park, Historic Contexts and Associated Property Type," by Kathryn E. Franks and Arnold R. Alanen; provides a thorough history of Isle Royale, establishes historic contexts for evaluation of significance, and provides significance and integrity assessments for historic resources within the park

2002/2020	NPS Cultural Landscape Inventory of the Rock harbor Lodge Historic District, Isle Royal National Park (Published in 2002, revised in 2020) Includes detailed chronology of NPS/concessioner management of the site
2019	Cultural Resources Management Plan and Environmental Assessment Preferred Alternative B (NPS Preferred Alternative / Proposed Action) identifies that "Rock Harbor Guesthouse would change from administrative use to public use and would be restored to its historic function as a public lodging facility".
2010	"Cultural Resources on Port Royale National Park: An Historic Context," by Philip V. Scarpino; identifies the Guest House as an important historic resource, with possible significance under Criteria A and B.

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1.C Physical Description

Site

The Rock Harbor Guest House landscape rests on a foundation of a predominantly basalt, rock created from lava flow from the Portage Lake Volcanos during the middle Proterozoic, roughly 1.4 billion years ago. These rock formations, altered by years of erosion from wind and water, create the dramatic, rugged shoreline setting for the Guest House.

The Guest House is surrounded by early-to-middle 19th- century buildings and varied landscape features. The site is bound to the northwest by the Dining Room building, approximately 40 feet away, and the Office building, approximately 45 feet away; to the southwest by Saginaw Lodge, approximately 35 feet away; to the northeast by an open lawn, wooded shoreline and the Nokomis Lodge beyond; and to the south/southeast by Rock Harbor, approximately 25 feet away.

The open space to the northwest of the Guest House extends towards the Dining Room building and the Office building. The ground plane in between contains gravel and short grasses. There are also a few basalt outcrops. Various circulation patterns exist in the west/northwest area of the site. Immediately adjacent to the northwest elevation of the building is a wooden deck walkway that connects the deck along the northeastern elevation and the wooden staircase that leads to the second story of the building on the southwest corner. A v-shaped gravel road connects the Guest House to the Office and the Dining Room buildings. The road is a remnant of the triangular shaped road from the Mission 66 period. Connecting the two segments of the road is a gravel path, once part of a Mission 66-era road. Between the three buildings there are a few coniferous trees that range from 8 inches to 15 inches in diameter, as well as a few tree stumps. The most prominent small-scale feature includes the dinner bell on a stone pier near the center of the three buildings. Additional small-scale features include a metal radio tower near the office.

The area northeast of the Guest House contains a prominent rock outcrop and wooded area along the shore, with open space in closer to the Dining Room Building. The rock outcrop contains more exposed rock closer to the shore, with grasses gradually growing more densely inland. Coniferous trees, mostly spruce and fir, and deciduous trees, typically paper birch, ranging from 6 inches to 12 inches in diameter, create a forest atop the outcrop. However, closer to the buildings the trees thin out, leaving a ground plane of gravel and short grasses. The landscape in this area also contains multiple tree stumps. Various circulation features exist here, including a gravel path that extends from the north/northwest corner of the building toward the forested area. There are also smaller native surface paths leading to various points toward the water. Adjacent to the Guest House, is a wood deck, roughly 15 feet wide, and wood ramp, roughly 5 feet wide, that connects from the west side deck to the deck on the northeast side of the building. There are also multiple small-scale features and utility features, most of which are located closer to the Dining Room Building. These features include stacks of firewood, water meters, water valve, water spigot/hose bibb, fiber optic pull box, exposed conduit, hydrant, guy wire, overhead electric lines, and electric line poles. There is also a designated picnic area that includes picnic tables, benches, and a fireplace on a mowed grass surface. A wooden fence, roughly 20 feet long, partially screens most of the utilities from the gravel path. There is also a remnant post hole in a portion of the outcrop northeast of the Guest House where the flagpole once stood.

The southeast façade of the Guest House faces toward the shore of Rock Harbor. Near the northeastern corner of the building is a wood deck, roughly 27 feet by 18 feet, which is supported by a stone foundation wall. The majority of the shoreline in front of the building is rocky. The rugged, exposed rocky shoreline is primarily composed of basalt. Species of lichen, grasses, and forbs grow on top of the conglomeration of small and large boulders. Woody plants include

paper birch trees (*Betula papyrifera*), elderberry (*Sambucus racemose*), and wild rose (probably *Rosa acicularis*). Wood railing provides fall protection from the deck. It is comprised of 4x4 wood posts with 3 rows of horizontal 2x6's.

The landscape to the southwest of the Guest House is bound by the Saginaw Lodge. Between the two buildings is a large basalt rock outcrop. On top and adjacent to the outcrop are several coniferous trees, including Balsam fir trees (A*bies balsamea*) that range from 6 inches to 15 inches in diameter. Also on the outcrop are small grasses, forbs, common juniper shrubs (Juniperus communis), thimbleberry (*Rubus parviflorus*) and several tree stumps. Between the Guest House and the rock outcrop is a wood deck walkway roughly 4 feet' wide. The walkways connect to a major circulation path that that leads to the Saginaw Lodge to the west and the Office to the northeast.

Building

The Rock Harbor Guest House is a vernacular hotel building constructed in 1922-1924 for seasonal use. The building is situated on the outer edge of the small peninsula that forms Snug Harbor, facing southeast towards the water. For this report, the water side along Rock Harbor will be referred to as the southeast side of the house, with the remaining cardinal directions corresponding. The Guest House is a wood-frame two-story building with a rectangular footprint, approximately 60 feet long and 32 feet deep. The roof ridge line is approximately 30 '-0" above the first -floor. The exterior walls are clad in novelty drop wood siding, painted a medium brown (Figure 1C.1 and Figure 1C.2). The building has a side gabled roof, clad in green asphalt rolls, with three small gabled dormers on the southeast slope (Figure 1C.3 and Figure 1C.4). There are exposed rafter tails under the Craftsman style flared roof eaves. The Guest House has a wooden wrap-around deck, which projects outward onto the shoreline at the building's southeast corner. The wrap-around deck connects the first-floor entrances on the southeast, northwest, and southwest elevations. There is a wooden second-floor balcony on the southwest elevation, accessible via a wooden staircase on the northwest elevation of the building.



Figure 1C.1: View looking northwest of the main elevation of the building.



Figure 1C.2: View looking southeast showing the exterior stairway and wrap-around porch.



Figure 1C.3: View of the south elevation doorhood over the entrance from the porch.



Figure 1C.4: View of one of the dormer (3 in total) on the south elevation roof.



Figure 1C.5: View of the main lobby and interior stairway that leads to the second-floor.



Figure 1C.6: View of the fireplace in the first-floor lobby.



Figure 1C.7: View of the first-floor hallway looking to the west.



Figure 1C.8: View of the second-floor hallway looking east.



Figure 1C.9: View of the unfinished attic looking to the west.

Both floors of the Guest House are arranged along a central corridor. The first -floor has a lobby, small storage closet, central corridor, seven guest bedrooms, and two restrooms. The lobby is on the northeast end of the building and provides access to the main circulation systems of the building, including the first-floor corridor and the second-floor corridor, accessible via the lobby staircase (Figure 1C.5, Figure 1C.6, Figure 1C.7, and Figure 1C.8). The second-floor is composed of a central corridor, ten guest bedrooms, two restrooms, a storage closet, and attic stairwell. The attic is an open space with several small storage closets (Figure 1C.9). The building is used as storage and staff housing for the park concessionaire, National Park Concessions, Inc.

The bedroom naming conventions, as expressed by the metal numbers on the outer faces of the door, overlaps between the two floors. The first-floor bedrooms include Bedrooms 1 through 7, while the second-floor bedrooms include Bedrooms 6 through 16. As a result, both floors have a Bedroom 6 and a Bedroom 7. The second-floor bedroom naming convention omits a Bedroom 13, instead jumping from Bedroom 12 to Bedroom 14.

Structural

This section of the Historic Structure Report (HSR) for the Isle Royale Guest House focuses on the structural components. It is based on data provided by the NPS, both past and recent, and on direct examination and documentation of readily visible members within the building. There was no attempt made to expose hidden structural members by selective demolition during the field investigation.

Scope of Structural

The structural section of this HSR is based on the following scope of work:

- On-site visual field investigation, including measurements, photographs, and assessment of the various structural members and components for the Isle Royale Guest House.
- Research of the available historical documents relevant to the structure, provided by the NPS. This includes past reports, memos, chronology lists, design drawings for past repair and restoration and efforts, and documentation drawings of existing conditions at various times over the life of the structure.
- Historic photos illustrating existing conditions for the Guest House at various times over the life of the structure.

Reference Material

Reference material such as historic documents, general reports, rehabilitation drawings, photos, past historic structure reports, chronologies, and NPS data has been collected and compiled for use in preparing this structural section. Historic documents are by nature subject to interpretation and may not be reliable or completely accurate, but represent the best means of establishing the structural history of the Guest House.

The following is a brief description of the primary reference material used to prepare this structural section.

1947 Building Survey. Survey of the Guest House including first and second-floor plans.

1936 Hand Drawing of the Floor Plans by NPS representative.

1981 Structural Inspection Report, Richard Ohmstede, Denver Service Center

1983 Scaled Drawings.

1985 Scaled Drawings.

Overall Description

The building was originally built as a Guest House with sleeping rooms for visitors to Isle Royale. As such, the occupancy classification has been residential for the life of the building. It is currently being used by the park concessioner for employee sleeping rooms on the first -floor and storage on the second-floor. The first-floor lobby and the deck are open to park visitors as public spaces. The Guest House is a two-story wood-framed structure over a crawlspace bearing on three rows of concrete piers exposed in the crawlspace (Figure 1C. 10).

The Guest House is situated on Rock Harbor and therefore subject to harsh weather conditions, especially in the winter. Since the facilities at Isle Royale National Park are shuttered and unoccupied in the winter months, the impact of harsh winter weather conditions on the Guest House is not fully known, but it is known that Lake Superior can be extremely harsh during the winter months. Although somewhat sheltered from the full body of the lake by a string of barrier islands to the south, it is nonetheless assumed that the Guest House is exposed to extreme winter weather conditions.

Foundations

The crawlspace under the Guest House is largely enclosed on all four sides. The enclosure on the southeast side along the waterline is made up of flat vertical wood slat boards spaced to leave an opening between them similar to yard fencing. When this enclosure was installed is unknown. There is a measurable gap between the bottom of the fence-like enclosure and the exterior grade, especially on the west half of the southeast wall. The crawlspace is enclosed along the east end of the southeast side by the outer stone and concrete walls that support the wood deck. There is a narrow strip of ground along the southeast side between the crawlspace enclosure and the water line. This strip is populated with natural and positioned stone along with small trees and shrubs. The wood fence enclosure and the stones and organic growth provide some protection against erosion of the crawlspace from the wave action of the lake, but probably not enough to withstand severe weather conditions and winter storms.

The floor of the crawlspace consists of exposed dirt and scattered rocks, covered with debris such as tree limbs and branches, bricks, construction debris, and trash. The grade in the crawlspace slopes predominantly downward from the northwest to the southeast. It appears that the natural materials scattered around the crawlspace have been washed under the house from the lake, probably before the present fence enclosure was built. However, the gap wood fence enclosure is wide enough in some spots to allow small limbs and branches to wash under and into the crawlspace under current conditions.

The enclosure of the crawlspace on the northeast, northwest, and southwest sides is formed by the rising grade from the southeast to the northwest and by the wood plank boardwalk along those sides of the Guest House. The southeastern portion of the southwest side of the crawlspace is partially closed off by several large stones under the walkway.

The structure of the Guest House bears on three rows of concrete foundation piers along the northeast-southwest axis of the houses. There are four piers along the northwest side, six piers along the center, and six piers along the southeast side of the house. These piers are approximately 20 inches by 20 inches and extend into the grade of the crawlspace. One of the original concrete piers under the southeast elevation has been replaced with a concrete masonry unit (CMU) pier.

It is not clear how deep the piers extend below grade level. There appear to be rock layers at a shallow depth under the house based on exposed rock formations immediately around the site. It is assumed that some or all of the piers were constructed on the natural solid rock below the house. The frost depth for Rock Harbor is 42 inches. If any of the piers bear on soil and not rock, those piers would need to be 42 inches below grade to prevent frost heaving. For any piers bearing directly on the below-grade rock, the frost depth is not an issue. If some or all of the piers bear on the rock, this raises the question of whether the original builders used mechanical anchors to fasten the concrete to the rock. Note that determining the depth of embedment and the bearing stratum condition of the piers is not an easy task and is beyond the scope of this report.

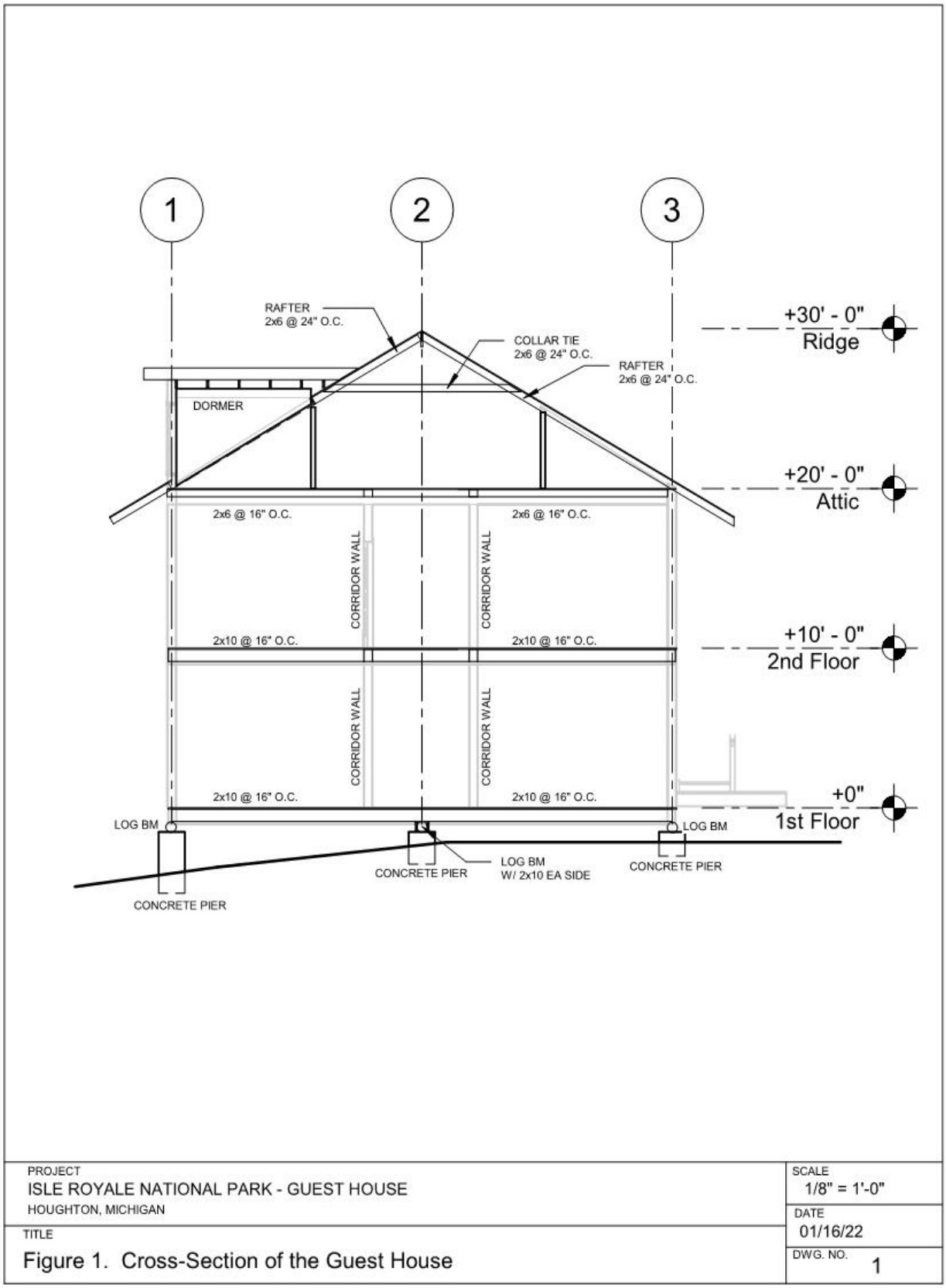


Figure 1C.10: Cross Section of the Guest House.

The wrap-around deck on the southeast and northeast elevation bears on the rock formations around the site or is supported by 4" x 4" wood posts resting on the rock. Along the northwest and southwest sides, the wrap-around deck rests directly on the ground or is supported by 4"x 4" wood posts resting on the ground. There are some manmade concrete piers and walls on the southwest and southeast sides and wood posts on concrete foundations supporting the interior of the deck structure.

Floor Construction

First floor Level
The first-floor structural framing consists of wood joists supported by log beams spanning between the concrete piers. The wood joists are 2x10 at 16" o.c. and span approximately 16 feet in the northwest-southeast direction. They rest on the top of three log beams, one at each edge on the northwest and southeast and one along the center of the floor. The floor deck consists of 3/ 4 inch thick planks laid on a diagonal across the top of the joists. This wood floor system is exposed to the elements within the crawlspace, minimally protected by the crawlspace perimeter enclosure.

The first -floor is arranged with sleeping rooms on either side of a central corridor along three-quarters of the length of the Guest House. The two corridor walls are approximately 6 feet apart and bear on the first-floor framing on either side of the central floor beam. This places the walls approximately 3 feet from the beam on either side of the corridor. These two walls extend up to the attic level and are therefore supporting the second-floor and attic, which makes them load-bearing walls. This means the first-floor joists are carrying a concentrated wall load at a distance of around 3 feet from the interior support, in addition to a uniform floor load. The northeast side of the first -floor is currently utilized as a lobby space, accessible to visitors. This lobby is open with no interior walls or columns.

There are locations where additional post and beam support shoring has been placed under the first-floor joist framing. The specific reason for shoring in these locations is not known, but it is likely not part of the original framing.

Second floor Level
The second-floor is arranged with sleeping rooms on either side of a central corridor along the length of the Guest House. The two corridor walls are approximately 6 feet apart and bear on the first -floor framing below on either side of the central floor beam. These two corridor walls extend up to the attic level and are therefore supporting both the second-floor and attic, which makes them load-bearing walls. The walls on the northeast side over the lobby below are bearing on the second-floor framing as none of the walls extend down through the first -floor to the foundation. This is placing some of the attic floor load on the second-floor framing. The second-floor framing was not visible so it is not clear if specific framing members such as beams were built to support these walls.

The second-floor structural framing consists of wood joists supported by the exterior walls and the interior corridor walls except over the northeast lobby where the joists likely span northeast-southwest. The joists were concealed and were not visible for direct examination. However, a measurement taken through an existing hole in the floor deck indicated the joists are 2x10, likely the same 16-inch spacing as the first -floor. The floor deck measured 3/ 4 inches thick over the top of the joists. The span of the joists is approximately 12'- 6" between the exterior and interior bearing walls. The corridor floor joists span approximately 6'-4" clear across the width of the corridor. It is assumed that the size of the corridor joists is the same as the rest of the second-floor framing. The east-west joists over the northeast lobby are spanning approximately 16'-8" from the exterior wall to the interior wall on the west side of the lobby. The size and spacing of these joists are assumed to be the same as the rest of the second-floor. Since the second-floor joists were not exposed for examination, the specific condition was not readily visible.

Attic Floor Level
The attic-floor structural framing consists of wood joists supported by the exterior walls and the interior corridor walls. The joists were largely concealed and not visible for direct examination. However, a measurement taken through an existing hole in the floor deck indicated the joists are 2x6 spaced at 16 inches o.c. The floor deck measured 3/ 4 inches thick over the top of the joists. The span of the joists is approximately 12'-

6” between the exterior and interior bearing walls at the second-floor level. The corridor floor joists span approximately 6’-4” clear across the width of the corridor. It is assumed that the size of the corridor joists is the same as the rest of the attic-floor framing. Since the attic-floor joists were not exposed for examination, the specific condition was not readily available.

Exterior Deck
The exterior deck is made up of wood posts, beams, joists, and deck boards. It is approximately 580 sq. ft. and extends over the shoreline of Rock Harbor. The deck rests on concrete piers, a stone and concrete wall on the northeast and southeast sides, and internal wood posts that bear on stone outcroppings below. The deck framing is supported by a ledger beam against the Guest House. There is a small amount of lake water that extends under the deck through openings in the southeast stone and concrete wall.

The deck joists are 2x8 at 16” o.c. and the central support beam is made up of four 2x8 fastened together. The central beam rests on four 4x4 wood posts spaced nearly equally along the beam length. These posts rest on concrete pads cast on the stone outcroppings, one of which is partially submerged in the lake water. These posts have light gauge fasteners where they meet the concrete at the bottom and minimal anchorage to the wood beam at the top. Based only on a visual assessment, the wood appears to be pressure treated.

Roof Construction

The main block of the Guest House has an open gabled roof with three gabled dormers on the southeast-facing slope of the roof. A gabled hood roof is placed above the lobby entrance of the southeast elevation. All of the gable roof lines are flared at their ends. The side gables of the main block and the gabled hood above the lobby entrance have decorative triangular brackets. The exposed portions of the roof structure are painted brown to match the siding.

The roof structural framing consists of 2x6 wood rafters at 24” o.c. supported by exterior bearing walls and framed into a 1” x 12” ridge board at the peak. There are 2x6 collar ties at each rafter at approximately 7’ feet above the attic floor. The roof deck consists of 3/ 4” shiplap boards laid across the roof rafters. There is an overhang on the northwest and southeast sides formed by the roof rafters extending out beyond the exterior walls by approximately four feet. Each rafter has a 2x6 fastened to the side for reinforcement at the overhang. The rafters and side reinforcement appear to be wrapped with wood trim and painted. The overhang at the northeast and southwest gable ends is supported by a series of built-up 2x4 brackets with a diagonal support brace.

There three dormers are framed with 2x4 side walls and 2x6 rafters at 24 inches o.c. with a ridge board at the peak. The decking over the dormers is 3/4-inch-thick ship lap boards laid on top of the rafters.

Architecture

Exterior Walls

The exterior siding material is wood novelty drop siding. This type of siding is characterized by a concave swoop at the top and a hidden rabbet (a small groove) at the bottom. The top of each slope fits into the rabbet of the course above, making the siding self-spacing. The siding has an exposure face of 2-5/8”. Diagonal sheathing is used as the substrate.

Based on the Paint Analysis and digitally altered historic photos, the Guest House was originally painted white. The NPS painted the exterior of the Guest House in September 1956 to “harmonize with new structures” constructed during the Mission 66 program. The NPS painted the building brown, similar to its current color. The paint has a semi-gloss sheen to it. The wood trim and casings are painted to match the siding.

The interior of the exterior walls consists of plaster on wood lath. The surface has the same texture as the rest of the interior walls.

Chimneys

The chimney on the southwest exterior wall served the former Boiler Room Building (since removed) and is currently not in use. It may also have supplied supplemental heating to the bathrooms. The chimney was constructed with board-form concrete and is painted to match the siding. The chimney on the northeast exterior wall is still in use and provides supplemental heat for the first -floor lobby. It’s composition is consistent with the

southwestern chimney but is left unfinished.

Exterior Windows

There are thirty-nine windows on the Guest House, which can be separated into three main types: 6/6 double-hung, 4/4 double-hung, and 6-pane casement. All of the windows on the Guest House have wood casings and wood muntins. Field observations indicate that the Guest House windows are true divided-light windows, with individual panes of glass secured by glazing. The first-floor windows on the northwest and southeast elevations have wood screen windows on their lower sashes. The interiors of the windows have spring-loaded window pins on the upper and lower sash stiles. These pins are drilled through the stiles and fit into corresponding holes in the window jambs, which are used to raise and lower the window sashes in lieu of internal weights or springs. All of the panes of glass are clear, with the lone exception being the restroom windows on the southwest elevation. These panes of glass are varying types of opaque textured glass.

There are eighteen windows on the southeast elevation, with six single 6/6 double-hung windows on the first-floor, six single 6/6 double hung windows on the second-floor, and three sets of paired 4/4 double-hung windows in the dormers. Two of the first-floor windows frame the French door lobby entrance on the right side of the southeast elevation. There are eight windows on the northeast elevation. There are two sets of paired 6/6 double-hung windows on the first -floor and two single 6/6 double-hung windows on the second-floor. There are two single 6-pane casement windows at the attic level. There are eight windows on the northwest elevation, with three single 6/6 double-hung windows on the first -floor and five single 6/6 double-hung windows on the second-floor. There are five windows on the southwest elevation, including two single 6/6 double-hung windows on the first -floor, two single 6/6 double-hung windows on the second-floor, and one single 6/6 double-hung window on the attic level.

The exterior side of the windows are painted to match the siding. On the interior, the majority of the windows are painted coastal blue. The exceptions being the first -floor lobby space, which is painted a light green patina color to match the lobby trim and the windows in the attic, which are left unfinished.

Exterior Doors

There are four exterior doors on the Guest House. The three first-floor doorways are located on the southeast, northwest, and southwest elevations, while the second-floor doorway is on the southwest elevation. The first-floor doorway on the southeast elevation is a wood French door with two 8-light doors. The doors have divided lights, secured by wood muntins with glazing. The doors are set in wood casings with a wood jamb. The exterior casing is butted while the interior casing is mitered. The doorway on the northwest elevation is a single 3-panel, 4-light wood door, with an exterior wood screen door. The doorway is set in wood casings with a wood jamb. The exterior casing is butted while the interior casing is mitered. This door appears to have retained its original hardware, including the doorknob, backplate, and lock. The first-floor doorway on the southwest elevation is a flush metal door. The door has wood casings and a metal jamb. The exterior and interior casings are butted. The second-floor door on the southwest elevation is a 1-panel, 8-light wood door framed by 4-light sidelights on either side, with an exterior wood screen door. The doorway and sidelights are framed by wood casings, and the doorway a wood jamb. The exterior and interior casings are butted. This door appears to have retained its original doorknob and back plate and has a modern deadbolt lock. The exterior of the doors are painted to match the siding, while the interior is painted to match the trim of the room it is in.

Roof Coverings

All of the roof structures are clad in green mineral surface roofing (MSR), also commonly referred to as asphalt roll or modified bitumen. A 1947 survey of the building describes the roofing materials as “Asphalt, roll.” A set of plans from 1985 indicate that the roof was subject to routine maintenance, including removing the existing asphalt roll roofing, repairing any damaged or deteriorated decking, and installing new asphalt roll roofing. The new roofing was to consist of a base sheet, steep asphalt, asphalt felt, and a mineral surface cap sheet. There are no gutters or downspouts on the building.

Roof Openings

Roof openings include the chimney projections

at either gabled end, as well as the three gabled dormers on the southeast elevation roof slope. There is black tar sealant where the chimneys and project through the roof and around the bases of the gabled dormers, where their walls intersect with the roof slope.

Interior Doors

There are twenty-seven interior doorways in the building, including eleven on the first -floor, fifteen on the second-floor, and one in the attic. The interior doors can be separated into three main types: 5-panel wood doors, flush metal doors, and 4-panel wood doors. There are twenty-three 5-panel wood doors, two flush metal doors, and two 4-panel wood doors.

First -floor

On the first -floor, there are eleven interior doors, including ten 5-panel wood doors and one flush metal door. The 5-panel wood doors include one closet door, two bathroom doors, six bedroom doors, and one party door between Bedrooms 2 and 3. The flush metal door is the door between the lobby and the first-floor corridor.

The door to the lobby closet swings outward into the lobby. The closet door is set in a flat mitered wood casing with a wood jamb. This door has its hinges on the left side. The top of the door appears to have been altered, and the upper-most panel is shorter than the lower four. The door also has a metal "1" door number that has been painted over, on the interior, closet facing side. It is possible that the closet door was borrowed from the bedroom that was temporarily used to expand the lobby, and the door was subsequently resized to fit the lobby closet threshold. This door appears to have retained its original doorknob and backplate.

The flush metal door provides access to the first-floor corridor from the lobby. It swings outward into the lobby space. The metal door has no casings around the metal frame. This door has a modern doorknob with no backplate. There are visible seams in the plaster around the door casing where the former corridor threshold was infilled to fit the doorway. There is also visible patching in the flooring directly under the door, between the lobby and the corridor.

Bedroom 1 was temporarily used to expand the lobby space during the 1940s. When the room was re-enclosed, the doorway placement was reconfigured. Unlike the other bedroom doorways, which are directly opposite those across the hall, the doorway for Bedroom 1 is offset closer to the lobby. This door is a 5-panel wood door, set in a flat mitered wood casing with a wood jamb. The doorknob and backplate do not match those on the other first-floor bedrooms, and the door has a modern deadbolt lock. The door swings inward, into the bedroom. The doorway to Bedroom 1 is the only first-floor bedroom door with hinges on the left side. There is a metal "1" on the outer face of the door.

All of the other bedroom doors on the first -floor (Bedrooms 2-7) have matching characteristics. They are all 5-panel wood doors set in flat mitered wood casing with wood jambs. The doors have retained their historic doorknobs and backplates and are outfitted with modern deadbolts. They all have their hinges on the right side and swing inward into the bedrooms. They each have a metal number on their outer faces, corresponding with the room number.

There is a 5-panel wood door in the party wall between Bedrooms 2 and 3. Like the other bedroom doors, this door is set in a flat mitered wood casing with a wood jamb. The door, doorknob, and backplate on the Bedroom 3 side have all been painted over, suggesting the door is not used. On the Bedroom 3 side, there is sealant or tape around the gap between the door and the casing. From the Bedroom 3 side, the hinges are on the right side and the door swings inward.

By 1983, the original first-floor bathroom had been subdivided into two smaller bathrooms with two separate entrances. The original bathroom doorway is adjacent to the additional bathroom entrance. The original bathroom doorway matches the characteristics of the doorways for Bedrooms 2-7, as described previously, but it does not have the four drill or nail holes on the right side of its casing. This door has retained its original doorknob and backplate. There is a small sign on the outer face of the door that reads "Gentlemen". The restroom addition doorway is a 5-panel wood door, set in a flat mitered wood casing with a wood jamb. This door is noticeably narrower than the original bathroom and bedroom doorways. Like the bathroom door and the doors for Bedrooms 2-7, this door has its hinges on the right side.

However, unlike the other doors, this door swings outward into the corridor. The doorknob on this door does not have a backplate. There is a sign on the outer face of the door that reads “Ladies”.

Second-floor
On the second-floor, there are fifteen interior doors, including thirteen 5-panel wood doors, one 4-panel wood door, and one flush metal door. The 5-panel wood doors include one attic door, two bathrooms doors, and ten bedroom doors. The 4-panel wood door is the closet door, and the flush metal door is the door between the second-floor stair landing and the second-floor corridor.

The attic doorway leads to the attic stairs. The door is a 5-panel wood door, with a flat wood board casing and wood jamb. This door has its hinges on the left and swings outward into the second-floor stair landing area. The casing extends to the ceiling and frames a rectangular cutout with beadboard above the door. The outer face of the attic door is painted while the inner face is unpainted. The door has retained its original doorknob and backplate and has a modern deadbolt.

The closet door is directly right of the attic door. This door is a 4-panel wood door, with a flat mitered wood casing and a wood jamb. This door does not have a doorknob, and the backplate is more ornate than the other backplates on the second-floor. This door has a barrel bolt lock on its outer face.

The flush metal door separating the staircase landing from the second-floor corridor swings outward into the landing space, with hinges on its right side. The metal door has no casings around the metal frame. This door has a modern doorknob with no backplate. This door and the surrounding partition wall were added sometime around 1985.

The second-floor bedroom doors, Bedrooms 6-16, are all 5-panel wood doors set in a butted flat wood casing with wood jambs (the second-floor bedroom naming convention omits a Bedroom 13, jumping from 12 to 14). The interior casing of Bedroom 12 is mitered, while all of the other interior casings of bedroom doors are butted. All of the bedroom doorways appear to have retained their original doorknobs and backplates, and modern deadbolts have been added. Bedroom 6 is the only second-floor bedroom door that has its hinges on the left side.

By 1983, the original second-floor bathroom had been subdivided into two smaller bathrooms with two separate entrances. The original bathroom doorway adjacent to the additional bathroom entrance. The original bathroom doorway matches the characteristics of the doorways for Bedrooms 6-16, as described previously, but it does not have the four drill or nail holes on the right side of its casing. This door has retained its original doorknob and backplate. There is a small sign on the outer face of the door that reads “Gentlemen”. The restroom addition doorway is a 5-panel wood door, set in a butted flat wood casing with a wood jamb. This door is noticeably narrower than the original bathroom and bedroom doorways. Like the bathroom door and the doors for Bedrooms 7-16, this door has its hinges on the right side. However, unlike the other doors, this door swings outward into the corridor. The doorknob on this door does not have a backplate. There is a sign on the outer face of the door that reads “Ladies”.

Attic
There is a built-in storage closet in the attic with a 4-panel wood door. This door mirrors the second-floor closet door. The door is set in a butted flat wood casing with a wood jamb. The door has its hinges on the left side and swings outward into the attic. The door appears to have a replacement doorknob and does not have a backplate. There is a small metal hook and latch lock on the door.

Fittings
Bathrooms
Based on existing drawings, the bathrooms were originally one large room with three toilets, one sink and one shower stall. In 1983, the bathrooms were subdivided into separate men’s and women’s facilities. They are still located in the southwest corner of the floor plate. Each men’s bathroom consists of two enamel toilets, one cast iron sink and one plastic shower stall. The toilets are built on a platform and have a toilet partition surrounding it constructed with wood framing and beadboard. One of the first -floor toilet stalls is missing a door. The men’s restroom on the first -floor contains the building’s hot water heater. The women’s restrooms consist of one enamel toilet, one enamel sink and one plastic shower stall. The toilet is also built on a platform and surrounded by a toilet partition made out of wood framing and

beadboard.

Bedrooms
The guest bedrooms were equipped with several important fittings, including small built-in closet hutches, wall-mounted sinks, vanity shelves, mirrors, and drop-leaf writing tables. These elements are intact in a majority of the bedrooms (Figure 1C.11). The built-in closet hutches are made of wood and beadboard, with tongue-and-groove tops. They provided guests with a place to store their clothes, and the tops served as additional shelving space. The sinks are cast-iron, with separate hot and cold water taps. There is a rectangular mirror and wooden vanity shelf above the sink in most bedrooms. Second-floor Bedrooms 6 and 8 each have an extra closet hutch. It is possible these extra hutches are from rooms where they had been removed. The drop-leaf writing tables are mounted to the wall and use a foldable bracket to prop the table up. In Bedroom 2, the table has collapsible legs. The wood fittings are typically painted coastal blue to match the trim and doors, although there are instances where they are painted white or left unfinished.



Figure 1C. 11: Built-ins within the bedroom units.



Figure 1C.12: Decorative stair nosing with ogee scotia below.

Fireplace
The stone fireplace is located on the northeastern wall of the first -floor lobby. The firebox is made of brick and the hearth is made of concrete. The fireplace surround is constructed from mortared rough cut slabs laid horizontally with vertically arranged slabs set above the firebox lintel.

Stair Construction
Interior First-to-Second Floor Staircase
The interior first- and second-floor staircase is located in the southwest corner of the lobby. The stairs are made of wood with wood treads and risers. All of the wood has been painted. The staircase is broken by a square landing in the corner. The bottom portion of the staircase has three risers and faces southwest. The staircase meets the landing, then pivots southeast. The upper portion of the staircase has thirteen risers.

The first- and second-floor staircase has retained its original balustrade, handrails, square newel posts, and inner and outer stringers. All of the stair finishes have been painted. The balustrade is composed of square balusters, with three per tread. The treads have decorative nosing with ogee scotia below (Figure 1C.12). The stairs have three newel posts, placed at the top, the bottom, and the landing. The newel posts are all square with flat square newel caps, with a row of decorative molding below.

The original flooring material in these areas may have been hardwood or the same checkerboard found in the lobby. The attic floors are not painted.

Attic Staircase
The attic stairs have retained several original features, but they are far less decorative than the lobby stairs. The attic stairs are not painted. The treads have nosing but no scotia. The lower section of the attic staircase does not have a handrail or balustrade. The upper section of the staircase has a wood stringer and a wood handrail, but no balustrade.

The attic staircase is located at the northeastern end of the second-floor corridor. The staircase is

made of wood with wood treads and risers. The wood is not painted. The attic staircase is broken by a rectangular landing. The bottom portion of the staircase has seven risers and faces northeast. The staircase meets the landing, then pivots southwest. The upper portion of the attic staircase also has seven risers.

Exterior First-to-Second Floor Staircase

An exterior wood staircase provides the second means of egress from the second-floor. It is accessed from the exterior door on the southwest elevation via a balcony that wraps to the northwest elevation. The staircase consists of wood treads and open risers. The staircase is a single run of 14 risers facing southwest. The staircase and balcony are supported by 4" x 4" wood columns. The wood appears to be pressure treated wood.

The railing for the exterior balcony and stairs consists of a guardrail comprised of 4" x 4" wood posts and capped with a horizontal 2x wood railing. There are no handrails or balustrades. The railings are left unfinished, although they appear to be pressure treated.

Wall Finishes

The primary wall finish material throughout the building is a roughcast plaster on lath. The texture of the plaster appears to be original and is present in historic photographs. There are a limited number of non-original walls, including the lobby and corridor walls around Bedroom 1, as well as the walls enclosing the bathroom additions on the first and second-floors. These walls are drywall and have received a spray-on 'orange peel' surface treatment to mimic the texture of the original plaster. All of the first and second-floor interior walls are painted white. A portion of the wall along the attic staircase is roughcast plaster, which has begun to fall away to expose the lath underneath. The attic walls are unpainted shiplap.

Floor Finishes

Historic photographs indicate that the lobby originally had a light and dark colored checkerboard floor, likely made of vinyl or linoleum. The checkerboard lobby floors were replaced with hardwood at an unknown point. The wood floors are not painted but are given a clear finish. There are visible patches in the hardwood floors where the radiator pipes were removed, suggesting that the floors were replaced prior to the removal of the radiators.

The predominate flooring material is hardwood plank flooring. The boards are typically 3-1/4" wide and are painted. The wood floors in the first-floor bedrooms are painted blue, matching the trim color. The second-floor corridor and bedroom floors are a dark brown. The second-floor corridor has a glued-down ribbed-rubber material running the length of the corridor. This same material can be found on the interior stair treads.

The first-floor corridor and the first and second-floor bathrooms have vinyl flooring that is not original to the building. Research indicates that the current flooring in these areas is a vinyl sheet flooring with inlaid vinyl chips, first produced by the Armstrong Company in 1959 as part of their "Tessera Corlon" collection.

There is some discoloration and possible evidence of moisture damage on the floor boards.

Baseboards

There are four distinct styles of wall base found in the building. In the first -floor lobby, an approximately 6" tall decorative baseboard encompasses most of the room. They have 3" skirts with an ogee base cap on the top and decorative ogre shoe moldings along the bottom (Figure 1C. 13). On the party wall between the lobby and Bedroom 1, the baseboard transitions to a simpler style (Figure 1C. 14). These baseboards are flat boards, approximately 6" tall, with a beveled edge at the top and quarter round along the bottom. The predominate style of baseboard in the building closely matches the decorative baseboard found in the lobby (Figure 1C. 15). The exception being they have a quarter round rather than a shoe molding around the bottom. This style is typically found in all of the bedrooms, with the exception of Bedroom 1, which has a combination of styles. The men's bathrooms have the same baseboards as the corridors and bedrooms, while the women's bathroom appear to have sections with replacement baseboards, sections with no baseboards, and sections with only quarter round. During the multiple 1980's renovation projects, the baseboard that was installed on new walls is a flat board with no detailing (Figure 1C. 16). In all cases the baseboards are painted to match trim within the room they occur in.

Ceiling Finishes

The primary ceiling finish material throughout the



Figure 1C.13: Decorative baseboard located in the first -floor lobby space.



Figure 1C.14: The first-floor lobby baseboard transitions to different styles where new walls were installed.

building is a roughcast plaster that matches the walls. One noted exception is the first-floor lobby, a portion of the first-floor corridor and Bedroom 1. The ceiling in these rooms appear to be comprised of 4' x 8' particle board with 1x trim to cover the seams. Another noted exception in on the second-



Figure 1C.15: In the first-floor corridor, the baseboard style transitions from one type to another. This occurs where Bedroom 1 was enclosed.



Figure 1C.16: New partition walls installed in the 1980s were fitted with flat baseboard in secondary spaces.

floor ceilings, where some of the ceilings appear to have been replaced with gypsum wallboard. These new ceilings received a spray-on 'orange peel' surface treatment to mimic the texture of the original plaster. Throughout the building, various patches have occurred. Instead of a finish to mimic the original, they were given a smooth finish. The ceilings are painted white to match the walls. The attic is not finished or painted.

Plumbing

The plumbing systems serving the Rock Harbor Lodge consist of domestic hot and cold water system and sanitary waste and vent system. There is no storm water system as rain sheds of the roof on to the rocks below and into Lake Superior.

Plumbing Fixtures

Each of the seventeen (17) guest rooms has a lavatory which is currently only piped to provide cold water. The cast iron lavatory bowls (Figure 1C.17) appear to be original to the lodge; however, the hardware has been changed. At the northwest end of both the first and second-floors is a shower room with one shower, a service sink and three water closets. An electric domestic water heater is located in the first-floor shower room. The rooms were reconfigured in the mid to late 1980's, but the fixture counts remained the same.

Domestic Water Distribution

A 2" (estimated size) galvanized domestic water main enters the foundation level at the northeast end of the lodge and transitions to red PEX water line with riser taps at each guestroom (Figure 1C.18). The water line extends under the floor to the restrooms where it rises up feed the restroom plumbing fixtures on both floors and a 6kW, electric storage domestic water heater in the first -floor restroom. Because the water lines are located in the foundation crawl space below the first -floor combined with the fact that the lodge is not heated, drainage system consisting of blue PEX lines and drain valves has been installed in the foundation crawl space to drain the system during the winter for freeze protection.

Sanitary Waste

The sanitary waste system was constructed of galvanized piping with the main horizontal lines located in the foundation plan. The waste line follows the path of the domestic water service and exits the building at the southeast end where it reaches a sewer collection tank and lift station where it gets pumped up the Rock Harbor's Sewage Processing Plant.

The sanitary vent piping can be seen rising up into the attic at the location of each guest room lavatory. No vent piping can be located serving the restrooms. All of the vent risers are gathered in the attic (Figure 1C.19) and are vented through the roof at the east end of the attic. The vent through the roof does not appear to be large enough to meet current plumbing code.



Figure 1C.17: Original cast iron sink still exist in the guestrooms.



Figure 1C.18: Water distribution line in the crawlspace.

HVAC

Currently, there is no mechanical HVAC system installed in the Rock Harbor Lodge. The lodge was originally heated by either steam or hydronic hot water through radiators located in each room and the main lobby. The radiators were removed in the late 1980's - early 1990's. Evidence of the radiators is still visible today if you are looking, although they have been patched very well (Figure 1C.20). A 1926 Site Plan of the Rock Harbor Lodge resort, drawn by L.M. Lowery of Detroit indicates the location of Boiler Room to the north west of lodge. The Boiler Room appears to be visible in a HABS Photo (MI-246-5), ca. 1985.

A hand drawing prepared on grid paper (Source Unknown) indicates a 3" steam header and condensate return located in the foundation plan; however, a 1947 Building Survey which assessed the building structural and mechanical systems indicated that "heat furnished by hot water boiler located outside the building".

Fire Protection

The Rock Harbor Lodge does not have an automatic sprinkler system installed. Two fire hydrants are located at approximately 115 feet to the northeast of the lodge and 83 feet to the northwest.

Electrical

Electrical Service and Distribution

The Rock Harbor Lodge is served by a 120/24ov - 1ph overhead electric service. The service is attached to the exterior of the lodge, drops down the exterior wall to a meter, into main disconnect and back up the wall to the attic level where the electrical panel is located (Figure 1C.21). It appears to be a 100A service; however, the disconnect size could not be visually verified.

Lighting and Branch Wiring

The light fixtures throughout the guest rooms, corridors and restrooms are surface mounted luminaires, originally fitted with incandescent A-lamps and translucent glass shades which are missing in the majority of the installations. In other cases, the fixture is just a porcelain socket for an A-lamp.



Figure 1C.19: The sanitary waste vents collect in the attic space and route through the roof.



Figure 1C.20: Patches holes in the wood flooring where the radiators were located.

The original branch wiring was most likely knob and tube based on the era of construction. The current wiring is type NM cable (Romex) concealed within the walls.

Fire Alarm

A Honeywell centrally monitored, addressable fire alarm system is installed in the Rock Harbor Lodge. The fire alarm system consists of



Figure 1C.21: Electrical panel is located in the attic.

addressable smoke detectors located in each room and corridor and manual pull stations, and horn/strobes for annunciation.

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Part 1.D Statement of Significance

Significance of the Rock Harbor Lodge Guest House

The Rock Harbor Lodge Guest House (HS 040) is one of the best and last surviving examples of resort architecture on Isle Royale. Built under the direction of Bertha Farmer, Kneutson's daughter, in 1922, the 17-room guesthouse set new standards for Isle Royale's large-scale resorts with its electrical service, running water, and indoor plumbing. It is a Craftsman influenced, two and a half story, side-gabled wood frame structure that overlooks Rock Harbor. Design details include novelty drop siding, flared eaves on the main roof and gabled dormers, exposed rafter tails, four over four windows, and large triangular knee braces with beveled ends. The entry has a gabled hood over French doors, and the main sitting room has a rough stone fireplace. The building's color has been changed from its original white to dark brown, but aside from this, the exterior has been altered very little. The structure is in poor to fair condition and has high integrity, but its setting has been altered due to changes made during the Mission 66 era (Figure 1D.1, and Figure 1D.2).



Figure 1D.1: Photograph of the south elevation of the Guest House taken in 1935 ((Source: Isle Royale Institute, Isle Royale National Park Cultural Resource Interactive Mapping Project, "Guest House" Wolbrink Collection (Sheet 2, Photo B), ISRO Archives.



Figure 1D.2: View of a typical Guest House bedroom interior circa 1925 (Source: ISRO Archives, Farmer Collection, #03, provided by Liz Valencia).

Per the Michigan State Historic Preservation Office review of the Isle Royale National Park Development Concept Plan, a letter dated October 29, 2001, states: "The National Park Service (NPS) and the State Historic Preservation Office (SHPO) have previously agreed that Building 40, the Rock Harbor Lodge, appears to meet the criteria for listing in the National Register of Historic Places."

The following statements of significance are taken from the Cultural Landscape Inventory of the Rock Harbor Lodge Historic District which was updated in 2021. That report's statement of significance, to which this report concurs, reads as follows:

> The landscape of the Rock Harbor Resort Complex is significant under Criterion A as a representation of the resort and tourism movement that took place in the late nineteenth and early twentieth century in the Upper Great Lakes area. It is also significant under Criterion C for its distinctive characteristics of a type, period, and method of construction of many of the buildings from the resort era, as well as during the Mission 66 period. There are two periods of significance for the landscape. The first begins in 1902 when Kneut Kneutson built the lodge and initial outbuildings for the Rock Harbor Resort until 1943 when a private firm, National Park Concessions, Inc. (NPCI) took ownership of the complex from Bertha Farmer. Although, the National Park Service (NPS) obtained complete ownership of the resort in 1953, the second period of significance begins in 1956 when the National Park Service began its Mission 66 program to improve the state and condition of its national parks. This second

period of significance runs until 1973 in which projects were completed in time for the NPS's fiftieth anniversary in 1966 and continued under the name Parkscape USA in the years that followed.[1]

Evaluated individually, the Rock Harbor Lodge Guest House is likely significant under Criterion A as an important physical record of the resort era on Isle Royale. The Rock Harbor Lodge Guest House was the most substantial and prominent building within the larger Rock Harbor Lodge complex. The Guest House represents a larger transition that occurred among Isle Royale resorts during the early twentieth century, as they moved away from rustic and somewhat spartan conditions to more comfortable and luxurious accommodations. The Guest House, in particular, set a new standard for guest accommodations for resorts across Isle Royale. The Rock Harbor Lodge Guest House is also potentially significant under Criterion C as a vernacular expression of the Craftsman style and as a good extant example of the small-scale hotel/boarding house building typology that was characteristic of Isle Royale resorts.

According to National Register Bulletin 16, the period of significance for a resource significant under Criterion A should reflect the duration of that resource's association with historic events, persons, and/or trends. For resources that are architecturally significant and nominated under Criterion C, the period of significance should reflect the date of construction and the dates of any notable additions.[2] For the Guest House, specifically, the period of significance under Criterion A would begin with the building's initial construction in 1922 and extend through the duration of the resort era on Isle Royale, until the NPS acquired the Guest House in 1938. Under Criterion C, the period of significance would be 1922 to 1924, encompassing the duration of the building's construction.

The historic paint analysis further supports the recommended period of significance under Criterion A as beginning from 1922 up until 1938. The conclusion from the paint analysis is that the exterior woodwork of the Guest House was originally painted white, this finding is consistent with historic photographs. In 1947, the exterior of the Guest House was painted white with green trim by the concessioner. The first documentation that the exterior siding was painted a color other than white was in September 1956, again well beyond the recommended period of significance.

Character Defining Features

Overall Style, Composition and Massing

The Guest House is a vernacular building designed by its owners who were influenced by the American Craftsman style of architecture that was popular at the time. The original massing and footprint of the building have remained unchanged. Craftsman style inspired elements are actually rather limited and include:

- Flared eaves with exposed rafter tails (main roof, dormer roofs, and SE door hood roof)
- Eave brackets on the main roof gable ends
- Bracket supports for the SE door hood
- Lobby stair square balusters and newel posts
- Rough-cut stone masonry fireplace surround

Exterior Character Defining Features

Windows

- Wood double-hung multi-light windows set within original wood frames and casings. Note: it appears the original windows have been replaced at some point. The existing windows match the original windows in size, material and configuration.
- Exterior screen sash constructed of wood and metal screening with hangers.

Doors

- Paired wood doors on the SE elevation. Note: these doors provide access to the lobby from the deck and appear to be original and retain their original divided lights, secured by wood muntins and glazing. These doors also feature original

1. . "Cultural Landscape Inventory, Rock Harbor Lodge Historic District, Isle Royale National Park," 32.

2. "How to Complete the National Register Registration Form," National Register Bulletin (Washington, D.C.: U.S. Department of the Interior, National Park Service, 1997), 42.

wood casings, and original hardware (doorknobs, backplates, and locks).
- Single wood doors on the NW and SW elevations. Note: these doors have been replaced at some point but the openings retain their original wood frames and casings and appropriate style screen doors.

Siding

- Original beveled shiplap novelty wood siding on all four exterior elevations.

Trim and Details

- Rafter tails. The eaves of the main roof and the dormer roofs feature functional exposed rafter tails.
- Knee braces. The gable ends of the main roof and the gabled hood above the deck entryway are supported by triangular knee braces.

Chimneys

- Original board-form cast concrete chimneys located on both the NE and SW.

Roof

- Rolled sheet asphalt roofing. The current color of the asphalt roofing is a hunter green as depicted in hand-tinted postcards. Note: although the original roofing material has been replaced several times throughout the history of the building, it replicates the original material and appearance.
- Dormers and hoods. The rooftop dormers and the hood above the doors on the SE elevation feature decorative flairs at the ends of their gabled rooflines.

Interior Character Defining Features

Interior Layout

- Double-loaded corridors on the first and second floor with a lobby at the NE end of the first floor. While the overall interior configuration has remained unchanged since the building was constructed, there have been renovations including partitioning of the original restrooms, and the addition of partition walls and fire-safe doors at the end of the first-and second-floor corridors.

Interior Surface Materials

- Floors – The first- and second-floor bedrooms and the second-floor corridor have retained their original hardwood floors. Other areas of the building are covered with modern resilient floor coverings. Note: the first-floor lobby currently features a wood floor but historic photographs indicate a checker-board style floor covering.
- Walls and Ceilings – The building has retained its original roughcast plaster walls and ceilings in most areas.
    - The plaster walls have been subject to damage and repair over time, and there are visible patches throughout the building.
    - Non-original drywall partition walls have received a spray-on 'orange peel' surface treatment to mimic the original plaster.

Doors

- The building has retained numerous original interior wood doors.
    - 5- or 4-panel wood doors with flat mitered or butted wood casings.
    - Historic hardware (doorknobs, backplates, and locks).

Trim and Details

- Baseboards - Although the wood baseboards have been replaced in several areas (most notably in sections of the lobby, first-floor corridor, and one first-floor guestroom), the original wood baseboards are still present throughout the majority of the building.
- Door and Window Casings – Original flat mitered or butted wood door and window casings.
- Stairs - The wood lobby stairs comprised of:
    - Original square newel posts with flat newel caps
    - Inner and outer stringers
    - Square balustrades
    - Decorative nosing and scotia on the treads and risers.

Fixtures and Features

- Fireplace - The first-floor lobby retains its original fireplace comprised of:
    - Brick firebox
    - Concrete hearth
    - Mantel is made of mortared rough-cut stone slabs
    - Fireplace surround constructed of mortared rough-cut stone slabs laid horizontally with vertically

arranged slabs set above the firebox lintel.

- Guest Rooms - A majority of the guest rooms retain most, if not all, of their historic features, including:
    - Original wall-mounted sinks
    - Built-in closet hutches
    - Vanity mirrors
    - Sink shelves
    - Crop-leaf writing tables.

Site Character Defining Features

Natural Systems and Features (Resort era and Mission 66 era)

- Rock outcrops and rock-lined shore.
- Natural plant communities growing around the structure.

Spatial Organization and Cluster Arrangement (Resort era and Mission 66 era)

- Arrangement of Guest House, Office Building, and Dining Hall creating an interior space between the buildings.

Circulation (Mission 66 era)

- Circulation between Snug Harbor leading towards Saginaw Lodge in one direction and around back side of Dining Room Building in other direction.

Vegetation (Resort era and Mission 66 era)

- Native specimen trees growing in areas around the building.

Small-scale Features

- Bronze dinner bell on stone pier.

2.A Condition Assessment

The Condition Assessment section describes the current condition of the building as observed in September 2022.

Condition Assessment Standard Definitions

The following condition assessment definitions are based on those outlined by the National Park Service (NPS). NPS uses an industry-based condition assessment tool known as the Asset Management Process which has been adopted for use by HPTC for this project.

Qualitative Condition Ratings

Good

This rating indicates that:

- Routine maintenance should be sufficient to maintain the current condition; and/or
- A cyclic maintenance or repair/ rehabilitation project is not specifically required to maintain the current condition or correct deficiencies.

Fair

This rating indicates that:

- The feature generally provides an adequate level of service to operations, but
- The feature requires more than routine maintenance attention.

  This rating also indicates that cyclic maintenance or repair/rehabilitation work may be required in the future.

Poor

This indicates that the feature is in need of immediate attention. This rating also indicates that:

- Routine maintenance is needed at a much higher level of effort to meet significant safety and legal requirements.
- Cyclic maintenance should be scheduled for the current year and/or
- A special repair/rehabilitation project should be requested consistent with the building owner's requirements, priorities, and long-term management objectives.

SUMMARY OF CONDITION ASSESSMENT RATINGS (MAJOR HEADINGS)

UNIFORMAT II Outline Data				Assessment
Category	Topic	Code	Subtopic	Rating
A	**Substructure**			
A10	**Foundations**			
	A1010	Standard Foundations		
		A101002-A	Column Piers – Original	Poor
		A101002-B	Column Piers – New	Poor
		A101099	Deck Foundations	Poor
B	**Shell**			
B10	**Superstructure**			
	B1010	Floor Construction		
		B101001-A	Structural Frame – First-floor	Poor
		B101001-B	Structural Frame – Second-floor	Fair
		B101001-C	Structural Frame – Attic	Fair
		B101004	Deck Construction	Poor
	B1020	Roof Construction		
		B102001	Structural Frame	Poor
		B102004	Doorhoods	Fair
B20	**Exterior Enclosure**			
	B2010	Exterior Walls		
		B201001	Exterior Envelope	Fair/Poor
		B201003	Interior Face of Perimeter Walls	Poor
		B201099	Chimneys	Fair
	B2020	Exterior Windows		
		B202001	Windows	Fair/Poor
	B2030	Exterior Doors		
		B203001	Glazed Doors	Poor
		B203002	Solid Doors	Poor
B30	**Roofing**			
	B3010	Roof Coverings		
		B301001	Roof Finishes	Poor
		B301004	Flashings & Trim	Poor
	B3020	Roof Openings		
		B302001	Roofing Opening & Supports	Fair/Poor
C	**Interiors**			
C10	**Interior Construction**			
	C1010	Interior Partitions		
		C101001	Fixed Partitions	Fair

	C1020	Interior Doors		
		C102001	Standard Interior Doors	Fair
	C1030	Fittings		
		C103001	Bathrooms	Poor
		C103098-A	Bedroom – Hutches	Fair
		C103098-B	Bedroom – Wall Mounted Sinks	Fair
		C103098-C	Bedroom – Vanity Shelves	Fair
		C103098-D	Bedroom – Mirrors	Fair
		C103098-E	Bedroom – Drop Leaf Tables	Fair
		C103099	Fireplace	Fair
C20	**Stairs**			
	C2010	Stair Construction		
		C201001	Interior Stair Structure	Fair/Poor
		C201002	Exterior Stair Structure	Poor
	C2020	Stair Finishes		
		C202001	Interior Stair Finish	Fair/Poor
		C202002	Exterior Stair Finish	Poor
C30	**Interior Finishes**			
	C3010	Wall Finishes		
		C301002	Plaster Wall Finishes	Poor
		C301003	Gypsum Wallboard Finishes	Fair
	C3020	Floor Finishes		
		C302003-A	Wood Flooring – Original	Fair
		C302003-B	Wood Flooring – Replacement	Fair
		C302004	Resilient Flooring	Poor
		C302009	Wall Bases	Fair
	C3030	Ceiling Finishes		
		C303002	Plaster Ceiling Finishes	Poor
		C303003	Gypsum Wallboard Ceiling Finishes	Fair
		C303099	Furred Ceiling Finishes	Poor
D	**Services**			
D20	**Plumbing**			
	D2010	Plumbing Fixtures		
		D201001	Water Closets	Fair
		D201004-A	Sinks – Public	Fair
		D201004-B	Sinks – Bedrooms	Fair
		D201005	Showers/Tubs	Poor
	D2020	Domestic Water Distribution		
		D202001	Pipes & Fittings	Poor
		D202002	Valves & Hydrants	Poor

		D202003	Insulation & Identification	Poor
		D202005	Domestic Water Equipment	Poor
	D2030	Sanitary Waste		
		D203001	Waste Pipe & Fittings	Poor
		D203002	Vent Pipe & Fittings	Poor
D30	**HVAC**			
D40	**Fire Protection Systems**			
D50	**Electrical**			
	D5010	Electrical Service & Distribution		
		D501005	Panels	Fair
	D5020	Lighting & Branch Wiring		
		D502001	Branch Wiring	Fair
		D502002	Lighting Equipment	Poor
	D5090	Other Electrical Systems – Fire Alarm		
		D509001	Fire Alarm Systems	Fair
G	**Building Sitework**			
G20	**Site Improvements**			
	G2030	Pedestrian Paving		
		G203099	Walks, Steps, and Ramps	Good
	G2040	Site Development		
		G204009	Other Exterior Furnishings	Fair
	G2050	Maintained Landscapes		
		G205005	Plantings	Good

A: Substructure

The overall structural condition of the Guest House is fair to poor. The structure does not exhibit excessive deterioration of the structural members. However, there are numerous instances of structural deficiency which means the structural members are not adequate for code imposed loads. The following is a summary of the primary deficiencies discovered during the site visit.

- The foundation piers have slightly settled and shifted and may not rest on firm subgrade or rock. Due to the open crawlspace on the southeast and southwest sides, the piers are exposed to the effects of lake water flooding, and a wide range of weather conditions. Additionally, the piers are somewhat undersized based on bearing capacity for the full imposed loads of the Guest House.
- The three first-floor log beams bearing on the concrete piers are undersized for code-imposed loading.
- The first-floor wood joists are undersized for the code-imposed loading. The joists are supporting the corridor bearing walls which are imposing excessive load on the joists resulting in deflection and settlement.
- The second-floor wood joists, assuming they are the same as the first-floor, are adequate for residential live loading, but not storage load. The joists over the first-floor lobby span southeast-northwest and may be overloaded by the second-floor walls bearing directly on the joists.
- The attic wood joists are adequate for 20 psf live load, but not residential or storage loading.
- The wood roof rafters and collar ties are slightly overstressed under code-imposed snow load.
- The deck wood framing is undersized for the code imposed loads. The southeast concrete and stone wall has eroded and is in poor structural condition.

A10: Foundations

A1010: Standard Foundations

A101002-A: Column Pier – Original

The concrete piers that support the structure of the Guest House likely bear on the soil layer below the crawl space. The imposed bearing pressure exceeds that allowed for a typical soil subgrade (Figure 2A.1). The piers are exposed to the elements year round and undergo a wide range of ambient temperature and moisture conditions. Heat in the summer months is likely not a concern, but cold winter temperatures can cause the heaving of the piers caused by the freezing of the subgrade. If at any time of the year, lake water washes up into the crawlspace as seems to be the case, the soil around and under the piers can be softened and washed out. This could cause problems with the piers' stability and subject the Guest House structure to settling, and uncontrolled displacement.

Log sill beams under the northwest and southeast elevation walls (Figure 2A.2), and along the central axis rest on top of the concrete piers. The central log beam has notches where it bears on foundation piers (Figure 2A.3). The entire foundation of the superstructure of the Guest House consists of three rows of concrete piers. There is excessive natural debris in the crawl space, likely from washing ashore, and debris left by human hands (Figure 2A.4). Additional structural support has been added below the first-floor joists at select locations to provide additional support (Figure 2A.5).

A crawlspace visual review revealed that the Guest House's concrete piers are in poor condition. Minor displacement was noted, but nothing that would be considered excessive. Although excessive displacement was not noted, it is likely that some settlement and displacement of the piers has occurred for the reasons previously discussed. Past replacement of one of the southeastern piers due to subgrade washout suggests that conditions exist that could cause a significant failure of one or more of the concrete piers in

the future. This could affect the structural stability of the entire Guest House.

The natural and manmade debris scattered under the crawlspace should be thoroughly cleaned out to improve the overall condition of the crawlspace. This debris can harbor wood rot, hold moisture, and encourage animal nesting and insects. This should be done regardless of the future use of the Guest House. Once cleaned out, the crawlspace should undergo an annual inspection to check for debris and damage or displacement of the piers or first-floor wood structure.

A more thorough examination of the subgrade support of the piers with the assistance of a building contractor should be considered. Partial excavation of the soil around the piers will likely have to be done by hand digging with construction labor. The purpose would be to determine the subgrade bearing condition for each of the piers and identify possible mechanical anchorage between the concrete and the rock. The entire structure of the house is resting on these concrete piers and establishing their bearing condition is important to the future structural health of the Guest House.

Full dead and live load on the most heavily loaded of the central piers is around 13 kips producing a bearing pressure under the pier of 4,600 psf. This assumes a 40 psf floor live load, and 20 psf attic floor live load, all acting concurrently with the dead load. A typical exterior pier is loaded with around 19 kips producing a bearing pressure of 6,800 psf assuming the same floor load noted above and 45 psf snow load on the roof. If these piers are bearing on anything but a natural stone layer, the pressure would exceed the normal range of allowable bearing pressure for soil subgrade which could result in settlement of the piers. The allowable bearing pressure for the natural stone under the crawlspace is unknown, but normally it would be higher than the soil subgrade.

A101002-B: Column Pier – Replacement

It was noted that one of the original concrete piers along the southeast side of the house has been removed and replaced with a masonry pier. (Figure 2A.6). This replacement structure occurs at the third pier from the southwest corner. The original concrete pier failed and was replaced. The cause of the failure is unknown, but it has been reported that the concrete pier suffered settlement and "fell over". The replacement pier is made up of concrete blocks and is approximately 32 inches square. It is not known if the pier was built directly on the below-grade stone or rests on the soil subgrade. There is also a 6x6 timber post to the southwest of the new block pier that appears to be providing additional support to the first-floor framing at this location. The nature of the bearing condition for this post is not clear.

A101099: Deck Foundations

The wrap-around deck on the southeast and northeast elevation is partially supported by 4" x 4" wood posts (Figure 2A.7). The edges bear on the rock formations under the deck (Figure 2A.8). The southeast edge of the deck bares on a concrete and stone wall that has partially eroded away along the bottom. This allows lake water to extend under the deck. It is not clear if this wall was originally intended to close off the area under the deck. The rock acting as a foundation appears to be in fair condition. However due to the southeast concrete and stone wall eroding along the bottom edge, qualifies the condition as poor for the entire system. The structural stability of this wall is questionable.

Along the interior of the deck, the posts rest on manmade concrete footing pads, one of which is partially submerged. These concrete footings appear to be in fair condition. It appears these footings were poured directly on rock. The wood posts are anchored to the footings with light gage mechanical connectors, some of which are corroded. If exposure to lake water continues, the connectors will continue to corrode.

A: Substructure

A10: Foundations

A1010: Standard Foundations
A101002-A: Column Pier – Original



Figure 2A.1: The original concrete pier bears on the rock formation surrounding the site. The base of the pier has started to erode away.



Figure 2A.2: Hewn log sills span the entire length of the building and supports the floor joists. The logs show signs of weathering and are undersized for the loads imposed.



Figure 2A.3: Notches are visible where previous piers were located.



Figure 2A.4: The crawlspace is full of debris washing ashore or left in place.



Figure 2A.5: Additional wood supports were added help support the floor joists and transition the loads from the corridor walls down to the foundation.

A101002-B: Column Pier – Replacement



Figure 2A.6: The replacement piers consist of CMU blocks and built-up wood blocking. Remnants of the original pier are still visible in the crawlspace

A101099: Deck Foundations



Figure 2A.7: Water extends under the wrap-around deck and submerges the concrete footing pads supporting the wood posts.



Figure 2A.8: The cast in place concrete wall forming the edge of the deck has started to wash out and erode at the base of the wall.

B: Shell

B10: Superstructure

B1010: Floor Construction

B101001-A: Structural Frame – First-floor

A portion of the southeast half of the first-floor joist framing was visually examined from the crawlspace and found to be in fair condition. There did not appear to be excessive wood rot or insect damage and the joists appeared to be sound and stable. Two rows of diagonal joists bridging were noted between the joists (Figure 2A.09).

A portion of the northwest half of the first-floor joist framing was visually examined from the crawlspace and most were found to be in fair condition. There did not appear to be excessive wood rot or insect damage and the joists appeared to be sound and stable. Two rows of diagonal joists bridging were noted between the joists. Although the joists themselves appear to be in fair condition, in at least two locations under the northwest half and southeast half, several joists near the midspan have additional support shoring provided by two posts and beams. This additional support was likely installed during the life of the building and is not part of the original construction. The northwest support is made up of logs and is in poor condition. It is bearing directly on the dirt floor of the crawlspace. It is likely that this additional support was installed to address settlement and deflection of the first-floor framing. The southeast support is made up of dimensional lumber and is in fair condition. Why these specific areas were shored is unclear.

Based on a visual examination, the southeast and central log beams supporting the floor joists appear to be in fair condition. There did not appear to be excessive wood rot or insect damage and the beams appeared to be sound. The beams are notched at each of the supporting concrete piers and bear directly on the pier. If there is mechanical anchorage between the concrete pier and the log beam, it is not apparent. The central beam has had supplemental wood joists added to each side in a past attempt to increase load capacity. When or why, this was added is not known.

The overall material condition of the first-floor joists is fair, but the combined joists acting as a system is in poor condition. The first-floor has suffered very noticeable settling, crowning, and overall displacement. The lobby floor has suffered significant settlement along the southwest wall and it is apparent that the floor has crowned along the center of the room. The lobby floor at both the northeast and southwest walls is lower than at the center of the room. As noted in previous sections of this report, the corridor bearing walls bear on the joists about 3 feet for the central foundation support. This places significant bearing wall load on the joists.

The floor along the corridor has a significant crown along the center with a low point against each corridor wall (Figure 2A.10). The floor also appears to slope slightly downward from southwest to northeast with the high point at the southwest end. In general, the first-floor has settled and is out of level throughout.

Analysis of the first-floor joists with floor loading and corridor wall loads confirms the joists are overloaded by as much as 20 percent or more, depending on the grade of lumber and assuming full live and dead load on all levels. The analysis was conducted using 40 psf floor live load which is the minimum required for residential occupancy. It is apparent that the first-floor joist framing does not meet code as currently configured. The joists under the lobby floor are as much as much as 40 percent overloaded using a live load of 100 psf due to the lobby being accessible to public gathering.

Analysis of the central log beam confirms that it is overloaded by as much as 25 percent or more depending on the grade of lumber and assuming full live and dead load on all levels. Analysis of the southeast

log beam confirms that it is overloaded by as much as 25 percent depending on the grade of lumber and assuming full live and dead load and snow load on all levels.

Based on the analysis, the entire first-floor framing system is overloaded if full code prescribed live dead and snow load is assumed on all levels concurrently. The analysis indicates that the first-floor framing members are undersized and have been overloaded to a degree over the life of the building. This is evident from the excessive settlement, deflection, and crowning the floor is displaying.

Based on a visual examination of the central and southeast log beams, there does not appear to be mechanical anchorage between the log beams and piers or between the log beams and the exterior walls. This condition will require further investigation.

B101001-B: Structural Frame – Second-floor
The overall structural condition of the second-floor framing is fair. The framing is concealed by finishes, but outward evidence of excessive structural overload or material deterioration was not noted. The floor has suffered some deflection and is not entirely level, but this may be due to settlement issues at the foundation and first-floor.

Analysis of the second-floor joists based on the framing configuration described above confirms the joists are adequate for a code-prescribed residential live load of 40 psf, depending on the grade of lumber and assuming full live and dead load on all levels. The code prescribed live load for storage is generally given as 125 psf. The second-floor joists are currently not of sufficient size to support 125 psf storage live load.

The joists over the first-floor lobby are spanning 16'-8" from southwest to northeast and are likely carrying walls and part of the attic floor in addition to floor live load. These joists may need added supplemental framing to support the imposed loads. The ceiling over the first-floor lobby will need to be removed to examine the second-floor joists and determine their condition and load capacity.

B101001-C: Structural Frame – Attic
The overall structural condition of the attic-floor framing is fair. Some water damage was noted on the floor boards, but this is not widespread (Figure 2A.11 and Figure 2A.12). The framing is concealed by finishes, but outward evidence of excessive structural overload or deterioration was not noted. The floor has suffered some deflection and is not entirely level, but this may be due to settlement issues at the foundation and first-floor. Based on size and spacing of the joists, the attic floor is adequate for 20 psf live load.

B101004: Structural Frame - Deck
Based on a visual review, the deck framing is in poor condition. The anchorage of the beams to the posts is inadequate and the mechanical anchors of the posts at the base are corroded and continue to corrode. There is no cross bracing and the deck joists do not appear to be adequately anchored to the central beam.

The 2x8 deck joists span approximately 10 feet and analysis confirms they are adequate for approximately 80 psf live load. The central 2x8 beam is adequate for approximately 40 psf.

Typically, a deck for public assembly should be designed for 100 psf. This deck does not meet that code provision.

B1020: Roof Construction

B102001: Structural Frame
Where the structural members are exposed on the exterior, most of the observed deterioration occurs with the supplemental wood framing that is attached to the primary structural members. At the flared ends of the gable roof (Figure 2A.13), the wood blocking that was attached to the top of the flare is starting to split from the main structural member. At the intermediate rafters, the wood nailers attached to the

bottom of the rafters are starting to split and separate away from the rafter (Figure 2A.14). The triangular brackets supporting the gable side ends are also showing signs of minor splitting and cracking (Figure 2A.15).

On the interior of the roof structure, water has infiltrated the roof coverings as there are numerous areas of water damage on the roof rafters and decking (Figure 2A.16 and Figure 2A.17). In a few instances, the rafters have been cut (Figure 2A.18). Graffiti can be found in a few locations (Figure 2A.19). Most likely due to water compromising the structural members, rafters were reinforced with supplemental framing and the decking was replaced with plywood sheathing in some areas (Figure 2A.20).

The code-prescribed uniform snow load for Isle Royale is 45 psf, based on ground snow load of 60 psf which is taken from ASCE 7-10 for the area. The roof rafter system does not appear to be adequate for this level of code snow load. The rafters and collar ties are slightly undersized and will require some supplemental framing. The material condition of roof structure is fair but with the structure being undersized would make their condition poor.

B102004: Doorhoods

The gabled doorhood above the southeast lobby entrance is in fair condition. It shows the same deterioration as the exposed exterior structural members of the main roof, such as splitting and cracking of the wood members.

B: Shell

B10: Superstructure

B1010: Floor Construction

B101001-A: Structural Frame – First-floor



Figure 2A.9: - The first-floor wood joists are supported at the mid-span by concrete piers. Bridging has been installed to stabilize the joists.



Figure 2A.10: The first-floor structural frame has settled causing the first-floor to be excessively uneven.

B101001-B: Structural Frame – Second-floor

B101001-C: Structural Frame – Attic



Figure 2A.11: Water has infiltrated into the attic and has damaged the floor and ceiling below.

B101004: Deck Construction
B1020: Roof Construction
B1 02001: Structural Frame



Figure 2A.12: In particular around the dormer, there are signs of water damage. The water intrustion has resulted in damage to the ceilings below.



Figure 2A.13: The flared ends of the gable are showing signs of cracking and splitting. The wood blocking attached to the top of the flare is starting to separate away from the rafter.



Figure 2A.14: The wood nailers attached to the bottom of the rafters are separating from the rafters.



Figure 2A.15 The triangular brackets supporting the ends of the gable roof are showing signs of cracking or splitting and pieces.



Figure 2A.16: Water damage on the roof framing and decking.



Figure 2A.17: Water damage on the roof framing and decking.



Figure 2A.18 Roof rafters have been notched or holes cut into them to allow for utilities to pass through the space.



Figure 2A.19: A limited amount of graffiti was found on the roof decking and rafters.

B102004: Doorhoods



Figure 2A.20: Wood decking has been replaced with plywood sheathing and sistered rafters were added to provide additional structural support to the damaged rafter.

B20: Exterior Enclosure

B2010: Exterior Walls

Refer to Appendix C for the Paint Sampling Report.

B201001: Exterior Envelope

Although all the elevations show signs of deterioration, the majority of the issues with the siding occur on the southeast elevation, which faces the Lake (Figure 2A.21). Due to sun and weather exposure, the southeast wall is subject to changes in temperature which causes the wood to expand and contract. This has created large gaps in the butted joints, which has allowed water to get behind the siding and into the interior of the building (Figure 2A.22). Numerous areas show evidence of delamination and the paint has begun to chip and peel away. It appears that when the building needed to be painted, the old paint was not removed. This has caused the paint to build up in some areas where it obscures the detailing of the drop siding.

The siding on the southeast elevation is in poor condition while the siding on the three remaining elevations is in fair condition. As is noted in Lead-Based Paint Analysis found in Appendix B, lead-based paint is present in the exterior siding and trim.

B201003: Interior Face of Perimeter Walls

The interior face of the perimeter walls is in poor condition. The majority of the issues occur on the southeast elevations, where water has infiltrated the exterior siding and started to deteriorate the interior plaster finish. The moisture in the wall has created large cracks and sections of the plaster have separated from the lath (Figure 2A.23 and Figure 2A.24). Some of the cracks have been addressed but have been patched with a smooth finish that does not match the original. These are easily recognizable (Figure 2A.25). As is noted in Lead-Based Paint Analysis found in Appendix B, lead-based paint is present on the plaster surfaces.

B201099: Chimneys

The chimney on the southwest exterior wall is in fair condition. There are signs of cracking and abandoned utility patches on the face (Figure 2A.26). Although it wasn't tested, it is probable that the element contains lead-based paint.

The chimney on the northeast exterior wall is in fair condition. Cracking and spalling are evident in the concrete (Figure 2A.27). At the intersection between the concrete and siding, metal flashing or trim is lacking (Figure 2A.28).

B2020: Exterior Windows

B202001: Windows

The windows on the southeast elevation are in poor condition due to their direct exposure towards the water (Figure 2A.29 and Figure 2A.30). The window head cap flashing along with the horizontal window trim piece have started to lift away from the surrounding trim (Figure 2A.31). The exterior casing at the jamb has cracks and the paint is starting to show signs of delamination (Figure 2A.32). Window putty is missing or deteriorated at the meeting rails (Figure 2A.33). Overpainting and excessive glazing putty occurs at the edges of the glass (Figure 2A.34). The windows on the three other elevations exhibit some of the same issues but are not as severely damaged as the southeast elevation. The condition of these windows is fair. The glazing for the bathroom windows is opaque textured glass (Figure 2A.35). The hardware installed on the casement windows is not appropriate (Figure 2A.36). As is noted in Lead-Based Paint Analysis found in Appendix B, lead-based paint is present in the exterior windows and casings.

B2030: Exterior Doors

B203001: Glazed Doors

The first-floor doorway on the southeast elevation is in poor condition (Figure 2A.37). A thin sheet of plywood was added to reinforce the bottom rail (Figure 2A.38). The threshold is showing excessive wear and warping (Figure 2A.39). The casing

surrounding the door is splitting and cracking (Figure 2A.40).

The doorway on the northwest elevation is in poor condition (Figure 2A.41). The threshold is severely warping where it has become a tripping hazard (Figure 2A.42). The strike plate has been cut into the wood casing (Figure 2A.43).

The second-floor door on the southwest elevation is in poor condition (Figure 2A.44). The hinges for the screen door have been replaced (Figure 2A.45) and not compatible. A large gouge exists on the interior wood casing (Figure 2A.46). This door appears to have retained its original doorknob and back plate but has had a modern deadbolt lock installed (Figure 2A.47).

As is noted in Lead-Based Paint Analysis found in Appendix B, lead-based paint is present on the door surfaces. It is also found on the casings.

B203002: Solid Doors

The first-floor metal door exhibits normal signs of wear (Figure 2A.48) where the paint has chipped away. The wood threshold was not replaced when the solid door was installed and has extensive wear and warping on it (Figure 2A.49). The physical condition of the door is fair but due to it not being historically compatible, would reduce its condition to poor. As is noted in Lead-Based Paint Analysis found in Appendix B, lead-based paint is present on the door casings and also be present on the door surfaces since it appears to be the same paint.

B20: Exterior Enclosure

B2010: Exterior Walls

B201001: Exterior Envelope



Figure 2A.21: Due to its exposure, the southeast elevation siding is showing the most deterioration of any elevation.



Figure 2A.22: The joints between the individual boards have separated allowing water to penetrate into the building.

B201003: Interior Face of Perimeter Wall



Figure 2A.23: Delamination of the plaster on the inside face of the exterior wall. Numerous patches have been made over time as evident by the different textures.



Figure 2A.24: Delamination of the plaster on the inside face of the exterior wall. Numerous patches have occurred as evident by the different textures.



Figure 2A.25: Numerous patches have occurred as evident by the different textures.

B201099: Chimneys



Figure 2A.26: The west chimney shows signs of cracking. There are numerous patches from abandoned utility penetrations.



Figure 2A.27: The concrete forming the northeastern chimney shows signs of cracking and spalling.



Figure 2A.28: There is no flashing or sealant between the wood siding and the concrete chimney.

B2020: Exterior Windows

B 202001: Windows



Figure 2A.29: The southeastern facing windows are showing severe signs of distress and wear.



Figure 2A.30: The paint has started to delaminate from the window surface.

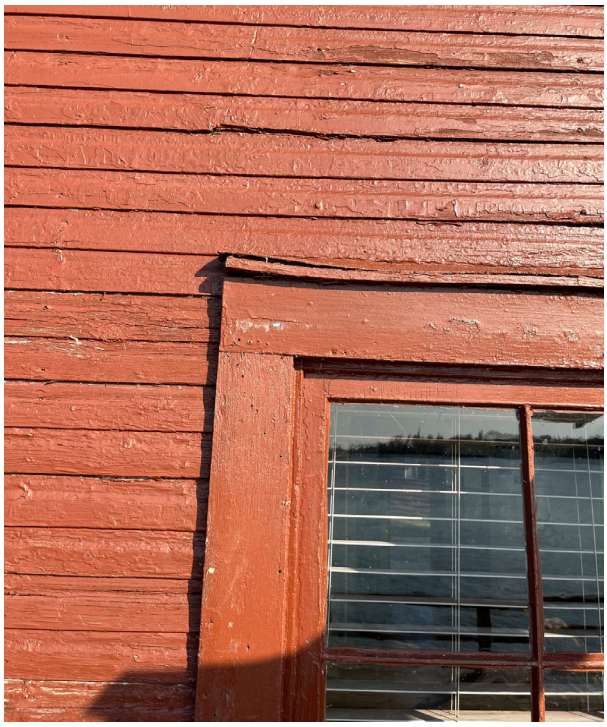


Figure 2A.31: The window head cap flashing along with the horizontal window trim piece have started to lift away from the exterior casing.

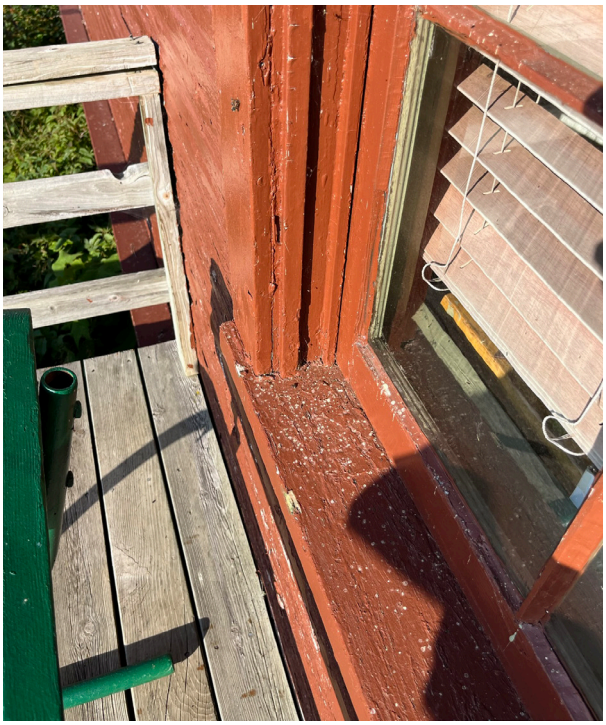


Figure 2A.32: The exterior casing at the jamb has cracks and the paint is starting to show signs of delamination.



Figure 2A.33: Window putty is missing or deteriorated at the meeting rails.



Figure 2A.34: Overpainting and excessive glazing putty occurs at the edges of the glass.



Figure 2A.36: Inadequate sized cabinet-style hinges have been installed on the casement windows in the attic.

B2030: Exterior Doors
B203001: Glazed Doors



Figure 2A.35: The glass in restroom windows has been replaced with different types of opaque textured glass.



Figure 2A.37: Southeast elevation French doors



Figure 2A.38: A thin sheet of plywood was added to the bottom rail of the southeast elevation entrance door.



Figure 2A.40: The casing surrounding the southeast elevation entrance door is splitting and cracking and exhibits holes from previous hardware attachments.



Figure 2A.39: The threshold for the south elevation entrance door is showing wear and has started to warp.



Figure 2A.41: The northwest elevation exterior door is showing typical signs of wear and tear.



Figure 2A.42: The threshold for the northwest elevation entrance door has a severe bulge and has become a tripping hazard. A piece of the threshold has started to break away.



Figure 2A.43: The strike plate has been cut into the wood casing.



Figure 2A.44: Second-Floor exterior door on the southwest elevation.



Figure 2A.45: Replacement hinges installed on the second-floor southwest entry door do not match the originals.



Figure 2A.46: A large gouge on the interior wood casings.



Figure 2A.48: Normal wear on the first-floor southwest hollow metal door.



Figure 2A.47: Modern deadbolt has been installed in the wood door.



Figure 2A.49: The threshold on the first-floor southwest entrance is showing signs of excessive wear and warping.

B30: Roofing

B3010: Roof Coverings

B301001: Roof Finishes

The existing asphalt roll roofing is in fair to poor condition (Figure 2A.50). As evident by the water damage to the interior roof structure observed in the attic, water has been able to get into the building and cause major issues. The current roof covering system has a shorter life cycle than conventional systems. Staining has occurred on the roofing surfaces around the chimneys (Figure 2A.51). It was also noted by the park staff that in the past, sections of the roll roofing have blown off into the lake.

B301004: Flashings & Trim

The condition of the roof flashings and trim is in poor condition. Metal edging has been applied to the eaves and rakes of the roof (Figure 2A.52 and Figure 2A.53) but is at the end of its life cycle. Portions of the flashing have fallen off. At the intersection of the roof coverings and siding, metal flashing has been installed over the siding (Figure 2A.54). The metal flashing should be installed under the siding. There are no gutters or downspouts on the building to help direct the flow of water away from the building.

B3020: Roof Openings

B302001: Roof Opening & Supports

Projections through the roof structure are not properly sealed or flashed. The major areas of concern are at the chimneys (Figure 2A.55) and dormers (Figure 2A.56). The black tar sealant that is found throughout is not an appropriate flashing termination method. It appears to be put on as a temporary solution. Multiple vent penetrations also occur on the roof and it is not known if they are properly sealed. The openings themselves are in fair condition, while the flashing around all the penetrations is in poor condition.

B30: Roofing

B3010: Roof Coverings

B301001: Roof Finishes



Figure 2A.50: The asphalt roll roofing is in fair to poor condition.



Figure 2A.51: Staining has occurred to the roll roof surfaces adjacent to the chimneys.

B301004: Flashings & Trim



Figure 2A.52: Metal drip edge along the perimeter of the eaves is at the end of it life cycle.



Figure 2A.53: Metal flashing at the rake edge condition. Built-up pieces of wood were used to create a curb.



Figure 2A.54: Metal flashing is installed over the siding rather than cutting the siding back and installing it under the siding.

B302001: Roof Openings & Supports



Figure 2A.55: Metal flashing is not installed on the intersection at the chimney and roof.



Figure 2A.56: The dormers are lacking metal flashing at the juncture of the siding and roof covering. Black tar sealant is not an appropriate flashing material

C: Interiors

C10: Interior Construction

C1010: Interior Partitions

C101001: Fixed Partitions

The interior partitions appear to be structurally sound and no visible signs of distress were observed. Further observation is needed to determine the true condition of the interior framing. Overall, the partitions appear to be in fair condition. The interior walls are constructed out of wood framing. The few interventions that have occurred are easily recognizable due to the lack of quality workmanship to seamlessly blend the original and new together. The noticeable locations occur at the first-floor lobby and hallway. The cause may be attributed to quality of the finish but it could also be attributed to the difference in sizes of traditional and nominal wood framing. The joint line not only shows on the plaster walls but also the baseboards (Figure 2A.57, Figure 2A.58, Figure 2A.59 and Figure 2A.60).

C1020: Interior Doors

C102001: Standard Interior Doors

The interior doors are in fair condition and all show some sign of deterioration. The lobby closet door has been shortened to fit within the space. The paint has started to chip away (Figure 2A.61). The flush metal door providing access to the first and second-floor hallways is not compatible with the material or style of the original doors. These doors do not feature an casings (Figure 2A.62) and the hardware does not match the original. Bedroom 1 door hardware does not match the original (Figure 2A.63). The bedroom doors retain their original doorknobs and backplates but are outfitted with modern deadbolts (Figure 2A.64). The bedroom doors and casings on the first-floor (Bedrooms 1-7) have four drill or nail holes on their right sides, arranged in a small rectangle (Figure 2A.65). The holes were most likely made by some type of fixture or fitting that had previously been installed. The communicating door between Bedrooms 2 and 3 is not operational as it has been sealed shut and the door, doorknob and backplate have all been painted over (Figure 2A.66). The bathroom doors retain their original hardware (Figure 2A.67 and Figure 2A.68). The attic door has retained its original doorknob and backplate and has a modern deadbolt (Figure 2A.69). The second-floor closet door is missing hardware (Figure 2A.70).

The wood casings surrounding the doors are in fair condition. There are isolated cases of deterioration but this is limited to minor cracking and splitting of the wood. As is noted in Lead-Based Paint Analysis found in Appendix B, lead-based paint is present in the wood doors and casings.

C1030: Fittings

C103001: Bathrooms

Although they are still functional the fittings in the common bathrooms are in poor condition. The condition is attributed to normal wear and tear of bathing facilities so it is not unexpected due to its remote location (Figure 2A.71 and Figure 2A.72). A few of the toilets were not working properly and one of the toilet partition doors was missing (Figure 2A.73). The toilet compartments in both the men's and women's restrooms are undersized and not accessible as they are elevated on raised platforms (Figure 2A.74). Although it wasn't tested, it is probable that the toilet partitions contain lead-based paint.

C103098-A: Bedroom – Hutches

The built-in closet hutches show signs of normal wear (Figure 2A.75).The paint surfaces have been chipped or scraped off and some of the wood has cracked or has gouges. The clothes rod and curtain have since been removed. They are in fair condition. Although it wasn't tested, it is probable that cause that the element contains lead-based paint.

C103098-B: Bedroom – Wall Mounted Sinks

The bedroom sinks are in fair condition. The sinks appear to be original while the fittings and piping are not original. The sink in Bedroom 1 was replaced with a

square shaped porcelain sink that has a thicker edge (Figure 2A.76) that does not match the thin, round edges of the original sinks. The original sink has a thinner, round edge to it (Figure 2A.77).

C103098-C: Bedroom – Vanity Shelves

Several of the shelves are missing from the rooms. Where they remain, these shelves are in fair condition. In a few instances the mirrors are painted white or left unfinished (Figure 2A.78). Although it wasn't tested, it is probable that the element contains lead-based paint.

C103098-D: Bedroom – Mirrors

Outside of normal wear, the mirrors are in fair condition. Some of the wood frames around the mirrors are not painted or missing (Figure 2A.78). Bedroom 2 has two mirrors, with one turned 90 degrees. Although it wasn't tested, it is probable that the element contains lead-based paint.

C103098-E: Bedroom – Drop Leaf Tables

The drop leaf tables in the bedrooms are showing normal wear where they still remain. The wood on a few of the tables is splitting (Figure 2A.79). In Bedroom 2, one the collapsible legs is broken (Figure 2A.80). Overall, they are in fair condition. Although it wasn't tested, it is likely that lead-based paints are present.

C103099: Fireplace

The fireplace in the first-floor lobby is in fair condition (Figure 2A.81). The stone itself is in good condition while the mortar bonding the stones together shows signs of deterioration. The mortar is loose or has fallen off in a few spots. Hairline cracks are also present.

C: Interiors

C10: Interior Construction

C1010: Interior Partitions

101001: Fixed Partitions



Figure 2A.57: – A joint line is apparent in the baseboard and plaster where new and original walls abut one another.



Figure 2A.58: A joint line is apparent in the plaster where new and original walls abut one another.



Figure 2A.59: joint line is apparent in the baseboard and plaster where new and original walls abut one another.



Figure 2A.60: A joint line is apparent in the plaster where new and original walls abut one another.

C1020: Interior Doors
C102001: Standard Interior Doors



Figure 2A.61: The bottom rail of the lobby door has been shortened, presumably to fit under the stairs.



Figure 2A.62: The flush metal doors that separate the hallways from the commons spaces are not compatible with the other interior wood doors.



Figure 2A.63: The hardware on the door for Bedroom 1 does not match the hardware on the other bedroom doors.



Figure 2A.64: Modern deadbolts have been installed on the bedroom doors.



Figure 2A.65: The bedroom doors and casings exhibit holes from previous hardware and attachments.



Figure 2A.67: The men's bathroom door has retained its original hardware and signage.



Figure 2A.66: The communication door in the partition wall between Bedrooms 2 and 3 has been fixed in the closed position.



Figure 2A.68: The door into the women's restroom has retained its original hardware and signage.



Figure 2A.69: A modern deadbolt has been added to the door leading to the attic.

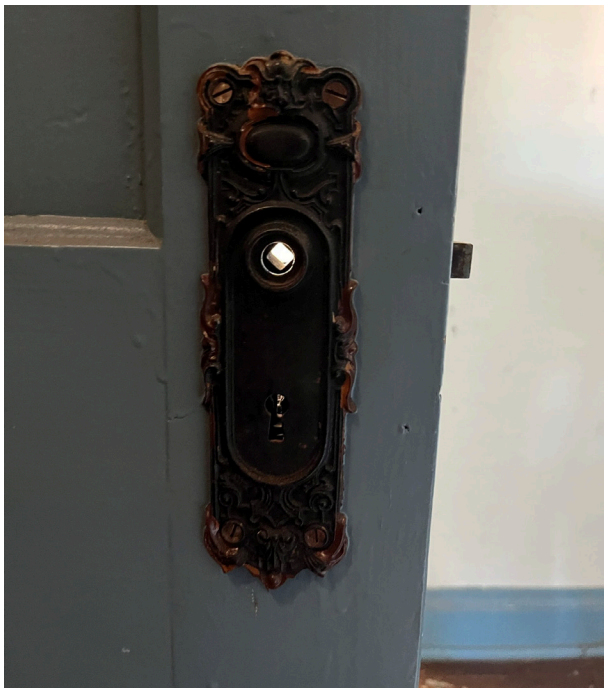


Figure 2A.70: The second-floor closet door is missing hardware but has a decorative backplate.

C1030: Fittings
C 03001: Bathrooms



Figure 2A.71: Broken drain cover in the women's restroom shower.



Figure 2A.72: Wear on the plastic shower stall in the men's restroom.



Figure 2A.73: In the men's Room, the toilet compartment is missing its door as the depth of the stall is not adequate.



Figure 2A.74: The toilets are not accessible as they are placed on an elevated platform.

C03098-A: Bedroom – Hutches



Figure 2A.75: The built-in hutches show signs of normal wear.

C103098-B: Bedroom – Wall Mounted Sinks



Figure 2A.76: The replacement cast iron sink installed in Bedroom 1 does not match the original cast-iron sinks in the other bedrooms.



Figure 2A.77: The original sinks have a thinner, round profile. The original piping and fittings have been replaced.

C103098-C: Bedroom – Vanity Shelves
C03098-D: Bedroom – Mirrors



Figure 2A.78: The bedrooms were originally equipped with a vanity shelf and mirror above the sink. In some locations, the fittings have been replaced with unfinished or white fittings.

C 103098-E: Bedroom – Drop Leaf Tables



Figure 2A.79: The drop leaf tables show normal wear along with minor splitting of the wood.



Figure 2A.80: The collapsible leg for the drop leaf table in Bedroom 2 is broken.

C03099: Fireplace



Figure 2A.81: Areas of the fireplace mortar have become loose and fallen out.

C20: Stairs

C2010: Stair Construction

C201001: Interior Stair Structure

There are no visible signs of any deterioration or concerns with the stair going from the first-floor lobby to the second-floor hallway. It appears to be in fair condition, although exploratory demolition should occur to confirm this assessment.

The stair leading to the attic is in poor condition and there are noticeable sags (Figure 2A.82). There are noticeable sags in the structure. Although the physical structure wasn't visible, it can be inferred based on visual observation from above.

C201002: Exterior Stair Structure

The structure supporting the exterior wood stair and balcony is in poor condition. The structural members are not sized properly and proper connections are lacking (Figure 2A.83). The connection of the posts to a foundation is not known. By using triangular backets to support the cantilevered balcony, it puts a limit to how far the balcony can extend out. As such it creates an issue with the required clear width between the chimney and railing (Figure 2A.84). In addition, the existing tread/riser dimensions and railing configuration do not meet current code requirements.

C2020: Stair Finishes

C202001: Interior Stair Finish

The stair going from the first-floor lobby to the second-floor hallway is in fair condition. The rubber tread coverings are deteriroated and in need of replacement (Figure 2A.85). The stair is missing handrails on both sides of the stair.

The stair going to the attic is in poor condition. The lower section of the attic staircase does not have a handrail or balustrades. The upper section of the staircase has a wood handrail, but no guardrail or balustrades. The guardrail over the top landing is not high enough or structurally stable (Figure 2A.86). Plaster has fallen off the lath at the stair landing (Figure 2A.87).

C202002: Exterior Stair Finish

The exterior stair finishes are in poor condition. Although the wood is treated lumber, its life span is far less than that of other materials. The open guardrail is not code compliant for fall protection (Figure 2A.88). The height of the guardrail is too low and there are no vertical balustrades. There is not a handrail or abrasive striping on the treads. To be considered part of the means of egress, solid risers are required.

C20: Stairs

C2010: Stair Construction

C201001: Interior Stair Structure



Figure 2A.82: The staircase leading to the attic is left unfinished and is showing extensive wear.

C201002: Exterior Stair Structure



Figure 2A.83: The structure supporting the exterior stair is not properly sized.



Figure 2A.84: The width of the egress path out the second-floor southwestern entrance is impeded by the chimney.

C201001: Interior Stair Structure



Figure 2A.85: The stair treads feature rubber runners and metal nosings. Several of the runners have started to become loose.



Figure 2A.86: The guardrail extends over the upper landing is not tall enough nor adequately anchored.



Figure 2A.87: Plaster has fallen off the lath at the staircase landing leading to the attic.

202002: Exterior Stair Finish



Figure 2A.88: An open guardrail wraps the balcony and continues down the exterior stair. The balcony and stairs are supported by 4x4 posts and triangular brackets.

C30: Interior Finishes

C3010: Wall Finishes

C301002: Plaster Finishes

In almost all of the spaces, there is evidence of the plaster cracking and deteriorating. Through the years, patches have occurred to remedy the problem. In some instances, it was given an appropriate patch that matched the original intent. However, in most cases it was given a smooth finish (Figure 2A.89). The patches were most likely needed from the building settling or occupants hanging pictures and hooks on the walls. Conduits and other electrical devices typically run within interstitial spaces but where they are left exposed, penetrations were left untreated (Figure 2A.90). The plaster finish is in poor condition. The smooth patches are not appropriate and distract from the character of the building. As is noted in Lead-Based Paint Analysis found in Appendix B, lead-based paint is present in the plaster walls.

C301003: Gypsum Wallboard Finishes

The 'orange peel' surface treatment found on non-original walls is not a compatible or appropriate finish for this building. The craftsmanship is lacking to fully integrate this approach with the original. In some instances, the plaster is too heavy, while in others it is too thin (Figure 2A.91). In Bedroom 8, layer of gypsum board was applied over the original plaster for an unknown reason (Figure 2A.92). Where gypsum wallboard meets plaster walls, there are visible seams between the two. The condition of these walls is fair. Although it does not meet the historic character of the building, it only occurs in approximately 5% of the wall surfaces. As is noted in Lead-Based Paint Analysis found in Appendix B, lead-based paint is present in the walls.

C3020: Floor Finishes

C302003-A: Wood Flooring – Original

Due to the amount of foot traffic and moving of furniture and equipment through the years, the finish on the wood floor has started to deteriorate (Figure 2A.93 and Figure 2A.94). Gouges, scratches and normal wear exist throughout. The rubber runners that are attached to the flooring are starting to become loose (Figure 2A.95). There is some evidence of water damage underneath some of the bedroom sinks, likely due to leaks from the sink plumbing lines (Figure 2A.96). The original wood flooring is in fair condition. As is noted in Lead-Based Paint Analysis found in Appendix B, lead-based paint is present in the painted wood floors on both floors.

Due to the damage and wear, the attic floors are considered to be in fair condition.

C302003-B: Wood Flooring – Replacement

Although there is normal wear, the condition of the wood flooring in the first-floor lobby is fair. A few of the floor boards show signs of water damage (Figure 2A.97). Where the radiators were located, patches are still visible. The wood flooring is not original and could be historically compatible if it were given the same finish as the rest of the wood flooring.

C302004: Resilient Flooring

The vinyl flooring has started to crack and peel up from the subfloor (Figure 2A.98). This creates potential tripping hazards for the occupants. Most likely due to the settling of the joists and the uneven floors, plywood is used as a threshold to transition between flooring materials between the lobby and hallway on the first-floor (Figure 2A.99). The vinyl flooring found in the building is not original and contains asbestos. Based on all of these factors, the vinyl flooring is in poor condition.

C302009: Wall Bases

Even though the building contains four different styles of baseboards, they all are in fair condition. Due to general wear and settling of the floor joists, the shoe moldings have separated from the baseboards or floorings. In some cases, the shoe moldings were broken or missing (Figure 2A.100). Where two different styles of baseboard are in the same plane and

abut, the quality of the joints is not suitable for the character of the building (Figure 2A.101). As is noted in Lead-Based Paint Analysis found in Appendix B, lead-based paint is present in the baseboards.

C3030: Ceiling Finishes

C303002: Plaster Ceiling Finishes

Throughout the building, multiple locations have instances where the plaster ceiling is cracking and deteriorating (Figure 2A.102). The probable causes for this could be foundation settling, overloading of the floor joists and water intrusion through the roof. In some instances, these cracks have been patched. However, they were given a smooth finish which doesn't match the original texture (Figure 2A.103). There are large particle board patches on the ceiling of the first-floor bathroom (Figure 2A.104) or the hole was left exposed (Figure 2A.105). The ceilings are in poor condition, in particular the 2nd floor ceilings where water from the attic has likely caused concerning deterioration. Although it wasn't tested, it is probable that the ceiling contains lead-based paint as the plaster walls showed traces of it.

C303003: Gypsum Wallboard Ceiling Finishes

Where the gypsum wallboard ceilings were installed, the joints were not properly taped, mudded, or sanded as their joint lines are visible (Figure 2A.106). Depending on the type of gypsum board used, these boards may still be susceptible to water infiltration. Although the gypsum wall board could be a compatible substitute for lath and plaster, in this instance it was not done properly. Also, the texture given to the ceiling is noticeable thicker. Overall, these ceilings are in fair condition. Although it wasn't tested, it is probable that the ceiling contains lead-based paint.

C303099: Furred Ceiling Finishes

The reason for the furred down ceiling on the first-floor is unknown but could have been used to conceal conduit and wiring, cracking of the original plaster or structural issues. An unfinished edge of the particle board is visible when walking up the first-floor stair (Figure 2A.10). A step in the ceiling height on the first-floor hallway is also apparent (Figure 2A.108). The dropped ceiling corresponds to where Bedroom 1 was re-enclosed. These ceilings are structurally in fair condition but are not historically compatible and distract from the quality of the building. As such, this would reduce their condition to poor. Although it wasn't tested, it is probable that the ceiling contains lead-based paint.

C30: Interior Finishes

C3010: Wall Finishes

C301002: Plaster Finishes



Figure 2A.89: Patches are easily identified as they were given a smooth finishes as opposed to the textured plastered of the original wall.



Figure 2A.90: Gaps around conduit and wiring have not been sealed.

C301003: Gypsum Wallboard Finishes



Figure 2A.91: The"orange peel" surface texture is of poor quality and inconsistently applied.



Figure 2A.92: A layer of gypsum wall board was added to the northwest wall of Bedroom 8.

C3020: Floor Finishes
C302003-A: Wood Flooring – Original



Figure 2A.93: Noticeable wear of the wood floors on the second-floor.



Figure 2A.94: Paint has been stripped on the wood floor in some locations exposing the unfinished floor boards.



Figure 2A.95: The edges of the rubber runner, in the second-floor hallway, has started to come loose.



Figure 2A.96: Water damage is visible under the bedroom sinks.

C302003-B: Wood Flooring – Replacement



Figure 2A.97: The lobby wood flooring shows signs of water damage at the exterior doors.

C302004: Resilient Flooring



Figure 2A.98: The vinyl flooring in the hallway has begun to peel up and pieces have broken apart.



Figure 2A.99: Plywood was installed as a threshold between the wood and vinyl flooring.

C302009: Wall Bases



Figure 2A.100: The shoe molding has been damaged.



Figure 2A.101: The joint between two different styles of baseboard was not properly cut and joined together.

C3030: Ceiling Finishes
C303002: Plaster Ceiling Finishes



Figure 2A.102: Large cracks occur on the plaster ceilings due to structural deficiencies or water infiltration.



Figure 2A.103: Plaster patches are recognizable as they have a smooth texture rather than the original roughcast plaster.



Figure 2A.104: A hole within the first-floor bathroom has been covered up with particle board.



Figure 2A.105: Openings within the ceiling of the Women's bathroom have not been patched or covered up.

303003: Gypsum Wallboard Ceiling Finishes



Figure 2A.106: The joint line between the gypsum wallboard ceiling panels is apparent on the second-floor ceiling.

303099: Furred Ceiling Finishes



Figure 2A.107: The ceiling in the lobby has been furred down from the original ceiling height. The dropped particle board ceiling is not a compatible material or appropriate intervention.



Figure 2A.108: The furred down ceiling terminates in the first-floor corridor where Bedroom 1 was re-constructed.

D: Services

D20: Plumbing

The plumbing systems serving the Rock Harbor Lodge consist of domestic hot and cold water system and sanitary waste and vent system. There is no storm water system as rain sheds off the roof on to the rocks below and into Lake Superior.

D2010: Plumbing Fixtures

Each of the seventeen (17) guest rooms has a lavatory which currently only piped to provide cold water. The porcelain lavatory bowls (Figure 2A.109) appear to be original to the lodge; however, the hardware has been changed. At the northwest end of both the first and second-floors is a shower room with one shower, a service sink and three water closets. An electric domestic water heater is located in the first-floor shower room. The rooms were reconfigured in the mid to late 1980's, but the fixture counts remained the same.

D2020: Domestic Water Distribution

A 2" (estimated size) galvanized domestic water main enters the foundation level at the northeast end of the lodge and transitions to red PEX water line with riser taps at each guestroom (Figure 2A.110). The water line extends under the floor to the restrooms where it rises up to feed the restroom plumbing fixtures on both floors and a 6kW, electric storage domestic water heater in the first-floor restroom. Because the water lines are located in the foundation crawl space below the first-floor combined with the fact that the lodge is not heated, drainage system consisting of blue PEX lines and drain valves has been installed in the foundation crawl space to drain the system during the winter for freeze protection.

D2030: Sanitary Waste

The sanitary waste system was constructed of galvanized piping with the main horizontal lines located in the foundation plan. The waste line follows the path of the domestic water service and exits the building at the southeast end where it reaches a sewer collection tank and lift station where it gets pumped up the Rock Harbor's Sewage Processing Plant.

The sanitary vent piping can be seen rising up into the attic at the location of each guest room lavatory. No vent piping can be located serving the restrooms. All of the vent risers are gathered in the attic (Figure 2A.111) and are vented through the roof at the east end of the attic. The vent through the roof does not appear to be large enough to meet current plumbing code.

D30: HVAC

Currently, there is no mechanical HVAC system installed in the Rock Harbor Lodge. The lodge was originally heated by either steam or hydronic hot water through radiators located in each room and the main lobby. The radiators were removed in the late 1980's - early 1990's. Evidence of the radiators is still visible today if you are looking, although they have been patched very well (Figure 2A.112). A 1926 Site Plan of the Rock Harbor Lodge resort, drawn by L.M.Lowery of Detroit indicates the location of Boiler Room to the north west of lodge. The Boiler Room appears to be visible in a HABS Photo (MI-246-5), ca. 1985.

A hand drawing prepared on grid paper (Source Unknown) indicates a 3" steam header and condensate return located in the foundation plan; however, a 1947 Building Survey which assessed the building structural and mechanical systems indicated that "heat furnished by hot water boiler located outside the building".

D40: Fire Protection Systems

The Rock Harbor Lodge does not have an automatic sprinkler system installed. Two fire hydrants are located at approximately 115 feet to the northeast of the lodge and 83 feet to the northwest.

D50: Electrical

D5010: Electrical Service & Distribution

The Rock Harbor Lodge is served by a 120/24ov - 1ph overhead electric service. The service is attached to the exterior of the lodge, drops down the exterior wall to a meter, into main disconnect and back up the wall to the attic level where the electrical panel is located. It appears to be a 100A service; however, the disconnect size could not be visually verified.

D5020: Lighting & Branch Wiring

The light fixtures throughout the guest rooms, corridors and restrooms are surface mounted luminaires, originally fitted with incandescent A-lamps and translucent glass shades which are missing in the majority of the installations. In other cases, the fixture is just a porcelain socket for an A-lamp.

The original branch wiring was most likely knob and tube based on the era of construction. The current wiring is type NM cable (Romex) concealed within the walls.

D5090: Other Electrical Systems – Fire Alarm

The current fire alarm system is a Honeywell centrally monitored, addressable fire alarm system is installed in the Rock Harbor Lodge. The fire alarm system consists of addressable smoke detectors located in each room and corridor and manual pull stations, and horn/strobes for annunciation.

D: Services

D20: Plumbing

D2010: Plumbing Fixtures



Figure 2A.109: Wall mounted sinks located within each guestroom.

D 2020: Domestic Water Distribution



Figure 2A.110: Utilities within the crawl space

D 2030: Sanitary Waste



Figure 2A.111: Vent stack located in the attic

D 30: HVAC



Figure 2A.112: Wood plugs at the locations of the radiator piping in the floor of the first-floor lobby.

D40: Fire Protection Systems

D50: Electrical

D5010: Electrical Service & Distribution

G: Building Sitework

G20 Site Improvements

G2030 Pedestrian Paving

G203099 Other Walks, Steps, and Terraces (Sidewalk Ramps)

Walks

A natural surface walkway, between 6 and 8 feet wide, with a light coating of fine aggregate approaches the Guest House from the north. It passes between the Lodge Office and Dining Room, where it splits into two—one branch leads toward Saginaw Lodge and one branch passes the northeast corner of the Guest House before turning east toward Nokomis Lodge and the maintenance/laundry building next to the Dining Room. These walks serve as the primary pedestrian routes to the Guest House, but their primary purpose and use appears to be as service vehicle drives. One walkway approaches the northwest corner and has a short desire path connecting to the deck that wraps around that corner of the building. This path also provides access to the ramp leading up to the deck that runs along the east elevation of the building. The deck at this corner is raised one step above surrounding grade. The path to Saginaw Lodge is similar in construction and use. It provides access to the entrances into the Guest House on the west elevation. Additionally, there are areas in the yard north of the Guest House where bare earth is exposed, suggesting that pedestrian and vehicular use has worn these areas. In fact, all the pedestrian circulation features appear created by constant use, either foot traffic or vehicular traffic. They do not appear to be maintained, except for a layer of gravel potentially added to the surface at some time in the past. These circulation features are, however, stable and in good condition with no observed evidence of rutting or erosion (Figure C. 2A.113).

Ramps and Landings

There is currently one ramp accessing the deck on the northeast side of the building. This provides universal access to the deck that wraps around to the waterside (southeast) of the building. The ramp is approximately 5 feet wide and constructed of nominal-sized, pressure-treated lumber. The end of the ramp is slightly elevated, approximately 2 inches, above grade. The ramp does not have a landing but leads onto native soil covered in gravel and a thin layer grass.

G2040 Site Development

G204009 Other Exterior Furnishings

There is a bronze dinner bell mounted on a five-foot-tall stone pier in the yard north of the Guest House. The stone pier is mortared and constructed on top of a large rock outcrop. The stones are a variety of sizes. The corners of the pier feature more oblong rock; round rock fill the space between the corners. The rocks have lichen growth. A concrete cap sits on top of the pier, onto which is affixed the bronze bell. The concrete cap has one broken corner. The upright, yoke, and crank of the bell appears to be iron; the iron has evidence of pitting and rust. The bell bowl is copper and has a green patina. Considering the above observations, the overall condition of the bronze dinner bell and stone pier is fair.

G2050 Maintained Landscapes

G205005 Plantings

The existing vegetation around the Guest House appears to be spontaneously occurring native species. A balsam fir stands in the yard approximately 20 feet north of the Guest House; a white spruce stands approximately 36 feet west of the Guest House. These two trees appear to be in good condition. Spontaneously occurring vegetation also grow on a rock outcrop west of the Guest House. Plants include balsam fir trees, common juniper, and thimbleberry. The plants appear in good condition. South of the Guest House, a variety of trees, shrubs, and grasses grow. A paper birch is the most visually prominent of these plants. It is in poor

condition, with a dead leader extending higher than a flush of new growth coming out of its base. Otherwise, the plants in this area appear to be in good condition. The area east of the Guest House, beyond the edge of the deck, is composed of variety of native trees, shrubs, and grasses. All plants appear to be in good condition. The ground plane around the building features mostly bare earth with spots of weedy ground cover vegetation. But considering the naturalized aspect of the site, the vegetation is in overall good condition.

G: Building Sitework

G20 Site Improvements

G2030 Pedestrian Paving



Figure C. 2A.113: Natural walkway leading from Snug Harbor to the building.

2.B Treatment Plan

The following recommended treatments are intended to repair, maintain, preserve, and/or restore the character-defining features of the Rock Harbor Guest House with the least degree of intervention while elevating the Facility Condition Index ratings to "good." These treatments include limited replacement in-kind as defined by The Secretary of the Interior's Standards for the Treatment of Historic Properties.

The Rock Harbor Guest House has been determined to be eligible for the National Register of Historic Places. The proposed use for the Guest House, as identified in the 2019 Cultural Resource Management Plan calls for hostel-type visitor lodging. To achieve this function rehabilitation is the recommended treatment approach.

Treatment Planning

Historic structure treatment involves one or more of the following actions: (a) preservation of existing materials, (b) replication of missing historic features, (c) addition of non-historic features, and (d) removal of existing features or materials.

The ultimate treatment of a structure is established in the park's General Management Plan (GMP), a Developmental Concept Plan (DCP), or other planning efforts. In the case of the Guest House, the 2019 Nonwilderness Cultural Resources Management Plan / Environmental Assessment identifies ultimate use and treatment. Second, major conflicts inherent in the ultimate treatment or other related treatments are identified and resolved through an HSR, Part 2. Third, plans and specifications are prepared to direct construction or preservation maintenance.

Decisions about treatment should reflect the value of a structure as a cultural resource, knowledge of craft techniques and building materials, consideration of current and intended uses, appreciation of threats to the structure, and projections of treatment costs relative to likely funding.

Recommended Treatments for Rehabilitation

Rehabilitation maintains the existing integrity and character of a historic structure but allows major additions or alterations to accommodate a compatible contemporary use.

Rehabilitation improves the utility or function of a historic structure, through repair or alteration, to make possible a compatible contemporary use while preserving those portions or features that are important in defining its significance. Leased historic structures rehabilitated consistent with the Secretary of the Interior's Standards for Rehabilitation may be eligible for preservation tax credits. The following standards based on the Secretary's Standards apply:

1. A historic structure is used as it was historically or is given a new or adaptive use that maximizes the retention of historic materials, features, spaces, and spatial relationships. Adaptive use of prehistoric structures is prohibited.
2. The historic character of a historic structure is retained and preserved. The replacement or removal of intact or repairable historic materials or alteration of features, spaces, and spatial relationships that characterize a structure is avoided.
3. Each historic structure is recognized as a physical record of its time, place, and use. Changes that create a false sense of historical development, such as adding conjectural features from other structures, are not undertaken. Work needed to stabilize, consolidate, and conserve historic materials and features is physically and visually compatible, identifiable upon close inspection, and properly documented for future research.

4. Changes to a historic structure that have acquired historical significance in their own right are retained and preserved.
5. Historic materials, features, finishes, and construction techniques or examples of craftsmanship that characterize a historic structure are preserved.
6. Deteriorated historic features are repaired rather than replaced. Where the severity of deterioration requires repair or replacement of a historic feature, the new feature matches the old in design, color, texture, and, where possible, materials. Repair or replacement of missing features is substantiated by archeological, documentary, or physical evidence.
7. Chemical or physical treatments that cause damage to historic materials are not used.
8. Archeological and landscape resources are protected and preserved in place. If such resources must be disturbed, mitigation measures are undertaken including recovery, curation, and documentation.
9. Additions, alterations, or related new construction do not destroy historic materials, features, and spatial relationships that characterize the historic structure. New work is differentiated from the old and is compatible with the historic materials, features, size, scale and proportion, and massing of the structure.
10. Additions and adjacent or related new construction are undertaken in such a manner that if removed in the future, the essential form and integrity of the historic structure would be unimpaired.

The Rock Harbor Guest House is to be rehabilitated and converted back into its original use, which was for guest housing.

Maintenance Deficiency Priority Ratings (5-Year Rating Period)

Listed as "Priority Ratings" on the Feature Inventory Condition Assessment Tables, these ratings are based on the condition rating of each feature and a priority rating was established. These priority ratings indicate either a critical, serious, or minor deficiency priority rating.

Critical – (Emergency/Immediate)

- This rating defines an advanced state of deterioration which has resulted in the failure of a feature or will result in the failure of a feature if not corrected within 1 year; or
- There is accelerated deterioration of adjacent or related materials or systems as a result of the feature's deficiencies if not corrected within 1 year; or
- There is an immediate threat to the health and/or safety of the user; or
- There is a failure to meet a regulatory requirement.

Serious – (Immediate/Short Term)

- This rating defines a deteriorated condition that if not corrected within 1 to 3 years will result in the failure of the feature; or
- A threat to the health and/or safety of the user may occur within 1 to 3 years if the ongoing deterioration is not corrected; or
- There is ongoing deterioration of adjacent or related materials and/or features as a result of the feature's deficiency.

Minor – (Short Term/Long Term)

- This rating indicates standard preventative maintenance practices and preservation methods have not been followed; or
- There is reduced life expectancy of affected adjacent or related materials and/or systems within 3 to 5 years and beyond; or
- There is a condition with a long-term impact within 3 to 5 years and beyond.

For the purposes of this report, these definitions were rigourously adhered to as a way to qualitatively assess the current condition of the Rock Harbor Guest House

Structural

Foundations

Priority: Critical

Form and pour a reinforced concrete wall under the existing concrete and stone on the southeast side of the deck wall where erosion has occurred. The new concrete wall is to be anchored into the natural stone under the wall with reinforcing anchors. Add coloring agent to the new concrete to blend in with the existing wall construction. Color selection to be determined.

Clean all debris from the crawlspace. Smooth the existing grade and add a 4" gravel layer over a Visqueen vapor barrier.

Clean all manmade debris and plant growth along the landscape strip on the southeast side in preparation for the placement of large natural boulders.

Level and plumb concrete piers determined to have minor settlement and or displacement. Check subsurface bearing and reinforce as needed.

New Concrete Piers - Add two new lines of six piers supporting new timber beams along the length of the Guest House under the corridor walls to add support to the first-floor framing and relieve some of the load on the existing piers. Add two new piers and beams along the northwest-southeast bearing wall on the west side of the lobby to add support to the first-floor framing and relieve some of the load on the existing piers.

Place large natural rocks and boulders along the southeast landscape strip to help minimize washout and erosion of the crawlspace and the shoreline.

Floor Framing

First-floor

Priority: Critical

Additional Framing - Add new lines of timber beams supported by the new concrete piers to provide added support to the floor joists and relieve some of the load on the overstressed piers and log beams. Add new mechanical anchorage between the foundation and the first-floor framing on all sides and along the central beams. Remove temporary joist shoring. Jack the floor joists up slightly to place new timber beams.

Second-floor

Priority: Critical

Reinforce Existing Joists – Remove the first-floor ceiling over the northeast first-floor lobby and add new reinforcement joists to the existing joists to provide required live load capacity. The existing ceiling needs to be removed to examine the joists and determine the extent of the reinforcement.

Attic Floor Framing

Priority: Critical

Limit the live load to no more than 20 psf within the attic space. Post signs and create barriers to the placement of heavy furniture and equipment.

Roof Framing

Priority: Critical

Reinforce Existing Rafters and Collar Ties – Add new sistered reinforcement rafters to the existing rafters to improve live load capacity. Add a sistered joist member to the collar ties and improve the connection to the rafters, and provide required live load capacity of the framing system.

Remove and replace water-damaged and rotted wood roof deck and replace with new plywood decking. Replace or repair roofing as required.

Remove and replace or repair damaged wood blocking and nailers for the exposed rafters.

Deck

Priority: Critical

Remove and replace existing wood deck on the southeast side. Demolish the existing deck framing and rebuild with new pressure-treated lumber or composite material designed to meet a live load of 100 psf. Test the existing framing for hazardous

contaminants before demolition. Dispose of contaminated material according to state and local regulations. Add new concrete footings and anchorage as needed. The decking and railings are to be constructed with a composite wood material.

Architecture

Exterior Siding

Priority: Critical

Replace 30% of the exterior siding on the southeast elevation and 10% of the exterior siding on the other elevations with in-kind siding to match the original. It can also be assumed that a similar amount of sheathing will need to be replaced once the deteriorated siding is removed.

Due to the presence of lead-based paint, the existing paint is to be encapsulated. Based on recent research and documentation, it is recommended the exterior wood surfaces be cleaned, patched/ repaired/ replaced, primed and painted. The exterior siding and the eaves should be painted. The exterioe siding and the eaves should be painted “coffee bean” brown while the window sashes and doors, and window and door trim be painted green per the findings in the Paint Sampling Report.

Install new building signage on the southeast elevation to be compatible with the original building signage.

For the proposed outdoor mechanical room provide fiber cement panels with 3.5” vertical battens. This would provide a compatible finish without replicating the original as the original mechanical room was indicated to be finished with a plaster coating.

Chimneys

Priority: Minor

Where minor cracks have occurred, the joint should be tooled and filled with an appropriate patch. For concrete that is spalling, clean and remove loose concrete and apply appropriate patch. All non-appropriate patches should be cleaned out and patched correctly. A chimney cap should be installed on the top to prevent water and animals from entering the chimneys. The exterior siding should be cut back from the chimney and an appropriate expansion joint sealant should be installed to account for the differential movement between the two materials.

On the interior of the northeastern chimney, the first-floor fireplace should be cleaned and 5% of the joints need repointing.

Exterior Windows

Priority: Serious

Repair the wood windows to operable condition reworking the sash weights/cord/pulleys or jamb liners, as necessary. Where sections of the sashes and frames are deteriorated, replace with in kind material. Salvage and number existing glass panes for reuse. Replace broken panes with new clear glass to match. Damaged and cracked casings should be replaced as well. Refer to NPS Technical Brief #9 for the restoration of historic wood windows.

To help with the flow of water around the openings, new metal cap flashing should be installed at the head condition. Drip edges should be cut in the sill to prevent water from entering under the wood sill.

Fabricate removable custom wood screens.

Due to the presence of lead-based paint, lead-based paint to be removed from friction surfaces to achieve operable condition per current lead-safe guidance. Clean, patch, prime, and paint the window and trim on the interior and exterior.

Exterior Doors

Priority: Serious

Repair doors to operable condition and replace deteriorated rails, frames, and casings. All hardware should be restored and modern hardware should be replaced with new compatible hardware, which is appropriate. Provide weatherstripping around the openings. Where the glass panes are broken or cracked, they should be replaced. Due to the presence of lead-based paint, lead-based paint to be removed from friction surfaces to achieve operable condition per current lead-safe guidance.

Clean, patch, prime, and paint the doors and trim on the interior and exterior.

All four of the exterior doors should receive a new sill / threshold.

The hardware for the southeast elevation French door should be updated to allow for an accessible entrance. Signage should be posed indicating that both leafs will need to be opened to allow for accessible access.

The first-floor southwest elevation door should be replaced with a compatible wood door. A screen door should also be installed.

Roofing

Priority: Critical

Remove the existing asphalt roll roofing in its entirety and replace any damaged roof decking as required. Install new underlayment and slip sheeting on top of the wood decking. Rolled asphalt has a maximum service life of approximately 20 years. To improve performance and durability of roofing for this remote structure, consider installation of either new asphalt architectural shingles or stone-coated metal shingles. The color should match the color of the existing asphalt roll roofing.

The existing flashing around the entire building should be replaced. New galvanized metal or zinc-coated copper eave and rake flashing should be installed around the perimeter of the roof. Where larger penetrations occur on the roof like the dormers or chimneys, step flashing should be extended vertically and horizontally on the roof surfaces to provide a water tight seal. The siding should be removed and reinstalled as required for the installation of the vertical leg. At all smaller penetrations, like vents, pipe flashing should be installed.

The roof for the new outdoor mechanical room is to be corrugated metal.

Exterior Stairs

Priority: Critical

By changing the use of the building to more a public facing building, the exterior stairs and balconies will need to be removed and rebuilt to comply with current building codes. The stairs and in particular the balconies leading from the horizontal exits, need to maintain a minimum clear width of 36” wide to the public right of way. This includes any projection into the walkway, i.e., the chimney.

Install new foundations and pressure-treated lumber. Decking, handrails, and guardrails will be constructed out of a composite wood material. Guardrails should be a minimum of 42” high and the handrails need to be 36” high and be installed on both sides of the stair. The stair risers should consist of solid wood risers as opposed to open risers, which it currently has. Abrasive striping should be applied to the leading edge of the treads. Integrated stair lighting should be provided so that it provides the required illumination, footcandles, as required by code.

Interior Doors

Priority: Serious

Patch all nail holes and other markings on the doors. Repair and replace rails and stiles as required to ensure proper operation. The backplates and door knobs should be restored where they remain and replaced with compatibles ones where they are not. Provide a consistent deadbolt throughout. Due to the presence of lead base paint, the existing paint is to be encapsulated. Clean, patch, prime, and paint the doors and trim on the interior and exterior.

Remove the second-floor corridor door and surrounding wall. Patch adjacent surfaces

Enlarge the first-floor hallway door and Bedroom 1 entry door to 36” wide to allow for an accessible

entrance. Provide a 5-panel compatible wood door at these location.

Interior Fittings

Priority: Serious

Provide new layout for the first and second-floor group restrooms. Each grouping will consist of two bathrooms, one accessible and one standard. Each restroom will contain a shower, toilet, and sink. The accessible restrooms will be equipped with required accessories. The raised floor will be removed, and a dropped ceiling will be installed on the first-floor ceiling to run the utilities. The first-floor lobby closet and second-floor hallway closet will be transformed into housekeeping closets. A mop sink will be installed in the outdoor mechanical room.

For the fittings inside the sleeping rooms, all the wall mounted sinks should be restored and provided with new piping to ensure they are operational. In Bedroom 1, the non-original sink should be replaced with an ADA accessible sink. Reallocate and redistribute the hutches, shelves, and mirrors so that every sleeping room has one of the fittings. Repair and replace damaged parts as required. Where new fittings need to be replicated, they should match the style of the existing fittings. Reconstruct the drop leaf tables where they have been removed or replaced with non-original pieces, Bedroom 2. For all surfaces that receive paint, clean, patch, prime and paint the fittings.

Interior Stairs

Priority: Minor

The stair leading from the first-floor lobby to the second-floor is in good shape and only minor modifcations are required. The ribbed-rubber material runner should be removed. The wood treads, risers and ballusters should be cleaned, patched and repainted. Abrasive striping should be installed at the leading edge of the treads. Handrails, installed at 36" high, should be installed on each side of the stair.

The attic stair should be reconstructed as it is in poor condition. Abrasive stripping should be installed at the leading edge of the treads. Where the plaster has fallen off the wall surrounding the stair, the area should be patched to provide a continuous finish surface throughout the stair. Handrails and guardrails should be installed at the stair and top landing.

Walls

Priority: Serious

Non-compatible patches should be removed. Cracks will be filled, and holes will be patched with a compatible method. Due to the condition of the interior side of the southeast exterior wall, the plaster should be removed from the wall on the first and second-floor and replaced with a veneer plaster system or gypsum-core panels called 'blueboard.' Refer to NPS Technical Brief #21 for repairing of plaster walls and ceilings. Where original walls aligned with new walls during an earlier renovation project, make the necessary adjustments to the walls so that there is a seamless transition between the surfaces. Due to the presence of lead-based paint, the existing paint is to be encapsulated. Clean, patch, prime, and paint the interior walls.

Floors

Priority: Serious

The recommended treatment should be broken down per the following:

First Floor

- Lobby - Refinish hardwood flooring
- Corridor - Remove existing resilient flooring containing asbestos. Provide new hardwood flooring with a clear finish.
- Guest rooms - Existing hardwood flooring to remain. Clean, patch, prime and paint.
- Bathrooms - Remove existing resilient flooring containing asbestos. Provide a compatible resilient flooring, sheet linoleum or vinyl plank.

Second Floor

- Corridor - Remove oil runner. Existing hardwood flooring to remain. Clean,

patch, prime and paint.

- Guest rooms - Existing hardwood flooring to remain. Clean, patch, prime and paint.
- Bathrooms - Remove existing resilient flooring containing asbestos. Provide compatible resilient flooring, sheet linoleum or vinyl plank.

Replace damaged subfloor, floorboards and base trim as required. Due to the presence of lead-based paint on the existing hardwood flooring, the existing paint is to be encapsulated.

Ceilings

Priority: Serious

The dropped particle board ceiling and supplemental framing in the lobby and first-floor corridor would be removed and replaced with veneer plaster system or gypsum-core panels called 'blueboard.' The finish should match the original. Non-compatible patches should be removed. Cracks will be filled, and holes will be patched with a compatible method. Due to the condition of the second-floor ceiling and reinforcing the second-floor joists above the first-floor lobby space, the plaster will be removed from the ceiling in those spaces and replaced with a veneer plaster system or gypsum-core panels. The new finish coat would match the original surface treatment. Refer to NPS Technical Brief #21 for repairing of plaster walls and ceilings. Due to the presence of lead- based paint, the existing paint is to be encapsulated. Clean, patch, prime, and paint the ceilings.

Code and Life Safety

Priority: Critical

Due to the nature of converting the building into a new occupancy category, modifications would be needed to address the public using the entire building. Installing a fire protection system, fire alarm and smoke detection systems would be appropriate measures for the size of the building and its use. Means of egressing from the building will need to be addressed. Currently the stair and walkways on the southwestern portion are not adequate. Walkways need to be a minimum of 36" its narrowest part, which occurs at the chimney. Improvements to the guardrails at the walkways, stairs and deck would be required to meet the current building code.

Accessibility

Priority: Critical

The exterior ramp located on the northeast side of the building will need to be modified to have a maximum slope of 1:12. A handrail will need to be installed at a height of 36" high. The accessible route into the building will continue to the southeast elevation French door. Accessibility standards require that at double doors, the minimum clear width when 1 door is open is 32" wide. The current clear width is only 26". In lieu of enlarging one of the exterior doors, which would change the character of the building, signs should be posted to indicate that both door leafs need to be opened for an accessible entrance. This would require modifying the door hardware to be self-closing. The first-floor corridor door and the unit entry door into Bedroom 1 would need to be enlarged. The required width is 32" which equates to a 36" wide door. A new accessible sink should be provided in Bedroom 1. For the common bathroom area, an accessible restroom containing a transfer shower, sink and floor mounted toilet will be provided on the first-floor where the current restrooms are located.

Plumbing

Fixtures

Priority: Minor

Install new water closets, showers, and lavatories in the group restrooms to include accessible

fixtures based on the reconfiguration of the restrooms. Replace the existing water heater with a new domestic water heater to be located in the reconstructed boiler house. Provide faucets for all lavatories located in the sleeping rooms.

Piping

Priority: Minor

Replace domestic hot and cold-water piping and slope piping to low points to allow for winterization. Include hot water risers to bedroom lavatories and connect to hot water return loop with thermostatically controlled circulation pump. Replace existing sanitary waste and vent piping system with new PVC piping system.

HVAC

Heating

Priority: Minor

Install electric baseboard heaters, electric ceiling panel heaters and wall mounted electric radiators with proportional SCR controllers and remote wall thermostats.

Cooling

Priority: Minor

During our discussions with the National Park Service during our Treatment Workshop, cooling the Rock Harbor Guest House is not a requirement.

Ventilation

Priority: Minor

Fresh air is provided through operable windows and air infiltration through the building envelope. Toilet exhaust systems will be added as part of the restroom reconfiguration.

Fire Protection

Standpipes

Priority: Critical

For Group R Occupancies, standpipes are not required by the IBC based on the highest story being less than 30 feet above the lowest level of fire department vehicle access. Although not required by code, we recommend that a combination standpipe system be installed which both serves the automatic sprinkler system and includes hose valves in the stair to allow trained Park Service personnel to connect hoses to fight a fire.

Automatic Sprinklers

Priority: Critical

Provide an automatic sprinkler system throughout as required by Section 903.2.8 Group R of the Michigan Building Code (IBC 2015). The system shall be installed in accordance with NFPA 13, Standard for the Installation of Sprinkler Systems. The automatic sprinkler system shall be a wet system, designed for Light Hazard occupancy. The sprinkler system supply, backflow preventer, isolation valve, water flow switch, inspectors test & main drain shall be located in the reconstructed boiler house. Because the system will be drained during the winter, the piping shall be CPVC Blazemaster piping to prevent corrosion. Sprinkler mains shall be run above the ceiling of the first and second-floor corridors and around the perimeter of the attic. Extended coverage side wall sprinkler heads shall serve each guestroom. Supervised valves for system venting shall be installed at the ends of each main and in the attic. Upright sprinkler heads will be installed in the attic and semi-recessed pendent heads will be installed in the corridors, bathrooms, and lobby.

Electrical

Service

Priority: Minor

To support the installation of the electric heating system, the building's electrical service will require need to be upgraded with a new 400A service panel

with main circuit breaker. The distribution system will include installing two (2) 200A distribution panels; one on the first and one on the second-floor to serve new lighting, appliance and HVAC equipment.

Lighting

Priority: Serious

Replace all fixtures in bedrooms, corridors, and lobby with new, replica fixtures. Provide battery pack egress lighting in corridors, stairs, and lobby.

Fire Alarm

Priority: Critical

Provide new system throughout.

Site-Drainage

Priority: Minor

There were no observed issues with stormwater runoff or erosion from drainage issues. The areas around the building should be regularly inspected and site drainage issues addressed if they develop. Most water will tend to flow eastwards away from the building. It is possible that some water will flow north to south, from the open space north of the Guest House toward the lake. Places where stormwater flow could potentially cause a problem are where structural elements touch the ground. These include the structural piers under the building and the posts supporting the decks and boardwalks. If erosion or excessive water flow becomes an issue, ensure positive flow away from the building by directing water with the use of low profile drainage swales. Provide protective barrier along south foundation according to recommendations of structural engineer.

Site-Accessibility

Priority: Minor

The site presents very few obstacles to providing universal access to the building. The park should adhere to methods per the Architectural Barriers Act Accessibility Standards (ABAAS) and Director's Order #42: Accessibility for Visitors with Disabilities in National Park Service Programs and Services to the greatest extent while not damaging historic resources. The existing paths are compacted gravel or gravel laid upon a base that often includes a layer of asphalt. In general, the walkways are stable, firm, and slip resistant. If the gravel aggregate layer becomes unstable, the park should consider using a binding agent/stabilizer to comply with ABAAS standards. The park should also install a landing at the end of the ramp on the northeast corner of the building to comply with ABAAS standards.

Site-Vegetation

Priority: Minor

Preserve existing vegetation and allow for removal of vegetation where it presents a hazard to visitors or historic resources. Remove stumps present in the landscape to minimize potential trip hazards, to visually de-clutter the landscape, and to prepare area for replanting. The removal of stumps, however, involves several considerations, including whether removal will adversely affect site activities, buried utilities, or known/unknown cultural resources.

Site-Small-Scale Features

Priority: Minor

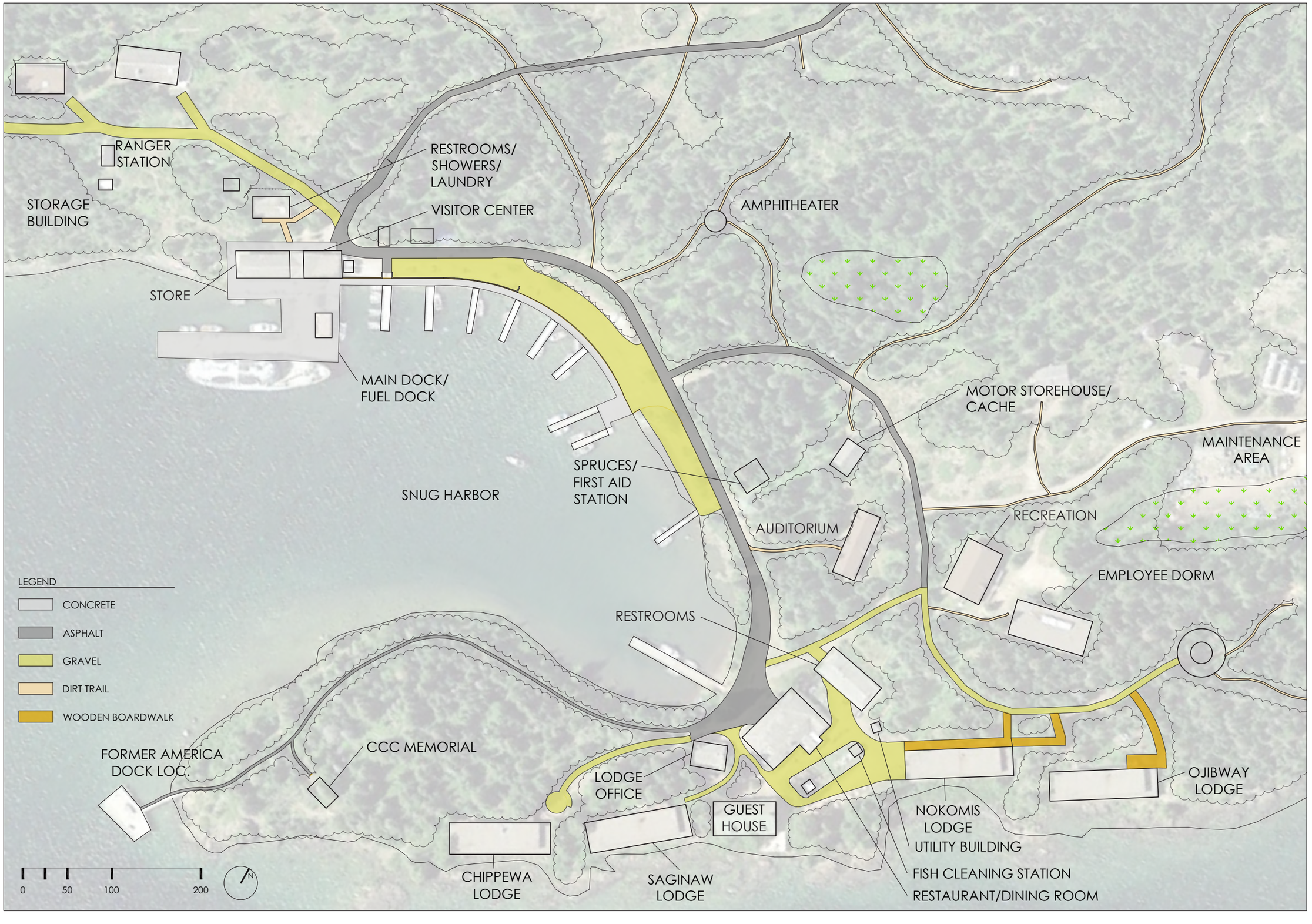
Preserve existing bell and stone base. Perform routine maintenance and repair following guidelines provided in NPS Preservation Brief #2 Repointing Mortar Joints in Historic Masonry Buildings and best practices for maintenance of historic bronze features. See for example, NPS Preservation Brief #27 The Maintenance and Repair of Architectural Cast Iron for guidance on appropriate maintenance decision making. In general, periodically clean using the gentlest method possible.

Mount a flagpole in the existing hole in the rocks northeast of the Guest House. Historic photographs suggest that the flagpole was a wooden pole constructed from a tall tree trunk. It appears to have been approximately 40 to 50 feet tall.

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Appendix A. Chronology Drawings

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SHEET TITLE
SITE PLAN - EXISTING CONDITIONS

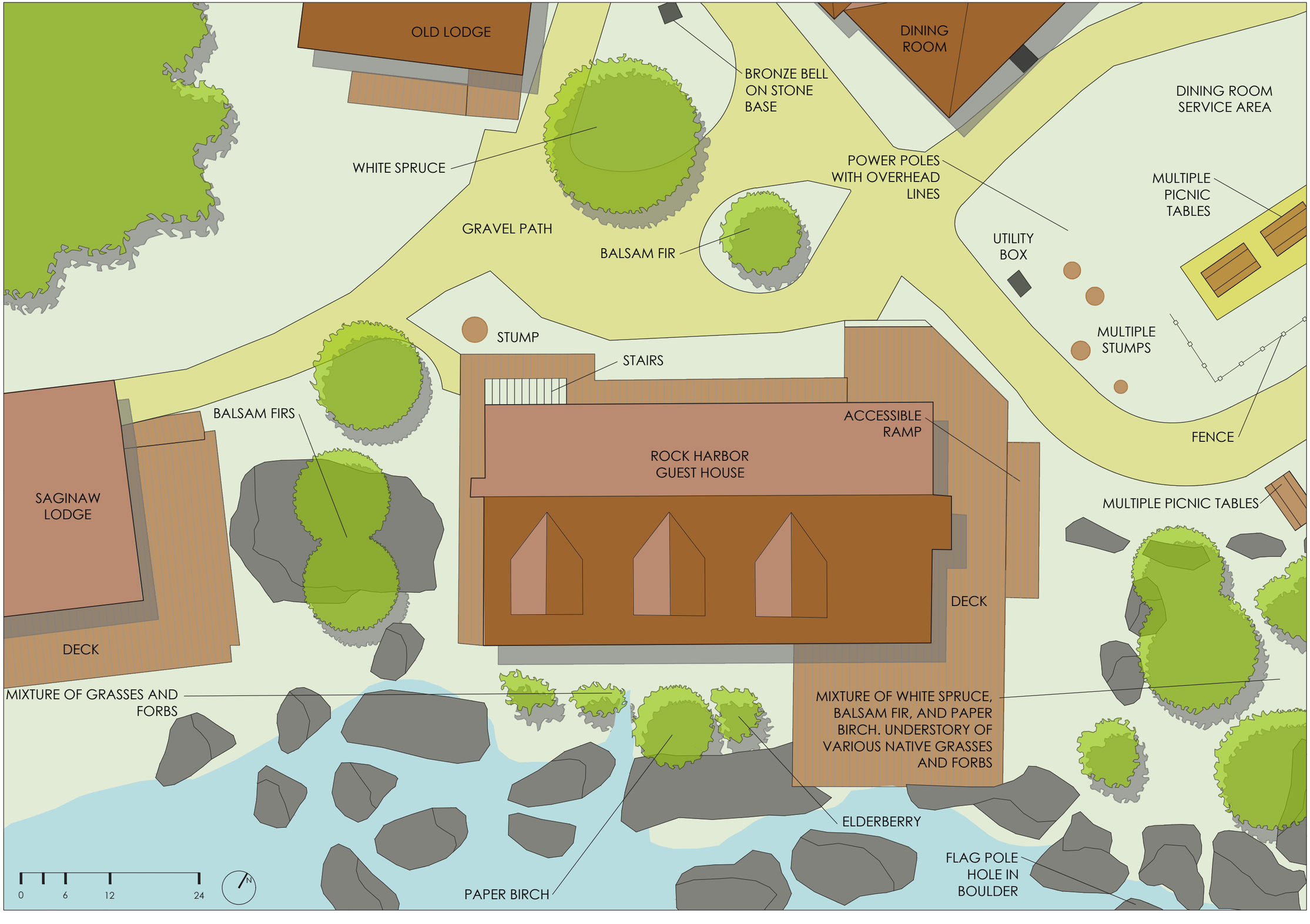
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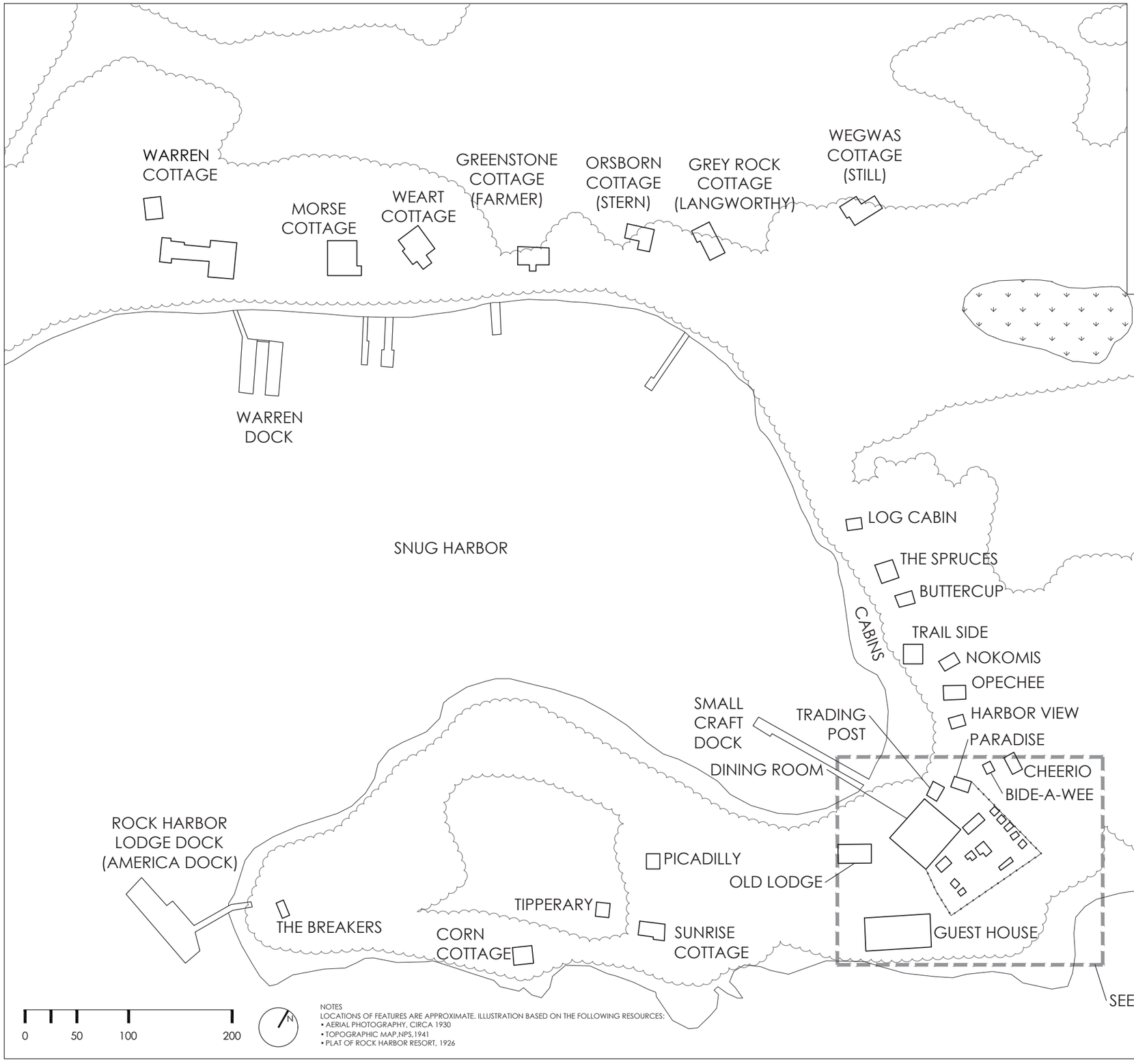
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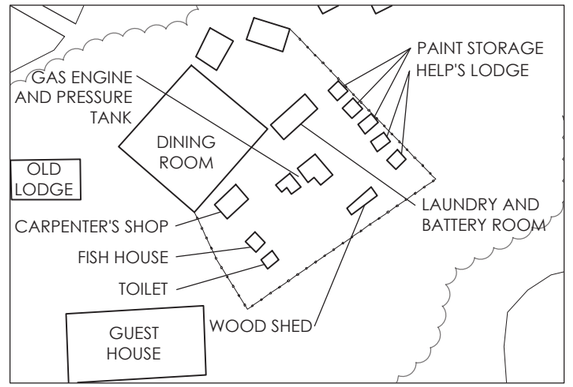
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DINING ROOM SERVICE AREA ENLARGEMENT

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- AERIAL PHOTOGRAPHY, CIRCA 1930
- TOPOGRAPHIC MAP,NPS,1941
- PLAT OF ROCK HARBOR RESORT, 1926

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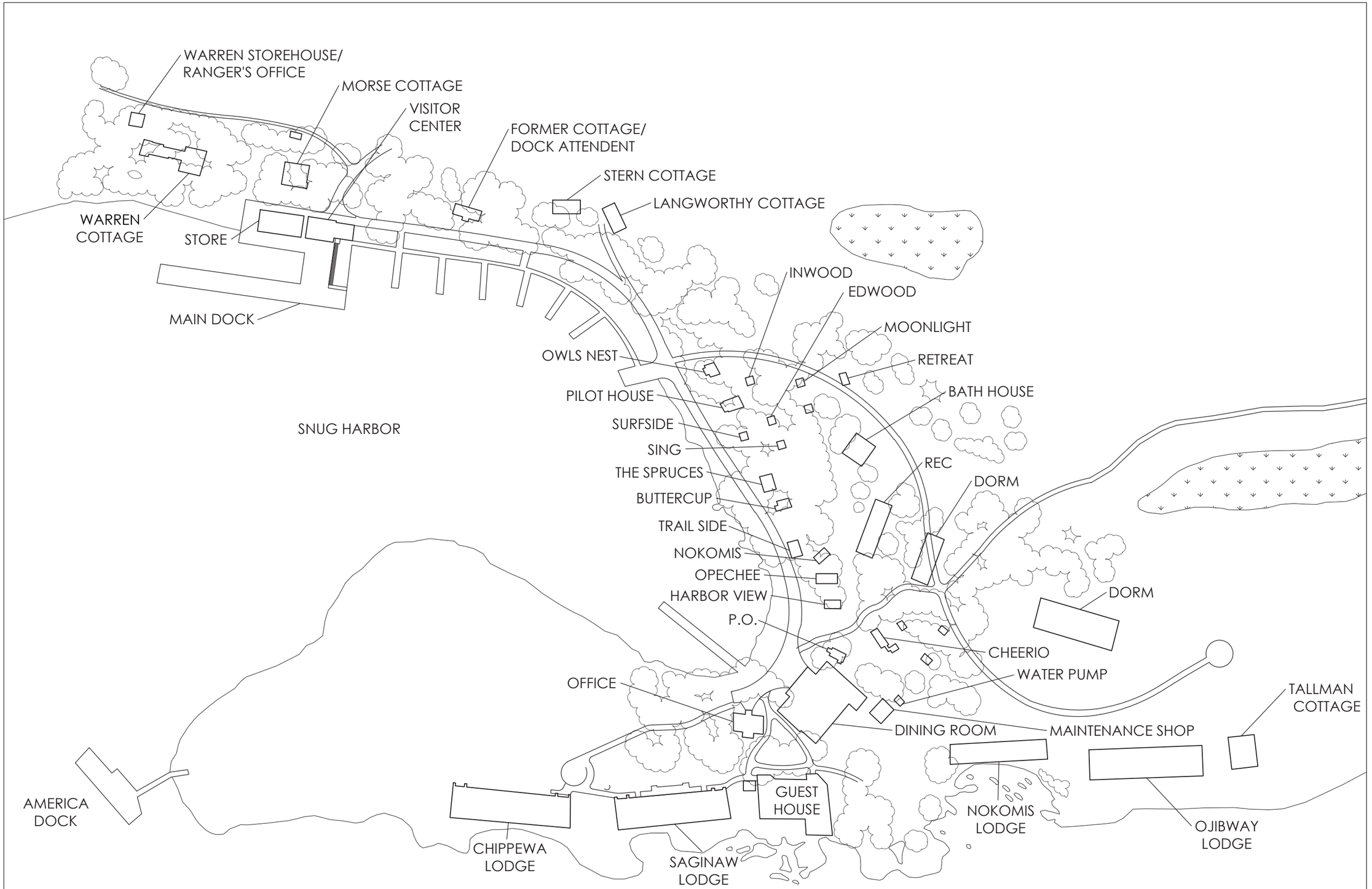
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- COVER SHEET AND LAYOUT PLAN,
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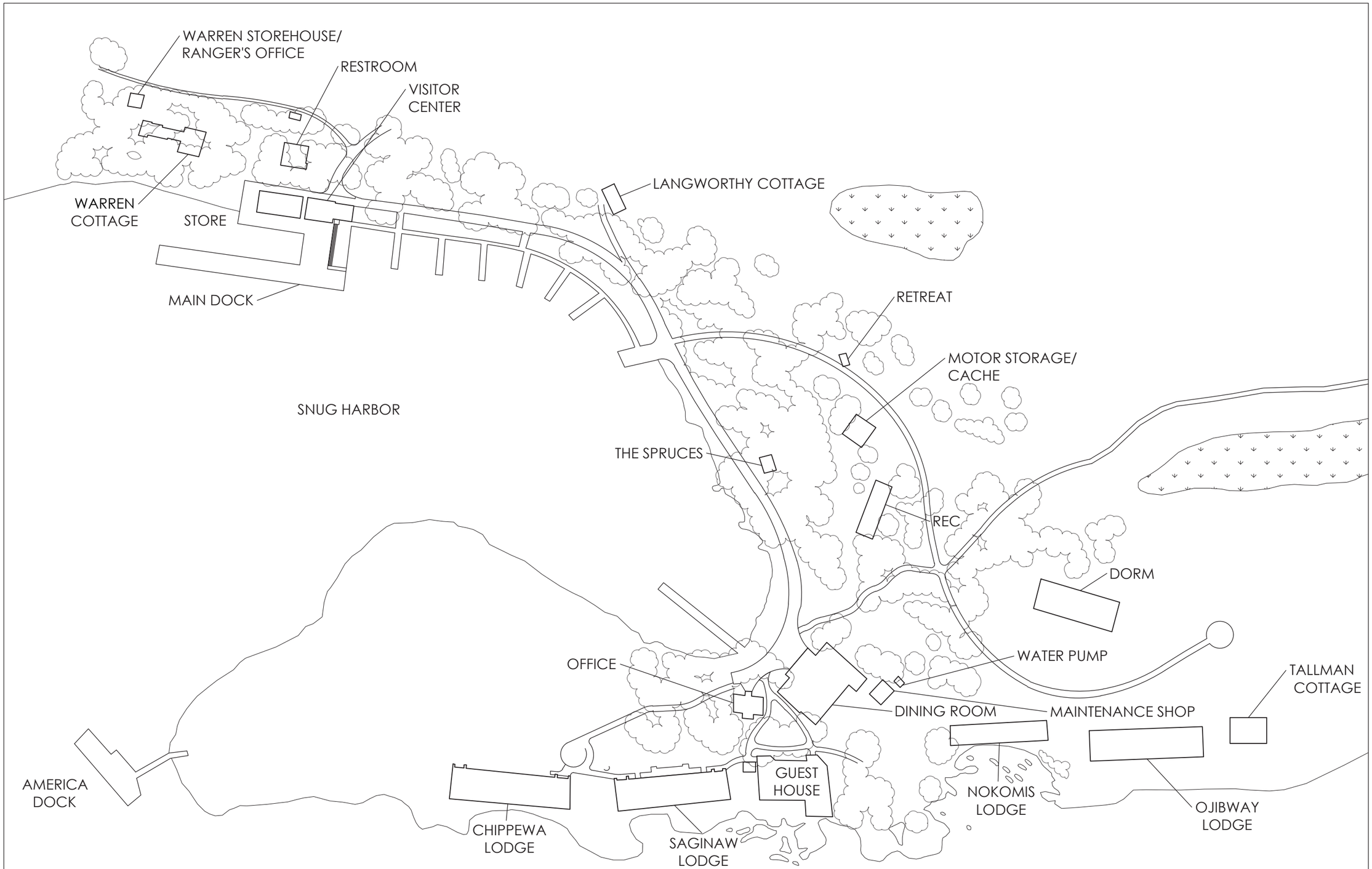
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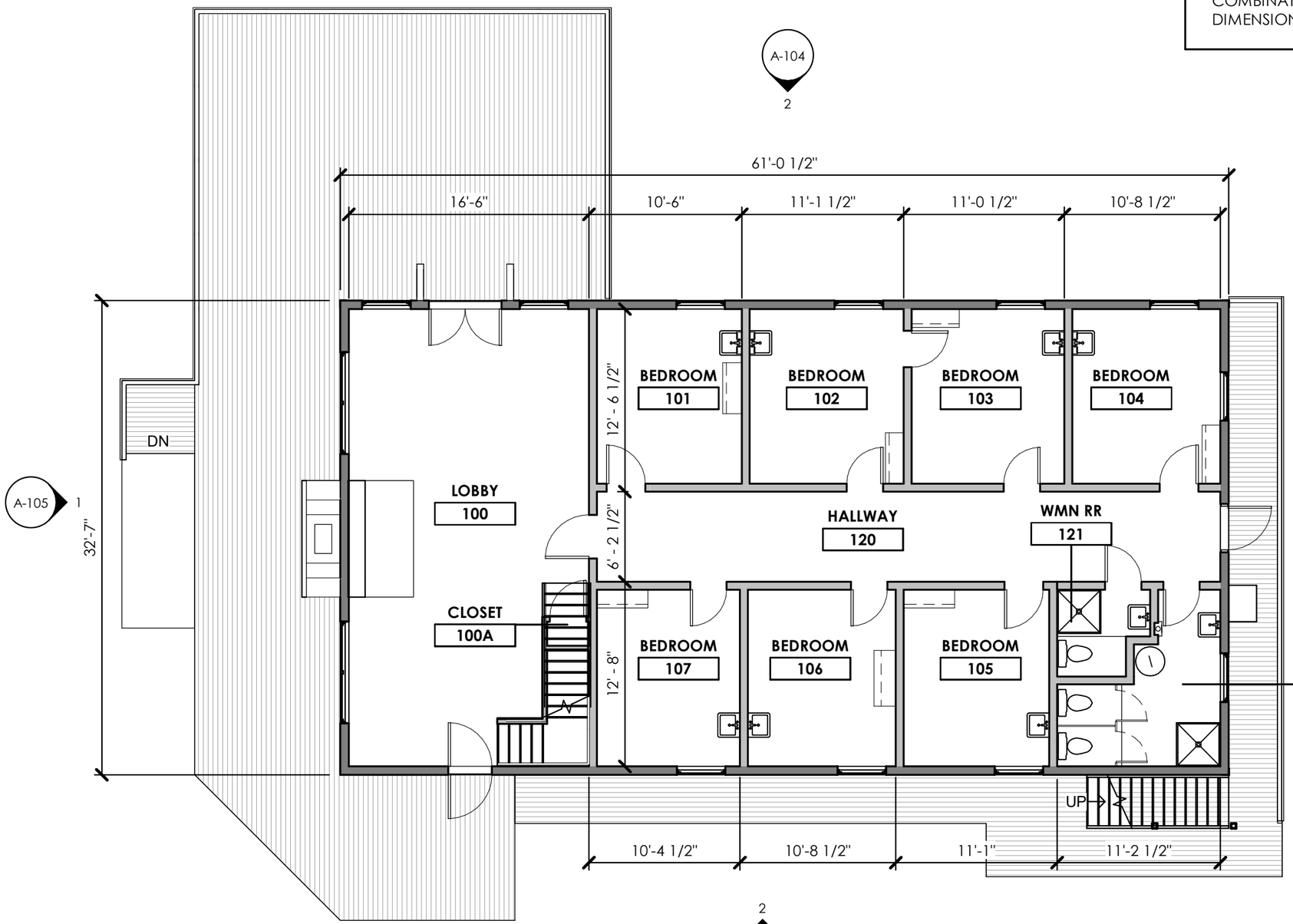
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FIRST FLOOR PLAN

SCALE: 1/8" = 1'-0"

0' 4' 8' 16' 32'

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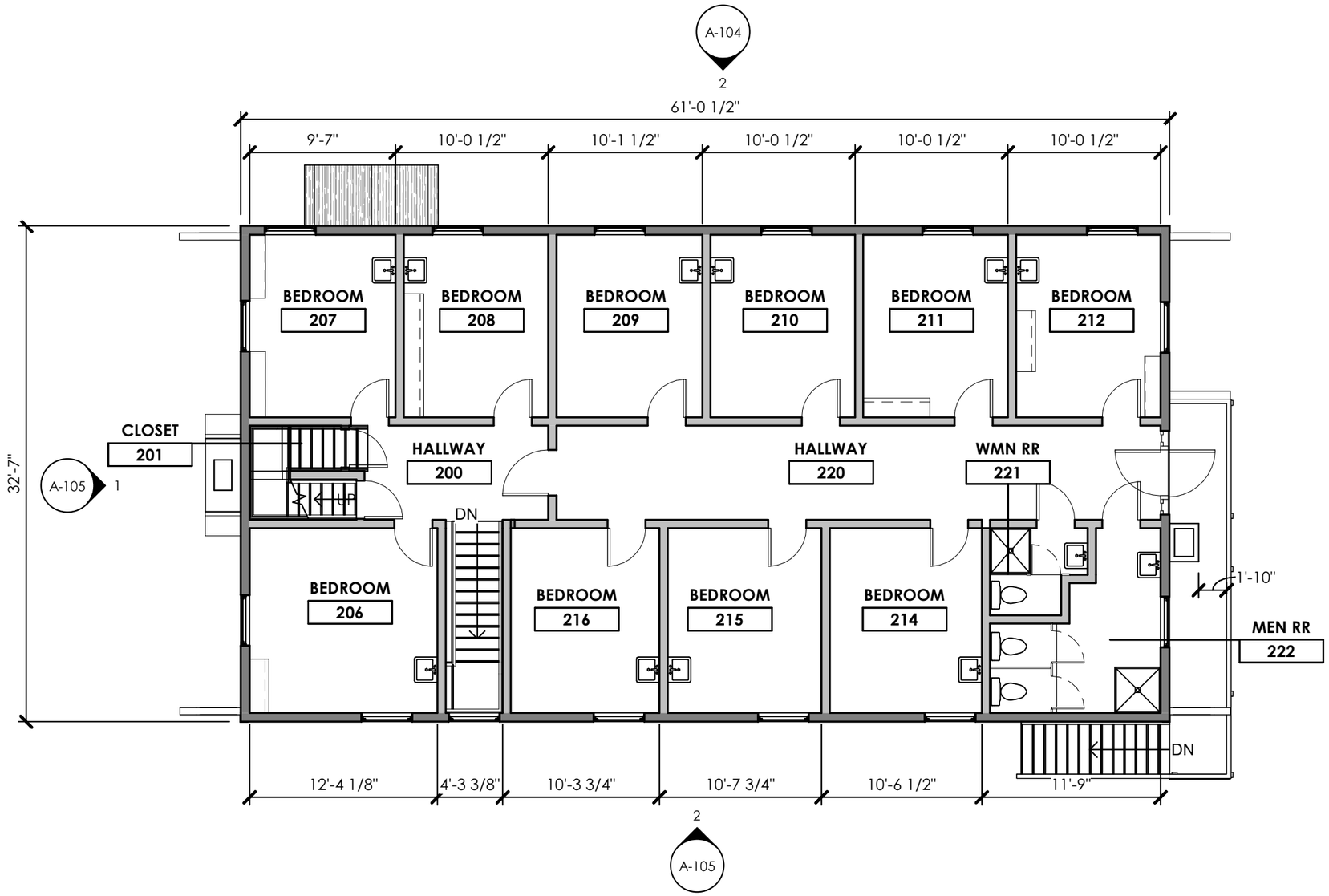
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SECOND FLOOR PLAN

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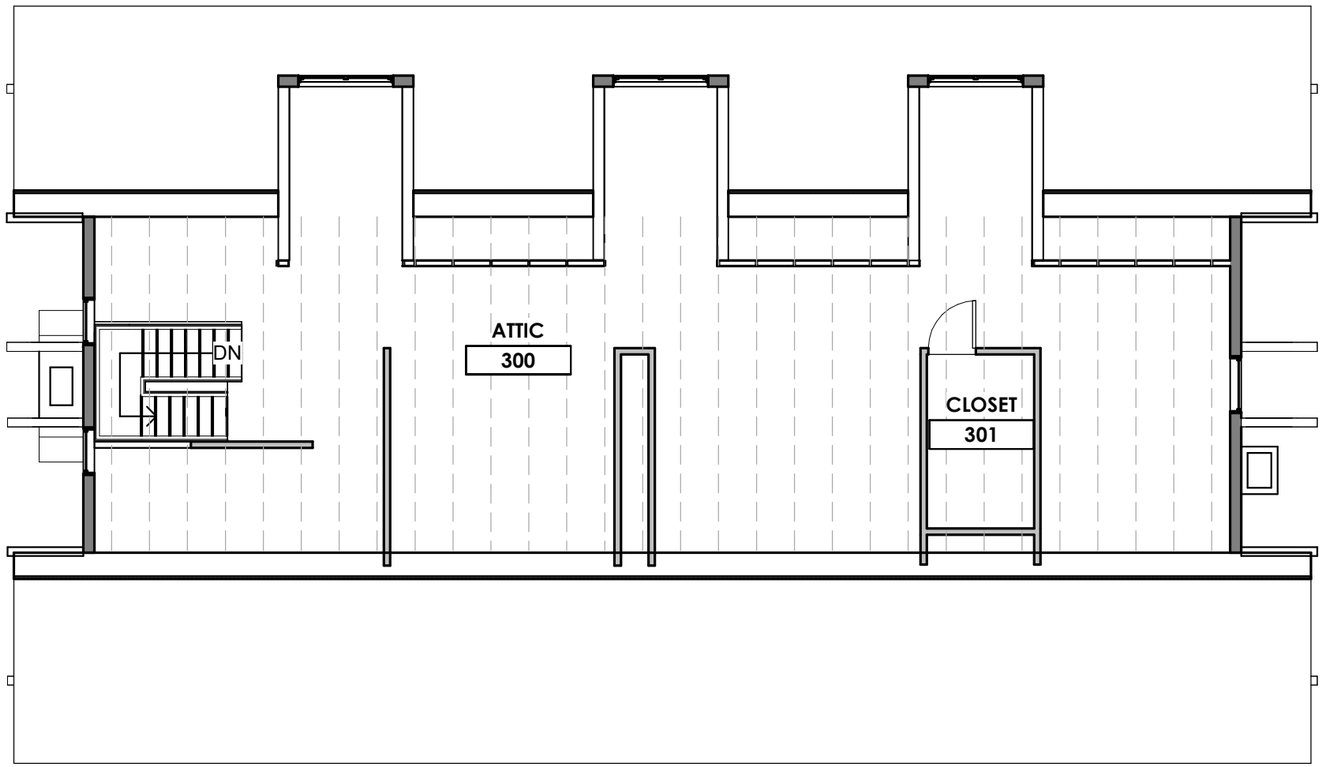
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ATTIC PLAN

SCALE: 1/8" = 1'-0"

N

0' 4' 8' 16' 32'

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2 / A-104 SOUTHEAST

SCALE: 1/8" = 1'-0"



1 / A-104 SOUTHWEST

SCALE: 1/8" = 1'-0"

0' 4' 8' 16' 32'

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2 / A-105 NORTHWEST

SCALE: 1/8" = 1'-0"



1 / A-105 NORTHEAST

SCALE: 1/8" = 1'-0"

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EXTERIOR ELEVATIONS - EXISTING CONDITIONS

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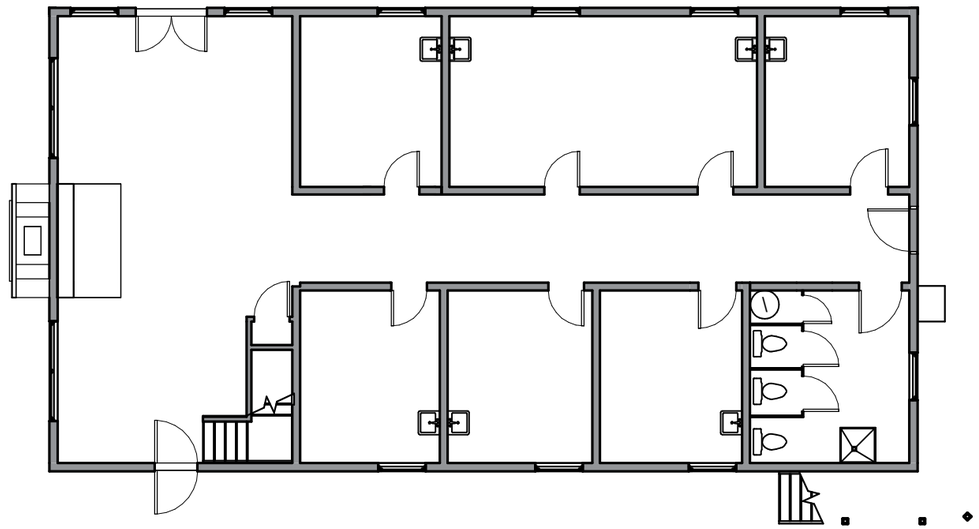
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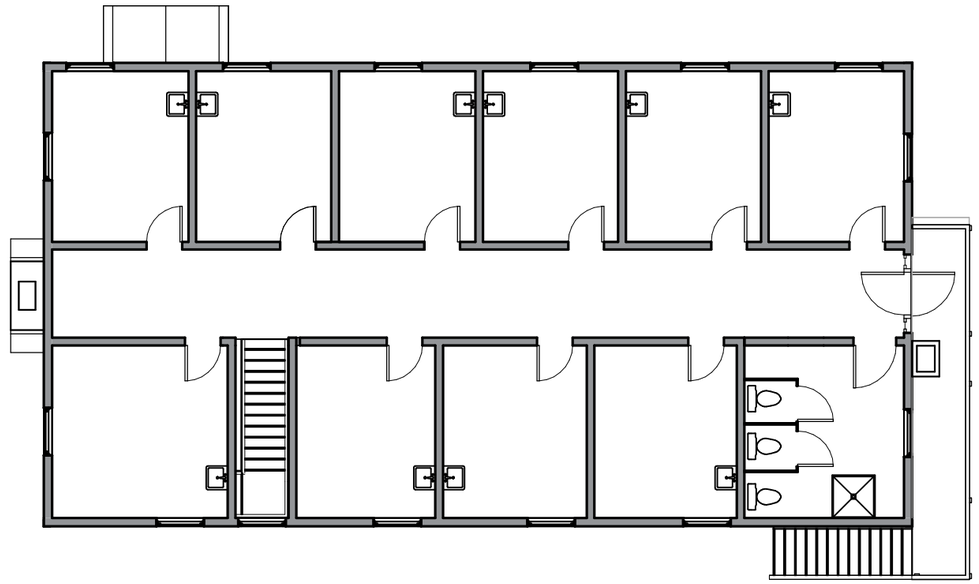
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1936



FIRST FLOOR PLAN

SCALE: 3/32" = 1'-0"



SECOND FLOOR PLAN

SCALE: 3/32" = 1'-0"

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HISTORIC STRUCTURE REPORT
ROCK HARBOR LODGE GUEST HOUSE
ISLE ROYALE NATIONAL PARK
800 EAST LAKESHORE DRIVE, HOUGHTON, MI 49931

ISSUE DATE:
AUGUST 28, 2023

PRELIMINARY
NOT FOR CONSTRUCTION

JOB NUMBER:
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SHEET TITLE
FLOOR PLANS - 1936

PMIS NUMBER: 308211

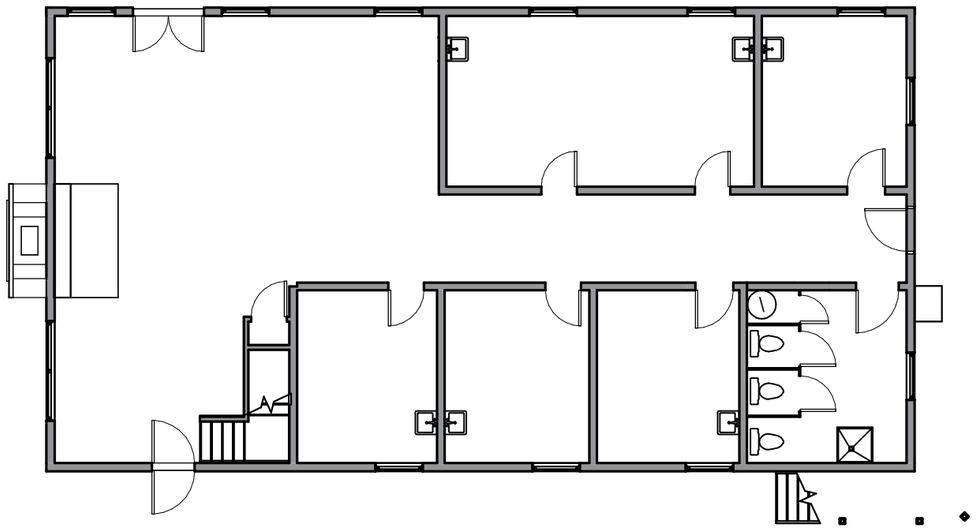
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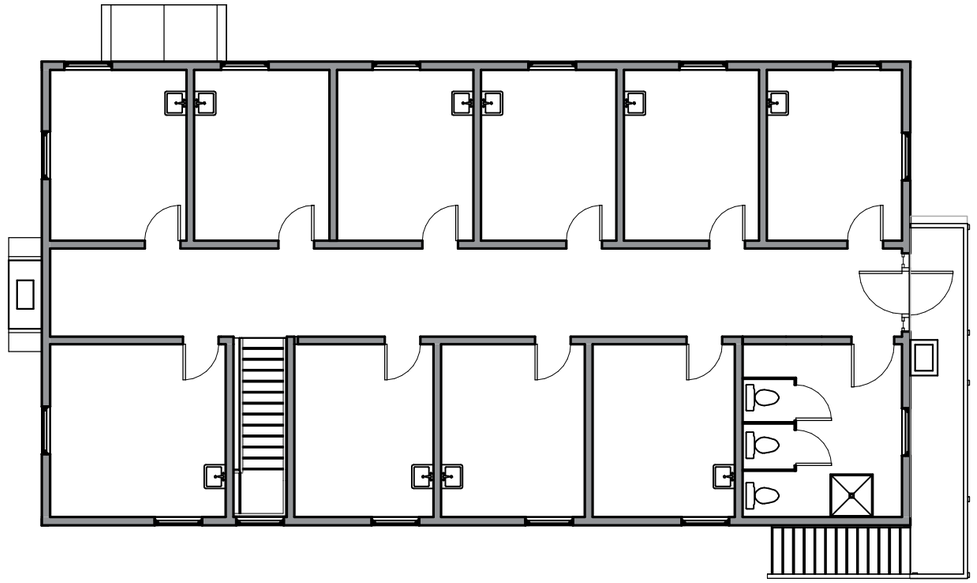
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1947



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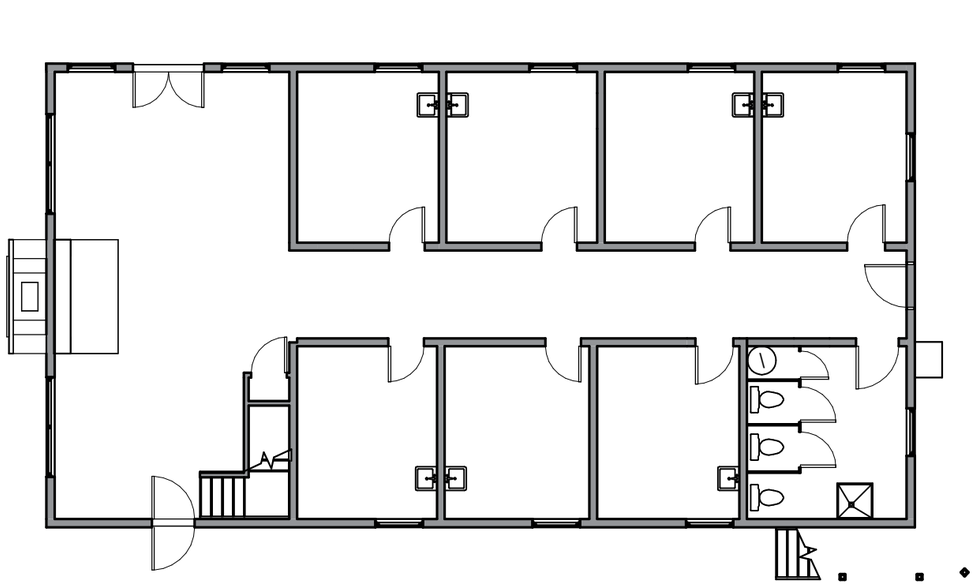
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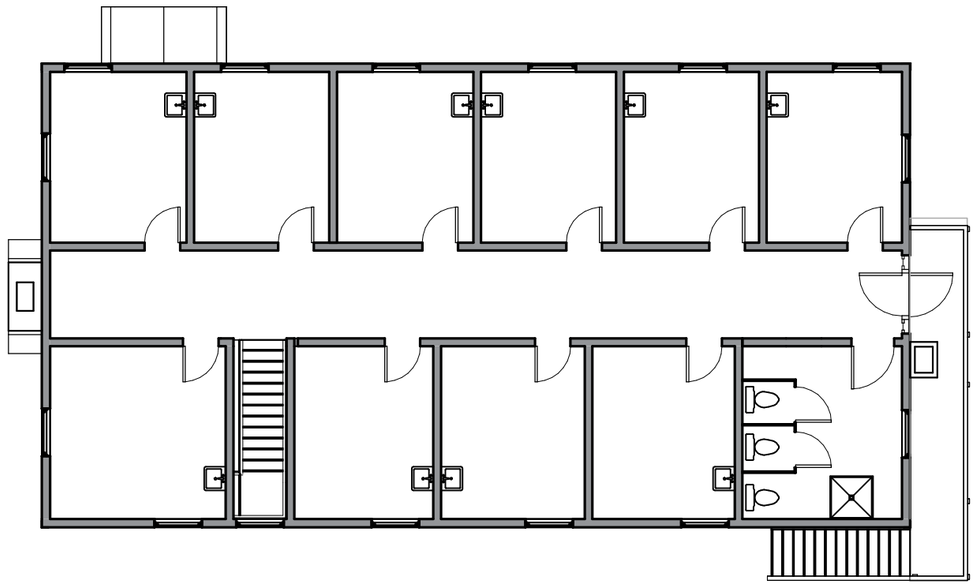
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1975



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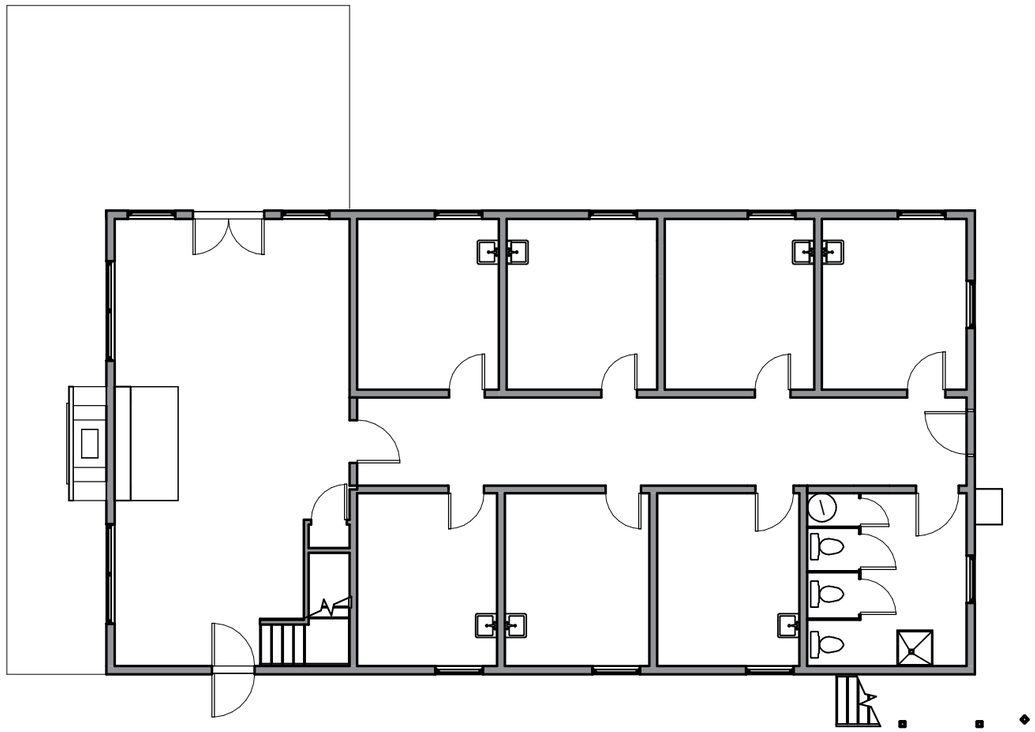
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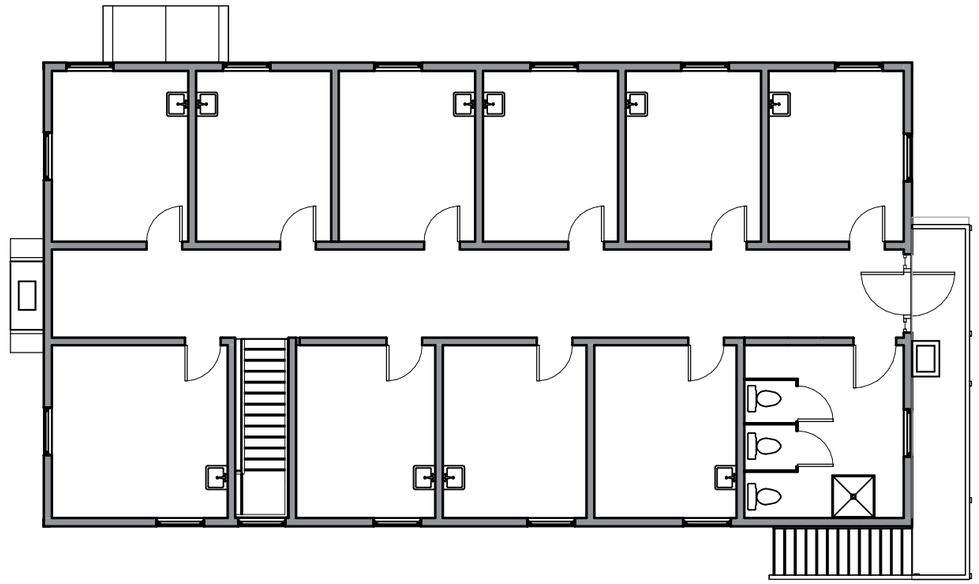
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1981



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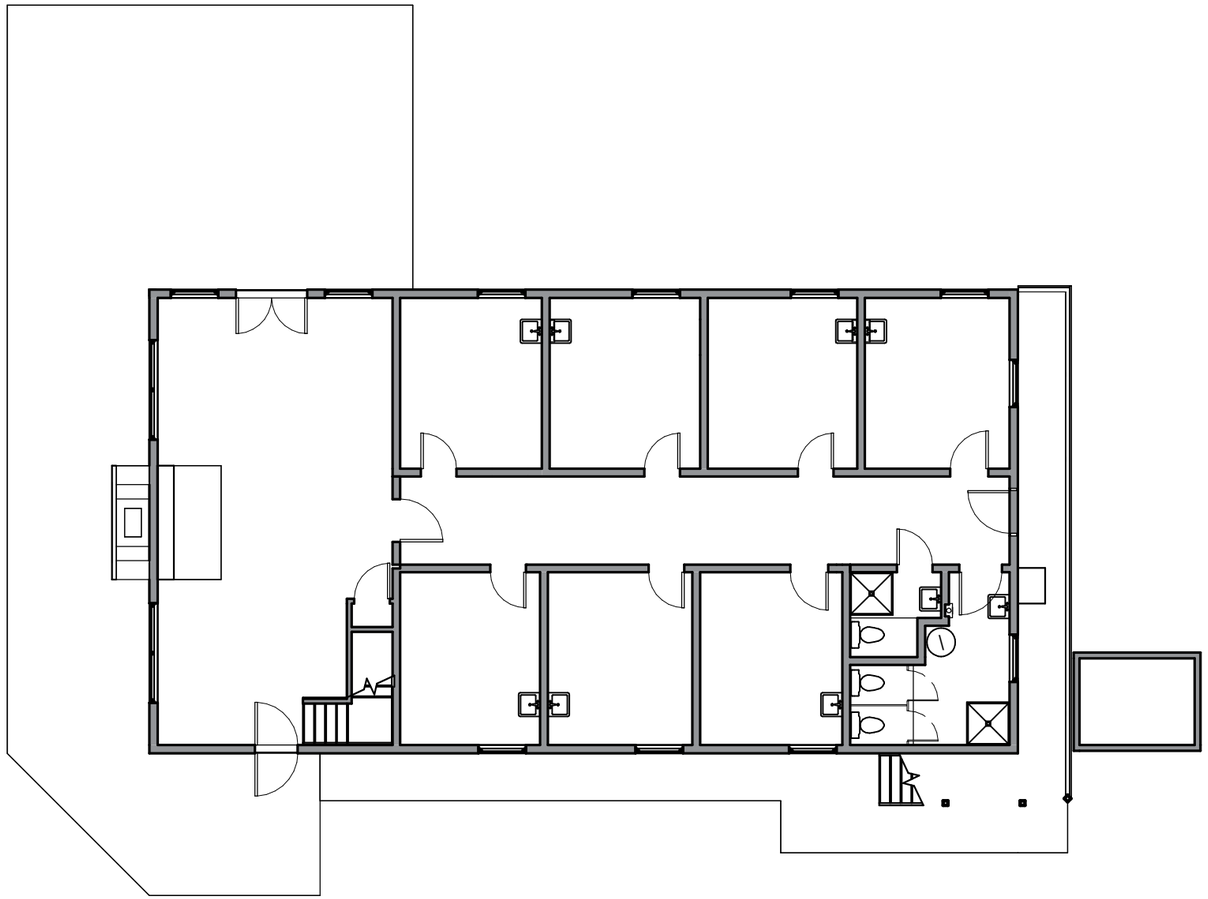
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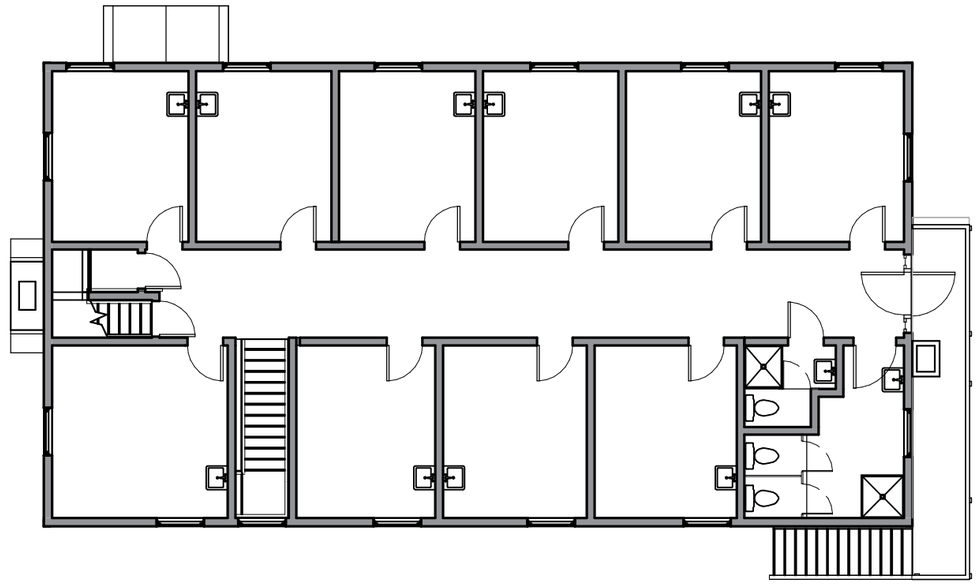
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1983



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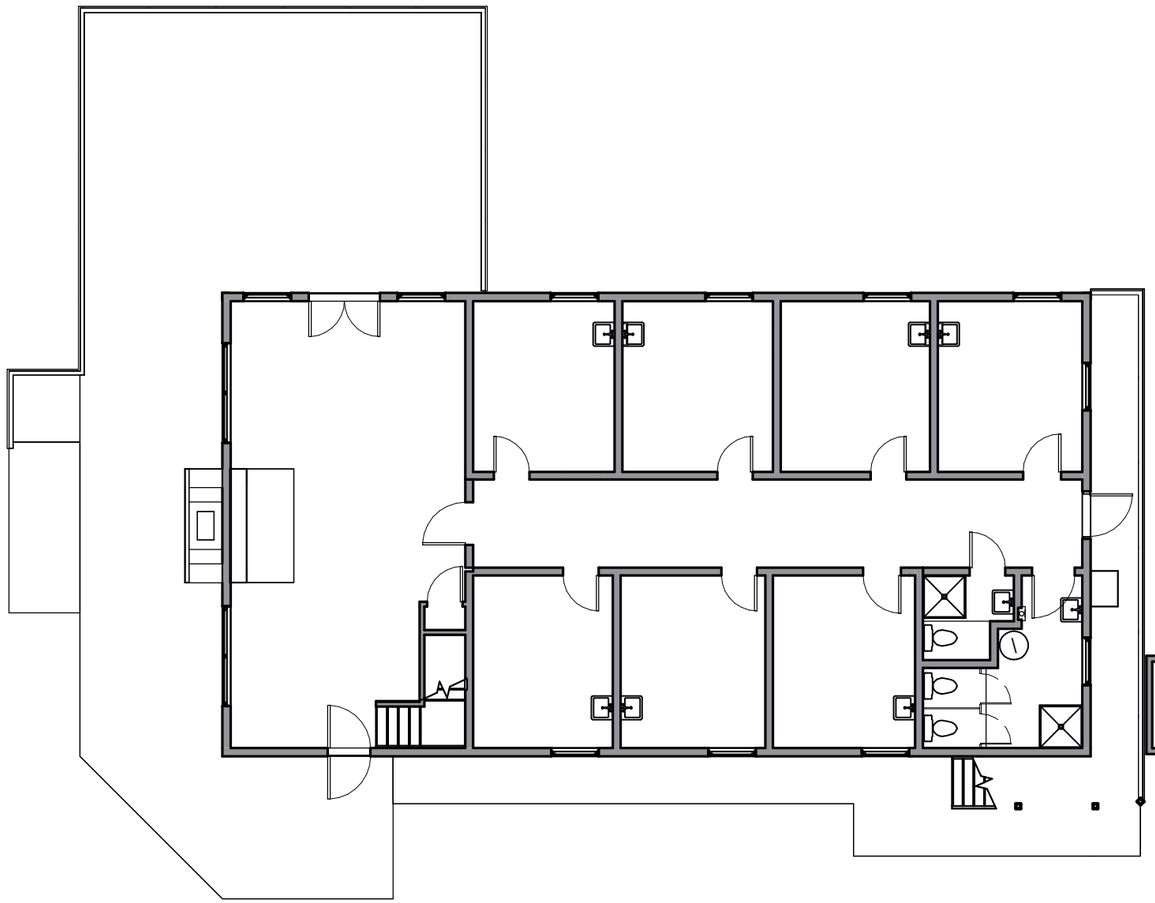
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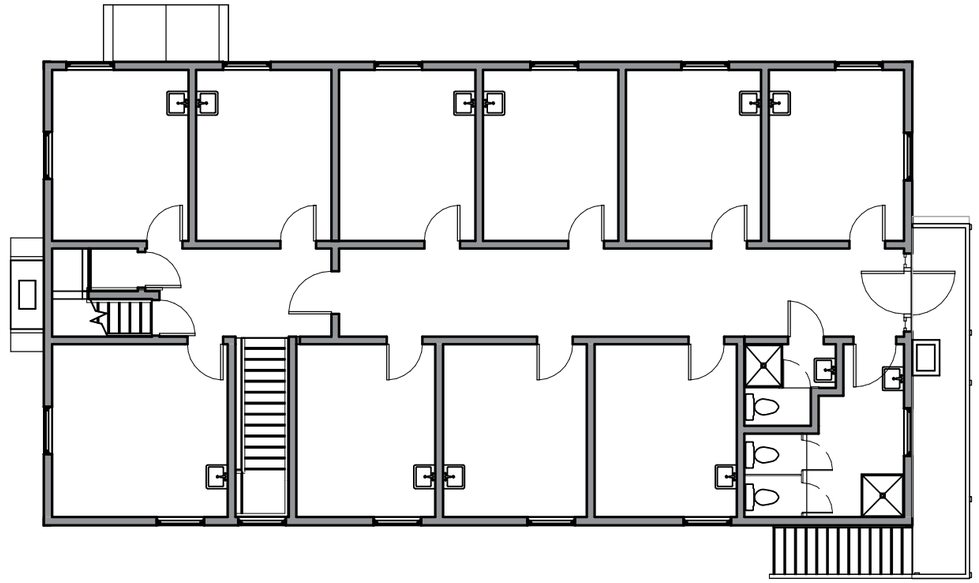
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1985



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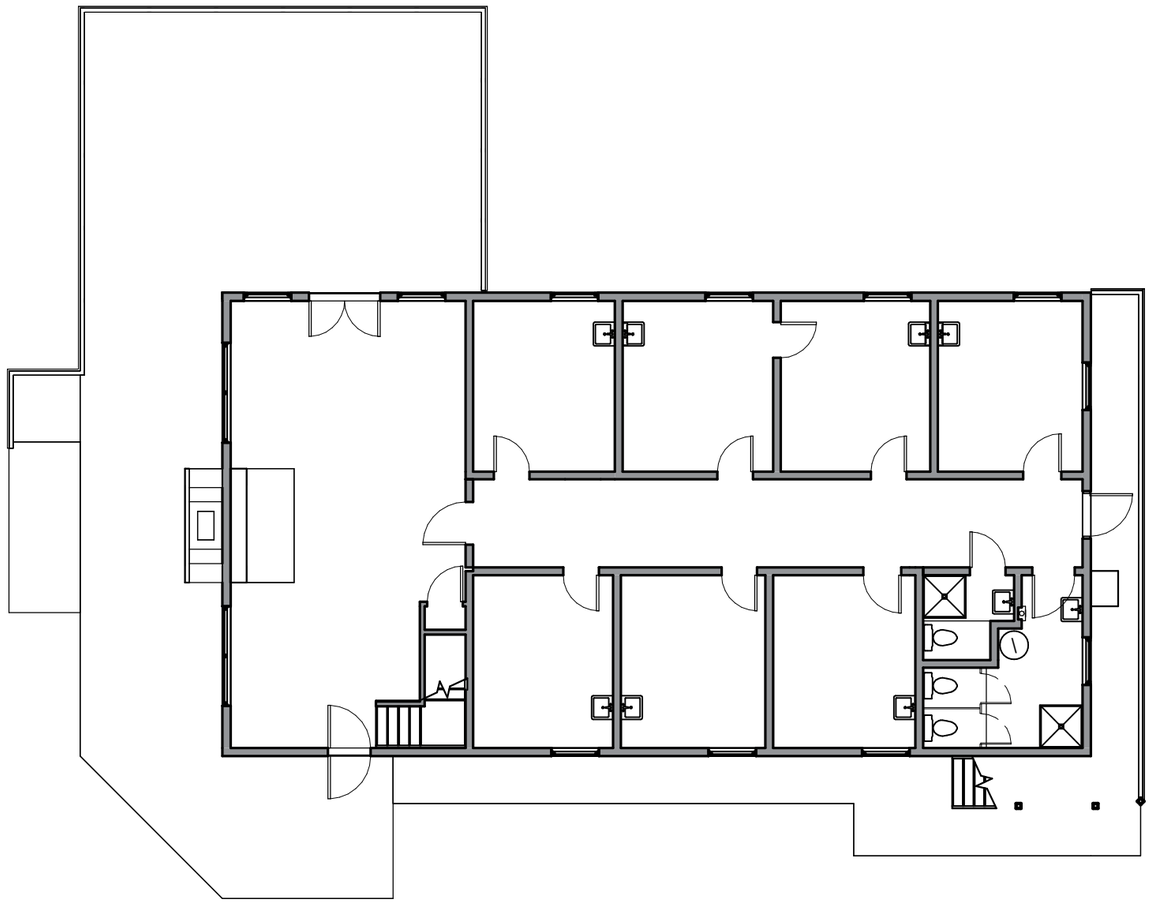
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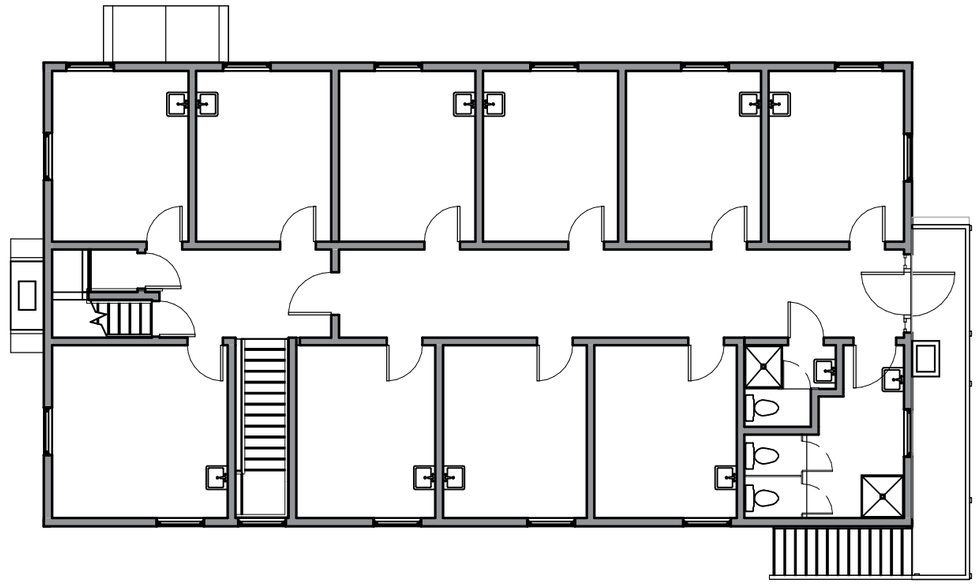
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2022



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Appendix B. Hazardous Materials

September 26, 2022

Seven Generations Architecture & Engineering
600 East Michigan Avenue, Suite B
Kalamazoo, Michigan 49007

Attn: Mr. Karl Kowalshe, AIA, ACHA, EDAC
President
P: (269) 274-3740
E: Kkowalske@7genae.com

Re: Moisture and Mold Assessment
Rock Harbor Lodge Guest House
Isle Royale National Park
800 East Lakeshore Drive
Houghton, Michigan 49931
Terracon Project No. N1227263

Dear Mr. Kowalshe:

Terracon Consultants, Inc. (Terracon) is pleased to submit the results of a moisture and mold assessment conducted at the location referenced above.

Terracon appreciates the opportunity to provide these services to you. If we can provide any additional environmental, occupational health, or safety-related services, please contact Brad Knipper at (513) 472-7027.

Sincerely,
Terracon Consultants, Inc.

Bradley S. Knipper, MS, CIH, CSP
Senior Industrial Hygienist

Michael S. Crandall, CIH
Senior Engineering Consultant
Authorized Project Reviewer

Moisture and Mold Assessment

Rock Harbor Lodge Guest House
Houghton, Michigan

September 26, 2022
Terracon Project No. N1227263



Prepared for:
Seven Generations Architecture & Engineering
Kalamazoo, Michigan

Prepared by:
Terracon Consultants, Inc.
Cincinnati, Ohio

terracon.com

Terracon

Environmental ■ Facilities ■ Geotechnical ■ Materials

EXECUTIVE SUMMARY

Terracon Consultants, Inc. (Terracon) conducted a moisture and mold assessment on September 14, 2022, at 800 East Lakeshore Drive in Houghton, Michigan. The scope of the survey included:

- Visual observations to document conditions.
- Infrared imaging to identify thermal anomalies that may indicate wet building materials
- Moisture measurement in building materials to confirm materials with elevated moisture content.
- Surface samples for microscopic examination and fungal culture analysis to document surface fungal growth.
- Report

Significant Findings

Terracon has concluded the following based on the results of this assessment:

- Water damage was observed in the 1st and 2nd floor rooms on the south side of the building. Most of the damage appeared to have been concentrated in the rooms on the second floor.
- The water/moisture source was not observed or otherwise determined during the evaluation.
- Suspected visual microbial growth was not observed inside the lodge during the assessment

Recommendations

See report text for recommendations.

The report that follows this Executive Summary should be read in its entirety because it includes important information, such as more specific details about findings, regulatory requirements, and recommendations.

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MOISTURE AND MOLD ASSESSMENT
SEVEN GENERATIONS ARCHITECTURE & ENGINEERING
ROCK HARBOR GUEST LODGE
800 EAST LAKESHORE DRIVE
HOUGHTON, MICHIGAN
Terracon Project No. N1227263
September 26, 2022

1.0 INTRODUCTION

Terracon Consultants, Inc. (Terracon), conducted a moisture and mold assessment for Seven Generations Architecture & Engineering (Client) on September 14, 2022, at 800 East Lakeshore Drive, in Houghton, Michigan. The work was performed in general accordance with Terracon Proposal No. PN1227263, dated June 21, 2022. Mr. Lemuel Weyer, Assistant Scientist, conducted the assessment for Terracon. Mr. Chris Cork, Project Manager, represented Seven Generations Architecture & Engineering during the survey.

The objective of the assessment was to document building conditions related to moisture intrusion and potential fungal growth on building materials, finishes, and furnishings.

1.1 Scope of Services

The scope of services included:

- Visual observations to document conditions.
- Infrared imaging to identify thermal anomalies that may indicate wet building materials
- Moisture measurement in building materials to confirm materials with elevated moisture content.
- Surface samples for microscopic examination and fungal culture analysis to document surface fungal growth.
- Report

1.2 Standard of Care

This assessment was conducted based on information provided to Terracon relating to existing conditions and was conducted in a manner consistent with the level of care and skill ordinarily exercised by members of the profession currently practicing under similar conditions in the same locale. Terracon did not attempt to identify every potential exposure or hazard present. The results, findings, conclusions, and recommendations expressed in this report are based on conditions observed during our investigation. The information contained in this report should not

be relied upon to represent conditions that existed before or after this investigation. Terracon does not warrant the services of regulatory agencies, laboratories, or other third parties supplying information that may have been used in the preparation of this report.

2.0 SITE DESCRIPTION

the Rock Harbor Lodge Guest House was constructed in 1922 and consists of two stories with approximately 3,900 total square feet of interior floor space. The building has a side-gabled roof with brackets, flared eaves, exposed rafter tales, and three south-facing gabled dormers. Exterior walls are clad in wood shiplap siding with regularly spaced double-hung wood windows. Exterior doors are located on the north and south walls with a second-floor door on the west wall reached by an exterior stair. A full-height exterior concrete chimney extends along the east wall. The structure is situated on a rock outcropping along the shoreline. Perimeter wood decking conceals the foundation. Interior walls and ceilings are painted plaster or covered with painted wood panels and battens. The plumbing system is partially operable. There is no heating system. The guest lodge is scheduled for renovation.

3.0 EVALUATION CRITERIA

3.1 Visual Inspection

A visual inspection was conducted to document existing conditions and areas of impact. The inspection included:

- An examination of existing conditions.
- An examination for visible evidence of water damage.
- An examination for visible suspected fungal growth.

3.2 Moisture Measurement

Excess moisture in building materials may result in the growth of fungi or bacteria. Moisture content will vary building-to-building and across geography, depending on air moisture levels, air intrusion pathways, indoor environmental conditions, and bulk water intrusion.

3.3 Microbial Sampling

There are no State or Federal limits established for fungal growth in, or contamination of building materials. There are currently no regulatory standards, medically based threshold limits, or dose-response relationships for exposure to airborne or surface concentrations of fungal spores. Terracon relies upon experience, professional judgment, current scientific literature, guidelines, and recommendations made by professional organizations and experts in interpreting fungal sampling results.

Building materials or building surfaces commonly have resident fungal spores that have settled out of the air or have been filtered out of the air with other particles. Fungal structures, such as hyphae and conidiophores (or other fruiting bodies) seen microscopically in surface samples, typically indicate fungal growth on surfaces and are associated with the presence of moisture.

4.0 METHODS

4.1 Moisture Measurement

A thermal imaging camera was used to evaluate thermal characteristics of building materials in the areas of suspected water damage. A moisture meter was used to identify whether building materials were dry, damp, or wet at the time of the investigation. Building materials have different absorptive and moisture retention properties and will come into equilibrium with environmental moisture (as indicated by temperature and relative humidity levels) or become wet by contact with water.

4.1.1 Infrared Imaging

Infrared (IR) images were collected using a FLIR C2 camera with Multi-Spectral Dynamic Imaging (MSX®), and SmartView™ Software. Thermal imaging allows the user to visualize temperature gradients in building materials. Wet or damp areas are typically cooler than adjacent dry areas because of evaporative cooling.

4.1.2 Moisture Meter

Terracon measured the moisture levels of building materials using a Protimeter Surveymaster™ moisture meter. This is a dual mode instrument.

- Search mode - A non-destructive electromagnetic reading is used to identify moisture below the surface of materials. Detected moisture in this mode elicits audible and colored light-emitting diode (LED) signals by the instrument. There is a color scale along the column of LEDs with numbers indicating a relative moisture level (0-100).

- Measure mode - This mode uses sharp metal pins that penetrate building materials and uses electrical conductivity to measure the moisture level of building materials between the two pins. A number readout and colored LED signals are elicited in this mode (0-99.9). The number readout and LED signals/color scale are synchronous.

A calibration check was conducted onsite prior to the assessment. The moisture level value is reported as percent wood moisture equivalent (%WME). With this instrument, readings in wood from 16% to 19% may indicate un-acclimated lumber or minor moisture intrusion. Readings above 19%, the moisture content at which framing lumber is typically kiln dried, may indicate

moisture intrusion. Moisture readings greater than 24% are at levels where wood-deteriorating organisms are typically activated. Readings of >15% in other types of building materials may indicate elevated moisture; however, materials other than wood should be referenced to similar materials in the building that are not affected by atypical moisture conditions.

Wood framing measurements were compared to the recommended 14% wood moisture equivalent recommendation for wood used as interior framing. The minimum detection limit for the Surveymaster® Protimeter Dual-Function Moisture Meter used during this survey is 7.9% Wood Moisture or Wood Moisture Equivalent (%WME) for non-wood surfaces.

4.1.3 Surface Sampling

Terracon did not observe locations of suspected visual microbial growth in the assessed areas of the guest lodge.

5.0 FINDINGS

5.1 Visual Assessment

Terracon conducted a visual assessment that began with a walkthrough of the guest lodge. Temperature (°F) and relative humidity (%RH) were measured throughout the lodge. Water damage was observed in the 1st and 2nd floor rooms on the south side of the building. Most of the damage appeared to have been concentrated in the rooms on the second floor. The damage appeared to have been caused by previous water intrusion. The rooms were not wet at the time of the survey. No suspected visual fungal growth was observed in the surveyed spaces. Table 1 details the temperature and relative humidity readings in the assessment spaces.

Table 1: Temperature and Relative Humidity Measurements

Location	Temperature (°F)	Relative Humidity (%RH)
Room 1	61.9	56.8
Room 2	62.5	55.3
Men's 1st Floor Bathroom	62.8	54.9
Room 7	63.8	55.0
Room 8	63.6	53.4
Room 9	63.4	55.8
Room 10	63.1	55.7
Room 11	63.0	57.4
Room 12	62.2	59.2
Women's 2nd Floor Bathroom	62.9	58.4
Attic	65.8	65.4

5.2 Thermal Imaging

The thermal characteristics of building interior walls and ceilings were observed utilizing the FLIR C2 camera. Thermal anomalies indicating potential excessive moisture in remaining installed materials were not observed in the guest house.

5.3 Moisture Measurement

Moisture meter measurements were collected from plaster, wood window frames, ceilings, and wood baseboards. All measurements were collected in the Measure Mode using metal pins that penetrate the material. Measurements are presented in table 2.

Table 2: %Wood Moisture Equivalent Measurements

Location and Material	% Wood Moisture Equivalent
Room 1 South Wall/Window – Wood	9.9
Room 2 South Wall/Window – Wood	8.7
Room 12 Southeast Corner – Plaster	8.1
Room 11 South Wall/Window – Wood	8.6
Room 10 South Wall/Ceiling – Wood	8.5
Room 9 South Wall/Window – Wood	9.6
Room 8 South Wall/Window – Wood	9.6
Room 7 (2nd floor) South Wall Window – Wood	8.9
Attic East Wall – Wood	8.0

None of the measurements of building materials made during this survey indicated current elevated moisture concentrations.

5.4 Surface Sampling

Surface samples for suspected visual microbial growth were not collected as suspected visual microbial growth was not observed.

6.0 CONCLUSIONS

Terracon has concluded the following based on this assessment:

- Water damage was observed in the 1st and 2nd floor rooms on the south side of the building. Most of the damage appeared to have been concentrated in the rooms on the second floor.
- The water/moisture source was not observed or otherwise determined during the evaluation.

- Suspected visual microbial growth was not observed inside the lodge during the assessment

7.0 RECOMMENDATIONS

Terracon recommends the following:

- Determine water intrusion pathways and make repairs.

8.0 LIMITATIONS

The level of effort and associated tasks completed for this assessment were limited to the scope of services outlined in proposal No. PN1227263 dated June 21, 2022. Terracon did not attempt to identify every potential exposure or hazard present during this assessment. The results, findings, conclusions, and recommendations expressed in this report are based on information reported to Terracon by Client and the conditions observed. No warranty, express or implied is made.

This report is prepared for the exclusive use of our Client for the specific application to the project discussed and has been prepared in accordance with generally accepted industrial hygiene practices. In the event any changes in conditions as outlined in this report are observed, the conclusions contained in this report cannot be considered valid unless the changes are reviewed, and the conclusions of this report are modified or verified in writing by the industrial hygienist.

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October 7, 2022

Seven Generations Architecture & Engineering
600 East Michigan Avenue, Suite B
Kalamazoo, Michigan 49007

Attn: Mr. Karl Kowalshe, AIA, ACHA, EDAC
President
Phone: (269) 274-3740
Email: kkowalske@7genae.com

Re: Lead-Containing Paint Sampling & Analysis
Project: Historic Structure Report Part 1 for Rock Harbor Lodge Guest House
(PMIS 308211)
Isle Royale National Park
800 East Lakeshore Drive
Houghton, Michigan 49931
Terracon Project No. N1227263

Dear Mr. Kowalshe:

Terracon Consultants, Inc. (Terracon) appreciates the opportunity to submit this letter report to Seven Generations Architecture & Engineering (Client) regarding lead-containing paint (LCP) sampling performed at the guest lodge at Rock Harbor on Isle Royale, Michigan. The guest lodge is a two-story building constructed in 1922 and contains approximately 3,900 square feet of interior floor space. In general, dominant painted building components associated with the guest lodge largely consists of painted interior wood door components, baseboards, window components, and floorboards, interior plaster, exterior wood walls exterior door and window components.

Sampling

Terracon representative Mr. Lem Weyer conducted the above-referenced sampling on September 13 and 14, 2022. The sampling scope of work was limited to various prominent painted surfaces throughout the readily accessible interior and exterior areas of the subject building. Sample collection was performed using a clean straight-edge razor to remove paint from designated surfaces. Collected material samples were placed in sealable containers, labeled with unique sample numbers, and submitted under chain of custody to Scientific Analytical Institute (SAI) of Greensboro, North Carolina. Paint chip samples were submitted for analysis by Atomic Absorption Spectroscopy (AAS) per EPA Method SW846/3050B/7420M. SAI is accredited for lead in paint analysis by the American Industrial Hygiene Association's (AIHA®) Environmental Lead Laboratory Accreditation Program (ELLAP), accreditation number 173190.

Terracon collected a total of 14 paint chip samples for lead-content analysis from various painted building components. A sample summary which includes sample locations and analytical results are attached. Detectable concentrations of lead are presented with results as part per million (ppm) and percent weigh. The laboratory analytical report and sample chain of custody are also attached.

Federal Regulatory Summary

United States Environmental Protection Agency (USEPA) Lead-Based Paint Renovation, Repair and Painting (RRP) Rule (2008, and as amended in 2010 and 2011) aims to protect the public from lead paint hazards associated with renovation, repair, and painting activities. These activities can create hazardous lead dust when surfaces with lead paint, even from many decades ago, are disturbed. The rule requires workers to be certified and trained in the use of lead-safe work practices, and requires renovation, repair, and painting firms to be USEPA-certified. These requirements became fully effective April 22, 2010. Under the rule, beginning April 22, 2010, firms performing renovation, repair, and painting projects that disturb lead paint in homes, childcare facilities, and kindergartens built before 1978 must be USEPA- or state-certified and must use certified renovators who follow specific work practices to prevent lead contamination. This includes in-house maintenance staff and many types of outside contractors. In order to become certified renovators, individuals must take training from a USEPA-accredited training provider. For firms to be certified, they must submit an application and fee to the USEPA.

The United States Occupational Safety and Health Administration (OSHA) standard, 29 Code of Federal Regulations (CFR) 1926.62 (Lead in Construction), does not reference a specific concentration of lead in a surface coating for applicability of the aforementioned regulation. The requirements under OSHA 29 CFR 1926.62 are applicable to any concentration of lead identified above an analytical method's reporting limit. When disturbed, paints containing lead in any concentration represent an airborne exposure hazard that could exceed the OSHA legally enforceable action level (AL) or permissible exposure limit (PEL). Contractors that bid or conduct work activities that will disturb surfaces with analytically confirmed LCP should be made aware of those so that they can plan for proper compliance with applicable federal and state regulations, and any applicable Client specifications. Additionally, contractors should be aware that any untested paint surfaces should be assumed to also contain lead unless sampling and analysis refute lead-content.

Findings

Detectable concentrations of lead were identified by laboratory analysis in 13 of the 14 paint samples collected from the guest lodge. The sampled paint coatings are described in the attached sample and results summary table. Please note that in addition to painted surfaces which were confirmed by laboratory analysis to contain lead, untested paint surfaces, if any, must be assumed to also contain lead.

The results correspond to the following painted building components associated with the guest lodge, which have been identified to contain lead, and the results apply to all similar components throughout:

- Green painted interior wood baseboards and door frames
- Blue painted interior wood baseboards and door frames
- Blue painted interior wood doors
- Blue painted interior floorboards
- Blue painted interior window frames/window components
- Brown painted interior window frames/window components
- Brown painted interior floorboards
- Brown painted interior floorboards
- White painted plaster walls
- Exterior brown painted wood walls
- Exterior brown painted wood window frames

The one sample that tested below the analytical method's reporting limited for lead was a white paint from a plaster wall; however, a duplicate sample of white paint from a plaster wall indicated a detectable lead concentration. Therefore, all white paints on plaster walls should be treated as containing lead. Note that varnished components and white paint on drywall was not sampled to avoid damage to the soft substrates and to avoid substrate analytical interference. However, based on the results, given the age of the building, and coupled with the aforementioned discussion of results, its Terracon's opinion that all paints and varnishes associated with the subject building (even those not tested) should be assumed to contain lead. Contractors that may be involved in a future renovation project that could disturb any painted or varnished building components must comply at a minimum with the OSHA Lead in Construction standard (29 CFR 1926.62), as well as any additional Owner requirements.

This sampling event was conducted as per the direction and request of the Client. The sampling was of a limited nature specific to dominant and readily accessible painted surfaces and may not have included every painted or varnished surface. The sampling was conducted in a manner consistent with the level of care and skill ordinarily exercised by members of the profession currently practicing under similar conditions in the same locale. The results, findings and recommendations expressed in this letter report are based on conditions observed during the sampling event. This letter report has been prepared on behalf of and exclusively for use and reliance by the Client and is not a bidding document. Contractors or consultants reviewing this limited sampling report must draw their own conclusions regarding whether further investigation or remediation is deemed necessary. Terracon does not warrant the work of regulatory agencies, laboratories, or other third parties supplying information, which may have been used in the preparation of this report. No warranty, express or implied, is made.

Terracon appreciates the opportunity to provide this service to Seven Generations Architecture & Engineering. If you have questions regarding this letter report or if we can be of further service, please contact the undersigned at (513) 321-5816.

Sincerely,
Terracon Consultants, Inc.

Lem Weyer
Assistant Scientist

Joseph A. Tussey, CHMM
Sr. Associate / Group Manager

Attachments: Lead Paint - Sample & Results Summary Table
Laboratory Analytical Report

Lead-Containing Paint Sampling & Analysis
Rock Harbor Guest Lodge ■ Isle Royale, MI
October 7, 2022 ■ Terracon Project No. N1227263

Terracon

Lead Paint - Sample & Results Summary Table

Terracon Sample #	Component	Paint Color (surface)	Substrate	Sample Location	Results (ppm and % weight)
L-01	Interior Walls	White	Plaster	1st Floor- Southwest Corner of Room 2	<70 ppm or <0.0070%
L-02	**Baseboard/Door Frames**	**Green**	**Wood**	**1st Floor Lobby Closet Doorway**	**1,000 ppm or 0.10%**
L-03	**Baseboard/Door Frames**	**Blue**	**Wood**	**1st Floor- West Wall of Room 5**	**1,500 ppm or 0.15%**
L-04	**Doors**	**Blue**	**Wood**	**1st Floor – Room 1 Door**	**1,800 ppm or 0.18%**
L-05	**Floorboards**	**Blue**	**Wood**	**1st Floor- Center of Room 6**	**14,000 ppm or 1.4%**
L-06	**Interior Window Frames**	**Blue**	**Wood**	**1st Floor – Room 2 Window**	**3,900 ppm or 0.39%**
L-07	**Floorboards**	**Brown**	**Wood**	**1st Floor – Center of Room 3**	**5,600 ppm or 0.56%**
L-08	**Interior Walls**	**White**	**Plaster**	**2nd Floor- Southwest Corner of Room 7**	**67 ppm or 0.0067%**
L-09	**Baseboard/Door Frames**	**Blue**	**Wood**	**2nd Floor- Room 12 Door Frame**	**27,000 ppm or 2.7%**
L-10	**Doors**	**Blue**	**Wood**	**2nd Floor- Room 14 Door**	**470 ppm or 0.047%**
L-11	**Exterior Walls**	**Brown**	**Wood**	**At Southeast Doorway**	**50,000 ppm or 5.0%**
L-12	**Exterior Window Frames**	**Brown**	**Wood**	**Southwest Window of Building**	**59,000 ppm or 5.9%**
L-13	**Floorboards**	**Brown**	**Wood**	**2nd Floor- Southeast Corner of Room 7**	**7,800 ppm or 0.78%**
L-14	**Interior Window Frames**	**Brown**	**Wood**	**2nd Floor- Window of Room 9**	**6,300 ppm or 0.63%**

Laboratory Analytical Report

Analysis for Lead Concentration in Paint Chips

by Flame Atomic Absorption Spectroscopy
EPA SW-846 3050B/6010C/7000B

Customer: Terracon
611 Lunken Park Drive
Cincinnati, OH 45226

Attn: Joshua Vogel

Project: Royal Isle-Rock Harbor Guest Lodge

Lab Order ID: **10006693**
Analysis: PBP
Date Received: 09/21/2022
Date Reported: 09/28/2022

Sample ID *Lab Sample ID*	Description *Lab Notes*	Mass (g)	Concentration (ppm)	Concentration (% by weight)
L-1 *10006693_0001*	**Interior walls white plaster**	0.0570	<70.	**<0.0070%**
L-2 *10006693_0002*	**Basebaord/door frames green wood**	0.0731	1000	**0.10%**
L-3 *10006693_0003*	**Baseboard/door frames blue wood**	0.0712	1500	**0.15%**
L-4 *10006693_0004*	**Doors blye wood**	0.0536	1800	**0.18%**
L-5 *10006693_0005*	**Floorboards blye wood**	0.0873	14000	**1.4%**
L-6 *10006693_0006*	**Interior walls white plaster**	0.0776	3900	**0.39%**
L-7 *10006693_0007*	**floorboards brown/blue wood**	0.0622	5600	**0.56%**
L-8 *10006693_0008*	**Interior walls white plaster**	0.0728	67	**0.0067%**

Disclaimer: Unless otherwise noted blank sample correction was not performed on analytical results. Scientific Analytical Institute participates in the AIHA ELPAT program. ELPAT Laboratory ID: 173190. This report relates only to the samples tested and may not be reproduced, except in full, without the written approval of SAI. Analytical uncertainty available upon request. The quality control samples run with the samples in this report have passed all EPA required specifications unless otherwise noted. RL: (Report Limit for an undiluted 50ml sample is 4µg Total Pb).

Athena Summa (14)
Analyst

Approved Signatory

L-F-021 r17 2/13/2027

Analysis for Lead Concentration in Paint Chips

by Flame Atomic Absorption Spectroscopy
EPA SW-846 3050B/6010C/7000B

Customer: Terracon
611 Lunken Park Drive
Cincinnati, OH 45226

Attn: Joshua Vogel

Project: Royal Isle-Rock Harbor Guest Lodge

Lab Order ID: **10006693**
Analysis: PBP
Date Received: 09/21/2022
Date Reported: 09/28/2022

Sample ID *Lab Sample ID*	Description *Lab Notes*	Mass (g)	Concentration (ppm)	Concentration (% by weight)
L-9	**Baseboard/door frames blue wood**	0.0590	27000	**2.7%**
10006693_0009				
L-10	**Doors blue wood**	0.0596	470	**0.047%**
10006693_0010				
L-11	**Exterior window frames**	0.0932	50000	**5.0%**
10006693_0011				
L-12	**Exterior window frames brown wood**	0.0668	59000	**5.9%**
10006693_0012				
L-13	**Floorboards brown/ blue wood**	0.1074	7800	**0.78%**
10006693_0013				
L-14	**Interior window frames**	0.0667	6300	**0.63%**
10006693_0014				

Disclaimer: Unless otherwise noted blank sample correction was not performed on analytical results. Scientific Analytical Institute participates in the AIHA ELPAT program. ELPAT Laboratory ID: 173190. This report relates only to the samples tested and may not be reproduced, except in full, without the written approval of SAI. Analytical uncertainty available upon request. The quality control samples run with the samples in this report have passed all EPA required specifications unless otherwise noted. RL: (Report Limit for an undiluted 50ml sample is 4µg Total Pb).

Athena Summa (14)
Analyst

Approved Signatory

100016693

eurofins | CEI

CHAIN OF CUSTODY

LAB USE ONLY:
ECEI Lab Code:
ECEI Lab I.D. Range:

730 SE Maynard Road, Cary, NC 27511
Tel: 866-481-1412; Fax: 919-481-1442

COMPANY INFORMATION	PROJECT INFORMATION
ECEI CLIENT #:	Job Contact: Lem Weyer
Company: Terracon	Email / Tel: Lem.Weyer@terracon.com
Address: 611 Lunken Park Drive	Project Name: ROCK HARBOR
Cincinnati, Ohio 45226	Project ID# N1227263
Billing Email: joshua.vogel@terracon.com	PO #:
Tel: 513-612-9002	STATE SAMPLES COLLECTED IN: MI

ECEI standard terms are Net 30 days

IF TAT IS NOT MARKED STANDARD 3 DAY TAT APPLIES.

Analyte	METHOD	TURN AROUND TIME					
		4 HR**	8 HR**	1 DAY**	2 DAY	3 DAY	5 DAY
LEAD PAINT	EPA SW846 7000B / 3rd Ed. 7420/3050B				☐	☐	☒
LEAD WIPE	EPA SW846 7000B / 3rd Ed. 7420/3050B				☐	☐	☐
LEAD SOIL	EPA SW846 7000B / 3rd Ed. 7420/3050B				☐	☐	☐
LEAD AIR	EPA SW846 7000B / NIOSH 7082				☐	☐	☐
LEAD TCLP	EPA SW846 7000B / 1311/3010A/7420				☐	☐	☐
RCRA 8 METALS	EPA SW846 6010 C/D				☐	☐	☐
RCRA 8 TCLP	EPA SW846 6010 C/D				☐	☐	☐
OTHER:					☐	☐	☐

TAT IS NOT AVAILABLE. LEAD SAMPLES ARE SUBCONTRACTED FOR ANALYSIS TO AN ELLAP ACCREDITED LAB.

REMARKS:	☐ Accept Samples ☐ Reject Samples

Relinquished By:	Date/Time	Received By:	Date/Time
[signature]	9/19/22	[signature]	9/21 10:30am

Samples will be disposed of 30 days after analysis
By submitting samples, you are agreeing to ECEI's Terms and Conditions. Standard billing terms are NET 30

Accepted ☑
Rejected ☐

VERSION PbCOC.02.21.1/2.LD
Metals COC Page 1 of 2

10006693

PAINT CHIP SAMPLE LOG

Page 1 of

Field Date: 9/14/22
Inspector: Lem Weyer
Project: Royal Isle- Rock Harbor Guest Lodge
Project # N1227263

Terracon
611 Lunken Park Drive
Cincinnati, Ohio 45226
(513) 321.5816

Lab Sample #	Terracon Sample #	Component	Paint Color (surface)	Substrate	Sample Location	Comments / Results
	L-01	Interior Walls	White	Plaster	1st Floor- Southwest Corner of Room 2	
	L-02	Baseboard/Door Frames	Green	Wood	1st Floor Lobby Closet Doorway	
	L-03	Baseboard/Door Frames	Blue	Wood	1st Floor- West Wall of Room 5	
	L-04	Doors	Blue	Wood	1st Floor – Room 1 Door	
	L-05	Floorboards	Blue	Wood	1st Floor- Center of Room 6	
	L-06	Interior Window Frames	Blue	Wood	1st Floor – Room 2 Window	
	L-07	Floorboards	Brown/Blue	Wood	1st Floor – Center of Room 3	
	L-08	Interior Walls	White	Plaster	2nd Floor- Southwest Corner of Room 7	
	L-09	Baseboard/Door Frames	Blue	Wood	2nd Floor- Room 12 Door Frame	
	L-10	Doors	Blue	Wood	2nd Floor- Room 14 Door	
	L-11	Exterior Walls	Brown/White	Wood	At Southeast Doorway	
	L-12	Exterior Window Frames	Brown	Wood	Southwest Window of Building	
	L-13	Floorboards	Brown/Blue	Wood	2nd Floor- Southeast Corner of Room 7	
	L-14	Interior Window Frames	Brown	Wood	2nd Floor- Window of Room 9	

Asbestos Inspection Report

Rock Harbor Guest Lodge
Isle Royale National Park, Michigan

October 7, 2022

Terracon Project No. N11227263



Prepared for:
Seven Generations Architecture and Engineering
Kalamazoo, Michigan 49007

Prepared by:
Terracon Consultants, Inc.
Cincinnati, Ohio 45226

terracon.com

Terracon

Environmental ■ Facilities ■ Geotechnical ■ Materials

October 7, 2022

Seven Generations Architecture & Engineering
600 East Michigan Avenue, Suite B
Kalamazoo, Michigan 49007

Attn: Mr. Karl Kowalshe, AIA, ACHA, EDAC
President
Phone: (269) 274-3740
Email: kkowalske@7genae.com

Re: Asbestos Inspection Report
Project: Historic Structure Report Part 1 for Rock Harbor Lodge Guest House (PMIS 308211)
Isle Royale National Park
800 East Lakeshore Drive
Houghton, Michigan 49931
Terracon Proposal No. N1227263

Dear Mr. Kowalshe:

Terracon Consultants, Inc. (Terracon) is pleased to submit the attached report for the above-referenced site to Seven Generations Architecture and Engineering (Client). The purpose of this report is to present the results of an asbestos inspection which was performed at the project site on September 13 and 14, 2022 with respect to the above-referenced building which is to be renovated. The inspection was conducted in general accordance with your authorization of our proposal number PN1227263, dated June 21, 2022.

Terracon appreciates the opportunity to provide this service to Seven Generations Architecture and Engineering. If you have any questions regarding this report, please contact the undersigned at 513-321-5816.

Sincerely,
Terracon Consultants, Inc.

Josh Vogel
Group Manager

Joseph A. Tussey, CHMM
Sr. Associate

Terracon Consultants, Inc. 611 Lunken Park Drive Cincinnati, OH 45226-1813
P (513) 321-5816 F (513) 321-0294 terracon.com

Asbestos Inspection
Rock Harbor Guest Lodge ■ Isle Royale, MI
October 7, 2022 ■ Terracon Project No. N1227263

Terracon

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Asbestos Inspection Report
Rock Harbor Guest Lodge
Isle Royale, Michigan

Terracon Project No. N1227263

1.0 INTRODUCTION

Terracon Consultants, Inc. (Terracon) conducted an asbestos inspection of the guest lodge building located at Rock Harbor of Isle Royale, Michigan. The inspection was conducted at the site on September 13 and 14, 2022, by a United States Environmental Protection Agency (USEPA)-accredited and State of Michigan Department of Licensing and Regulatory Affairs (LARA) – Michigan Occupational Safety & Health Administration (MIOSHA) certified asbestos inspector in general accordance with Terracon proposal number PN1227263, dated June 21, 2022. Accessible interior and exterior building components were inspected. Homogeneous areas of suspect asbestos-containing materials (ACM) were visually identified and documented. Although reasonable effort was made to inspect accessible suspect materials, additional suspect but un-sampled materials could be located in walls, in voids, or in other concealed areas. Suspect ACM samples were collected in general accordance with the sampling protocols outlined in USEPA 40 Code of Federal Regulations (CFR) Part 763, Subpart E, known as the Asbestos Hazard Emergency Response Act (AHERA). Samples were delivered to an accredited laboratory for analysis by polarized light microscopy (PLM).

1.1 Project Objective

We understand that this inspection was requested for the purposes of a future planned renovation of the above-referenced building. Please note that asbestos inspections are required prior to renovation and demolition activities to satisfy requirements of the USEPA 40 CFR Part 61, Subpart M, the National Emission Standards for Hazardous Air Pollutants (NESHAP) regulation (as well as the state NESHAP equivalent).

1.2 Reliance

This report is for the exclusive use of Seven Generations Architecture and Engineering (Client) for the project being discussed. Reliance by any other party on this report is prohibited without written authorization of Terracon and the Client. Reliance on this report by the Client and all authorized parties will be subject to the terms, conditions, and limitations stated in the proposal, this report, and agreement between the Client and Terracon. The limitations of liability defined in agreement is the aggregate limit of Terracon's liability to the Client.

2.0 BUILDING DESCRIPTION

The Rock Harbor guest lodge was originally constructed in 1922 and consists of two-stories with approximately 3,900 interior square feet of interior floor space. The building has a side gabled roof with brackets, flared eaves, exposed rafter tales, and three south-facing gabled dormers. Exterior walls are clad in wood shiplap siding with regularly spaced double-hung wood windows. Exterior doors are located on the north and south walls with a second-floor door on the west wall reached by an exterior stair. A full height exterior concrete chimney extends along the east wall. The structure is situated on a rock outcropping along the shoreline. Perimeter wood decking conceals and the foundation. Floors are generally wood, both varnished and painted. In corridors and bathrooms, floors are covered with vinyl flooring. Interior walls and ceilings are painted plaster.

3.0 FIELD ACTIVITIES

The inspection was conducted by EPA-accredited and State of Michigan Department of Licensing and Regulatory Affairs (LARA) – Michigan Occupational Safety & Health Administration (MIOSHA) certified asbestos inspector, Mr. Lem Weyer (Accreditation #A54900). A copy of Mr. Weyer's state accreditation is attached in **Appendix D**. The inspection was conducted in general accordance with the sample collection protocols established in USEPA 40 CFR Part 763, Subpart E, Section 763.86, AHERA. A summary of inspection activities is provided below.

3.1 Visual Assessment

Inspection activities were initiated with visual observation of the accessible interior and exterior areas of the building to identify homogeneous areas of suspect ACM. A homogeneous area (HA) consists of building materials that appear similar throughout in terms of color and texture with consideration given to the date of application.

3.2 Physical Assessment

A physical assessment of each HA of suspect ACM was conducted to assess the friability and condition of the materials. A friable material is defined by the USEPA as a material which can be crumbled, pulverized, or reduced to powder by hand pressure when dry. Friability was assessed by physically touching suspect materials.

3.3 Sample Collection

Based on results of the visual observation, bulk samples of suspect ACM were collected in general accordance with USEPA AHERA sampling protocols. Samples of suspect materials were collected from randomly selected locations in each homogeneous area. Bulk samples were

collected using wet methods as applicable to reduce the potential for fiber release. Samples were placed in sealable containers and labeled with unique sample numbers using an indelible marker.

The selection of sample locations and frequency of sampling were based on Terracon's observations and the assumption that like materials in the same area are homogeneous in content.

Terracon collected a total of 41 bulk samples from 11 homogeneous areas of suspect ACM. A summary of suspect ACM samples collected during the inspection is included as **Appendix B**.

3.4 Sample Analysis

Bulk samples were submitted under chain of custody to Scientific Analytical Institute (SAI) of Greensboro, North Carolina for analysis PLM with dispersion staining techniques per USEPA methodology 600/R-93/116. The percentage of asbestos, where applicable, was determined by microscopic visual estimation using PLM. When applicable for friable material samples determined by PLM to have a low asbestos content (<5%), the additional point count (PC) method was utilized. SAI is accredited under the National Voluntary Laboratory Accreditation Program (NVLAP), accreditation number 200664-00.

The laboratory analytical report is included in **Appendix C**. The analytical results are also included in the summary of samples collected in **Appendix B**.

4.0 REGULATORY OVERVIEW

The asbestos NESHAP (40 CFR Part 61, Subpart M) regulates asbestos fiber emissions and asbestos waste disposal practices. The asbestos NESHAP regulation also requires the identification and classification of existing ACM according to friability prior to demolition or renovation activity. Friable ACM is a material containing more than 1% asbestos that, when dry, can be crumbled, pulverized, or reduced to powder by hand pressure. All friable ACM is considered regulated asbestos containing material (RACM).

The asbestos NESHAP regulation classifies material subject to demolition or renovation as either RACM, Category I non-friable ACM, or Category II non-friable ACM. RACM includes all friable ACM (pre-disturbance), along with Category I non-friable ACM that becomes friable (during disturbance), and Category I non-friable ACM subject to sanding, grinding, cutting, or abrading, or Category II non-friable ACM with a high probability of becoming crumbled, pulverized, or reduced to powder by forces expected to act on the material during disturbance. Category I non-friable ACM are exclusively asbestos-containing packings, gaskets, resilient floor coverings, and asphalt roofing products that contain more than 1% asbestos. Category II non-friable ACM are all other non-friable materials (other than Category I non-friable ACM) that contain more than 1% asbestos. Category II non-friable ACM generally includes (but is not limited to) cementitious

material such as: cement pipes, cement siding (Transite™), cement panels, glazing, mortar, and grouts.

In Michigan, the federal NESHAP regulation has been delegated to the Michigan Department of Environment, Great Lakes, and Energy (EGLE) – Air Quality Division (AQD) of the Department of Environmental Quality (DEQ). Notifications for removal of certain types of ACM (>160 square feet and/or >260 linear feet in quantities) must be submitted to EGLE at least 10 business days prior to work commencement and prior to building demolitions (even when no ACM is present).

In Michigan, asbestos regulations are also enforced by the Michigan Department of Licensing and Regulatory Affairs (LARA), Michigan Occupational Safety and Health Administration (MIOSHA). The LARA/MIOSHA Asbestos Program is responsible for the enforcement of most Michigan asbestos regulations. This program has the following six major areas of responsibility: 1) approval of asbestos training courses, 2) accreditation of workers, 3) licensing of asbestos abatement contractors, 4) processing of asbestos abatement project notifications (requires project notification at least 10 days prior to any non-emergency abatement project exceeding 10 linear feet or 15 square feet or both of friable ACM), 5) compliance investigations, and 6) EPA AHERA management plan review.

The United States Occupational Safety and Health Administration (USOSHA) asbestos standard for construction (29 CFR 1926.1101) regulates workplace exposure to asbestos. The USOSHA standard requires that employee exposure to airborne asbestos must not exceed 0.1 fibers per cubic centimeter of air (0.1 f/cc) as an eight-hour time weighted average (TWA) and not exceed 1.0 fibers per cubic centimeter of air (1.0 f/cc) over a 30-minute time period known as an excursion limit (EL). The TWA and EL are known as USOSHA's asbestos permissible exposure limits (PELs). The USOSHA standard classifies construction and maintenance activities which could disturb ACM and specifies work practices and precautions which employers must follow when engaging in each class of regulated work.

5.0 FINDINGS AND RECOMMENDATIONS

Based on the laboratory analytical results regarding the samples collected from the guest lodge, the material listed below was identified to contain asbestos.

Material Description	Material Location(s)	% and Type Asbestos	EPA NESHAP Classification	Condition / Friability	Estimated Quantity*
Tan Rock-Patterned Linoleum Flooring with Inseparable Yellow Mastic	1st Floor Hallway, and 1st and 2nd Floor Restrooms	40% Chrysotile	Regulated-Asbestos Containing Material (RACM)	Good/ Friable Paper Backing	~ 525 Square Feet (SF)

***Estimated quantities** listed above are based on a cursory field evaluation, and actual quantities may vary significantly, especially if ACMs are present in hidden and/or inaccessible areas not evaluated as part of this inspection. This is not a bidding document and contractors would be responsible for drawing their own conclusions on quantities present.

A summary of collected samples and results is included in **Appendix B**; the laboratory analytical report is attached in **Appendix C**; and a log showing an example photo of the identified ACM is included in **Appendix E**; and sample location drawings are included in **Appendix F**.

If the identified ACM will be impacted by the renovation project, the owner and/or operator are responsible for federal and state EPA NESHAP regulatory compliance. If the material will be impacted by the renovation, an experienced state-licensed asbestos abatement contractor must be retained for proper removal, handling, and disposal of the ACM as applicable with federal and state regulations. Also, per applicable asbestos regulations, please be aware that the owner or operator must notify the appropriate NESHAP authority (EGLE – AQD/DEQ) 10-business days prior to the removal of friable ACM (RACM) exceeding 260 square feet of 150 linear feet. Additionally, the abatement contractor must notify LARA/MIOSHA10 business days prior to any non-emergency abatement project exceeding 10 linear feet or 15 square feet or both of friable ACM (RACM).

6.0 LIMITATIONS/GENERAL COMMENTS

In addition to limitations, if any, indicated in other sections of this report, please not that Terracon did not perform sampling which required demolition or destructive activities such as knocking holes in walls, dismantling of equipment, or removal of protective coverings. Reasonable efforts to access suspect materials within known areas of restricted access (e.g., crawl spaces) were made; however, confined spaces or areas which may pose a health or safety risk to Terracon personnel were not sampled. Sampling did not include suspect materials which could not be safely reached with available ladders/man-lifts.

This asbestos inspection was conducted in a manner consistent with the level of care and skill ordinarily exercised by members of the profession currently practicing under similar conditions in the same locale. The results, findings, conclusions, and recommendations expressed in this report are based on conditions observed during our inspection of the building. The information contained in this report is relevant to the date on which this inspection was performed and should not be relied upon to represent conditions at a later date. This report has been prepared on behalf of and exclusively for use by Seven Generations Architects and Engineering for specific application to their project as discussed. This report is not a bidding document. **Contractors or consultants reviewing this report must draw their own conclusions regarding quantities, further investigation or remediation deemed necessary**. Terracon does not warrant the work of regulatory agencies, laboratories, or other third parties supplying information which may have been used in the preparation of this report. No warranty, express or implied is made.

Terracon

APPENDIX A

Rock Harbor Guest Lodge
Isle Royale, Michigan

Terracon Project No. N1227263

IDENTIFIED ASBESTOS-CONTAINING MATERIALS BY HOMOGENEOUS AREA (HA)

HA No.	Material Description	Material Location(s)	% and Type Asbestos	EPA NESHAP Classification	Condition/ Friability	Estimated Quantity*
03	Tan Rock-Patterned Linoleum Flooring with Inseparable Yellow Mastic	1st Floor Hallway, and 1st and 2nd Floor Restrooms	40% Chrysotile	Regulated Asbestos-Containing Material (RACM)	Good/ Friable Paper Backing	~ 525 Square Feet (SF)

See **Appendix B** for a summary of samples collected, **Appendix C** for detailed analytical results, **Appendix E** for photo example of the identified ACM, and **Appendix F** for sample location drawings (not to scale).

***Estimated quantities** listed above are based on a cursory field evaluation, and actual quantities may vary significantly, especially if ACMs are present in hidden and/or inaccessible areas not evaluated as part of this inspection. This is not a bidding document and contractors would be responsible for drawing their own conclusions on quantities present.

If the identified ACMs will be impacted by the renovation project, the owner and/or operator are responsible for federal and state EPA NESHAP regulatory compliance. If the material will be impacted by the renovation project, an experienced state-licensed asbestos abatement contractor must be retained for proper removal, handling, and disposal of the ACM as applicable with federal and state regulations.

APPENDIX B

Rock Harbor Guest Lodge
Isle Royale, Michigan

Terracon Project No. N1227263
October 7, 2022

ASBESTOS INSPECTION SAMPLE & RESULTS SUMMARY

Sample #		Sample Material Description	Sample Location	HA Location(s)	Results (% / Type of Asbestos)
HA #	SEQ. #				
01	01	Finished Plaster: Gray/White Base Coat and White Textured Finish Coat	Doorway to Room 12	Throughout 1st and 2nd Floors of Building	Base Coat: None Detected (ND), Finish Coat: ND
	02		Northwest Corner of Room 10		Base Coat: ND, Finish Coat: ND
	03		South Wall of Room 7		Base Coat: ND, Finish Coat: ND
	04		Southwest Corner of Room 3		Base Coat: ND, Finish Coat: ND
	05		Southeast Corner of Room 2		Base Coat: ND, Finish Coat: ND
	06		Northwest Corner of Room 6		Base Coat: ND, Finish Coat: ND
	07		Closet Doorway of Lobby		Base Coat: ND, Finish Coat: ND
02	08	Cream Textured Ceiling Material	Center of Room 14	Throughout 1st and 2nd Floors Ceilings	ND
	09		North Wall of Room 12		ND
	10		East Side of Room 16		ND
	11		East Side of 2nd Floor Room 7		ND

Asbestos Inspection
Rock Harbor Guest Lodge ■ Isle Royale, MI
October 7, 2022 ■ Terracon Project No. N1227263

Terracon

Sample #		Sample Material Description	Sample Location	HA Location(s)	Results (% / Type of Asbestos)
HA #	SEQ. #				
	12		Center of Room 1		ND
	13		Center of Room 5		ND
	14		Lobby Closet		ND
03	**15**	**Tan Rock Patterned Linoleum Flooring with Inseparable Yellow Mastic**	**Doorway of Room 2**	**1st Floor Hallway, and 1st and 2nd Floor Restrooms**	**40% Chrysotile**
	16		**Doorway of 2nd Floor Men's Bathroom**		**1st Positive Stop**
	17		**East Wall of Men's 1st Floor Bathroom**		**1st Positive Stop**
04	18	Unfinished Plaster Walls: Gray/White Base Coat Only (no finish coat present)	At Stairwell Landing	Attic Walls Around Stairwell	Base Coat: ND, Finish Coat: ND
	19		At Stairwell Landing		Base Coat: ND, Finish Coat: ND
	20		Bottom of Stairs		Base Coat: ND, Finish Coat: ND
05	21	Drywall (unfinished, no joint compound)	Northwest Corner of Wall	Northwest Wall of Attic	Drywall: ND
	22		Middle of Wall		Drywall: ND
	23		Northeast Corner of Wall		Drywall: ND
06	24	White Interior Window Caulking	West Attic Window	Associated with West Attic Window	ND
	25		West Attic Window		ND
	26		West Attic Window		ND
07	27	White Exterior Window Glazing	Northeast Corner Window of 1st Floor	Associated with Exterior	ND

Sample #		Sample Material Description	Sample Location	HA Location(s)	Results (% / Type of Asbestos)
HA #	SEQ. #				
	28		Northwest Corner Window of 1st Floor	Windows throughout Building	ND
	29		Northwest Window of 2nd Floor		ND
08	30	White Exterior Door Caulking	West 1st Floor Doorway	Associated with West 1st Floor Doorway	ND
	31		West 1st Floor Doorway		ND
	32		West 1st Floor Doorway		ND
09	33	Gray/Tan Fiberboard Wall Panels	At Stairwell	North Attic Wall	ND
	34		Middle North Wall		ND
	35		Middle North Wall		ND
10	36	Drywall System: Drywall and Joint Compound	Northeast Corner	East Wall of Room 1	Drywall: ND, Joint Compound: ND
	37		Northeast Corner		Drywall: ND, Joint Compound: ND
	38		Northeast Corner		Drywall: ND, Joint Compound: ND
11	39	Gray/Green Asphalt Roofing with Black Tar Paper	Northwest Corner	Roof of Building	Shingle: ND Tar Paper: ND
	40		Northwest Corner		Shingle: ND Tar Paper: ND
	41		Awning at Southeast Entrance		Shingle: ND Tar Paper: ND

APPENDIX C

ASBESTOS ANALYTICAL LABORATORY DATA

Bulk Asbestos Analysis

By Polarized Light Microscopy
EPA Method: 600/R-93/116 and
40 CFR, Part 763, Subpart E, App.E

NVLAP LAB CODE 200664-0

Customer: Terracon
611 Lunken Park Drive
Cincinnati, OH 45226

Attn: Joshua Vogel
Lem Weyer

Project: Royal Isle Rock Harbo-Guest Lodge

Lab Order ID: **10006697**
Analysis: PLM
Date Received: 09/21/2022
Date Reported: 09/28/2022

Sample ID *Lab Sample ID*	Description *Lab Notes*	Asbestos	Fibrous Components	Non-Fibrous Components	Attributes Treatment
01-01 - A	Plaster walls: base coat and textured finish coats	None Detected		100% Other	White Non-Fibrous Homogeneous
10006697_0001	*finish*				Crushed
01-01 - B	Plaster walls: base coat and textured finish coats	None Detected		100% Other	White, Gray Non-Fibrous Heterogeneous
10006697_0042	*base*				Crushed
01-02 - A	Plaster walls: base coat and textured finish coats	None Detected		100% Other	White Non-Fibrous Homogeneous
10006697_0002	*finish*				Crushed
01-02 - B	Plaster walls: base coat and textured finish coats	None Detected		100% Other	White, Gray Non-Fibrous Heterogeneous
10006697_0043	*base*				Crushed
01-03 - A	Plaster walls: base coat and textured finish coats	None Detected		100% Other	White Non-Fibrous Homogeneous
10006697_0003	*finish*				Crushed
01-03 - B	Plaster walls: base coat and textured finish coats	None Detected		100% Other	Gray, White Non-Fibrous Heterogeneous
10006697_0044	*base*				Crushed
01-04 - A	Plaster walls: base coat and textured finish coats	None Detected		100% Other	White Non-Fibrous Homogeneous
10006697_0004	*finish*				Crushed
01-04 - B	Plaster walls: base coat and textured finish coats	None Detected		100% Other	White, Gray Non-Fibrous Heterogeneous
10006697_0045	*base*				Crushed

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Lachlan Krenz (51)

Analyst **Approved Signatory**

Scientific Analytical Institute, Inc. 4604 Dundas Dr. Greensboro, NC 27407 (336) 292-3888

Bulk Asbestos Analysis

By Polarized Light Microscopy
EPA Method: 600/R-93/116 and
40 CFR, Part 763, Subpart E, App.E

NVLAP LAB CODE 200664-0

Customer: Terracon
611 Lunken Park Drive
Cincinnati, OH 45226

Attn: Joshua Vogel
Lem Weyer

Project: Royal Isle Rock Harbo-Guest Lodge

Lab Order ID: **10006697**
Analysis: PLM
Date Received: 09/21/2022
Date Reported: 09/28/2022

Sample ID *Lab Sample ID*	Description *Lab Notes*	Asbestos	Fibrous Components	Non-Fibrous Components	Attributes Treatment
01-05 - A	Plaster walls: base coat and textured finish coats	None Detected		100% Other	White Non-Fibrous Homogeneous
10006697_0005	*finish*				Crushed
01-05 - B	Plaster walls: base coat and textured finish coats	None Detected		100% Other	Gray, White Non-Fibrous Heterogeneous
10006697_0046	*base*				Crushed
01-06 - A	Plaster walls: base coat and textured finish coats	None Detected		100% Quartz	White Non-Fibrous Homogeneous
10006697_0006	*finish*				Crushed
01-06 - B	Plaster walls: base coat and textured finish coats	None Detected		100% Other	Gray, White Non-Fibrous Heterogeneous
10006697_0047	*base*				Crushed
01-07 - A	Plaster walls: base coat and textured finish coats	None Detected		100% Other	White Non-Fibrous Homogeneous
10006697_0007	*finish*				Crushed
01-07 - B	Plaster walls: base coat and textured finish coats	None Detected		100% Other	Gray, White Non-Fibrous Heterogeneous
10006697_0048	*base*				Crushed
02-08	Textured ceilings	None Detected		100% Other	Cream Non-Fibrous Homogeneous
10006697_0008					Crushed
02-09	Textured ceilings	None Detected		100% Other	Cream Non-Fibrous Homogeneous
10006697_0009					Crushed

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Lachlan Krenz (51)
Analyst

Approved Signatory

Bulk Asbestos Analysis

By Polarized Light Microscopy
EPA Method: 600/R-93/116 and
40 CFR, Part 763, Subpart E, App.E

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Analysis: PLM
Date Received: 09/21/2022
Date Reported: 09/28/2022

Sample ID *Lab Sample ID*	Description *Lab Notes*	Asbestos	Fibrous Components	Non-Fibrous Components	Attributes Treatment
02-10	Textured ceilings	**None Detected**		**100% Other**	Cream Non-Fibrous Homogeneous
10006697_0010					Crushed
02-11	Textured ceilings	**None Detected**		**100% Other**	Cream Non-Fibrous Homogeneous
10006697_0011					Crushed
02-12	Textured ceilings	**None Detected**		**100% Other**	Cream Non-Fibrous Homogeneous
10006697_0012					Crushed
02-13	Textured ceilings	**None Detected**		**100% Other**	Cream Non-Fibrous Homogeneous
10006697_0013					Crushed
02-14	Textured ceilings	**None Detected**		**100% Other**	Cream Non-Fibrous Homogeneous
10006697_0014					Crushed
03-15	Tan rock patterned linoleum flooring with yellow mastic	**40% Chrysotile**		**60% Other**	Gray, Tan Fibrous Homogeneous
10006697_0015	*linoleum flooring with inseparable mastic*				Teased, Ashed
03-16	Tan rock patterned linoleum flooring with yellow mastic	**Not Analyzed**			
10006697_0016					
03-17	Tan rock patterned linoleum flooring with yellow mastic	**Not Analyzed**			
10006697_0017					

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Lachlan Krenz (51)

Analyst **Approved Signatory**

Bulk Asbestos Analysis

By Polarized Light Microscopy
EPA Method: 600/R-93/116 and
40 CFR, Part 763, Subpart E, App.E

NVLAP LAB CODE 200664-0

Customer: Terracon
611 Lunken Park Drive
Cincinnati, OH 45226

Attn: Joshua Vogel
Lem Weyer

Project: Royal Isle Rock Harbo-Guest Lodge

Lab Order ID: **10006697**
Analysis: PLM
Date Received: 09/21/2022
Date Reported: 09/28/2022

Sample ID / *Lab Sample ID*	Description / *Lab Notes*	Asbestos	Fibrous Components	Non-Fibrous Components	Attributes / Treatment
04-18	Plaster wall: base coat only	None Detected		100% Other	Gray, White Non-Fibrous Heterogeneous
10006697_0018					Crushed
04-19	Plaster wall: base coat only	None Detected		100% Other	White, Gray Non-Fibrous Heterogeneous
10006697_0019					Crushed
04-20	Plaster wall: base coat only	None Detected		100% Other	White, Gray Non-Fibrous Heterogeneous
10006697_0020					Crushed
05-21	Drywall system: drywall and joint compound	None Detected	10% Cellulose	90% Other	White Non-Fibrous Homogeneous
10006697_0021	*drywall only*				Crushed
05-22	Drywall system: drywall and joint compound	None Detected	10% Cellulose	90% Other	White Non-Fibrous Homogeneous
10006697_0022	*drywall only*				Crushed
05-23	Drywall system: drywall and joint compound	None Detected	10% Cellulose	90% Other	White Non-Fibrous Homogeneous
10006697_0023	*drywall only*				Crushed
06-24	White interior window caulking	None Detected		100% Other	White, Beige Non-Fibrous Homogeneous
10006697_0024					Ashed
06-25	White interior window caulking	None Detected		100% Other	Beige, White Non-Fibrous Homogeneous
10006697_0025					Ashed

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Bulk Asbestos Analysis

By Polarized Light Microscopy
EPA Method: 600/R-93/116 and
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NVLAP LAB CODE 200664-0

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Cincinnati, OH 45226

Attn: Joshua Vogel
Lem Weyer

Project: Royal Isle Rock Harbo-Guest Lodge

Lab Order ID: **10006697**
Analysis: PLM
Date Received: 09/21/2022
Date Reported: 09/28/2022

Sample ID *Lab Sample ID*	Description *Lab Notes*	Asbestos	Fibrous Components	Non-Fibrous Components	Attributes Treatment
06-26	White interior window caulking	**None Detected**		**100% Other**	Beige, White Non-Fibrous Homogeneous
10006697_0026					Ashed
07-27	White exterior window glazing	**None Detected**		**100% Other**	Gray Non-Fibrous Homogeneous
10006697_0027					Crushed
07-28	White exterior window glazing	**None Detected**		**100% Other**	Gray Non-Fibrous Homogeneous
10006697_0028					Crushed
07-29	White exterior window glazing	**None Detected**		**100% Other**	Gray Non-Fibrous Homogeneous
10006697_0029					Crushed
08-30	White exterior door caulking	**None Detected**		**100% Other**	Brown Non-Fibrous Homogeneous
10006697_0030					Ashed
08-31	White exterior door caulking	**None Detected**		**100% Other**	Brown Non-Fibrous Homogeneous
10006697_0031					Ashed
08-32	White exterior door caulking	**None Detected**		**100% Other**	Brown Non-Fibrous Homogeneous
10006697_0032					Ashed
09-25	Fiberboard wall panels	**None Detected**	**95% Cellulose**	**5% Other**	Gray, Tan Fibrous Homogeneous
10006697_0033	*bag labeled as 9-33*				Teased

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Analyst

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Bulk Asbestos Analysis

By Polarized Light Microscopy
EPA Method: 600/R-93/116 and
40 CFR, Part 763, Subpart E, App.E

NVLAP LAB CODE 200664-0

Customer: Terracon
611 Lunken Park Drive
Cincinnati, OH 45226

Attn: Joshua Vogel
Lem Weyer

Project: Royal Isle Rock Harbo-Guest Lodge

Lab Order ID: **10006697**
Analysis: PLM
Date Received: 09/21/2022
Date Reported: 09/28/2022

Sample ID / *Lab Sample ID*	Description / *Lab Notes*	Asbestos	Fibrous Components	Non-Fibrous Components	Attributes / Treatment
09-26	Fiberboard wall panels	None Detected	95% Cellulose	5% Other	Tan, Gray Fibrous Homogeneous
10006697_0034	*bag labeled as 9-34*				Teased
09-27	Fiberboard wall panels	None Detected	95% Cellulose	5% Other	Gray, Tan Fibrous Homogeneous
10006697_0035	*bag labeled as 9-35*				Teased
10-28	Drywall system: drywall and texture finish coat	None Detected	5% Cellulose	95% Other	White Non-Fibrous Homogeneous
10006697_0036	*drywall: none detect; joint compound: none detect; bag label*				Crushed
10-29	Drywall system: drywall and texture finish coat	None Detected	5% Cellulose	95% Other	White Non-Fibrous Homogeneous
10006697_0037	*drywall: none detect; joint compound: none detect; bag label*				Crushed
10-30	Drywall system: drywall and texture finish coat	None Detected	5% Cellulose	95% Other	White Non-Fibrous Homogeneous
10006697_0038	*drywall: none detect; joint compound: none detect; bag label*				Crushed
11-31 - A	Gray/ green asphalt roofingwwith tat and tar paper	None Detected	20% Fiber Glass	80% Other	Black Non-Fibrous Heterogeneous
10006697_0039	*shingle; bag labeled as 11-39*				Crushed
11-31 - B	Gray/ green asphalt roofingwwith tat and tar paper	None Detected	80% Cellulose	20% Other	Black Non-Fibrous Homogeneous
10006697_0049	*tar paper; bag labeled as 11-39*				Dissolved
11-32 - A	Gray/ green asphalt roofingwwith tat and tar paper Gray/ green asphalt roofingwwith tat and tar pape	None Detected	20% Fiber Glass	80% Other	Black Non-Fibrous Heterogeneous
10006697_0040	*shingle; bag labeled as 11-40*				Crushed

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Lachlan Krenz (51)
Analyst

Approved Signatory

Bulk Asbestos Analysis

By Polarized Light Microscopy
EPA Method: 600/R-93/116 and
40 CFR, Part 763, Subpart E, App.E

NVLAP LAB CODE 200664-0

Customer: Terracon
611 Lunken Park Drive
Cincinnati, OH 45226

Attn: Joshua Vogel
Lem Weyer

Project: Royal Isle Rock Harbo-Guest Lodge

Lab Order ID: **10006697**
Analysis: PLM
Date Received: 09/21/2022
Date Reported: 09/28/2022

Sample ID *Lab Sample ID*	Description *Lab Notes*	Asbestos	Fibrous Components	Non-Fibrous Components	Attributes Treatment
11-32 - B	Gray/ green asphalt roofingwwith tat and tar paper Gray/ green asphalt roofingwwith tat and tar pape	**None Detected**	**80% Cellulose**	**20% Other**	Black Non-Fibrous Homogeneous
10006697_0050	*tar paper; bag labeled as 11-40*				Dissolved
11-33 - A	Gray/ green asphalt roofingwwith tat and tar paper	**None Detected**	**20% Fiber Glass**	**80% Other**	Black Non-Fibrous Heterogeneous
10006697_0041	*shingle; bag labeled as 11-41*				Crushed
11-33 - B	Gray/ green asphalt roofingwwith tat and tar paper	**None Detected**	**80% Cellulose**	**20% Other**	Black Non-Fibrous Homogeneous
10006697_0051	*tar paper; bag labeled as 11-41*				Dissolved

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Lachlan Krenz (51)
Analyst

Approved Signatory

10006697

eurofins | CEI

730 SE Maynard Road, Cary, NC 27511
Tel: 866-481-1412; Fax: 919-481-1442

CHAIN OF CUSTODY

LAB USE ONLY:
CEI Lab Code:
CEI Lab I.D. Range:

COMPANY INFORMATION	PROJECT INFORMATION
CEI CLIENT #:	Job Contact: Lem Weyer
Company: Terracon Consultants, Inc.	Email / Tel: Lem.Weyer@TERRACON.COM
Address: 611 Lunkenpark Dr.	Project Name: Rock Harbor
Cincinnati, OH 45226	Project ID#: N1227263
Email: Joshua.Vogel@Terracon.com	PO #:
Tel: (513) 612-9002 Fax:	STATE SAMPLES COLLECTED IN: MI

IF TAT IS NOT MARKED STANDARD 3 DAY TAT APPLIES.

		TURN AROUND TIME					
ASBESTOS	**METHOD**	**4 HR**	**8 HR**	**1 DAY**	**2 DAY**	**3 DAY**	**5 DAY**
PLM BULK	EPA 600	☐	☐	☐	☐	☐	☒
PLM POINT COUNT (400)	EPA 600	☐	☐	☐	☐	☐	☐
PLM POINT COUNT (1000)	EPA 600	☐	☐	☐	☐	☐	☐
PLM GRAV w POINT COUNT	EPA 600		☐	☐	☐	☐	☐
PLM BULK	~~CARB 435~~		☐	☐	☐	☐	☐
PCM AIR	NIOSH 7400	☐	☐	☐	☐	☐	☐
TEM AIR	EPA AHERA	☐	☐	☐	☐	☐	☐
TEM AIR	NIOSH 7402	☐	☐	☐	☐	☐	☐
TEM AIR (PCME)	ISO 10312	☐	☐	☐	☐	☐	☐
TEM AIR	ASTM 6281-15	☐	☐	☐	☐	☐	☐
TEM BULK	CHATFIELD		☐	☐	☐	☐	☐
TEM DUST WIPE	ASTM D6480-05 (2010)	☐	☐	☐	☐	☐	☐
TEM DUST MICROVAC	ASTM D5755-09 (2014)	☐	☐	☐	☐	☐	☐
TEM SOIL	ASTM D7521-16			☐	☐	☐	☐
TEM VERMICULITE	CINCINNATI METHOD			☐	☐	☐	☐
TEM QUALITTATIVE	IN-HOUSE METHOD		☐	☐	☐	☐	☐
OTHER:		☐	☐	☐	☐	☐	☐

REMARKS / SPECIAL INSTRUCTIONS:

Accepted ☑ ☐ Accept Samples

Rejected ☐ ☐ Reject Samples

Relinquished By:	Date/Time	Received By:	Date/Time
[signature]	9/19/22	[signature]	9/21 10:30 am

Samples will be disposed of 30 days after analysis

Page ____ of ____
Version: CCOC.01.18.1/2.LD

W0066097

SUSPECT ACM - BULK MATERIAL SAMPLE LOG

Page ____ of ____

Date: 9/14/22
Inspector: Lem Weyer
Project: Royal Isle Rock Harbor- Guest Lodge
Project # N1227263

Terracon
611 Lunken Park Drive
Cincinnati, Ohio 45226
(513) 321.5816

Sample #		Sample Material Description	Sample Location	HA Location(s)	Results (% / Type of Asbestos)
HA #	SEQ. #				
01	01	Plaster Walls: Base Coat and Textured Finish Coat	Doorway to Room 12	Throughout 1st and 2nd Floors of Building	
	02		Northwest Corner of Room 10		
	03		South Wall of Room 7		
	04		Southwest Corner of Room 3		
	05		Southeast Corner of Room 2		
	06		Northwest Corner of Room 6		
	07		Closet Doorway of Lobby		
02	08	Textured Ceilings	Center of Room 14	Throughout 1st and 2nd Floors	
	09		North Wall of Room 12		
	10		East Side of Room 16		
	11		East Side of 2nd Floor Room 7		
	12		Center of Room 1		
	13		Center of Room 5		
	14		Lobby Closet		
	15	Tan Rock Patterned Linoleum Flooring with	Doorway of Room 2	1st Floor Hallway, 1st and 2nd Floor	

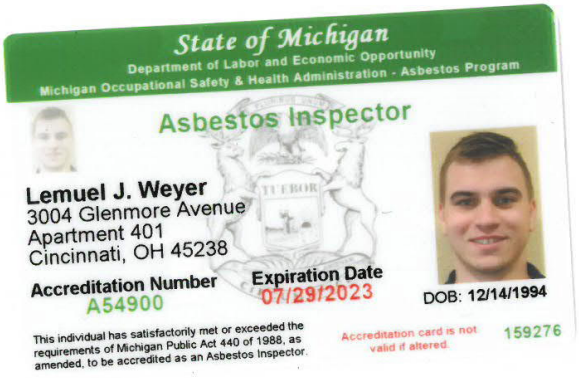
Sample #		Sample Material Description	Sample Location	HA Location(s)	Results (% / Type of Asbestos)
HA #	SEQ. #				
	16		Doorway of 2nd Floor Men's Bathroom		
	17		East Wall of Men's 1st Floor Bathroom		
04	18	Plaster Wall: Base Coat Only	At Stairwell Landing	Attic Walls Around Stairwell	
	19		At Stairwell Landing		
	20		Bottom of Stairs		
05	21	Drywall System: Drywall and Joint Compound	Northwest Corner of Wall	Northwest Wall of Attic	
	22		Middle of Wall		
	23		Northeast Corner of Wall		
06	24	White Interior Window Caulking	West Attic Window	Associated with West Attic Window	
	25		West Attic Window		
	26		West Attic Window		
07	27	White Exterior Window Glazing	Northeast Corner Window of 1st Floor	Associated with Exterior Windows throughout Building	
	28		Northwest Corner Window of 1st Floor		
	29		Northwest Window of 2nd Floor		
08	30	White Exterior Door Caulking	West 1st Floor Doorway	Associated with West 1st Floor Doorway	
	31		West 1st Floor Doorway		
	32		West 1st Floor Doorway		
09	25	Fiberboard Wall Panels	At Stairwell	North Attic Wall	

Sample #		Sample Material Description	Sample Location	HA Location(s)	Results (% / Type of Asbestos)
HA #	SEQ. #				
	26		Middle North Wall		
	27		Middle North Wall		
10	28	Drywall System: Drywall and Texture Finish Coat	Northeast Corner	East Wall of Room 1	
	29		Northeast Corner		
	30		Northeast Corner		
11	31	Gray/Green Asphalt Roofing with Tar and Tar Paper	Northwest Corner	Roof of Building	
	32		Northwest Corner		
	33		Awning at Southeast Entrance		

Asbestos Inpsection
Rock Harbor Guest Lodge ■ Isle Royale, MI
October 7, 2022 ■ Terracon Project No. N1227263

APPENDIX D

LICENSES AND CERTIFICATIONS



Lemuel J. Weyer

Inspector

A54900

07/29/2023

159276

Asbestos Inspection
Rock Harbor Guest Lodge ■ Isle Royale, MI
October 7, 2022 ■ Terracon Project No. N1227263

APPENDIX E

PHOTOS

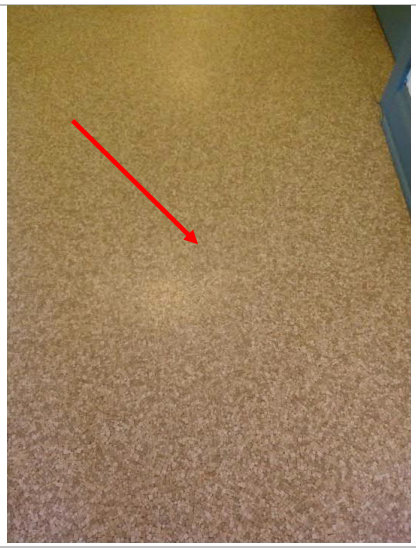
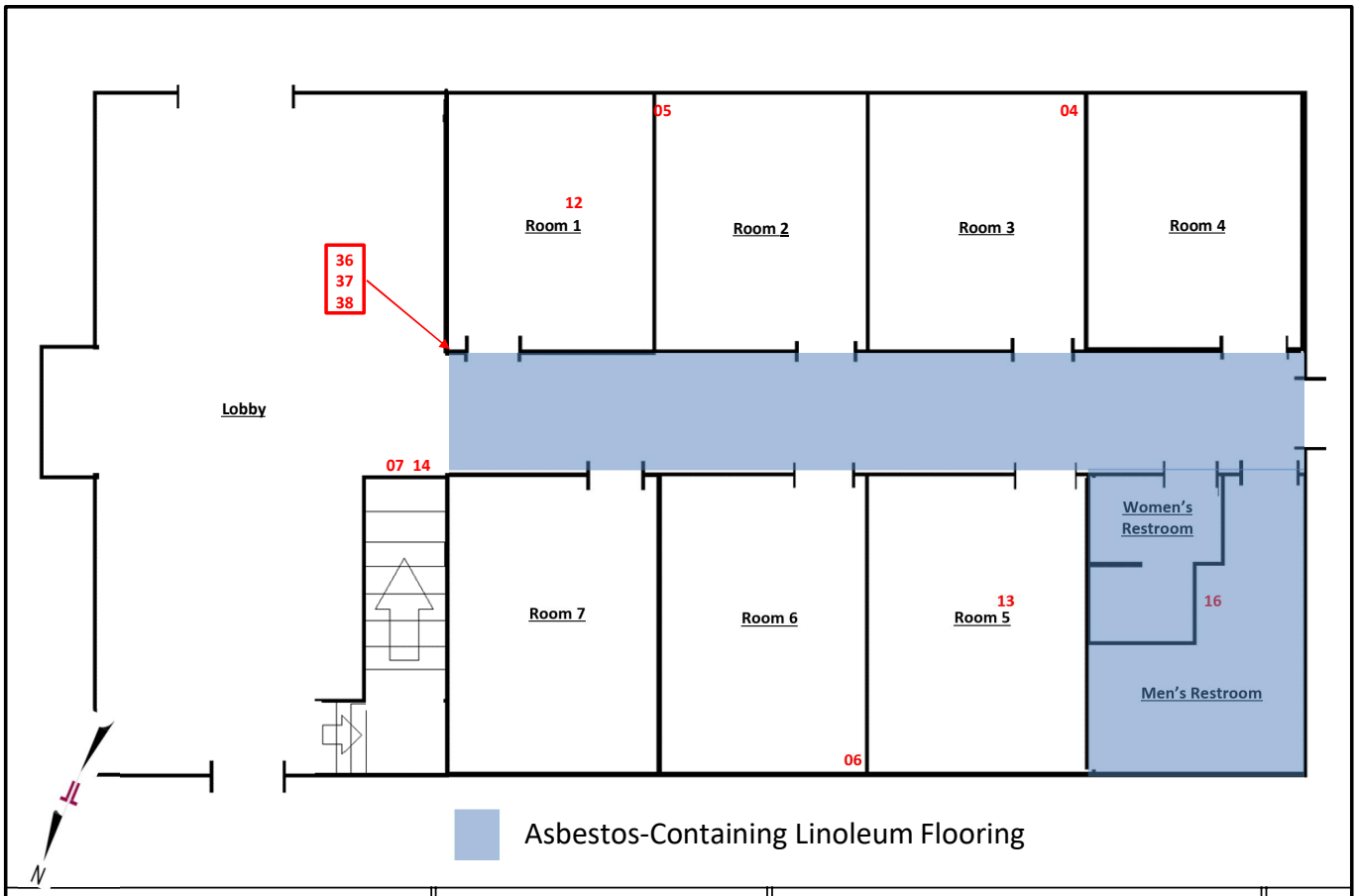


Photo #1 HA 03: Asbestos-Containing Tan Rock-Patterned Linoleum Flooring with Inseparable Yellow Mastic Located in the 1st Floor Hallway and 2nd Floor Restrooms.

APPENDIX F

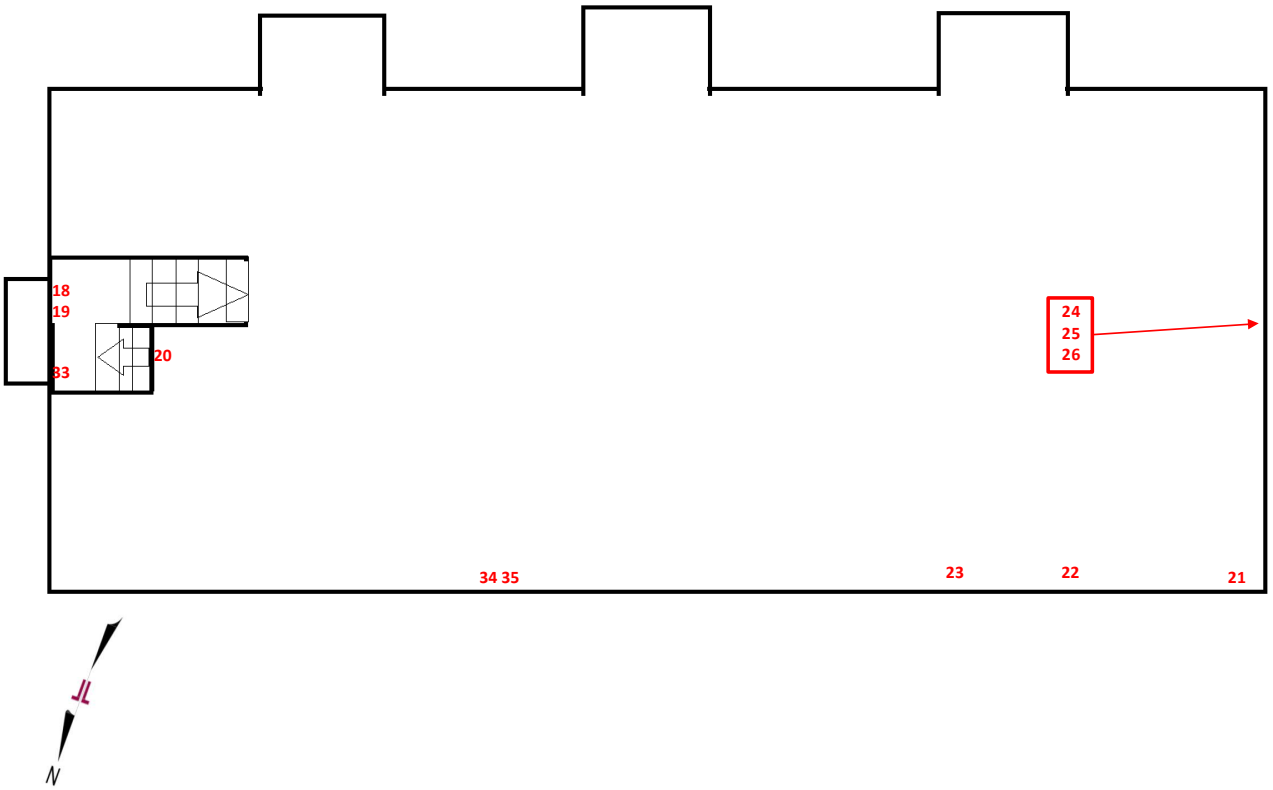
SAMPLE LOCATION DRAWINGS



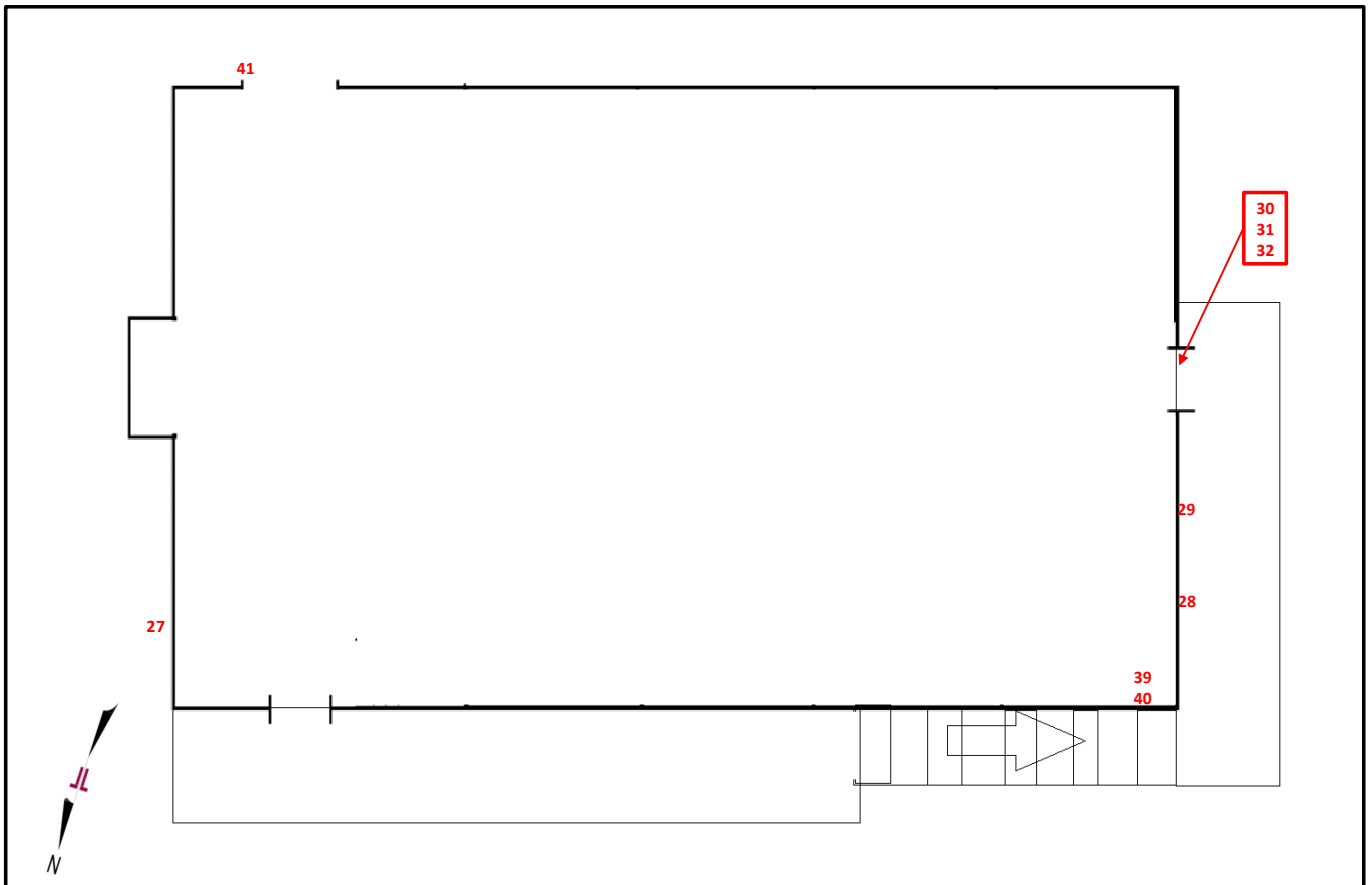
Project No. N1227263	Consulting Engineers and Scientists 611 Lunken Park Drive Cincinnati, Ohio 45226 PH. (513) 321-05816 FAX (513) 321-0294	1st Floor Interior Sample Locations	Exhibit
Inspection Date: September 13 & 14, 2022		Guest Lodge Rock Harbor Isle Royale, MI	1
Project Manager: Josh Vogel			
APR: Joe Tussey			



Project No. N1227263	Consulting Engineers and Scientists 611 Lunken Park Drive Cincinnati, Ohio 45226 PH. (513) 321-05816 FAX (513) 321-0294	**2nd Floor Interior Sample Locations**	**Exhibit**
Inspection Date: September 13 & 14, 2022		Guest Lodge Rock Harbor Isle Royale, MI	**2**
Project Manager: Josh Vogel			
APR: Joe Tussey			



Project No. N1227263	Consulting Engineers and Scientists 611 Lunken Park Drive Cincinnati, Ohio 45226 PH. (513) 321-05816 FAX (513) 321-0294	**Attic Interior Sample Locations**	**Exhibit**
Inspection Date: September 13 & 14, 2022		Guest Lodge Rock Harbor Isle Royale, MI	**3**
Project Manager: Josh Vogel			
APR: Joe Tussey			



Project No. N1227263	Consulting Engineers and Scientists 611 Lunken Park Drive Cincinnati, Ohio 45226 PH. (513) 321-05816 FAX (513) 321-0294	**Exterior Sample Locations**	**Exhibit**
Inspection Date: September 13 & 14, 2022		Guest Lodge Rock Harbor Isle Royale, MI	**4**
Project Manager: Josh Vogel			
APR: Joe Tussey			

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Appendix C. Paint Sampling

Rock Harbor Lodge Guest House

Isle Royale National Park

Keweenaw County, Michigan



Finishes Analysis

December 2022
Revised August 2023

BUILDING CONSERVATION ASSOCIATES INC.

Rock Harbor Lodge Guest House

Isle Royale National Park

Keweenaw County, Michigan

Finishes Analysis

Prepared For
Ratio Architects
Indianapolis, Indiana

Prepared By
Building Conservation Associates, Inc.
242 Cherry Street
Philadelphia, PA 19106

BCA Team
Dorothy S. Krotzer, Director
Olivia Brogan, Conservation Intern

December 2022
Revised August 2023

BCA

BUILDING CONSERVATION ASSOCIATES INC.

CONTENTS

1.0 INTRODUCTION 1
2.0 BACKGROUND INFORMATION 2
3.0 METHODOLOGY 5
4.0 SUMMARY OF FINDINGS 6
    4.1 Exterior 6
    4.2 Interior 9
5.0 CONCLUSIONS AND RECOMMENDATIONS 12
    5.1 Exterior 13

APPENDIX A: Sample List
APPENDIX B: Sample Locations
APPENDIX C: Stratigraphy Sheets

1.0 INTRODUCTION

At the request of Ratio Architects, Building Conservation Associates, Inc. (BCA) has prepared an analysis of historic finishes at the Rock Harbor Lodge Guest House, on the shoreline of Rock Harbor, Isle Royale National Park, Keweenaw County, Michigan. The building was finished in 1924 by the Rock Harbor Lodge Resort under the ownership of Kneut Kneutson. The island on which the Guest House is located was established as a National Park, Isle Royale, in 1937. The Rock Harbor Lodge Guest House was transferred from Rock Harbor Lodge Resort to the National Park Service (NPS) in 1938.

The finishes study was performed on both the exterior and interior of the Guest House. The goal of the analysis was to identify finishes dating to the original 1924 campaign. The following report synthesizes and summarizes BCA's findings, including, when possible, the original paint color and/or finish associated with each feature. Based on these findings, the report also makes recommendations for appropriate restoration finishes. Appendices include a sample list (*Appendix A),* sample locations (*Appendix B)* and stratigraphy information and photomicrographs for each sample (*Appendix C*).

All mounted cross-sections will be permanently housed at BCA's Philadelphia office. All work required for this study was performed by Dorothy Krotzer, Director, and Olivia Brogan, Conservation Intern. Samples were removed by Ratio Architects and provided to BCA in September 2022. BCA analyzed the samples from October through December 2022.

2.0 BACKGROUND INFORMATION

The following history of Rock Harbor Lodge Guest House is a summary of information found in the report produced by the Historic American Buildings Survey[1] and the Isle Royale National Park website produced by the Isle Royale Institute.[2] Both sources compile information from written primary sources related to the Guest House, photographs of the property, and other related research reports.

The island upon which Rock Harbor Lodge Guest House is situated has been a popular destination for tourists since the 1850s. The resort era of the island began in 1888 and, by 1904, six resorts were in operation as well as scheduled boat services to and from the island.[3]

Kneut Kneutson purchased land on the island and established a resort under the name Park Place Hotel around the turn of the century. Kneutson designed a plan for the land, built several small cottages and a central dining room, and prepared an area for tents to be placed. In 1922, Kneutson hired his daughter, Bertha Farmer, to manage the property and began construction of a modern lodge, the Guest House (Figure 1). It was also at this time that name of the resort changed to Rock Harbor Lodge. The resort excelled under the management of Bertha as she continuously modernized the property and added amenities to the resort. By 1937, the entire island was established as Isle Royale National Park, and NPS purchased Rock Harbor Lodge on July 22, 1938. Under the management plan of NPS, the area of Rock Harbor Lodge was part of the visitor facility with the goal of removing the Guest House once an acceptable building could be provided.

The Guest House was completed in 1924. It is a two-story Craftsman-style structure that is situated on the rocks overlooking Lake Superior.[4] It is noted in the "Park Place/ Rock Harbor Lodge" article that the Guest House became the most prominent landmark in Rock Harbor and was painted a "bright white" (Figure 2). [5] The structure had sixteen guest rooms that were each equipped with electrical lights, sinks with hot and cold running water, and indoor flushing toilets (Figure 3). Under the management of NPS, the rooms of the Guest House were still used by some employees, as well as for storage. It is noted that at the time of the HABS report, the exterior of the building was painted "coffee bean brown with green trim" (Figure 4).[6]

[1] Alan W. O'Bright, "Rock Harbor Lodge Guest House, Isle Royale National Park," Historic American Buildings Survey, Midwest Regional Office National Park Service Department of the Interior (HABS No. MI-246). 1985.
[2] Joseph Pilkington, "Park Place/ Rock Harbor Lodge," Historic Isle Royale Summer Resorts, March 12, 1027, http://iri.forest.mtu.edu/Resorts/Pages/ParkPlace.htm.
[3] Pilkington, "Park Place/ Rock Harbor Lodge."
[4] O'Bright, "Rock Harbor Lodge Guest House, Isle Royale National Park."
[5] Pilkington, "Park Place/ Rock Harbor Lodge."
[6] O'Bright, "Rock Harbor Lodge Guest House, Isle Royale National Park."



Figure 1: Image taken during the construction of Rock Harbor Lodge Guest House; dated c.1920; courtesy of Ratio Architects.



Figure 2: Image of the Guest House; dated 1935; courtesy of Ratio Architects.



Figure 3: Image of typical guest room inside the Guest House with dark woodwork features at the baseboard and around the window; dated 1925; courtesy of Ratio Architects.



Figure 4: Image of Guest House exterior taken during the HABS Survey; dated 1985; courtesy of Ratio Architects.

3.0 METHODOLOGY

Ratio Architects performed its site visit in September 2022. BCA reviewed archival documents provided by Ratio Architects that offered historical context for the Guest House, including historic photographs and schematics. BCA also reviewed other written material regarding the Guest House and the history of Rock Harbor Lodge.

Ratio Architects removed fourteen finish samples were taken from wood and plaster features of the exterior and interior of the Guest House. Each finish sample was bagged, labeled with its location, and shipped to BCA's Philadelphia conservation laboratory.

Each sample was embedded in Extec® polyester resin[7] and sectioned on a Buehler IsoMet® low- speed saw. The sectioned samples were then dry-polished using a series of fine Micromesh® cloths ranging from 4,000 to 12,000 grit. Sectioned samples were observed under a Nikon Eclipse E200® compound microscope in both visible light passed through a daylight-correction filter and ultraviolet light.[8] Photomicrographs of representative samples were taken using a 5.9-megapixel DS-Fi3® color digital camera system and are included in this report to illustrate specific observations. Stratigraphies and photomicrographs for all finish samples are included in *Appendix B*.

For each finish sample, the earliest existing finish was the primary focus of this study. Color matches were provided for layers believed to the be the earliest paint colors present in the sample. Where color matches are provided, they were obtained through mechanical exposure of a bulk sample viewed in natural light or under a light source with a high Color Rendering Index value.

[7] Extec® polyester resin is a commercial polyester/methacrylate resin polymerized with a methyl-ethyl-ketone peroxide catalyst.
[8] The ultraviolet light was generated by a mercury illumination system passed through a violet filter cube (EF4 V-2A Ex400/40 Dm 430 Bar 450).

4.0 SUMMARY OF FINDINGS

The Guest House is primarily constructed of wood. The vast majority of finish samples removed for analysis were therefore from wood features. The Guest House's exterior woodwork contained various layers of finishes. Interior woodwork showed various layers, as well as possible evidence of wood disruption or loss of earlier layers due to scraping or stripping. BCA's findings indicate that the exterior wood siding and trim were originally painted white. The interior samples show evidence of the woodwork being stained originally followed by various layer of paint. The interior floor, however, does not show evidence of the same stain, only paint finishes, the earliest of which is a pale orangish-brown. Finally, the plaster samples show evidence of a creamy white being the earliest color.

The following sections further outline the above findings.

4.1 Exterior

General Observations

BCA examined samples removed from various exterior wood features. The samples appear to be consistent with each other and likely show complete stratigraphies. The samples are consistent with historic photographs of the structure; showing white layers from the early painting campaigns, as well as brown and green layers that speak to the paint colors noted by HABS (Figures 5 and 6).

Siding and Eave Bracket

The samples from the siding and eave bracket show evidence of being painted in the same manner for most of the exterior paint campaigns. Paint layers found on both elements include white (assumed to be the original paint color) followed by variations of brown, pink and red layers. The two samples can be matched with each other based on similarities of various layers both in color and sequence (Figure 7).

Woodwork Around Windows and Doors

The samples taken from the woodwork on the exterior differ from those of the siding and bracket in later paint campaigns, but all of these features show evidence of white as the earliest layer. (Figure 8). Following this, this trim was painted in various shades of green until the most recent brown colors. Research performed as part of the HSR revealed that Rock Harbor Lodge was painted to harmonize with the adjacent Mission 66 dorms when they were first built in September 1956. This evidence suggests that the first light green layer on top of the original white paint likely dates to September 1956.

The woodwork features examined via samples include: a window sash and window casing from the west elevation, and a door casing and door face from the south elevation.

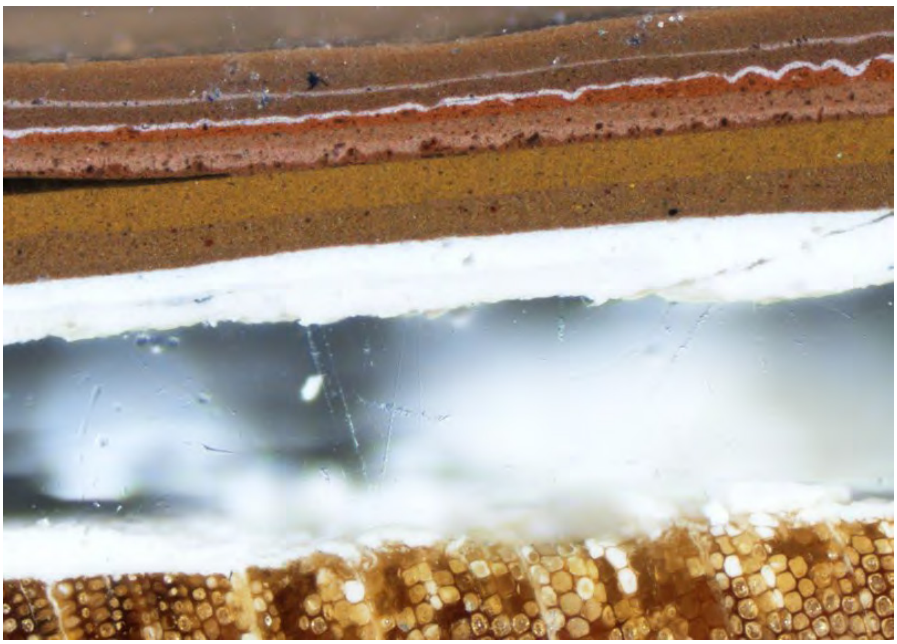


Figure 5: Photomicrograph of Sample 1, wood siding on the west elevation. This sample shows that the earliest color is white, with several layers of brown paint being added to the exterior siding starting in September 1956. *Photomicrograph in visible light, 40x.*

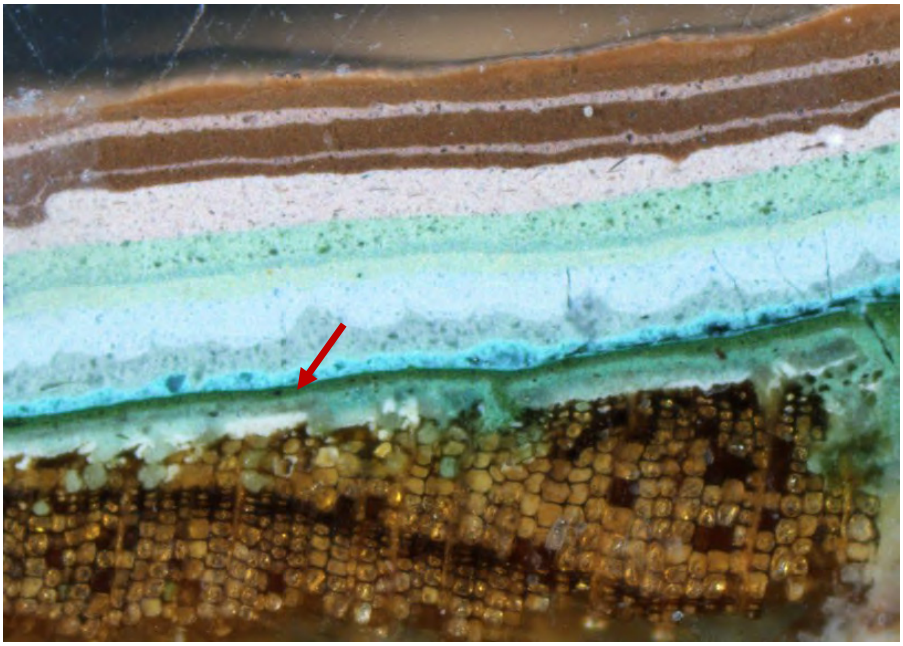


Figure 6: Photomicrograph of Sample 5, door casing on the south elevation. This sample shows evidence of a white layer of paint at the very bottom with disruption from the layers above that leaked into the earlier paint layer (red arrow) The change from the dark green paint to the lighter green paint likely coincides with the change in the color of the siding from white to brown in September 1956. *Photomicrograph in visible light, 40x.*

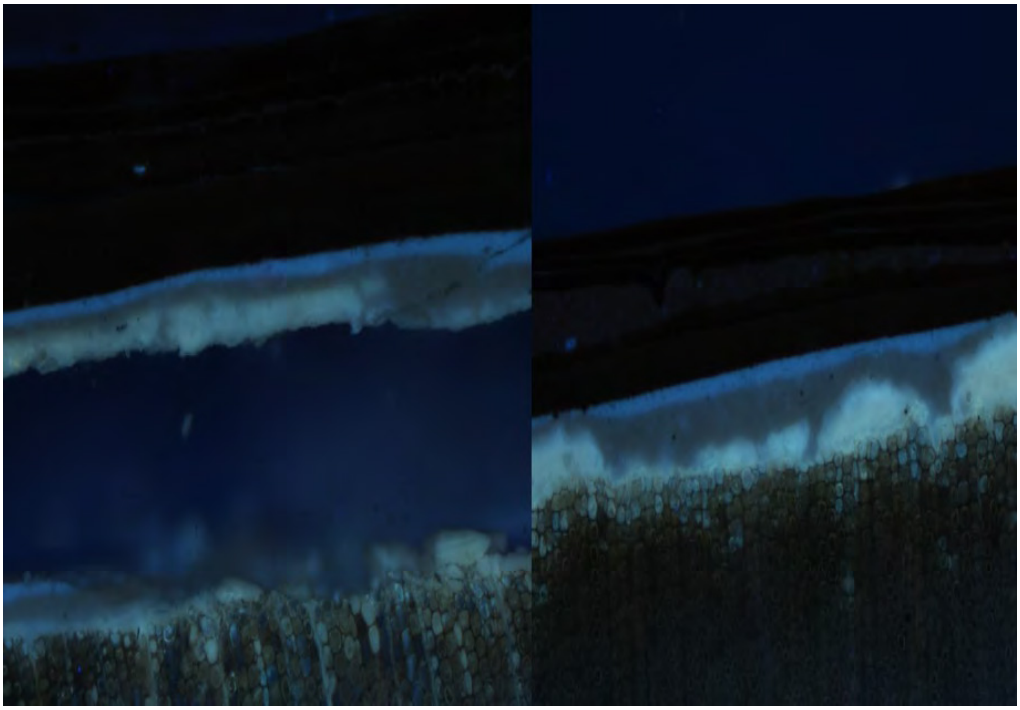


Figure 7: Photomicrographs of Sample 1 (left) and Sample 4 (right). The similarities of the two samples are most obvious in UV light, which shows the same auto-fluorescence of the earliest paint layers. *Photomicrographs, ultra violet light, 40x.*

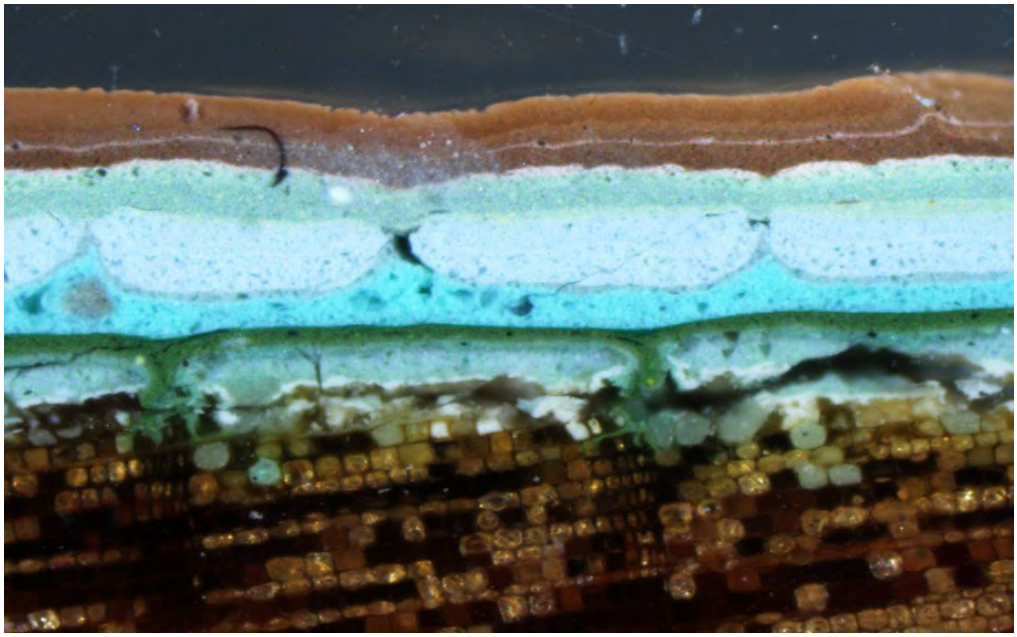


Figure 8: Photomicrograph of Sample 3, window casing on west elevation. This sample shows the disrupted nature of the original white and light green layers seen on all the samples taken from exterior woodwork features. *Photomicrograph, visible light, 40x.*

4.2 Interior

General Observations

The samples from the interior of the Guest House have both wood and plaster as a substrate. The samples examined from the plaster wall and ceiling of a guest room appear to have a full stratigraphy of paint. The sample of the floor from a guest room may not contain a full stratigraphy or it is possible that the floor was unpainted originally. Finally, the samples provided from various interior woodwork features contain evidence of a pigmented stain originally applied to the wood as opposed to a paint color.

Woodwork

The samples from the interior woodwork features of a guest room (Room 7) and the staircase (Lobby) show evidence of the wood being stained originally. This is evident by the way in which the stain auto-fluoresceces under ultra violet light, and by the paint layer above being absorbed into the stain in some spots (Figure 9) Staining of woodwork was typical for building interiors of this period, particularly for "rustic" buildings such as the Guest House. In this case, the semi-transparent stain was quite dark, essentially black in color. The presence of dark stained woodwork is also supported by interior photographs of the Guest House that are dated to be only one year after the completion of construction and show dark wood finishes on the window casing and staircase (Figures 3 and 10).

Floor

The floor of the guest room shows evidence of a disruption surface of the wood. This could indicate that the wood was either left unfinished and thereby exposed to weathering, or the earlier layers of paint or stain were stripped and scrapped off, which would also cause an uneven surface. It is most likely that the wood was left exposed. The earliest layer of paint present in the sample is an orangish-brown (Figure 11).

Plaster Wall and Ceiling

The samples provided from the wall and ceiling of a guest room (Room 6) are the only samples to have a substrate other than wood. These samples contain plaster. The unique "salt and pepper" the appearance of the plaster indicates that is may have been made using sand found on the island. The plaster also lacks a smooth white finish layer typical interior plasters, meaning the surface of the Guest House interior plaster surfaces were somewhat rough. In regards to the paint, the samples indicate that the original color of both the wall and ceiling was cream. There appear to also be later paint campaigns of similar cream colors. It should be noted that unrelated to the original colors, Sample 13 shows an odd splattering of red paint mixed in with the green layers. It is not known what this splattering indicates; it may have been part of a decorative paint feature, which seems unlikely for a relatively simple building such as the Guest House, or simply an anomaly (Figure 12).

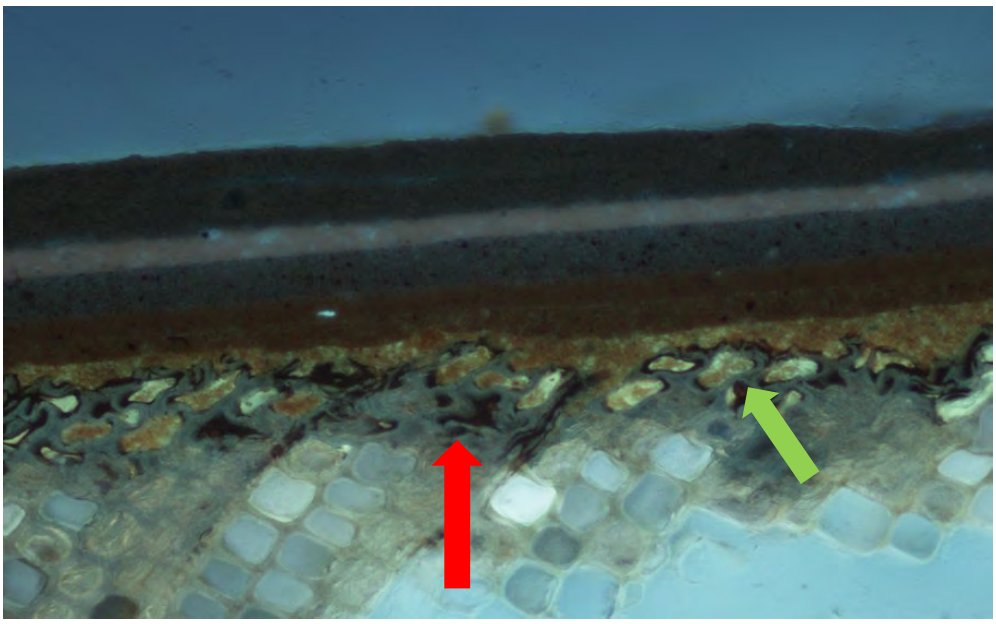


Figure 9: Photomicrograph of Sample 10, window sash in Room 7 on 2nd Floor. The stain, manifested as both deposited pigment material (red arrow) and traces of a resinous binder that auto-fluoresces yellow-green (green arrow), is visible in ultra violet light. The slightly irregular surface of the wood suggests it was left exposed for a period of time and allowed to weather. *Photomicrograph, ultraviolet light, 100x.*



Figure 10: Historic photograph of the interior of the Guest House. Shown in this image is a dark color on the staircase. Close examination of the post near the bottom of the stairs (red arrow), the groves of the wood are visible, providing evidence of a semi-transparent stain and not an opaque paint film; dated 1925; courtesy of Ratio Architects.

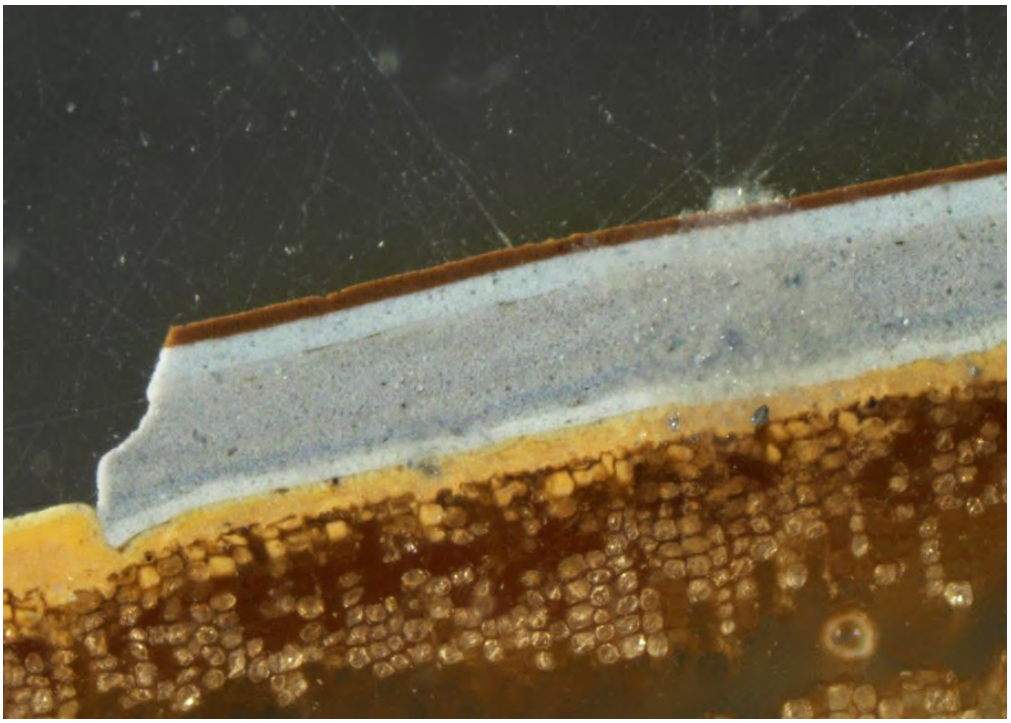


Figure 11: Photomicrograph of Sample 8, floor in Room 7 on the 2nd Floor. The surface of the floor shows evidence of some type of disturbance or weathering. The bottom layer of paint is likely not the original finish of the floor, but it is the earliest example present of a finish that was applied to the floor. *Photomicrograph, visible light, 40x.*

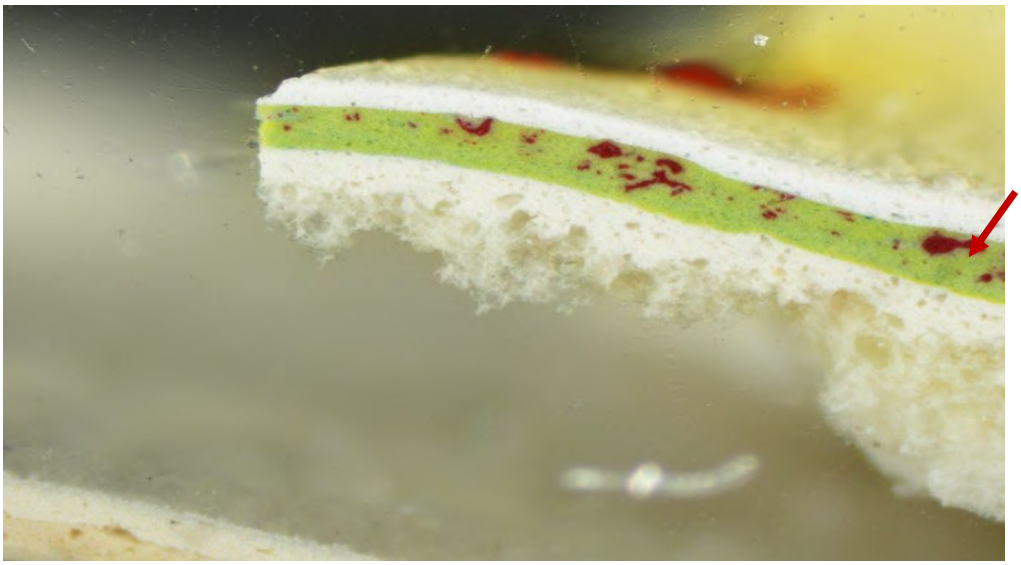


Figure 12: Photomicrograph of the top half of Sample 13, west wall in Room 6 on the1st Floor. This image shows the odd mixture of red paint splatter within the layers of green paint (red arrow). This appears to be an anomaly. *Photomicrograph, visible light, 40x.*

5.0 CONCLUSIONS AND RECOMMENDATIONS

The physical evidence provided by the samples in the *Summary of Findings* section provide a clear picture of the original finishes on the exterior and interior of the Guest House. This evidence is reinforced by the historic photographs provided of the Guest House.

The exterior woodwork of the Guest House was originally painted white. There appear to be several layers of white applied to the siding and bracket as opposed to only one layer of white paint applied to the other exterior features, which indicates that these features may have remained white for a longer period than the other features examined in samples or that they were painted more frequently. However, there is evidence that all the exterior features were painted white originally. This finding is consistent with historic photographs of the structure. However, archival research indicates that the Lodge was painted to match the adjacent Mission 66 dorms in September 1956. The light green paint applied over the original white likely dates to this paint campaign, meaning the building exterior was painted brown with light green trim.

The interior woodwork samples provided from the guest room and staircase indicate that these features were originally stained a dark, nearly black, color and not painted. The stain is not opaque in the same way as a layer of paint; instead, the groves and knots of the wood would have been visible through the pigmented stain. This finding is consistent with historic photographs of the interior. This layer may have been stripped or scrapped when later paint layers were added to the features.

The sample provided from the floor of a guest room showcases evidence of disruption to the surface of the wood. This indicates either the wood was left exposed in the early years or it was stripped at some point before the existing layers were applied. The earliest layer of paint present is or orangish-brown. The floor does not show evidence of the stain that was applied to other interior wood features.

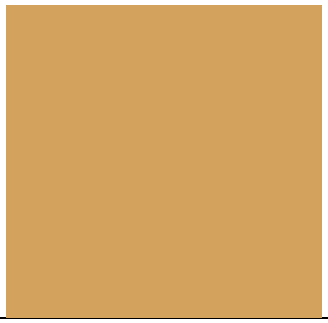
The plaster elements (walls and ceilings) of the guest room appear to have been originally painted cream. There is evidence that these features were painted several times in similar cream colors. As noted earlier in the report, the plaster surfaces may have been rough due to the lack of a smooth plaster finish layer.

The color swatches in the tables that follow are included for reference only. Due to differences in monitors and printers, only physical color swatches should be used for reviewing and matching colors.

5.1 Exterior

Exterior Finishes			
Exterior Woodwork *Original Color (All Components)*	White	*Munsell value:* 5GY 9/1 *Benjamin Moore:* 862 "Cascade Mountains"	
Exterior Woodwork *September 1956 Trim Color*	Light Green	*Munsell value:* 5BG 7/4 *Benjamin Moore:* 620 "Key Largo Green"	

5.2 Interior

Interior Woodwork			
Floors (based on Sample Removed from Room 7)	Originally unfinished. Paint color match is to earliest applied paint color. Orangish- brown	*Munsell value:* 10YR 6/6 *Benjamin Moore:* 189 "Morgan Hill Gold"	
Wood Trim (Staircase, Windows, Doors)	Black Note: Color match is to the stained appearance of the wood and is not intended to represent an opaque coating	*Munsell value:* N0.5 / *Benjamin Moore:* 2132-10 "Black"	

Plaster			
Walls and Ceiling (Based on Samples Removed from Room 6)	Cream	*Munsell value:* Between 10YR 9/4 and 2.5YR 9/2 *Benjamin Moore:* 185 "Precious Ivory"	

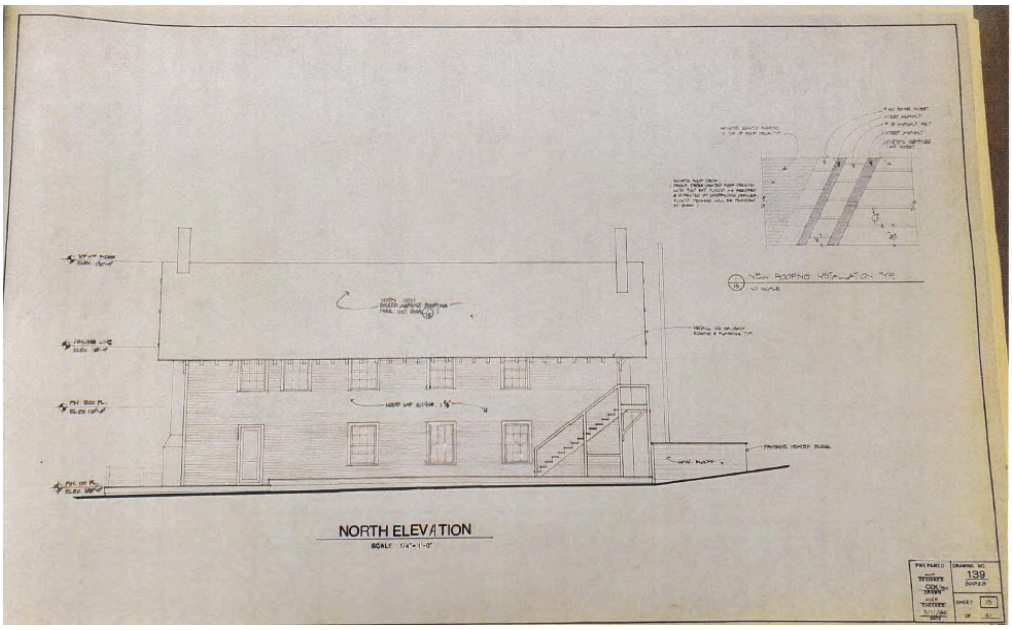
APPENDIX A
SAMPLE LIST

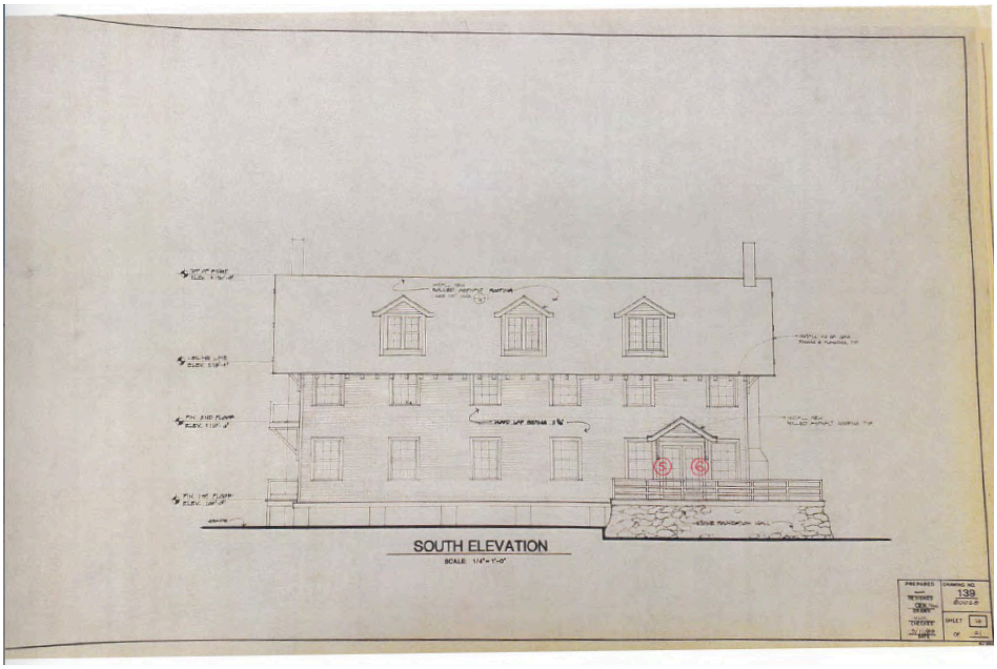
Rock Harbor Lodge Guest House
Sample List

Sample No.	*Room*	*Substrate*	*Location*
Exterior			
RHGH.01	West Elevation	Wood	Siding
RHGH.02	West Elevation	Wood	Window Sash
RHGH.03	West Elevation	Wood	Window Casing
RHGH.04	West Elevation	Wood	Eave Bracket
RHGH.05	South Elevation	Wood	Door Casing
RHGH.06	South Elevation	Wood	Door Face
Interior			
RHGH.07	1st Floor Lobby	Wood	Staircase Stringer
RHGH.08	2nd Floor Room 7	Wood	Floor
RHGH.09	2nd Floor Room 7	Wood	Baseboard on East Wall inside Closet
RHGH.10	2nd Floor Room 7	Wood	Window Sash on East Wall
RHGH.11	2nd Floor Room 7	Wood	Window Casing on East Wall
RHGH.12	2nd Floor Room 7	Wood	Door Face
RHGH.13	1st Floor Room 6	Plaster	West Wall
RHGH.14	1st Floor Room 6	Plaster	Ceiling

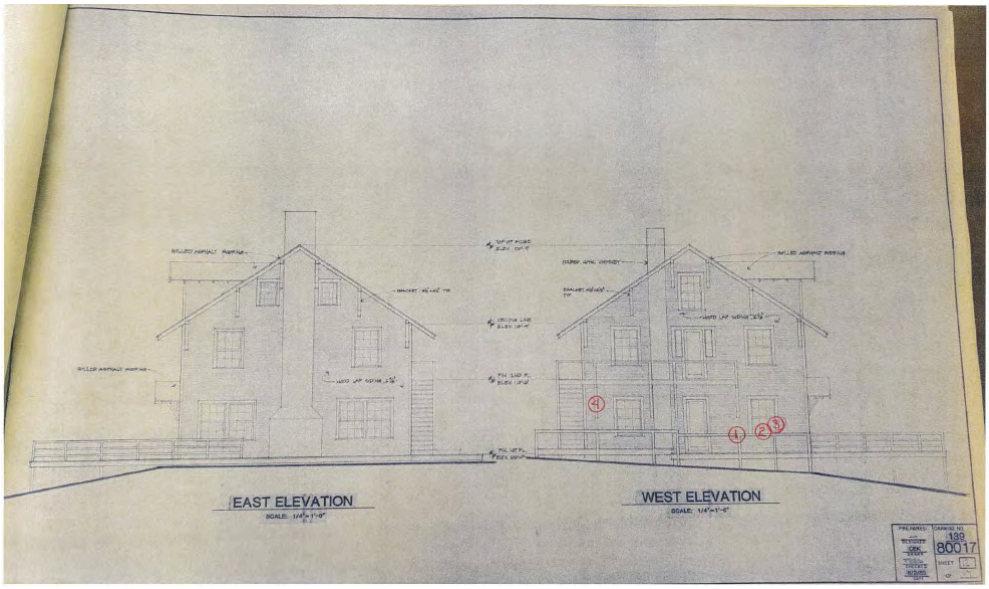
APPENDIX B
SAMPLE LOCATIONS

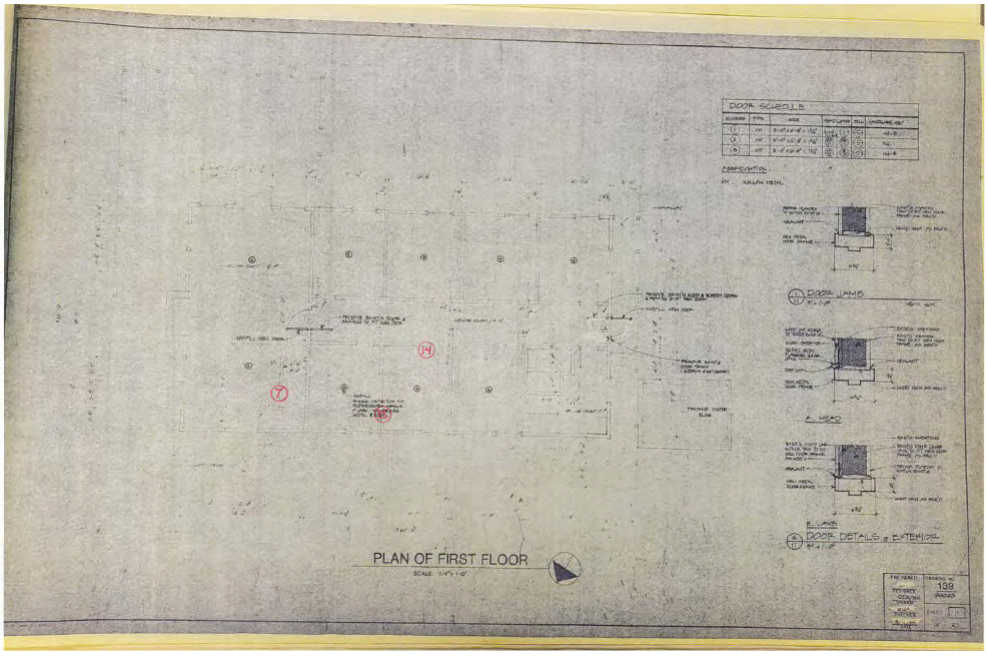
Annotated Floor Plans with Sample Locations

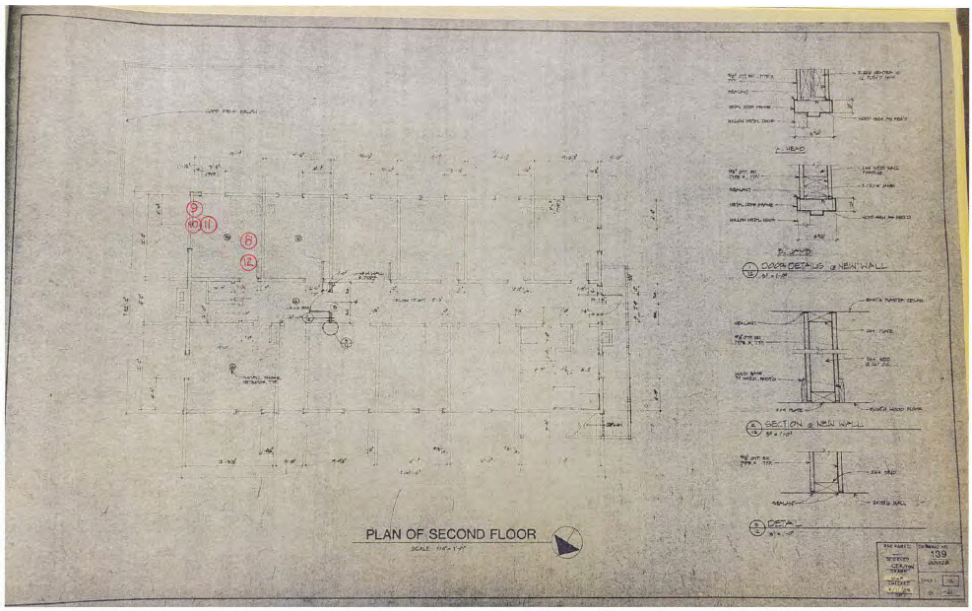




Rock Harbor Lodge Guest House
Finishes Analysis






PLAN OF SECOND FLOOR

Rock Harbor Lodge Guest House
Finishes Analysis

Images of Sample Locations



Sample 1 - Exterior - West Elevation - Wood Siding



Sample 2 - Exterior - West Elevation - Window Sash

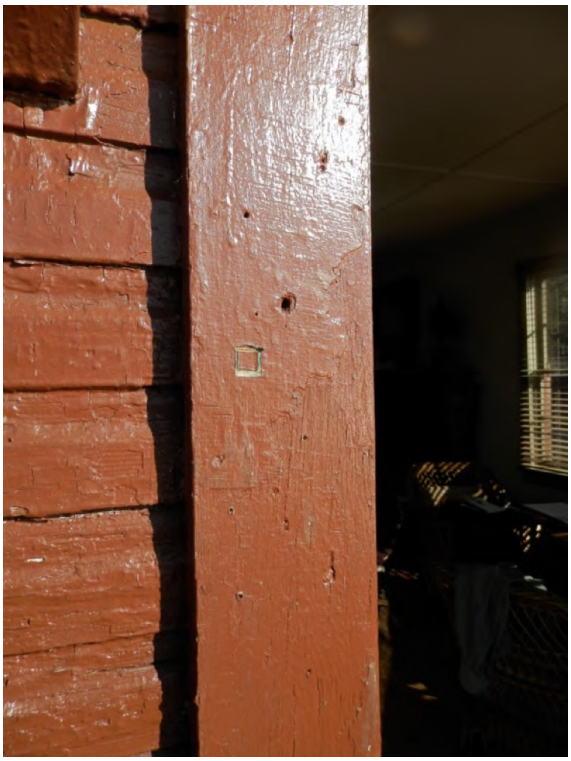


Sample 3 - Exterior - West Elevation - Window Casing



Sample 4 - Exterior - West Elevation - Eave Bracket

Rock Harbor Lodge Guest House
Finishes Analysis



Sample 5 - Exterior - South Elevation - Door Casing



Sample 6 - Exterior - South Elevation - Door Face



Sample 7 - Interior - 1st Floor Lobby - Staircase Stringer



Sample 8 - Interior - 2nd Floor - Room 7 - Floor

Rock Harbor Lodge Guest House
Finishes Analysis



Sample 9 - Interior - 2nd Floor - Room 7 - Baseboard on East Wall inside Closet



Sample 10 - Interior - 2nd Floor - Room 7 - Window Sash on East Wall

Sample 11 - Interior - 2nd Floor - Room 7 - Window Casing on East Wall



Sample 12 - Interior -2nd Floor - Room 7 - Door Face



Sample 13 - Interior - 1st Floor - Room 6 - West Wall

Rock Harbor Lodge Guest House
Finishes Analysis

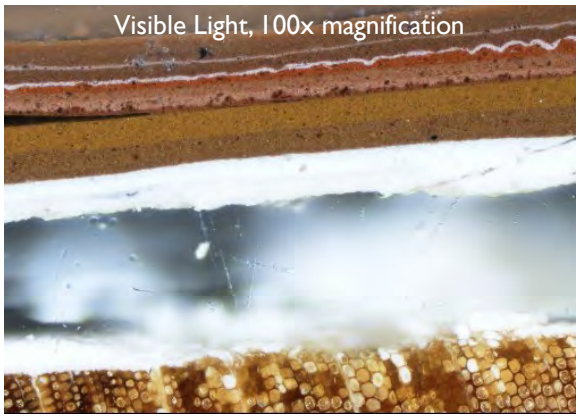


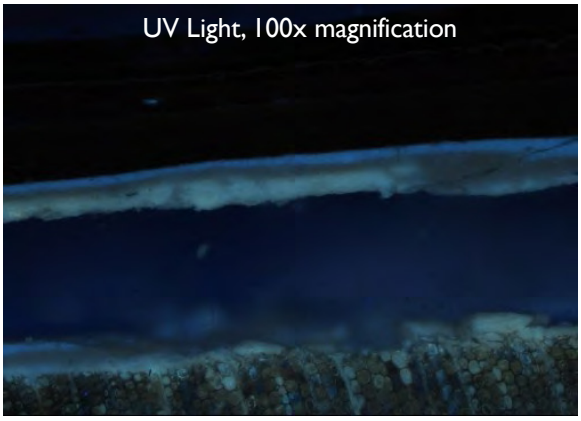
Sample 14 - Interior - 1st Floor - Room 6 - Ceiling

APPENDIX C
KEY TO SAMPLE LOCATIONS

Rock Harbor Lodge Guest House
Finishes Analysis

SAMPLE #: 1	**ROOM:** Exterior
DATE SAMPLED: Sep 2022	**DATE ANALYZED:** Oct-Dec 2022
SAMPLED BY: NPS	**ANALYZED BY:** O. Brogan / D. Krotzer
MICROSCOPE: Nikon Eclipse E200	**CAMERA:** Nikon DS-Fi3
DESCRIPTION: Wood Siding, West Elevation	



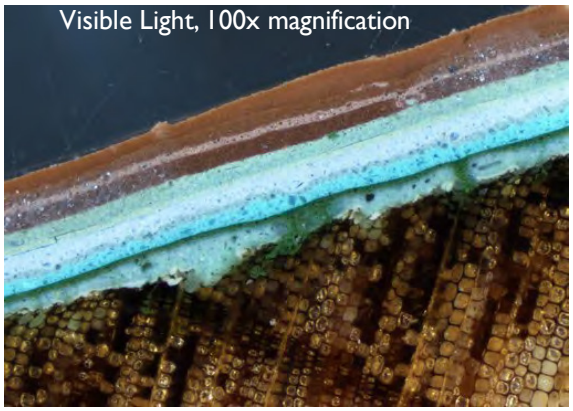


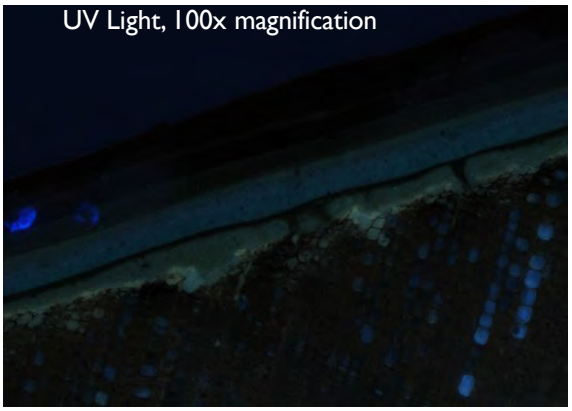
LAYER	REFLECTED LIGHT COLOR	NOTES
Substrate	Wood	
1	//	
2	Cream White	
3	White	
4	Medium Brown	
5	Yellow Brown	
6	Medium Red Brown	Thin Layer
7	Pink	
8	Light Red Brown	
9	Red	
10	White	Thin Layer
11	Medium Red Brown	
12	Tan	Thin Layer
13	Medium Red Brown	

LAYER	REFLECTED LIGHT COLOR	NOTES
14	Orange Brown	

// denotes a break in the sample.

SAMPLE #: 2	**ROOM:** Exterior
DATE SAMPLED: Sep 2022	**DATE ANALYZED:** Oct-Dec 2022
SAMPLED BY: NPS	**ANALYZED BY:** O. Brogan / D. Krotzer
MICROSCOPE: Nikon Eclipse E200	**CAMERA:** Nikon DS-Fi3
DESCRIPTION: Window Sash, West Elevation	





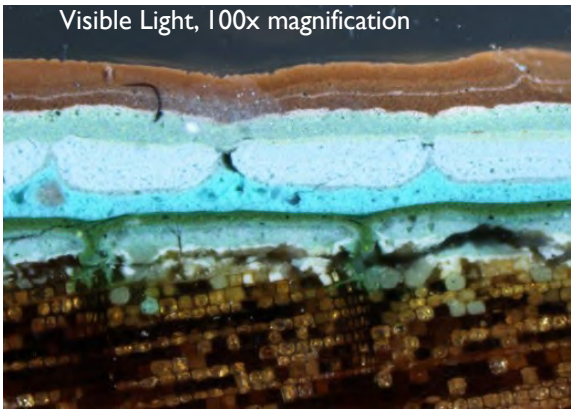
LAYER	REFLECTED LIGHT COLOR	NOTES
Substrate	Wood	
1	White	Thin Layer
2	Very Light Green	Leaks into L. 1
3	Strong Green	Leaks into L. 1 +2
4	Dark Green	Thin Layer
5	Turquoise	
6	Gray Green	
7	Light Blue Green	
8	Light Yellow Green	
9	Light Green	
10	Medium Red Brown	
11	Pink	Thin Layer
12	Orange Brown	
13	Orange Brown	

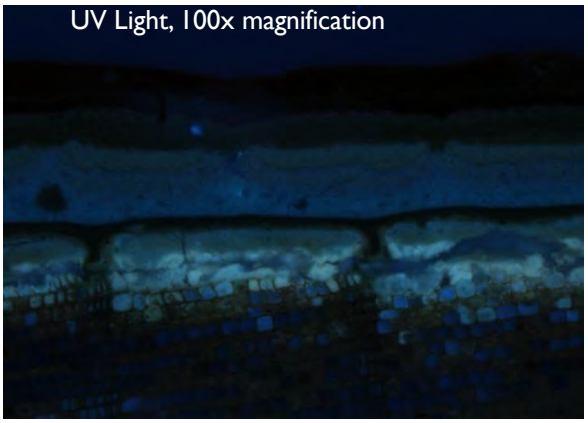
LAYER	REFLECTED LIGHT COLOR	NOTES

// denotes a break in the sample.

Rock Harbor Lodge Guest House
Finishes Analysis

SAMPLE #: 3	**ROOM:** Exterior
DATE SAMPLED: Sep 2022	**DATE ANALYZED:** Oct-Dec 2022
SAMPLED BY: NPS	**ANALYZED BY:** O. Brogan / D. Krotzer
MICROSCOPE: Nikon Eclipse E200	**CAMERA:** Nikon DS-Fi3
DESCRIPTION: Window Casing, West Elevation	



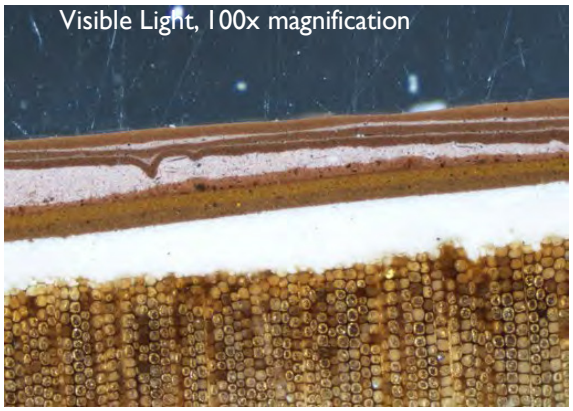


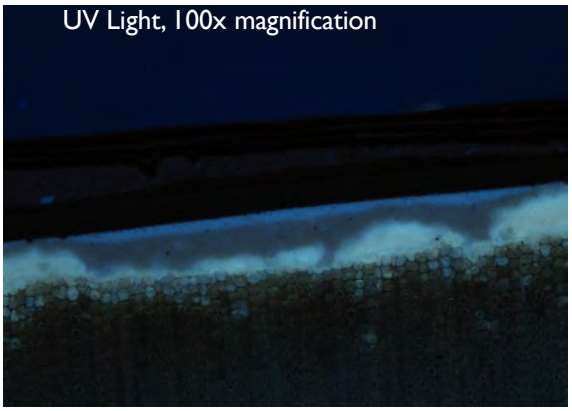
LAYER	REFLECTED LIGHT COLOR	NOTES
Substrate	Wood	
1	White	Thin Layer
2	Very Light Green	Leaks Down
3	Strong Green	Leaks Down
4	Dark Green	Thin Layer
5	Turquoise	
6	Gray Green	Thin Layer
7	Light Blue Green	
8	Light Yellow Green	Thin Layer
9	Light Green	
10	Pink	Thin Layer
11	Medium Red Brown	
12	Pink	Thin Layer
13	Orange Brown	

LAYER	REFLECTED LIGHT COLOR	NOTES
14	Orange Brown	
15	Orange Brown	

// denotes a break in the sample.

SAMPLE #: 4	**ROOM:** Exterior
DATE SAMPLED: Sep 2022	**DATE ANALYZED:** Oct-Dec 2022
SAMPLED BY: NPS	**ANALYZED BY:** O. Brogan / D. Krotzer
MICROSCOPE: Nikon Eclipse E200	**CAMERA:** Nikon DS-Fi3
DESCRIPTION: Eave Bracket, West Elevation	





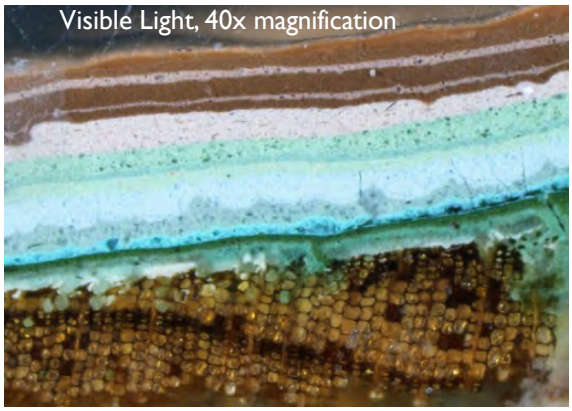
LAYER	REFLECTED LIGHT COLOR	NOTES
Substrate	Wood	
1	Cream White	
2	White	
3	Medium Brown	
4	Yellow Brown	
5	Red	Thin Layer
6	Light Red Brown	
7	Pink	Dips into L. 6
8	Medium Red Brown	Dips into L.7
9	Pink	Thin Layer
10	Medium Red Brown	
11	Pink	Thin Layer
12	Orange Brown	

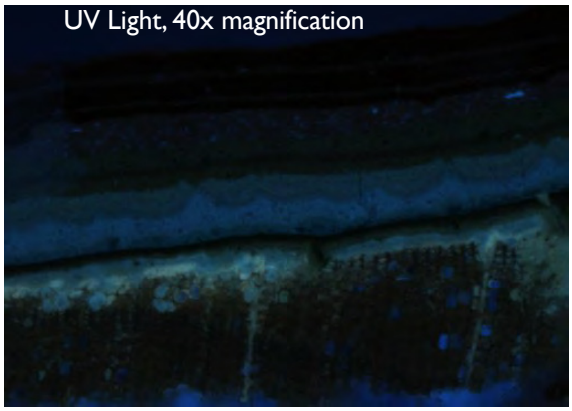
LAYER	REFLECTED LIGHT COLOR	NOTES

// denotes a break in the sample.

Rock Harbor Lodge Guest House
Finishes Analysis

SAMPLE #: 5	**ROOM:** Exterior
DATE SAMPLED: Sep 2022	**DATE ANALYZED:** Oct-Dec 2022
SAMPLED BY: NPS	**ANALYZED BY:** O. Brogan / D. Krotzer
MICROSCOPE: Nikon Eclipse E200	**CAMERA:** Nikon DS-Fi3
DESCRIPTION: Door Casing, South Elevation	



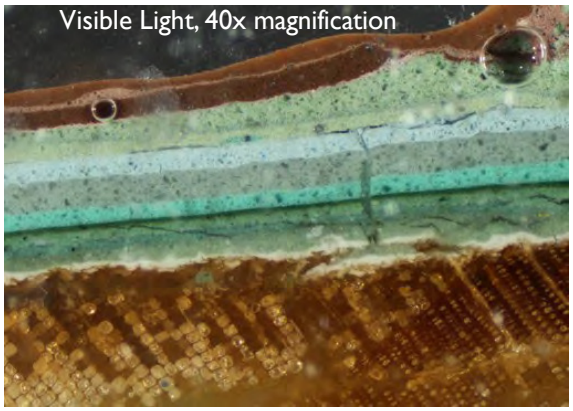


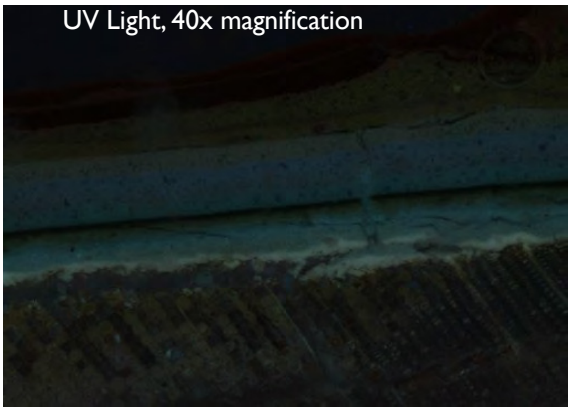
LAYER	REFLECTED LIGHT COLOR	NOTES
Substrate	Wood	
1	White	Thin Layer
2	Very Light Green	Thin layer; leaks into L.1
3	Strong Green	Leaks into L.1+2
4	Dark Green	
5	Turquoise	
6	Gray Green	
7	Light Blue Green	
8	Light Yellow Green	
9	Green	Thin Layer
10	Light Green	
11	Pink	
12	Medium Red Brown	
13	Pink	Thin Layer

LAYER	REFLECTED LIGHT COLOR	NOTES
14	Medium Red Brown	
15	Pink	Thin Layer
16	Orange Brown	
17	Orange Brown	

// denotes a break in the sample.

SAMPLE #: 6	**ROOM:** Exterior
DATE SAMPLED: Sep 2022	**DATE ANALYZED:** Oct-Dec 2022
SAMPLED BY: NPS	**ANALYZED BY:** O. Brogan / D. Krotzer
MICROSCOPE: Nikon Eclipse E200	**CAMERA:** Nikon DS-Fi3
DESCRIPTION: Door Face, South Elevation	





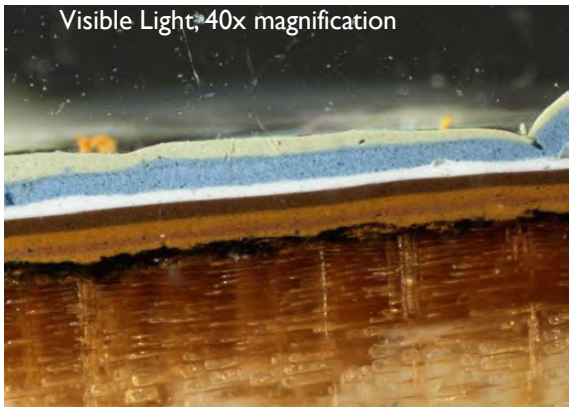
LAYER	REFLECTED LIGHT COLOR	NOTES
Substrate	Wood	
1	White	Thin Layer
2	Light Gray Green	
3	Blue Green	
4	Green	
5	Dark Green	Thin Layer
6	Turquoise	
7	Gray Green	
8	Light Blue Green	
9	Light Yellow Green	
10	Light Green	
11	Pink	Thin Layer
12	Medium Red Brown	
13	Pink	Thin Layer

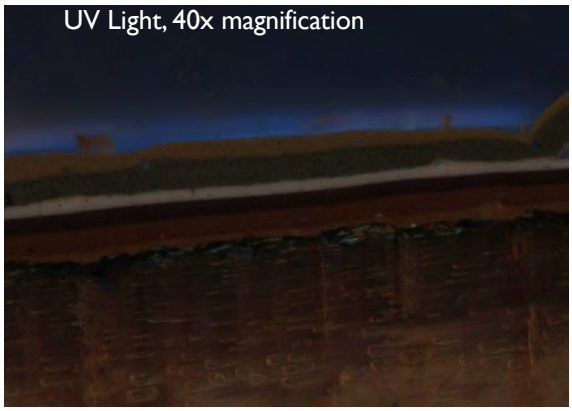
LAYER	REFLECTED LIGHT COLOR	NOTES
14	Orange Brown	
15	Orange Brown	Same as L. 14?
		A lot of leaks and
		breakage on left side
		and bottom right side
		of sample

// denotes a break in the sample.

Rock Harbor Lodge Guest House
Finishes Analysis

SAMPLE #: 7	**ROOM:** Lobby, 1st Floor
DATE SAMPLED: Sep 2022	**DATE ANALYZED:** Oct-Dec 2022
SAMPLED BY: NPS	**ANALYZED BY:** O. Brogan / D. Krotzer
MICROSCOPE: Nikon Eclipse E200	**CAMERA:** Nikon DS-Fi3
DESCRIPTION: Staircase Stringer	



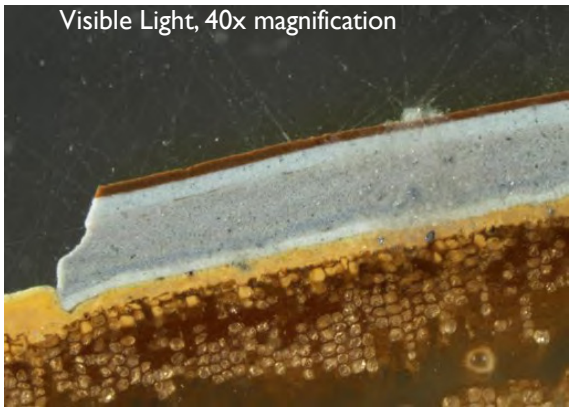


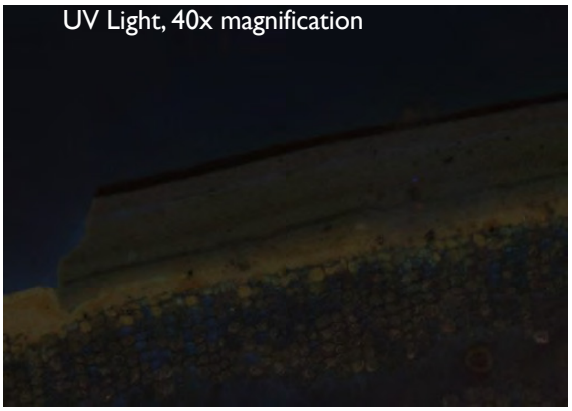
LAYER	REFLECTED LIGHT COLOR	NOTES
Substrate	Wood	
1	Dark Gray- Black	Uneven Surface
2	Yellow Brown	Leaks into L.1
3	Light Red Brown	Thin Layer
4	Orange Brown	
5	Brown	
6	White	
7	Blue	
8	Blue	
9	Grayish Cream	

LAYER	REFLECTED LIGHT COLOR	NOTES

// denotes a break in the sample.

SAMPLE #: 8	**ROOM:** 7, 2nd Floor
DATE SAMPLED: Sep 2022	**DATE ANALYZED:** Oct-Dec 2022
SAMPLED BY: NPS	**ANALYZED BY:** O. Brogan / D. Krotzer
MICROSCOPE: Nikon Eclipse E200	**CAMERA:** Nikon DS-Fi3
DESCRIPTION: Floor	





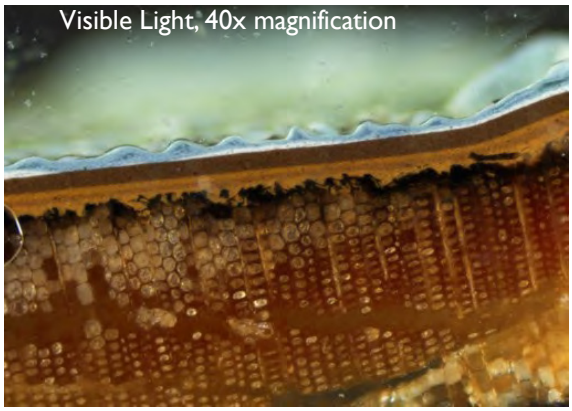
LAYER	REFLECTED LIGHT COLOR	NOTES
Substrate	Wood	
1	Orange Yellow	Thin Layer
2	Bright Yellow	Thin Layer
3	Pale Yellow	Thin Layer
4	Gray White	
5	Dark Gray Blue	
6	Gary	
7	Very Light Blue	
8	Medium Brown	

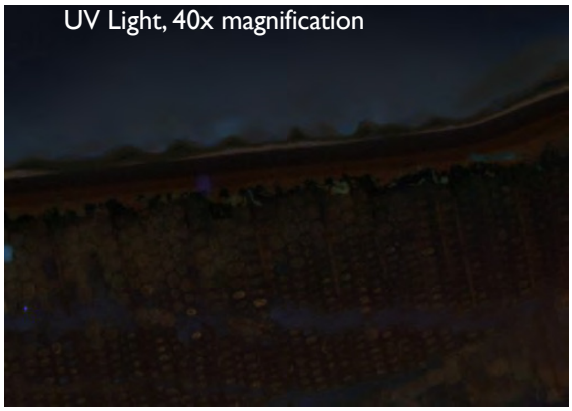
LAYER	REFLECTED LIGHT COLOR	NOTES

// denotes a break in the sample.

Rock Harbor Lodge Guest House
Finishes Analysis

SAMPLE #: 9	**ROOM:** 7, 2nd Floor
DATE SAMPLED: Sep 2022	**DATE ANALYZED:** Oct-Dec 2022
SAMPLED BY: NPS	**ANALYZED BY:** O. Brogan / D. Krotzer
MICROSCOPE: Nikon Eclipse E200	**CAMERA:** Nikon DS-Fi3
DESCRIPTION: Baseboard on East Wall, inside closet	



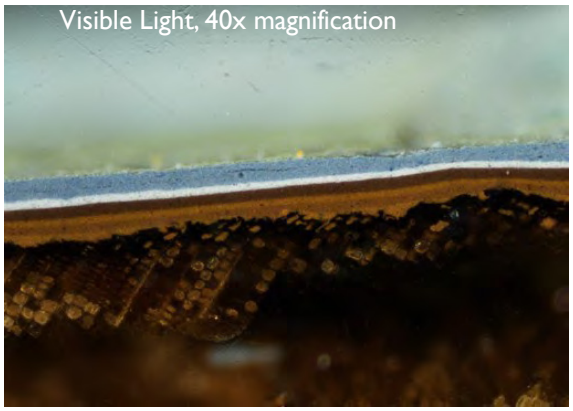


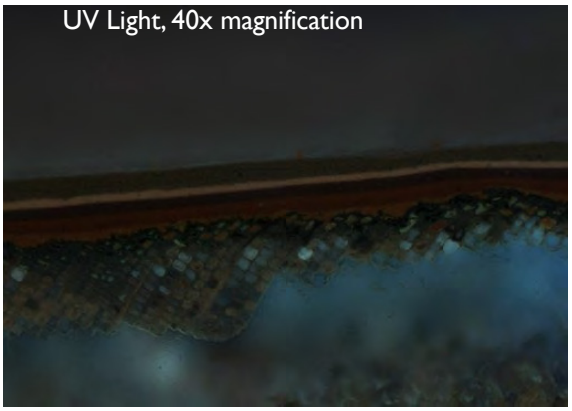
LAYER	REFLECTED LIGHT COLOR	NOTES
Substrate	Wood	
1	Dark Gray-Black	Uneven Surface
2	Yellow Brown	Leaks into L. 1
3	Light Red Brown	
4	Orange Brown	
5	Brown	
6	White	Thin Layer
7	Blue	

LAYER	REFLECTED LIGHT COLOR	NOTES

// denotes a break in the sample.

SAMPLE #: 10	**ROOM:** 7, 2nd Floor
DATE SAMPLED: Sep 2022	**DATE ANALYZED:** Oct-Dec 2022
SAMPLED BY: NPS	**ANALYZED BY:** O. Brogan / D. Krotzer
MICROSCOPE: Nikon Eclipse E200	**CAMERA:** Nikon DS-Fi3
DESCRIPTION: Window Sash on East Wall	


Visible Light, 40x magnification


UV Light, 40x magnification

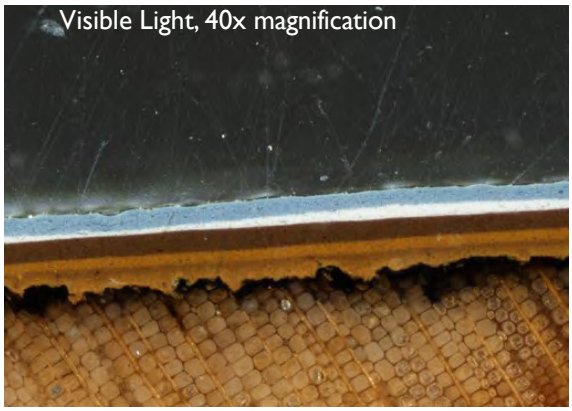
LAYER	REFLECTED LIGHT COLOR	NOTES
Substrate	Wood	
1	Dark Gray-Black	Uneven Surface
2	Yellow Brown	Leaks into L. 1
3	Light Red Brown	
4	Orange Brown	
5	Brown	
6	White	
7	Blue	
8	Blue	

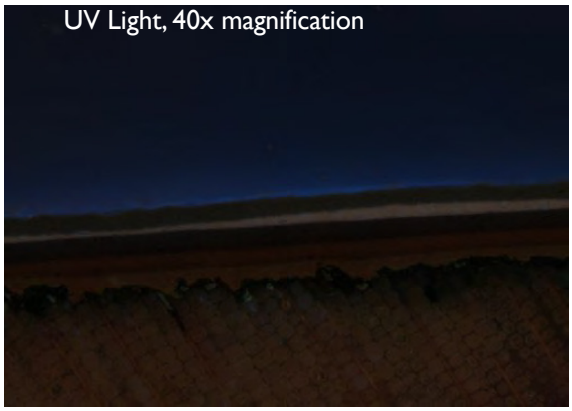
LAYER	REFLECTED LIGHT COLOR	NOTES

// denotes a break in the sample.

Rock Harbor Lodge Guest House
Finishes Analysis

SAMPLE #: 11	**ROOM:** 7, 2nd Floor
DATE SAMPLED: Sep 2022	**DATE ANALYZED:** Oct-Dec 2022
SAMPLED BY: NPS	**ANALYZED BY:** O. Brogan / D. Krotzer
MICROSCOPE: Nikon Eclipse E200	**CAMERA:** Nikon DS-Fi3
DESCRIPTION: Window Casing on East Wall	


Visible Light, 40x magnification

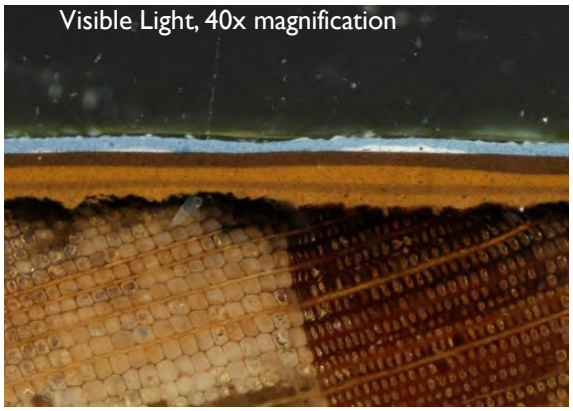

UV Light, 40x magnification

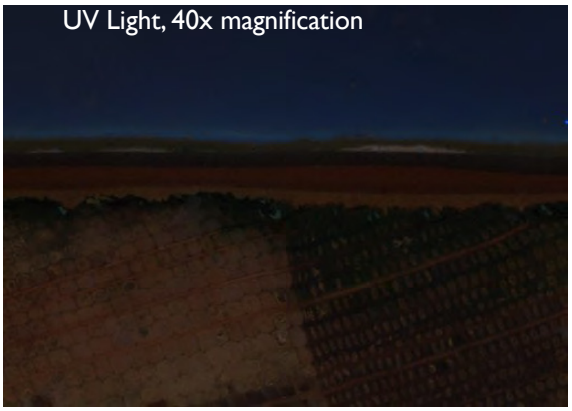
LAYER	REFLECTED LIGHT COLOR	NOTES
Substrate	Wood	
1	Dark Gray-Black	Uneven Surface
2	Yellow Brown	Leaks into L. 1
3	Light Red Brown	Thin Layer
4	Orange Brown	
5	Brown	
6	White	
7	Blue	
8	Blue	

LAYER	REFLECTED LIGHT COLOR	NOTES

// denotes a break in the sample.

SAMPLE #: 12	**ROOM:** 7, 2nd Floor
DATE SAMPLED: Sep 2022	**DATE ANALYZED:** Oct-Dec 2022
SAMPLED BY: NPS	**ANALYZED BY:** O. Brogan / D. Krotzer
MICROSCOPE: Nikon Eclipse E200	**CAMERA:** Nikon DS-Fi3
DESCRIPTION: Door Face	





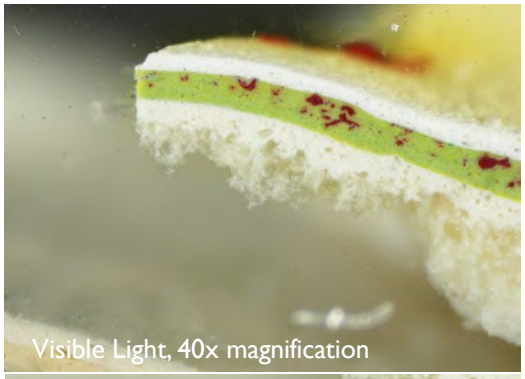
LAYER	REFLECTED LIGHT COLOR	NOTES
Substrate	Wood	
1	Dark Gray-Black	Uneven Surface
2	Yellow Brown	Leaks into L. 1
3	Light Red Brown	Thin Layer
4	Orange Brown	
5	Brown	
6	White	Thin Layer
7	Blue	
8	Blue	Thin Layer

LAYER	REFLECTED LIGHT COLOR	NOTES

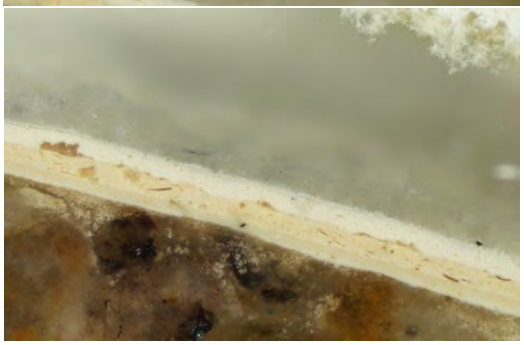
// denotes a break in the sample.

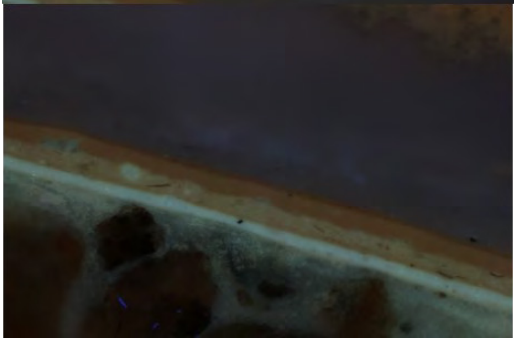
Rock Harbor Lodge Guest House
Finishes Analysis

SAMPLE #: 13	**ROOM:** 6, 1st Floor
DATE SAMPLED: Sep 2022	**DATE ANALYZED:** Oct-Dec 2022
SAMPLED BY: NPS	**ANALYZED BY:** O. Brogan / D. Krotzer
MICROSCOPE: Nikon Eclipse E200	**CAMERA:** Nikon DS-Fi3
DESCRIPTION: West Wall	


Visible Light, 40x magnification


UV Light, 40x magnification



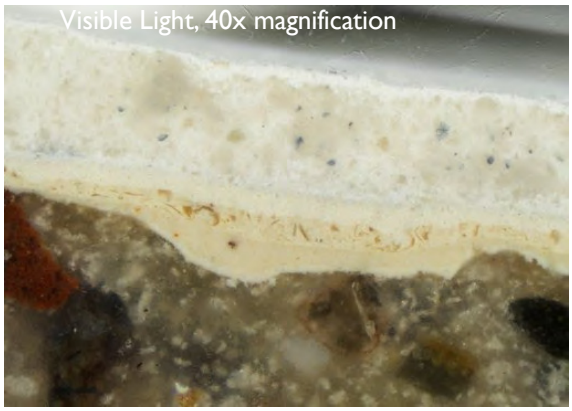


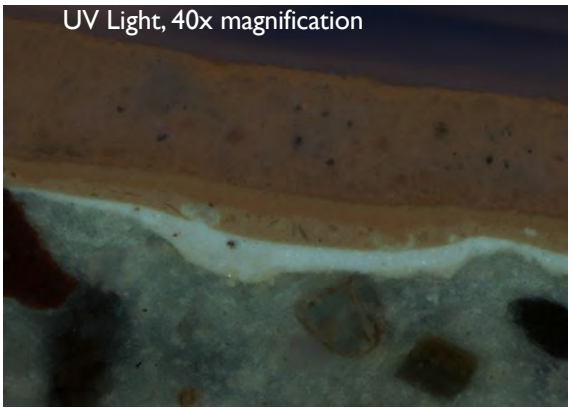
LAYER	REFLECTED LIGHT COLOR	NOTES
Substrate	Plaster	
1	White	
2	Cream	
3	Yellow Cream	
4	White	
5	Light Gray	
6	//	
7	White	

LAYER	REFLECTED LIGHT COLOR	NOTES
8	White	
9	Bright Green	Thin Layer
10	Green	Traces of red
11	White	
12	Grayish Cream	Thin Layer

// denotes a break in the sample.

SAMPLE #: 14	**ROOM:** 6, 1st Floor
DATE SAMPLED: Sep 2022	**DATE ANALYZED:** Oct-Dec 2022
SAMPLED BY: NPS	**ANALYZED BY:** O. Brogan / D. Krotzer
MICROSCOPE: Nikon Eclipse E200	**CAMERA:** Nikon DS-Fi3
DESCRIPTION: Ceiling	





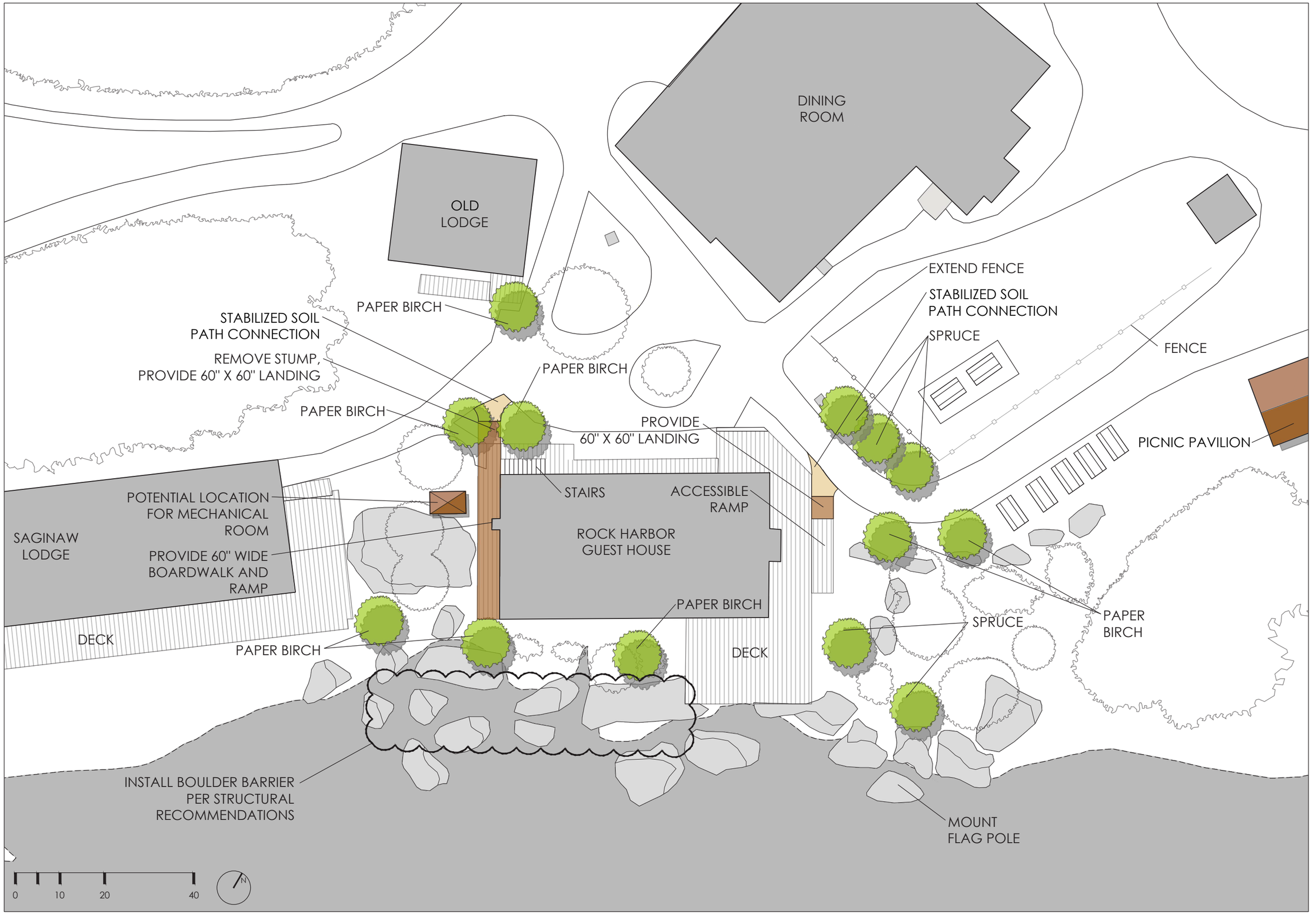
LAYER	REFLECTED LIGHT COLOR	NOTES
Substrate	Plaster	
1	White	Thin Layer
2	Cream	
3	Yellow Cream	
4	White	
5	Light Gray	Thin Layer
6	White	Thin Layer
7	Spackle	?
8	White	

LAYER	REFLECTED LIGHT COLOR	NOTES

// denotes a break in the sample.

Appendix D. Treatment Drawings

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SEVEN GENERATIONS
architecture +engineering

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HISTORIC STRUCTURE REPORT
ROCK HARBOR LODGE GUEST HOUSE
ISLE ROYALE NATIONAL PARK
800 EAST LAKESHORE DRIVE, HOUGHTON, MI 49931

ISSUE DATE:
AUGUST 28, 2023

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JOB NUMBER:
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SHEET TITLE
TREATMENT PLAN

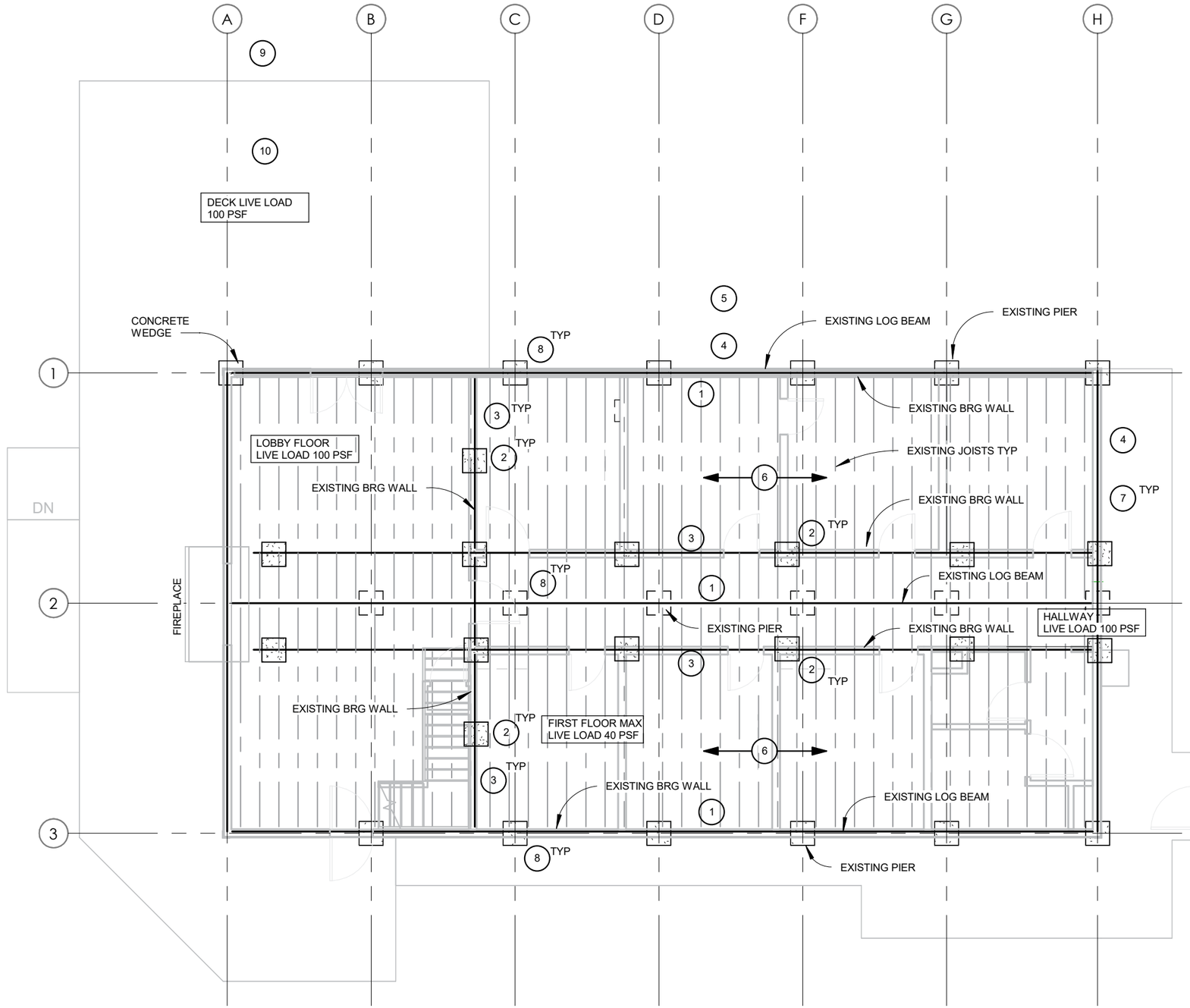
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1. REINFORCE EXISTING LOG BEAMS WITH TIMBER JOISTS SISTERED TO EACH SIDE.

2. NEW CONCRETE PIERS UNDER THE FIRST FLOOR BEARING WALLS. BEAR ON SOILD ROCK SUBGRADE.

3. NEW TIMBER BEAM TIGHT TO THE BOTTOM OF THE EXISTING JOISTS SUPPORTED BY THE NEW PIERS.

4. REPLACE DETERIORATED WOOD MEBERS ALONG THE LENGTH OF THE FENCE ENCLOSURE.

5. HEAVY STONES AND BOULDERS FOR EROSION CONTROL.

6. CLEAN OUT DEBRIS FROM CRAWLSPACE AND PLACE VAPOR BARRIER AND GRAVEL.

7. ADD MECHANICAL CONNECTORS BETWEEN THE FOUNDATION AND FIRST FLOOR FRAMING.

8. LEVEL AND PLUMB EXISTING CONCRETE PIERS. INSPECT BEARING AND REINFORCE AS REQUIRED.

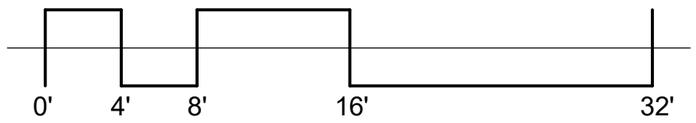
9. FORM AND POUR A NEW REINFORCED CONCRETE WALL UNDER THE EXISTING WALL WHERE EROSION HAS OCCURED.

10. DEMOLISH AND REBUILD THE ENTIRE WOOD DECK TO CURRENT CODE STANDARDS. REMOVE AND REPLACE EXISTING WOOD DECK ON THE SOUTHEAST SIDE. DEMOLISH THE EXISTING DECK FRAMING AND REBUILD WITH NEW PRESSURE-TREATED LUMBER OR COMPOSITE MATERIAL DESIGNED TO MEET A LIVE LOAD OF 100 PSF. TEST THE EXISTING FRAMING FOR HAZARDOUS CONTAMINANTS BEFORE DEMOLITION. DISPOSE OF CONTAMINATED MATERIAL ACCORDING TO STATE AND LOCAL REGULATIONS. ADD NEW CONCRETE FOOTINGS AND ANCHORAGE AS NEEDED. THE DECKING AND RAILING ARE TO BE CONSTRUCTED WITH A COMPOSITE WOOD MATERIAL.

FOUNDATION PLAN - PROPOSED

SCALE: 1/8" = 1'-0"





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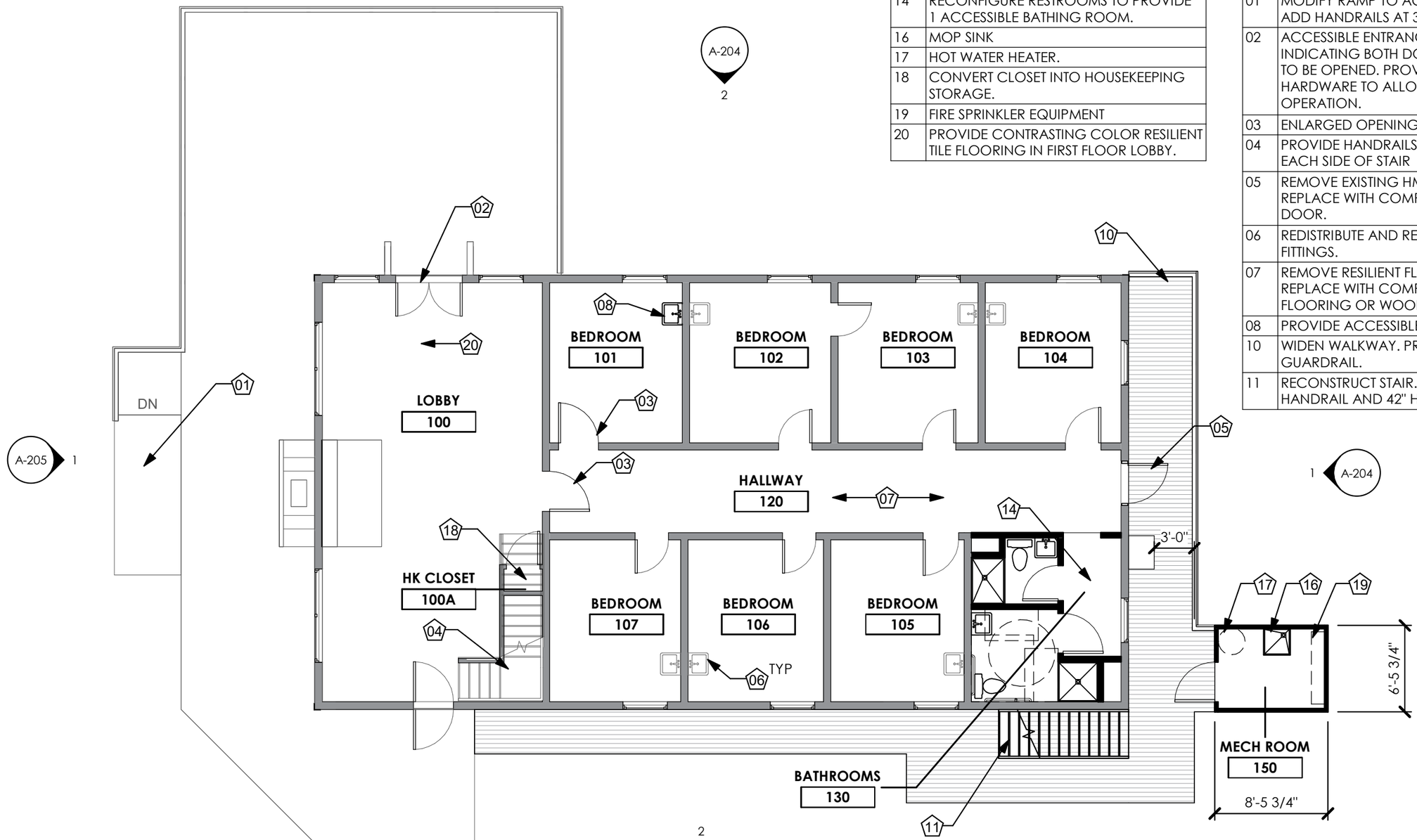
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CODED NOTES	
No.	Description
14	RECONFIGURE RESTROOMS TO PROVIDE 1 ACCESSIBLE BATHING ROOM.
16	MOP SINK
17	HOT WATER HEATER.
18	CONVERT CLOSET INTO HOUSEKEEPING STORAGE.
19	FIRE SPRINKLER EQUIPMENT
20	PROVIDE CONTRASTING COLOR RESILIENT TILE FLOORING IN FIRST FLOOR LOBBY.

CODED NOTES	
No.	Description
01	MODIFY RAMP TO ACHEIVE A 1:12 RAMP. ADD HANDRAILS AT 36" HIGH.
02	ACCESSIBLE ENTRANCE. POST SIGNAGE INDICATING BOTH DOORS ARE REQUIRED TO BE OPENED. PROVIDE NEW HARDWARE TO ALLOW FOR PROPER OPERATION.
03	ENLARGED OPENING TO 36" WIDE DOOR
04	PROVIDE HANDRAILS @ 36" HIGH ON EACH SIDE OF STAIR
05	REMOVE EXISTING HM DOOR AND REPLACE WITH COMPATIBLE WOOD STYLE DOOR.
06	REDISTRIBUTE AND REALLOCATE INTERIOR FITTINGS.
07	REMOVE RESILIENT FLOORING AND REPLACE WITH COMPATIBLE RESILIENT FLOORING OR WOOD FLOORING.
08	PROVIDE ACCESSIBLE LAVATORY.
10	WIDEN WALKWAY. PROVIDE 42" GUARDRAIL.
11	RECONSTRUCT STAIR. PROVIDE 36" HIGH HANDRAIL AND 42" HIGH GUARDRAIL.



FIRST FLOOR - PROPOSED

SCALE: 1/8" = 1'-0"

N

0' 4' 8' 16' 32'

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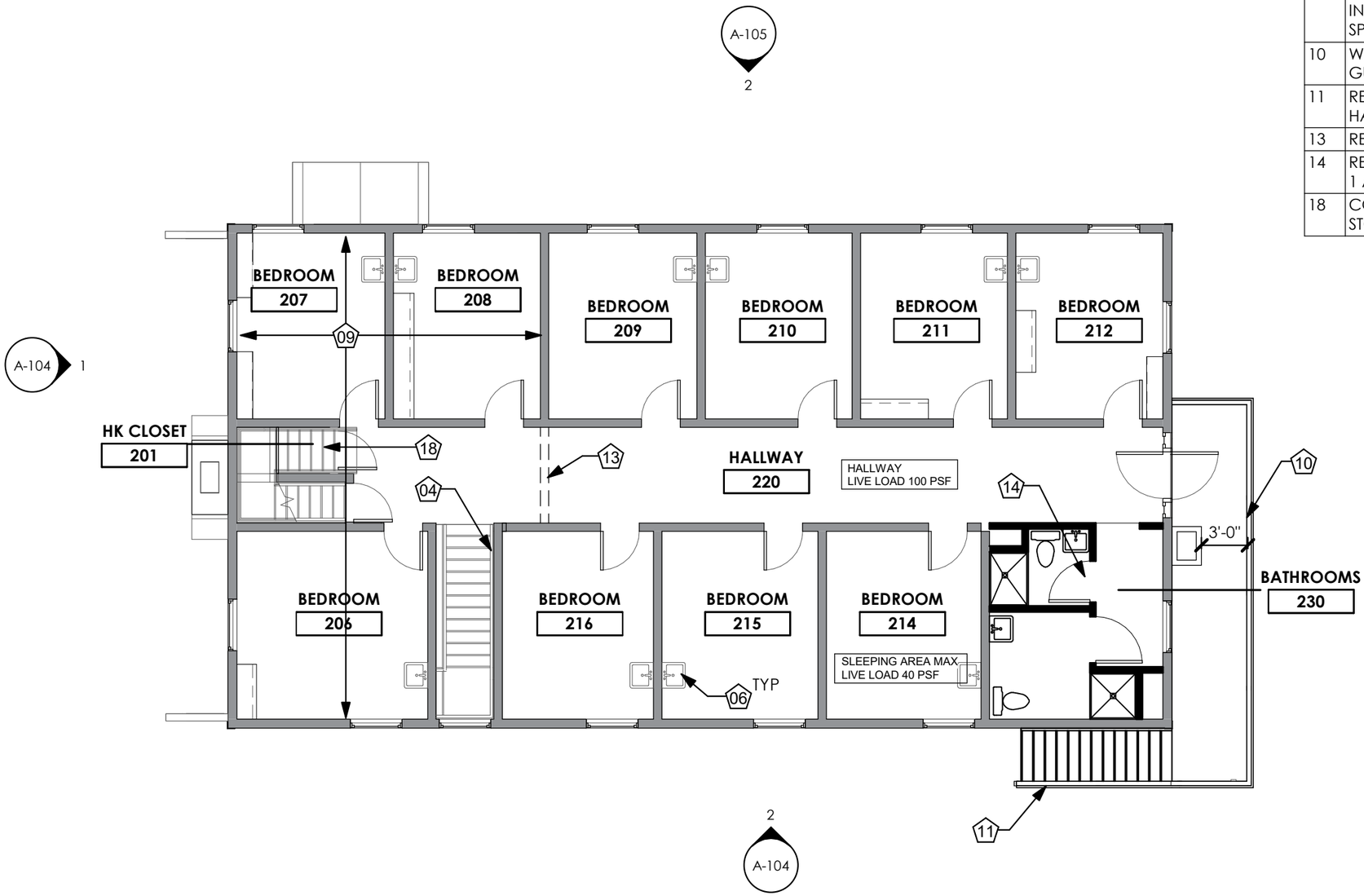
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CODED NOTES	
No.	Description
04	PROVIDE HANDRAILS @ 36" HIGH ON EACH SIDE OF STAIR
06	REDISTRIBUTE AND REALLOCATE INTERIOR FITTINGS.
09	REMOVE FIRST FLOOR CEILING AND INSPECT JOISTS OVER FIRST FLOOR LOBBY SPACE.
10	WIDEN WALKWAY. PROVIDE 42" GUARDRAIL.
11	RECONSTRUCT STAIR. PROVIDE 36" HIGH HANDRAIL AND 42" HIGH GUARDRAIL.
13	REMOVE WALL AND/OR DOOR
14	RECONFIGURE RESTROOMS TO PROVIDE 1 ACCESSIBLE BATHING ROOM.
18	CONVERT CLOSET INTO HOUSEKEEPING STORAGE.



SECOND FLOOR - PROPOSED

SCALE: 1/8" = 1'-0"

N

0' 4' 8' 16' 32'

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SHEET TITLE
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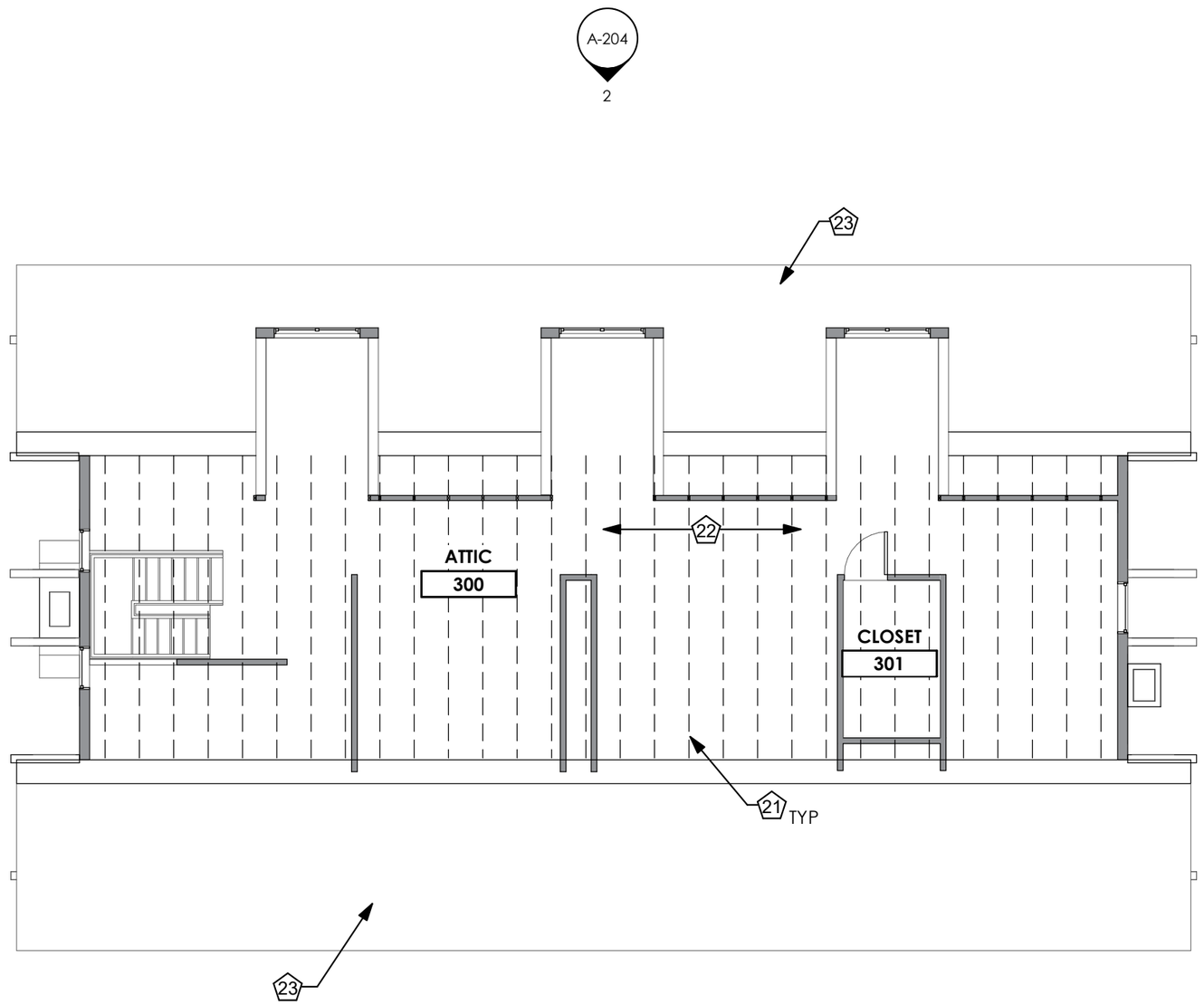
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CODED NOTES	
No.	Description
21	REINFORCE EXISTING RAFTERS AND COLLAR TIES WITH NEW SISTERED FRAMING.
22	REMOVE AND REPLACE WATER DAMAGED ROOF DECKING.
23	PROVIDE NEW ASPHALT SHINGLES.



ATTIC PLAN - PROPOSED

SCALE: 1/8" = 1'-0"

2
A-205

N

0' 4' 8' 16' 32'

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ATTIC PLAN - PROPOSED WORK

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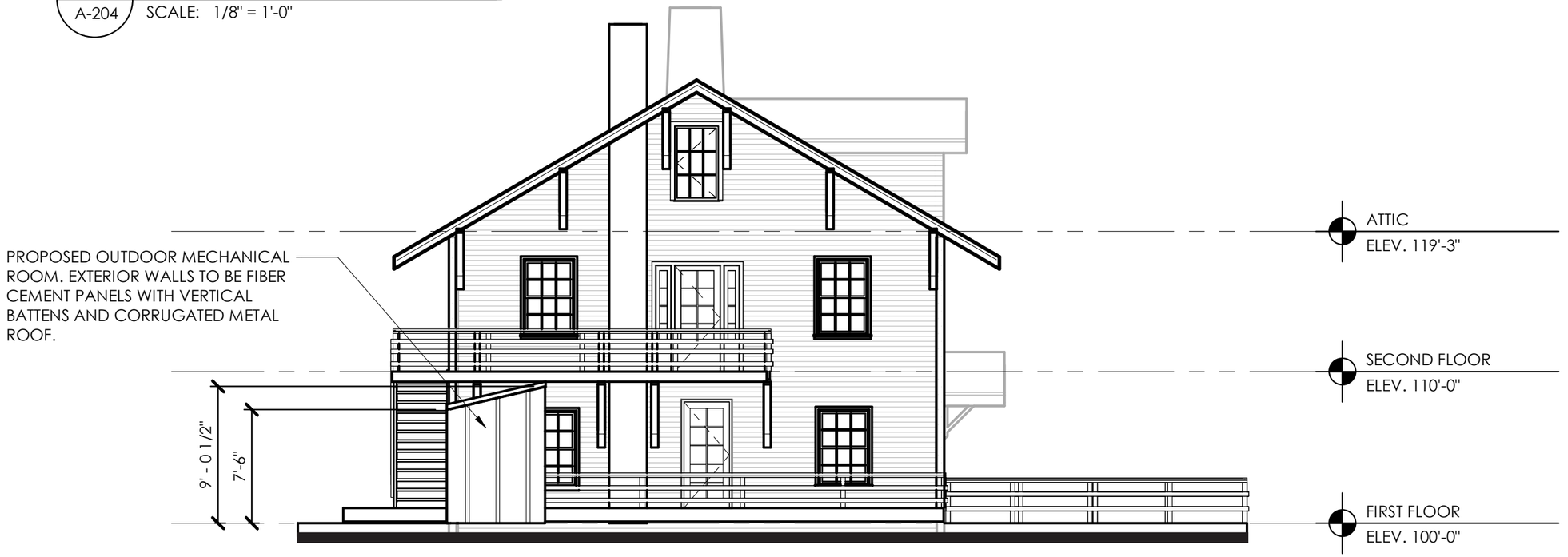
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2 / A-204 SOUTHEAST

SCALE: 1/8" = 1'-0"



1 / A-204 SOUTHWEST

SCALE: 1/8" = 1'-0"

0' 4' 8' 16' 32'

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EXTERIOR ELEVATIONS - PROPOSED WORK

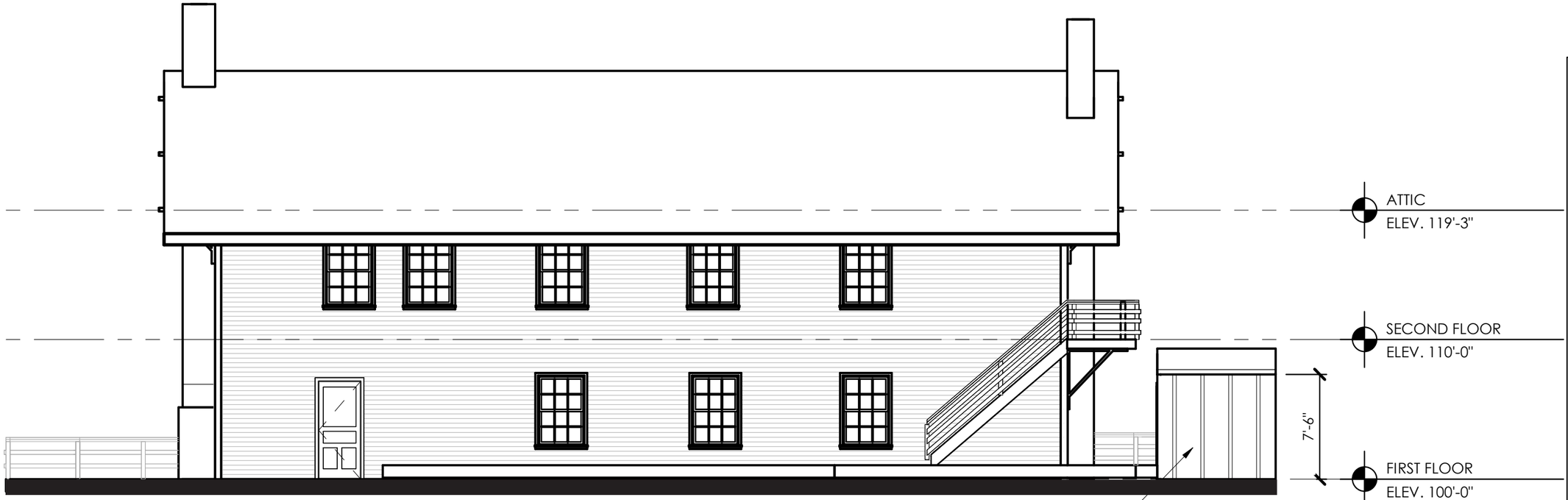
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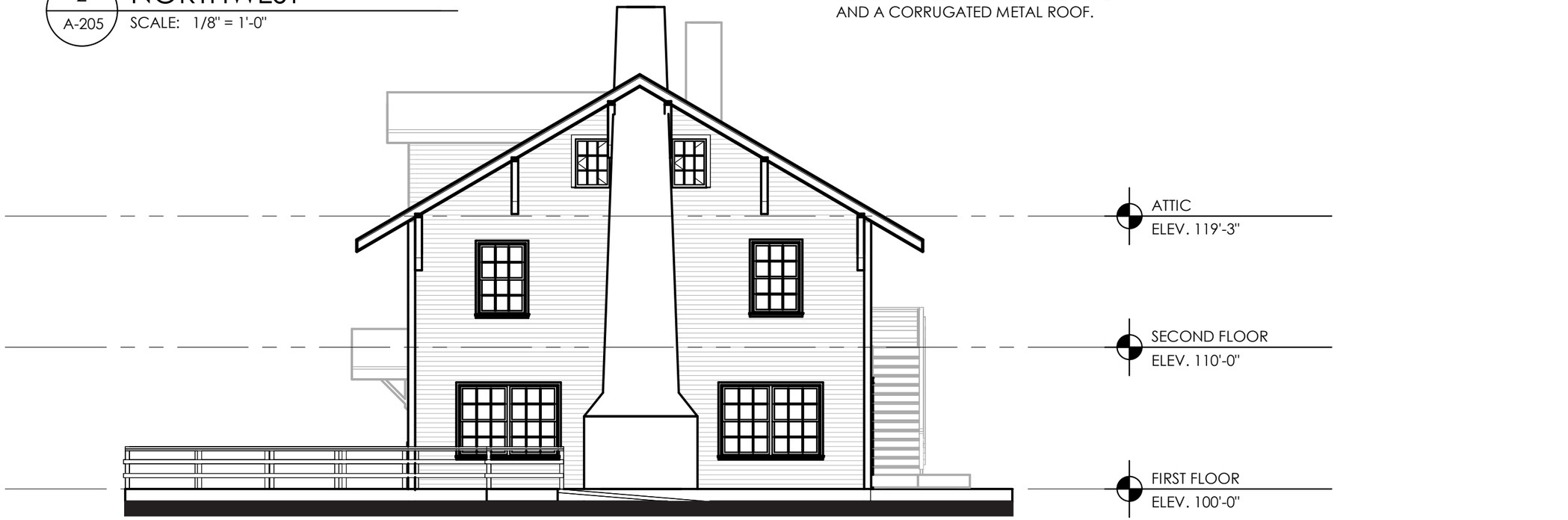
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2 / A-205 NORTHWEST

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1 / A-205 NORTHEAST

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SHEET TITLE
BOULDER STUDY

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Appendix E. Treatment Alternatives

The following recommended treatments are intended to repair, maintain, preserve, and/or restore the character-defining features of the Rock Harbor Guest House with the least degree of intervention while elevating the Facility Condition Index ratings to "good." These treatments include limited replacement in-kind as defined by The Secretary of the Interior's Standards for the Treatment of Historic Properties.

The Rock Harbor Guest House is not currently listed on the National Register of Historic Places. However, based on the preliminary review by the Michigan State Historic Preservation Office, it would most likely qualify. As such, treatment philosophies should be based on the most appropriate treatment standard, Rehabilitation as defined by The Secretary of the Interior's Standards for the Treatment of Historic Properties.

Treatment Planning

Historic structure treatment involves one or more of the following actions: (a) preservation of existing materials, (b) replication of missing historic features, (c) addition of non-historic features, and (d) removal of existing features or materials.

Decisions about treatment occur at three planning levels. First, the ultimate treatment of a structure is established in the park's general management plan or development concept plan. Second, major conflicts inherent in the ultimate treatment or other related treatments are identified and resolved through an HSR, Part 2. Third, plans and specifications are prepared to direct construction or preservation maintenance. Standardized direction for preservation maintenance is provided by work procedures contained in the Historic Property Preservation Database (HPPD).

Decisions about treatment should reflect the value of a structure as a cultural resource, knowledge of craft techniques and building materials, consideration of current and intended uses, appreciation of threats to the structure, and projections of treatment costs relative to likely funding.

Recommended Treatments for Rehabilitation

Rehabilitation maintains the existing integrity and character of a historic structure but allows major additions or alterations to accommodate a compatible contemporary use. Rehabilitation does not apply to prehistoric structures, ruins, monuments, or outdoor sculpture, nor should it be the ultimate treatment for historically furnished historic structures even though they may require major modifications to perform as such.

Rehabilitation improves the utility or function of a historic structure, through repair or alteration, to make possible a compatible contemporary use while preserving those portions or features that are important in defining its significance. Leased historic structures rehabilitated consistent with the Secretary of the Interior's Standards for Rehabilitation may be eligible for preservation tax credits. The following standards based on the Secretary's Standards apply:

- A historic structure is used as it was historically or is given a new or adaptive use that maximizes the retention of historic materials, features, spaces, and spatial relationships. Adaptive use of prehistoric structures is prohibited.
- The historic character of a historic structure is retained and preserved. The replacement or removal of intact or repairable historic materials or alteration of features, spaces, and spatial relationships that characterize a structure is avoided.
- Each historic structure is recognized as a physical record of its time, place, and use. Changes that create a false sense of historical development, such as adding conjectural features from other structures, are not undertaken. Work needed to stabilize, consolidate, and conserve historic

materials and features is physically and visually compatible, identifiable upon close inspection, and properly documented for future research.

- Changes to a historic structure that have acquired historical significance in their own right are retained and preserved.
- Historic materials, features, finishes, and construction techniques or examples of craftsmanship that characterize a historic structure are preserved.
- Deteriorated historic features are repaired rather than replaced. Where the severity of deterioration requires repair or replacement of a historic feature, the new feature matches the old in design, color, texture, and, where possible, materials. Repair or replacement of missing features is substantiated by archeological, documentary, or physical evidence.
- Chemical or physical treatments that cause damage to historic materials are not used.
- Archeological and landscape resources are protected and preserved in place. If such resources must be disturbed, mitigation measures are undertaken including recovery, curation, and documentation.
- Additions, alterations, or related new construction do not destroy historic materials, features, and spatial relationships that characterize the historic structure. New work is differentiated from the old and is compatible with the historic materials, features, size, scale and proportion, and massing of the structure.
- Additions and adjacent or related new construction are undertaken in such a manner that if removed in the future, the essential form and integrity of the historic structure would be unimpaired.

The Rock Harbor Guest House is to be rehabilitated and converted back into its original use, which was for guest housing.

Maintenance Deficiency Priority Ratings (5-Year Rating Period)

Listed as "Priority Ratings" on the Feature Inventory Condition Assessment Tables, these ratings are based on the condition rating of each feature and a priority rating was established. These priority ratings indicate either a critical, serious, or minor deficiency priority rating.

Critical – (Emergency/Immediate)

- This rating defines an advanced state of deterioration which has resulted in the failure of a feature or will result in the failure of a feature if not corrected within 1 year; or
- There is accelerated deterioration of adjacent or related materials or systems as a result of the feature's deficiencies if not corrected within 1 year; or
- There is an immediate threat to the health and/or safety of the user; or
- There is a failure to meet a legislated requirement.

Serious – (Immediate/Short Term)

- This rating defines a deteriorated condition that if not corrected within 1 to 3 years will result in the failure of the feature; or
- A threat to the health and/or safety of the user may occur within 1 to 3 years if the ongoing deterioration is not corrected; or
- There is ongoing deterioration of adjacent or related materials and/or features as a result of the feature's deficiency.

Minor – (Short Term/Long Term)

- This rating indicates standard preventative maintenance practices and preservation methods have not been followed; or
- There is reduced life expectancy of affected adjacent or related materials and/or systems within 3 to 5 years and beyond; or
- There is a condition with a long-term impact within 3 to 5 years and beyond.

For the purposes of this report, these definitions were rigidly adhered to as a way to qualitatively assess the current condition of the Rock Harbor Guest House

Recommendations

A range of treatments are provided for each section assessed in Section 2.A of this report. Up to three alternatives are listed for each section. These alternatives are presented as low, medium, and high. Low treatment alternatives address critical work necessary for stabilization. Medium and high treatment alternatives present rehabilitation treatments which involve additional interventions for increased use.

Level of Interventions

Critical/Low Treatment

- Continued use of the building as it currently is.
- Building is stabilized for future rehabilitation.
- Lobby space remains a public space for the park visitors.
- Provide accessible route to first-floor lobby space.
- Limited rehabilitation of the interior finishes.
- Focus exterior rehabilitation to the South Elevation.

Medium Treatment

- Conversion of building into hostel lodging.
- Modify exterior stairs and porch to be code compliant.
- Provide accessible route to the first-floor and modify one sleeping room on the first-floor to be accessible.
- Renovate first-floor men's restrooms to be accessible.
- Limited rehabilitation of the interior finishes.
- Focus exterior rehabilitation to the South Elevation.
- Provide supplemental heating.

High Treatment

- Conversion of building into hostel lodging.
- Modify exterior stairs and porch to be code compliant.
- Provide accessible route to first-floor and modify all first-floor sleeping rooms to be accessible.
- Provide new accessible restroom to the first-floor bathrooms.
- Provide communal kitchen.
- Covert two of the first-floor sleeping rooms into a suite.
- Extensive rehabilitation of the interior finishes.
- Extensive rehabilitation of the exteriors.
- Provide supplemental heating.

Refer to the following pages for a more detailed description of the proposed treatments.

Part 2.B: Treatment Recommendations

Treatment and Use Summary Matrix

Level of Intervention			**CRITICAL / LOW** Continued use of the building as it currently; Stabilize building for future rehabilitation; limited rehabilitation of building elements; Increase accessibility to the first floor public space;	**MEDIUM** Conversion of building into hostel lodging; Make code related improvements to allow for public access; Limited rehabilitation of building elements; Limited amount of accessibility improvements on the first floor.	**HIGH** Conversion of building into hostel lodging; Make code related improvements to allow for public access; Large scale rehabilitation of building elements; Improve accessibility throughout the first floor.
Rock Harbor Lodge					
Up to three alternatives are listed for each section. Low treatment alternatives address critical work necessary for stabilization. Medium and high treatment alternatives present rehabilitation treatments which involve additional interventions for increased use.					
Discipline	**Element**	**Deficiency Rating**	**Treatments**		
Structural	Foundations	Critical	Add concrete piers along the house corridor bearing walls. Rebuild the lower concrete/stone wall on the south side of the sundeck. Add a new heavy timber barrier along the south crawlspace opening.	Same as Low Treatment plus place heavy stones along the landscape zone on the south shore to help control erosion and washouts.	Same as Low Treatment plus construct a new concrete barrier wall on the south and west openings in the crawlspace. Add heavy stones in the landscape zone to help control erosion and washouts.
	Floor Framing	Critical	On the first floor, add new timber beams supported by the new concrete piers under the existing joists. Limit the attic floor to 20 psf live load. Limit the second-floor live load to 40 psf. Supplement the second floor joists over the east lobby. Supplement the existing log beams with new timber each side. And mechanical anchored between floor and foundation as required. Visitors allowed in the east lobby only.	Same as Low Treatment plus limit the first and second floors to residential occupancy with a live load of 40 psf.	Same as Low Treatment plus limit the first and second floors to residential occupancy with a live load of 40 psf.
	Roof Framing	Critical	Add supplemental framing to the sides of the rafters and collar ties; Remove and replace water-damaged wood decking.	Same as Low Treatment.	Same as Low Treatment.
	Sundeck	Critical	Supplement the existing joists, beams, and post framing with new pressure-treated lumber to increase the live load to meet the code. Add cross bracing. Add metal connectors to all framing. Replace post to footing connectors.	Same as Low Treatment,	Demolish the existing framing and rebuild the sundeck with new joists, beams, column posts, cross bracing, deck boards, handrails, and footings.
Architecture	Exterior Siding	Serious / Critical	Work limited to South Elevation; Replace 50% of the siding and trim; On all Elevations; Remove all layers of paint down to original siding and repaint; provide new building signage to match historic signage.	Same as Low Treatment	Low treatment plus; Replace 10% of the siding on the East, North, & West Elevations.

Chimney	Minor	Repair cracks; Repoint missing or failing mortar; Patch spalled pieces with appropriate patch; Install chimney cap;	Same as Low Treatment	Same as Low Treatment
Exterior Windows	Serious / Critical	Work limited to stabilizing the windows for future rehabilitation; Repair wood windows to operable condition, reworking sashes as required; Replace broken glass;	Same as Low Treatment	Rehabilitate all of the windows to an operable condition; Reworking sashes as required; Replace the glass; Replace damaged sections; Install new flashing around the penetrations; Provide removable wood screens and interior storm window units.
Exterior Doors	Serious	Repair doors to operable condition; Replace deteriorate members; Provide compatible hardware; Update south elevation french door hardware to allow for an accessible entrance; replace first floor western door with compatible style	Same as Low Treatment	Same as Low Treatment with the exception of replacing the south elevation French door with a new wood door in lieu of restoring the existing door.
Roofing	Critical	Provide new roofing underlayment with a 5-10 year life expectancy; Replace damaged roof decking; Provide asphalt roll to match original on top of underlayment. Install new flashings.	Provide new roofing underlayment with a 20 year life expectancy; Provide asphalt roll to match original on top of underlayment; Flashing per Low Treatment.	Same as Medium Treatment
Interior Doors	Minor	Patch and repair the wood doors; Provide compatible hardware where new is required; Scrape, prime and paint all doors; Replace solid metal corridor doors with compatible style.	Low Treatment plus; Enlarge the first floor corridor door and 1 of the first floor sleeping room doors to be accessible.	Low Treatment plus; Enlarge the first floor corridor door and all of the first floor sleeping room doors to be accessible.
Interior Fittings	Minor	Replace bathroom fixtures in the group restrooms; Reallocate and redistribute fittings so that every sleeping room receives 1 of the fittings. Reconstruct new fittings as required; Paint all fittings.	Same as Low Treatment plus; Covert the first floor men's restroom into an accessible restroom.	Same as Low Treatment plus; Provide new group restrooms on each floor; Provide a new communal kitchen.
Exterior Stairs	Serious	Replace damaged boards; Stain unfinished boards.	Remove stair and balcony; Provide code-compliant stair and railings; Widen balcony walkway; Stain stair and railing; Provide integrated stair lighting for egress	Same as Medium Treatment
Interior Stairs	Minor	Remove ribbed-rubber material runner on first floor stair; Provide handrails on each side; Reconstruct attic stair; provide handrails and guardrail.	Same as Low Treatment	Same as Low Treatment

	Walls	Serious	Replace non-compatible patches; Fill cracks and holes with compatible patching method; Provide new finish coat from edge to edge to match original surface treatment where new work occurs; Scrape non-compatible surface treatment from all gypsum wallboard locations.	Low Treatment plus; Removing the plaster from the inside of the south exterior walls and replacing with gypsum-core panels; Provide a new finish coat throughout.	Remove all plaster and gypsum wallboard from the walls, including the interior face of the exterior walls; Replace with new gypsum-core panels, 'blueboard', Provide finish coat to match original surface treatment.
	Floors	Serious	Remove resilient flooring from the first floor corridor and restroom areas; provide new compatible resilient flooring; Clean and paint original wood flooring with 1 consistent color; Repair damaged wall bases.	Same as Low Treatment	Low Treatment plus; remove all the wall bases and install 1 consistent wall base throughout.
	Ceilings	Serious	Replace non-compatible patches; Fill cracks and holes with compatible patching method; Provide new finish coat from edge to edge to match original surface treatment where new work occurs.	Low Treatment plus; Remove the plaster from the second floor ceilings and replace with gypsum-core panels; Remove the dropped particle board ceiling in the first floor lobby and corridor; Provide a new finish coat throughout.	Remove all plaster ceilings, gypsum wallboard ceilings and particle board ceilings; Replace damaged wood lath as required; Replace with new gypsum-core panels, 'blueboard', Provide finish coat throughout to match original surface treatment.
	Code and Life Safety	Critical	The building use remains the same and no modifications are required.	Modifications to building elements to be code compliant based on new occupancy category; Reconstruct exterior stair, walkway and railings to be code compliant for egress requirements; Add in a fire protection system due to the public occupying the entire building.	Same as Medium Treatment
	Accessibility	Critical	Provide an accessible route to the first floor lobby, includes modifications to the exterior ramp.	Low Treatment plus; Enlarge the first floor corridor door and one of the first floor sleeping rooms doors to an accessible width; Reconfigure the first floor men's' restrooms to a single use accessible restroom.	Low Treatment plus; Enlarge the first floor corridor door and all of the first floor sleeping rooms doors to an accessible width; Reconfigure the entire restrooms to provide one accessible bathing room.
Plumbing	Fixtures	Minor	Install new water closets, showers, and lavatories in the group restrooms. Provide faucets of sinks in the sleeping rooms.	Same as Low Treatment plus provide accessible fixture in the previous men's restroom. Relocate and provide new hot water heater.	Same as Low Treatment plus provide accessible fixture based on the reconfiguration of the restrooms. Relocated and provide new hot water heater.

	Piping	Minor	The building use remains the same and no modifications are required.	Replace domestic hot and cold water piping and slope piping to low points to allow for winterization. Include hot water risers to bedroom sinks and connect to hot water return loop with thermostatically controlled circulation pump. Replace existing sanitary waste and vent piping system with new PVC piping system.	Same as Medium Treatment
HVAC	Heating	Minor	The building use remains the same and no modifications are required. No heating system exists.	Install electric baseboard heaters, electric ceiling panel heaters and wall mounted electric radiators with proportional SCR controllers and remote wall thermostats.	Install console type VRF heat pumps or water source heat pumps in all spaces. Install VRF outdoor heat pump units OR slinky type geothermal coils in Lake Superior.
	Cooling	Minor	The building use remains the same and no modifications are required. No cooling system exists.	Same as Low Treatment	Cooling is inherently provided with either VRF or geothermal water source heat pumps.
	Ventilation	Minor	The building use remains the same and no modifications are required. Ventilation provided through operable windows and infiltration.	Install toilet exhaust fans for all restrooms.	Same as Medium Treatment
Fire Protection	Standpipes	Critical	The building use remains the same and no modifications are required.	Provide standpipe in the stairs.	Same as Medium Treatment
	Automatic Sprinklers	Critical	The building use remains the same and no modifications are required.	Provide limited area sprinkler system in the corridors and stairs.	Same as Medium Treatment
Electrical	Service	Minor	The building use remains the same and no modifications are required.	Upgrade the building electric service and provide new 400A service panel with main circuit breaker.	Same as Medium Treatment
	Distribution	Minor	The building use remains the same and no modifications are required.	Install (2) 200A distribution panels on first and second floors to serve new lighting, appliance and HVAC equipment.	Same as Medium Treatment
	Lighting	Serious	Replace all fixtures in bedrooms, corridors and lobby with new, replica fixtures. Provide battery pack egress lighting in corridors, stairs and lobby.	Same as Low Treatment	Same as Low Treatment
Site	Drainage	Minor	No observed issues with stormwater runoff or erosion on site. Continue to monitor and provide positive drainage away from building elements that contact the ground surface. Provide barrier along south foundation per structural recs.	Same as Low Treatment	Same as Low Treatment

	Accessibility	Minor	Provide ABAAS compliant path to building; Provide ABAAS landing and ramp as route to deck on south elevation.	Provide ABAAS compliant route, ramp, and landing to stairs and boardwalk accessing entrances on first and second floor on west elevation.	Same as Medium Treatment
	Vegetation	Minor	Preserve contributing vegetation; remove stumps.	Replant areas around building with appropriate species.	Same as Medium Treatment
	Site Elements	Minor	Preserve existing bell and its stone base. Erect wooden flagpole in existing post hole in rocks east of building.	Add pavilion structure for guests in open space east of building. Replace fence enclosing Dining Room yard replicating historic stockade fence; extend west leg of fence to better screen interior yard from Guest House.	Same as Medium Treatment

Structural

Foundations

Priority: Serious to Critical

Low Treatment Alternative
Clean all debris from the crawlspace. Smooth the existing grade and add a 4" gravel layer over a Visqueen vapor barrier. Clean all manmade debris from the landscape strip along the south crawlspace. Leave plant growth including trees and shrubs to help control erosion.

Level and plumb concrete piers determined to have minor settlement and or displacement. Check the subsurface bearing and reinforce the concrete piers as needed.

New Concrete Piers - Add two new lines of six piers supporting new timber beams along the length of the Guest House under the corridor walls to add support to the first-floor framing and relieve some of the load on the existing piers. Add two new piers and beams along the north-south bearing wall on the west side of the lobby to add support to the first-floor framing and relieve some of the load on the existing piers.

Construct a heavy wood timber wall on the south and west sides from the first-floor line down to grade to provide a barrier against debris and erosion of the crawlspace. Anchor the timbers to the concrete piers along the south side of the house and brace them behind the wall in the crawlspace.

Form and pour a reinforced concrete wall under the existing concrete and stone on the south side of the sundeck porch wall where erosion has occurred. The new concrete wall is to be anchored into the natural stone below the wall with reinforcing anchors.

Medium Treatment Alternative
Clean all debris from the crawlspace. Smooth the existing grade and add a 4" gravel layer over a Visqueen vapor barrier. Clean all manmade debris and plant growth from the landscape strip along the south crawlspace.

Level and plumb concrete piers determined to have minor settlement and or displacement. Check subsurface bearing and reinforce as needed.

New Concrete Piers - Add two new lines of six piers supporting new timber beams along the length of the Guest House under the corridor walls to add support to the first-floor framing and relieve some of the load on the existing piers. Add two new piers and beams along the north-south bearing wall on the west side of the lobby to add support to the first-floor framing and relieve some of the load on the existing piers.

Construct a heavy wood timber wall on the south and west sides from the first-floor line down to grade to provide a barrier against debris and erosion of the crawlspace. Anchor the timbers to the concrete piers along the south side of the house and brace them behind the wall in the crawlspace.

Place large natural rocks and boulders along the landscape strip to help minimize washout and erosion of the crawlspace and the south shoreline.

Form and pour a reinforced concrete wall under the existing concrete and stone on the south side of the sundeck porch wall where erosion has occurred. The new concrete wall is to be anchored into the natural stone under the wall with reinforcing anchors.

High Treatment Alternative
Clean all debris from the crawlspace. Smooth the existing grade and add a 4" gravel layer over a Visqueen vapor barrier.

Level and plumb concrete piers determined to have minor settlement and or displacement. Check subsurface bearing and reinforce as needed.

New Concrete Piers - Add two new lines of six piers supporting new timber beams along the length of the Guest House under the corridor walls to add support to the first-floor framing and relieve some of the load on the existing piers. Add two new piers and beams along the north-south bearing wall on the west side of the lobby to add support to the first-floor framing and relieve some of the load on the existing piers.

Form and pour a reinforced concrete wall under the existing concrete and stone on the south side of the sundeck porch wall where erosion has occurred. The new concrete wall is to be anchored into the natural stone under the wall with reinforcing anchors.

Place large natural rocks and boulders along the front of the south wall to help control erosion of the new wall.

Clean all manmade debris and plant growth from the landscape strip along the south crawlspace.

Construct a concrete gravity wall on the south and west sides from the floor line down to grade to provide a barrier against debris and erosion of the crawlspace. Brace the new wall under the crawlspace.

Floor Framing

First-floor
Priority: Critical

Low Treatment Alternative
Additional Framing - Add new lines of timber beams supported by the new concrete piers to provide added support to the floor joists and relieve some of the load on the overstressed piers and log beams. Add new mechanical anchorage between the foundation and the first-floor framing. Remove temporary joist shoring. Jack the floor joists up slightly to place new timber beams.

Medium Treatment Alternative
Same as the Low Treatment alternative.

High Treatment Alternative
Same as the Low Treatment Alternative.

Second-floor
Priority: Critical

Low Treatment Alternative
Reinforce Existing Joists – Remove the second-floor ceiling over the east first-floor lobby and add new reinforcement joists to the existing joists to improve live load capacity. The existing ceiling needs to be removed to examine the joists and determine the extent of the reinforcement.

Medium Treatment Alternative
Same as the Low Treatment Alternative.

High Treatment Alternative
Same as the Low Treatment Alternative.

Attic Floor Framing
Priority: Critical

Low Treatment Alternative
Limit the live load to no more than 20 psf within the attic space. Post signs and create barriers to the placement of heavy furniture and equipment.

Medium Treatment Alternative
Same as the Low Treatment Alternative.

High Treatment Alternative
Same as the Low Treatment Alternative.

Roof Framing
Priority: Critical

Low Treatment Alternative
Reinforce Existing Rafters and Collar Ties – Add new sistered reinforcement rafters to the existing rafters to improve live load capacity. Add a sistered joist member to the collar ties and improve the connection to the rafters.

Medium Treatment Alternative
Same as the Low Treatment Alternative.

High Treatment Alternative
Same as low treatment alternative plus remove and replace water-damaged roofing and rotted deck and replace with new plywood decking and repair roofing as required.

Sundeck Porch
Priority: Critical

Low Treatment Alternative
Reinforce Wood Sundeck Members – In order to improve the live capacity to 100 psf, add new pressure-treated timber beams and posts and sister new reinforcement joists to the existing ones. Add new concrete footings as needed. Add new mechanical anchorage between the framing members and replace corroded mechanical anchors between the wood posts and concrete footings.

Medium Treatment Alternative
Same as the Low Treatment Alternative.

High Treatment Alternative
Remove and Replace Wood Sundeck – Demolish the existing deck framing and rebuild with new pressure-treated lumber designed to meet a live load of 100 psf. Add new concrete footings as needed.

Architecture

Exterior Siding

Priority: Serious to Critical

Low Treatment Alternative
This treatment focuses on repairs to the South Elevation. Replace 50% of the exterior siding with in-kind siding to match the original. It can also be assumed that a similar amount of sheathing will need to be replaced once the deteriorated siding is removed.

On all elevations, scrape all the layers of paint down to the original siding. Extreme care should be undertaken so as to not damage the siding. Refer to NPS Technical Brief #10 for paint removal from historic woodwork. Seal all penetrations. Prime and paint the siding and trim. The Historic Paint Analysis determined that the original color was white, but it has also been painted brown. The recommendation would be for the building to be painted white to match the color during its period of significance.

New building signage should be installed on the South Elevation to match the historic signage.

Medium Treatment Alternative
Same as Low Treatment Alternative

High Treatment Alternative
Same as Low Treatment Alternative plus replace 10% of the exterior siding on the East, North & West Elevations.

Chimneys

Priority: Minor

Low Treatment Alternative
Where minor cracks have occurred or the mortar is failing or deteriorating, the joint should be tooled out and filled with an appropriate mortar. Depending on the degree of the spalling that has occurred, either repair with an appropriate patch or replace with stone to match the original. All non-appropriate patches should be cleaned out and patched correctly. A chimney cap should be installed on the top to prevent water and animals from entering the chimneys.

The paint should be removed from the western chimney and the condition should be further inspected. If it is determined that it needs to be coated, a water-permeable coating should be used so that the stone has a chance to breathe.

On the interior of the eastern chimney, the first-floor fireplace should be cleaned and 5% of the joints need repointing.

Medium Treatment Alternative
Same as Low Treatment Alternative

High Treatment Alternative
Same as Low Treatment Alternative

Exterior Windows

Priority: Serious to Critical

Low Treatment Alternative
This treatment focuses on stabilizing the windows. All windows should be repaired to an operable condition reworking the sash weights/cord/pulleys or jamb liners as necessary. Replace cracked or broken glass pieces. Scrape, prime and then paint all the wood. Refer to NPS Technical Brief #10 for paint removal from historic woodwork.

Medium Treatment Alternative
Same as Low Treatment Alternative

High Treatment Alternative
This treatment focuses on rehabilitating all of the windows. Repair the wood windows to operable condition reworking the sash weights/cord/pulleys or jamb liners as necessary. Where sections of the sashes and frames are deteriorated, replace with in kind material. Remove all glass from the windows and replace with new clear glass and glazing compound. Damaged and cracked casings should be replaced as well. Refer to NPS Technical Brief #9 for the restoration of historic wood windows.

To help with the flow of water around the penetrations, new metal cap flashing should be installed at the head condition. Drip edges should be cut in the sill to prevent water from entering under the wood sill.

Fabricate removable custom wood screens and interior storm window units.

Scrape, prime and then paint all the wood. Refer to NPS Technical Brief #10 for paint removal from historic woodwork.

Exterior Doors

Priority: Serious

Low Treatment Alternative
Repair doors to operable condition and replace deteriorated rails, frames, and casings. All hardware should be restored. When new hardware is required, compatible hardware should be installed. Provide weatherstripping around the openings. Where the glass panes are broken or cracked, they should be replaced.

All four of the exterior doors should receive a new sill / threshold.

The hardware for the south elevation French door should be updated to allow for an accessible entrance. Signage should be posed indicating that both leafs will need to be opened to allow for accessible access.

The first-floor west elevation door should be replaced with a compatible door style preferably out of wood. A screen door should also be installed.

Medium Treatment Alternative
Same as Low Treatment Alternative

High Treatment Alternative
Same as Low Treatment Alternative with the exception of replacing the south elevation French door with a new wood door in lieu of restoring the existing door.

Roofing

Priority: Critical

Low Treatment Alternative
With this alternative, routine maintenance will be required. The existing asphalt roofing will be removed, and damaged roof decking will be replaced. New underlayment would be installed on top of the rood decking and then it would be covered with asphalt rolls to match the original intent. The life expectancy of this system is between 5 and 10 years. It will also require routine maintenance to ensure the seams are intact.

The flashing around the entire building needs to be reworked. New eave and rake flashing should be installed around the perimeter of the roof. Where larger penetrations occur on the roof like the dormers or chimneys, step flashing should be extended vertically and horizontally on the roof surfaces to provide a water tight seal. At all smaller penetrations, like vents, pipe flashing should be installed.

Medium Treatment Alternative
As opposed to the Low Treatment Alternative, this treatment would provide a greater life expectancy. The existing asphalt roofing will still be removed, and damaged roof decking replaced. In lieu of a 5 to 10 year underlayment, provide a system with a 20 year warranty whether that be a more durable underlayment or some type of membrane roofing. The goal for this treatment is that the asphalt rolls could be replaced a couple times but the underlayment would remain as is.

Flashing would still be installed as indicated in the Low Treatment Alternative.

High Treatment Alternative
Same as Medium Treatment Alternative

Interior Doors

Priority: Minor

Low Treatment Alternative
Patch all nail holes and other markings on the doors. Repair and replace rails and stiles as required to ensure proper operation. The backplates and door knobs should be restored where they remain and replaced with compatibles ones where they do not remain. Provide a consistent deadbolt throughout. Scrape, prime and paint all the doors with a consistent color.

Replace the solid metal corridor doors with a compatible wood style door and appropriate hardware.

Medium Treatment Alternative
Enlarge the first-floor corridor door and 1 of the first-floor sleeping room doors to be 36" wide to allow for an accessible entrance.

Remove the second-floor corridor door and surrounding wall.

High Treatment Alternative
Enlarge the first-floor corridor door and all the first-floor sleeping room doors to be 36" wide to allow for an accessible entrance.

Remove the second-floor corridor door and surrounding wall.

Interior Fittings

Priority: Minor

Low Treatment Alternative
Replace all the bathroom fixtures in the men's and women's restrooms. Provide new wood framed toilet partitions with doors and plastic laminate shall compartments.

For the fittings inside the sleeping rooms, all the wall mounted sinks should be restored and provide with new piping to ensure they are operational. In Bedroom 1, the non-original sink should be replaced with a more compatible sink. Reallocate and redistribute the hutches, shelves, and mirrors so that every sleeping room has 1 of the fittings. Repair and replace damaged parts. Where new fittings need to be replicated, they should match the style of the existing fittings. Reconstruct the drop leaf tables where they have been removed or replaced with non-original pieces, Bedroom 2. All surfaces that are to receive paint, shall be cleaned, scraped, prime and painted.

Medium Treatment Alternative
This alternative expands on the recommendations from the Low Treatment Alternative but converts the current men's restroom into an accessible restroom. The fixtures in the other restrooms would be replaced in accordance with the Low Treatment. The first-floor lobby closet and second-floor closet will be transformed into housekeeping closets.

High Treatment Alternative
This alternative expands on the recommendations from the Low Treatment Alternative but provides a new layout for both the first and second-floor group restrooms. They would be transformed into two unisex bathing rooms that include a water closet and shower compartment. One unisex room on each floor will be accessible. A single lavatory will be provided outside of the bathing areas. The raised floor will be removed, and a dropped ceiling will be installed on the first-floor ceiling to run the utilities. A communal kitchen will be installed on the first-floor. The first-floor lobby closet and second-floor closet will be transformed into housekeeping closets. A janitor closet will be installed within each group restroom.

Exterior Stairs

Priority: Serious

Low Treatment Alternative
With the use of the building remaining the same, the treatment would only require replacing damaged boards and staining the stair, walkways, and railings.

Medium Treatment Alternative
With changing the use of the building to more a public facing building, the exterior stairs will need to be removed and rebuilt to comply with the current building codes. The stair and in particular the walkway leading from the exits, needs to be a minimum of 36" wide. This includes any projection into the walkway, i.e. the chimney.

New treated wood post and foundations should be installed to carry the appropriate loads. Guardrails should be a minimum of 42" high and the handrails needs to be 36" high. Handrails needs to be installed on both sides of the stair. The risers should consist of solid wood risers as opposed to open risers, which it currently has. Abrasive striping should be applied to the leading edge of the treads. Integrated stair lighting should be provided such as that it provides the require illumination, footcandles, as required by code.

The stair, walkways and railings should be stained with a clear coat to protect it from the weather.

High Treatment Alternative
Same as Medium Treatment Alternative

Interior Stairs

Priority: Minor

Low Treatment Alternative
The stair leading from the first-floor lobby to the second-floor is in good shape. The ribbed-rubber material runner should be removed. The wood treads and risers should be sanded and refinished. Abrasive striping should be installed at the leading edge of the treads. Handrails, installed at 36" high, should be installed on each side of the stair.

The attic stair should be reconstructed as it is in poor condition. Abrasive stripping should be installed at the leading edge of the treads. Where the plaster has fallen off the wall surrounding the stair, the area should be patched to provide a continuous finish surface throughout the stair. Handrails and guardrails should be installed at the stair and the top landing.

Medium Treatment Alternative
Same as Low Treatment Alternative

High Treatment Alternative
Same as Low Treatment Alternative

Walls

Priority: Serious

Low Treatment Alternative
The alternative presented would be the least intrusive solution for the walls and it would focus on restoring what already exists. Non-compatible patches would be removed. Cracks will be filled, and holes will be patched with a compatible method. A new finish coat will be provided from edge to edge to match the original surface treatment. Refer to NPS Technical Brief #21 for repairing of plaster walls and ceilings.

Where the non-original surface treatment was applied to the gypsum wallboard locations, this would be scraped off and new finish coat would be applied to match the original surface treatment.

Medium Treatment Alternative
Low Treatment Alternative plus; Due to the condition of the interior side of the south exterior wall, the plaster will be removed from the wall and replaced with a veneer plaster system or a gypsum-core panels called 'blueboard'. Elsewhere, all surface treatments including the original will be removed from the walls and a new finish coat will be applied throughout. This would give the building one unified look throughout. The new finish coat would match the original surface treatment. Refer to NPS Technical Brief #21 for repairing of plaster walls and ceilings.

The current Bedroom 2 and 3 could be converted into a swing suite with a connecting door between the two units. It would have the ability to be rented as 1 room or 2 rooms.

High Treatment Alternative
This alternative is the most extensive solution for the walls but would ensure the interior surfaces will last for another century. It would involve removing all of the plaster and gypsum wallboard from the walls. This includes the interior face of the exterior walls. Due to the remote location and the likelihood that skilled trades people might not be available, it is recommended to go back with a veneer plaster system or a gypsum-core panels called 'blueboard' in lieu of the standard 3-coat plaster system that currently exists. Wood lath would be replaced as required or additional framing could be added to install the panel. A finish coat would be provided throughout that would match the original surface treatment. Refer to NPS Technical Brief #21 for repairing of plaster walls and ceilings.

To give a variety of different room types, the current Bedroom 2 and 3 could be combined into 1 large suite, as it was originally intended.

Floors

Priority: Serious

Low Treatment Alternative
Due to the resilient flooring containing asbestos, it should be removed from the first-floor corridor and bathroom areas. It is most likely that if the wood flooring remains below, it will not be salvageable. The oil runner on the second-floor corridor should be removed as well.

Sand the wood floorings removing the paint or stain. Fill large gouges and holes with compatible materials. Replace damaged boards as required. Provide 1 color throughout the building.

In the first-floor corridor, wood flooring matching the size of the original will be installed. Within the restroom areas, a compatible resilient flooring or vinyl plank should be installed due to the water being present in those rooms.

Replace damaged wall bases as required.

Medium Treatment Alternative
Same as Low Treatment Alternative

High Treatment Alternative
Low Treatment Alternative plus removing the all the wall bases and install 1 consistent style throughout the building. The profile is to match the ones found in the current bedrooms. Wall bases should extend from corner to corner with minimal joint lines.

Ceilings

Priority: Serious

Low Treatment Alternative
In this alternative treatment, non-compatible patches would be removed. Cracks will be filled, and holes will be patched with a compatible method. A new finish coat will be provided from edge to edge to match the original surface treatment. Refer to NPS Technical Brief #21 for repairing of plaster walls and ceilings.

Medium Treatment Alternative
Low Treatment Alternative plus; Due to the condition of the second-floor ceiling, the plaster will be removed from the ceiling and replaced with a veneer plaster system or a gypsum-core panels called 'blueboard'. Elsewhere all surface treatments including the original will be removed from the ceilings and a new finish coat will be applied throughout. The dropped particle board ceiling and supplemental framing in the lobby and first-floor corridor would be removed and replaced with the gypsum-core panels. This would give the building one unified look throughout. The new finish coat would match the original surface treatment. Refer to NPS Technical Brief #21 for repairing of plaster walls and ceilings.

High Treatment Alternative
This treatment is the most extensive of the three alternatives. It would involve removing all of the plaster and gypsum wallboard from the ceilings. Due to the remote location and the likelihood that skilled trades people might not be available, it is recommended to go back with a veneer plaster system or a gypsum-core panels called 'blueboard' in lieu of the standard 3-coat plaster system that currently exists. Wood lath would be replaced as required or additional framing could be added to install the panel. The particle board ceiling and supplemental framing in the first-floor lobby and corridor would also be removed in this treatment. A finish coat would be provided throughout that would match the original surface treatment. Refer to NPS Technical Brief #21 for repairing of plaster walls and ceilings.

Code and Life Safety

Priority: Critical

Low Treatment Alternative
The building use remains the same and no modifications are required.

Medium Treatment Alternative
Due to the nature of converting the building into a new occupancy category, modifications would be needed to address the public using the entire building. Installing a fire protection system would be an appropriate measure for the size of the building and is use. Means of egressing from the building will need to be addressed. Currently the stair and walkways on the western portion are not adequate. Walkways need to be a minimum of 36" at the narrowest part, which would be the chimney. Improvements to the guardrails at the walkways and stairs would need required to meet the current building code.

High Treatment Alternative
Same as Medium Treatment Alternative

Accessibility

Priority: Serious

Low Treatment Alternative
The accessible route for this treatment is based on the first-floor lobby space remaining a public facing space. Modifications are needed at the exterior ramp located on the east side of the building to have a maximum slope of 1:12. A handrail will need to be installed at a height of 36" high. The accessible route will continue to the south elevation French door. At double doors, the minimum clear width when 1 door is open is 32" wide. The current clear width is only 26". In lieu of enlarging one of the exterior doors, which would change the character of the building, signs could be posted to indicate that both leafs need to be opened for an accessible entrance. The hardware of the entrance would need to be modify to allow both doors to be opened and self-closing.

Medium Treatment Alternative
Same as low treatment plus enlarge the first-floor corridor door and one of the sleeping rooms doors. The required width is 32" which equates to a 36" wide door. The first-floor men's restroom will be upgraded to a single use restroom with accessible fixtures.

High Treatment Alternative
Same as low treatment plus enlarge the first-floor corridor door and all of the first-floor sleeping rooms doors. The required width is 32" which equates to a 36" wide door. The bathrooms will be reconfigured into two unisex bathing rooms with one of the rooms being accessible.

Plumbing

Fixtures

Priority: Minor

Low Treatment Alternative
Install new water closets, showers, and lavatories in the group restrooms. Provide faucets of sinks in the sleeping rooms.

Medium Treatment Alternative
Same as Low Treatment plus provide accessible fixture in the previous men's restroom. Relocate and provide new hot water heater.

High Treatment Alternative
Same as Low Treatment plus provide accessible fixture based on the reconfiguration of the restrooms. Relocated and provide new hot water heater.

Piping

Priority: Minor

Low Treatment Alternative
The building use remains the same and no modifications are required.

Medium Treatment Alternative
Replace domestic hot and cold water piping and slope piping to low points to allow for winterization. Include hot water risers to bedroom sinks and connect to hot water return loop with thermostatically controlled circulation pump. Replace existing sanitary waste and vent piping system with new PVC piping system.

High Treatment Alternative
Same as Medium Treatment

HVAC

Heating

Priority: Minor

Low Treatment Alternative
The building use remains the same and no modifications are required. No heating system exists.

Medium Treatment Alternative
Install electric baseboard heaters, electric ceiling panel heaters and wall mounted electric radiators with proportional SCR controllers and remote wall thermostats.

High Treatment Alternative
Install console type VRF heat pumps or water source heat pumps in all spaces. Install VRF outdoor heat pump units OR slinky type geothermal coils in Lake Superior.

Cooling

Priority: Minor

Low Treatment Alternative
The building use remains the same and no modifications are required. No cooling system exists.

Medium Treatment Alternative
Same as Low Treatment

High Treatment Alternative
Cooling is inherently provided with either VRF or geothermal water source heat pumps.

Ventilation

Priority: Minor

Low Treatment Alternative
The building use remains the same and no modifications are required. Ventilation provided through operable windows and infiltration.

Medium Treatment Alternative
Install toilet exhaust fans for all restrooms.

High Treatment Alternative
Same as Medium Treatment.

Fire Protection

Standpipes

Priority: Minor

Low Treatment Alternative
The building use remains the same and no modifications are required.

Medium Treatment Alternative
Provide standpipe in the stairs.

High Treatment Alternative
Same as Medium Treatment

Automatic Sprinklers

Priority: Minor

Low Treatment Alternative
The building use remains the same and no modifications are required.

Medium Treatment Alternative
Provide limited area sprinkler system in the corridors and stairs.

High Treatment Alternative
Same as Medium Treatment

Electrical

Service

Priority: Minor

Low Treatment Alternative
The building use remains the same and no modifications are required.

Medium Treatment Alternative
Upgrade the building electric service and provide new 400A service panel with main circuit breaker.

High Treatment Alternative
Same as Medium Treatment

Distribution

Priority: Minor

Low Treatment Alternative
The building use remains the same and no modifications are required.

Medium Treatment Alternative
Install (2) 200A distribution panels on first and second-floors to serve new lighting, appliance and HVAC equipment.

High Treatment Alternative
Same as Medium Treatment

Lighting

Priority: Serious

Low Treatment Alternative
Replace all fixtures in bedrooms, corridors, and lobby with new, replica fixtures. Provide battery pack egress lighting in corridors, stairs, and lobby.

Medium Treatment Alternative
Same as Low Treatment

High Treatment Alternative
Same as Low Treatment

Site

The Rock Harbor Guest House should be rehabilitation to preserve historic landscape features, enhance the historic setting, and provide necessary improvements to meet modern code requirements and to create a safe environment for visitors.

Site-Drainage

Priority: Minor
Low Treatment Alternative
There were no observed issues with stormwater runoff or erosion from drainage issues. The areas around the building should be regularly inspected and site drainage issues addressed if they develop. Most water will tend to flow eastwards away from the building. It is possible that some water will flow north to south, from the open space north of the Guest House toward the lake. Places where stormwater flow could potentially cause a problem are where structural elements touch the ground. These include the structural piers under the building and the posts supporting the decks and boardwalks. If erosion or excessive water flow becomes an issue, ensure positive flow away from the building by directing water with the use of low profile drainage swales. Provide protective barrier along south foundation according to recommendations of structural engineer.

Medium Treatment Alternative
Same as Critical/Low

Priority: High Treatment Alternative
Same as Critical/Low

Site-Accessibility

Priority: Minor

Low Treatment Alternative
The site presents very few obstacles to providing universal access to the building. The park should adhere to methods per the Architectural Barriers Act Accessibility Standards (ABAAS) and Director's Order #42: Accessibility for Visitors with Disabilities in National Park Service Programs and Services to the greatest extent while not damaging historic resources. The existing paths are compacted gravel or gravel laid upon a base that often includes a layer of asphalt. In general, the walkways are stable, firm, and slip resistant. If the gravel aggregate layer becomes unstable, the park should consider using a binding agent/stabilizer to comply with ABAAS standards. The park should also install a landing at the end of the ramp on the northeast corner of the building to comply with ABAAS standards.

Medium Treatment Alternative
In addition to the Critical/Low recommendations, provide an accessible route and landing to a redesigned boardwalk accessing the west elevation of the Guest House. Redesign the boardwalk along the west elevation to comply with ABAAS standards. The clear width of all walking surfaces should be a minimum of 36 inches. The boardwalk along the west elevation requires a 90-degree turn, so the boardwalk will need to provide a 60-inch maneuvering clearance area at the door. A 60-inch-wide boardwalk along the west elevation would also provide sufficient clearance around the existing chimney on the west elevation.

High Treatment Alternative
Same as Medium

Site-Vegetation

Priority: Minor

Low Treatment Alternative
Preserve existing vegetation and allow for removal of vegetation where it presents a hazard to visitors or historic resources. Remove stumps present in the landscape to minimize potential trip hazards, to visually de-clutter the landscape, and to prepare area for replanting. The removal of stumps, however, involves several considerations, including its location and whether its removal will adversely affect site activities, buried utilities, or known/unknown cultural resources.

Medium Treatment Alternative
Historic photographs do not show designed landscape plantings associated with the Guest House. During the historic period, the landscape was a natural and informal, with native trees, shrubs, and grasses occupying the spaces around the building. It is recommended that naturally occurring species prevalent in historic photographs be planted around the building to perpetuate the historic setting. These species include paper birch, red spruce, and balsam fir. Do not allow vegetation to block character-defining views of Lake Superior from the deck, lobby doors, or windows on the south elevation of the Guest House.

Additionally, upon the death of historic trees or of vegetation that conveys the historic character of the setting, including for example the paper birch on the south of the Guest House or the spruce and fir trees between the Guest House and Office, replant with the same species unless environmental conditions merit a substitution.

High Treatment Alternative
Same as Medium

Site-Small-Scale Features

Priority: Minor

Low Treatment Alternative
Preserve existing bell and stone base. Perform routine maintenance and repair following guidelines provided in NPS Preservation Brief #2 Repointing Mortar Joints in Historic Masonry Buildings and best practices for maintenance of historic bronze features. See for example, NPS Preservation Brief #27 The Maintenance and Repair of Architectural Cast Iron for guidance on appropriate maintenance decision making. In general, periodically clean using the gentlest method possible.

Mount a flagpole in the existing hole in the rocks northeast of the Guest House. Historic photographs suggest that the flagpole was a simple wooden pole constructed from a tall tree trunk. It appears to have been approximately 40 to 50 feet tall.

Medium Treatment Alternative
The NPS requested that we consider the placement of a 16-foot by 20-foot picnic/bbq pavilion in the greenspace northeast of the Rock Harbor Guest House. Research did not reveal a building to have been located here during the historic period. On the contrary, this area was the location of a tennis court during the Resort Period and remained an open space through the Mission 66 Period. There were, however, many structures, now missing, within the enclosed back yard behind the Dining Room. While this location would be preferable from a preservation perspective, this location would not satisfy the expected program of the proposed pavilion—to provide visitors with an outdoor location to congregate and cook meals. Placement of a new building within the cultural landscape must consider the Secretary of the Interior's Standards for Rehabilitation (Standards), which state that new construction should not destroy historic materials, should be differentiated from historic features, and be visually compatible with the massing, size, and scale of existing historic features. Additionally, the Standards recommend that new construction should be undertaken in a manner that if removed in the future, the essential form and integrity of the property would be unimpaired.

Considering these directives, the proposed pavilion should be placed in an inconspicuous location that does not undermine the historic setting and cluster arrangement from either the Resort era or the Mission 66 era. The proposed location is approximately halfway between Rock Harbor Guest House and Nokomis Lodge. The building should be tucked into an existing opening in the vegetation to provide a vegetative background for the building. Additionally, trees can be planted between the Guest House and the pavilion to reduce its visual impact.

This proposed location is easily accessed from the existing gravel drive/walkway, so it does not require additional circulation infrastructure. This location is also across from an opening in the fence behind the Dining Room fence to facilitate access to the pavilion by concessionaire staff. The building should be a simple structure, with clean lines to minimize its visual presence in the landscape.

Consider replacing the modern fence with a wood fence that replicates the documented stockade fence as it appears in historic photographs. Extend the west leg of the fence to run closer to the Dining Room, which will better screen the interior of the Dining Room yard from the Guest House.

High Treatment Alternative
Same as Medium Treatment Alternative

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HIGH TREATMENT



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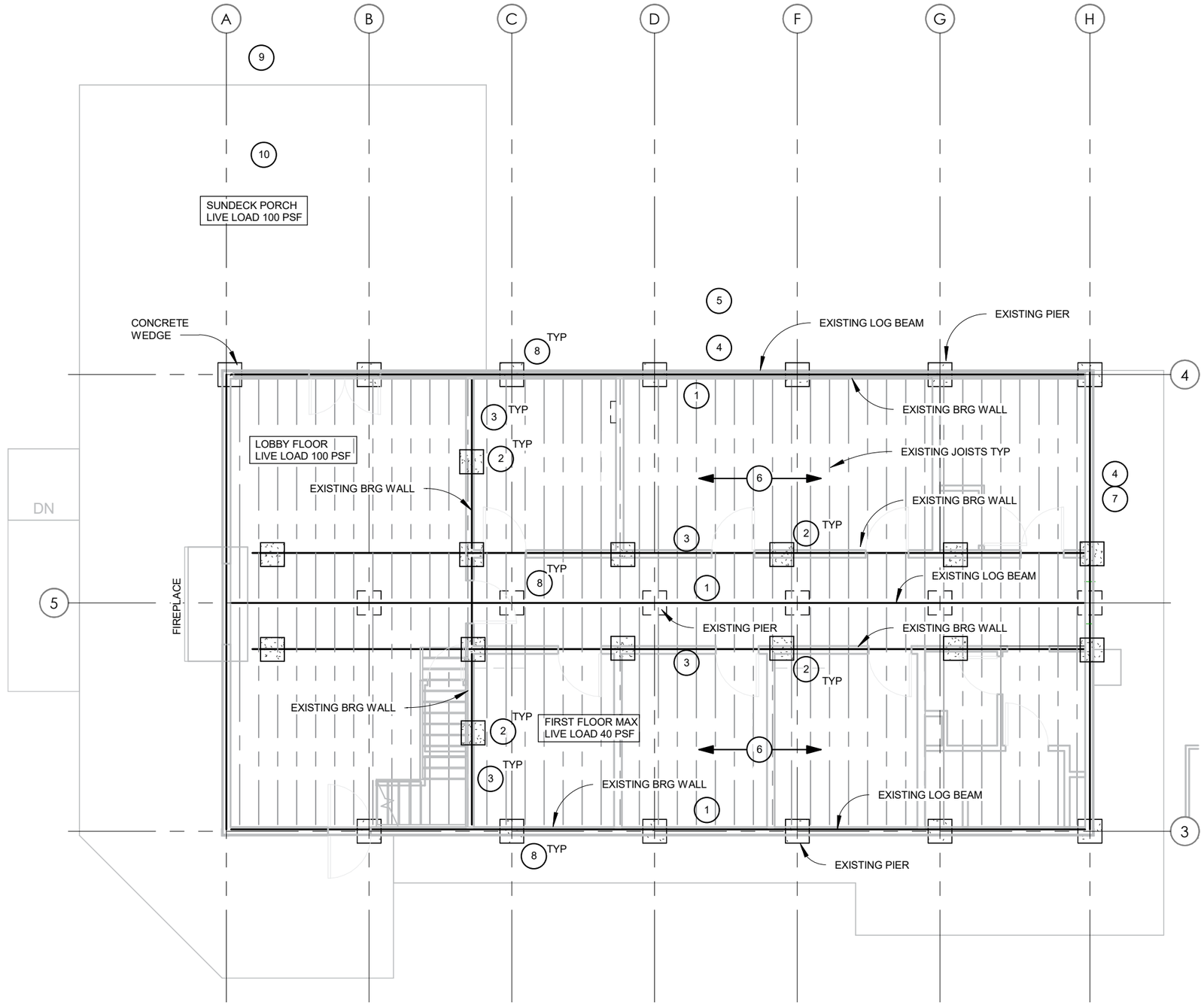
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SHEET TITLE
SITE PLAN - NEW WORK - LOW TREATMENT

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1
S100-1

FOUNDATION PLAN - PROPOSED

SCALE: 1/8" = 1'-0"

LOW TREATMENT

1. REINFORCE EXISTING LOG BEAMS WITH TIMBER SISTERED TO EACH SIDE.

2. NEW CONCRETE PIERS UNDER THE FIRST FLOOR BEARING WALLS. BEAR ON SOILD ROCK SUBGRADE.

3. NEW TIMBER BEAM TIGHT TO THE BOTTOM OF THE EXISTING JOISTS SUPPORTED BY THE NEW PIERS.

4. NEW HEAVY TIMBER BARRIER WALL.

5. LEAVE PLANT GROWTH AND TRESS FOR EROSION CONTROL.

6. CLEAN OUT DEBRIS FROM CRAWLSPACE AND PLACE VAPOR BARRIER AND GRAVEL.

7. ADD MECHANICAL CONNECTORS BETWEEN THE FOUNDATION AND FIRST FLOOR FRAMING.

8. LEVEL AND PLUMB EXISTING CONCRETE PIERS. INSPECT BEARING AND REINFORCE AS REQUIRED.

9. FORM AND POUR A NEW REINFORCED CONCRETE WALL UNDER THE EXISTING WALL WHERE EROSION HAS OCCURED.

10. REINFORCE EXISTING SUNDECK PORCH CURRENT CODE STANDARDS.

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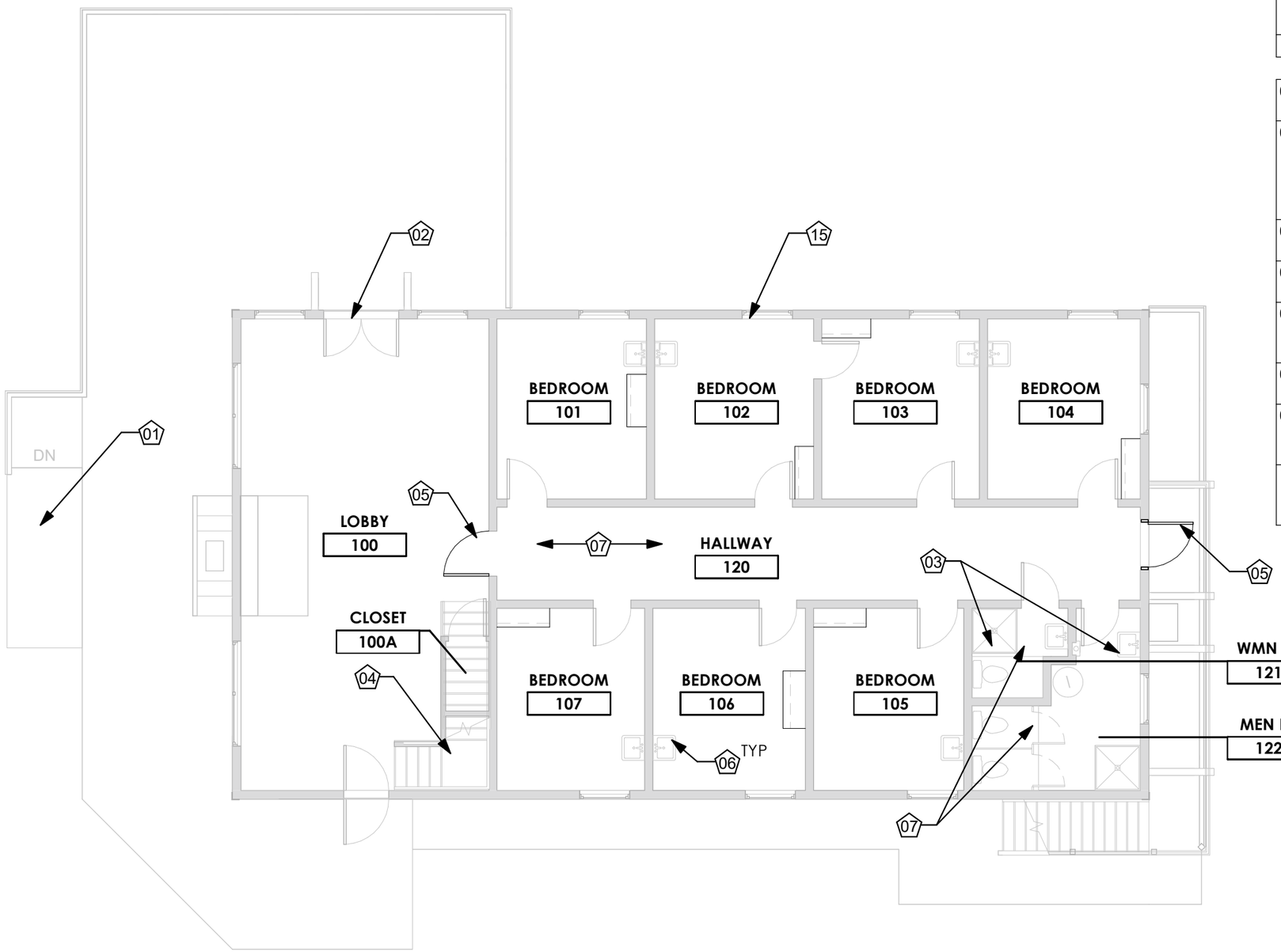
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LOW TREATMENT



CODED NOTES	
No.	Description
01	MODIFY RAMP TO ACHEIVE A 1:12 RAMP. ADD HANDRAILS AT 36" HIGH.
02	ACCESSIBLE ENTRANCE. POST SIGNAGE INDICATING BOTH DOORS ARE REQUIRED TO BE OPENED. PROVIDE NEW HARDWARE TO ALLOW FOR PROPER OPERATION.
03	REPLACE ALL PLUMBING FIXTURES WITH NEW.
04	PROVIDE HANDRAILS @ 36" HIGH ON EACH SIDE OF STAIR
05	REMOVE EXISTING HM DOOR AND REPLACE WITH COMPATIBLE WOOD STYLE DOOR.
06	REDISTRIBUTE AND REALLOCATE INTERIOR FITTINGS.
07	REMOVE RESILIENT FLOORING AND REPLACE WITH COMPATIBLE RESILIENT FLOORING OR WOOD FLOORING.
15	CONVERT ONE SLEEPING ROOM INTO A SHARED KITCHENETTE WITH UNDERCOUNTER FRIG.

1 / A101-1 FIRST FLOOR - PROPOSED

SCALE: 1/8" = 1'-0"

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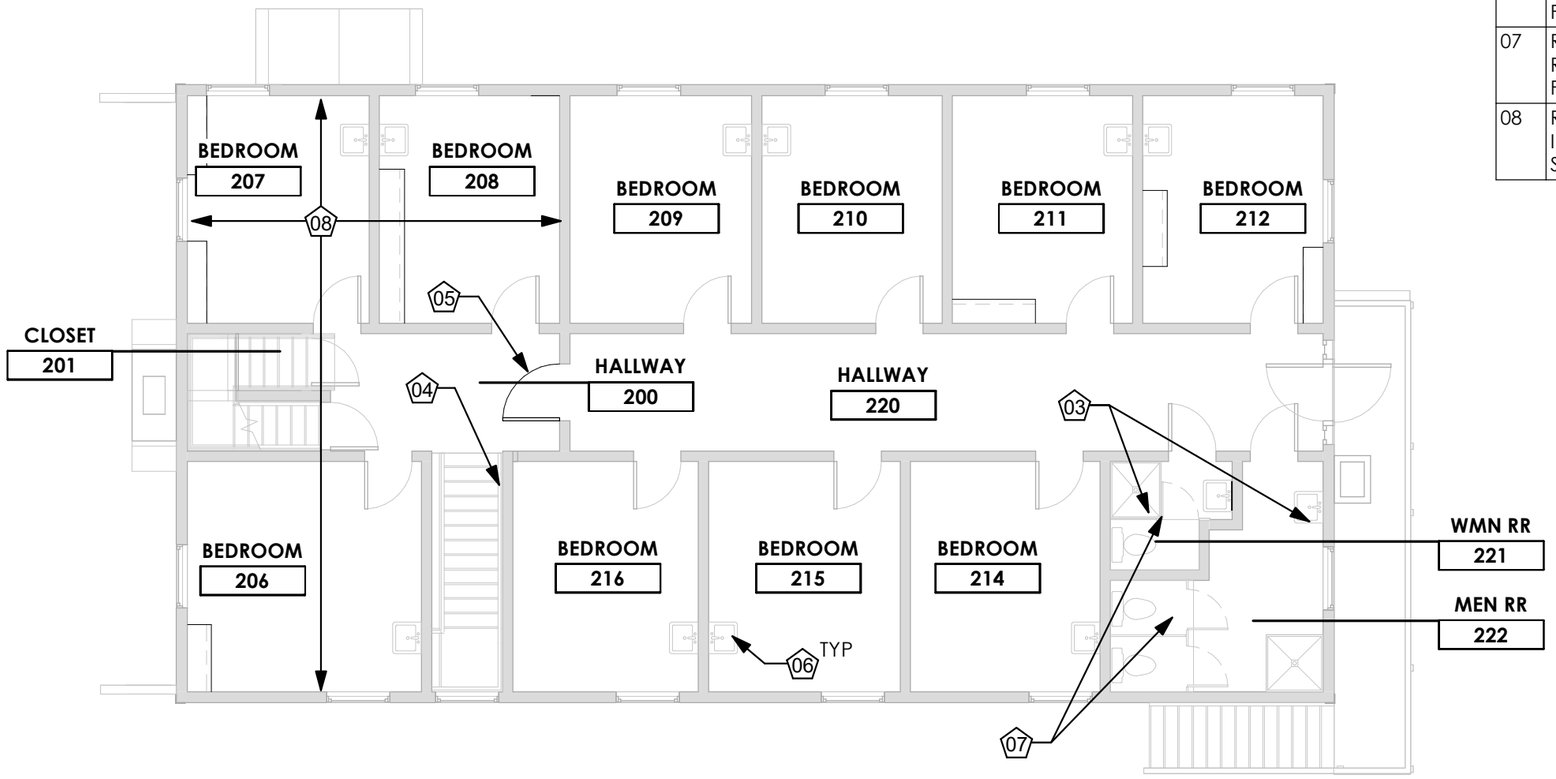
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ATTIC / ROOF LEVEL SCOPE

- REINFORCE EXISITNG RAFTERS AND COLLOR TIES WITH NEW SISTERED FRAMING.
- REMOVE AND REPLACE WATER DAMAGED ROOF DECKING. FIELD VERIFY THE EXTENT OF THE DAMGED DECK.
- PROVIDE NEW ROOF UNDERLAYMENT AND ASPHALT ROLL COVERING. LIFE EXPECTANCY 5-10 YEARS.



1 / A102-1 SECOND FLOOR - PROPOSED

SCALE: 1/8" = 1'-0"

LOW TREATMENT

CODED NOTES	
No.	Description
03	REPLACE ALL PLUMBING FIXTURES WITH NEW.
04	PROVIDE HANDRAILS @ 36" HIGH ON EACH SIDE OF STAIR
05	REMOVE EXISTING HM DOOR AND REPLACE WITH COMPATIBLE WOOD STYLE DOOR.
06	REDISTRIBUTE AND REALLOCATE INTERIOR FITTINGS.
07	REMOVE RESILIENT FLOORING AND REPLACE WITH COMPATIBLE RESILIENT FLOORING OR WOOD FLOORING.
08	REMOVE FIRST FLOOR CEILING AND INSPECT JOISTS OVER FIRST FLOOR LOBBY SPACE.

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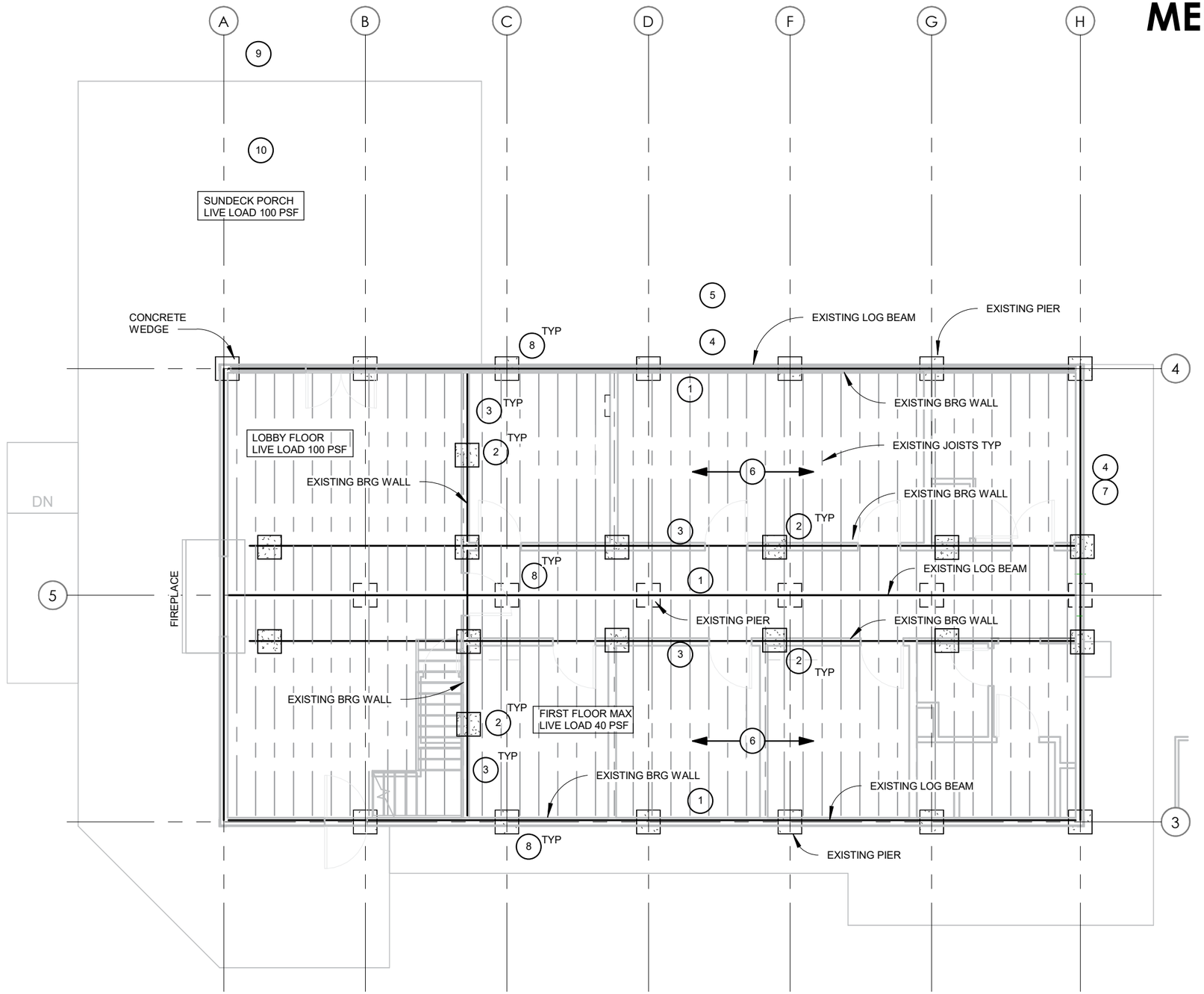
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SECOND FLOOR PLAN - NEW WORK - LOW TREATMENT

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MEDIUM TREATMENT

1. REINFORCE EXISTING LOG BEAMS WITH TIMBER SISTERED TO EACH SIDE.

2. NEW CONCRETE PIERS UNDER THE FIRST FLOOR BEARING WALLS. BEAR ON SOILD ROCK SUBGRADE.

3. NEW TIMBER BEAM TIGHT TO THE BOTTOM OF THE EXISTING JOISTS SUPPORTED BY THE NEW PIERS.

4. NEW HEAVY TIMBER BARRIER WALL.

5. HEAVY STONES AND BOULDERS FOR EROSION CONTROL.

6. CLEAN OUT DEBRIS FROM CRAWLSPACE AND PLACE VAPOR BARRIER AND GRAVEL.

7. ADD MECHANICAL CONNECTORS BETWEEN THE FOUNDATION AND FIRST FLOOR FRAMING.

8. LEVEL AND PLUMB EXISTING CONCRETE PIERS. INSPECT BEARING AND REINFORCE AS REQUIRED.

9. FORM AND POUR A NEW REINFORCED CONCRETE WALL UNDER THE EXISTING WALL WHERE EROSION HAS OCCURED.

10. REINFORCE EXISTING SUNDECK PORCH CURRENT CODE STANDARDS.

1 / S100-2 FOUNDATION PLAN - PROPOSED

SCALE: 1/8" = 1'-0"

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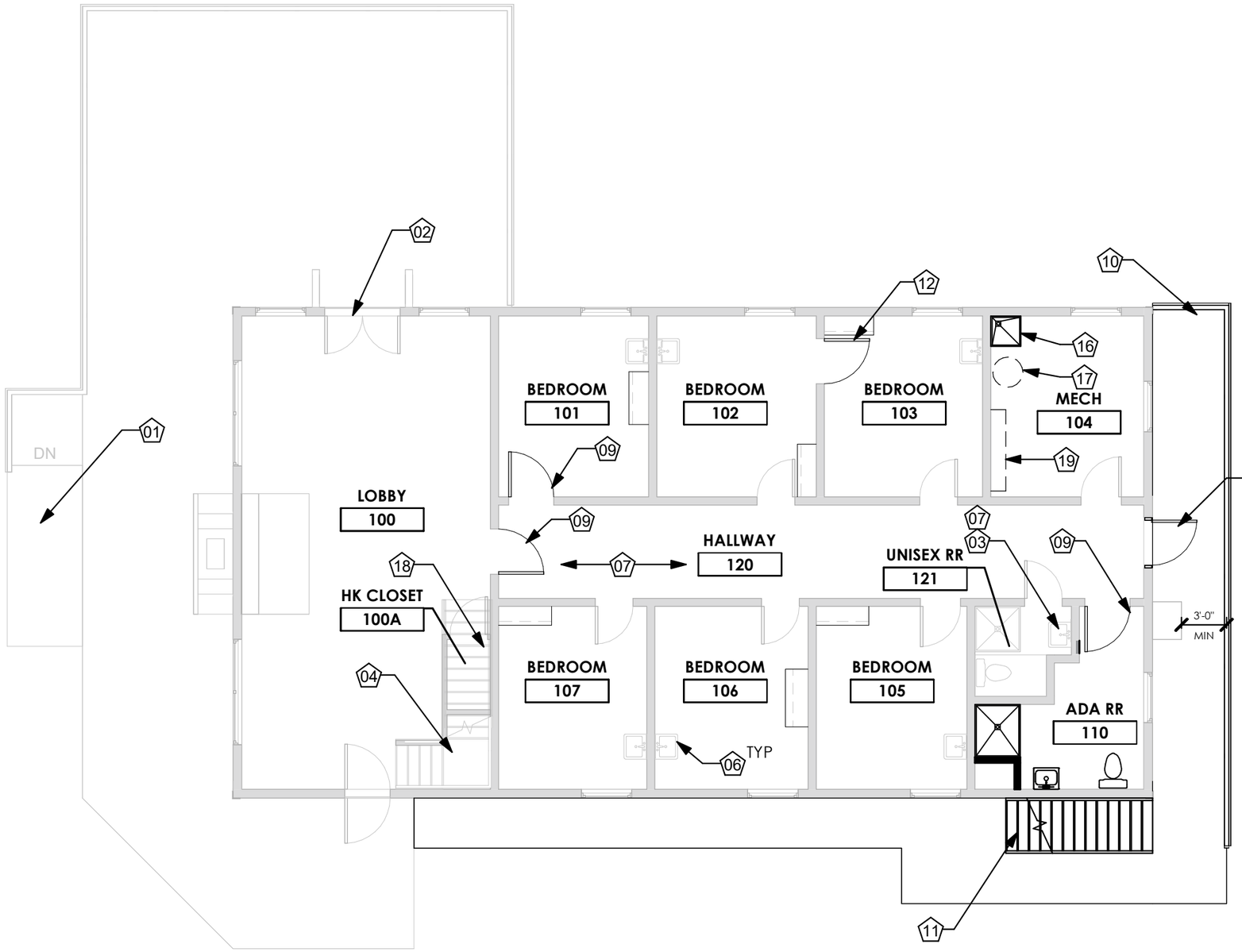
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MEDIUM TREATMENT



1 / A101-2 FIRST FLOOR - PROPOSED

SCALE: 1/8" = 1'-0"

CODED NOTES	
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01	MODIFY RAMP TO ACHEIVE A 1:12 RAMP. ADD HANDRAILS AT 36" HIGH.
02	ACCESSIBLE ENTRANCE. POST SIGNAGE INDICATING BOTH DOORS ARE REQUIRED TO BE OPENED. PROVIDE NEW HARDWARE TO ALLOW FOR PROPER OPERATION.
03	REPLACE ALL PLUMBING FIXTURES WITH NEW.
04	PROVIDE HANDRAILS @ 36" HIGH ON EACH SIDE OF STAIR
05	REMOVE EXISTING HM DOOR AND REPLACE WITH COMPATIBLE WOOD STYLE DOOR.
06	REDISTRIBUTE AND REALLOCATE INTERIOR FITTINGS.
07	REMOVE RESILIENT FLOORING AND REPLACE WITH COMPATIBLE RESILIENT FLOORING OR WOOD FLOORING.
09	ENLARGED OPENING TO 36" WIDE DOOR
10	WIDEN WALKWAY. PROVIDE 42" GUARDRAIL.
11	RECONSTRUCT STAIR. PROVIDE 36" HIGH HANDRAIL AND 42" HIGH GUARDRAIL.
12	MODIFY DOOR TO BE CONNECTING DOOR.
16	JANITOR'S CLOSET/MOP SINK
17	HOT WATER HEATER.
18	CONVERT CLOSET INTO HOUSEKEEPING STORAGE.
19	FIRE SPRINKLER EQUIPMENT

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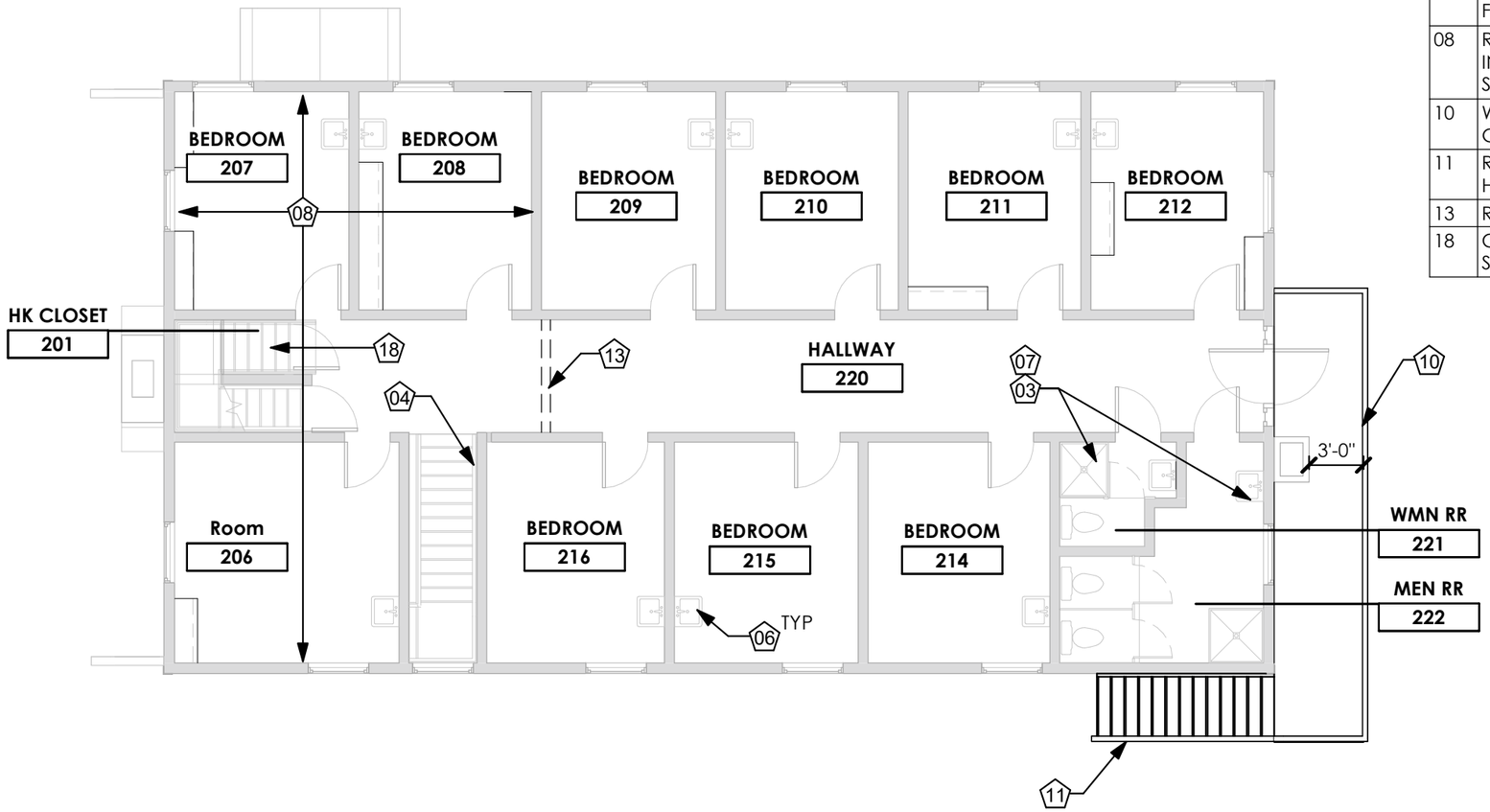
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ATTIC / ROOF LEVEL SCOPE

- REINFORCE EXISITNG RAFTERS AND COLLOR TIES WITH NEW SISTERED FRAMING.
- REMOVE AND REPLACE WATER DAMAGED ROOF DECKING. FIELD VERIFY THE EXTENT OF THE DAMGED DECK.
- PROVIDE NEW ROOF UNDERLAYMENT AND ASPHALT ROLL COVERING. LIFE EXPECTANCY 20 YEARS.

MEDIUM TREATMENT

CODED NOTES	
No.	Description
03	REPLACE ALL PLUMBING FIXTURES WITH NEW.
04	PROVIDE HANDRAILS @ 36" HIGH ON EACH SIDE OF STAIR
06	REDISTRIBUTE AND REALLOCATE INTERIOR FITTINGS.
07	REMOVE RESILIENT FLOORING AND REPLACE WITH COMPATIBLE RESILIENT FLOORING OR WOOD FLOORING.
08	REMOVE FIRST FLOOR CEILING AND INSPECT JOISTS OVER FIRST FLOOR LOBBY SPACE.
10	WIDEN WALKWAY. PROVIDE 42" GUARDRAIL.
11	RECONSTRUCT STAIR. PROVIDE 36" HIGH HANDRAIL AND 42" HIGH GUARDRAIL.
13	REMOVE WALL AND/OR DOOR
18	CONVERT CLOSET INTO HOUSEKEEPING STORAGE.



1 / A102-2 SECOND FLOOR - PROPOSED

SCALE: 1/8" = 1'-0"

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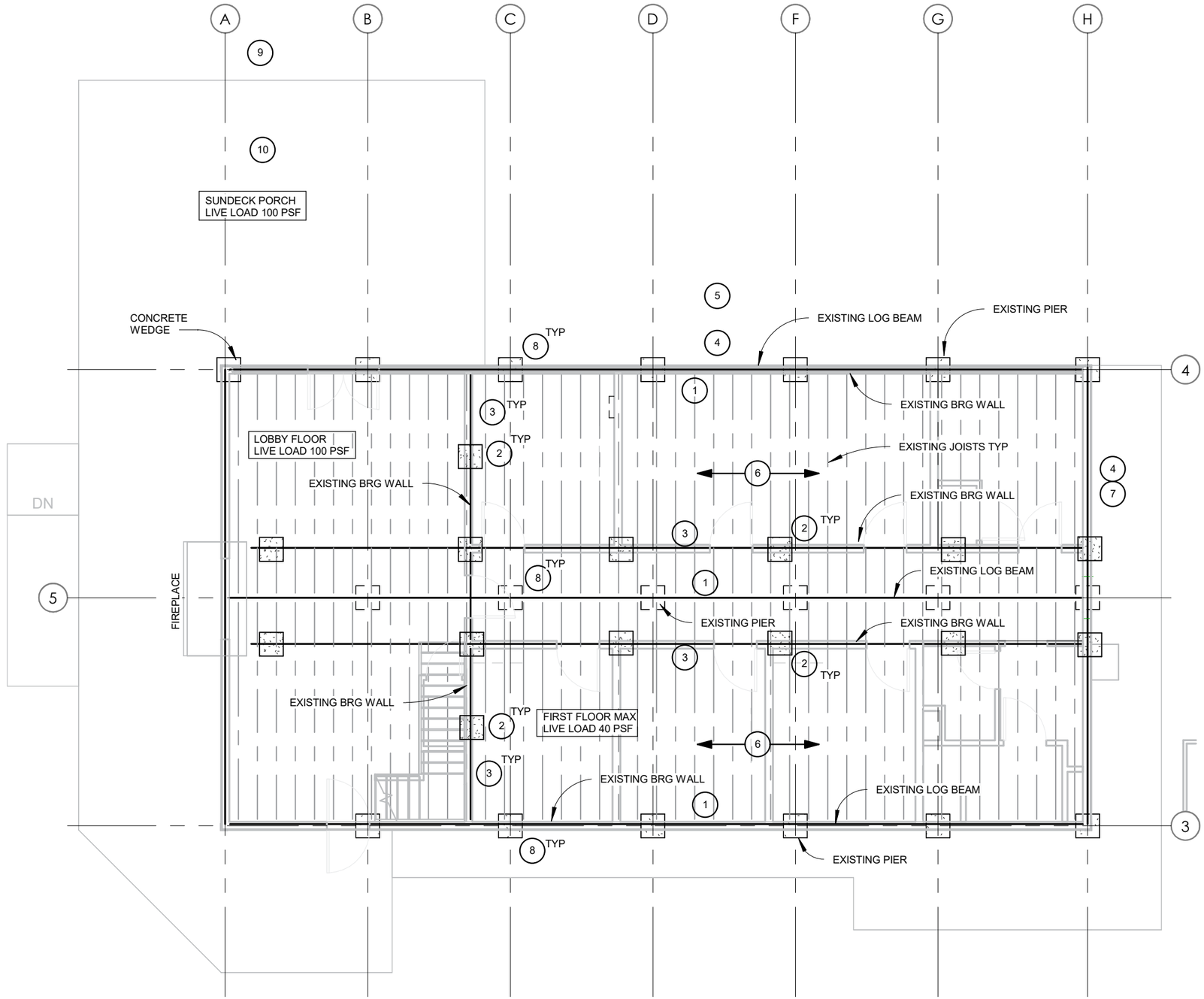
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1
S100-3

FOUNDATION PLAN - PROPOSED

SCALE: 1/8" = 1'-0"

HIGH TREATMENT

1. REINFORCE EXISTING LOG BEAMS WITH TIMBER JOISTS SISTERED TO EACH SIDE.

2. NEW CONCRETE PIERS UNDER THE FIRST FLOOR BEARING WALLS. BEAR ON SOILD ROCK SUBGRADE.

3. NEW TIMBER BEAM TIGHT TO THE BOTTOM OF THE EXISTING JOISTS SUPPORTED BY THE NEW PIERS.

4. NEW CONCRETE BARRIER WALL.

5. HEAVY STONES AND BOULDERS FOR EROSION CONTROL.

6. CLEAN OUT DEBRIS FROM CRAWLSPACE AND PLACE VAPOR BARRIER AND GRAVEL.

7. ADD MECHANICAL CONNECTORS BETWEEN THE FOUNDATION AND FIRST FLOOR FRAMING.

8. LEVEL AND PLUMB EXISTING CONCRETE PIERS. INSPECT BEARING AND REINFORCE AS REQUIRED.

9. FORM AND POUR A NEW REINFORCED CONCRETE WALL UNDER THE EXISTING WALL WHERE EROSION HAS OCCURED.

10. DEMOLISH AND REBUILD THE ENTIRE SUNDECK TO CURRENT CODE STANDARDS.

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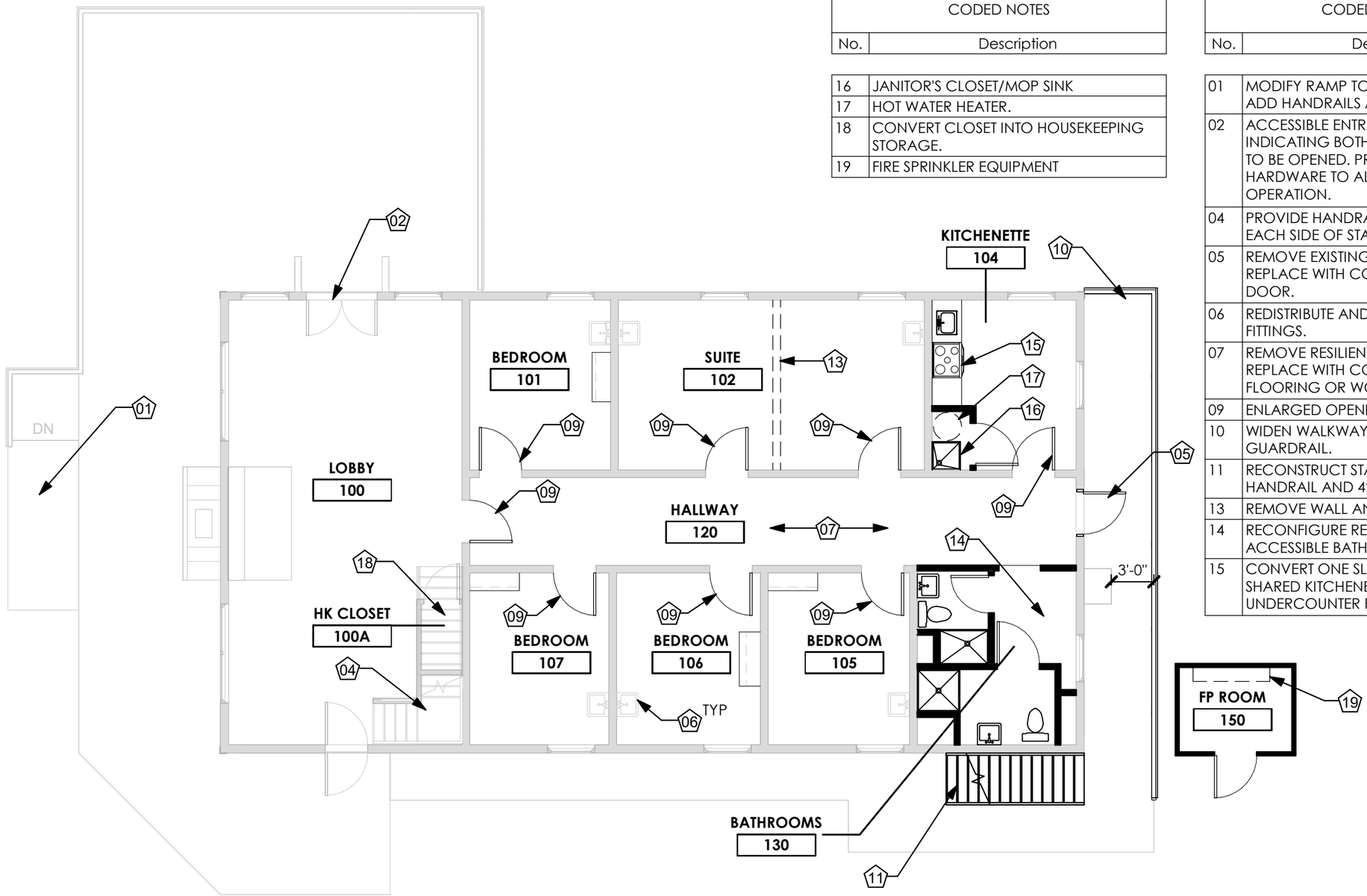
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HIGH TREATMENT



CODED NOTES	
No.	Description
16	JANITOR'S CLOSET/MOP SINK
17	HOT WATER HEATER.
18	CONVERT CLOSET INTO HOUSEKEEPING STORAGE.
19	FIRE SPRINKLER EQUIPMENT

CODED NOTES	
No.	Description
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05	REMOVE EXISTING HM DOOR AND REPLACE WITH COMPATIBLE WOOD STYLE DOOR.
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11	RECONSTRUCT STAIR. PROVIDE 36" HIGH HANDRAIL AND 42" HIGH GUARDRAIL.
13	REMOVE WALL AND/OR DOOR
14	RECONFIGURE RESTROOM TO PROVIDE 1 ACCESSIBLE BATHING ROOM.
15	CONVERT ONE SLEEPING ROOM INTO A SHARED KITCHENETTE WITH UNDERCOUNTER FRIG.

1 / A101-3 FIRST FLOOR - PROPOSED

SCALE: 1/8" = 1'-0"

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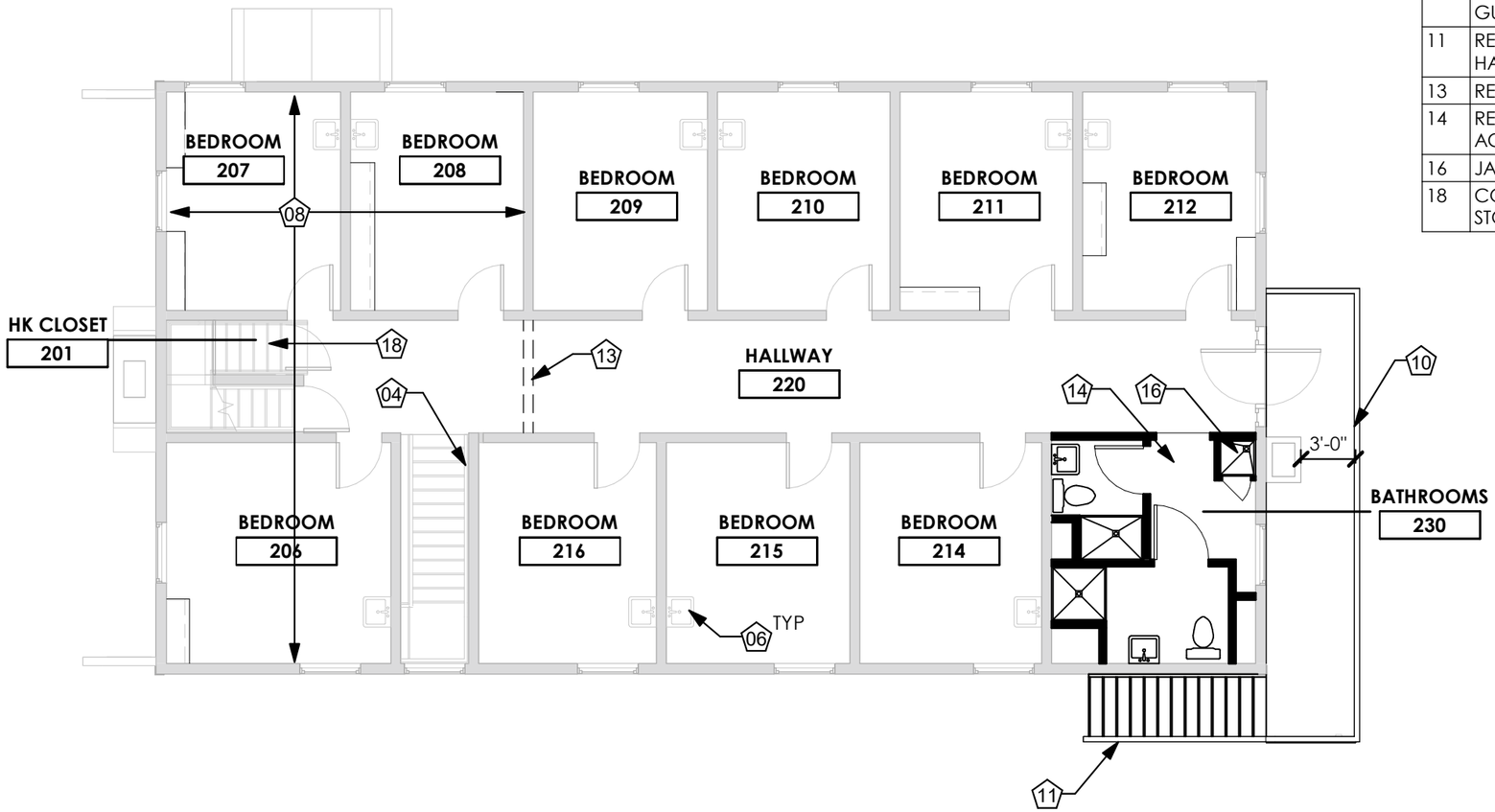
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- PROVIDE NEW ROOF UNDERLAYMENT AND ASPHALT ROLL COVERING. LIFE EXPECTANCY 20 YEARS.



1 A102-3 SECOND FLOOR - PROPOSED

SCALE: 1/8" = 1'-0"

HIGH TREATMENT

CODED NOTES	
No.	Description
04	PROVIDE HANDRAILS @ 36" HIGH ON EACH SIDE OF STAIR
06	REDISTRIBUTE AND REALLOCATE INTERIOR FITTINGS.
08	REMOVE FIRST FLOOR CEILING AND INSPECT JOISTS OVER FIRST FLOOR LOBBY SPACE.
10	WIDEN WALKWAY. PROVIDE 42" GUARDRAIL.
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Appendix F. Landscape Development

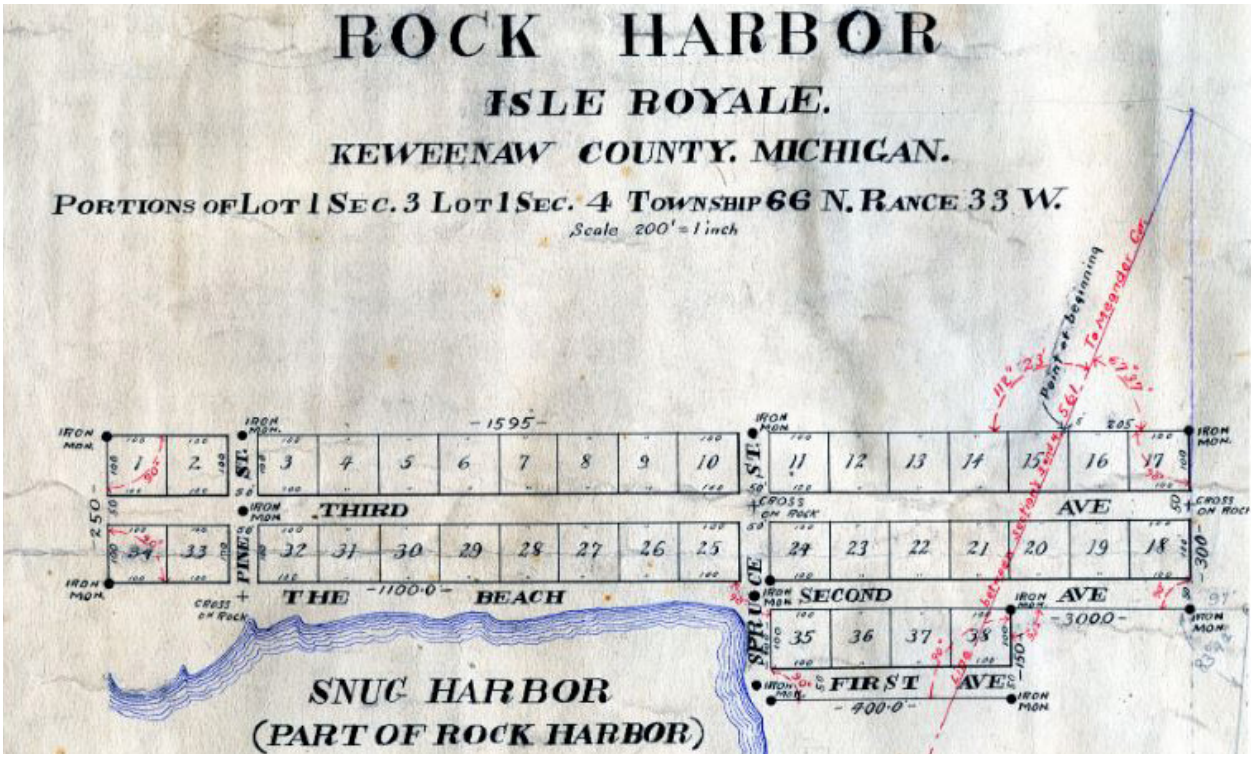


Figure AF.1: Plat of Rock Harbor dated June 30, 1908 (Source: Isle Royale Institute, Isle Royale National Park Cultural Resource Interactive Mapping Project, "Rock Harbor Plat, June 20, 1908," Farmer Collection, ISRO Archives, http://iri.forest.mtu.edu/Resorts/Pages/ParkPlace.htm).

Introduction

This section is included in the Historic Structure Report (HSR) of the Rock Harbor Guest House at the request of the National Park Service. Because the focus of the document is the Guest House, the authors of this report decided to move this section to an appendix. This section includes a brief history and analysis of landscape characteristics that focuses on only a portion of the Rock Harbor cultural landscape. The agreed upon scope of investigation was limited to the area along Snug Harbor extending approximately from the main dock and visitor center to the America Dock. It extends northwards from Snug Harbor to include Ojibway Lodge, the employee dormitory, and the recreation building. It does not include the campground, the house keeping units, or the maintenance area. The site investigation and archival research were limited because the overall focus of this report is on the Guest House.

The Rock Harbor cultural landscape study area for this report encompasses nearly forty acres surrounding Snug Harbor. The chronology of development of the Rock Harbor landscape can be divided into four periods of development: the early development and ownership by Kneutson and Farmer (1902-1943), the early years under NPS (1943-1955), the Mission 66 and Parkscape USA period (1956-1972), and the period since (1973-2023).

The conclusion of this analysis is that the Rock Harbor cultural landscape reflects both the initial development of the site as a resort and the later redevelopment of the site under the NPS during the Mission 66 period. The period of significance for the landscape is 1902-1972. Overall, the landscape retains a high degree of integrity from the Mission 66 period, with elements remaining from earlier periods. Additionally, the landscape created in the Mission 66 period reflects the principles of the Mission 66 program, which the National Register of Historic Places has recognized as being historically significant. The existing Rock Harbor cultural landscape appears to be potentially eligible for listing on the National Register of Historic Places because of its association with the Mission 66 program. The Rock Harbor Guest House would be a contributing resource to this district as a remnant of the early period of development.

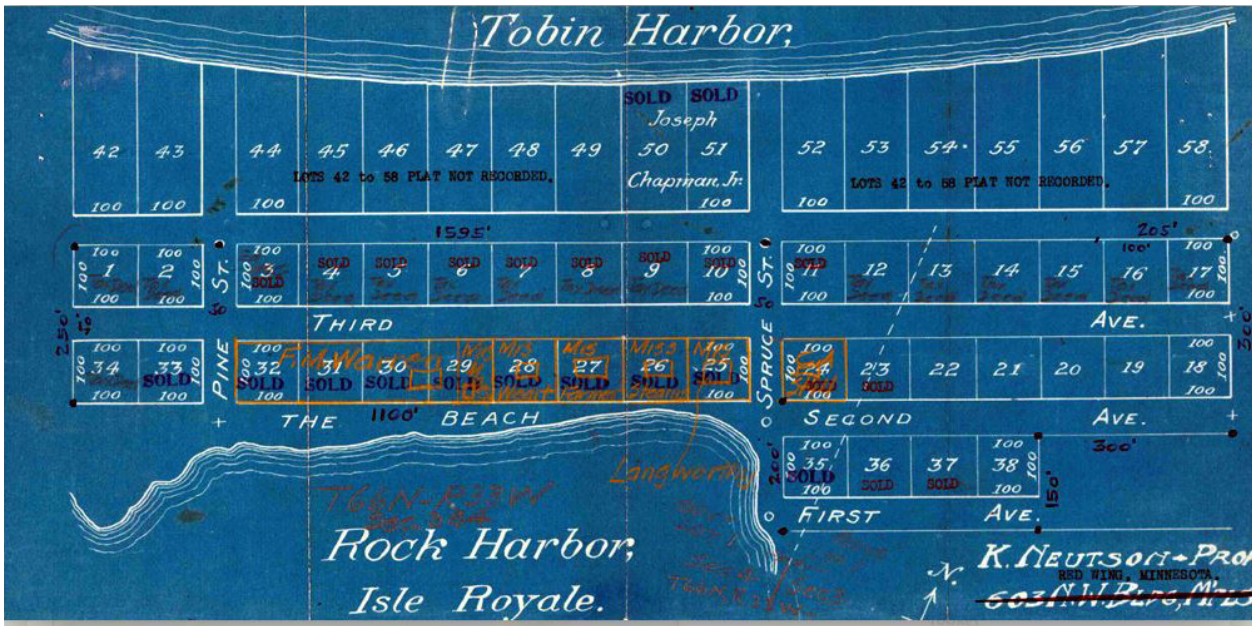


Figure AF.2: Rock Harbor Plat, June 20, 1908 (Source: Isle Royale Institute, Isle Royale National Park Cultural Resource Interactive Mapping Project, "Rock Harbor Plat, June 20, 1908," Farmer Collection, ISRO Archives, http://iri.forest.mtu.edu/Resorts/Pages/ParkPlace.htm).

Rock Harbor/Snug Harbor Landscape Development: Kneut Kneutson and Early Development Around Snug Harbor (1902-1943)

Chapter 1.A Historical Background and Context of this HSR provides a chronological narrative of the history of Isle Royale leading up to and including the development of Rock Harbor Lodge and its transition into a national park. Kneut Kneutson began acquiring land around Snug Harbor on Isle Royale around 1902. By 1903 newspaper advertisements promoted it as a vacation destination. Over the next two decades, Kneutson and his daughter, Bertha Farmer, engaged in multiple land transactions and developed the property around Snug Harbor to include a resort, which Kneutson called Park Place, and a subdivision in which individual families constructed vacation cottages. (The reader should note that this report uses the name Rock Harbor Lodge for consistency, but the resort was originally called Park Place and Rock Harbor Lodge became the resort's name around 1920.)

Generally, the privately-owned cottages described below were developed along the west and northwestern shoreline of Snug Harbor. Rock Harbor Lodge generally occupied the northeast shoreline of Snug Harbor and extended southwards onto the peninsula of land that formed the eastern edge of the harbor. These two areas represent two distinct land uses. The private cottages on the west side of the harbor were private resort homes for individual families. Rock Harbor Lodge, on the other hand, was a commercial enterprise, where vacationers visited and rented a room or cabin.

Private Cottages and Early Land Transfers

On September 21, 1907, Kneutson and his wife, Theresa, filed a "Plat of Rock Harbor" that recorded their intent to subdivide the property at Snug Harbor into thirty-eight lots.[9] A few maps showing the subdivision exist in Isle Royale National Park's archives, including three dated 1908. One version of the map suggests that fifty-eight lots were considered at some point, but, according to a note on the map, "lots 42 to 58 plat not recorded."[10] (Two of these proposed but not platted lots were eventually sold to Joseph Chapman.) The thirty-eight lots that Kneutson laid out were in three rows on the northwest side of the harbor, stretching up the slope of a low ridge that framed the west side of Snug Harbor (Figure AF.1 and Figure AF.2.) (For a point of reference, the subdivision began near the current location

9. This plat is located in the ISRO Archives in Box 5, Series 003 Central Files, Acc. No. ISRO-00614 Cat. No. ISRO 111, Coll. No. 00001.
10. These maps are available online at the Isle Royale National Park Cultural Resource Interactive Mapping Project's website: Isle Royale Cultural Resource Interactive Mapping Project (mtu.edu).



Figure AF.3: Circa 1930s photograph of Warren Cottage (Source: Isle Royale Institute, Isle Royale National Park Cultural Resource Interactive Mapping Project, Forsell, 1930s, NVIC: 30-318, ISRO Archives, http://iri.forest.mtu.edu/Summer_Cottages/Pages/RockHarbor/Warren.htm).



Figure AF.4: Circa 1930s photograph of Warren Storage Building (Source: Isle Royale Institute, Isle Royale National Park Cultural Resource Interactive Mapping Project, NVIC: 50-280, ISRO Archives, http://iri.forest.mtu.edu/Summer_Cottages/Pages/RockHarbor/Warren.htm).

of the NPS ranger quarters and extended north towards the current location of the housekeeping cabins.) The maps show roads between the rows of lots—First, Second, and Third Avenue—that ran approximately south to north. Two perpendicular roads, Pine Street and Spruce Street, bisected the subdivision stretching between Snug Harbor and Tobin Harbor.

As noted in the Historical Background chapter of this HSR, Kneutson began selling lots to individuals on which they could build private cottages. According to a plat map dated June 20, 1908, which has layers of undated handwritten and stamped notes, Kneutson and his daughter sold at least twenty-three lots within the subdivision. A later deed referred to the subdivision as the "Village of Rock Harbor."[11] The annotated 1908 map also shows that individuals favored lots close to the shoreline, which was where subsequent building development concentrated. The families that acquired lots on Rock Harbor from Kneutson within the subdivision included the Warren, Langworthy, Orsborne, Stern, Morse, Weart, and Still families. Other individuals acquired larger parcels not within the subdivision from Kneutson; these included members of the Farmer, Jepsen, Chapman, Ralph, and Tallman families.[12]

In 1907, Frank Warren constructed a cottage on the north side of the harbor that straddled lots twenty-nine and thirty (Figure AF.3). Warren Cottage was a one-story building. Historic photographs indicate that the building had either a side gabled or front gabled roof, with a verandah under one of the gable ends. Historic photographs show quadrupled 1/1 sash windows. Warren also owned lots thirty-one and thirty-two, and he later added a storage building behind (north) of the main cottage and a dock on the harbor. (For reference to the current landscape, the Warren's dock was approximately in the current location of the main dock in Snug Harbor.) The Warren family used the storage building, constructed around 1907, as sleeping cabin in the late 1920s (Figure AF.4).[13] The Warren storage building was a one-story building with a side gabled roof and wood shiplap siding. The entrance was located on the left side of the front façade and contained a wood two-panel, six-light door with an exterior screen door. There were 3x3 fixed pane windows on the right of the front façade and on the left façade. This building exists today; the NPS uses it as the Rock Harbor Ranger Station. The current building is a one-story, gabled

11. Transcribed deed dated January 28, 1932, is available in ISRO Archive, in Box 5, Series 003 Central Files, Acc. No. ISRO-00614 Cat. No. ISRO 111, Coll. No. 00001.

12. NPS, Cultural Landscape Inventory Rock Harbor Lodge, 2021, page 36. Isle Royale Institute, Isle Royale National Park Cultural Resource Interactive Mapping Project, "Rock Harbor Plat, June 20, 1908," Farmer Collection, ISRO Archives, http://iri.forest.mtu.edu/Resorts/Pages/ParkPlace.htm.

13. These photographs are available online at the Isle Royale National Park Cultural Resource Interactive Mapping Project's website: http://iri.forest.mtu.edu/Summer_Cottages/Pages/RockHarbor/Warren.htm.



Figure AF.5: 1935 Photograph of Weart Cottage (Source: Isle Royale Institute, Isle Royale National Park Cultural Resource Interactive Mapping Project, Wolbrink, Sheet 024, Photo a, ISRO Archives, http://iri.forest.mtu.edu/Summer_Cottages/Pages/RockHarbor/Weart.htm).

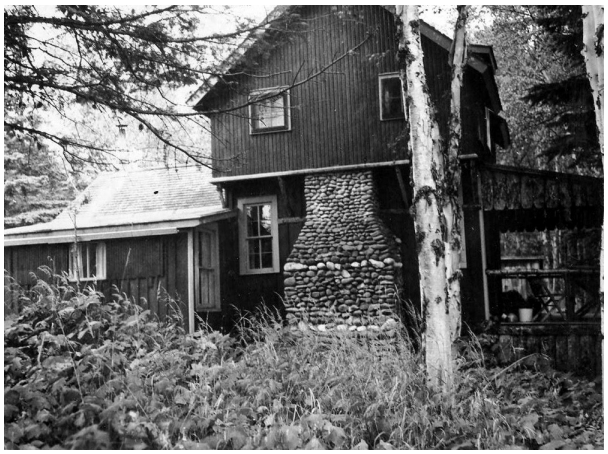


Figure AF.6: 1935 Photograph of Langworthy Cottage (Source: Isle Royale Institute, Isle Royale National Park Cultural Resource Interactive Mapping Project, Wolbrink, Sheet 023, Photo C, ISRO Archives http://iri.forest.mtu.edu/Summer_Cottages/Pages/RockHarbor/).

structure with drop lap siding and has nine-light and six-light windows.

Around 1908, Peter C. Weart purchased lot twenty-eight from Kneutson and began construction of a cottage. He made additions to the structure in 1911 and eventually constructed a dock on the harbor in front of his house (Figure AF.5). Weart Cottage was a one-story building with a side gabled roof and wood shiplap siding. There were single 2/2 sash windows with vertical muntins on the front façade and paired 1/1 sash windows on the left elevation. There was a verandah with a shed roof on the front façade. After Weart passed away in 1927, he left the cottage to his wife, Myrtle A. Weart. She supported the movement to create a national park on Isle Royale, so on November 18, 1938, she sold her property outright to the government for $431.64. Shortly after the park's acquisition, the NPS removed the cottage, privy, and dock.[14]

Also in 1908, the Langworthy family purchased lot twenty-five from Kneutson and built a cottage as a summer getaway (Figure AF.6). Langworthy Cottage was a two-story side gabled building with a one-story rear wing. The front two-story block was clad in vertical wood siding and was cantilevered over the first floor. There was a stone chimney that extended through the cantilevered second story on the left elevation. There was a shed roof verandah on the front façade. The one-story rear block had a gabled roof with a shed roof extension on the left. The siding was wood board and batten. When the government began to acquire land to establish the national park, Amy E. Langworthy and Mary H. Langworthy held onto their .23 acres of land. Eventually they sold their land on December 31, 1937, to the government in exchange for a life lease for themselves and son and grandson. By 1940, no one from the family had visited the island, so the Langworthys allowed a customs official to live in the cottage. However, the NPS did not approve this, and the arrangement was canceled. The Langworthys continued to infrequently visit the property, and the building eventually fell into disrepair. In 1978, the family turned over the property to the NPS. The contents of the cottage were donated to the Isle Royale National Park. Unfortunately, the building suffered irreparable damage from neglect and was later disassembled.[15]

In 1912, Charles A. Still constructed a cottage on lot twenty-four, next door to the Langworthy's house. He constructed additions in 1916. Still Cottage was a one-story building with a side gabled roof above the main block and shed roof rear wing. The building had a large front verandah located under the side gabled roof pitch of the main block. The verandah had log porch supports and a log balustrade. The left elevation contained single 2x3 fixed pane windows and a tapered stone chimney. Nearby the house were also a privy and water system to support the cottage. On June 26,

14. Isle Royale Institute, Isle Royale National Park Cultural Resource Interactive Mapping Project, Wolbrink, Sheet 024, Photo A, ISRO Archives, http://iri.forest.mtu.edu/Summer_Cottages/Pages/RockHarbor/Weart.htm.

15. Isle Royale Institute, Isle Royale National Park Cultural Resource Interactive Mapping Project, Wolbrink, Sheet 023, Photo C, ISRO Archives, http://iri.forest.mtu.edu/Summer_Cottages/Pages/RockHarbor/.

1939, the Still family sold their property to the government for $718.38. The NPS removed the buildings shortly after.[16]

In 1919, W. W. Morse built a small cottage next door to the Warren Cottage on the northern half of lot twenty-nine. Morse Cottage was a one-and-a-half-story building with wood weatherboard siding and a shed addition on one side. Historic photographs indicate that the building had either a front gabled or side gabled roof. There were single, double, and tripartite 6/1 sash windows. There was a concrete chimney that projected through the roof slope. He also built a dock that was adjacent to the Weart's dock. In 1939, the government acquired the land by condemnation.[17]

In addition to these cottages built on lots within the subdivision, other owners acquired larger parcels adjacent to the subdivision or adjacent to the property that became Park Place, later Rock Harbor Lodge. Most of these transactions occurred later, in the late 1920s and 1930s, after the creation of Rock Harbor Lodge. Joseph Chapman owned a block of land on the Tobin Harbor side of the island west of the subdivision. Earl Weston Farmer and his wife Mary M. Farmer acquired .88 acres of shoreline property approximately a half-mile south of the subdivision. They purchased the land in 1935 from their parents, Kneutson's daughter Bertha and her husband Matt Farmer. On May 28, 1928, and on March 10, 1931, Bertha and Matt Farmer sold parcels of land south of the subdivision to Roy A. Ralph.[18] On November 20, 1929, February 10, 1930, and May 14, 1930, George Tallman purchased several tracts from Bertha and Matt Farmer, creating a landholding that extended across the island from Rock Harbor to Tobin Harbor just north and east of what became Rock Harbor Lodge.[19] Tallman constructed an one-and-a-half-story building with a side gabled roof and wood weatherboard siding. The building overlooked the water. The building had single, paired, and quadrupled 3/1 sash windows. There was a shed dormer on the rear façade containing quadruple 3/1 double hung windows. The building had one chimney on an exterior gable end and one that projected through the roof slope.

On December 19, 1930, the Farmers sold a 50-foot-wide parcel to the "General Public" for public transportation. According to the deed, the road's right-of-way was "directly south of and parallel to the north line of Lot 1… extending from the water's edge of Rock Harbor to the water's edge of Tobins Harbor, being deeded to the Public for highway purposes."[20] (This proposed road would have crossed the island passing through the existing Rock Harbor Campground area; it does not appear to have ever been constructed.) On January 25, 1932, the Farmers sold a parcel to First and American National Bank of Duluth.[21]

An aerial photograph taken as the NPS was negotiating acquisition of property on Isle Royale shows the landscape around Snug Harbor in the mid-1930s.[22] In the 1930s, trees dot the landscape, with clusters of trees and dense areas of wood spreading along the coastlines of Snug Harbor and Tobin Harbor (Figure AF. 7). The topography of the island on the northwest side of Snug Harbor rises towards a low ridge, increasing approximately 48 feet before descending towards Tobin Harbor. The upper portions of this ridge were relatively open in the 1930s. A similar open area extended north of the harbor. In the 1930s, this area is mostly clear, with only a few trees dotting an open field. The central portion of the peninsula forming the east side of Snug Harbor has thick woods along its western edge along the harbor. The woods become thinner towards the middle of the peninsula, with scattered large trees surrounded by open land.

As mentioned previously, the woods reached right down to the water's edge of Snug Harbor. A photograph looking northwest from the harbor across the Warren Dock, for example, shows thick woods with large trees growing right along the

16. Isle Royale Institute, Isle Royale National Park Cultural Resource Interactive Mapping Project, Wolbrink, Sheet 023, Photo C, ISRO Archives, http://iri.forest.mtu.edu/Summer_Cottages/Pages/RockHarbor/Still.htm.
17. Isle Royale Institute, Isle Royale National Park Cultural Resource Interactive Mapping Project, Wolbrink, Sheet 023, Photo C, ISRO Archives, http://iri.forest.mtu.edu/Summer_Cottages/Pages/RockHarbor/Morse.htm.
18. See ISRO Archives Box 5, Series 003 Central Files, Acc. No. ISRO-00614 Cat. No. ISRO 111, Coll. No. 00001.
19. See ISRO Archives Box 5, Series 003 Central Files, Acc. No. ISRO-00614 Cat. No. ISRO 111, Coll. No. 00001.
20. See ISRO Archives Box 5, Series 003 Central Files, Acc. No. ISRO-00614 Cat. No. ISRO 111, Coll. No. 00001.
21. See ISRO Archives Box 5, Series 003 Central Files, Acc. No. ISRO-00614 Cat. No. ISRO 111, Coll. No. 00001.
22. See ISRO Archives Box 5, Series 003 Central Files, Acc. No. ISRO-00614 Cat. No. ISRO 111, Coll. No. 00001.

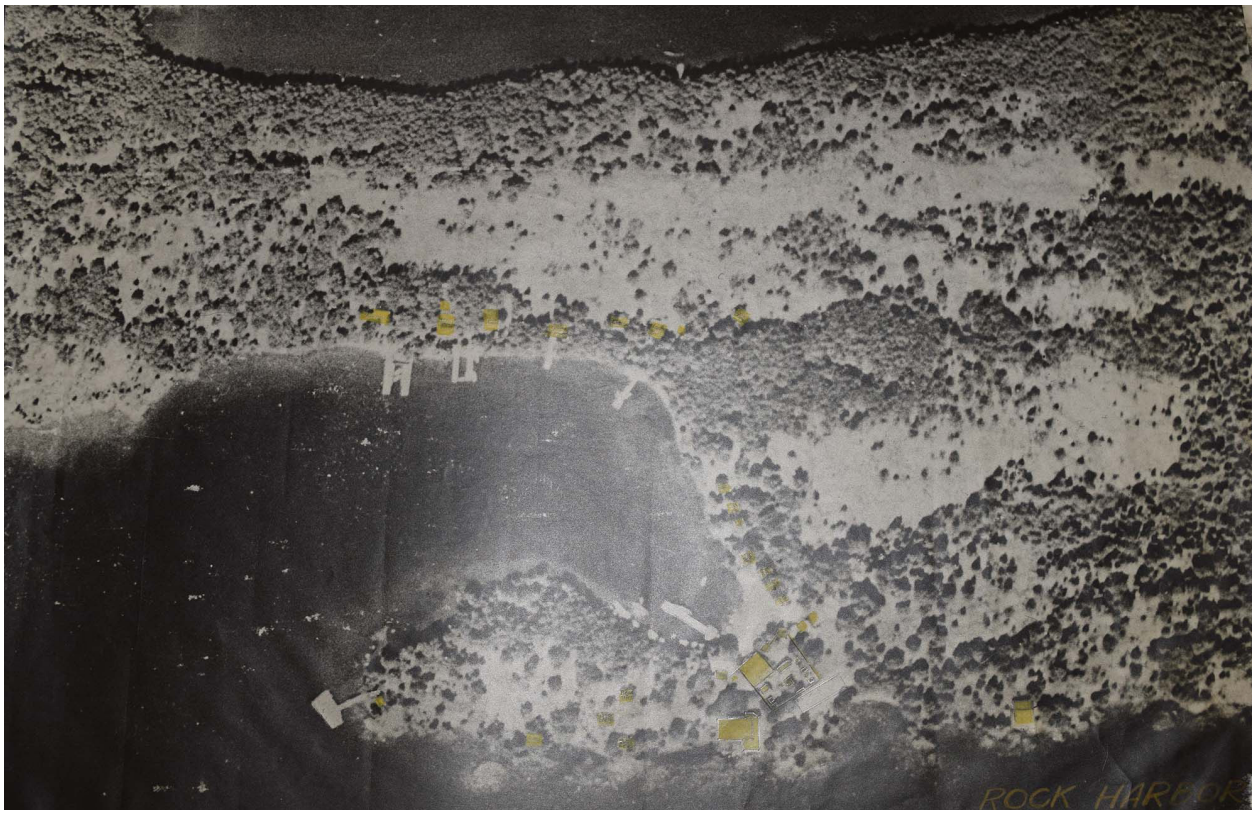


Figure AF.7: Aerial imagery from the 1930s showing Rock Harbor landscape (Source: ISRO Archives Box 5, Series 003 Central Files, Acc. No. ISRO-00614 Cat. No. ISRO 111, Coll. No. 00001.).

coastline (Figure AF.8).[23] Identifiable trees include paper birch (*Betula papyrifera*), fir (probably *Abies balsamea*), and white spruce (*Picea glauca*). There is also a relatively thick understory that partially obscure views of the cottages despite the buildings being relatively close to the coastline. The 1930s aerial, however, shows that the areas right around the cottages on the north and west side of the harbor were more open than the surrounding landscape, suggesting that cottage owners removed some trees when constructing the buildings. Additionally, the area on the northeast corner of the harbor was open and appears, in the 1930s aerial photograph, almost "beach-like" for swimming and recreation. This area was associated with Rock Harbor Lodge.

Several docks appear in the 1930s aerial photograph. The Rock Harbor Lodge dock, which a 1924 plat calls the "Small Craft Dock," extends into the harbor on its northeast corner. The 1930s aerial photograph also shows the America Dock at the end of the peninsula. The America Dock, built in 1898, was originally a T-shape dock named after a boat owned by A. Booth that carried goods to the island from 1902 to 1928 when the boat sank after crashing into a nearby reef.[24] A 1924 plat of the property calls this the "Steamboat Dock." On the west side of Snug Harbor, there are five docks associated with the privately-owned cottages. These include a double dock owned by the Warrens, the Morse Dock, Weart Dock, Farmer Dock, and Still Dock.

Photographs taken in the 1930s also document the landscapes associated with the early cottages. The photographs show the cottages within a naturalized setting, suggesting the owners simply allowed the native vegetation to fill in the areas around their cottages.

A historic photograph shows the Warren Cottage surrounded by birch trees and tall ground cover. A historic photograph of the Sterns Cottage shows a field of tall grass in front and a thickly forested area behind the cottage where the topography

23. Isle Royale Institute, Isle Royale National Park Cultural Resource Interactive Mapping Project, Forsell, 1930s, NVIC: 50-212, ISRO Archives, http://iri.forest.mtu.edu/Summer_Cottages/Pages/RockHarbor/Warren.htm.

24. "Cultural Landscape Inventory, Rock Harbor Lodge Historic District, Isle Royale National Park," 53.



Figure AF.8: View of Warren Dock looking northwest from harbor (Source: Isle Royale Institute, Isle Royale National Park Cultural Resource Interactive Mapping Project, NVIC: 50-212, ISRO Archives, http://iri.forest.mtu.edu/Summer_Cottages/Pages/RockHarbor/Warren.htm).

gently sloped toward the rear of the building.[25] The Weart Cottage had birch trees scattered around the property with a cluster of them to the left (south) of the building and a tall ground cover surrounding the rest of the site (Figure AF.5)[26] Rock Harbor Cottage had birch trees to the right of the front façade and piles of small rocks near the foundation of the building and front porch area.[27] Still Cottage, as seen in photographs from the 1930s, was in a forested area with tall grasses in front of the building and a birch tree growing close to its left corner. A 1930s photograph of the Langworthy Cottage shows tall grasses, birch trees, and conifer trees (possibly fir) growing around the building (Figure AF.6).[28] The Tallman Cottage was located away from the other cottages on the southside of the island along the shore. A 1930s photograph of the north side of the building shows a set of steps approaching a door on the lakeside of the building. The shore is rocky with a few shrubs growing among the rocks; it appears that the Tallmans may have cleared the vegetation below the house to allow views of the water from the cottage; otherwise there are many evergreen and birch trees with tall grasses and shrubs growing along the shoreline.[29] A 1930s photograph shows evergreen (possibly fir and spruce) and deciduous trees, mostly paper birch, filling the areas on either side of the building; the rear of building appears to be more open, a condition confirmed in the 1930s historic aerial.[30] A similar condition existed on the south side of the building. There are evergreen trees (firs, spruces, and pines) growing near the house with younger deciduous trees, mostly birch, growing amongst native grasses, ferns, and other herbaceous plants growing on the ground plane.[31]

Early Development of Park Place/Rock Harbor Lodge

The individual cottages described above were independent of and, for the most part, physically separated from Rock Harbor Lodge, the resort Kneut Kneutson began in the first decade of the 1900s and to which his daughter, Bertha Farmer, added onto in the 1920s and early 1930s. As described in the Historical Background, Kneutson built several vacation cabins and a log dining room for guests soon after acquiring the property and began calling the establishment Park Place (renamed Rock Harbor Lodge circa 1920.)[32] Early photographs of the property show a simple, utilitarian landscape. A photograph from the early 1900s, for example, shows the Dining Room under construction (Figure AF.9). The photograph shows a rough and unkempt landscape, with rocks strewn around the building and tall-growing grass and low-growing shrubs occupying the yard around the unfinished log structure.[33] Another photograph of

25. Isle Royale Institute, Isle Royale National Park Cultural Resource Interactive Mapping Project, Wolbrink Collection [Sheet 23, Photo D], ISRO Archives, http://iri.forest.mtu.edu/Summer_Cottages/Pages/RockHarbor/Sterns.htm.
26. Isle Royale Institute, Isle Royale National Park Cultural Resource Interactive Mapping Project, Wolbrink, Sheet 024, Photo A, ISRO Archives, http://iri.forest.mtu.edu/Summer_Cottages/Pages/RockHarbor/Weart.htm.
27. Isle Royale Institute, Isle Royale National Park Cultural Resource Interactive Mapping Project, Janke Donation, ISRO Archives, http://iri.forest.mtu.edu/Summer_Cottages/Pages/RockHarbor/Sterns.htm.
28. Isle Royale Institute, Isle Royale National Park Cultural Resource Interactive Mapping Project, Wolbrink, Sheet 023, Photo C, ISRO Archives, http://iri.forest.mtu.edu/Summer_Cottages/Pages/RockHarbor.
29. Isle Royale Institute, Isle Royale National Park Cultural Resource Interactive Mapping Project, ISRO Purchase Records, ISRO Archives, http://iri.forest.mtu.edu/Summer_Cottages/Pages/RockHarbor/Tallman.htm.
30. Isle Royale Institute, Isle Royale National Park Cultural Resource Interactive Mapping Project, ISRO Purchase Records, ISRO Archives, http://iri.forest.mtu.edu/Summer_Cottages/Pages/RockHarbor/Tallman.htm.
31. Isle Royale Institute, Isle Royale National Park Cultural Resource Interactive Mapping Project, ISRO Purchase Records, ISRO Archives, http://iri.forest.mtu.edu/Summer_Cottages/Pages/RockHarbor/Tallman.htm.
32. The simplicity of the early resorts on Isle Royale is discussed in Karamanski and Zeitlin, Narrative History, p. 232.
33. The early photograph of the Dining Room under construction is from the Farmer Collection, ACC#ISRO-00644, ISRO Archives (http://iri.forest.mtu.edu/Resorts/Pages/ParkPlace.htm).



Figure AF.9: Early 1900s photograph of Dining Room under construction (Source: Isle Royale Institute, Isle Royale National Park Cultural Resource Interactive Mapping Project, Farmer Collection, ACC#ISRO-00644, ISRO Archives, http://iri.forest.mtu.edu/Resorts/Pages/ParkPlace.htm).



Figure AF.10: Early 1900s photograph of Dining Room on left and Old Lodge on right (Source: Isle Royale Institute, Isle Royale National Park Cultural Resource Interactive Mapping Project, Farmer Collection, ACC#ISRO-00644, ISRO Archives, http://iri.forest.mtu.edu/Resorts/Pages/ParkPlace.htm).

the Dining Room from the early 1900s shows the completed building (Figure AF.**10**). The landscape looks informal, natural, and unadorned. A group of visitors are sitting in chairs near the building. Grass and an occasional shrub occupy the ground plane. Trees are visible filling the area behind the building, and one tree is visible to the side of the photograph.

A 1926 site plan shows buildings within the Rock Harbor Lodge complex at that time. Buildings include several small cottages strewn along the northeast corner of Snug Harbor (called Rock Harbor on the plan) (Figure AF.**11**). The names of the cabins include Bid-A-Wee, Cheerio, Harbor View, Opechee, Nokomis, Trail Side, Buttercup, The Spruces, and Log Cabin. (This list moves roughly east to west along the harbor's coast.) A building called The Breakers was at the landward end of the America Dock at the tip of the peninsula on the east side of Snug Harbor. Breakers Cottage was a one-story building with a front gabled roof and wood shiplap siding. The right elevation featured a 4x2 fixed pane window flanked by decorative lattice work. Three other cottages were on the peninsula, including two small buildings, called Piccadilly and Tipperary near the middle of the peninsula, and a much larger cottage called Sunrise, which looked eastward out towards the water.[34] Piccadilly Cottage was a one-story building with a side gambrel roof. The building was clad in wood vertical board siding. There was a front verandah with a shed roof and wooden balustrade on the front façade. Tipperary was almost identical to Piccadilly. Tipperary Cottage was a one-story building with a side gambrel roof. The building was clad in wood vertical board siding. There was a front verandah with a shed roof and wooden balustrade on the front façade. Sunrise Cottage was a one-story building with a side gabled roof, clad in wood board and batten siding. The right elevation featured single 2x3 fixed pane windows. There was a verandah with a shed roof on the front façade.

The main buildings associated with Rock Harbor Lodge were clustered together on the northeast corner of Snug Harbor, near the Small Craft Dock. These included the Old Lodge, Dining Room, Store/Post Office, and Rock Harbor Lodge Guest House. There were also many services buildings located in a fenced area behind (east) and to the north side of the Dining Room. These buildings

34. In 1931, J.T. Johnson appraised the buildings of Rock Harbor Lodge for the NPS as they began negotiating acquisition of the property. This list includes a few additional buildings missing from the 1926 site plan. Buildings and structures listed in the inventory include Log Cabin, The Spruces, Buttercup, Trailside, Opechee, Harbor View, Cheerio, Bidawee, Paradise, Post Office, Sunrise, Tipperary, Piccadilly, Waugun, The Family Cottage, the Breakers, Old Lodge, Dining Room, tennis courts, tools and recreation room, motor room, three bunk houses, icehouse, paint house and laundry, main dock, dining room dock, Guest House, bell and bell pier, and dock roadway. (See ISRO Archives Box 5, Series 003 Central Files, Acc. No. ISRO-00614 Cat. No. ISRO 111, Coll. No. 00001.).

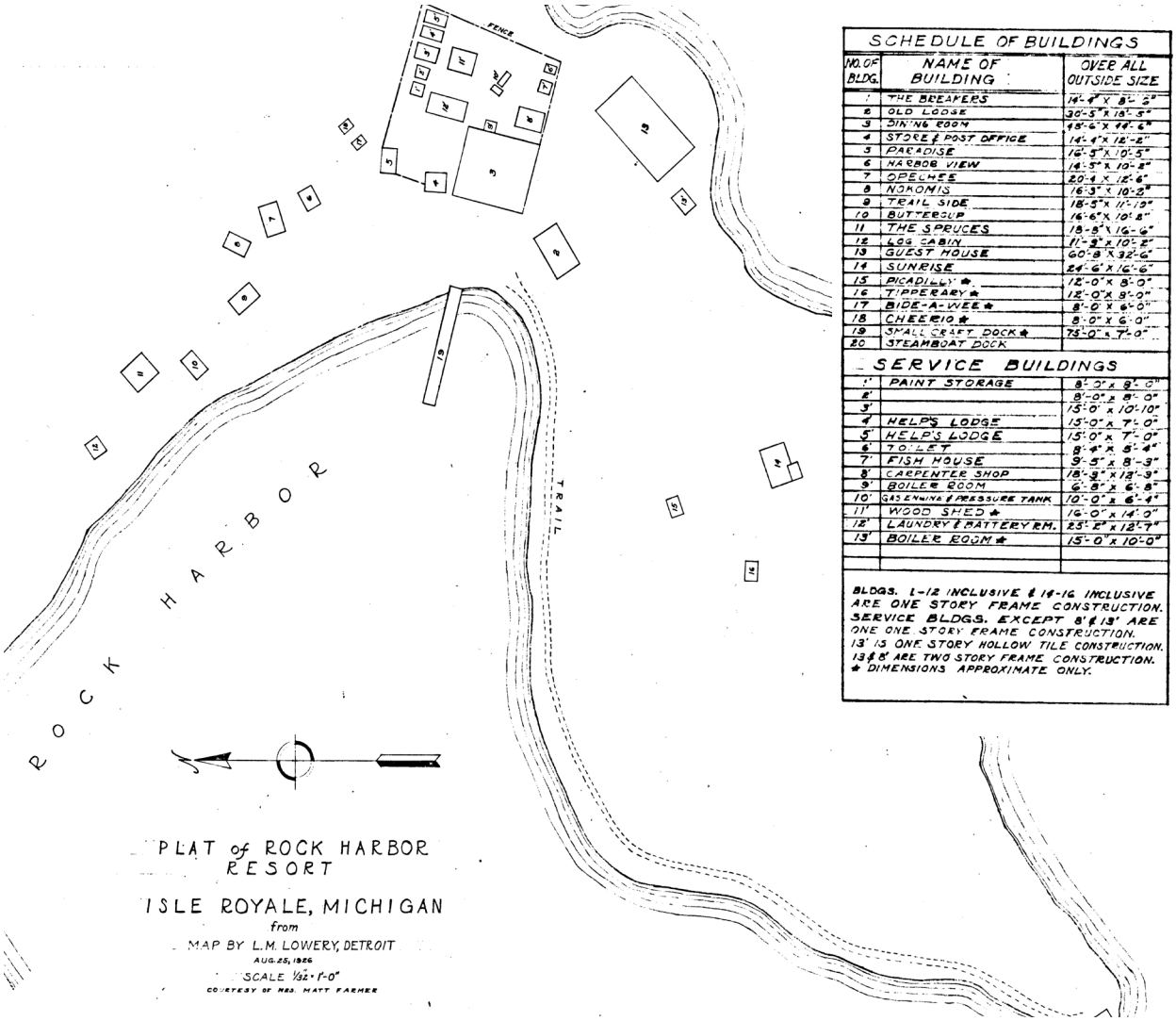


Figure AF.11: A 1926 site plan which shows buildings within the Rock Harbor Lodge complex (Source: NPS, Lowery, Plat of Rock Harbor Resort, 1926 (ETIC ISRO 139_1012).

included paint storage, two help's lodges, toilet building, fish house, carpenter shop, two boiler rooms, gas and pressure tank, woodshed, and a laundry and battery room. Another cottage sat at the northwest corner of this compound called Paradise.[35] In 1935 another site plan was drawn which focused more closely on the buildings close to the Dining Room and Guest House. Buildings on this drawing include the Guest House, Old Lodge, Dining Room, Trading Post, Paradise, Harbor View, Operene, and Nokomis (Figure AF.12). Features listed to exist within a fenced area behind the Dining Room include a fish house, two toilets, tool house, engine room and laundry, four bunkhouses, and a woodshed. Also, by 1935, Rock Harbor Lodge also featured a concrete Tennis

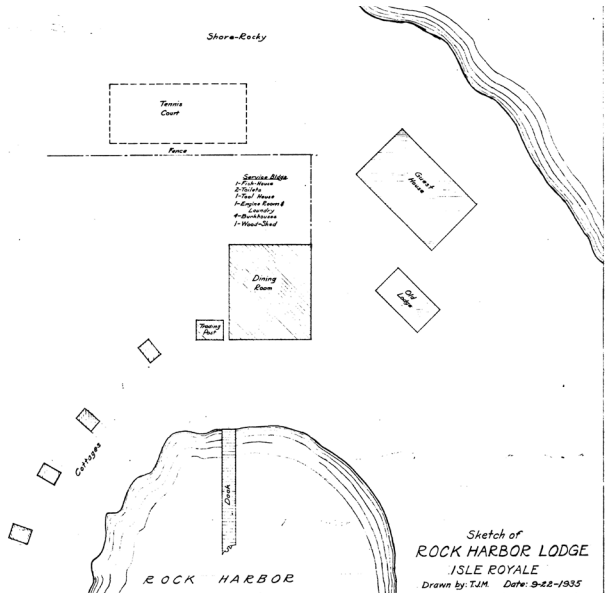


Figure AF.12: Site plan that shows buildings close to the Dining Room and Guest House, circa 1935 (Source: NPS, TMJ, Sketch of Rock Harbor Lodge, 1935 (ETIC ISRO 139_1009).

35. NPS, Lowery, Plat of Rock Harbor Resort, 1926 (ETIC ISRO 139_1012).

Court, which occupied the space between the fenced service yard and the shore of Rock Harbor to the east.

The landscapes surrounding the Rock Harbor Lodge cabins contained many natural features that combined to create a simple, rustic setting for the buildings. A typical condition seen in historic photographs from the 1930s was that the cabins had a cleared area between them and the coastline of Snug Harbor (Figure AF.**13**). The areas behind and between the cabins were mostly naturalized, with evergreen and deciduous trees and taller growing grass, wildflowers, and shrubs. A 1935 view of the Snug Harbor shore from the water reveals the tall deciduous birch trees and dark evergreen trees (likely fir or spruce) interspersed between the buildings (Figure AF.**14**). In the photograph, a few trees, mostly birch, grow close to the harbor's edge.

One of the earliest buildings constructed on the landscape was Spruces Cabin. Built in 1910, by Kneutson and his son, Earl, the building is a "one story, one room structure with a pyramidal hipped roof with a recessed corner porch" that measures 16 feet by 18 feet. The exterior contained 2/2 windows and a ten-panel door with ten lights with board and batten skirting. The interior contained a "tongue and groove floor, and a cement fireplace with an exterior chimney." A 1935 photograph of the Spruces Cabin shows tall grass growing around the sides of the building, but the area in front of the cabin, where a visitor would walk between the harbor and the cabin, appears to have been cut or worn by foot traffic to a shorter height (Figure AF.**15**). Because the cabins were built on piers and elevated above surrounding grade, each cabin had a small flight of stairs leading to the front door or a small front porch. These steps are visible in multiple photographs of different cabins. While most photographs show a continuous cover of grass around most buildings, a few photographs show circulation features, including one of the Log Cabin taken in 1935 that shows an earthen path approaching the cabin's front door (Figure AF.16).

A photograph of Harbor View and Nokomis Cabins, taken circa 1930, shows two visitors sitting in chairs next to a circular table in the level area between Snug Harbor and the cabins (Figure AF.**17**). This level area at the end of the Rock Harbor Lodge's Small Craft Dock appears in several historic photographs and must have been an important social space and recreational area for guests to Rock Harbor Lodge. This is the setting of group photographs of visitors to the lodge; other photographs record small boats and canoes pulled up onto its bank (Figure AF.**18**). One photograph of this area shows a horseshoe pit, with a metal stake and wood edging around the pit.



Figure AF.13: 1935 photograph of Opechee and Nokomis Cabins (Source: Isle Royale Institute, Isle Royale National Park Cultural Resource Interactive Mapping Project, Wolbrink Collection [Sheet 4, Photo C], ISRO Archives, http://iri.forest.mtu.edu/Resorts/Pages/ParkPlace.htma).



Figure AF.14: 1935 photograph of Rock Harbor Lodge from Snug Harbor (Source: Isle Royale Institute, Isle Royale National Park Cultural Resource Interactive Mapping Project, Wolbrink Collection [Sheet 3, Photo A], ISRO Archives, http://iri.forest.mtu.edu/Resorts/Pages/ParkPlace.htma).



Figure AF.15: 1935 photograph of Spruces Cabin (Source: Isle Royale Institute, Isle Royale National Park Cultural Resource Interactive Mapping Project, Wolbrink Collection [Sheet 3, Photo D], ISRO Archives, http://iri.forest.mtu.edu/Resorts/Pages/ParkPlace.htma).



Figure AF.16: 1935 photograph of Log Cabin (Source: Isle Royale Institute, Isle Royale National Park Cultural Resource Interactive Mapping Project, Wolbrink Collection [Sheet 4, Photo A], ISRO Archives, http://iri.forest.mtu.edu/Resorts/Pages/ParkPlace.htma).



Figure AF.17: 1935 photograph of a row of Rock Harbor Lodge cabins, including Harbor View, Operene, and Nokomis (Source: Isle Royale Institute, Isle Royale National Park Cultural Resource Interactive Mapping Project, Farmer Collection, ISRO Archives, http://iri.forest.mtu.edu/Resorts/Pages/ParkPlace.htm).

In addition to serving as the front yard for the lodge's cabins and as a place for recreation, this area also served as the entrance into the main lodge area and marked the threshold between the cabins and the more service-related buildings of the lodge. Over time, the circulation in the area around the main buildings of the lodge became more formalized. Whereas photographs from the 1920s and early 1930s show it open without defined paths, by the mid- to late-1930s, well-worn and defined pedestrian paths are lined with stones (Figure AF.**19**).

The service-related cluster of buildings were organized around the Dining Room, which occupied a site almost directly in line with the Rock Harbor Lodge's Small Craft Dock. The Dining Room was a singularly important building to visitors to Rock Harbor Lodge since it was where they took their meals during their stay (Figure AF.**20**). It was also one of the largest buildings on the island, much larger than any of the private cottages or lodge cabins. According to an NPS drawing of the property from the



Figure AF.18: A circa 1920s photograph of visitors to Rock Harbor Lodge (Source: Isle Royale Institute, Isle Royale National Park Cultural Resource Interactive Mapping Project, Farmer_Collection_0033, ISRO Archives, http://iri.forest.mtu.edu/Resorts/Pages/ParkPlace.htm).



Figure AF.19: A circa 1920s photograph of open area leading into the main service area of Rock Harbor Lodge (Source: Isle Royale Institute, Isle Royale National Park Cultural Resource Interactive Mapping Project, Farmer_Collection_0045, ISRO Archives, http://iri.forest.mtu.edu/Resorts/Pages/ParkPlace.htm).



Figure AF.20: A 1935 photograph of the Dining Room, not stone lined paths (Source: Isle Royale Institute, Isle Royale National Park Cultural Resource Interactive Mapping Project, Wolbrink Collection [Sheet 7, Photo B], ISRO Archives, http://iri.forest.mtu.edu/Resorts/Pages/ParkPlace.htma).

mid-1930s, the Dining Room measured 48.3 feet by 44.3 feet. A fence extended off its northwest and southeast corners to enclose a service yard behind the building. This area, sometimes called "The Stockade" in historic photographs, included multiple buildings that supported the operation of the resort.



Figure AF.21: A 1935 photograph of the Post Office/Store (Source: Isle Royale Institute, Isle Royale National Park Cultural Resource Interactive Mapping Project, Wolbrink Collection [Sheet 7, Photo C], ISRO Archives, http://iri.forest.mtu.edu/Resorts/Pages/ParkPlace.htma).

The Post Office and Store occupied a small building adjacent to and north of the Dining Room (Figure AF.21). The original lodge, called "Old Lodge" on various plats of the property, stood 18.2 feet south from the southwest corner of the Dining Room. The Guest House is shown set back behind (east) the Old Lodge and Dining Room, oriented on the coastline to take advantage of the view towards Rock Harbor. The NPS map of the property from the mid-1930s records a "Rubble and Concrete Bell Tower" standing in between the Dining Room and Old Lodge, in the middle of the passage between the two buildings leading to the Guest House. A tennis court occupied an area northeast of the Guest House and behind the fence surrounding the service area behind the Dining Room. According to the mid-1930s NPS map of the site, it was 88.3 feet long and 26.5 feet wide. It had a rubble masonry wall along its east side that was 77 feet long and a foot tall. A corner of the concrete tennis court appears in one photograph; the "Stockade" fence around the service yard is also visible (Figure AF.**22**).

The area around the Guest House, Dining Room, and Old Lodge was documented in photographs taken in the 1930s. A photograph of the Old Lodge taken in 1931 shows a side gabled, frame structure with six six-over-six double hung windows flanking a centrally located front entrance (Figure AF.23). The Old Lodge was a one-story building with a side gabled roof and wood shiplap siding. The front façade contained a small stoop with a shed roof. The stoop was flanked by tripartite 6/6 sash windows. There was a secondary entrance and single 6/6 double hung window on the rear elevation. There was a large, stuccoed masonry



Figure AF.22: A 1935 photograph of the service area behind the Dining Room, whose hip roof is visible in the background; note also tennis court in foreground (Source: Isle Royale Institute, Isle Royale National Park Cultural Resource Interactive Mapping Project, Wolbrink Collection [Sheet 2, Photo C], ISRO Archives, http://iri.forest.mtu.edu/Resorts/Pages/ParkPlace.htma).



Figure AF.23: A 1935 photograph of the Old Lodge (Source: Isle Royale Institute, Isle Royale National Park Cultural Resource Interactive Mapping Project, Wolbrink Collection, ISRO Archives, http://iri.forest.mtu.edu/Resorts/Pages/ParkPlace.htma).

chimney on the rear elevation with a decorative stone base. The landscape around the building was simple, with very little ornamentation. The native woods grew up to the southern edge of the building. The areas on its north, west, and east sides were cleared. A rock lined planting bed along the west and north elevations separated the area right next to the building from the rest of the front and side yards, which were used for circulation or recreation. A 1935 photograph of the front (west) elevation shows two Adirondack style chairs and a metal table set up for visitor use. A photograph of its rear (east) elevation shows a croquet court in a level yard, providing evidence of a recreational use of the space between the Old Lodge and the adjacent Guest House (Figure AF.**24**).

The Dining Room, a one-story building built in 1908, was originally covered with a low-pitched



Figure AF.24: A 1935 photograph of the Old Lodge (Source: Isle Royale Institute, Isle Royale National Park Cultural Resource Interactive Mapping Project, Wolbrink Collection [Sheet 6, Photo C], ISRO Archives, http://iri.forest.mtu.edu/Resorts/Pages/ParkPlace.htma).



Figure AF.26: A 1935 photograph of service buildings behind the Dining Room (Source: Isle Royale Institute, Isle Royale National Park Cultural Resource Interactive Mapping Project, Wolbrink Collection [Sheet 2, Photo D], ISRO Archives, http://iri.forest.mtu.edu/Resorts/Pages/ParkPlace.htma).



Figure AF.25: A 1935 photograph of the Post Office/Store on left and Dining Room on right (Source: Isle Royale Institute, Isle Royale National Park Cultural Resource Interactive Mapping Project, Wolbrink Collection, ISRO Archives, http://iri.forest.mtu.edu/Resorts/Pages/ParkPlace.htma).

hipped roof and covered with wood shiplap siding. There were single, tripartite, and quadrupled 6/6 sash windows. There were multiple vents and a chimney that extended through the roof slope. The primary entrance was a stoop with a shed roof on the front façade. Much of the front (west) and side yards were filled with circulation routes. Rock lined, bare earth and gravel paths led to the front door of the Dining Room. The paths continued towards the Old Lodge and around the side of the Dining Room towards the Guest House. The rock lined paths also created a foundation bed along the base of the west and south elevations of the Dining Room. A lone conifer, likely a balsam fir, stood within the bed just to the right (south) of the entrance into the Dining Room.

The Post Office/Store next to the Dining Room was a one-story building with a side gabled roof and wood board and batten siding. The front façade contained tripartite 6/6 sash windows. The main entrance was on the right side of the front façade. The front façade had a shed roof verandah. A tall board fence and gate spans the small distance between the Post Office and Dining Room; the gate provided access to the service yard behind the Dining Room. A 1935 photograph of the building shows a bare earth and gravel path leading to the southwest corner of the building (Figure AF.**25**). The path was lined with rocks, like most of the paths seen in photographs of this area of Rock Harbor Lodge. A large evergreen shrub grew next to the Post Office/Store porch. A large stone was mounted vertically in the yard off the left (north) side of the porch.

Photographs taken in the 1930s also document the service yard and buildings, the "Stockade," behind the Dining Room. One photograph shows three buildings, possibly paint storage buildings, standing very close together (Figure AF.**26**). They are all simple, wood frame buildings with wood siding. Two are front gabled and one has a shed roof. The roof material is wood shake. All are slightly elevated off the ground with either a foundation beam or corner post resting on a rock. The ground is covered with worn and beaten grass. Another photograph from 1935, which is of the Woodshed, shows mostly bare earth around the building and a lone birch tree (Figure AF.27). A photograph of the Laundry and Light Plant shows a similar condition (Figure AF.**28**). The building is surrounded by bare earth with outcrops of rock visible in places. There are powerlines connected to the front gable peak of this building. One of the lines goes



Figure AF.27: A 1935 photograph of Woodshed behind the Dining Room (Source: Isle Royale Institute, Isle Royale National Park Cultural Resource Interactive Mapping Project, Wolbrink Collection [Sheet 1, Photo B], ISRO Archives, http://iri.forest.mtu.edu/Resorts/Pages/ParkPlace.htma).

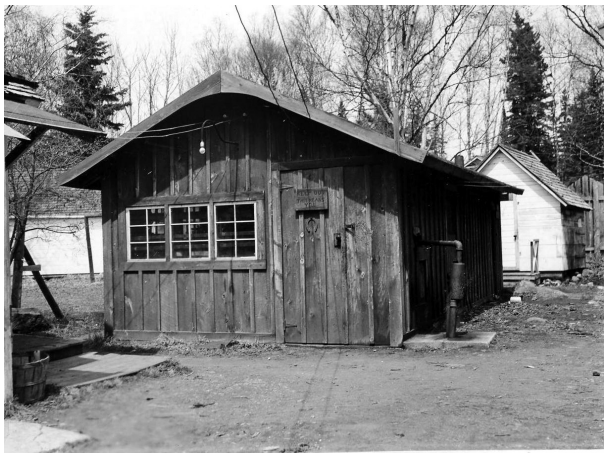


Figure AF.28: A 1935 photograph of Laundry and Light Plant behind the Dining Room (Source: Isle Royale Institute, Isle Royale National Park Cultural Resource Interactive Mapping Project, Wolbrink Collection [Sheet 1, Photo C], ISRO Archives, http://iri.forest.mtu.edu/Resorts/Pages/ParkPlace.htma).

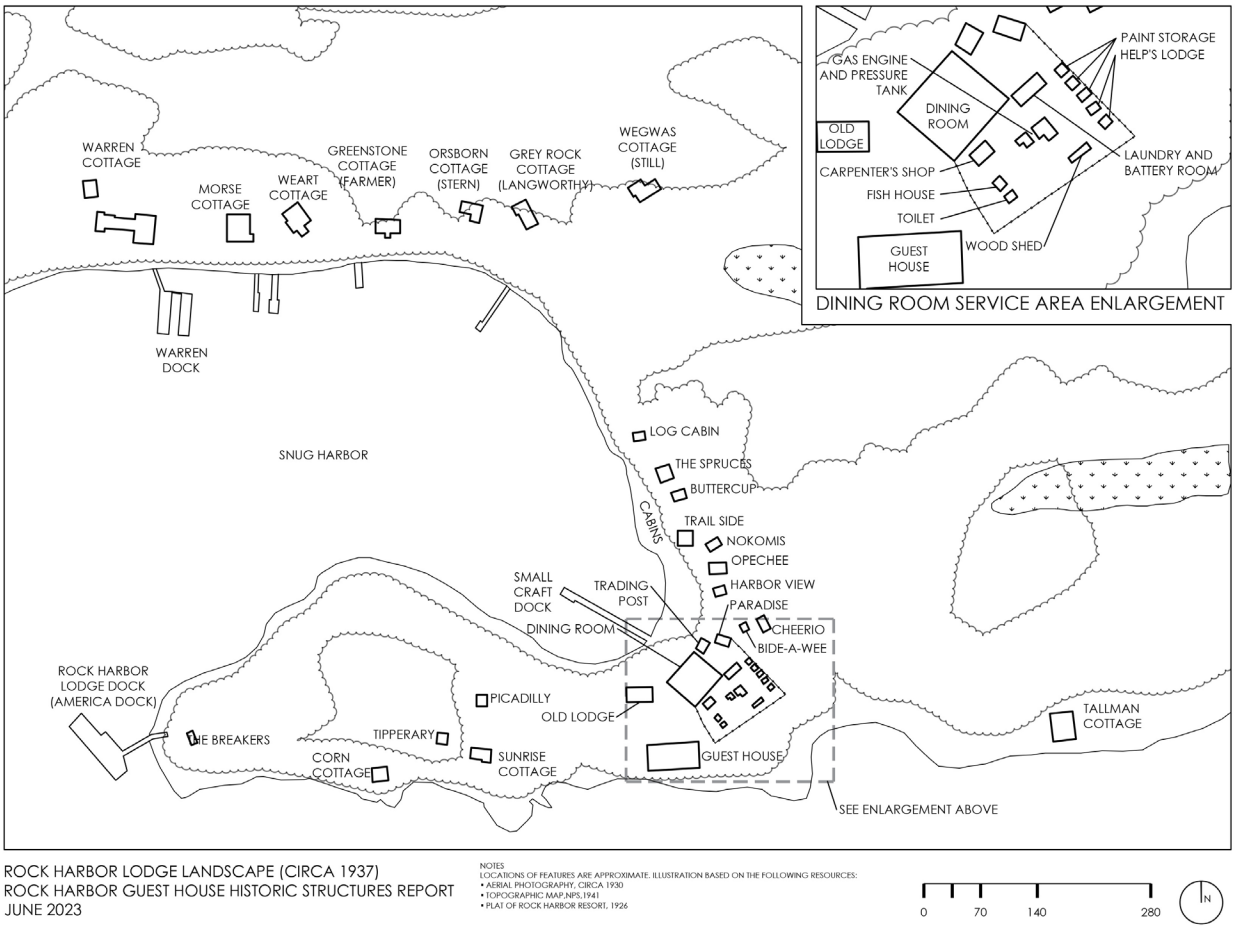


Figure AF.29: Conceptual map of landscape conditions at Rock Harbor Lodge circa 1937 (WLA Studio, 2023)

towards the Dining Room; the second line heads towards the location of the Guest House, which is out of view of the photograph [36] Photographs of the service area show that all the buildings were simple, vernacular structures with no architectural style or ornament. The landscape was also spartan and utilitarian. As mentioned, the ground was mostly bare and littered with various small features associated with running the resort—barrels, baskets, hoses, tanks, wood piles, etc.[37] Other service buildings behind the Dining Room include Wigwam and Woodpile View cabins. These were likely residential buildings for lodge staff (**Figure AF.29**).

Establishment and Early Development of Isle Royale National Park (1938-1943)

Between 1936 and 1938, the National Park Service evaluated the estimated costs of the properties around Snug Harbor. Acquisition took form of both outright purchases, condemnation, and life leases.[38] On August 8, 1937, Mr. Stern sold his cottage to Mr. Orsborne, who eventually sold the property in 1938 to the U. S. Government for $95.73 and a life lease.[39] On December 31, 1938, the Langworthys sold their property in exchange for a life lease in the name of their grandson, Herman Langworthy.[40] Also in 1938, the Weart's sold their cottage outright to the U. S. Government for $431.64. The main cottage, privy, and dock were removed shortly after the purchase.[41] The Still family sold their cottage on June 26, 1939, for $718.38. The NPS demolished their cottage shortly after the purchase.[42] Similarly, the Morse cottage was acquired by the government in 1939 through condemnation and was removed.[43] In December 1939, Tallman sold his cottage to the government for $3,133.52.[44]

Almost immediately, the NPS began planning efforts to knit together existing resources on Isle Royale into a national park. The NPS, for example, prepared plans for constructing trails connecting the different developed areas on the island. A map from 1940 shows a proposed trail, called "Rock Harbor Trail" running along the east coast of the island from Moskey Basin to Rock Harbor Lodge.[45] Many of these early trails and park features were constructed by members of the Civilian Conservation Corps (CCC).[46]

In the early 1940s, the park began developing conceptual plans to replace existing buildings and other features in Snug Harbor, including those associated with Rock Harbor Lodge. A topographic map dated 1941, which appears to be based on a 1937 survey by Burgess and Shroeger, documented the existing conditions around Rock Harbor Lodge.[47] This map contains faint, undated outlines of building footprints added to the base map that appear to be part of a conceptual design process to identify potential building sites. Several of the building sites and building footprints would reappear over the next several years as the NPS prepared a series of Master Plans for Isle Royale and Rock Harbor.[48]

36. Royale Institute, Isle Royale National Park Cultural Resource Interactive Mapping Project, Wolbrink Collection [Sheet 1, Photo C], ISRO Archives, http://iri.forest.mtu.edu/Resorts/Pages/ParkPlace.htma.
37. Isle Royale Institute, Isle Royale National Park Cultural Resource Interactive Mapping Project, Wolbrink Collection [Sheet 1, Photo D], ISRO Archives, http://iri.forest.mtu.edu/Resorts/Pages/ParkPlace.htma.
38. See ISRO Archives Box 5, Series 003 Central Files, Acc. No. ISRO-00614 Cat. No. ISRO 111, Coll. No. 00001.
39. Sterns Camp, Isle Royale Institute, Isle Royale National Park Cultural Resource Interactive Mapping Project, ISRO Archives, http://iri.forest.mtu.edu/Summer_Cottages/Pages/RockHarbor/Sterns.htm.
40. Langworthy Camp, Isle Royale Institute, Isle Royale National Park Cultural Resource Interactive Mapping Project, ISRO Archives, http://iri.forest.mtu.edu/Summer_Cottages/Pages/RockHarbor/Langworthy.htm.
41. Weart Camp, Isle Royale Institute, Isle Royale National Park Cultural Resource Interactive Mapping Project, ISRO Archives, http://iri.forest.mtu.edu/Summer_Cottages/Pages/RockHarbor/Weart.htm.
42. Still Camp, Isle Royale Institute, Isle Royale National Park Cultural Resource Interactive Mapping Project, ISRO Archives, http://iri.forest.mtu.edu/Summer_Cottages/Pages/RockHarbor/Still.htm.
43. Morse Camp, Isle Royale Institute, Isle Royale National Park Cultural Resource Interactive Mapping Project, ISRO Archives, http://iri.forest.mtu.edu/Summer_Cottages/Pages/RockHarbor/Morse.htm.
44. Tallman Camp, Isle Royale Institute, Isle Royale National Park Cultural Resource Interactive Mapping Project, ISRO Archives, http://iri.forest.mtu.edu/Summer_Cottages/Pages/RockHarbor/Tallman.htm.
45. NPS, Trail Construction Rock Harbor, 1940 (ETIC ISRO 139_2127.)
46. "Cultural Landscape Inventory, Rock Harbor Lodge Historic District, Isle Royale National Park," 24.
47. NPS, Shroeger, Topographic Map, 1941 (ETIC ISRO 139_5322).
48. The proposed building footprints on the 1941 topographic map line up almost exactly with proposed footprints shown on a 1948 plan for utility upgrades at Rock Harbor. See NPS, Utility Layout Plan-Rock Harbor, 1948 (ETIC ISRO 139_2141).

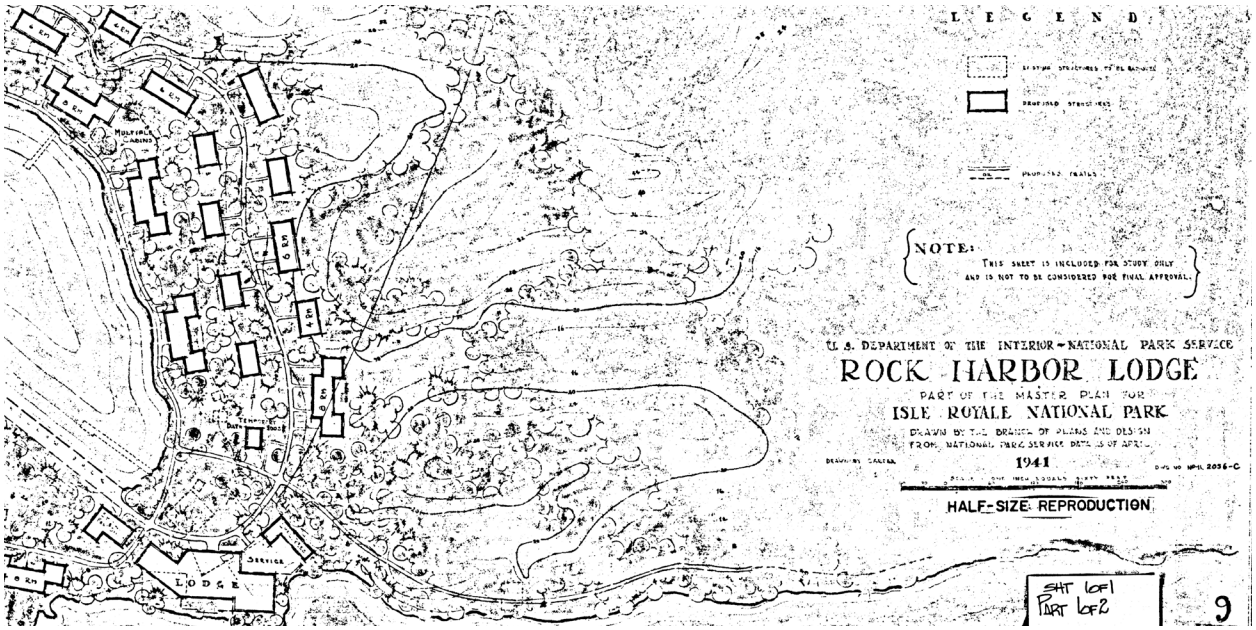


Figure AF.30: Detail of the 1941 Master Plan for Rock Harbor (Source: NPS, Master Plan, 1941 (ETIC ISRO 139_2056)).

The NPS Branch of Plans and Design prepared a draft Master Plan for Rock Harbor Lodge in 1941; the plan includes a note that states: "This sheet is included for study only and is not to be considered for final approval."[49] The 1941 plan proposed removing all the existing buildings around Snug Harbor, including all the buildings that were part of Rock Harbor Lodge and all the private cottages. These buildings are shown in dash lines as "existing structures to be removed." It also shows proposed buildings, which included eight-room, six-room, and four-room guest buildings. A total of twenty buildings are shown spread out along the north and east coast of Snug Harbor, including a new, very large lodge taking the place of the Guest House and Dining Room (Figure AF.30).

Development of Isle Royale National Park (1943-1955)

The NPS acquired Rock Harbor Lodge in 1938 and placed it under the management of Bertha Farmer for a five-year period.[50] This third period begins when the NPS decided not to renew its arrangement with Mrs. Farmer and leased Rock Harbor Lodge to a concessioner in 1943.

Despite plans already percolating within the NPS by the early 1940s about making major changes to the area around Rock Harbor Lodge, the NPS went ahead and upgraded the electrical supply system on the island and rewired all the existing buildings around 1943. The electrical system included an overhead supply line supported on a network of power poles on the west, north, and east side of the harbor. Most of the buildings, including the cottages on the west side of the harbor, had overhead electrical supply. The small cabins on the north shore of the harbor had underground supply. According to the drawing, the main supply was a 13 KW, AC Single Phase 60 Cycle Diesel Generator located north of the Dining Room.[51] 1943 was also the year that the NPS remodeled the Guest House. According to notes added to a floorplan drawn of

49. NPS, Rock Harbor Lodge Part of the Master Plan for Isle Royale National Park, 1941 (ETIC ISRO 139_2056_C).

50. NPS, Cultural Landscape Inventory Rock Harbor Lodge, 2021, page 36.

51. NPS, Power Transmission, Rock Harbor Lodge, 1943 (ETIC ISRO 139_5323).
See ISRO Archives Drawer D, Series 003 Central Files, Acc. No. ISRO-00614 Cat. No. ISRO 111, Coll. No. 00001.

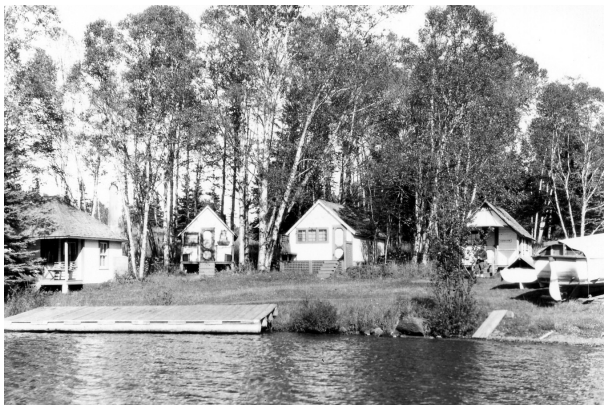


Figure AF.31: 1942 photograph showing cabins along Snug Harbor, including (from left to right) Trailside, Nokomis, Opechee, and Harbor View cabins (Source: Isle Royale Institute, Isle Royale National Park Cultural Resource Interactive Mapping Project, NVIC:40-052, ISRO Archives, http://iri.forest.mtu.edu/Resorts/Pages/ParkPlace.htma).



Figure AF.32: 1944 photograph showing the Dining Room and Paradise, Bidawee, and Cherrio cabins (Source: Isle Royale Institute, Isle Royale National Park Cultural Resource Interactive Mapping Project, NVIC:40-053, ISRO Archives, http://iri.forest.mtu.edu/Resorts/Pages/ParkPlace.htma).

the Guest House, the NPS removed the walls of one of the first-floor guest rooms to enlarge the lobby.

In the 1940s and 1950s, the NPS enlarged the Dining Room with multiple additions. In 1946, the NPS added onto the north side and east rear of the building. This large addition resulted in the removal of the small Post Office/Store building; these functions moved into the new north wing addition onto the Dining Room, which was later advertised as the "Trading Post." This remodel also added a large kitchen to the rear of the building.[52] The NPS remodeled and enlarged the Dining Room again in 1956.[53]

Historic photographs from the early 1940s suggest that the NPS did not make major changes to the landscape during the first decade of its management of the property. Despite a few, previously described improvements to and enlargement of some of the buildings, the overall character of the landscape setting, vegetation patterns, the spatial orientation and arrangement of buildings, and circulation systems remained virtually unchanged from what is visible in photographs taken in the 1930s. A 1942 photographs of four cabins on the Snug Harbor shore show that the condition of the buildings and surrounding landscape in that area was the same as in the previous decade (Figure AF.31). The deciduous and evergreen trees were larger, but the vegetation pattern of natural woods growing around buildings continued. The area between the lake and the cottages remained relatively open with short grass and a few trees growing close to the shoreline. Some new small-scale features appear in photographs from the 1940s, including a wooden floating platform seen pulled up onto the shore near Trailside Cabin.[54] A winter photograph from 1944 shows the Dining Room and Paradise Cabin. Large piles of wood poles are visible stacked at the edge of the harbor, suggesting that building material was being stockpiled for a construction project (Figure AF.32).

If the material was for construction, it may have been used to construct nine small cabins between Spruces Cabin and the Still (Wegwas) Cottage. These nine cabins included Owls Nest, Inwood, Edgewood, Moonlight, Solitude, Retreat, Pilot House, Surfside, and Sing (other maps call this cabin "Snug"). They do not appear on topographic maps prepared in 1941, but they do appear on a new building site plan dated 1948.[55] These small cabins continued the general spatial arrangement of the original cabins, and they were generally the same size, but rather than remaining close to the water's edge, the cabins extended up the hill on the north side of the harbor and into the woods. (The location of these buildings would have been

52. NPS, E.R. Roberson, Addition to Kitchen, Rock Harbor Lodge, 1946 (ETIC ISRO 139_2121_A).
53. NPS, Roberson, Remodeling Dining Room and Kitchen, Rock Harbor Lodge, 1955 (ETIC ISRO 139_3003).
54. Isle Royale Institute, Isle Royale National Park Cultural Resource Interactive Mapping Project, NVIC:40-052, ISRO Archives, http://iri.forest.mtu.edu/Resorts/Pages/ParkPlace.htma.
55. See NPS, Location Plan for Temp. Employee's Dorm, 1948 (ETIC ISRO 139_2150).

clustered around the current path that today leads from the dock area to Nokomis and Gibway.)

In the 1940s, in addition to replacing electrical service to buildings, the NPS made other improvements to the utility infrastructure on the island. The NPS approved installation of a new septic system for the Guest House and Dining Room in 1946.[56] The collection tank was in the service yard behind the Dining Room; effluent was pumped through a 2-inch pipe to a swampy area north of the lodge area. The NPS installed a new sewer pump in 1948.[57] In 1948, the NPS replaced the oil heating boiler and hot water heating system supplying the Guest House. The NPS also, in 1948, installed a new fuel tank and oil water heaters that supplied the Dining Room.[58] Also in 1948, the Regional Director approved plans for a "CCC Building to be moved from Daisy Farm" to become temporary housing for Rock Harbor Lodge employees. An as-build drawing of the building records that it was "constructed from salvaged CCC Buildings taken from Daisy Farm Camp Site."[59] This structure, built by the CCC in 1939, later became the Auditorium and was "reconstructed and moved to its present location in 1954 and remodeled in 1980."[60] This 1948 plan also shows a comfort station located near the cluster of new cabins described above. According to the Rock Harbor CLI, the NPS built a multi-purpose storage building in 1947, made from materials salvaged from the Tookers' boathouse on Tookers Island.[61] A 1957 inventory of buildings shows a building which the plan calls the "Latrine and Bathhouse."[62] This "Latrine and Bathhouse" is in the same location and is the same building that currently serves as a storage and maintenance building that is sometimes called the Motor Storehouse/Dive Cache.

As mentioned previously, the NPS created a master plan graphic for Rock Harbor Lodge in 1941 that they did not implement. In 1949, Arthur E. Demaray, Acting Director of the NPS, approved another Master Plan for Rock Harbor, which was prepared by the Regional Plans and Design Division (Figure AF.**33**).[63] The plan envisioned a wholesale redevelopment of Rock Harbor. The plan does not preserve any of the buildings existing at that time—none of the buildings associated with Rock Harbor Lodge appear on the map nor do any of the private cottages. The plan also proposed a completely new circulation system, including new docks, paths, and trails. A "Deep Water Dock" appears in the location of the historic Americas Dock, but the primary dock for visitors was further up the west coast of the peninsula midway into Snug Harbor. This dock was also to have a "Sandwich Bar, Groceries, Post Office." A wide circulation feature connected this dock to a row of boat slips located in the northeast corner of Snug Harbor, where the Rock Harbor Lodge's Small Craft Dock had been historically. A second dock complex appears on the west side of Snug Harbor. One dock, in the approximate location of the Warren Dock, is listed as a fuel dock. A second dock is listed as a repair dock.

The plan also illustrates the circulation system connecting the docks and boat slips on the waterfront to the proposed buildings, which are set much further away from Snug Harbor than where buildings had been constructed previously. The map shows three developed areas, each with their own cluster arrangement, spatial organization, circulation, and building types. The eastern most developed area featured a large lodge and two adjacent multi-unit residential buildings. The middle area had a loop road, around which long, multi-unit residential buildings are located. The western area featured a loop road around which are eight small cabins and three larger multi-unit buildings. The main road connecting these three clusters of buildings was located approximately 250 feet away from Snug Harbor. The maps suggests that the entire hill side between this proposed road and the water was to be cleared.

The NPS did not execute this plan either, for unknown reasons. Nine years later, in 1958, the

56. NPS, Sewer System Rock Harbor Lodge, 1946 (ETIC ISRO 139_8005).
57. NPS, Sewer Pump Installation, 1948 (ETIC ISRO 139_5326).
58. NPS, Heater Room and Fuel Supply Tank—Rock Harbor Area, 1948 (ETIC ISRO 139_8007).
59. See NPS, Temporary Employees Dormitory, revised 1/31/1949 (ETIC ISRO 139_2151).
60. NPS, Cultural Landscape Inventory Rock Harbor Lodge, 2021, page 53.
61. NPS, Cultural Landscape Inventory Rock Harbor Lodge, 2021, page
62. See NPS, Existing Conditions Rock Harbor Lodge Area, 1957 (ETIC ISRO 139_3015).
63. NPS, Rock Harbor Master Plan, 1949 (ETIC ISRO 139_2056).

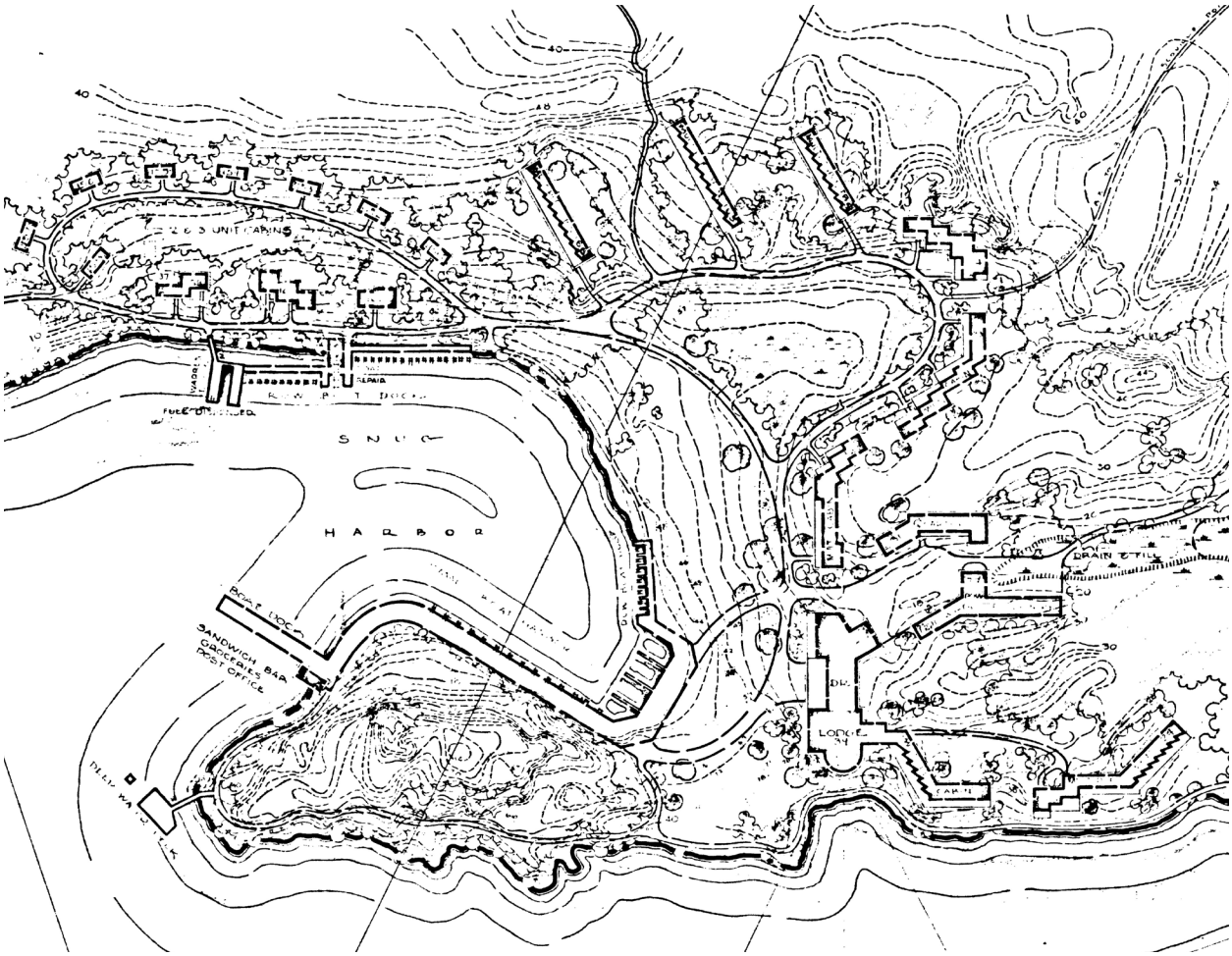


Figure AF.33: 1949 Master Plan drawing (Source: NPS, Rock Harbor Master Plan, 1949 (ETIC ISRO 139_2056)).

NPS did prepare another master plan during the Mission 66 period, which was largely implemented. (That plan is discussed below). In the interim, the NPS continued to maintain the existing buildings and made modest improvements to buildings to support the continued operation of the Rock Harbor Lodge complex. For example, in 1949, the NPS installed propane gas tanks and converted Paradise Cabin into a "Fish Shack."[64] Also in 1949, the NPS prepared plans to replace existing docks at Rock Harbor.[65]

Several photographs taken in the 1950s record the buildings, structures, and other landscape features present around Snug Harbor; in general, the photographs show that the character of the landscape remained much as it had been in the 1930s and 1940s with only a few notable changes. Many of the original buildings and structures from the pre-NPS resort period remained. The docks constructed during the early years of the island's development remained in their original locations. While the NPS had removed a few of the private cottages on the west side of the harbor, several remained, including the Warren Cottage, Morse Cottage, Langworthy Cottage, Farmer Cottage, Weart Cottage, and Orsborne Cottage. Most of the original Rock Harbor Lodge cabins also remained on site and appear in photographs and maps from the 1950s.

64. NPS, Propane Gas Installation, 1949 (ETIC ISRO 139_8008_0001).
65. NPS, Cultural Landscape Inventory Rock Harbor Lodge, 2021, page 37.

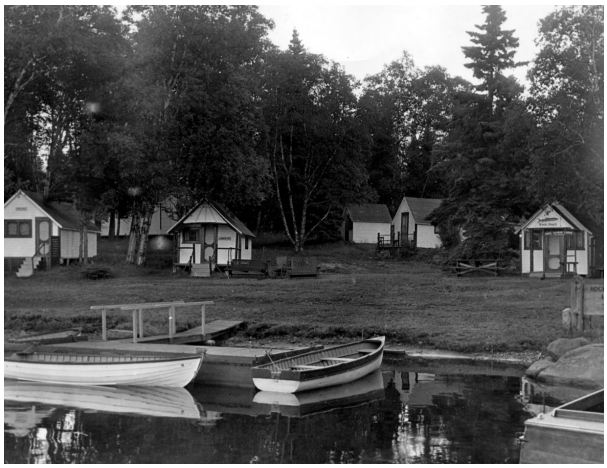


Figure AF.34: 1951 photograph of Snug Harbor showing multiple buildings including Fish Shack (formerly Paradise), Bidawee, Cheerio, Harbor View, Operene, and the temporary employee dormitory built in 1948 (Source: Isle Royale Institute, Isle Royale National Park Cultural Resource Interactive Mapping Project, Abbie Rowe Collection, ISRO Archives, http://iri.forest.mtu.edu/Resorts/Pages/ParkPlace.htm).

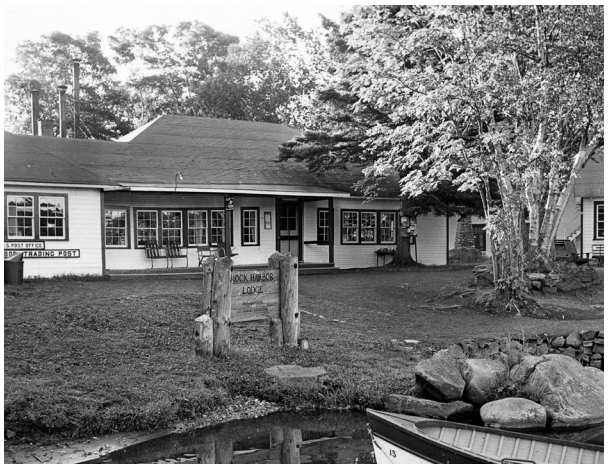


Figure AF.35: View of Dining Room and Post Office from Snug Harbor, circa 1950 (Source: Isle Royale Institute, Isle Royale National Park Cultural Resource Interactive Mapping Project, Abbie Rowe Collection, ISRO Archives, http://iri.forest.mtu.edu/Resorts/Pages/ParkPlace.htm).

A 1951 photograph of Snug Harbor shows multiple buildings including Fish Shack (formerly Paradise), Bidawee, Cheerio, Harbor View, Operene, and the temporary employee dormitory built in 1948 (Figure AF.34). The landscape around the cabins is much more manicured than how it appeared in photographs from the 1930s. The tall grass and shrubs that grew between the cabins are gone in this photograph; there is mown grass surrounding the cabins and extending to the shoreline. Birch trees are interspersed between the buildings and there is a large evergreen tree to the left of the Fish Shack; these appear to be in the same locations as ones seen in earlier photographs.

The photograph shows more small-scale features added to the site. There is a wooden sign welcoming visitors to Rock Harbor Lodge near the shoreline. A large bolder is at the water's edge in front of the sign. (This boulder exists today). There is a picnic table to the left of the Fish Shack. There are two wooden benches and chairs to the right of the Harbor View Cottage.[66] The floating platform seen in an earlier photograph reappears but is now connected to the shore with a small dock. Another photograph from 1951 shows the area in front of the Dining Room, which by this time also contained the post office and "Rock Harbor Trading Post" (Figure AF.35). The photograph shows grass growing between the Dining Room

66. Isle Royale Institute, Isle Royale National Park Cultural Resource Interactive Mapping Project, Abbie Rowe Collection, ISRO Archives, http://iri.forest.mtu.edu/Resorts/Pages/ParkPlace.htm.



Figure AF.36: Photograph showing open area between the cottages and the main buildings of the lodge operation, circa 1954 (Source: Isle Royale Institute, Isle Royale National Park Cultural Resource Interactive Mapping Project, NVIC: 50-655, ISRO Archives, http://iri.forest.mtu.edu/Resorts/Pages/ParkPlace.htm).

and the edge of the harbor. There is the sign noting "Rock Harbor Lodge" near the dock and shoreline. There is a stone retaining wall to the right of this sign on the shoreline with large boulders to the left in the water. There is a multi-trunk birch tree growing within a circular, stone planter on the slope between the harbor and the Dining Room. (This planter exists today.) There are three stone steps leading up the slope. The paths from the harbor towards the Dining Room and Old Lodge are lined with stone. A large spruce is growing next to the Dining Room, and the dinner bell mounted on a stone pier is visible between the Dining Room and the Old Lodge

Two photographs from 1954 capture the overall character of the Rock Harbor Lodge prior to the



Figure AF.37: Photograph showing row of cabins, circa 1954 (Source: Isle Royale Institute, Isle Royale National Park Cultural Resource Interactive Mapping Project, NVIC: 50-565, ISRO Archives, http://iri.forest.mtu.edu/Resorts/Pages/ParkPlace.htm).

Mission 66 program that would radically transform the landscape around Snug Harbor. A photograph looking towards the Dining Room and Old Lodge shows the open area between the cottages and the main buildings of the lodge operation (Figure AF.36). The lodge's dock remained in its same location. The ground plane remained mostly open and covered with grass. A dirt path is visible along the edge of the harbor. More formalized paths with stone edging are visible closer to the Dining Room and Old Lodge. The trees visible in earlier photographs remain on site.

A second photograph looks across the harbor towards the row of cabins (Figure AF.37). Several boats are tied up to the floating platform connected to the shore by a short dock. There are a few boulders along the shore, but the ground is mostly clear, with grass growing right to the high-water line. Buildings in the photograph include Bidawee, Cheerio, Harbor View, Operene, Nokomis, and Trailside. The temporary employee dormitory is visible in the background; a new recreation building is also visible next to the dormitory. There are chairs, tables, and benches, in front of Harbor View Cabin. There are mature birch trees behind the cabins and in between Trailside, Nokomis, Operene, and Harbor View. There is a large spruce tree to the right of Bidawee cabin.[67]

Mission 66 and Parkscape USA Development (1956-1972)

In 1955, Conrad Wirth, the Director of the NPS, proposed a ten-year program to fund major infrastructure improvements at national parks across the country. Called Mission 66, because the program would end at the 50th anniversary of the National Park System in 1966, the program funded multiple construction projects across Isle Royale National Park. The execution of Mission 66 at this park was a response to the demand for increased visitor facilities, as people began to travel again after the close of the second world war. Mission 66 was a "ten-year program to transform the American national park system to meet the conditions and demands of the postwar era" by "creating modern roads, trails, utilities, camp and picnic grounds, as well as many kinds of structures needed for public use of administration."[68]

During the duration of the Mission 66 program, lasting from 1955 to 1966, the NPS transformed the greater Rock Harbor Landscape. The NPS constructed several new buildings, installed a new circulation network, and constructed a new dock system on Snug Harbor. While some features of the former landscape remained, the NPS changed the overall character of the landscape in a way that was reflective of the Mission 66 era.

NPS planning for improvements to Rock Harbor Lodge began immediately. The NPS drafted conceptual plans in 1955 and 1956 for a variety of projects. In 1958, the various conceptual plans coalesced into a final Master Plan site plan for the "Rock Harbor Developed Area," which NPS Director Conrad Wirth approved in November 1958 (Figure AF.38). NPS proposals include remodeling the Dining Room and kitchen, constructing a new dock with multiple boat slips, replacing water supply and fire suppression systems, and upgrading fuel storage and sewage treatment. [69] The 1955 plans to renovate the Dining Room proposed a new interior floor plan and a

67. Isle Royale Institute, Isle Royale National Park Cultural Resource Interactive Mapping Project, Hakala, NVIC: 50-565, ISRO Archive, http://iri.forest.mtu.edu/Resorts/Pages/ParkPlace.htm.

68. NPS, Cultural Landscape Inventory Rock Harbor Lodge, 2021, page 33.

69. See ISRO Archives Box 5, Series 003 Central Files, Acc. No. ISRO-00614 Cat. No. ISRO 111, Coll. No. 00001. NPS, Remodeling Dining Room and Kitchen, 1955 (ETIC ISRO 139_3003).

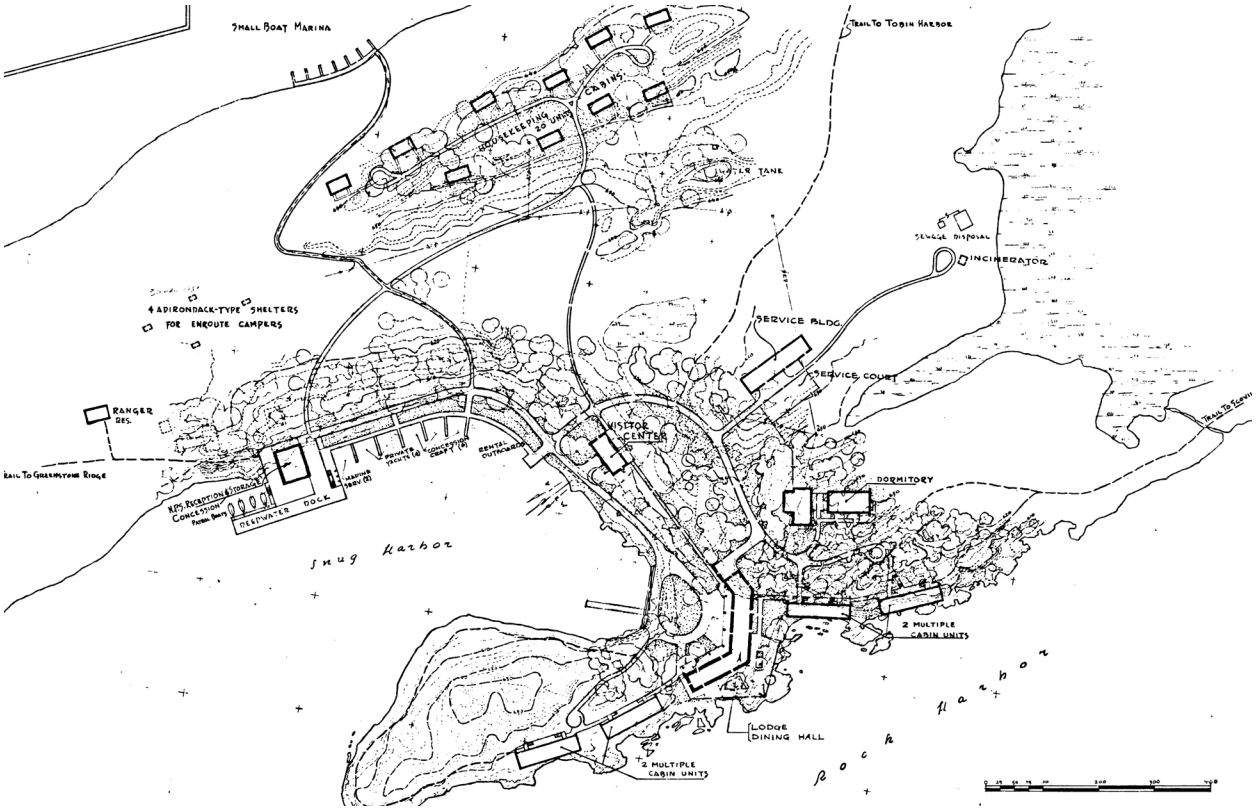


Figure AF.38: The approved 1958 Mission 66 Master Plan site plan (Source: NPS ETIC ISRO_139_3050)

much larger kitchen addition.[70] Also in 1955, the first plans appeared for new lodging buildings, which the drawings called "Multiple Cabin Units." The plans, developed by the Eastern Office of the Division of Design and Construction, show two rectangular buildings to be located on the shoreline south of the Guest House looking out towards Rock Harbor. NPS Director Conrad Wirth approved the design in June 1955.[71] According to NPS project completion records, Herman Gundlach Company, Inc. constructed the two buildings for a total cost of $203,226. The buildings, named Saginaw and Chippewa, were completed on September 4, 1956.[72] A small linen/roll away bed storage building was located near the housekeeping cabins. This building is a square one-story structure with a front gable roof and horizontal shiplap siding.[73]

While Saginaw and Chippewa were under construction, the NPS contracted P.S. & S. Construction to construct paths to connect the new buildings to the rest of the site. The project included rough grading, transporting gravel and asphalt to the site, and constructing a turnaround of split block near the new buildings. A photograph taken during construction show board forms holding the edges of the newly laid asphalt (Figure AF.39). A photograph of the turnaround shows how the path and retaining wall responded to natural features of the site by accentuating a rock outcrop at the intersection of two paths (Figure AF.40). Paths constructed during this project measured approximately 0.3 miles and led from the old main dock to the Rock Harbor Lodge Dining Room and then to Saginaw and Chippewa.

70. NPS, Remodeling Dining Room and Kitchen, 1955 (ETIC ISRO 139_3003).
71. NPS, Multiple Unit Cabins, 1957 (ETIC ISRO 139_3002).
72. See ISRO Archives Box 5, Series 003 Central Files, Acc. No. ISRO-00614 Cat. No. ISRO 111, Coll. No. 00001.
73. NPS, Cultural Landscape Inventory Rock Harbor Lodge, 2021, page 54.



Figure AF.39: Photograph of board forms holding the edges of the newly laid asphalt path (Source: Located in ISRO Archives, Box 25, Series 003 Central Files, Acc. No. ISRO-00614 Cat. No. ISRO 111, Coll. No. 00001).



Figure AF.40: Photograph of the turnaround shows how the path and retaining wall responded to natural features of the site by accentuating a rock outcrop at the intersection of two paths (Source: Located in ISRO Archives, Box 25, Series 003 Central Files, Acc. No. ISRO-00614 Cat. No. ISRO 111, Coll. No. 00001).

These projects marked the beginning of period of intense development at Rock Harbor. Below is a chronological list of known projects completed during this ten-year period:

1956

- Rock Harbor Lodge Guest House painted a dark color (likely brown)
- Multiple Cabin Units #1 and #2 (Saginaw and Chippewa) constructed
- New water system (water tower, reservoir, pump, intake line, new water main) completed
- New electrical supply system (generator, new lines) completed
- New paths graded through site
- New incinerator proposed

1957

- Path to Saginaw and Chippewa constructed
- Imhoff tank for sewage system completed

1958

- Completed asphalt path connection from dock to Dining Room and Office to Saginaw and Chippewa
- Construction begins on new deep-water/ large vessel dock
- Plans prepared for housekeeping cabins, employee dormitory, two new multi-cabin units, marina area, and pedestrian circulation around harbor (“Promenade”)

1959

- Housekeeping cabins completed
- Water and sewer system for housekeeping cabins completed
- Paths constructed in 1956-1958 paved in asphalt

- New oil storage and distribution system completed

1960

- Construction of deep-water dock completed, including small craft marina
- Plans developed for Public Reception Facilities at new dock
- Plans developed for employee dormitory
- Plans developed for ranger residence
- Incinerator construction begins

1961

- Incinerator completed
- Plans developed for bathhouse, water and sewer improvements, recreation hall, dormitory, office, and multi-cabin units

1962

- Mission 66 Master Plan completed
- Construction of employee dormitory
- Water and sewer system upgrades completed
- Trails and paths (called "Pioneer Road" constructed to new multiple cabin units site, new employee dormitory, and incinerator

1963

- Fire suppression upgrades completed
- Replacement of signs completed

1964

- Plans developed for Reception Facility and Comfort Station at dock

The Mission 66 Master Plan report for Isle Royale National Park was approved by the NPS in September 1962.[74] The Mission 66 master plan site plan for Rock Harbor had been approved three years earlier in November 1958. The 1962 Mission 66 Master Plan report references the full development of the site seen in the 1958 master plan site plan when it states that "All of these facilities have been completed at Rock Harbor except for the visitor center, service building, recreation room of dormitory, lodge, some minor trails and roads, and landscaping. Accommodations for 250 to 300 visitors are being provided. These accommodations consist of both housekeeping and non-housekeeping facilities."[75] The housekeeping cabins are described in the Cultural Landscape Inventory of the Rock Harbor Historic District as follows:

> The ten housekeeping cabins are low one story rectangular structures with a flat to low pitched shed roof covered with board and batten siding and concrete stone veneer. The main door has a large one over one window arrangement and the rear of the cabins have two sets of four large window panes looking into the landscape. The cabins are built on concrete piers and some are built into hillsides requiring extra support from concrete beams. The ten cabins are identical and are located in a small cluster arrangement to the north of the harbor.[76]

The 1962 Master Plan report also mentions expanding the campground on the island. The 1962 Master Plan report also describes the responsibility of the concessioner running the lodge operation. The concessioner would oversee maintaining and operating all overnight accommodations, employee housing (both NPS and concessioner housing), boat rentals for sightseeing boats, marina supplies, the store and Dining Room, and warehouse and maintenance shops. The NPS would operate the visitor center at the main dock (Figure AF.41).[77]

74. The Mission 66 Master Plan Narrative can be found in Box 24, Series 003 Central Files, Acc. No. ISRO-00614 Cat. No. ISRO 111, Coll. No. 00001.
75. See ISRO Archives Box 24, Series 003 Central Files, Acc. No. ISRO-00614 Cat. No. ISRO 111, Coll. No. 00001.
76. NPS, Cultural Landscape Inventory Rock Harbor Lodge, 2021, pages 53-54.
77. See ISRO Archives Box 24, Series 003 Central Files, Acc. No. ISRO-00614 Cat. No. ISRO 111, Coll. No. 00001.

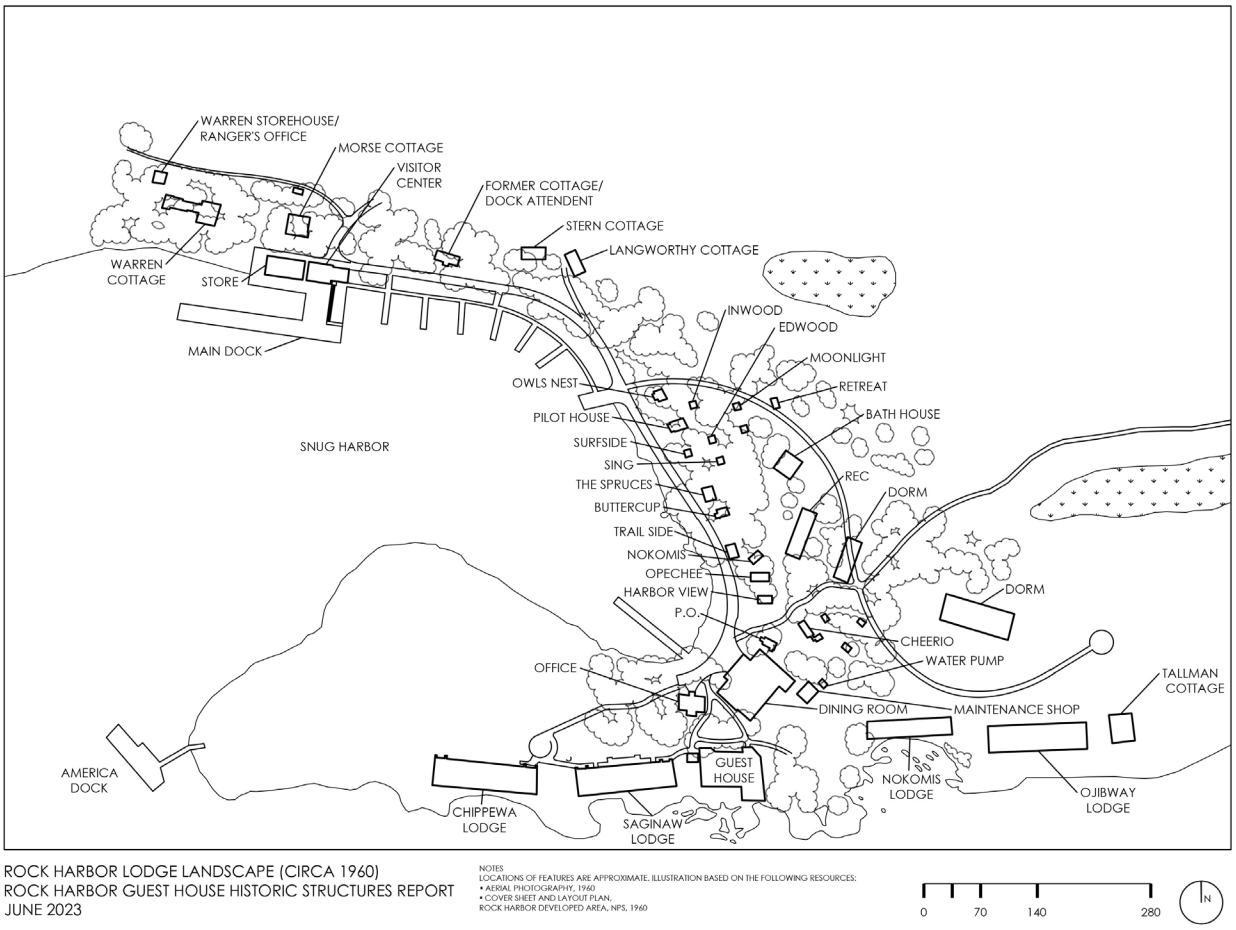


Figure AF.41: Conceptual map of landscape conditions at Rock Harbor Lodge circa 1960; Note that building labeled "REC" is today known as the Auditorium and is not to be confused with another, more recently constructed Recreation Building (WLA Studio, 2023).

Comparing the 1958 Mission 66 site plan with drawings of existing conditions in 1961 and existing conditions in 1975 illustrates the transformation of the site during the 1960s.[78] The 1958 Mission 66 site plan shows five developed areas distributed around Snug Harbor. The plan shows the main dock and marina area on the west side of Snug Harbor. An area of smaller docks connected by a concrete walkway wrap around to the north side of the harbor. The plan shows a cluster of "Housekeeping Cabins" set back from the shoreline northwest of the harbor. A large visitor center is shown on the north side of the harbor at about the midpoint of the shoreline. The plan shows a service/maintenance area north and behind the proposed visitor center. Several residential buildings appear on the east and northeast side of the harbor; these include four multiple cabin unit buildings and one very large lodge/dining building.

The deep-water dock shown on the 1958 Mission 66 site plan was constructed between 1958 and 1960. The final design was slightly different than what appears on the 1958 Mission 66 site plan.[79] The construction company used the old Warren dock to place the first crib of the dock, which was installed in the summer of 1958.[80] The final as-built dock featured a large concrete slab on the shoreline, a concrete ramp extending out into the harbor, and five cribs stretching out perpendicular to the ramp. The 1958 Mission 66 site plan also shows multiple boat slips to the north of the deep-water dock; a plan from 1959 calls this area the

78. See NPS, Rock Harbor Developed Area Part of the Master Plan, 1958 (ETIC ISRO 139_2056); NPS, Cover Sheet and Location Plan Rock Harbor Developed Area, 1961 (ETIC ISRO 139_3039): and NPS, Rock Harbor Lodge Relocation, 1975 (ETIC ISRO 139_80002).

79. NPS, Main Dock, 1957 (ETIC ISRO 139_3014).

80. See ISRO Archives Box 25, Series 003 Central Files, Acc. No. ISRO-00614 Cat. No. ISRO 111, Coll. No. 00001.

"Marina."[81] The NPS completed these docks in 1960. The 1958 Mission 66 site plan shows another dock on the northeast side of Snug Harbor in the same general location of the old Rock Harbor Lodge dock, but the plan does not label it. The 1958 Mission 66 site plan does not show the old America Dock, suggesting the NPS planned to have it removed and not replaced.

The 1958 Mission 66 site plan shows ten "Housekeeping Cabins" northwest of Snug Harbor on the ridge overlooking Tobin Harbor. These duplex buildings were completed in 1959 and contained twenty units. The plan shows a pedestrian path leading from the Housekeeping Cabins to the deep-water dock and a path towards the proposed visitor center and proposed lodge. The 1958 Mission 66 site plan shows a large pathway leading from the deep-water dock, wrapping around the inside of the coastline of the harbor, and ending in a large oval that creates a courtyard in front of the proposed Lodge/Dining Room. Midway around the harbor, a second wide path heads north leading away from the harbor, passing the proposed visitor center, and continuing towards the service/maintenance area and two multiple cabin unit buildings.

In 1958 the NPS prepared plans for the proposed paths around the shoreline of Snug Harbor.[82] The plans call the path network the "Promenade." It consisted of two parallel paths leading approximately halfway around the shoreline of the harbor. A 10-foot-wide path is shown approximately 20 feet off the shoreline while a narrow, 5-foot-wide path hugs the edge of the shore. The wider path continued all the way to the northeast corner of the harbor, where the Dining Room, Old Lodge, and Guest House appear on the plans. The NPS continued to add paths to connect to new buildings as they were constructed. For example, the NPS constructed the path from the harbor to the new multi cabin unit buildings (Nokomis and Gibway) in 1962. This path ended in a cul-de-sac next to Gibway.

The narrow path along the shoreline was part of the marina development. When the NPS installed the marina in 1958, they essentially created an artificial shore on the northwest side of the harbor. A description of the "small craft marina" project in the park's archives states that "the principle [sic.] elements of the project are a 500'+/- long rock filled steel bulkhead paralleling the shore and surrounded by a paved walkway. At regular intervals along the bulkhead 50 feet long by 6 feet wide finger piers project into the harbor."[83]

The Lodge/Dining Room shown on the 1958 Master Plan site plan is a very large, angular building occupying the approximate location of the historic (and still extant) Dining Room and the historic (and still extant) Guest House. This proposed Lodge/Dining Room was, for unknown reasons, not constructed. The NPS was still working on plans of the building in 1963 when they prepared a drawing called "Proposed Lodge Location and Existing Utilities.[84]

1958 Master Plan site plan makes it clear that the NPS had no intention of preserving the existing, historic buildings at Rock Harbor. The footprints of historic buildings are depicted as dashed lines, which, according to the plan's legend, means they were to be obliterated. All the remaining private cottages on the west side of the harbor were to be removed, as were all the buildings associated with Rock Harbor Lodge, including the cabins, Dining Room, and Guest House. Research did not reveal the exact date of the removal of the historic cabins, and it is quite possible that it happened over multiple years. The Isle Royale National Park archives contains construction records that allude to building demolition. One such example is a completion report dated July 1962 that includes "demolition of undesirable struct. [sic]" A narrative description of the project to construct the trail to Nokomis and Gibway in 1962 includes the comment that "The construction of the trails consisted of preparation of site by removing several old frame buildings with their foundation."[85] It would appear that a few of the historic buildings remained on site based on their ownership status, but the NPS removed most of the historic buildings during the Mission 66 period. The few buildings

81. NPS, Deepwater Dock and Marina, 1959 (ETIC ISRO 139_3019).
82. NPS, Promenade, Marina and Service Trails, 1958 (ETIC ISRO 139_3024).
83. NPS, Project Synopsis Contract No. 14-10-529-2163, Box 25, Series 003 Central Files, Acc. No. ISRO-00614 Cat. No. ISRO 111, Coll. No. 00001.
84. NPS, Proposed Lodge Location and Existing Utilities, 1963 (ETIC ISRO 139_3135).
85. The project reports are located in Box 25, Series 003 Central Files, Acc. No. ISRO-00614 Cat. No. ISRO 111, Coll. No. 00001.

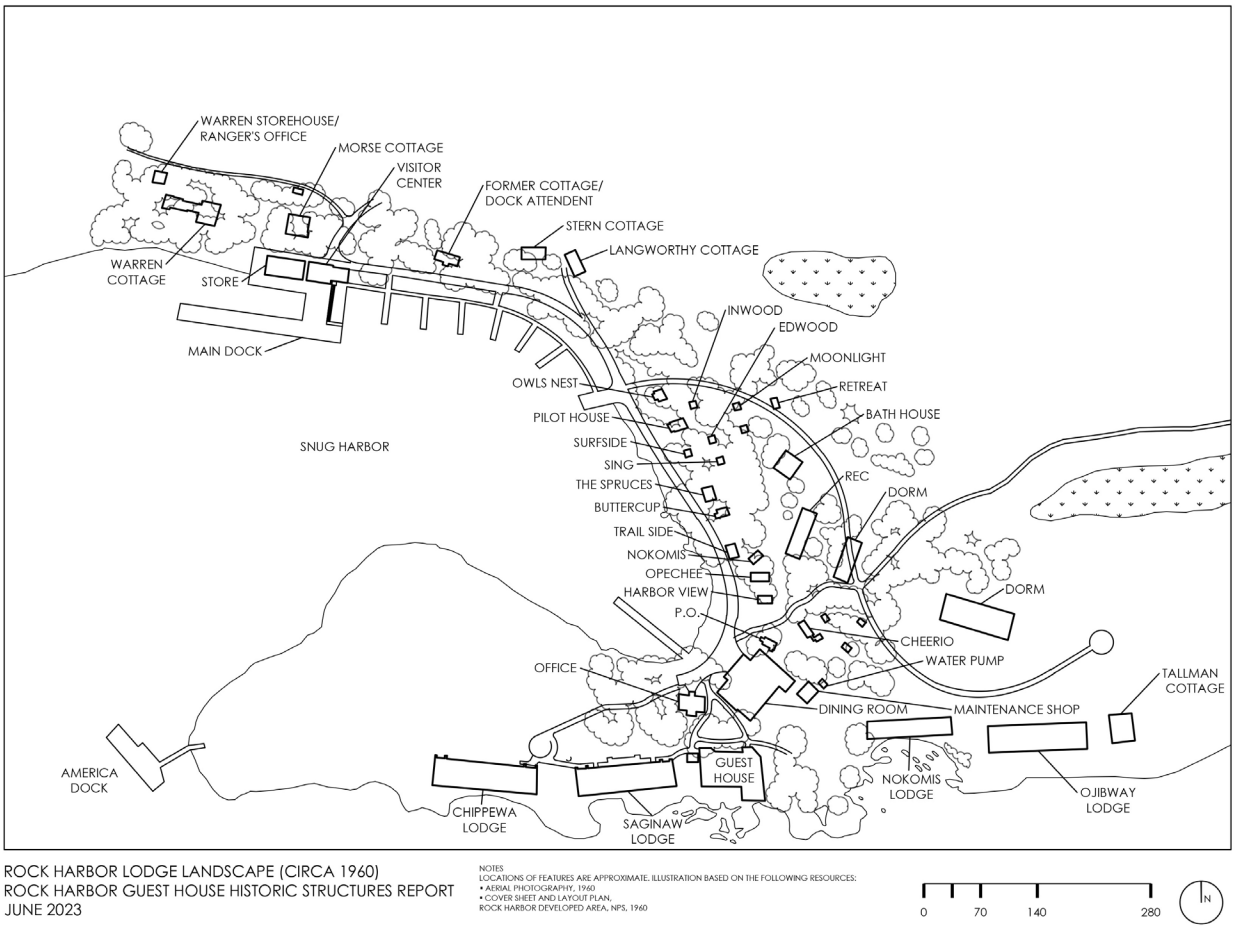


Figure AF.42: Conceptual map of landscape conditions at Rock Harbor Lodge circa 1972; Note that building labeled "REC" is today known as the Auditorium and is not to be confused with another, more recently constructed Recreation Building (WLA Studio, 2023).

that survived this period include a few cottages still privately owned and a few of the historic Rock Harbor Lodge buildings like the Guest House and Dining Room.[86]

When constructing new buildings, the National Park Service employed the Park Service Modern Style and attempted to blend the new buildings into their natural setting. Common features included natural colors and native materials. Other features, such as the tennis court, were removed in order to bring the site "back to nature. "[87] Elevations of buildings used materials such as "board and batten siding painted brown and the concrete stone veneer, tinted in three colors and arranged in a random ashlar pattern."[88] Two restroom facilities were constructed in 1960 and also reflect the Park Service Modern Style.[89] Small-scale features were also constructed during this period. These features include a Mission 66-style shelter and the Smithwick Mine Exhibit, which showcases a series of 1840's-era mining pits, and an amphitheater.[90]

In total, the changes the NPS made to the landscape using Mission 66 funding were substantial. Changes included four fifteen-room lodge units, ten housekeeping cabins, increased electrical generation, administrative and visitor facilities, and updated plumbing systems. Other changes to the landscape included the creation of additional trails and circulation networks. Finally,

86. The Isle Royale National Park archives contains a photograph of the Langworthy cottage from 1966. The building was in very poor condition at that time. The Langworthy family retained a life lease on the property, which they voluntarily relinquished and turned the property over to the NPS in 1978.
87. NPS, Cultural Landscape Inventory Rock Harbor Lodge, 2021, page 44.
88. NPS, Cultural Landscape Inventory Rock Harbor Lodge, 2021, page 53.
89. NPS, Cultural Landscape Inventory Rock Harbor Lodge, 2021, page 54.
90. NPS, Cultural Landscape Inventory Rock Harbor Lodge, 2021, page 87.

during the Mission 66 period, the "165-foot, 319-ton Ranger III was acquired," which "provided regular passenger service from the mainland to Isle Royale," allowing for increased visitor access.[91] The Parkscape USA Period, 1967-1973, continued similar work to Mission 66 by focusing on implementation of minor improvements and final solutions to Mission 66 projects (Figure AF.42).

Post-Mission 66 and Parkscape USA Development (1973-2023)

In 1974, America Dock was rehabilitated/reconstructed in the same location and reused many materials from the original dock. The updated dock varies from the original design.[92] In 1975 plans were drawn to improve the sewerage system at Rock Harbor.[93] In 1976, the NPS prepared drawings for a temporary dining facility, which they called the "New Lodge." It does not appear to have been constructed, but it suggests that the NPS continued to consider constructing a new, large lodge facility envisioned in previous master plans, including the 1940s master plan and the Mission 66 master plan.[94] This temporary dining facility may have been proposed to continue operations while a new, permanent lodge/dining room was being built. Between 1977 and 1980, the NPS prepared several plans for improvements to the water system, fuel storage, and boat pump out station.[95]

These drawings typically included site plans that document existing conditions of the landscape and the location of buildings and circulation features. For example, the 1975 drawing of the proposed temporary dining facility shows which historic buildings remained standing. In addition to the Guest House, Office (Old Lodge), and Dining Room, the plan also shows Spruces Cabin, the Warren Cottage, and the Langworthy Cottage.

In 1978, Robert Langworthy communicated the family's agreement to turn over the property to the park. The house was in a state of disrepair at this point and was eventually dismantled. The family donated the contents of the building to the NPS.[96]

From the 1980s to present, the site underwent few changes. A new office building replaced the Old Lodge building in 1981. In 1982 a condition assessment occurred on the employee dormitory building. This documented extant buildings, walkways, utility service poles, and fire hydrants.[97] In 1982, the NPS prepared drawings for a rectangular building to be located north of the Dining Room which would be a "Concession Maintenance Storage Facility." This document also noted that repairs were made on the Nokomis Lodge foundation.[98] A photograph of the employee dormitory shows some shrubs and ivy near the building. There is also possibly a volleyball net behind the building.[99] The Ben East duplex housing unit was constructed around 1984. In 1988 a reinforced concrete slab at the sewage treatment plant was installed.[100] In 2010 a new recreation hall was built near the concessioner's dormitory building.[101] Then in 2011, two of the multiple cabin units, Nokomis and Ojibway, underwent rehabilitation and modifications to expand the sizes of the rooms.[102] The site also gained small-scale features in the more modern period, including power lines, mailboxes, benches, flag poles, trash cans, small buildings for storage, fencing, water storage tanks, and fuel tanks.[103]

91. NPS, Cultural Landscape Inventory Rock Harbor Lodge, 2021, page 33.
92. NPS, Cultural Landscape Inventory Rock Harbor Lodge, 2021, page 53.
93. NPS, Sewerage System Improvements, 1975 (ETIC ISRO 139_80001_B).
94. NPS, Rock Harbor Lodge Relocation, 1975 (ETIC ISRO 139_80002).
95. NPS, Water System, 1977, (ETIC ISRO 139_41013_A); NPS, Rock Harbor Fuel Storage, 1978 (ETIC ISRO 139_41014_A-B). NPS, Rock Harbor Boat Pump-Out Station, 1978 (ETIC ISRO 139_41016_A).
96. (Source: Isle Royale Institute, Isle Royale National Park Cultural Resource Interactive Mapping Project, NVIC: 60-154, ISRO Archives, (Source: Isle Royale Institute, Isle Royale National Park Cultural Resource Interactive Mapping Project, NVIC: 50-655, ISRO Archives, http://iri.forest.mtu.edu/Resorts/Pages/ParkPlace.htm.
97. See ISRO Archives Box 28, Series 003 Central Files, Acc. No. ISRO-00614 Cat. No. ISRO 111, Coll. No. 00001.
98. NPS, Rock Harbor Complex, 1983 (ETIC ISRO 139_80013).
99. See ISRO Archives Box 28, Series 003 Central Files, Acc. No. ISRO-00614 Cat. No. ISRO 111, Coll. No. 00001.
100. NPS, Install Reinforced Concrete Slab, 1988 (ETIC ISRO 139_80040).
101. NPS, Cultural Landscape Inventory Rock Harbor Lodge, 2021, page 39.
102. NPS, Cultural Landscape Inventory Rock Harbor Lodge, 2021, page 39.
103. NPS, Cultural Landscape Inventory Rock Harbor Lodge, 2021, page 87.

Analysis of the Rock Harbor Landscape Characteristics

This section follows the organization developed for Cultural Landscape Reports, which organizes site features by landscape characteristic, which are the "tangible and intangible aspects of an inventory unit which have either influenced the history of the development of the landscape, or are products of its development, respectively."[104] Further, "these aspects individually and collectively give a landscape its historic character and aid in the understanding of its cultural importance."[105] The NPS identifies thirteen landscape characteristics. These landscape characteristics are defined as follows:

- Natural Systems and Features: Natural aspects that often influence the development and resultant form of a landscape.
- Spatial Organization: Arrangement of elements creating the ground, vertical, and overhead planes that define and create spaces.
- Land Use: Organization, form, and shape of the landscape in response to land use.
- Cultural Traditions: Practices that influence land use, patterns of division, building forms, and the use of materials.
- Cluster Arrangement: The location of buildings and structures in the landscape.
- Circulation: Spaces, features, and materials that constitute systems of movement.
- Topography: Three-dimensional configuration of the landscape surface characterized by features and orientation.
- Vegetation: Indigenous or introduced trees, shrubs, vines, ground covers, and herbaceous materials.
- Buildings and Structures: Three-dimensional constructs such as houses, barns, garages, stables, bridges, and memorials.
- Views and Vistas: Features that create or allow a range of vision, which can be natural or designed and controlled.
- Constructed Water Features: The built features and elements that utilize water for aesthetic or utilitarian functions.
- Small-Scale Features: Elements that provide detail and diversity combined with function and aesthetics.
- Archeological Sites: Sites containing surface and subsurface remnants related to historic or prehistoric land use.

Natural Systems and Features

The 2002 CLI for Rock Harbor (Revised 2021) provides an overview of the Natural Systems and Features at Rock Harbor based on Kathryn Franks and Arnold Alanen's *Historic Structures at Isle Royale National Park*.[106] The island is an archipelago comprised of over two hundred islands in northwestern Lake Superior. The geology of the island is dominated by Keweenawan volcanic rocks. Most of the island is comprised of rock associated with the Portage Lake lava series. During the last ice-advance approximately 12,000 years ago, glaciers covered the island leaving only a thin layer of mantle over the bedrock.[107] Accordingly, soils on the island are typically thin and poor. The predominant forests include the southern boreal forest, which features spruce, fir, and birch; these are the dominant trees observed at Rock Harbor. Rock Harbor Lodge is located on Snug Harbor, a body of water sheltered by a peninsula extending southwards from the mainland of Isle Royale Island.

Topography

The study area of the Rock Harbor Lodge cultural landscape stretches across the shoreline of Snug Harbor, from the dock and visitor center on the west to the America dock at the end of the peninsula on the east side of the harbor. It also includes all of the peninsula, including the shoreline of Rock Harbor, so as to encompass the Guest House. The shoreline of Snug Harbor and Rock Harbor features large volcanic rock. The topography on the west side of the harbor

104. Robert R. Page, "National Park Service Cultural Landscapes Inventory Professional Procedures Guide" (U. S. Department of the Interior, National Park Service Cultural Resource Stewardship and Partnerships, Park Historic Structures and Cultural Landscapes Program, January 2009), 74.
105. Page, "National Park Service Cultural Landscapes Inventory Professional Procedures Guide," 53.
106. "Cultural Landscape Inventory, Rock Harbor Lodge Historic District, Isle Royale National Park," 25.
107. NPS, *Isle Royale Geology and Soils*, accessed online: https://www.nps.gov/isro/learn/nature/geology-and-soils.htm.

rises towards a ridgeline that is approximately 46 feet higher in elevation than the harbor. The topography going north from the harbor also rises, but the elevation change is more gradual, eventually reaching approximately 30 feet above the water level in the harbor. The topography of the peninsula on the east side of Snug Harbor also rises from the shorelines of Snug Harbor and Rock Harbor, rising steeply to a ridge that runs south to north near the midline of the peninsula. The highpoints of the ridge are approximately 38 feet above the elevation of the harbor.

Spatial Organization and Cluster Arrangement

The study area contains three distinct areas defined by the arrangement of and visual relationships between landscape characteristics, particularly in terms of its buildings, circulation, and vegetation. These spatial zones include the area surrounding the main dock and marina area; the area around the Dining Room, Office, and Guest House; and the mostly naturalized peninsula extending south towards America Dock. The natural systems and features, in particular the native forest, topography, and Snug Harbor, influence the overall spatial organization of the Rock Harbor Lodge landscape, impacting the arrangement of buildings and structures and alignment of circulation features at Rock Harbor.

The area around the main dock functions as the main entrance into the site. This is the location of the visitor center, store, and public restrooms/showers/laundry building. Visitors traveling by boat arrive at the main dock or utilize one of the other docks in the marina. Several paths and trails converge in this general location, reflecting role welcoming and orienting visitors to the site. Circulation features originating in this area extend to Rock Harbor Lodge to the east and to the campground and NPS staff quarters to the west.

The second zone is the cluster of buildings making up the Rock Harbor Lodge facility. This is on the northeast side of Snug Harbor, organized around the historic nucleus of Rock Harbor Lodge, which includes the Dining Room, Guest House, and Office (formerly the Old Lodge). During Mission 66, the NPS added several other buildings that support the operation of the lodge. These include the four multi cabin units (Chippewa Saginaw, Nokomis, and Ojibway) stretched out on the Rock Harbor shoreline. The other buildings in this area also include several that support the concessioner and the staff's management of the property. The circulation in this area knits together the buildings and connects this area to the main dock and the marina facilities on the shoreline of Snug Harbor.

The third spatially distinct zone is the peninsula extending south from the historic nucleus of Rock Harbor Lodge. Development in this area is limited. Two multiple cabin units are located along the shoreline. The Civilian Conservation Corps (CCC) memorial structure occupies a site near the highpoint of the peninsula, the severely damaged America Dock extends off the southern tip of the peninsula, and a path runs alongside Snug Harbor on the western shoreline of the peninsula. Otherwise, the peninsula is undeveloped and natural.

Cultural Traditions and Land Use

Historic cultural traditions at the site include Native American's interaction with the site, where they utilized the natural resources to gather food, hunt, and mine copper. Early Europeans explored the island in the 1600s and 1700s, and they introduced commercial use of the island by trapping wildlife for fur and fishing. Copper mining companies introduced industrial use of the island by mining copper deposits on the island in the 1800s. Tourism began in the late 1800s, as people began to visit the island seeking recreation, relaxation, and the health benefits associated with being out of doors. Commercial fishing continued into the 1900s, before declining in the 1920s and 1930s. Commercial tourism continued and expanded in the early 1900s as Kneut Knutson developed Park Place/Rock Harbor Lodge. Commercial tourism and recreation continued through the NPS acquisition of Rock Harbor Lodge in the 1930s. Today, tourism, recreation, and scientific study are the primary activities at Rock Harbor Lodge and at Isle Royale National Park. The NPS contracts a concessioner, Aramark, to operate Rock Harbor Lodge.

Circulation

Circulation at Rock Harbor includes paved paths, which are used by both pedestrians and service vehicles, and natural-surfaced trails. The primary path through the study area is a 10- to 12-foot-wide

asphalt path that begins at the main dock and ends in front of the Dining Room. It is set back off the shoreline approximately 10 to 15 feet, on average, until it approaches the Dining Room where it gets closer to the shoreline. A second, 6-foot-wide asphalt path parallels this wider path from the main dock to about halfway around Snug Harbor, ending at the double dock. Three paths intersect near the visitor center—the 10- to 12-foot-wide primary path described above, an asphalt path that leads toward the house keeping units and Tobin Harbor, and an earthen/gravel path that leads past the NPS ranger residences towards the campground. These secondary paths range from 10 to 12 feet in width. A 7-foot-wide asphalt path leads from Snug Harbor, near the double dock, to Nokomis and Ojibway, where it ends in a cul-de-sac. A 7-foot-wide gravel path branches off this path and leads towards the Dining Room. A 6 to 7-foot-wide asphalt path leads from the Dining Room towards Chippewa Lodge, where it ends in a cul-de-sac. A 6-foot-wide gravel path leads from behind the Office to Saginaw Lodge. A 2 to 4-foot-wide asphalt path leads from in front of the Office to America Dock, passing a short spur trail to the CCC memorial structure. A few trails exist in the study area. Both are narrow, 2 to 3-foot-wide dirt trails. One leads from the Snug Harbor shore area to a clearing with a fire pit; one leads from the shore area towards Tobin Harbor; and another leads from the shore area to the house keeping units. The paths and trails are in good condition. It appears that additional gravel has been added on top of the asphalt surface.

The docks on Snug Harbor are also circulation features since many visitors to the island arrive on boats. There are a total of eleven docks in the study area. The main dock, which includes the store and visitor center, is located on the west side of Snug Harbor. Six smaller docks extend out from the shoreline just north and east of the main dock; the last of these docks is a double dock with a large floating platform at the shoreline. After a distance of approximately 100 feet there is a small dock, and after another 200 feet there is a slightly larger dock extending out into the harbor in front of the Dining Room. Sections of the docks and the concrete bulkhead along the shoreline showed signs of damage during site inspection. Otherwise, the docks appear to have been updated and/or replaced since their original construction.

Vegetation

The vegetation at Rock Harbor Lodge is mostly tree, shrub, forb, and grass species native to Isle Royale. Site observations found limited examples of vegetation that appeared to be planned and planted. The visually dominant vegetation includes large conifers and deciduous trees, including balsam fir (*Abies balsamea*), white spruce (*Picea canadensis*), and white birch (*Betula papyrifera*). Shrubs observed growing near the shoreline include common juniper (*Juniperus procumbens*). There is a wide variety of native grass and forb species present at Rock Harbor. Vegetation inventories exist for Isle Royale National Park. Examples of reports include a 1999 vegetation mapping program prepared by NPS and the Nature Conservancy.[108] The NPS recently prepared a study on forest health on Isle Royale that includes a comprehensive list of species on the island.[109]

Views and Vistas

Due to its location on an archipelago on Lake Superior, Rock Harbor features dramatic views from the mainland across the lake from multiple vantage points. Significant views within the site include those across Snug Harbor. Views between buildings are available in areas where the vegetation has been cleared. A good example of this is around the Dining Room and Guest House, where the area between the buildings is clear of obstructions. Away from the shoreline and in the woods, sightlines are limited by the thick native vegetation.

Buildings and Structures

The buildings at Rock Harbor include contemporary buildings, buildings the NPS constructed during the Mission 66 program, and a few buildings that predate the Mission 66 era (1956-1972). The buildings can also be categorized by use. The main dock area includes a visitor center, store, and restroom/show/laundry building. These date from the Mission 66 period. The Spruces Cabin/ First Aid Station stands

108. The Nature Conservancy, *USGS-NPS Vegetation Mapping Program* (Minneapolis, MN: The Nature Conservancy, 1999).
109. S. Sanders and J. Kirschbaum, *Forest Health Monitoring at Isle Royale National Park* (Fort Collins, CO: National Park Service, 2022).

approximately 50 feet from the Snug Harbor shoreline about midway between the main dock and the Rock Harbor Lodge area. This building was built during the early Resort Era period of significance (1902-1943). Tucked into the woods behind (north) Spruces Cabin is a recreational building for guests to Rock Harbor Lodge called the Auditorium. Just north of this building are two buildings for staff working for the concessioner operating the lodge. One is a dormitory, the other is a recreational building. Four multi cabin unit buildings, built during the Mission 66 period, stretch along the shoreline looking out towards Rock Harbor and adjacent islands in Lake Superior. The Guest House, built during the early Resort Era period, is set in the middle of these four buildings. The Dining Room and the concessioner office stand just west of the Guest House oriented towards Snug Harbor. The Dining Room was originally built during the early Resort Era period, but it has been extensively altered since original construction. The Office dates from 1981. There is a shed roof structure with a memorial to the CCC on top of the ridge on the peninsula that extends south from the Rock Harbor Lodge area. The docks, which could be considered structures, are discussed in the circulation section.

Small-Scale Features

The Rock Harbor Lodge landscape contains various small-scale features that relate to visitor services and staff use such as site identification and regulation signs, site furniture, and utilities. The only identified small-scale feature from the early Resort Era period of significance (1902-1943) is the bronze dinner bell. The bronze dinner bell is mounted on a stone pier in the area between the Dining Room, Office, and Guest House (Figure AF.43). The five-foot stone pier is made of cobble stone and mortar and rests on top of a large boulder.

Mission 66 era (1956-1972) small-scale features that the NPS added to the site include signs, site furnishings, and utilities. The existing park identity sign with site map located near the visitor center was installed in 1963. The existing fire hydrants are fluted barrel models manufactured by the Traverse City Iron Works in Traverse City, Michigan. The hydrants were manufactured in 1963 and installed in 1964. The Mather Memorial Plaque mounted to a boulder on the shoreline of Snug Harbor is one of



Figure AF.43: Photograph of bronze bell in Rock Harbor Lodge landscape with Dining Room in background (Source: WLA Studio, 2022).

dozens of similar plaques installed in national park units across the county to honor Mather's role in the creation of the National Park Service. The date of the plaque's installation at Rock Harbor is unknown. The original set of Mather Memorial Plaques were installed in 1932 or 1933. A second group of plaques were manufactured and installed at park units between 1950s and 1990s; the Rock Harbor plaque is believed to be from this second set of plaques.

Most other small-scale features are contemporary and relate to current management of the site and to the use of the site for overnight lodging and camping. These include directional signage, lighting, portable benches, trash receptacles, and picnic tables.

Analysis of Integrity

Natural Systems and Features

Natural systems and features surviving from the early period of Rock Harbor's history (1901- 1938) include Snug Harbor, naturally occurring plant communities, and evidence of the island's geology, including the site's basalt foundation. The natural systems affect the sites development, as buildings and trails located in the area take advantage of what the natural systems and features have to offer, including topography, views of Lake Superior, and



Figure AF.44: Aerial imagery from 2022 showing the Rock Harbor landscape (Source: Google Earth).

overall natural feel. The character of the natural systems and features of the site from the early period is visible in the aerial photograph from the mid-1930s (Figure AF. 7). This character remains today.

Land Use

Similarly, aspects of land use established during the historic period continue to the present. Increased visitor services were added during the Mission 66 period. The property continues to support recreation and residential (temporary lodging) uses. Today, the National Park Service owns the land, but Rock Harbor is run by Aramark under a concession agreement.

Spatial Organization and Cluster Arrangement

Snug Harbor, Lake Superior, and topography of the island influenced the siting of buildings on the landscape. These natural features continued to influence the placement of buildings, or cluster arrangement, throughout the site's history, so much so that the existing arrangement of the site reflects historic patterns to a degree, with lodge service buildings and residential buildings on the east side of the harbor and residential buildings on the west side of the harbor. The buildings constructed between 1938 and 1954 generally continued the established spatial organization and arrangement of buildings on the site.

The patterns of open areas and forested areas seen in the 1930s are somewhat similar to current conditions, however, vegetation has encroached upon and filled the edges of open spaces in the interior of the island. The open spaces that exist today are smaller and more disconnected than in the 1930s. Additionally, some areas open during the 1930s are currently developed, including the campground, maintenance facility, and housekeeping cabin area (Figure AF.44).

Mission 66 additions to the landscape continued in the pattern of the original spatial organization and cluster arrangement surrounding the Guest House and the Dining Room. However, these additions did alter the landscape. For example, the location of Saginaw Lodge immediately south of the Guest House impacted the setting, spatial organization, and cluster arrangement of the Guest House's landscape (Figure AF.45 and Figure AF.46).



Figure AF.45: Image of Guest House and Saginaw Lodge taken from the water (Source: ISRO Archives Box 5, Series 003 Central Files, Acc. No. ISRO-00614 Cat. No. ISRO 111, Coll. No. 00001.).



Figure AF.47: Aerial imagery showing Mission 66 development on the Rock Harbor landscape around 1958 (Source: ISRO Archives Box 25, Series 003 Central Files, Acc. No. ISRO-00614 Cat. No. ISRO 111, Coll. No. 00001.).



Figure AF.46: Image of Guest House and Saginaw Lodge, circa 2022 (Source: WLA Studio, 2022).



Figure AF.48: Present day aerial imagery of Rock Harbor landscape (Source: Google Earth).

The spatial organization and cluster arrangement that exists on the landscape today was first established during the earliest periods of development. These clusters remained with the addition of more buildings through Mission 66 development.

Circulation

Many visitors to the site continue to arrive by boat as they did in the historic periods. Much of the existing circulation originates at Snug Harbor or Tobin Harbor like it did during the early historic period and navigates through the site responding to the topography. While there may be locations where historic and current circulation share alignments, all of the existing circulation infrastructure postdates the Resort Era period of significance (1902-1943) and dates to the Mission 66 period (1956-1972).

The placement of buildings during Mission 66 impacted the overall setting of the site and influenced the design of other landscape characteristics, in particular the circulation system. Throughout the National Park System, Mission 66 initiatives often updated or enhanced circulation patterns within the parks to provide better roads for motorists when visiting the park. Rock Harbor, however, differs slightly from the traditional updates in circulation, as cars are not the primary mode of transportation on the island. On the island, circulation updates came in the form new docking facilities and paved asphalt pedestrian paths, which facilitated visitor access to both pre-existing buildings and to newly constructed buildings. Most of the existing circulation system was added during the Mission 66 period (Figure AF.47 and Figure AF.48). The Mission 66 circulation system included the walkways and paths connecting the dock area to



Figure AF.49: View of Mission 66 era docks taken shortly after construction around 1960 (Source: ISRO Archives Box 25, Series 003 Central Files, Acc. No. ISRO-00614 Cat. No. ISRO 111, Coll. No. 00001.).



Figure AF.51: Mission 66- era asphalt path to multi-unit cabin shortly after construction around 1959 (Source: ISRO Archives Box 25, Series 003 Central Files, Acc. No. ISRO-00614 Cat. No. ISRO 111, Coll. No. 00001.).



Figure AF.50: Present day view of Mission 66-era docks (Source: WLA Studio, 2022).



Figure AF.52: Image of Mission 66-era path leading to multi-cabin units in 2022 (Source: WLA Studio, 2022).

the Rock Harbor Lodge area. This area is one of the more significant landscape features of the site that impacts the visual setting and overall visitor experience. The historic docks have been replaced, but all the docks are in their original locations and reflect the historic design, setting, feeling and association of their original construction (Figure AF.49 and Figure AF.50). The new pedestrian circulation infrastructure constructed during Mission 66 at Rock Harbor also fits with national patterns seen in Mission 66 development, as "typically, the construction or improvements to trails during the Mission 66 program consisted of wider trails with a hard surface for safety reasons and ease of maintenance."[110] A few paths have been resurfaced, but most of the paths appear to have original materials, including the asphalt walkways along the harbor and asphalt paths to the multi-cabin units (Figure AF.51 and Figure AF.52). Some of the asphalt paths have been covered in gravel, but it appears that the original asphalt currently serves as a base layer. Other circulation-related design features have survived, including the two cul-de-sacs at the multi-cabin units. The cul-de-sac between Saginaw Lodge and Chippewa Lodge retains its original retaining wall (Figure AF.53 and Figure AF.54). The cul-de-sac at Gibway retains its original planter/island.

Vegetation

The vegetation of the island retains a high degree of integrity due to the continued presence of native plant communities. Tree species, including paper birch, balsam fir, and juniper, remain on the landscape today as they did in the historic

110. Ethan Carr, et. al., "National Register of Historic Places Multiple Property Documentation Form: National Park Service Mission 66 Era Resources," National Register of Historic Places nomination, 2015, 37.

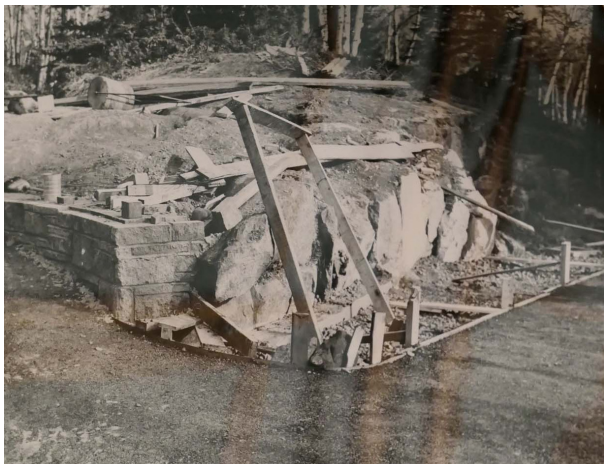


Figure AF.53: Retaining wall under construction between Saginaw Lodge and Chippewa Lodge, circa 1965 (Source: ISRO Archives Box 25, Series 003 Central Files, Acc. No. ISRO-00614 Cat. No. ISRO 111, Coll. No. 00001.).



Figure AF.54: Retaining wall between Saginaw Lodge and Chippewa Lodge in 2022 (Source: WLA Studio, 2022).

period. Native grasses and shrubs cover the ground plane on both native surface and rock outcrops. There does not appear to have been a significant amount of designed plantings installed during the historic periods. Over seventy construction documents examined during research for the report found only one with a planting plan. A 1960 working drawing of the marina area shows plantings between the two walkways paralleling Snug Harbor. Plants proposed for this area include paper birch, white fir, white pine, and common juniper. Later existing conditions drawing raise doubts that this planting plan was ever executed.

Buildings and Structures

The existing buildings from the early historic period include the Guest House and Dining Room, and Warren family storage building/Rangers Station. The Guest House and Rangers Station remain relatively intact and reflect their historic design and construction. The Dining Room has been heavily altered. A new office building was built in 1981 in the approximate location of the historic Old Lodge building. The cluster arrangement of the Guest House, Dining Room, and Office is very similar as it was during the 1901-1938 period. The spatial orientation of these buildings remains similar to historic conditions. The Dining Room was remodeled multiple times in the 1940s, 1950s, and 1980s. Over time the footprint of the Dining Room nearly tripled in size, with changes also occurring to its windows and front entrance.

Between 1938 and 1954, the NPS constructed nine cabins located in the woods north of Snug Harbor. Additionally, the NPS reused material from a CCC-era building to construct a temporary building that would later become the Auditorium. Another building, currently called the motor storehouse/dive/fire cache, was built in 1947. These buildings were the only major change to the landscape between the initial period of development and the beginning of the Mission 66 program.

In general, the building campaign at Rock Harbor during 1955-1966, under the Mission 66 program, reflects the values and design principles characteristic of Mission 66 development, with an emphasis on upgrading infrastructure and improving visitor services. New buildings constructed during the period reflect the NPS incorporation of Modern style of architecture, as seen most clearly in the designs for the multi cabin units, the visitor center, and housekeeping cabins (Figure AF.55 and Figure AF: 56). The employee dormitories and ranger residences fit into the Mission 66 strategy of constructing standardized park housing units. The goal of the modern style of architecture was to blend in with the natural surrounds in order to minimize the visual impact of the built environment. The use of natural colors and native materials helped to accomplish this goal. As summarized in the Cultural Landscape Inventory of Rock Harbor Historic District, "Mission 66 buildings and structures included ten duplex housekeeping cabins, a linen/roll away bed storage building, the Tobin Harbor docks, the marina docks, the National Park Service



Figure AF.55: Visitor center entrance, circa 2022 (Source: WLA Studio, 2022).



Figure AF.57: Mission-66 era site map welcoming visitors to Rock Harbor around 1963 (Source: ISRO Archives Box 25, Series 003 Central Files, Acc. No. ISRO-00614 Cat. No. ISRO 111, Coll. No. 00001.).



Figure AF: 56: View looking north towards Saginaw multi unit cabin showing distinct modern architectural style characteristic of the Mission 66 buildings at Rock Harbor (WLA Studio, 2022).



Figure AF.58: Image of Mission-66 era site plan taken in 2022 (Source: WLA Studio, 2022).

visitor/information center, the visitor's center restrooms, the Chippewa, Ojibway, Nokomis, and Saginaw lodge units, the Rock Harbor office building, restrooms and laundry facilities near the restaurant, and the National Park Concessions Inc. (NPCI) dorm."[111]

Visitor services buildings and structures at Rock Harbor were also updated during Mission 66. Near the new dock, the NPS constructed a visitor reception center to welcome and orient visitors. While the Mission 66 master plan envisioned a visitor center at Rock Harbor, it was never constructed; however, the visitor reception center at the main dock was expanded to include offices and a store, functions typically housed in NPS visitor centers.[112]Few things were constructed after Mission 66. One of which was the replacement of America Dock in 1974. Overall, the majority of surviving buildings on the Rock Harbor landscape today originate from the Mission-66 period.

Views and Vistas

Views and vistas are available at the site that reflect historic conditions. Views across Snug Harbor and towards Lake Superior are similar to those during the early years of the site. Most of the buildings constructed during the historic period were oriented towards Snug Harbor or towards Lake Superior to take advantage of these views.

111. "Cultural Landscape Inventory, Rock Harbor Lodge Historic District, Isle Royale National Park," 53.

112. Ethan Carr, et. al., "National Register of Historic Places Multiple Property Documentation Form: National Park Service Mission 66 Era Resources," F.64.

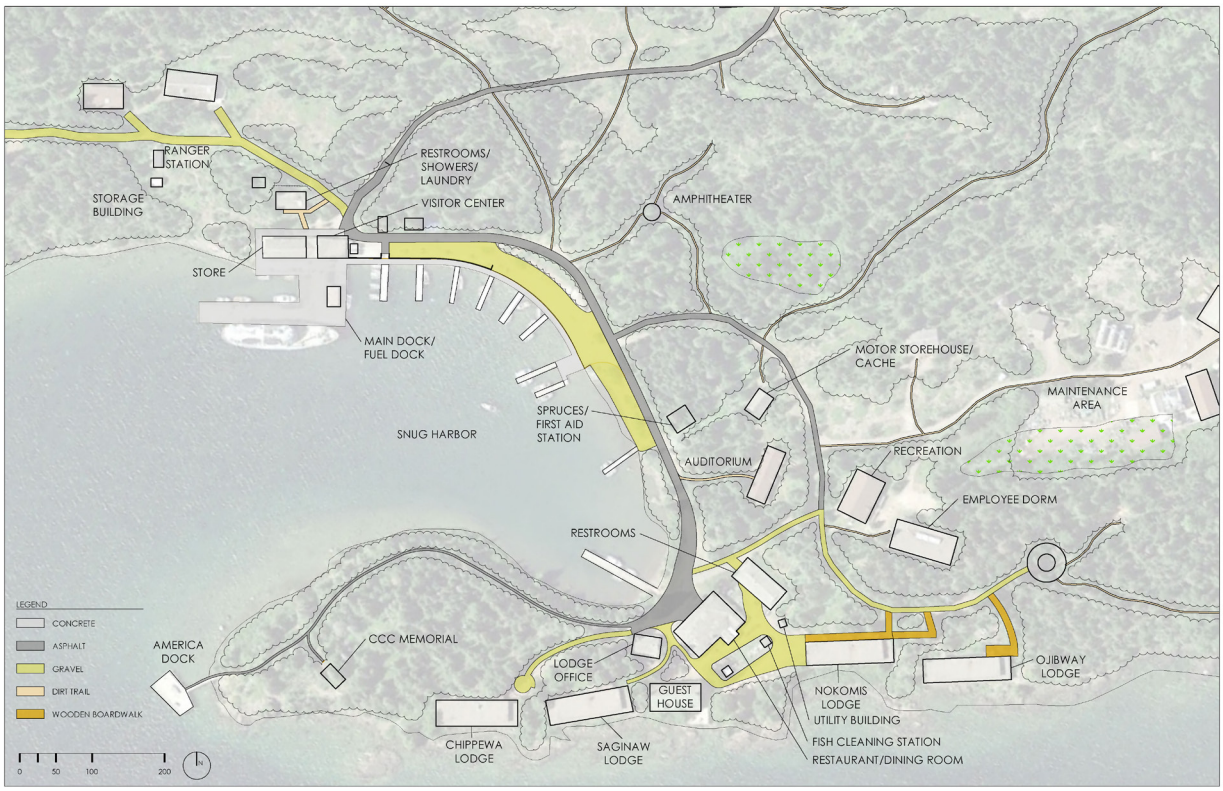


Figure AF.59: Existing Conditions Map of Rock Harbor Lodge area and Snug Harbor (WLA Studio, 2023).

Small-Scale Features

The only remaining small scale feature from the earliest period is the dinner bell, which was added sometime between 1907-1919. It is in the space created by the cluster of the Office, Dining Room, and Guest House. However, many small-scale features were added during the Mission 66 period. Signage was replaced or rehabilitated to help visitors navigate their way around the harbor. These signs included area signs, campground signs, trail signs, directional signs, and building identification signs. The main sign for Rock Harbor Lodge, added during Mission 66, exists today. It has been slightly modified with the addition of a shake roof to protect the site map, but it is remarkably intact and is a good representative example of Mission 66 design and workmanship (Figure AF.57 and Figure AF.58). Other small-scale features surviving from the Mission 66 period include fire hydrants, the CCC Memorial, and the Smithwick Mine exhibit. Features from the Post-Mission 66 era include power lines, mailboxes, benches, flag poles, trash cans, small buildings for storage, fencing, water storage tanks, and fuel tanks. However, many of these features are not contributing to the period of significance.

Landscape Integrity

With regards to integrity, the site retains integrity of location. The substantial changes made to the site in the later periods undermine the other aspects of integrity to the Resort Era period of significance (1902-1943). Elements of the resort's historic design is legible because of the spatial relationship of the Guest House, Dining Room, and Office; but the overall design of the site is illegible today because of the loss of the majority of historic buildings and the addition of modern buildings and structures and circulation networks. The scarcity of historic buildings, structures, circulation features, or small-scale features undermines the integrity of materials and workmanship. The wholesale change to the circulation and buildings at the site undermine the site's setting, feeling, and association. In general, the current site does not evoke a 1900s-1940s landscape. See Figure AF.59 for existing conditions.

The changes that the NPS made to the Rock Harbor landscape between 1956 and 1966 transformed the landscape. During this period, the NPS used a comprehensive plan that redesigned and created the spatial organization, cluster arrangement, buildings and structures, and circulation system that characterize the landscape today. The Rock Harbor cultural landscape in 2023 retains a high degree of integrity from the Mission 66 period (1956-1972). The site retains integrity of location, design, setting, materials, workmanship, feeling, and association from this period. Additionally, the landscape created in the Mission 66 period reflects the principles of the Mission 66 program, which the National Register of Historic Places has recognized as being historically significant. The existing Rock Harbor cultural landscape appears to be potentially eligible for listing on the National Register of Historic Places because of its association with the Mission 66 program. The NPS and the concessioner operating Rock Harbor Lodge made only a few changes to the landscape after 1967. A few buildings have been added. While these newer buildings do not reflect the architectural aesthetic of the Mission 66 buildings, they do not disrupt the overall design, spatial organization, or cluster arrangement of the Mission 66 period. Mission 66 era resources are now over 50 years old and are therefore contributing to the historic character of the cultural landscape. Several features from both periods exist on the current landscape, but the landscape predominantly reflects the Mission 66 period.

The recommendation is for the park to consider nominating the Rock Harbor Lodge area as a district to the National Register of Historic Places with a period of significance extending from 1902 to 1972. 1902 represents the year that Kneutson acquired the property; 1972 represents the year that the current landscape took shape following the Mission 66 program. It is also recommended that the park consider continuing research into the Mission 66 program on Isle Royale. The park's archives contains many more records than were examined in preparation of this overview of the Rock Harbor Lodge landscape.

Appendix G. Code Analysis

Building Code and Life Safety

As a National Park Service building, any proposed rehabilitation is governed by the 2015 Michigan Building Code and its related family of codes.

2015 Michigan Rehabilitation Code

The Rehabilitation Code applies to the repair, alteration, change of occupancy, addition to and relocation of existing buildings. Within this code, work is categorized into Alteration 1, 2, and 3 depending on the amount of work anticipated within the building. Additional categories include Change in Occupancy, Additions, Historic Buildings and Relocation of Buildings. Requirements of the code are limited to areas of the project Levels 1-3. This means that Alteration projects are not required to upgrade the entire building to the current code and only elements that are within the project work area are required to be upgraded, dependent on the nature of the alteration. Change of Use triggers more thorough upgrades and the building must be brought up to the current code for new use.

Construction Type

Buildings and structures are classified as one of five construction types in the Michigan Building Code. The construction type defines the fire resistance rating of the building structure, exterior walls, and interior walls.

The Rock Harbor Guest House currently is construction Type VB non-sprinklered. Per Table 601, Type V construction is that type of construction in which the structural elements, exterior walls and interior walls are any material permitted by the code. Also,Type VB includes all Type V construction which does not contain fire resistance rated assemblies.

Use and Occupancy Classification

The Guest House is currently used for staff housing and storage use in some rooms. No formal changes of use have been undertaken. The original and future use of the building as hostel type lodging is classified as Residential Group R-2.

Means of Egress

Occupant load determines the required size of egress pathway along with the number of exits. Per the Michigan Building Code Chapter 10, two means of egress doorways are required if the occupant load exceeds 50 or the travel distance is over 75 feet.

Fire Suppression

NPS Director's Order 58 section 9.1.8 requires consideration for fire suppression of structures to "prevent loss of human life and minimize damage to historic property resources."

Code Summary

Code(s):	2015 Michigan Rehabilitation Code 2015 Michigan Building Code
Compliance:	Historic Buildings
Classification:	Alteration – Level 2

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Appendix H. Meeting Minutes

SEVEN GENERATIONS
ARCHITECTURE + ENGINEERING

MEETING MINUTES

Project: 222052 NPS ISRO Rock Harbor

Meeting Date: September 15, 2022

Time: 9:00am to 10:00am

Date Issued: September 30, 2022

Attendees: Aramark Destinations – Kim Alexander
HF Lenz – Paul Petrilli
Lawson Elser – Mike Lawson
NPS – Seth DePasqual, Glen Hall, John Rosemurgy, Denice Swanke, Liz Valencia
RATIO – Chris Friend, David Kroll
Seven Generations AE (7GAE) – Chris Cork, Alex Hokkanen
Terracon – Lem Weyer
WLA Studio – Keyes Williamson

Purpose: Site Visit Close Out Meeting

ITEMS DISCUSSED:

The meeting began with introductions.

Chris Cork provided an overview of the meeting agenda, specifically pointing out that the goal was to reach a consensus about the goals of the project. Other agenda items included each team member providing an overview of findings, a discussion of the park's intended use, an opportunity for Kim Alexander to provide his opinions on future use, and a potential schedule.

Seth provided an overview of an existing Determination of Eligibility (DOE). Rock Harbor was determined eligible by Kathryn Franks and Arnold Alanen in their 1999 study "Historic Structures at Isle Royale National Park and by the 2002 (revised 2021) CLI. (Keyes: The CLI provides a letter from the Michigan SHPO which states that "the Rock Harbor Lodge, appears to meet the criteria for listing in the National Register of Historic Places."

John provided an overview of the project, which is to prepare Part 1 and Part 2 of a Historic Structure Report (HSR) on the Rock Harbor Guest House. The Project involves an HSR Part 1 Developmental History and a Condition Assessment Treatment Plan. The standard HSR Part 1, per NPS-28 definition, groups the condition assessment as part of the Part 1. The standard HSR Part 2 is solely a treatment plan. This project repackages the report components due to stipulations of the fund sources used. HSR recommendations may be used to develop one comprehensive Line-Item Construction (LIC) project or perhaps more than one Repair/Rehabilitation (RE/RE) projects. LIC and RE/RE relate to NPS fund sources. The desire is to develop recommendations consistent with park planning and that suit the needs of both the park and concessionaire (Aramark Destinations). During the project, the park will be asked to review document submittals and take part in a treatment workshop.

The document will also examine the historic landscape of Snug Harbor and its periods of change over time.

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Project team overview of findings:
Keyes: The building retains a high degree of historic integrity. We are documenting changes to the building, both in the written records and through physical investigations. We visited the park archives, photographing documents related to the building and the landscape. One challenge in this project is that the concessionaire is responsible for maintaining the buildings, so records of more recent work done on the building may not be accessible in park records.

David: In addition to physical investigation, we completed a 3-D scan of the building for analysis. We did a condition assessment of materials, doors, windows, walls, floors, and ceilings. Some material is original, some replacement. Other original features include built-in closets, work desks, and many existing sinks. We documented changes to room configuration, changes to doors, walls, baseboards, trim, etc. The current condition of the building is generally fair to good. Parts of it are good because the concessionaire has done a good job maintaining the building. This site visit will prepare the baseline information for the condition assessment as we look forward to developing treatment recommendations for the building.

Mike: The structure of the building is in fair to good condition. The investigation went from top to bottom, from attic to foundation. The attic is in good condition, with some evidence of former water damage but overall clean without evidence of mud wasps. The second floor is relatively level. The first floor is uneven like a "lumpy mattress." The hallway and lobby have crowned floors. Settling is expected as all wooden buildings creep, which is seen in the "smiling" exterior weatherboard. There are some foundation issues. Repairs have been completed on the water side of the building. It would be important to get information on the maintenance of the foundation and piers. An overview of the foundation: three lines of piers with spanning logs. There is some evidence of 2-by material used to supplement. He will perform calculations on live load, but it is important to know what use is intended as that impacts the live load requirements—residential is the lightest load, and official storage is the highest.

Paul: Mechanical systems include the fireplace. No existing HVAC, no insulation present. We see evidence of former radiator heat and steam lines in drawings and in the building that was removed in the 1980s. Kim was involved in taking out the radiators and removing the steam house next to the building. Plumbing in bathrooms and bedrooms has been updated. Original galvanized pipes were replaced with Pex plumbing piping. One concern was the size of the plumbing vents, which appear to be undersized to meet existing code. The electrical service supply appears sufficient. There is the main disconnect and breaker box. A recommendation may be to upgrade/replace the breaker box. Heating options will be considered, including electrical baseboards and other alternatives. Paul has received a 1990s utility plan the larger supply issues on the Rock Harbor complex to make sure that recommendations are appropriate for the supply. Fire protection systems were also discussed. Lodging would require installation of fire suppression system. Due to seasonal use of the structure, a dry pipe system was likely preferred.

Lem: collected samples for hazardous material testing. Looking for lead paint, asbestos, and visual inspection for mold. It will take approximately a week to get lab results. Lem said that no obvious asbestos sources. David mentioned that he also collected paint samples for paint analysis by an architectural conservator.

Alex provided an overview of the 3-D scanning effort, that some limits exist because of the height of the building and limits to access on the sides of the building.

Park concerns and goals for the project:
Chris Cork said it was important to hear from the park and concessionaire about any ideas about future use. Liz discussed the draft Cultural Resource Management Plan that is about to be approved. It envisions the building used as hostel-style lodging to create more options for the visiting public.

Aramark Destinations view of the project:
Kim said that the future use of the building has been discussed for a long time. The building is important to different types of visitors to the site. The lobby and porch are focal points—it is an important feature for everybody, not just lodge guests, including hikers, boaters, etc. It is, as required in the contract, a Wi-Fi hotspot.

Kim described how they currently use the building, which is for staff lodging and storage. They have a shortage of staff housing. They use several rooms on the first floor for staff lodging and some storage. The second floor is largely storage. For his employees, lodging is tiered. Younger staff (18-20) are housed in a dorm near the Rec Hall, the next age group is housed in the Guest House, and older staff have been lodged in the Nokomis lodge. Using Nokomis takes rooms away from potential clients; also, removing the rooms from the Guest Lodge would be hard to replace. If they lose staff lodging, there will need to be some kind of replacement; the same is true for storage; they would need supplemental lodging and storage constructed somewhere. An additional issue is staff office space. They have outgrown the existing office building and a low-cost solution is to move some administrative functions to the Guest House, probably three rooms on the second floor to be an office annex.

The concessionaire recognizes that the park wants a hostel-like facility but needs to consider staff lodging, storage and office needs, and compatibility of guests and users at the Guest House. If it remains a public gathering space and has hostel lodgers, will that create incompatible uses or potential conflicts between lodge visitors, campers, and hostel folks? For example, people arriving or departing on the boat may have "dead time" after checking out and before check-in. They gravitate towards the Guest House. It is an important "hang out" spot on the island. If the lobby remains open but the rooms are for hostel users.

John asked the park if HSR conceptual programming alternatives may need to factor some of the concessionaire's operational needs for staff lodging, storage, and office space. Liz replied that that would be necessary because there are no other plans to accommodate these needs. Note: due to Building Code stipulations, there may be practical limits on mixed uses. Superintendent Swanke mentioned a new pavilion planned for Snug Harbor that may take some pressure off the lobby.

Kim also mentioned that Aramark Destinations runs many sites across the country and many sites have different price points, so there are comparable operations to look at. David mentioned Boundary Waters and Voyageurs NP as places with hostel-like bunk rooms for visitors.

Superintendent Swanke, Seth, and Liz discussed current management practices and overall visitor demographics. Demographics have changed post-pandemic. As the demographics of visitors age, they are less likely to want to stay at the campground. This will put new pressure on the building stock and there may not be capacity for this change in use of the site. There is also an increase in the family market, which includes people use to car camping with kids who expect a level up from a primitive campsite. Kim mentioned that there has been an increase in kid visitors this summer.

Seth mentioned other NPS park units with a variety of experiences/lodge levels, including Old Faithful Inn which has communal bathrooms in some sections.

Seth also mentioned that compatibility issues already exist. The Lobby is a public space, but the building is used for staff housing, that is a compatibility issue similar to its proposed use as hostel-style lodging. He also pointed out that Windigo has rustic cabins which show demand for that level of accommodation.

Dave Kroll asked if there was a programmatic agreement with SHPO concerning maintenance. Seth replied that there was not; Superintendent Swanke said upon the approval of the Cultural Resource Plan.

There was a discussion on the capacity of the dormitories. Kim said that there were 22 rooms in the dorm, which included rooms originally designed for three beds and rooms designed for two beds. Modern visitors expect more space than in the 1960s, so rooms currently have two and one beds. The capacity is currently 50 people.

Kim mentioned that adding rooms for guest lodging in the Guest House would require additional staff for housekeeping, etc. Kim also described the current use of Nokomis Lodge. There are fifteen total rooms; eight are currently used for staff.

Kim mentioned that if the Guest House is to be used for guest lodging, there would need to be improved hot water heating for the showers. He asked what kind of heating was being proposed. Paul responded that they would look at alternatives, including electric, etc., taking into consideration the impact on visitors and the historic building.

John mentioned reusing the footprint of the old boiler/steam room for the footprint of the utilities building if needed.

Superintendent Swanke also mentioned changes in the season, that the shoulder seasons are extending and creeping. While the season may creep, they do not expect it to be year-round. So, the park's direction is that heating is more important than cooling because fall is becoming more popular for visitation.

A mention was made of protecting the crawlspace. It is exposed and is currently filled with sediment and driftwood. Some type of "armament" might be necessary to prevent waves from washing under the structure.

There was a brief discussion of ADA upgrades. There was also a brief discussion on efficiencies, that upgrades to windows, etc. need to be considered in coordination with other upgrades to utility systems.

Meeting Ended.

The items above are our understanding of the items discussed. Please review and provide any revisions or additions.

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SEVEN GENERATIONS
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MEETING MINUTES

Project: 222052 NPS ISRO Rock Harbor

Meeting Date: November 15, 2022

Time: 11:00am to 12:00pm

Date Issued: December 14, 2022

Attendees: HF Lenz – Paul Petrilli
Lawson Elser – Mike Lawson
NPS – Coral Conway, Seth DePasqual, Lindsey Hughes, John Rosemurgy, Denice Swanke, Liz Valencia
RATIO – Chris Friend, David Kroll
Seven Generations AE (7GAE) – Christopher Cork, Alex Hokkanen
Terracon – Lem Weyer
WLA Studio – Keyes Williamson

Purpose: Future Use/Concessionaire Concerns Meeting

ITEMS DISCUSSED:

Introduction of new participants.

Reviewed the meeting agenda and goals for the meeting.

- Preliminary Treatment Overview
- Concessionaire's Concerns/New Contract
  - Staff Lodging
  - Office Space
  - Storage
- Future Building Use
  - Hostel Type Lodging
- Next Steps

Shoreline Armoring

- Wave action, ice build-up, and high lake levels result in water sweeping under the structure, depositing driftwood and debris.
- Remediation will require consultation with USACE and Michigan EGLE Environment, Great Lakes, and Energy (michigan.gov).
- Determination of high-water mark will inform requirements for consultation.
- Treatment alternatives that are within the general building footprint are preferred to avoid visual impacts and complications related to permitting.

Future Building Use

- Denise Swanke: Concessionaire's needs should be considered, but they do not best represent the park's needs. HSR should proceed with the future use identified in the 2019 Cultural Resources Management Plan (CMRP) which a NEPA-vetted document. The CMRP

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identifies visitor lodging with possible hostel-type amenities. The NPS must work with the concessionaire, Aramark, to broker the best deal for the park and the resource.

- Lindsay Hughes: Current concessions contract was put in place in 2020 and does not identify visitor lodging at the Guest House. Modifications to the contract are not likely to be considered / negotiated until the mid-to-late point in the contract which extends through 2035. The contract identifies specific work items that the contractor is bound to complete (refer to attached document). Any conversations involving the contract must include the MWR Lead Commercial Services Management Specialist.
- Liz Valencia - Working with the concessionaire to consider adjustments to the use of the Guest House at mid contract point could align with scheduling for any possible facility rehabilitation project.

Site Development

- Coral Conway: Rock Harbor could benefit from a Developmental Concept Plan, or similar effort, to guide alterations and improvements. Changes related to the concessionaire's needs including staff housing, office space, and general storage. Planning for these functions is outside the scope of the HSR.
- Proposed new shelter / pavilion planned for Snug Harbor is not intended to satisfy the concessionaire's needs related to a picnic shelter.
- The Guest House conceptual site plan should account for a picnic / barbeque shelter located northeast of the Guest House behind the Lodge restaurant kitchen. The design team will propose a location for the new 16' x 20' outdoor barbeque pavilion as part of the final report and assessment.

Conclusion

- It was determined that the ultimate goal is to provide additional affordable lodging as is the goal of the park. Treatment recommendations and design planning will be based on the intended future use. Any concessionaire concerns will be addressed by NPS with the concessionaire until the final use is achieved. The 80% HSR will be issued to NPS January 13th with the Treatment Workshop anticipated for the week of January 23rd.

The items above are our understanding of the items discussed. Please review and provide any revisions or additions.

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AGENDA

Project: 222052 ISRO Rock Harbor Guesthouse – Treatment Workshop

Meeting Date: Tuesday, February 28, 2023

Time: 9:00 am

Location: Teams Meeting

Attendees: HF Lenz – Paul Petrilli
Lawson Elser – Mike Lawson
NPS – Coral Conway, Seth DePasqual, Glenn Hall, Lindsey Hughes, Bryan Lijewski, Marla McEnaney, Brent Nie, John Rosemurgy, Dena Sanford, Denice Swanke, Liz Valencia
RATIO – Chris Friend, David Kroll
Seven Generations AE (7GAE) – Chris Cork, Alex Hokkanen
WLA Studio – Keyes Williamson

Agenda:

Introductions

Workshop Goals

Workshop Kick-off

- History/Changes
- Team Findings
- Anticipated Costs

Review Treatments

- Site
- Structural
- MEP
- Architectural

Recap Findings of Workshop

Next Steps

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MEETING MINUTES

Project: 222052 ISRO Rock Harbor Guest House:
HSR Part 1 & Condition Assessment / Treatment Plan

Meeting Date: February 28, 2023

Time: 9 a.m. to 12 p.m. EST

Date Issued: March 20, 2023 [REV 3.23.2023]

Attendees: **National Park Service (NPS) -** Glenn Hall, Lindsey Hughes, Marla McEnaney, Brent Nie, John Rosemurgy, Dena Sanford, Denice Swanke, Liz Valencia
Seven Generations AE (7GAE) - Chris Cork, Alex Hokkanen, Rick Slone
Ratio Architects - Chris Friend, David Kroll
WLA Studio - Keyes Williamson
Lawson Elser - Michael Lawson
H.F. Lenz - Paul Petrilli

Purpose: Treatment Recommendation Review

ITEMS DISCUSSED:

Introductions and Guiding Principles

1. NPS confirms that the list provided is accurate:
   a. Stabilize the historic structure, preserve the historic fabric, provide future cost-effective lodging options for island visitors (hostel), and increase building accessibility and comfort for visitors where feasible.
   b. Consider the overall interpretive goals of NPS on the island. The strong role of encouraging recreational use of the island. Rehab of buildings to promote recreational/expand recreational use is encouraged.

Building and Site Chronology

1. In 1922 Rock Harbor Guest House was the jewel of Isle Royale and highly visible on approach to the island.

2. Earliest color photo is undated but includes the white exterior, green roof, and distinctive lake-side sign.

3. The functional arrangement of interior spaces is largely unchanged with the exception of the lakeside guest room immediately adjacent to the lobby as evidenced by the 1947 floor plan.

4. Documentation of the usage of the attic space is unclear.

5. The attic stairs only show up later (first in 1983) in the drawing documents. NPS was under the impression that a caretaker had stayed up in the attic at one point prior to that date. Plans and other documentation found do not indicate the attic was ever arranged as a living space.

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Period of Significance and National Register Eligibility

1. By consensus of those attending, the primary Period of Significance (POS) for the Rock Harbor Guest House was determined to be the Resort Era (1902-1943) that primarily pre-dates the establishment of the National Park (1940). The secondary POS is the Mission 66 Era (1953-1973), which largely created the site context as it exists today. Very little remains of the Resort Era site context.

2. Comment from Ms. Dena Sanford:
   a. The periods of significance cover a broad period of time. Recommending a treatment does not have to necessarily reflect the evolution of the property over time, but it could focus on a period that was of particular importance for the resource. That could mean the earlier periods of use when it dominated the area and was a focus for activity. The use and importance of the building during the M66 period were reduced, and the M66 design of the area dominated.
   b. On the other hand, if it is important to interpret the harbor and its use as a focus of recreation over time, then the later period of significance should be considered.

3. The Guest House is not listed but may be eligible for listing on the National Register.
   a. Historic District – A nomination for inclusion in a potential Historic District would focus on the interpretation of Mission 66 ideals outside the typical automobile-centric approach that dominated other NPS sites. M66 Site features and arrangement are largely intact (high level of integrity).
   b. The NPS intended to demolish the Guest House in the M66 era.
   c. Individual Nomination – The Guest House illustrates and interprets the changes in guest recreation and expectations of accommodation on the island.
   d. Architecturally the Guest House is a Resort-era building and was the focus of activity on the island during this period.
   e. It was the first thing visitors saw on the pre-Mission 66 water approach to the island. A white building among the natural context would have been highly visible and striking from a distance. It likely was painted brown to match the later buildings on either side of the Guest House.

Existing Conditions

1. Bearing condition of the piers is unclear without exploratory demolition.

2. Waves and ice have impacted the piers over the life of the structure.

3. There is an excessive amount of debris in the crawlspace. Either left in place or washed ashore.

4. The current skirt along the south elevation appears to be original or close to it based on photo documentation but does not seem to mitigate debris collection.
   a. HSR team would benefit from documentation indicating how high the ice comes up on shore. When NPS staff return in the spring photos will be taken to document post-winter conditions.

5. Early document shows that the roof covering has always been rolled roofing material.

6. The reason for the dropped ceiling in the first-floor lobby is unknown. It most likely hides some of the electrical work.

7. Double-hung windows installed throughout though many are no longer operable.

8. Green-rolled asphalt roofing product is limited in life expectancy. The attic is not insulated.

Treatment Levels and Recommendations

1. The final recommended treatment will most likely be a combination of all three levels of intervention.

Low Treatment

1. Low treatment is considered critical to stabilizing the structure and maintaining current use. Limited rehabilitation options are included.

2. Increase accessibility to the first-floor public space (accessible entrance is off the sundeck rather than the main entry) and improve building safety with battery-powered egress signage.

3. Corridor walls do not sit on a foundation. Recommend sistering of beams to ensure occupancy loads are accounted for (e.g., 100 lbs./sf for Assembly)

Medium Treatment

1. Medium Treatment includes conversion of the Guest House into hostel-style accommodations (basic).

2. Code-related improvements to allow for public access (fire suppression system, dry pipe with nitrogen recommended).

3. Limited rehabilitation of building elements (remove drop ceiling and replace with gypsum board and a skim coat of plaster to emulate historic appearance).

4. Look at relocating mechanical room from the south to the north side to allow for more lake views if an interior mechanical room is required. Mechanical outbuilding may be an option.

5. Evaluate the potential utility (flying the US flag in this location may not be desired) and/or the reinstallation of the flagpole (pictured on slide 7).

High Treatment

1. Upgrades necessary for full conversion of the Guest House into hostel-style accommodations (advanced).

2. High treatment options provide for the large-scale rehabilitation of building elements.

3. Improved accessibility throughout the first floor.
   a. Provide a ramp landing to improve existing access to the sundeck.
   b. Rebuild the deck and improve the structure beneath.

4. More trees were present in the historic condition, proposed replanting as appropriate.

5. NPS has already reviewed preliminary sketches for the picnic shelter.

6. The proposed sketch helps identify the location.

7. Kitchen, currently drawn on the south side, could also be relocated to the north side to allow for an additional sleeping room along the lake.

8. The option to have a larger room to accommodate groups in a bunk style consistent with hostels or a communicating door between two separated rooms.

a. Preference for a communicating door (similar to the existing) to have the greatest amount of flexibility.

9. Concern about maintenance for a geothermal system that is proposed. Historically, the costs have been high on other projects in the NPS region.
   a. Discussed electric baseboard vs VRF vs geothermal options.
   b. A geothermal system that utilized the Lake would provide cooling as well as the needed heat in shoulder seasons. However, due to limitations in getting service contractors to the island, the park would prefer the "heating only" option of electric baseboards. Electric baseboards are currently installed in other Park buildings.
   c. Additionally, the concessioner is responsible for the maintenance of the Guest House. Therefore, the HVAC system preference is related to its simplicity to operate and maintain.

Critical Decisions Made and Workshop Outcomes

Landscape

1. Planting trees to match historic conditions (postcard) is not preferred.

2. There were mixed reactions to installing boulders in the lake.

3. The Treatment Plan should focus on the basic design characteristics and building performance.

Mechanical Approach (Includes Location of Mechanical Room)

1. The NPS is interested in increasing the solar photovoltaic capacity and infrastructure on the island.

2. Due to limitations in getting service contractors to the island, the park would prefer the "heating only" option of electric baseboards over the geothermal (heating and cooling) option discussed above. Electric baseboards are currently installed in other Park buildings.

3. Currently using diesel generators but would like to move away from fossil fuels.

4. The preference is for a free standing outbuilding to serve as the mechanical room for ease of access and to maximize space for visitor accommodations. The outbuilding could be constructed in the location of the former boiler shed west of the Guest House.

Roofing and Exterior Appearance

1. Roof covering needs to be a more durable material. The current roll asphalt roofing is prone to blowing off in high winds, is susceptible to water infiltration, and requires regular replacement with a maximum of 20-year service life.
   a. The green color and horizontal joints are defining characteristics of the building.

2. As an alternate roofing material, NPS suggests looking at stone-coated metal shingle or horizontal seam metal roofing.
   a. Additionally, NPS recommended investigating other stone-coated membrane roofing types may also have improved performance and durability.

3. NPS would like the new roof system to be low maintenance, lasting 40-50 years if possible.

4. The HSR team is uncertain exactly when the building was painted brown to blend with the Mission 66 development.

5. Return to white paint on the exterior to match the color during the Resort-Era POS.

6. A painted Rock Harbor Guest House sign is evident on the postcard, NPS would like to see it repainted and/or reinstalled.

Structural Approach

1. Adding additional structural support under corridor walls is needed at any level of treatment.

2. Concerns about future water levels and exposure to ice over winter on the Lake.

3. It was noted that the lake typically goes through 10-year high-low cycles, but it still is a concern.

4. Need to find a solution to prevent waves from rushing under the building.
   a. Replanting trees is not desired along the south side of the Guest House.
   b. New concrete wall on the south side is not a popular option.
   c. Attendees were concerned about the visual effect of large boulders along the lake side but did not rule out. Introduced rock boulders would need to be locally sourced and generally rounded in shape to match the natural shoreline appearance.
   d. Any alteration to the shoreline would likely need USACE's involvement.

Interior Program, Layout, and Appearance

1. Interior program and layout.

2. The NPS does not see a need for a kitchen in the Guest House at any level of treatment. There are other facilities/accommodation options that provide cooking on the island.

3. Accessible guestrooms and bathrooms on the first floor are needed.

4. As stipulated by building code, 50% of the cost of the building is considered the threshold for a major renovation. Conversion of the Guest House to hostel use will require that current concessionaire uses of the building for housing and storage will need to bet elsewhere in the Snug Harbor complex.

5. Due to poor condition and detachment from lath, removal of existing plaster ceiling and wall finishes is recommended. Restoration of historic plaster assembly is not recommended due to vulnerability to failure as a result of freeze/thaw cycles (Guest House will remain unheated during winter months). Recommend new plaster applied over gypsum board walls and ceilings be installed. While the interior surfaces are removed the addition of sound isolation and other utility upgrades could take place.

Concessionaire and NPS Contract Implications

1. Any changes/improvements to the building will impact the terms of the current concessions contract. As a separate effort, it is understood that the NPS must take steps to discuss future use of the building with the concessionaire and impacts on operations.

2. Low maintenance is a must in all material and system selections, the concessionaire is responsible for normal maintenance under contract.

Next Steps: NPS Review and Comment Period.

Action Items: 7GAE will provide NPS Meeting Minutes and associated attachments.

Attachments: Treatment Workshop Presentation Slide Deck.

Next Meeting: Comment Review Meeting, Date and Time TBD

The items above are our understanding of the items discussed. Please review and provide any revisions or additions.

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MEETING MINUTES

Project: 222052 ISRO Rock Harbor Guest House Developmental History, Condition Assessment, and Treatment Plan
Meeting Date: April 26, 2022

Time: 11:00am – 12:15pm ET

Date Issued: May 4, 2023

Attendees: **National Park Service:** John Rosemurgy (COR/PM)
Seven Generations AE: Alex Hokkanen (PM), Ryan Odell (VP of Operations), Roger Van Tol (Project Coordinator)
RATIO: Chris Friend (Historic Architect)
WLA: Keyes Williamson (Historic Landscape Architect)
Lawson-Elser: Mike Lawson
Purpose: Review Comments Regarding 80% Draft

ITEMS DISCUSSED:

1. Excellent discussion of the history/chronology of the Guest House and Rock Harbor.
2. Treatment Alternatives that the team has developed should go in an Appendix. (Comment No. 269)
   a. As stated at the Treatment Workshop (and has since been reiterated by NPS staff), the Park intends to proceed with a rehabilitation treatment plan that supports hostel-style accommodations. See Treatment Workshop Minutes for additional discussion on amenities to be included and revisions requested.
3. The NPS would like to see additional 3D visualization showing the preferred alternative, existing conditions, and other diagrams as applicable.
   a. The AE team will investigate opportunities to include 3D elements like the breakwater.
4. The AE team left the treatment workshop with the understanding that a local boulder breakwater might be the best option and be least visually obtrusive of the alternatives discussed. (Comment 63)
   a. The AE team will investigate different ways to show the breakwater relative to the building using topographic data gathered with the laser scanner.
5. Period of Significance (POS) and the Treatment Era (Comment No. 67)
   a. Language will be updated/added to better illustrate the reasoning behind exterior color and other features derived from the POS.
   b. The Resort-era was presented at the Treatment Workshop as the primary POS (or "Treatment Era") because the character-defining architectural components date from this period.
   c. Many of the present structures as well as the site configuration of Rock Harbor area date from the Mission 66 POS.
6. Secretary of Interior standards direct rehabilitation treatments maintain as much of the salvageable historic building material as possible. Avoid removal of plaster that is well adhered. Maintenance of historic plaster may complicate implementation of sound proofing and electrical upgrades that would be required for contemporary use as a hostel. (Comment No. 73)
   a. The AE team will determine a percentage of plaster that is in good condition and will be retained for cost estimating purposes.
7. The Uniformat organization used throughout the Condition Assessment (headings and tables) will make cross-referencing the upcoming cost estimate much easier and assists the NPS when developing building work orders.

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8. The NPS is looking for strategies to make the document easier to navigate. Color-coded tabs that are visible in the outside margin of each page (or similar).
    a. AE will also look into physical tabs as part of the hardcopy printing for the final submission.
9. Project Schedule
    a. Currently, the schedule lists June 2, 2023, as the 95% Draft submission date. COR Rosemurgy indicated some flexibility to this date should the AE team need some additional time to both make revisions and provide a Class C cost estimate.
    b. The AE team will review the schedule and propose a date for NPS approval.

Action Items:

1. The AE Team will revise the Comment Response document (attached) and implement NPS comments for the 95% Draft Rock Harbor Guest House Developmental History, Condition Assessment, and Treatment Plan based on our discussions today.
2. Determine 95% Draft deliverable date, AE Team will follow up with COR Rosemurgy.

Next Meeting: TBD

The items above are our understanding of the items discussed. Please review and provide any revisions or additions.

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Appendix I. Class C Cost Estimate

Appendix I. Class C Cost Estimate

United States Department of the Interior
National Park Service

BASIS OF ESTIMATE

Treatment Plan Submission

PROJECT INFORMATION

Project:	Rock Harbor Lodge Guest House Improvements
Park:	Isle Royale National Park
Park Apha:	ISRO
PMIS:	TBD
Estimate Date:	25-Aug-23
Prepared By:	S. Garrett
Company:	Kirk Value Planners
Address:	675 Spruce Hill Lane
City, State Zip:	Ortonville, MI 48462
Phone:	248-240-9605

BACKGROUND SUPPORTING MATERIAL (Scope of Work):

This Class A breakdown with Class C information is estimate is based upon the following Seven Generations design team documents:
- Draft Treatment Plans dated June 14, 2023; Part 2B Treatment Recommendations Matrix, project photos.

There was also discussion with the design team for various issues. It is understood there will be no owner furnished contractor installed equipment to be included in this estimate.

SOURCE OF COST DATA:

Kirk VP incorporates unit costs leveraged from multiple sources: High quantity or unique items are quoted from vendors, suppliers, or installers familiar with the system; Typical items are priced per 2023 RS Means or through the current KVP pricing database. Material pricing is tracked by national sources, such as Engineering News and Reports - ENR. Regional vendors or construction sources are contacted to confirm market conditions that are reflected in unit pricing and include subcontractor general conditions, overhead and profit. Quantities are taken from the available drawings or reports. Proposed scope, quantities and unit costs have been reviewed by the current project team led by the design team and adjusted per their recommendations. Escalation has been included to cover a reasonable increase but the market may rise faster than anticipated which could produce a high bid cost. No premium for COVID is included to reflect higher material prices or additional labor premium is included. This project is not anticipated to limit crews based on COVID related conditions.

ESTIMATE ASSUMPTIONS:

The following scope items are not included in this cost estimate:
- Loose furniture and equipment (like computers)
- No NPS transportation equipment will be used to get materials from supplier to the land staging area.

Discussions with potential material suppliers and installers based their quotes on the following assumptions:
- Standard building products are limited but available to meet this demand in the region.
- Normal work shifts are anticipated, no premium for double shift or after hours work is included.
- Materials will come from the region and transported over water to the project location.

The current construction market in the region is busy and unit prices reflect this condition. It is believed that the construction economy is very active resulting in some trades and material shortages experiencing additional prices increases and limits on availability. Escalation has been included to cover a reasonable increase but the market may rise faster than anticipated which could produce a high bid cost. No Premium for Covid-19 is included but could add to the schedule and contractor costs to complete the scope of work.

MAJOR CHANGES FROM PREVIOUS ESTIMATE:

This estimate updates the quantities for the scope of work and confirmed pricing through conversations with vendors or suppliers. Major changes include:
- Clarification to the scope of work.
- Quantities revised based on preferred alternative design solutions.
- Labor rates and materials costs updated to reflect the current 2023 market pricing.
- NPS will complete the water transportation needs for materials and bulk items to and from the work site. Other means of transportation will be used to get materials from the supplier to the land staging area before being sent to the island work site.

Appendix I. Class C Cost Estimate

United States Department of the Interior
National Park Service

BASIS OF ESTIMATE

PROJECT INFORMATION Treatment Plan Submission

Project:	Rock Harbor Lodge Guest House Improvements
Park:	Isle Royale National Park
Park Apha:	ISRO
PMIS:	TBD
Estimate Date:	25-Aug-23

DESCRIPTION OF MARK-UP & ADD-ONS:

Design Contingency:	15.00%	This contingency was used to reflect a conceptual level of design. This will be used for both site and building components.
Standard General Conditions:	49.80%	Site will be located on Isle Royale, MI. Material placement is limited, site will be accessed by water from either Copper Harbor or Houghton, MI or from Grand Portage, MN. This area in general has a high amount of work so higher than normal conditions for fees are expected. The costs have been itemized for review.
Government General Conditions:	5.00%	Premium costs, above Standard General Conditions, associated with NPS contract requirements and is applied equally to Site estimates.
Contractor Overhead:	8.00%	Staff will not have to be transported to the site but there are limited options to reach the site. The normal amount of office support staff used to support the effort is anticipated.
Contractor Profit:	9.00%	Kirk VP believes this should reflect normal market conditions in the area.
Contracting Method Adjustment:	15.00%	NPS to confirm the approach but this assumes the project will not likely be a full and open process for award; therefore the project team is assuming it will be awarded as some sort Competitive Set-Aside (8A).
Annual Inflation Escalation Factor:	5.00%	Assumed 1.5-2.0 months construction completion time. Escalation at 5.00% per year to the midpoint of construction. Assumes construction will begin Spring, 2024, with project close out in the late Fall of 2024.
Time Until Project Midpoint (Months)	59	Number of months from estimate date until the projects midpoint of construction. Timeline is identified above which puts the midpoint at 59 months from the estimate date.

OTHER COMMENTS:

Available funding for this project is to be determined.

United States Department of the Interior
National Park Service
Class C Construction Cost Estimate

BID ITEM COST SUMMARY

Project: Rock Harbor Lodge Guest House Improvements
Park: Isle Royale National Park
Park Alpha: ISRO
PMIS Number: TBD

Treatment Plan Submission

Estimate By: S. Garrett
Date: 08/25/23
Reviewed By: A. Hokkanen
Date: 08/25/23

Bid Item Number	Asset / Project Element / Description	Size/Count	Units
BID ITEMS 1	Guest House	4,060	Sq Ft

Item No.	WBS	Description	Material Cost/Unit	Total Material Cost	Labor Cost/Unit	Total Labor Cost	Equipment Cost/Unit	Total Equipment Cost	Direct Cost/Unit	Total Direct Costs	NET Cost/Unit	Total NET Costs
1	A10	Foundations	$ 8.29	$ 33,640	$ 4.63	$ 18,793	$ 1.01	$ 4,090	$ 13.92	$ 56,523	$ 42.39	$ 172,092
2	A20	Basement Construction	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
3	B10	Superstructure	$ 12.50	$ 50,736	$ 8.25	$ 33,499	$ 0.15	$ 609	$ 20.90	$ 84,844	$ 63.62	$ 258,317
4	B20	Exterior Enclosure	$ 9.14	$ 37,122	$ 4.59	$ 18,628	$ -	$ -	$ 13.73	$ 55,750	$ 41.81	$ 169,738
5	B30	Roofing	$ 7.89	$ 32,023	$ 3.56	$ 14,465	$ 0.39	$ 1,587	$ 11.84	$ 48,076	$ 36.05	$ 146,372
6	C10	Interior Construction	$ 2.91	$ 11,823	$ 3.36	$ 13,630	$ -	$ -	$ 6.27	$ 25,453	$ 19.09	$ 77,494
7	C20	Stairs	$ 1.30	$ 5,270	$ 1.29	$ 5,247	$ -	$ -	$ 2.59	$ 10,517	$ 7.89	$ 32,020
8	C30	Interior Finishes	$ 6.83	$ 27,711	$ 10.53	$ 42,751	$ -	$ -	$ 17.36	$ 70,462	$ 52.84	$ 214,531
9	D10	Conveying Systems	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
10	D20	Plumbing Systems	$ 7.13	$ 28,957	$ 3.58	$ 14,544	$ -	$ -	$ 10.71	$ 43,501	$ 32.62	$ 132,445
11	D30	HVAC	$ 7.22	$ 29,309	$ 2.49	$ 10,114	$ -	$ -	$ 9.71	$ 39,423	$ 29.56	$ 120,027
12	D40	Fire Protection	$ 13.00	$ 52,780	$ 8.75	$ 35,535	$ 1.00	$ 4,060	$ 22.75	$ 92,375	$ 69.27	$ 281,247
13	D50	Electrical	$ 8.64	$ 35,065	$ 2.51	$ 10,173	$ -	$ -	$ 11.14	$ 45,238	$ 33.92	$ 137,731
14	E10	Equipment	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
15	E20	Furnishings	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
16	F10	Special Construction	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
17	F20	Selective Building Demolition	$ 3.18	$ 12,911	$ 11.76	$ 47,729	$ 1.52	$ 6,168	$ 16.46	$ 66,807	$ 50.10	$ 203,403
18	G10	Site Preparation	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
19	G20	Site Improvements	$ 3.35	$ 13,598	$ 1.24	$ 5,031	$ 0.22	$ 900	$ 4.81	$ 19,528	$ 14.64	$ 59,456
20	G30	Site Mechanical Utilities	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
21	G40	Site Electrical Utilities	$ 4.14	$ 16,808	$ 1.48	$ 6,011	$ 0.22	$ 891	$ 5.84	$ 23,710.16	$ 17.78	$ 72,188
22	G50	Other Site Construction	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
		Subtotal Direct Construction Costs	**$ 95.51**	**$ 387,753**	**$ 68.02**	**$ 276,150**	**$ 4.51**	**$ 18,304**	**$ 168.03**	**$682,207**	**$ 511.59**	**$2,077,062**
		Total Value of Government Furnished Property (GFP) Inc. in Direct Cost		**$0.00**		**$ -**		**$ -**	**$ -**	**$0**		
		Direct Cost Subtotal without GFP		$ 387,753		$ 276,150		$ 18,304		**$682,207**		
		Design Contingency	15.00%							$102,331		
		Total Direct Construction Costs								**$784,538**		
		Standard General Conditions (see breakdown)	49.80%	Applied to Total Direct Construction Cost less GFP						$390,700		
		Government General Conditions	5.00%	Applied to Total Direct Construction Cost less GFP						$39,227		
		Subtotal NET Construction Cost								**$1,214,465**		
		Overhead	8.00%							$97,157		
		Profit	9.00%							$109,302		
		Estimated NET Construction Cost								**$1,420,924**		
		Contracting Method Adjustment, Bonds,Permits	15.00%							$213,139		
		Inflation Escalation	59	Months	Annual Rate =	5.00%			Inc. Bonds & CMA	$442,999		
		Total Estimated NET Cost of Construction								**$2,077,062**		

In most cases GFP is normally zero - see footnote-

GFP costs only apply when the Government pre-purchases items, or provides other materials out of Government inventory, to be installed by contractor. Adjustments and Markup on GFP only include Inflation Escalation; No other adjustment factors or O&P markup have been applied.

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Project: Rock Harbor Lodge Guest House Improvements
Park: Isle Royale National Park
Park Alpha: ISRO
PMIS Number: TBD

Treatment Plan Submission

Estimate By: S. Garrett
Date: 08/25/23
Reviewed By: A. Hokkanen
Date: 08/25/23

Bid Item No.	Bid Item Description	Total Material Cost	Total Labor Cost	Total Equipment Cost	Total Direct Construction Costs	Design Contingency 15.00%	General Conditions 54.80%	General Contractor Overhead 8.00%	General Contractor Profit 9.00%	Contracting Method Adjustment 15.00%	Inflation Escalation APR 5.00%	Inflation Escalation Months 59	Bid Item Total
Bid Item: 1	**Structural Scope**											TOTAL VALUE OF GOVERNMENT FURNISHED PROPERTY (if any):	$ 195,560.00
	A10 Foundations	$ 33,640.16	$ 18,793.20	$ 4,090.00	$ 56,523.36								
	B10 Superstructure	$ 50,735.65	$ 33,499.39	$ 608.85	$ 84,843.89								
	F20 Selective Building Demolition	$ -	$ 2,632.72	$ 675.00	$ 3,307.72								
		$ -	$ -	$ -	$ -								
Total - Bid Item 1	**Structural Scope**	**$ 84,375.81**	**$ 54,925.31**	**$ 5,373.85**	**$ 144,674.97**	**$ 21,701.25**	**$ 91,174.16**	**$ 20,604.03**	**$ 23,179.53**	**$ 45,200.09**	**$ 93,946.39**		**$ 440,480.42**
Bid Item: 2	**Architectural Scope**											TOTAL VALUE OF GOVERNMENT FURNISHED PROPERTY (if any):	$ -
	B20 Exterior Enclosure	$ 37,121.57	$ 18,628.40	$ -	$ 55,749.97								
	B30 Roofing	$ 32,023.24	$ 14,465.48	$ 1,587.00	$ 48,075.71								
	C10 Interior Construction	$ 11,823.24	$ 13,629.58		$ 25,452.82								
	C20 Stairs	$ 5,270.32	$ 5,246.57		$ 10,516.89								
	C30 Interior Finishes	$ 27,711.09	$ 42,751.21		$ 70,462.30								
	F20 Selective Building Demolition	$ 12,910.80	$ 13,608.18	$ 4,480.00	$ 30,998.98								
	G20 Site Improvements	$ 8,194.86	$ 2,944.00	$ 425.00	$ 11,563.86								
		$ -	$ -	$ -	$ -								
Total - Bid Item 2	**Architectural Scope**	**$ 135,055.12**	**$ 111,273.42**	**$ 6,492.00**	**$ 252,820.54**	**$ 37,923.08**	**$ 159,327.48**	**$ 36,005.69**	**$ 40,506.40**	**$ 78,987.48**	**$ 164,171.98**		**$ 769,742.64**
Bid Item: 3	**Plumbing Scope**											TOTAL VALUE OF GOVERNMENT FURNISHED PROPERTY (if any):	$ -
	D20 Plumbing Systems	$ 28,957.08	$ 14,544.10		$ 43,501.18								
	F20 Selective Building Demolition	$ -	$ 13,215.86	$ 337.50	$ 13,553.36								
		$ -	$ -	$ -	$ -								
Total - Bid Item 3	**Plumbing Scope**	**$ 28,957.08**	**$ 27,759.97**	**$ 337.50**	**$ 57,054.55**	**$ 8,558.18**	**$ 35,955.77**	**$ 8,125.48**	**$ 9,141.16**	**$ 17,825.27**	**$ 37,049.04**		**$ 173,709.45**
Bid Item: 4	**HVAC Scope**											TOTAL VALUE OF GOVERNMENT FURNISHED PROPERTY (if any):	$ -
	D30 HVAC	$ 29,309.00	$ 10,113.71		$ 39,422.71								
	F20 Selective Building Demolition	$ -	$ 9,952.09	$ 337.50	$ 10,289.59								
		$ -	$ -	$ -	$ -								
Total - Bid Item 4	**HVAC Scope**	**$ 29,309.00**	**$ 20,065.80**	**$ 337.50**	**$ 49,712.30**	**$ 7,456.84**	**$ 31,328.69**	**$ 7,079.83**	**$ 7,964.80**	**$ 15,531.37**	**$ 32,281.26**		**$ 151,355.09**
Bid Item: 5	**Fire Protection Scope**											TOTAL VALUE OF GOVERNMENT FURNISHED PROPERTY (if any):	$ -
	D40 Fire Protection	$ 52,780.00	$ 35,534.90	$ 4,060.00	$ 92,374.90								
		$ -	$ -	$ -	$ -								
Total - Bid Item 5	**Fire Protection Scope**	**$ 52,780.00**	**$ 35,534.90**	**$ 4,060.00**	**$ 92,374.90**	**$ 13,856.23**	**$ 58,214.65**	**$ 13,155.66**	**$ 14,800.12**	**$ 28,860.24**	**$ 59,984.72**		**$ 281,246.53**
Bid Item: 6	**Electrical Scope**											TOTAL VALUE OF GOVERNMENT FURNISHED PROPERTY (if any):	$ -
	D50 Electrical	$ 35,064.92	$ 10,172.70	$ -	$ 45,237.62								
	G40 Site Electrical Utilities	$ 16,808.00	$ 6,011.16	$ 891.00	$ 23,710.16								
	F20 Selective Building Demolition	$ -	$ 8,320.21	$ 337.50	$ 8,657.71								
		$ -	$ -	$ -	$ -								
Total - Bid Item 6	**Electrical Scope**	**$ 51,872.92**	**$ 24,504.06**	**$ 1,228.50**	**$ 77,605.48**	**$ 11,640.82**	**$ 48,906.97**	**$ 11,052.26**	**$ 12,433.79**	**$ 24,245.90**	**$ 50,394.03**		**$ 236,279.26**
Bid Item: 7	**Site Scope**											TOTAL VALUE OF GOVERNMENT FURNISHED PROPERTY (if any):	$ -
	G20 Site Improvements	$ 5,402.82	$ 2,086.63	$ 475.00	$ 7,964.45								
		$ -	$ -	$ -	$ -								
Total - Bid Item 7	**Site Scope**	**$ 5,402.82**	**$ 2,086.63**	**$ 475.00**	**$ 7,964.45**	**$ 1,194.67**	**$ 5,019.19**	**$ 1,134.26**	**$ 1,276.05**	**$ 2,488.29**	**$ 5,171.81**		**$ 24,248.72**
	Total Bid Items 1 - 7	**$ 387,752.75**	**$ 276,150.08**	**$ 18,304.35**	**$ 682,207.18**	**$ 102,331.08**	**$ 429,926.91**	**$ 97,157.21**	**$ 109,301.87**	**$ 213,138.64**	**$ 442,999.24**		**$ 2,077,062.12**

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Class C Construction Cost Estimate

Project: Rock Harbor Lodge Guest House Improvements
Park: Isle Royale National Park
Park Apha ISRO
Treatment Plan Submission 0

Estimate By: S. Garrett
Date: 08/25/23
Reviewed By: A. Hokkanen
Date: 08/25/23

Field / Site Set-Up and Accommodation					
	Construction Trailer	(not required)			
	Bonds	1	LS	$17,200.00	$17,200
	Submittals	16	Each	$1,500.00	$24,000
	Builders Risk Insurance	1	LS	$17,400.00	$17,400
	Erosion & Sediment Control Plus Permits	(not required)			
	Electricity Hookup Connection & Permit	(not required)			
	Toilet Facilities	(not required)			
	Communications	2	Months	$150.00	$300
	Document Printing	1	LS	$800.00	$800
	Transportation of Materials to Site - Trucking costs from manufacturer to shore side for products longer than 30 miles away	14	Loads	$1,300.00	$18,200
	Transportation of Materials to Site - Truckiong costs from supplier to shore side for bulk materials available within 30 miles	4	Loads	$750.00	$3,000
	Transportation of Materials to Site - Island by NPS via Landing Craft Mechanized out of Houghton, MI.	by NPS			
	Tug boat rental - 250 HP (will use LCM per above)				
	Work barge and crane to use while working from water (only needed part of the time)	10	Days	$3,200.00	$32,000
Management, Supervision, and Field Engineering					
	Superintendent (Salary / per diem)	5	Months	$9,800.00	$49,000
	Project Engineer (part time)	2	Months	$7,100.00	$14,200
	Project Scheduling and Estimating	2	Months	$6,900.00	$13,800
Personnel Travel and Lodging					
	Staff commute (to and from work site, weekends only)	160	Trips	$150.00	$24,000
	Park Specialist Staff commute (premium for fuel only)	20	Trips	$150.00	$3,000
	Housing and Per Diem (team of 7)	770	Nights	$157.00	$120,890
Safety and Protection					
	Traffic Control (heavy during peak, then limited)	(not required)			
	Project Safety	0	Months	$3,400.00	$0
	Secure Storage Containers / Areas	2	Each	$1,500.00	$3,000
	On Site Security	(assumed not required)			
	Protect Existing Materials / Components	(included in Government General Conditions)			
Construction Aids, Equipment, and Tools					
	Small Equipment Rental	5	Months	$500.00	$2,500
	Small Tools & Supplies	5	Months	$250.00	$1,250
	Project Signs	1	Each	$1,600.00	$1,600
	Scaffolding	(not required)			
Temporary Construction					

Class C Construction Cost Estimate

Project: Rock Harbor Lodge Guest House Improvements
Estimate By: S. Garrett
Date: 08/25/23

Park: Isle Royale National Park
Park Apha ISRO
Reviewed By: A. Hokkanen
Treatment Plan Submission 0 **Date:** 08/25/23

	Protection of existing grass pavers, concrete, and asphalt	1	Each	$1,800.00	$1,800
	Temporary Water	(not required)			
	Temporary Power (generator)	(not required)			
	Temporary Heating & Cooling	(not required)			
	Set up and Remove Temporary Tree Protection	by NPS if needed			
	Set up and Remove Temporary Safety Fences - Movable with Work zones - assumes low risk barrier will be used	1,000	Lin Ft	$2.50	$2,500
	Set up and Remove Temporary Safety Fences - Silt Fencing or Floating Silt Curtain	250	Lin Ft	$12.00	$3,000
	Temporary utility protection	(not required)			
Climactic and Environmental Requirements					
Quality Control, Inspection, and Testing					
	Construction Photos (1 per day)	140	Hours	$20.00	$2,800
	Construction Testing	6	Each	$3,500.00	$21,000
	Commissioning	(not required)			
	Inspections	1	Project	$4,400.00	$4,400
Maintenance and Housekeeping					
	Waste (Dumpster rental and Disposal Fees)	4	Loads	$1,600.00	$6,400
	Waste Recycling Premium	1	Sum	$1,560.00	$1,560
Other Contractual Requirements					
	Record Drawings (red line changes during construction)	1	LS	$1,100.00	$1,100
Total Estimated Cost Standard General Conditions					**$390,700**

United States Department of the Interior
National Park Service
Class B Construction Cost Estimate

WAGE RATE CALCULATIONS

WAGE RATE CALCULATIONS

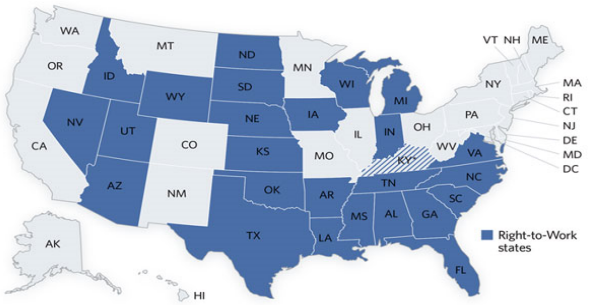
TRADE	COMPARE								SELECT	ADJUST									USE	Crew Configurations	
	Davis Bacon Base Rate (wdol.gov)	Davis Bacon Fringes (wdol.gov)	Davis Bacon Base With Fringes	2023 RS Means Labor Rate With Fringe		RS Means Location Index	RS Means Non-Union Rate With Fringe	RS Means Union Rate With Fringe	Recommended Base Rate to Use in Estimate (NON-UNION RATES)	Add Labor Burden								Total Burdened Labor Rate To Use in Estimate (Without OH&P or Bond)	2 Man crew	3 Man Crew
	Houghton County, MI			Non-Union National Average	Union National Average	Iron Mountain, MI (closest according to RSMeans)				Workers' Comp.	Federal Unemployment	State Unemployment Rate	Social Security Tax	Builder's risk insurance	Public liability costs	Sub OH&P plus Market Premium	Total Burden %			
										Choose State ▼											
									NON-UNION	MI	6.00%	3.00%	7.65%	0.95%	2.02%	56.00%				
Asbestos & Insulation Worker	$ 28.60	$ 16.62	$ 45.22		$ 63.55	97.60	$ -	$ 62.02	$ 62.02	12.23%	6.00%	3.00%	7.65%	0.95%	2.02%	56.00%	88%	$ 116.51	$ 91.68	$ 83.41
Mason - Stone	$ 36.91	$ 16.55	$ 53.46		$ 55.25	86.50	$ -	$ 47.79	$ 53.46	11.72%	6.00%	3.00%	7.65%	0.95%	2.02%	56.00%	87%	$ 100.15	$ 83.50	$ 77.95
Cement Finisher	$ 19.55	$ 6.35	$ 25.90		$ 52.50	84.90	$ -	$ 44.57	$ 44.57	11.09%	6.00%	3.00%	7.65%	0.95%	2.02%	56.00%	87%	$ 83.22	$ 75.04	$ 72.31
Bricklayer	$ 22.18	$ 22.83	$ 45.01		$ 55.25	85.70	$ -	$ 47.35	$ 47.35	17.36%	6.00%	3.00%	7.65%	0.95%	2.02%	56.00%	93%	$ 91.37	$ 79.11	$ 75.03
Common Building Laborer	$ 23.25	$ 5.95	$ 29.20		$ 42.80	82.40	$ -	$ 35.27	$ 35.27	13.94%	6.00%	3.00%	7.65%	0.95%	2.02%	56.00%	90%	$ 66.85	$ 66.85	$ 66.85
Drywall Finisher / Taper	$ 25.06	$ 9.66	$ 34.72		$ 56.10	81.50	$ -	$ 45.72	$ 45.72	12.20%	6.00%	3.00%	7.65%	0.95%	2.02%	56.00%	88%	$ 85.87	$ 76.36	$ 73.19
Structural Steel Worker	$ 31.32	$ 21.60	$ 52.92		$ 61.85	102.10	$ -	$ 63.15	$ 63.15	50.15%	6.00%	3.00%	7.65%	0.95%	2.02%	56.00%	126%	$ 142.57	$ 104.71	$ 92.09
Carpenter	$ 17.84	$ 18.28	$ 36.12		$ 56.30	89.20	$ -	$ 50.22	$ 50.22	18.76%	6.00%	3.00%	7.65%	0.95%	2.02%	56.00%	94%	$ 97.62	$ 82.23	$ 77.11
Roofer, Composition	$ 26.50	$ 15.95	$ 42.45		$ 49.60	89.20	$ -	$ 44.24	$ 44.24	41.77%	6.00%	3.00%	7.65%	0.95%	2.02%	56.00%	117%	$ 96.18	$ 81.52	$ 76.63
Glazier	$ 25.74	$ 11.55	$ 37.29		$ 54.00	86.20	$ -	$ 46.55	$ 46.55	12.16%	6.00%	3.00%	7.65%	0.95%	2.02%	56.00%	88%	$ 87.41	$ 77.13	$ 73.70
Tile Layer	$ 20.96	$ 7.24	$ 28.20		$ 53.15	85.50	$ -	$ 45.44	$ 45.44	12.17%	6.00%	3.00%	7.65%	0.95%	2.02%	56.00%	88%	$ 85.34	$ 76.10	$ 73.01
Painting, Ordinary	$ 15.09	$ 3.53	$ 18.62		$ 47.80	78.50	$ -	$ 37.52	$ 37.52	15.21%	6.00%	3.00%	7.65%	0.95%	2.02%	56.00%	91%	$ 71.61	$ 69.23	$ 68.44
Painter, Structural Steel	$ 14.36	$ 1.98	$ 16.34		$ 47.80	78.50	$ -	$ 37.52	$ 37.52	50.15%	6.00%	3.00%	7.65%	0.95%	2.02%	56.00%	126%	$ 84.72	$ 75.78	$ 72.81
Tile Setter	$ 20.96	$ 7.24	$ 28.20		$ 53.15	85.50	$ -	$ 45.44	$ 45.44	12.17%	6.00%	3.00%	7.65%	0.95%	2.02%	56.00%	88%	$ 85.34	$ 76.10	$ 73.01
Elevator Mechanic			$ -		$ -	98.40	$ -	$ -	$ -	50.15%	6.00%	3.00%	7.65%	0.95%	2.02%	56.00%	126%	$ -	$ 33.43	$ 44.57
Fire Sprinkler	$ 29.52	$ 18.61	$ 48.13		$ 68.55	86.40	$ -	$ 59.23	$ 59.23	7.06%	6.00%	3.00%	7.65%	0.95%	2.02%	56.00%	83%	$ 108.20	$ 87.52	$ 80.63
Plumber	$ 27.70	$ 22.73	$ 50.43		$ 69.80	86.40	$ -	$ 60.31	$ 60.31	7.06%	6.00%	3.00%	7.65%	0.95%	2.02%	56.00%	83%	$ 110.17	$ 88.51	$ 81.29
Steamfitter or Pipefitter	$ 29.52	$ 18.61	$ 48.13		$ 69.80	86.40	$ -	$ 60.31	$ 60.31	7.06%	6.00%	3.00%	7.65%	0.95%	2.02%	56.00%	83%	$ 110.17	$ 88.51	$ 81.29
HVAC / Sheet Metal Worker	$ 24.88	$ 16.41	$ 41.29		$ 68.40	86.40	$ -	$ 59.10	$ 59.10	10.97%	6.00%	3.00%	7.65%	0.95%	2.02%	56.00%	87%	$ 110.27	$ 88.56	$ 81.33
Electrician	$ 30.18	$ 18.42	$ 48.60		$ 66.20	86.00	$ -	$ 56.93	$ 56.93	6.15%	6.00%	3.00%	7.65%	0.95%	2.02%	56.00%	82%	$ 103.49	$ 85.17	$ 79.06
Pile Driver	$ 24.28	$ 16.95	$ 41.23		$ 42.10	89.70	$ -	$ 37.76	$ 41.23	50.15%	6.00%	3.00%	7.65%	0.95%	2.02%	56.00%	126%	$ 93.08	$ 79.97	$ 75.60
Equipment Operator, Heavy	$ 35.71	$ 25.00	$ 60.71		$ 60.40	89.70	$ -	$ 54.18	$ 60.71	14.34%	6.00%	3.00%	7.65%	0.95%	2.02%	56.00%	90%	$ 115.32	$ 91.09	$ 83.01
Equipment Operator, Light	$ 33.90	$ 17.85	$ 51.75		$ 58.90	89.70	$ -	$ 52.83	$ 52.83	14.34%	6.00%	3.00%	7.65%	0.95%	2.02%	56.00%	90%	$ 100.36	$ 83.61	$ 78.02
Truck Driver, Heavy	$ 12.00	$ 11.25	$ 23.25		$ 54.00	89.70	$ -	$ 48.44	$ 48.44	12.17%	6.00%	3.00%	7.65%	0.95%	2.02%	56.00%	88%	$ 90.96	$ 78.91	$ 74.89
Skilled Worker	$ 28.70	$ 19.62	$ 48.32		$ 53.20	88.20	$ -	$ 46.92	$ 48.32	18.76%	6.00%	3.00%	7.65%	0.95%	2.02%	56.00%	94%	$ 93.92	$ 80.39	$ 75.88

INSTRUCTIONS:

1. RED FONT INDICATES USER DATA ENTRY. DON'T EDIT BLACK FONT.
2. SELECT STATE IN CELL K6.
3. DETERMINE IF PROJECT IS UNION OR NON UNION. REFER TO RIGHT TO WORK STATE MAP SHOWN TO THE RIGHT.
4. ENTER "UNION" OR "NON-UNION" FROM DROP DOWN LIST IN CELL J6.
5. ENTER CITY & STATE OR 3 DIGIT ZIP FROM RS MEANS IN CELL G5.
6. ENTER RS MEANS LOCATION INDEX FOR EACH TRADE IN COLUMN G. ENTER AS A WHOLE NUMBER, NOT A PERCENTAGE.
7. ENTER COUNTY & STATE IN CELL B5.
8. FIND DAVIS BACON PREVAILING WAGE RATE DETERMINATION AT "HTTP://WDOL.GOV".
9. COPY & PASTE DAVIS BACON PREVAILING WAGE REATE DETERMINATION BELOW.
10. SPLIT WINDOWS SCREEN WITH WAGE RATE CALCULATIONS TABLE IN UPPER HALF & DAVIS BACON IN LOWER HALF.
11. ENTER THE DAVIS BACON BASE & FRINGE RATES IN COLUMNS B & C.
12. COLUMN J WILL AUTOMATICALLY SELECT THE HIGHER OF THE DAVIS BACON RATE OR THE UNION OR NON UNION RATE.
13. COLUMN R WILL AUTOMATCALLY CALCULATE TO INCLUDE THE RATES IN COLUMN J WITH PAYROLL BURDEN ADDED.
14. COLUMNS S & T AUTOMATICALLY CALCULATE CREW RATES.
15. ALTERNATIVELY, COLUMN U AUTOMATICALLY CALCULATES THE DAVIS BACON BASE RATE DIVIDED BY THE RS MEANS BASE RATE TO USE TO EDIT RS MEANS TOTAL LABOR COSTS DIRECT FROM RS MEANS WHEN DAVIS BACON IS HIGHER.
16. TYPICALLY, NEVER USE A DAVIS BACON RATE WHEN IT IS LOWER THAN AN RS MEANS RATE, AS DAVIS BACON IS ONLY INTENDED TO BE THE "MINIMUM LEGALLY REQUIRED RATE ON FEDERAL FUNDED PROJECTS" AND THE MARKET MAY ACTUALLY PAY "MORE" THAN DAVIS BACON.

MAP 1

25 States Have Right-to-Work Laws



*Twelve counties in Kentucky have passed local right-to-work ordinances, and another six counties have passed preliminary right-to-work laws that await final votes.
Source: National Right to Work Committee, "State Right to Work Timeline," 2015, https://nrtwc.org/facts-issues/state-right-to-work-timeline-2/ (accessed August 28, 2015).

IB 4457 heritage.org

United States Department of the Interior
National Park Service
Class C Construction Cost Estimate

LINE ITEM COST SUMMARY

Project: Rock Harbor Lodge Guest House Improvements
Park: Isle Royale National Park
Park Alpha: ISRO
PMIS: TBD

Treatment Plan Submission

Estimate By: S. Garrett
Date: 08/25/23
Reviewed By: A. Hokkanen
Date: 08/25/23

Summary Item: A10 Foundations **Total Cost:** $56,523

Uniformat II WBS Code	Description	Quantity	Unit	MATERIAL		Labor Hours	Labor Rate	LABOR		EQUIPMENT		TOTALS	
				Material Cost/Unit	Total Material Cost			Labor Cost/Unit	Total Labor Cost	Equipment Cost/Unit	Total Equipment Cost	Total Cost/Unit	Total Cost
A1010	STANDARD FOUNDATIONS												
	Add concrete piers along the house corridor bearing walls, bear on solid rock subgrade	14	Each	$ 672.00	$9,408	3.90	$ 83.50	$ 325.66	$4,559	$ 25.00	$350	$ 1,022.66	$14,317
	Level and plumb existing concrete piers, inspect bearing and reinforce as required	13	Each	$ 144.00	$1,872	5.20	$ 83.50	$ 434.21	$5,645	$ -	$0	$ 578.21	$7,517
	Add heavy stones and boulders for erosion control	20	Each	$ 750.00	$15,000	0.95	$ 115.32	$ 109.56	$2,191	$ 125.00	$2,500	$ 984.56	$19,691
	Form and pour a new reinforced concrete wall under the existing wall where erosion has occurred	248	Sq Ft	$ 22.00	$5,456	0.31	$ 83.22	$ 25.80	$6,398	$ 5.00	$1,240	$ 52.80	$13,094
	Sales tax	6.00%	Prcnt	$ -	$1,904			$ -	$0	$ -	$0	$ -	$1,904
SUBTOTAL	STANDARD FOUNDATIONS	4,060	Sq Ft	$ 8.29	$33,640			$ 4.63	$18,793	$ 1.01	$4,090	$ 13.92	$56,523

Summary Item: A10 Foundations

Uniformat II WBS Code	Description	Quantity	Unit	MATERIAL			LABOR		EQUIPMENT		TOTALS	
				Material Cost/Unit	Total Material Cost		Labor Cost/Unit	Total Labor Cost	Equipment Cost/Unit	Total Equipment Cost	Total Cost/Unit	Total Cost
A10	Foundations	4,060	Sq Ft	$ 8.29	$33,640		$ 4.63	$18,793	$ 1.01	$4,090	$ 13.92	$56,523

United States Department of the Interior
National Park Service
Class C Construction Cost Estimate

LINE ITEM COST SUMMARY

Project: Rock Harbor Lodge Guest House Improvements
Park: Isle Royale National Park
Park Alpha: ISRO
PMIS: TBD

Treatment Plan Submission

Estimate By: S. Garrett
Date: 08/25/23
Reviewed By: A. Hokkanen
Date: 08/25/23

Summary Item: B10 Superstructure **Total Cost:** $84,844

Uniformat II WBS Code	Description	Quantity	Unit	MATERIAL		Labor Hours	Labor Rate	LABOR		EQUIPMENT		TOTALS	
				Material Cost/Unit	Total Material Cost			Labor Cost/Unit	Total Labor Cost	Equipment Cost/Unit	Total Equipment Cost	Total Cost/Unit	Total Cost
B1010	FLOOR CONSTRUCTION												
	Reinforce existing log beam with timber joists sistered to each side	244	Lin Ft	$ 12.60	$3,074	0.18	$ 82.23	$ 14.80	$3,612	$ -	$0	$ 27.40	$6,686
	New timber beam tight to the bottom of the existing joists supported by new piers	122	Lin Ft	$ 22.00	$2,684	0.36	$ 82.23	$ 29.60	$3,612	$ -	$0	$ 51.60	$6,296
	Replace deteriorated wood members along the length of the fence enclosure	502	Lin Ft	$ 4.40	$2,207	0.06	$ 82.23	$ 4.93	$2,475	$ -	$0	$ 9.33	$4,682
	Clean out debris from crawl space and place vapor barrier and gravel	2,030	Sq Ft	$ 2.20	$4,465	0.01	$ 80.39	$ 0.80	$1,631	$ 0.30	$609	$ 3.30	$6,705
	Add mechanical connections between the foundation and the first floor framing	4	Each	$ 125.00	$500	4.40	$ 82.23	$ 361.83	$1,447	$ -	$0	$ 486.83	$1,947
	Rebuild the existing wood deck with new structure and foundations	1,150	Sq Ft	$ 5.60	$6,440	0.06	$ 82.23	$ 4.93	$5,674	$ -	$0	$ 10.53	$12,114
	Add new trex type composite decking on newly rebuilt deck	1,150	Sq Ft	$ 8.10	$9,315	0.05	$ 82.23	$ 4.11	$4,728	$ -	$0	$ 12.21	$14,043
	Add new wood railings at rebuilt deck	160	Lin Ft	$ 21.00	$3,360	0.10	$ 83.22	$ 8.32	$1,332	$ -	$0	$ 29.32	$4,692
	Sales tax	6.0%	Prcnt	$ -	$1,923			$ -	$0	$ -	$0	$ -	$1,923
SUBTOTAL	FLOOR CONSTRUCTION	4,060	Sq Ft	$ 8.37	$33,968			$ 6.04	$24,511	$ 0.15	$609	$ 14.55	$59,088

Uniformat II WBS Code	Description	Quantity	Unit	MATERIAL		Labor Hours	Labor Rate	LABOR		EQUIPMENT		TOTALS	
				Material Cost/Unit	Total Material Cost			Labor Cost/Unit	Total Labor Cost	Equipment Cost/Unit	Total Equipment Cost	Total Cost/Unit	Total Cost
B1020	ROOF CONSTRUCTION												
	Add supplemental framing on the sides of the rafters and collar ties	2,585	Lin Ft	$ 4.40	$11,375	0.03	$ 82.23	$ 2.47	$6,378	$ -	$0	$ 6.87	$17,753
	Remove and replace water damaged wood decking (assumes 50%)	1,587	Roof Sf	$ 2.80	$4,444	0.02	$ 82.23	$ 1.64	$2,610	$ -	$0	$ 4.44	$7,054
	Sales tax	6.0%	Prcnt	$ -	$949			$ -	$0	$ -	$0	$ -	$949
SUBTOTAL	ROOF CONSTRUCTION	4,060	Sq Ft	$ 4.13	$16,768			$ 2.21	$8,988	$ -	$0	$ 6.34	$25,756

Summary Item: B10 Superstructure

Uniformat II WBS Code	Description	Quantity	Unit	MATERIAL			LABOR		EQUIPMENT		TOTALS	
				Material Cost/Unit	Total Material Cost		Labor Cost/Unit	Total Labor Cost	Equipment Cost/Unit	Total Equipment Cost	Total Cost/Unit	Total Cost
B10	Superstructure	4,060	Sq Ft	$ 12.50	$50,736		$ 8.25	$33,499	$ 0.15	$609	$ 20.90	$84,844

United States Department of the Interior
National Park Service
Class C Construction Cost Estimate

LINE ITEM COST SUMMARY

Project: Rock Harbor Lodge Guest House Improvements
Park: Isle Royale National Park
Park Alpha: ISRO
PMIS: TBD

Treatment Plan Submission

Estimate By: S. Garrett
Date: 08/25/23
Reviewed By: A. Hokkanen
Date: 08/25/23
OP

Summary Item: B20 Exterior Enclosure

Total Cost: $55,750

Uniformat II WBS Code	Description	Quantity	Unit	MATERIAL		Labor Hours	Labor Rate	LABOR		EQUIPMENT		TOTALS	
				Material Cost/Unit	Total Material Cost			Labor Cost/Unit	Total Labor Cost	Equipment Cost/Unit	Total Equipment Cost	Total Cost/Unit	Total Cost
B2010	EXTERIOR WALLS												
	South Elevation Exterior Cladding - Replace 50% of existing siding and trim	567	Sq Ft	$ 3.10	$1,758	0.03	$ 82.23	$ 2.47	$1,399	$ -	$0	$ 5.57	$3,157
	Add new signage to match historic signage	1	Sum	$ 2,500.00	$2,500	8.00	$ 82.23	$ 657.88	$658	$ -	$0	$ 3,157.88	$3,158
	All Elevation Exterior surfaces - Remove all loose paint, dirt, organic growth, and debris. Paint with 1 coat primer and 2 finish coats	3,688	Sq Ft	$ 0.80	$2,950	0.01	$ 71.61	$ 0.72	$2,641	$ -	$0	$ 1.52	$5,591
	Repair cracks in Chimney, repoint missing or failing mortar, patch spalled pieces with appropriate patch, install chinmey cap	516	Sq Ft	$ 8.60	$4,438	0.06	$ 83.50	$ 5.01	$2,585	$ -	$0	$ 13.61	$7,023
	All Elevation Exterior surfaces - Remove all loose paint, dirt, organic growth, and debris. Paint with 1 coat primer and 2 finish coats	3,688	Sq Ft	$ 0.80	$2,950	0.01	$ 71.61	$ 0.72	$2,641	$ -	$0	$ 1.52	$5,591
	Add new mechanical room	55	Sq Ft	$ 125.00	$6,906	0.50	$ 71.61	$ 35.80	$1,978	$ -	$0	$ 160.80	$8,884
	Sales tax	6.0%	Prcnt	$ -	$1,290			$ -	$0	$ -	$0	$ -	$1,290
SUBTOTAL	EXTERIOR WALLS	4,060	Sq Ft	$ 5.61	$22,792			$ 2.93	$11,902	$ -	$0	$ 8.55	$34,694

Uniformat II WBS Code	Description	Quantity	Unit	MATERIAL		Labor Hours	Labor Rate	LABOR		EQUIPMENT		TOTALS	
				Material Cost/Unit	Total Material Cost			Labor Cost/Unit	Total Labor Cost	Equipment Cost/Unit	Total Equipment Cost	Total Cost/Unit	Total Cost
B2020	EXTERIOR WINDOWS												
	Stabalize existing windows for future rehabilitation, repair wood windows to operable condition, rework sashes as required, rehabilitate the glazing compound	39	Each	$ 78.00	$3,042	0.80	$ 82.23	$ 65.79	$2,566	$ -	$0	$ 143.79	$5,608
	Replace broken glass in windows - assumes 25%	0	Each	$ 48.00	$0	0.90	$ 82.23	$ 74.01	$0	$ -	$0	$ 122.01	$0
	Add storm windows	39	Each	$ 144.00	$5,616	0.40	$ 82.23	$ 32.89	$1,283	$ -	$0	$ 176.89	$6,899
	Sales tax	6.0%	Prcnt	$ -	$519			$ -	$0	$ -	$0	$ -	$519
SUBTOTAL	EXTERIOR WINDOWS	4,060	Sq Ft	$ 2.26	$9,177			$ 0.95	$3,849	$ -	$0	$ 3.21	$13,026

United States Department of the Interior
National Park Service
Class C Construction Cost Estimate

LINE ITEM COST SUMMARY

Project: Rock Harbor Lodge Guest House Improvements
Park: Isle Royale National Park
Park Alpha: ISRO
PMIS: TBD

Treatment Plan Submission

Estimate By: S. Garrett
Date: 08/25/23
Reviewed By: A. Hokkanen
Date: 08/25/23
OP

Summary Item: B20 Exterior Enclosure

Total Cost: $55,750

Uniformat II WBS Code	Description	Quantity	Unit	MATERIAL		Labor Hours	Labor Rate	LABOR		EQUIPMENT		TOTALS	
				Material Cost/Unit	Total Material Cost			Labor Cost/Unit	Total Labor Cost	Equipment Cost/Unit	Total Equipment Cost	Total Cost/Unit	Total Cost
B2030	EXTERIOR DOORS												
	Rehabilitate existing exterior doors, provide compatible hardware	4	Each	$ 850.00	$3,400	7.00	$ 82.23	$ 575.64	$2,303	$ -	$0	$ 1,425.64	$5,703
	Replace First Floor western door with compatible style and hardware	1	Each	$ 1,460.00	$1,460	7.00	$ 82.23	$ 575.64	$576	$ -	$0	$ 2,035.64	$2,036
	Sales tax	6.0%	Prcnt	$ -	$292			$ -	$0	$ -	$0	$ -	$292
SUBTOTAL	EXTERIOR DOORS	4,060	Sq Ft	$ 1.27	$5,152			$ 0.71	$2,878	$ -	$0	$ 1.98	$8,030

Summary Item: B20 Exterior Enclosure

Uniformat II WBS Code	Description	Quantity	Unit	MATERIAL			LABOR		EQUIPMENT		TOTALS	
				Material Cost/Unit	Total Material Cost		Labor Cost/Unit	Total Labor Cost	Equipment Cost/Unit	Total Equipment Cost	Total Cost/Unit	Total Cost
B20	Exterior Enclosure	4,060	Sq Ft	$ 9.14	$37,122		$ 4.59	$18,628	$ -	$0	$ 13.73	$55,750

United States Department of the Interior
National Park Service
Class C Construction Cost Estimate

LINE ITEM COST SUMMARY

Project: Rock Harbor Lodge Guest House Improvements
Park: Isle Royale National Park
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PMIS: TBD

Treatment Plan Submission

Estimate By: S. Garrett
Date: 08/25/23
Reviewed By: A. Hokkanen
Date: 08/25/23

Summary Item: B30 Roofing — **Total Cost:** $48,076

Uniformat II WBS Code	Description	Quantity	Unit	MATERIAL		Labor Hours	Labor Rate	LABOR		EQUIPMENT		TOTALS	
				Material Cost/Unit	Total Material Cost			Labor Cost/Unit	Total Labor Cost	Equipment Cost/Unit	Total Equipment Cost	Total Cost/Unit	Total Cost
B3010	ROOF COVERINGS												
	Add new roof underlayment with 5-10 year expectancy	3,174	Roof Sf	$ 0.80	$2,539	0.01	$ 81.52	$ 0.65	$2,070	$ 0.50	$1,587	$ 1.95	$6,196
	Remove and replace water damaged wood decking (assumes 50%) - included in B1020		Roof Sf	$ -	$0	0.00	$ 81.52	$ -	$0	$ -	$0	$ -	$0
Alternate (not in cost)	*Add metal shingles with stone coating roofing system*	*3,174*	*Roof Sf*	*$ 9.30*	*$29,518*	*0.06*	*$ 81.52*	*$ 4.89*	*$15,524*	*$ -*	*$0*	*$ 14.19*	*$45,042*
	Add architectural shingles roofing system	3,174	Roof Sf	$ 7.10	$22,535	0.04	$ 81.52	$ 3.26	$10,349	$ -	$0	$ 10.36	$32,885
	Add new galvanized metal flashings	381	Lin Ft	$ 12.50	$4,761	0.06	$ 81.52	$ 4.89	$1,863	$ -	$0	$ 17.39	$6,624
	Add new roof to mechanical room	75	Roof Sf	$ 5.00	$375	0.03	$ 81.52	$ 2.45	$183	$ -	$0	$ 7.45	$558
	Sales tax	6.0%	Prcnt	$ -	$1,813			$ -	$0	$ -	$0	$ -	$1,813
SUBTOTAL	ROOF COVERINGS	4,060	Sq Ft	$ 7.89	$32,023			$ 3.56	$14,465	$ 0.39	$1,587	$ 11.84	$48,076

Summary Item: B30 Roofing

Uniformat II WBS Code	Description	Quantity	Unit	MATERIAL			LABOR		EQUIPMENT		TOTALS	
				Material Cost/Unit	Total Material Cost		Labor Cost/Unit	Total Labor Cost	Equipment Cost/Unit	Total Equipment Cost	Total Cost/Unit	Total Cost
B30	Roofing	4,060	Sq Ft	$ 7.89	$32,023		$ 3.56	$14,465	$ 0.39	$1,587	$ 11.84	$48,076

United States Department of the Interior
National Park Service
Class C Construction Cost Estimate

LINE ITEM COST SUMMARY

Project: Rock Harbor Lodge Guest House Improvements
Park: Isle Royale National Park
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PMIS: TBD

Treatment Plan Submission

Estimate By: S. Garrett
Date: 08/25/23
Reviewed By: A. Hokkanen
Date: 08/25/23

Summary Item: C10 Interior Construction — **Total Cost:** $25,453

Uniformat II WBS Code	Description	Quantity	Unit	MATERIAL		Labor Hours	Labor Rate	LABOR		EQUIPMENT		TOTALS	
				Material Cost/Unit	Total Material Cost			Labor Cost/Unit	Total Labor Cost	Equipment Cost/Unit	Total Equipment Cost	Total Cost/Unit	Total Cost
C1010	INTERIOR PARTITIONS												
	Add new partitions to create accessible restrooms - first floor	504	Wall Sf	$ 5.50	$2,772	0.03	$ 82.23	$ 2.47	$1,243	$ -	$0	$ 7.97	$4,015
	Add new partitions to create accessible restrooms - second floor	504	Wall Sf	$ 5.50	$2,772	0.03	$ 82.23	$ 2.47	$1,243	$ -	$0	$ 7.97	$4,015
	Convert closet into housekeeping storage at second floor	1	Each	$ 275.00	$275	4.00	$ 82.23	$ 328.94	$329	$ -	$0	$ 603.94	$604
	Sales tax	6.0%	Prcnt	$ -	$349			$ -	$0	$ -	$0	$ -	$349
SUBTOTAL	INTERIOR PARTITIONS	4,060	Sq Ft	$ 1.52	$6,168			$ 0.69	$2,816	$ -	$0	$ 2.21	$8,984

Uniformat II WBS Code	Description	Quantity	Unit	MATERIAL		Labor Hours	Labor Rate	LABOR		EQUIPMENT		TOTALS	
				Material Cost/Unit	Total Material Cost			Labor Cost/Unit	Total Labor Cost	Equipment Cost/Unit	Total Equipment Cost	Total Cost/Unit	Total Cost
C1020	INTERIOR DOORS												
	Remove existing door and salvage, enlarge opening to 36"	2	Each	$ 45.00	$90	2.50	$ 82.23	$ 205.59	$411	$ -	$0	$ 250.59	$501
	Add new 36" interior solid core wood door, frame, and hardware	2	Each	$ 710.00	$1,420	4.00	$ 82.23	$ 328.94	$658	$ -	$0	$ 1,038.94	$2,078
	Remove existing hollow metal door, replace with compatible wood style door and hardware	1	Each	$ 655.00	$655	4.00	$ 82.23	$ 328.94	$329	$ -	$0	$ 983.94	$984
	Patch and repair interior wood doors, provide compatible hardware where new is required, scrape, prime, and paint	19	Pair	$ 155.00	$2,945	6.00	$ 82.23	$ 493.41	$9,375	$ -	$0	$ 648.41	$12,320
	Sales tax	6.0%	Prcnt	$ -	$307			$ -	$0	$ -	$0	$ -	$307
SUBTOTAL	INTERIOR DOORS	4,060	Sq Ft	$ 1.33	$5,417			$ 2.65	$10,773	$ -	$0	$ 3.99	$16,189

United States Department of the Interior
National Park Service
Class C Construction Cost Estimate

LINE ITEM COST SUMMARY

Project: Rock Harbor Lodge Guest House Improvements
Park: Isle Royale National Park
Park Alpha: ISRO
PMIS: TBD

Treatment Plan Submission

Estimate By: S. Garrett
Date: 08/25/23
Reviewed By: A. Hokkanen
Date: 08/25/23

Summary Item: C10 Interior Construction **Total Cost:** $25,453

Uniformat II WBS Code	Description	Quantity	Unit	MATERIAL			LABOR		EQUIPMENT		TOTALS	
				Material Cost/Unit	Total Material Cost		Labor Cost/Unit	Total Labor Cost	Equipment Cost/Unit	Total Equipment Cost	Total Cost/Unit	Total Cost
C1030	FITTINGS											
	Add new signage at accessible entrance	1	Each	$ 225.00	$225	0.50 $ 82.23	$ 41.12	$41	$ -	$0	$ 266.12	$266
	Sales tax	6.0%	Prcnt	$ -	$14		$ -	$0	$ -	$0	$ -	$14
SUBTOTAL	FITTINGS	4,060	Sq Ft	$ 0.06	$239		$ 0.01	$41	$ -	$0	$ 0.07	$280

Summary Item: C10 Interior Construction

Uniformat II WBS Code	Description	Quantity	Unit	MATERIAL			LABOR		EQUIPMENT		TOTALS	
				Material Cost/Unit	Total Material Cost		Labor Cost/Unit	Total Labor Cost	Equipment Cost/Unit	Total Equipment Cost	Total Cost/Unit	Total Cost
C10	Interior Construction	4,060	Sq Ft	$ 2.91	$11,823		$ 3.36	$13,630	$ -	$0	$ 6.27	$25,453

United States Department of the Interior
National Park Service
Class C Construction Cost Estimate

LINE ITEM COST SUMMARY

Project: Rock Harbor Lodge Guest House Improvements
Park: Isle Royale National Park
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Treatment Plan Submission

Estimate By: S. Garrett
Date: 08/25/23
Reviewed By: A. Hokkanen
Date: 08/25/23

Summary Item: C20 Stairs **Total Cost:** $10,517

Uniformat II WBS Code	Description	Quantity	Unit	MATERIAL		Labor Hours	Labor Rate	LABOR		EQUIPMENT		TOTALS	
				Material Cost/Unit	Total Material Cost			Labor Cost/Unit	Total Labor Cost	Equipment Cost/Unit	Total Equipment Cost	Total Cost/Unit	Total Cost
C2010	STAIR CONSTRUCTION												
	Add handrails at 36" on each side of interior stair	44	Lin Ft	$ 28.00	$1,232	0.20	$ 82.23	$ 16.45	$724	$ -	$0	$ 44.45	$1,956
	Add handrails at 36" and guardrail on each side of attic stair	28	Lin Ft	$ 44.00	$1,232	0.30	$ 82.23	$ 24.67	$691	$ -	$0	$ 68.67	$1,923
	Reconstruct attic stair	1	Level	$ 565.00	$565	16.00	$ 82.23	$ 1,315.75	$1,316	$ -	$0	$ 1,880.75	$1,881
	Add handrails at 36" and guardrail at exterior stair	22	Lin Ft	$ 44.00	$968	0.30	$ 82.23	$ 24.67	$543	$ -	$0	$ 68.67	$1,511
	Reconstruct the exterior stair	1	Level	$ 975.00	$975	24.00	$ 82.23	$ 1,973.63	$1,974	$ -	$0	$ 2,948.63	$2,949
				$ 65.00	$0			$ 25.00	$0	$ -	$0	$ 90.00	$0
MF-2004 Code	Description	0	Unit	$ -	$0			$ -	$0	$ -	$0	$ -	$0
MF-2004 Code	Description	0	Unit	$ -	$0			$ -	$0	$ -	$0	$ -	$0
	Sales tax	6.0%	Prcnt	$ -	$298			$ -	$0	$ -	$0	$ -	$298
SUBTOTAL	STAIR CONSTRUCTION	4,060	Sq Ft	$ 1.30	$5,270			$ 1.29	$5,247	$ -	$0	$ 2.59	$10,517

Summary Item: C20 Stairs

Uniformat II WBS Code	Description	Quantity	Unit	MATERIAL			LABOR		EQUIPMENT		TOTALS	
				Material Cost/Unit	Total Material Cost		Labor Cost/Unit	Total Labor Cost	Equipment Cost/Unit	Total Equipment Cost	Total Cost/Unit	Total Cost
C20	Stairs	4,060	Sq Ft	$ 1.30	$5,270		$ 1.29	$5,247	$ -	$0	$ 2.59	$10,517

United States Department of the Interior
National Park Service
Class C Construction Cost Estimate

LINE ITEM COST SUMMARY

Project: Rock Harbor Lodge Guest House Improvements
Park: Isle Royale National Park
Park Alpha: ISRO
PMIS: TBD

Treatment Plan Submission

Estimate By: S. Garrett
Date: 08/25/23
Reviewed By: A. Hokkanen
Date: 08/25/23

Summary Item: C30 Interior Finishes

Total Cost: $70,462

Uniformat II WBS Code	Description	Quantity	Unit	MATERIAL		Labor Hours	Labor Rate	LABOR		EQUIPMENT		TOTALS	
				Material Cost/Unit	Total Material Cost			Labor Cost/Unit	Total Labor Cost	Equipment Cost/Unit	Total Equipment Cost	Total Cost/Unit	Total Cost
C3010	WALL FINISHES												
	Remove non-compatible patches (60%), apply original treatment and finish to match existing - first floor	3,251	Sq Ft	$ 2.10	$6,827	0.04	$ 82.23	$ 3.04	$9,891	$ -	$0	$ 5.14	$16,718
	Remove non-compatible patches (60%), apply original treatment and finish to match existing - second floor	2,830	Sq Ft	$ 2.10	$5,942	0.04	$ 82.23	$ 3.04	$8,610	$ -	$0	$ 5.14	$14,552
	Sales tax	6.0%	Prcnt	$ -	$766			$ -	$0	$ -	$0	$ -	$766
SUBTOTAL	WALL FINISHES	4,060	Sq Ft	$ 3.33	$13,535			$ 4.56	$18,501	$ -	$0	$ 7.89	$32,036

Uniformat II WBS Code	Description		Unit	MATERIAL		Labor Hours	Labor Rate	LABOR		EQUIPMENT		TOTALS	
				Material Cost/Unit	Total Material Cost			Labor Cost/Unit	Total Labor Cost	Equipment Cost/Unit	Total Equipment Cost	Total Cost/Unit	Total Cost
C3020	FLOOR FINISHES												
	Add new compatible sheet linolium flooring in hallway on first floor	270	Sq Ft	$ 2.20	$594	0.04	$ 85.34	$ 3.07	$829	$ -	$0	$ 5.27	$1,423
	Add new compatible sheet linolium flooring in restrooms on both levels	280	Sq Ft	$ 2.20	$616	0.04	$ 85.34	$ 3.07	$860	$ -	$0	$ 5.27	$1,476
	Refinish existing hardwood flooring on first floor lobby	480	Sq Ft	$ 0.51	$245	0.06	$ 85.34	$ 5.12	$2,458	$ -	$0	$ 5.63	$2,703
	Clean and paint original wood flooring	2,380	Sq Ft	$ 1.20	$2,855	0.05	$ 85.34	$ 4.27	$10,153	$ -	$0	$ 5.47	$13,008
	Sales tax	6.0%	Prcnt	$ -	$259			$ -	$0	$ -	$0	$ -	$259
SUBTOTAL	FLOOR FINISHES	4,060	Sq Ft	$ 1.13	$4,569			$ 3.52	$14,300	$ -	$0	$ 4.65	$18,869

United States Department of the Interior
National Park Service
Class C Construction Cost Estimate

LINE ITEM COST SUMMARY

Project: Rock Harbor Lodge Guest House Improvements
Park: Isle Royale National Park
Park Alpha: ISRO
PMIS: TBD

Treatment Plan Submission

Estimate By: S. Garrett
Date: 08/25/23
Reviewed By: A. Hokkanen
Date: 08/25/23

Summary Item: C30 Interior Finishes

Total Cost: $70,462

Uniformat II WBS Code	Description		Unit	MATERIAL		Labor Hours	Labor Rate	LABOR		EQUIPMENT		TOTALS	
				Material Cost/Unit	Total Material Cost			Labor Cost/Unit	Total Labor Cost	Equipment Cost/Unit	Total Equipment Cost	Total Cost/Unit	Total Cost
C3030	CEILING FINISHES												
	Add new ceiling over lobby once inspection is completed	680	Sq Ft	$ 5.50	$3,740	0.04	$ 82.23	$ 3.29	$2,237	$ -	$0	$ 8.79	$5,977
	Remove non-compatible patches (75%), apply original treatment and finish to match existing - first floor ceiling	1,013	Sq Ft	$ 2.10	$2,126	0.04	$ 82.23	$ 3.04	$3,081	$ -	$0	$ 5.14	$5,207
	Remove non-compatible patches (75%), apply original treatment and finish to match existing - second floor ceiling	1,523	Sq Ft	$ 2.10	$3,197	0.04	$ 82.23	$ 3.04	$4,632	$ -	$0	$ 5.14	$7,830
	Sales tax	6.0%	Prcnt	$ -	$544			$ -	$0	$ -	$0	$ -	$544
SUBTOTAL	CEILING FINISHES	4,060	Sq Ft	$ 2.37	$9,607			$ 2.45	$9,950	$ -	$0	$ 4.82	$19,557

Summary Item: C30 Interior Finishes

Uniformat II WBS Code	Description	Quantity	Unit	MATERIAL			LABOR		EQUIPMENT		TOTALS	
				Material Cost/Unit	Total Material Cost		Labor Cost/Unit	Total Labor Cost	Equipment Cost/Unit	Total Equipment Cost	Total Cost/Unit	Total Cost
C30	Interior Finishes	4,060	Sq Ft	$ 6.83	$27,711		$ 10.53	$42,751	$ -	$0	$ 17.36	$70,462

United States Department of the Interior
National Park Service
Class C Construction Cost Estimate

LINE ITEM COST SUMMARY

Project: Rock Harbor Lodge Guest House Improvements
Park: Isle Royale National Park
Park Alpha: ISRO
PMIS: TBD

Treatment Plan Submission

Estimate By: S. Garrett
Date: 08/25/23
Reviewed By: A. Hokkanen
Date: 08/25/23

Summary Item: D20 Plumbing Systems **Total Cost:** $43,501

Uniformat II WBS Code	Description	Quantity	Unit	MATERIAL		Labor Hours	Labor Rate	LABOR		EQUIPMENT		TOTALS	
				Material Cost/Unit	Total Material Cost			Labor Cost/Unit	Total Labor Cost	Equipment Cost/Unit	Total Equipment Cost	Total Cost/Unit	Total Cost
D2010	PLUMBING FIXTURES												
	Repair or redistrubute interior fittings on existing sinks in bedrooms	15	Each	$ 75.00	$1,125	1.20	$ 88.51	$ 106.21	$1,593	$ -	$0	$ 181.21	$2,718
	Add accessible lavatory and fixtures	1	Each	$ 550.00	$550	3.00	$ 88.51	$ 265.53	$266	$ -	$0	$ 815.53	$816
	Install new prefabricated fiberglass shower and fixtures, shower curtain	4	Each	$ 1,550.00	$6,200	6.00	$ 88.51	$ 531.07	$2,124	$ -	$0	$ 2,081.07	$8,324
	Add new lavatory and fixtures	4	Each	$ 450.00	$1,800	3.00	$ 88.51	$ 265.53	$1,062	$ -	$0	$ 715.53	$2,862
	Add new 40-gallon electric water heater	1	Each	$ 820.00	$820	5.00	$ 88.51	$ 442.55	$443	$ -	$0	$ 1,262.55	$1,263
	Add new mop sink and fixtures	1	Each	$ 975.00	$975	3.00	$ 88.51	$ 265.53	$266	$ -	$0	$ 1,240.53	$1,241
	Bathroom - add new accessible flush toilet	2	Each	$ 675.00	$1,350	2.50	$ 88.51	$ 221.28	$443	$ -	$0	$ 896.28	$1,793
	Bathroom - add new flush toilet	2	Each	$ 550.00	$1,100	2.50	$ 88.51	$ 221.28	$443	$ -	$0	$ 771.28	$1,543
	Sales tax	6.0%	Prcnt	$ -	$835			$ -	$0	$ -	$0	$ -	$835
SUBTOTAL	PLUMBING FIXTURES	4,060	Sq Ft	$ 3.63	$14,755			$ 1.64	$6,638	$ -	$0	$ 5.27	$21,394

Uniformat II WBS Code	Description	Quantity	Unit	MATERIAL		Labor Hours	Labor Rate	LABOR		EQUIPMENT		TOTALS	
				Material Cost/Unit	Total Material Cost			Labor Cost/Unit	Total Labor Cost	Equipment Cost/Unit	Total Equipment Cost	Total Cost/Unit	Total Cost
D2020	DOMESTIC WATER DISTRIBUTION												
	Add new pex hot and cold water piping and fittings, allow manual drain to single location for off season shut down	4,060	Sq Ft	$ 2.20	$8,932	0.02	$ 88.51	$ 1.33	$5,390	$ -	$0	$ 3.53	$14,322
	Sales tax	6.0%	Prcnt	$ -	$536			$ -	$0	$ -	$0	$ -	$536
SUBTOTAL	DOMESTIC WATER DISTRIBUTION	4,060	Sq Ft	$ 2.33	$9,468			$ 1.33	$5,390	$ -	$0	$ 3.66	$14,858

United States Department of the Interior
National Park Service
Class C Construction Cost Estimate

LINE ITEM COST SUMMARY

Project: Rock Harbor Lodge Guest House Improvements
Park: Isle Royale National Park
Park Alpha: ISRO
PMIS: TBD

Treatment Plan Submission

Estimate By: S. Garrett
Date: 08/25/23
Reviewed By: A. Hokkanen
Date: 08/25/23

Summary Item: D20 Plumbing Systems **Total Cost:** $43,501

Uniformat II WBS Code	Description	Quantity	Unit	MATERIAL			LABOR		EQUIPMENT		TOTALS	
				Material Cost/Unit	Total Material Cost		Labor Cost/Unit	Total Labor Cost	Equipment Cost/Unit	Total Equipment Cost	Total Cost/Unit	Total Cost
D2030	SANITARY WASTE											
	New 1.5" - 4" sanitary and vent piping - PVC, includes hangers and fittings	4,060	Sq Ft	$ 1.10	$4,466	0.01 $ 88.51	$ 0.62	$2,515	$ -	$0	$ 1.72	$6,981
	Sales tax	6.0%	Prcnt	$ -	$268		$ -	$0	$ -	$0	$ -	$268
SUBTOTAL	SANITARY WASTE	4,060	Sq Ft	$ 1.17	$4,734		$ 0.62	$2,515	$ -	$0	$ 1.79	$7,249

Summary Item: D20 Plumbing Systems

Uniformat II WBS Code	Description	Quantity	Unit	MATERIAL			LABOR		EQUIPMENT		TOTALS	
				Material Cost/Unit	Total Material Cost		Labor Cost/Unit	Total Labor Cost	Equipment Cost/Unit	Total Equipment Cost	Total Cost/Unit	Total Cost
D20	Plumbing Systems	4,060	Sq Ft	$ 7.13	$28,957		$ 3.58	$14,544	$ -	$0	$ 10.71	$43,501

United States Department of the Interior
National Park Service
Class C Construction Cost Estimate

LINE ITEM COST SUMMARY

Project: Rock Harbor Lodge Guest House Improvements
Park: Isle Royale National Park
Park Alpha: ISRO
PMIS: TBD

Treatment Plan Submission

Estimate By: S. Garrett
Date: 08/25/23
Reviewed By: A. Hokkanen
Date: 08/25/23

Summary Item: D30 HVAC — **Total Cost:** $39,423

Uniformat II WBS Code	Description	Quantity	Unit	MATERIAL		Labor Hours	Labor Rate	LABOR		EQUIPMENT		TOTALS	
				Material Cost/Unit	Total Material Cost			Labor Cost/Unit	Total Labor Cost	Equipment Cost/Unit	Total Equipment Cost	Total Cost/Unit	Total Cost
D3020	HEAT GENERATING SYSTEMS												
	Add new electric baseboard heaters, electric dealing panel heaters, and wall mounted electric radiators	30	Each	$ 640.00	$19,200	2.70	$ 88.56	$ 239.12	$7,173	$ -	$0	$ 879.12	$26,373
	Exhaust fan, 50 cfm - restrooms	2	Each	$ 500.00	$1,000	0.80	$ 88.56	$ 70.85	$142	$ -	$0	$ 570.85	$1,142
	Exhaust fan, 20 cfm - shower area	2	Each	$ 350.00	$700	0.80	$ 88.56	$ 70.85	$142	$ -	$0	$ 420.85	$842
	Sales tax	6.0%	Prcnt	$ -	$1,254			$ -	$0	$ -	$0	$ -	$1,254
SUBTOTAL	HEAT GENERATING SYSTEMS	4,060	Sq Ft	$ 5.46	$22,154			$ 1.84	$7,457	$ -	$0	$ 7.29	$29,611

Uniformat II WBS Code	Description	Quantity	Unit	MATERIAL		Labor Hours	Labor Rate	LABOR		EQUIPMENT		TOTALS	
				Material Cost/Unit	Total Material Cost			Labor Cost/Unit	Total Labor Cost	Equipment Cost/Unit	Total Equipment Cost	Total Cost/Unit	Total Cost
G3060	CONTROLS & INSTRUMENTATION												
	Add remote wall thermostats for each unit heater	30	Each	$ 225.00	$6,750	1.00	$ 88.56	$ 88.56	$2,657	$ -	$0	$ 313.56	$9,407
	Sales tax	6.0%	Prcnt	$ -	$405			$ -	$0	$ -	$0	$ -	$405
SUBTOTAL	CONTROLS & INSTRUMENTATION	4060	Sq Ft	$ 1.76	$7,155			$ 0.65	$2,657	$ -	$0	$ 2.42	$9,812

Summary Item: D30 HVAC

Uniformat II WBS Code	Description	Quantity	Unit	MATERIAL			LABOR		EQUIPMENT		TOTALS	
				Material Cost/Unit	Total Material Cost		Labor Cost/Unit	Total Labor Cost	Equipment Cost/Unit	Total Equipment Cost	Total Cost/Unit	Total Cost
D30	HVAC	4,060	Sq Ft	$ 7.22	$29,309		$ 2.49	$10,114	0	$0	$ 9.71	$39,423

United States Department of the Interior
National Park Service
Class C Construction Cost Estimate

LINE ITEM COST SUMMARY

Project: Rock Harbor Lodge Guest House Improvements
Park: Isle Royale National Park
Park Alpha: ISRO
PMIS: TBD

Treatment Plan Submission

Estimate By: S. Garrett
Date: 08/25/23
Reviewed By: A. Hokkanen
Date: 08/25/23

Summary Item: D50 Electrical — **Total Cost:** $45,238

Uniformat II WBS Code	Description	Quantity	Unit	MATERIAL		Labor Hours	Labor Rate	LABOR		EQUIPMENT		TOTALS	
				Material Cost/Unit	Total Material Cost			Labor Cost/Unit	Total Labor Cost	Equipment Cost/Unit	Total Equipment Cost	Total Cost/Unit	Total Cost
D5010	ELECTRICAL SERVICE & DISTRIBUTION												
	Add 2-200A distribution panels to serve new electrical components	2	Each	$ 2,800.00	$5,600	12.00	$ 103.49	$ 1,241.82	$2,484	$ -	$0	$ 4,041.82	$8,084
	Sales tax	6.0%	Prcnt	$ -	$336			$ -	$0	$ -	$0	$ -	$336
SUBTOTAL	DISTRIBUTION	4,060	Sq Ft	$ 1.46	$5,936			$ 0.61	$2,484	$ -	$0	$ 2.07	$8,420

Uniformat II WBS Code	Description	Quantity	Unit	MATERIAL		Labor Hours	Labor Rate	LABOR		EQUIPMENT		TOTALS	
				Material Cost/Unit	Total Material Cost			Labor Cost/Unit	Total Labor Cost	Equipment Cost/Unit	Total Equipment Cost	Total Cost/Unit	Total Cost
D5020	LIGHTING & BRANCH WIRING												
	Replace existing electrical system - existing will remain		Each	$ -	$0	0.00	$ 85.17	$ -	$0	$ -	$0	$ -	$0
	Replace all fixtures in bedrooms, corridor, and lobby with new, replica, LED fixtures	30	Each	$ 288.00	$8,640	0.75	$ 85.17	$ 63.88	$1,916	$ -	$0	$ 351.88	$10,556
	Add battery pack egress lighting in corridors, stairs, and lobby	10	Each	$ 415.00	$4,150	0.90	$ 85.17	$ 76.65	$767	$ -	$0	$ 491.65	$4,917
	Sales tax	6.0%	Prcnt	$ -	$767			$ -	$0	$ -	$0	$ -	$767
SUBTOTAL	LIGHTING & BRANCH WIRING	4,060	Sq Ft	$ 3.34	$13,557			$ 0.66	$2,683	$ -	$0	$ 4.00	$16,240

Uniformat II WBS Code	Description	Quantity	Unit	MATERIAL		Labor Hours	Labor Rate	LABOR		EQUIPMENT		TOTALS	
				Material Cost/Unit	Total Material Cost			Labor Cost/Unit	Total Labor Cost	Equipment Cost/Unit	Total Equipment Cost	Total Cost/Unit	Total Cost
D5030	COMMUNICATIONS & SECURITY												
	Add new smoke detection and fire alarm system	4,060	Sq Ft	$ 3.20	$12,992	0.01	$ 85.17	$ 1.11	$4,495	$ -	$0	$ 4.31	$17,487
	Add new fire control panel, connect to the existing fiber system	1	Each	$ 1,800.00	$1,800	6.00	$ 85.17	$ 511.01	$511	$ -	$0	$ 2,311.01	$2,311
	Sales tax	6.0%	Prcnt	$ -	$780			$ -	$0	$ -	$0	$ -	$780
SUBTOTAL	COMMUNICATIONS & SECURITY	4,060	Sq Ft	$ 3.84	$15,572			$ 1.23	$5,006	$ -	$0	$ 5.07	$20,578

Summary Item: D50 Electrical

Uniformat II WBS Code	Description	Quantity	Unit	MATERIAL			LABOR		EQUIPMENT		TOTALS	
				Material Cost/Unit	Total Material Cost		Labor Cost/Unit	Total Labor Cost	Equipment Cost/Unit	Total Equipment Cost	Total Cost/Unit	Total Cost
D50	Electrical	4,060	Sq Ft	$ 8.64	$35,065		$ 2.51	$10,173	$ -	$0	$ 11.14	$45,238

United States Department of the Interior
National Park Service
Class C Construction Cost Estimate

LINE ITEM COST SUMMARY

Project: Rock Harbor Lodge Guest House Improvements
Park: Isle Royale National Park
Park Alpha: ISRO
PMIS: TBD

Treatment Plan Submission

Estimate By: S. Garrett
Date: 08/25/23
Reviewed By: A. Hokkanen
Date: 08/25/23

Summary Item: D40 Fire Protection — Total Cost: $92,375

Uniformat II WBS Code	Description	Quantity	Unit	MATERIAL		Labor Hours	Labor Rate	LABOR		EQUIPMENT		TOTALS	
				Material Cost/Unit	Total Material Cost			Labor Cost/Unit	Total Labor Cost	Equipment Cost/Unit	Total Equipment Cost	Total Cost/Unit	Total Cost
D4010	FIRE PROTECTION SPRINKLERS SYSTEMS												
	Add new wet pipe sprinkler system, allow to drain via gravity during off season when shut down	4,060	Sq Ft	$ 6.50	$26,390	0.05	$ 87.52	$ 4.38	$17,767	$ 0.50	$2,030	$ 11.38	$46,187
	Add residential fire pump (not needed, gravity from tank uphill provides sufficient pressure)		System	$ -	$0	0.00	$ 87.52	$ -	$0	$ -	$0	$ -	$0
	Sales tax		Prcnt	$ -	$0			$ -	$0	$ -	$0	$ -	$0
SUBTOTAL	SYSTEMS	4,060	Sq Ft	$ 6.50	$26,390			$ 4.38	$17,767	$ 0.50	$2,030	$ 11.38	$46,187

Summary Item: D40 Fire Protection

Uniformat II WBS Code	Description	Quantity	Unit	MATERIAL			LABOR		EQUIPMENT		TOTALS	
				Material Cost/Unit	Total Material Cost		Labor Cost/Unit	Total Labor Cost	Equipment Cost/Unit	Total Equipment Cost	Total Cost/Unit	Total Cost
D40	Fire Protection	4,060	Sq Ft	$ 13.00	$52,780		$ 8.75	$35,535	$ 1.00	$4,060	$ 22.75	$92,375

United States Department of the Interior
National Park Service
Class C Construction Cost Estimate

LINE ITEM COST SUMMARY

Project: Rock Harbor Lodge Guest House Improvements
Park: Isle Royale National Park
Park Alpha: ISRO
PMIS: TBD

Treatment Plan Submission

Estimate By: S. Garrett
Date: 08/25/23
Reviewed By: A. Hokkanen
Date: 08/25/23

Summary Item: F20 Selective Building Demolition — Total Cost: $66,807

Uniformat II WBS Code	Description	Quantity	Unit	MATERIAL		Labor Hours	Labor Rate	LABOR		EQUIPMENT		TOTALS	
				Material Cost/Unit	Total Material Cost			Labor Cost/Unit	Total Labor Cost	Equipment Cost/Unit	Total Equipment Cost	Total Cost/Unit	Total Cost
F2010	BUILDING ELEMENTS DEMOLITION												
Bid Item: 1	Structural Scope												
	Demolish existing deck and structure	1,150	Sq Ft	$ -	$0	0.03	$ 80.39	$ 2.01	$2,311	$ -	$0	$ 2.01	$2,311
	Haul and disposal fees for waste	1	Loads	$ -	$0	4.00	$ 80.39	$ 321.55	$322	$ 675.00	$675	$ 996.55	$997
	Sales tax	6.0%	Prcnt	$ -	$0			$ -	$0	$ -	$0	$ -	$0
Bid Item: 2	Architectural Scope												
	Remove existing partitions to create new bathroom configuration	216	Wall Sf	$ -	$0	0.06	$ 80.39	$ 4.82	$1,042	$ -	$0	$ 4.82	$1,042
	Remove existing resilient flooring in lobby	480	Sq Ft	$ -	$0	0.04	$ 80.39	$ 3.22	$1,543	$ -	$0	$ 3.22	$1,543
	Remove ribbed rubber material runner on first floor stair	1	Each	$ -	$0	0.80	$ 80.39	$ 64.31	$64	$ -	$0	$ 64.31	$64
	Remove first floor ceiling in lobby to inspect joists over space	480	Sq Ft	$ -	$0	0.05	$ 80.39	$ 4.02	$1,929	$ -	$0	$ 4.02	$1,929
	Remove wall and door in second floor hallway	1	Each	$ -	$0	3.50	$ 80.39	$ 281.36	$281	$ -	$0	$ 281.36	$281
	Haul and disposal fees for waste	2	Loads	$ -	$0	4.00	$ 80.39	$ 321.55	$643	$ 675.00	$1,350	$ 996.55	$1,993
	Sales tax	6.0%	Prcnt	$ -	$0			$ -	$0	$ -	$0	$ -	$0
Bid Item: 3	Plumbing Scope												
	Remove existing hot and cold water piping	4,060	Sq Ft	$ -	$0	0.03	$ 80.39	$ 2.41	$9,791	$ -	$0	$ 2.41	$9,791
	Remove existing sanitary waste and vent piping	4,060	Sq Ft	$ -	$0	0.01	$ 80.39	$ 0.80	$3,264	$ -	$0	$ 0.80	$3,264
	Haul and disposal fees for waste	0.5	Loads	$ -	$0	4.00	$ 80.39	$ 321.55	$161	$ 675.00	$338	$ 996.55	$498
	Sales tax	6.0%	Prcnt	$ -	$0			$ -	$0	$ -	$0	$ -	$0
Bid Item: 4	HVAC Scope												
	Remove existing elecric heating system components	4,060	Lin Ft	$ -	$0	0.03	$ 80.39	$ 2.41	$9,791	$ -	$0	$ 2.41	$9,791
	Remove condensing pad		Each	$ -	$0	2.50	$ 80.39	$ 200.97	$0	$ -	$0	$ 200.97	$0
	Haul and disposal fees for waste	0.5	Loads	$ -	$0	4.00	$ 80.39	$ 321.55	$161	$ 675.00	$338	$ 996.55	$498
	Sales tax	6.0%	Prcnt	$ -	$0			$ -	$0	$ -	$0	$ -	$0
Bid Item: 6	Electrical Scope												
	Remove existing light fixtures and panels	4,060	Lin Ft	$ -	$0	0.03	$ 80.39	$ 2.01	$8,159	$ -	$0	$ 2.01	$8,159
	Haul and disposal fees for waste	0.5	Loads	$ -	$0	4.00	$ 80.39	$ 321.55	$161	$ 675.00	$338	$ 996.55	$498
	Sales tax	7.0%	Prcnt	$ -	$0			$ -	$0	$ -	$0	$ -	$0
SUBTOTAL	BUILDING ELEMENTS DEMOLITION	4,060	Sq Ft	$ -	$0			$ 9.76	$39,624	$ 0.75	$3,038	$ 10.51	$42,662

United States Department of the Interior
National Park Service
Class C Construction Cost Estimate

LINE ITEM COST SUMMARY

Project: Rock Harbor Lodge Guest House Improvements
Park: Isle Royale National Park
Park Alpha: ISRO
PMIS: TBD

Treatment Plan Submission

Estimate By: S. Garrett
Date: 08/25/23
Reviewed By: A. Hokkanen
Date: 08/25/23

Summary Item: F20 Selective Building Demolition — **Total Cost:** $66,807

Uniformat II WBS Code	Description	Quantity	Unit	MATERIAL			LABOR		EQUIPMENT		TOTALS	
				Material Cost/Unit	Total Material Cost		Labor Cost/Unit	Total Labor Cost	Equipment Cost/Unit	Total Equipment Cost	Total Cost/Unit	Total Cost
F2020	HAZARDOUS COMPONENTS ABATEMENT											
	Encapsulate lead paint in wood trim and moldings, walls	4,060	Sum	$ 3.00	$12,180	0.02 $ 91.68	$ 1.38	$5,583	$ 0.50	$2,030	$ 4.88	$19,793
	Remove existing asbestos tile flooring in first floor hallway and restroom on both levels	550	Sq Ft	$ -	$0	0.05 $ 91.68	$ 4.58	$2,521	$ 2.00	$1,100	$ 6.58	$3,621
	Sales tax	6.0%	Prcnt	$ -	$731		$ -	$0	$ -	$0	$ -	$731
SUBTOTAL	ABATEMENT	4,060	Sq Ft	$ 3.18	$12,911		$ 2.00	$8,105	$ 0.77	$3,130	$ 5.95	$24,146

Summary Item: F20 Selective Building Demolition

Uniformat II WBS Code	Description	Quantity	Unit	MATERIAL			LABOR		EQUIPMENT		TOTALS	
				Material Cost/Unit	Total Material Cost		Labor Cost/Unit	Total Labor Cost	Equipment Cost/Unit	Total Equipment Cost	Total Cost/Unit	Total Cost
F20	Selective Building Demolition	4,060	Sq Ft	$ 3.18	$12,911		$ 11.76	$47,729	$ 1.52	$6,168	$ 16.46	$66,807

United States Department of the Interior
National Park Service
Class C Construction Cost Estimate

LINE ITEM COST SUMMARY

Project: Rock Harbor Lodge Guest House Improvements
Park: Isle Royale National Park
Park Alpha: ISRO
PMIS: TBD

Treatment Plan Submission

Estimate By: S. Garrett
Date: 08/25/23
Reviewed By: A. Hokkanen
Date: 08/25/23

Summary Item: G20 Site Improvements — **Total Cost:** $19,528

Uniformat II WBS Code	Description	Quantity	Unit	MATERIAL		Labor Hours	Labor Rate	LABOR		EQUIPMENT		TOTALS	
				Material Cost/Unit	Total Material Cost			Labor Cost/Unit	Total Labor Cost	Equipment Cost/Unit	Total Equipment Cost	Total Cost/Unit	Total Cost
G2040	SITE DEVELOPMENT												
Bid Item: 2	Architectural Scope												
	Modify ramp to achieve 1:12 slope, add handrail at 36" high	85	Sq Ft	$ 6.60	$561	0.06	$ 82.23	$ 4.93	$419	$ 5.00	$425	$ 16.53	$1,405
	Widen existing walkway	200	Sq Ft	$ 18.00	$3,600	0.08	$ 82.23	$ 6.58	$1,316	$ -	$0	$ 24.58	$4,916
	Add 42" guardrail around walkway	105	Lin Ft	$ 34.00	$3,570	0.14	$ 82.23	$ 11.51	$1,209	$ -	$0	$ 45.51	$4,779
	Sales tax	6.00%	Prcnt	$ -	$464			$ -	$0	$ -	$0	$ -	$464
Bid Item: 7	Site Scope												
	Add stabilized soil path connection	320	Sq Ft	$ 1.60	$512	0.02	$ 83.22	$ 1.66	$533	$ -	$0	$ 3.26	$1,045
	Extend wood fence	60	Lin Ft	$ 31.00	$1,860	0.08	$ 83.22	$ 6.66	$399	$ -	$0	$ 37.66	$2,259
	Remove stump, provide 60" x 60" landing	1	Each	$ 75.00	$75	0.04	$ 83.22	$ 3.33	$3	$ 150.00	$150	$ 228.33	$228
	Provide 60" x 60" landing	1	Each	$ 75.00	$75	0.02	$ 83.22	$ 1.66	$2	$ -	$0	$ 76.66	$77
	Install boulder barrier per structural recommendations (included in A1010)		Sq Ft	$ -	$0	0.00	$ 93.92	$ -	$0	$ -	$0	$ -	$0
	Improvements for bell and pavilion (per park or concessionaire)		Sq Ft	$ -	$0	0.00	$ 93.92	$ -	$0	$ -	$0	$ -	$0
	Sales tax	6.00%	Prcnt	$ -	$151			$ -	$0	$ -	$0	$ -	$151
SUBTOTAL	SITE DEVELOPMENT	4,060	Sq Ft	$ 2.68	$10,868			$ 0.96	$3,881	$ 0.14	$575	$ 3.77	$15,324

Uniformat II WBS Code	Description	Quantity	Unit	MATERIAL		Labor Hours	Labor Rate	LABOR		EQUIPMENT		TOTALS	
				Material Cost/Unit	Total Material Cost			Labor Cost/Unit	Total Labor Cost	Equipment Cost/Unit	Total Equipment Cost	Total Cost/Unit	Total Cost
G2050	LANDSCAPING												
Bid Item: 7	Site Scope												
	Add soil and install 2.5" paper birch trees, mulch and stake after installation	10	Each	$ 175.00	$1,750	1.10	$ 80.39	$ 88.43	$884	$ 25.00	$250	$ 288.43	$2,884
	Add soil and install 2.5" spruce trees, mulch and stake after installation	3	Each	$ 275.00	$825	1.10	$ 80.39	$ 88.43	$265	$ 25.00	$75	$ 388.43	$1,165
	Sales tax	6.00%	Prcnt	$ -	$155			$ -	$0	$ -	$0	$ -	$155
SUBTOTAL	LANDSCAPING	4,060	Sq Ft	$ 0.67	$2,730			$ 0.28	$1,150	$ 0.08	$325	$ 1.04	$4,204

Summary Item: G20 Site Improvements

Uniformat II WBS Code	Description	Quantity	Unit	MATERIAL			LABOR		EQUIPMENT		TOTALS	
				Material Cost/Unit	Total Material Cost		Labor Cost/Unit	Total Labor Cost	Equipment Cost/Unit	Total Equipment Cost	Total Cost/Unit	Total Cost
G20	Site Improvements	4,060	Sq Ft	$ 3.35	$13,598		$ 1.24	$5,031	$ 0.22	$900	$ 4.81	$19,528

United States Department of the Interior
National Park Service
Class C Construction Cost Estimate

LINE ITEM COST SUMMARY

Project: Rock Harbor Lodge Guest House Improvements
Park: Isle Royale National Park
Park Alpha: ISRO
PMIS: TBD

Treatment Plan Submission

Estimate By: S. Garrett
Date: 08/25/23
Reviewed By: A. Hokkanen
Date: 08/25/23

Summary Item: G40 Site Electrical Utilities **Total Cost:** $23,710

Uniformat II WBS Code	Description	Quantity	Unit	MATERIAL		Labor Hours	Labor Rate	LABOR		EQUIPMENT		TOTALS	
				Material Cost/Unit	Total Material Cost			Labor Cost/Unit	Total Labor Cost	Equipment Cost/Unit	Total Equipment Cost	Total Cost/Unit	Total Cost
G4010	SITE ELECTRICAL DISTRIBUTION												
Bid Item: 1	Structural Scope												
Source 1	Replace aerial, pole mounted transformer to handle 400 amp service	1	Each	$ 6,800.00	$6,800	16.00	$ 93.92	$ 1,502.79	$1,503	$ 11.00	$11	$ 8,313.79	$8,314
Source 1	Update new incoming service from pole mounted transformer to electrical room	80	Lin Ft	$ 120.00	$9,600	0.60	$ 93.92	$ 56.35	$4,508	$ 11.00	$880	$ 187.35	$14,988
	Sales tax	6.0%	Prcnt	$ -	$408			$ -	$0	$ -	$0	$ -	$408
SUBTOTAL	SITE ELECTRICAL DISTRIBUTION	4,060	Lin Ft	$ 4.14	$16,808			$ 1.48	$6,011	$ 0.22	$891	$ 5.84	$23,710

Summary Item: G40 Site Electrical Utilities

Uniformat II WBS Code	Description	Quantity	Unit	MATERIAL			LABOR		EQUIPMENT		TOTALS	
				Material Cost/Unit	Total Material Cost		Labor Cost/Unit	Total Labor Cost	Equipment Cost/Unit	Total Equipment Cost	Total Cost/Unit	Total Cost
G40	Site Electrical Utilities	4,060	Lin Ft	$ 4.14	$16,808		$ 1.48	$6,011	$ 0.22	$891	$ 5.84	$23,710

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Isle Royale National Park
Keweenaw County, Michigan

