National Park Service
Cultural Landscapes Inventory

2012

Revised: 9/2021



Thunder Hole

Acadia National Park

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Introduction

The Cultural Landscape Inventory (CLI)

The Cultural Landscape Inventory (CLI) is a comprehensive inventory of all cultural landscapes in the National Park System. Landscapes that are listed, or eligible for listing, on the National Register of Historic Places, or are otherwise managed as cultural resources and in which the National Park Service has, or plans to acquire, legal interest are included in the inventory. The CLI identifies and documents each landscape's location, size, physical development, landscape characteristics, character-defining features, and condition. Cultural landscapes have approved CLIs when concurrence with the findings is obtained from the park superintendent and all required data fields are entered into the Cultural Resources Information System (CRIS-CL) database. In addition, for landscapes not currently listed on the National Register and/or without adequate documentation, concurrence is required from the State Historic Preservation Officer, Tribal Historic Preservation Officer, or the Keeper of the National Register.

Scope of the CLI

The information contained within the CLI is compiled from primary and secondary sources and through on-site surveys of the landscape. The level of investigation is dependent upon scoping the need for information. The baseline information collected provides a comprehensive look at the historical development and significance of the landscape. Documentation and analysis of the existing landscape identifies character-defining characteristics and features and allows for an evaluation of the landscape's integrity and an assessment of the landscape's condition. The CLI also includes historic maps, drawings, and images; photographs of existing conditions; and a site plan that indicates major features. The CLI documents the existing condition of park landscape resources and identifies impacts, threats, and measures to stabilize condition. This information can be used to develop strategies for improved stewardship. Unlike a Cultural Landscape Report (CLR), the CLI does not provide management recommendations or treatment guidelines for the cultural landscape, but it may identify stabilization measures.

The Cultural Resources Information System (CRIS)

CRIS is the National Park Service's database of cultural resources on its lands, consisting of archeological sites, historic structures, ethnographic resources, and cultural landscapes. Cultural Resources Inventory System (CRIS) replaces three legacy inventory systems: ASMIS (archeology), CLI (cultural landscapes), and LCS (historic structures); and it reinstates the former ERI (ethnographic resources). This Cultural Landscape Inventory document reflects the information in a corresponding CRIS Cultural Landscape record.

Statutory and Regulatory Foundation

The legislative, regulatory, and policy directives for conducting and maintaining the CLI within CRIS are:

- National Historic Preservation Act (NHPA) of 1966 (16 USC 470h-2(a)(1)) Sec. 110
- Executive Order 13287: Preserve America, 2003. Sec. 3 (a and c)
- Secretary of the Interior's Standards and Guidelines for Federal Agency Historic Preservation Programs
- Pursuant to the National Historic Preservation Act, 1998. Std. 2
- Cultural Resource Management Guideline, 1997, Release No. 5, page 22; issued pursuant to Director's Order #28 (DO-28)

The NHPA requires the identification, evaluation, and nomination of historic properties to the National Register of Historic Places and the maintenance and expansion of an inventory of cultural resources. DO-28 requires a cyclic assessment of the current condition of cultural landscapes based on an assessment interval, with a default of six years.

Use

Beyond fulfilling legal and policy requirements, park staff can use the Cultural Landscape Inventory in the following ways:

- To learn about park cultural landscapes (all staff)
- To inform management decisions (park managers)
- To inform project planning and development (park managers, facility managers, project managers, compliance specialists)
- To monitor the condition of the cultural landscape and take measures to protect its significance and integrity (cultural resource managers, facility managers)
- To recognize the stabilization and treatment needs of landscape features and plan work within cultural landscapes to address the needs (facility managers, cultural resource managers)
- To understand the cultural value of natural systems in a cultural landscape (natural resource managers)
- To create programming and educational materials based on site history (interpretation and education specialists)
- To recognize impacts within cultural landscapes and enforce protection measures (visitor and resources protection staff)

General Information

Property Level and CLI Numbers

Inventory Unit Name: Thunder Hole

Resource Classification: Cultural Landscape

CLI Identification Number: 650090

Parent Landscape: 650090

Inventory Status: Complete

Park Information

Park Name: Acadia National Park

Alpha Code: ACAD

Park Organization Code: 1700

Park District: ACAD

Region: Northeast

Restricted: No

Landscape Description:

Thunder Hole is a National Park Service (NPS) developed area in Acadia National Park, located in Hancock County, Maine. Acadia was the first national park established east of the Mississippi River and today encompasses over 50,000 acres across Mount Desert Island, the Schoodic Peninsula, and other smaller islands. Thunder Hole is a natural carved out inlet along the rocky eastern shoreline of Mount Desert Island. When a storm or the turning tide forces waves into this narrow channel, the air escapes with a thunderous reverberation that is both deafening and thrilling. Thunder Hole is a delight to the young and old who want to get soaked by sprays that have been witnessed to reach over 40 feet in height. But it can also be dangerous and has an ominous history of rogue waves that can suddenly wash over the surrounding granite ledges and outcrops. Since the early 1930s, the NPS has provided formalized walkways, railings and other visitor facilities at Thunder Hole.

Thunder Hole is reached by Ocean Drive and the Ocean Path, two segments of the park's historic motor road and hiking trail systems that weave across the island. The road and trail trace the shoreline and offer panoramic ocean views that are among the best in the park. At Thunder Hole, they run side by side. Constructed with guardwalls and retaining walls of native stone, the road and trail blend in with the surrounding rocks that also support scattered grasses, shrubs, and trees.

Ocean Drive and the Ocean Path essentially bisect the Thunder Hole developed area, which encompasses approximately 2.25 acres. Below, or to the east, of the road and trail is a landscape of uneven and massive granite ledges. Here, a series of curved walks, ramps, and steps make their way in between the rocks and down to a broad ledge overlooking the Thunder Hole. Gates positioned at various points can be closed by park staff during rough weather when waves can submerge the paths and top the railings. Above, or to the west, the landscape holds considerably more trees and shrubs that screen the historic Thunder Hole Ranger Station, parking lot, and restroom. The Ranger Station was the park's first such building when constructed in 1934 by the Works Progress Administration (WPA) and is now a gift shop and information center. The one-story building's hipped roof and gray board and batten siding reflect the Rustic Design style used throughout the park. The parking lot and two access roads were designed by the Olmsted Brothers landscape architecture firm during the reconstruction of Ocean Drive in 1933-1934, and were intended to move parking off of the drive so as not to impact the views of the ocean. Rough cut granite curbs, stone

steps, and plantings installed by the Civilian Conservation Corps (CCC) still remain, contributing to the site's rustic character. Contemporary additions of accessible walkways have been faced with native stone so that they too blend in with the surroundings.

Today, Thunder Hole is one of the park's most popular destinations. The Ranger Station continues to provide information to visitors and an opportunity to purchase souvenirs. The parking lot and right lane of Ocean Drive are often filled to capacity in the busy summer months, and particularly after big storms when the Thunder Hole is at its most impressive. The Island Explorer free bus service stops here frequently in the summer, helping alleviate traffic congestion.

SIGNIFICANCE SUMMARY

The Thunder Hole developed area is significant under National Register of Historic Places Criterion A in the area of Entertainment/Recreation. The site embodies the efforts of local residents and park leaders to improve, enhance, and control the visitors' experience of this natural resource. Since first portrayed by painters and writers in the mid-nineteenth century, year round residents and summer travelers have continued to seek out this seaside destination to enjoy the panoramic views and witness the ocean's crashing waves.

The Thunder Hole developed area is also significant at the local level under Criterion C in the areas of Architecture and Landscape Architecture. The site illustrates the Picturesque design style as promoted by Mount Desert Island's village improvement groups, John D. Rockefeller Jr., and the Olmsted Brothers landscape architectural firm, and the later Rustic Design of the NPS design style as implemented the NPS, the Civilian Conservation Corps (CCC), and the Works Progress Administration (WPA). At Thunder Hole, the two design styles blend seamlessly and create a compelling landscape that highlights the drama of this natural resource. The Picturesque style is represented in the siting and design of Ocean Drive and the adjacent parking lot, one of six parking areas located along Ocean Drive designed by the Olmsted firm to discourage parking on Ocean Drive itself and preserve the drive's scenic seaside views. The NPS Rustic Design style is represented in the siting and design of the Ocean Path, connecting paths, stone steps, curbs, and plantings that make use of native materials and harmonize with the surrounding landscape. The scale of the Ranger Station building and its hipped roof, stone chimney, and board and batten siding also illustrates the NPS Rustic Design style that was subsequently used in other park buildings. Constructed in 1934, it is one of only two surviving ranger stations in the park built by the WPA.

The period of significance for Thunder Hole is 1890-1937. The period begins when village improvement associations and societies (VIA and VIS) on Mount Desert Island improved or constructed trails to provide recreational access from the villages to scenic destinations such as lakes, woodlands, and shorelines. In 1929 the Thunder Hole Demonstration Section along Ocean Drive was completed, which served as a guide for the reconstruction of the entire Ocean Drive in 1933-1934 and ultimately made possible the development of park facilities at Thunder Hole. The period ends when the VIA/VIS transferred maintenance responsibility for their paths within park boundaries to the NPS.

ANALYSIS AN EVALUATION SUMMARY AND CONDITION

Thunder Hole meets the registration requirements for the Visitor Facilities and Developed Areas property type outlined in the 2017 National Register Multiple Property Documentation Form, "Historic Resources of Acadia National Park." Significant landscape characteristics and features from the period of significance remain at the site today, and are important to its historic character and unique identity. The natural systems and features that historically shaped this shoreline site and carved out the inlet named Thunder Hole are extant. They are most obvious below, or east of, Ocean Drive and the Ocean Path, where vast granite ledges and jagged outcrops slope down to the sea, interrupted only by scattered patches of grasses and groupings of shrubs and trees. Above, or west of, the road and trail are the historic Thunder Hole Ranger Station and parking lot. The hipped roof, vertical wood siding, and stone chimney of the rehabilitated building, constructed by the Works Progress Administration (WPA) in 1934, still evokes Acadia's interpretation of the National Park Service (NPS) Rustic Design style. The siting of the parking lot away from the road to avoid marring the panoramic views represents the influence of the Picturesque style as promoted by John D. Rockefeller, Jr. and executed by the Olmsted firm. The screen of vegetation that was retained to help conceal it from the road, only to be lost in the 1947 fire, has returned to fulfill its original purpose. Some of the walkways, stone steps, and granite curbs originally installed by the Civilian Conservation Corps (CCC) also remain and contribute to the site's rustic character. The Thunder Hole developed area has also maintained its role as a major scenic destination. Ocean Drive and the Ocean Path, themselves historic resources reconstructed in 1933 in the Rustic Design style, continue to

provide vehicular and pedestrian access to the Thunder Hole area and to the panoramic scenic vista that has been identified in both the 1991 public review draft of the park's General Management Plan/Environmental Assessment and the 1992 General Management Plan.

Since 1937, modifications have been made to some of the walkways at Thunder Hole to meet federal accessibility requirements and to replace features that have deteriorated in this harsh seaside setting. Two of the current walkway systems between the parking lot and the Thunder Hole are non-contributing features, but for the most part have been carefully sited and designed to have minimal visual impact. The use of native stone in these structures has helped blend them in with the surrounding landscape, although some of the granite facing has been lost due to recurring storm damage. Additionally, the use of stainless steel handrails on the walkway systems, and pre-cast concrete curbs along portions of the parking lot, are not consistent with the site's rustic design vocabulary. Parking is now allowed along the right lane of Ocean Drive, and negatively impacts the ocean view, particularly in the busy summer months, but this provision may be phased out if the park implements a proposed timed reservation system to enter Ocean Drive. In the lower area, the development of numerous social trails over the years has damaged the some of the fragile vegetation and has created soil erosion problems. In the upper area, a new restroom has been built at the southwest corner of the parking lot, and two culverts with stone headwalls have been installed, but overall these features are not distracting. The additions of a flagpole and accessible walk at the Ranger Station, and wayside signs and trash cans at several locations are consistent with the site's use.

The condition of the Thunder Hole landscape is "fair." Visitors who venture away from the designated walkway system and paths continue to exacerbate soil erosion and compaction, and loss of vegetation, between Ocean Drive and the shoreline and in front of the Ranger Station. Parking is allowed in the right lane of Ocean Drive at Thunder Hole, which conflicts with the design intent expressed by John D. Rockefeller, Jr. and implemented by the Olmsted firm to preserve the scenic view. Yearly maintenance is required on components of the lower walkway system due to the severe environmental conditions.

Landscape Hierarchy Description:

Acadia National Park currently includes 14 landscapes (and eight component landscapes): Baker Island, Blackwoods Campground, Cadillac Mountain Summit, Historic Carriage Road System (four component landscapes), Historic Hiking Trail System (four component landscapes), Historic Motor Road System, Isle au Haut, Jordan Pond House, Picnic Areas, Sand Beach, Schoodic Peninsula, Seawall Campground, Sieur de Monts Spring, and Thunder Hole.

Landscape Type:

Historic Designed Landscape

Other Names:

Other Name:	Thunder Cove	**Other Name Type:**	Historic
Other Name:	Thunder Cave	**Other Name Type:**	Historic
Other Name:	Thunder Hole	**Other Name Type:**	Both Current And Historic

Site Plan



Site map for Thunder Hole, 2021.

Concurrence Information

Concurrence Status:

Park Superintendent Concurrence: Yes

Park Superintendent Date of Concurrence: 08/29/2012

Completion Status Explanatory Narrative:

In November 2010, existing conditions at the Thunder Hole developed area were mapped and evaluated. Field work was completed by Jeff Killion, Eliot Foulds, and Bob Page, Historical Landscape Architects with the National Park Service's Olmsted Center for Landscape Preservation in Boston. The original CLI was approved by the park superintendent and the Maine SHPO in 2012.

For this CLI Update, field work and mapping was completed by Rebekah Everett, Conservation Associate, in June 2019, and edits were accomplished by Jeff Killion, R1 CLI Coordinator in March 2021. The park contact for cultural resources is Gail Gladstone, Cultural Resource Program Manager, at gail_gladstone@nps.gov.

SUMMARY OF CLI REVISIONS, 2021
• The management category remains, "Should be Preserved and Maintained."
• National Register information is revised. The significance of the landscape is articulated in the updated National Register Multiple Property Documentation Form, "Historic Resources of Acadia National Park," approved by the Keeper of the National Register in 2017. Thunder Hole is locally significant under Criteria A and C in the areas of Architecture, Entertainment/Recreation, and Landscape Architecture.
• The period of significance remains, 1890-1937.
• The following sections have been reviewed and revised as needed: Chronology, History, Analysis (feature tables and FMSS data), and Impacts.
• Information on the Wabanaki – a group of northeastern Algonquian-speaking ethnic groups or tribal nations today distinguished as the Maliseet, Mi'kmaq, Passamaquoddy and Penobscot – has been expanded throughout the CLI.
• Existing condition photographs are updated, and the site plan is revised and GIS-compliant.
• The landscape condition was evaluated as "Fair" in 2012. The proposed landscape condition evaluation for 2021 is "Fair."

Concurrence Graphic Information:

Attachment File Path

Buildings and Structures
- Restroom at Parking Lot
- Portable Restroom at Ranger Station
- Culvert under Parking Lot (North)
- Culvert under Parking Lot (South)
- Culvert under Upper Walkway System

Small-scale Features
- Wayside Signs
- Informational/Directional Signs
- Entrance Sign
- Flagpole
- Trash Cans

component of the NPS inventory effort that also includes cultural resource inventories for historic structures, archeological sites, ethnographic resources, and museum objects. For example, the NPS List of Classified Structures inventory includes structural features of cultural landscapes, but the CLI takes a more encompassing approach to the properties, inventorying all above-ground features in each park in which the NPS has a legal or mandated interest.

The origins of Acadia National Park date to July 18, 1916 when it was proclaimed Sieur de Monts National Monument. On February 29, 1919 it was established as Lafayette National Park, and on January 19, 1929 the name was changed to Acadia National Park. The Thunder Hole area was added to the park in 1931.

On June 29, 2007, the "Historic Resources of Acadia National Park" Multiple Property Documentation Form (MPDF) was accepted by the National Register for Historic Places. The MPDF identified three property types and three historic contexts with which to evaluate park resources. The three property types were circulation systems (hiking trails, carriage roads, and motor roads), visitor facilities and developed areas (campgrounds, picnic areas, developed areas), and administrative and support structures. The three historic contexts in the MPDF were Community Development and the Origins of Acadia National Park (1890-1937), John D. Rockefeller, Jr. and the Development of the National Park System (1913-1958), and Rustic Design, including two sub-themes, The Picturesque Style (1890-1950) and The Rustic Design of the National Park Service (1916-1958).

The MPDF identified Thunder Hole as an example of a developed area property type, which are primarily associated with the NPS Rustic Design context under National Register Criteria A and C in the areas of conservation, recreation, architecture, and landscape architecture. According to the MPDF, developed areas illustrate the NPS mission to provide recreational amenities for visitors while maintaining the scenic qualities of the area. Thunder Hole was described as consisting of a historic ranger residence (now a gift shop), a parking lot, and trails connecting to the park loop road and shoreline. The 1934 Ranger Station was noted for its NPS Rustic Style design, and two features—a new walkway to Thunder Hole and a new restroom—were described as non-contributing. Thunder Hole's significance was as a major destination and because of its historic ranger residence, one of the most important NPS structures remaining in the park and one of only two surviving ranger residences built by the Works Progress Administration. The building's hip roof was described as signature of the Acadia rustic style. Registration requirements outlined in the MPDF for developed areas require that they retain integrity of setting and design to convey their historic use, including the principal circulation system and site organization.

Several resources at and around Thunder Hole have been previously evaluated for listing in the National Register. On July 1, 1996, as part of an update to the park's List of Classified Structures, your office concurred with the NPS that the Thunder Hole Ranger Station was eligible for listing. On December 17, 2001, your office concurred that the historic hiking trail system was eligible for listing. One of the trails, Ocean Path (Trail #3), passes through the Thunder Hole developed area. On September 18, 2008, your office concurred with the findings

of the CLI, "Historic Motor Road System, Acadia National Park," which determined that the historic motor road system was eligible for listing as a circulation system that meets the registration requirements of the park's MPDF. One of the road segments, Ocean Drive, passes through the site. Other contributing resources identified in the Historic Motor Road System CLI included pullouts, parking lots, and access roads; walkways, trails and steps; and scenic views and vistas along and from historic motor road system corridors.

This CLI has determined that Thunder Hole meets the registration requirements for the developed area property type because it retains sufficient integrity of setting and design to convey its historic use, including the principal circulation system and site organization. Thunder Hole is also eligible under both National Register criteria A and C under the NPS Rustic Design context because it retains the majority of built features designed and constructed during the height of the New Deal programs between 1933 and 1942.

The enclosed CLI for Thunder Hole fully evaluates the cultural landscape, particularly the associated landscape characteristics and features, and finds that the Thunder Hole landscape retains integrity to the areas of entertainment/recreation, architecture, and landscape architecture. As noted previously, seven of the property's features compiled on the attached list have already been determined to be eligible for listing on the National Register. The CLI identifies four additional resources and features related to natural systems and features, vegetation, and views and vistas that contribute to the significance and historic character of Thunder Hole. Fourteen features have been evaluated as noncontributing because they fall outside of the period of significance.

We call your particular attention to the Landscape Description, National Register Information and the Statement of Significance, and Analysis and Evaluation Summary in the enclosed CLI.

Based on the CLI, we seek your concurrence on the following:

- The eligibility of Thunder Hole as a developed area that meets the registration requirements of the park's Multiple Property Documentation Form;
- The cultural landscape retains integrity to the period of significance, 1929-1934. The period begins with the reconstruction of the Ocean Drive as part of the Thunder Hole Demonstration Section, and ends with the construction of the Thunder Hole Ranger Station and completion of site work by the CCC;
- The categorization of contributing and non-contributing landscape characteristics and features (see attached list).

If you concur with these findings, we ask that you please sign on the space provided and return this letter to Jeff Killion, CLI Coordinator (Address: National Park Service, Olmsted Center for Landscape Preservation, 15 State Street, 6th Floor, Boston, MA 02109). We would appreciate

your response at your earliest convenience. Thank you for your attention to this inventory. Should you have any questions, please feel free to contact Mr. Killion at 617-223-5053.

Sincerely,

for Michael A. Caldwell

Dennis R. Reidenbach
Regional Director
Northeast Region

Enclosure

cc:
Superintendent, Acadia National Park

I concur with the National Park Service categorizations of the Thunder Hole landscape resources and features at Acadia National Park, as contributing and non-contributing.

Earle S. Shettleworth Jr.
Maine State Historic Preservation Officer

9/25/12
Date

CULTURAL LANDSCAPES INVENTORY
CONCURRENCE FORM

Thunder Hole
Acadia National Park

Acadia National Park concurs with the findings of the Cultural Landscape Inventory (CLI) for Thunder Hole including the following specific components:

MANAGEMENT CATEGORY: Should Be Preserved and Maintained

CONDITION ASSESSMENT: Fair

Good: indicates the inventory unit shows no clear evidence of major negative disturbance and deterioration by natural and/or human forces. The inventory unit's cultural and natural values are as well preserved as can be expected under the given environmental conditions. No immediate corrective action is required to maintain its current condition.

Fair: indicates the inventory unit shows clear evidence of minor disturbances and deterioration by natural and/or human forces, and some degree of corrective action is needed within 3-5 years to prevent further harm to its cultural and/or natural values. If left to continue without the appropriate corrective action, the cumulative effect of the deterioration of many of the character defining elements will cause the inventory unit to degrade to a poor condition.

Poor: indicates the inventory unit shows clear evidence of major disturbance and rapid deterioration by natural and/or human forces. Immediate corrective action is required to protect and preserve the remaining historical and natural values.

The Cultural Landscape Inventory for Thunder Hole is hereby approved and accepted.

Superintendent, Acadia National Park — Date 8/29/12

Park Concurrence Form, 2012.

NPS Cultural Landscapes Inventory – Thunder Hole
Acadia National Park
List of Contributing and Non-Contributing Landscape Features
August 2012

Contributing Landscape Characteristics & Associated Features

The following landscape characteristics and associated features contribute to the property's historic character, though not all are considered countable resources according to the National Register of Historic Places. Those marked with a (*) were determine eligible for listing on the National Register on July 1, 1996 as part of a List of Classified Structures update. Those marked with a (+) were determined eligible for listing on December 17, 2001 as part of a memo regarding the historic hiking trail system. Those marked with a (#) were determined eligible for listing on September 18, 2008 as part of the CLI, "Historic Motor Road System, Acadia National Park."

Natural Systems and Features
The Thunder Hole

Vegetation
CCC Plantings
Turf Areas

Circulation
Ocean Drive (Reconstructed) (portion) (MR300A)
Parking Lot (60115-001)
+ Ocean Path (Trail #3) (portion)
Granite Curbs and Sidewalk at Parking Lot (60115-003)
CCC Stone Steps and Walk

Buildings and Structures
* Thunder Hole Ranger Station (BLDG072)

Views and Vistas
Panoramic View of Ocean (portion of Vista #46)
Views of the Thunder Hole

Non-Contributing Landscape Characteristics & Associated Features

Circulation
Lower Walkway System, Ocean Drive to the Thunder Hole
Upper Walkway System, Ocean Drive to Parking Lot
Accessible Walk at Ranger Station
Concrete Curbs at North Parking Lot Access Road

United States Department of the Interior

NATIONAL PARK SERVICE
Northeast Region
United States Custom House
200 Chestnut Street
Philadelphia, PA 19106

IN REPLY REFER TO
H30 (NER- HPPC)

AUG 3 1 2012

RECEIVED
SEP 07 2012
By 1491-12

Earle G. Shettleworth, Jr.
State Historic Preservation Officer
Maine Historic Preservation Commission
55 Capitol Street
State House Station 65
Augusta, ME 04333

Dear Mr. Shettleworth:

Enclosed you will find a copy of the Cultural Landscapes Inventory (CLI) for the Thunder Hole landscape located within Acadia National Park. We seek to reconfirm our agreement on previously evaluated resources and your concurrence on the status of resources and features identified in this CLI previously unevaluated for listing in the National Register of Historic Places. The report has been prepared by a team of historical landscape architects with the National Park Service (NPS) Olmsted Center for Landscape Preservation. The CLI program and the enclosed report continue the NPS efforts to update our cultural resource inventories.

Through the CLI program, the NPS is currently in the midst of a nationwide effort to inventory its cultural landscapes. The CLI is conducted in accordance with Section 110 of the National Historic Preservation Act of 1966 (as amended). It is an inventory of baseline information for all historically significant cultural landscapes within the national park system, and it examines multiple landscape features that contribute to the significance of historic properties. The CLI process includes gathering information from existing secondary sources and conducting on-site reconnaissance of the existing landscape. The information collected provides a comprehensive look at the historical development and significance of the landscape, placing it in context of the property's overall significance. For landscapes found potentially eligible for the National Register of Historic Places, the evaluation describes their character-defining features and assesses the landscape's overall historical integrity. It also raises questions about the landscape that need further study.

It is important to note that the CLI reports are not intended as comprehensive inventory reports for any one property, although for some properties they provide fuller documentation than for others. For example, the reports do not include a full architectural description of structures, but document structures as elements of the overall landscape, and similarly documents other characteristics such as vegetation, spatial organization, and views and vistas. The CLI is one

SHPO concurrence letter, September 25, 2012 (6 pages).

Cultural Landscapes Inventory
CLI Updates Concurrence Form
2021

Acadia National Park
Blackwoods Campground, Cadillac Mountain Summit, Jordan Pond House,
Seawall Campground, Sieur de Monts Spring, and Thunder Hole

Acadia National Park concurs with the CLI updates for the Blackwoods Campground, Cadillac Mountain Summit, Jordan Pond House, Seawall Campground, Sieur de Monts Spring, and Thunder Hole, including:

CONDITION ASSESSMENT:
Good – Blackwoods Campground
Fair – Cadillac Mountain Summit
Good – Jordan Pond House
Good – Seawall Campground
Good – Sieur de Monts Spring
Fair – Thunder Hole

Good: indicates the inventory unit shows no clear evidence of major negative disturbance and deterioration by natural and/or human forces. The inventory unit's cultural and natural values are as well preserved as can be expected under the given environmental conditions. No immediate corrective action is required to maintain its current condition.

Fair: indicates the inventory unit shows clear evidence of minor disturbances and deterioration by natural and/or human forces, and some degree of corrective action is needed within 3-5 years to prevent further harm to its cultural and/or natural values. If left to continue without the appropriate corrective action, the cumulative effect of the deterioration of many of the character defining elements, will cause the inventory unit to degrade to a poor condition.

Poor: indicates the inventory unit shows clear evidence of major disturbance and rapid deterioration by natural and/or human forces. Immediate corrective action is required to protect and preserve the remaining historical and natural values

The CLI updates for the Blackwoods Campground, Cadillac Mountain Summit, Jordan Pond House, Seawall Campground, Sieur de Monts Spring, and Thunder Hole at Acadia National Park are hereby approved and accepted.

KEVIN SCHNEIDER Digitally signed by KEVIN SCHNEIDER
Date: 2021.09.28 09:08:42 -04'00'

Superintendent, Acadia National Park Date

Park Concurrence Form, 2021.

Revision:

Revised By	Type of Revision	Revision Date	Revision Narrative
Jeff Killion	Other	09/28/2021	CLI Update.

Geographic Information

State and County:

State	County
Maine	Hancock County

Size (Acres): 2.25

Land Tract Number(s)

Boundary Description:

The boundaries of the 2.25-acre developed area at Thunder Hole includes buildings, structures, and landscape features and designed and/or built by the Olmsted Brothers landscape architectural firm, the Civilian Conservation Corps, the Works Progress Administration, and the National Park Service (NPS) that were in place by 1934 and that maintain historic integrity.

Ocean Drive essentially divides the site into an upper and lower area. West of Ocean Drive, the northern, western, and southern boundaries extend 20 feet beyond the edge of the parking lot and two access roads. A small part of the western boundary extends 20 feet beyond the rear elevation of the historic Ranger Station. East of the drive, the north and west boundaries extend 20 feet from the historic Ocean Path and two extant stone steps associated with the trail. The eastern boundary is the shoreline. These boundaries generally follow a conceptual plan of the site from 1934 showing the parking lot, access roads, and Ocean Drive.

Within the site boundary are portions of the historic motor road and hiking trail systems. While these segments contribute to the site's historic character, they are not comprehensively evaluated or mapped in this report. Both systems are considered unique property types and have their own areas and periods of significance that are discussed in separate Cultural Landscape Inventories.

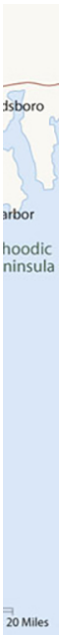
Boundary Coordinates

Source	Type of Point	Latitude	Longitude	Narrative
USGS Map 1:24,000	Point	44.3209425	-68.1890092	

Location Map:



Map of central Maine and Acadia National Park. (Acadia NP files)


sboro
arbor
hoodic
ninsula
20 Miles



Map of Acadia National Park lands on Mount Desert Island. Thunder Hole is on the island's east coast, on the right side o the map. (Acadia NP website)

of

Regional Landscape Contexts:

Type of Context: Physiographic

Description:

The large scale physical forms that define the Thunder Hole and the eastern coastline of Mount Desert Island provide the setting for the developed area. The shoreline is comprised of massive granite ledges (Cadillac Mountain Granites, according to ACAD GIS, "bedr polygon") and rugged outcrops with scattered masses of hardy grasses, shrubs, and trees tolerant of the constant spray of saltwater. Over the horizon is Nova Scotia and the vast expanse of the Atlantic Ocean.

Type of Context: Cultural

Description:

Thunder Hole has attracted people since the 1840s, and probably earlier. The area became a popular recreational destination with the arrival of the rusticators and cottagers in the 1860s and 1870s and 1880s. When a bridle path and road were built along the shore in the late nineteenth century, the area became more popular. In the early 1930s, Ocean Drive and the Ocean Path were reconstructed and visitor facilities were built at Thunder Hole. The park's 1935 Master Plan identified Thunder Hole as a major developed area, and it has remained so ever since.

Type of Context: Political

Description:

Thunder Hole is a developed area within Acadia National Park. In 1931, the Town of Bar Harbor sold its interests in the Thunder Hole area to John D. Rockefeller, Jr. as part of a transfer of lands associated with Rockefeller's planned reconstruction of Ocean Drive. Rockefeller then transferred the lands to the NPS.

Management Information

General Management Information

Management Category: Should be Preserved and Maintained

Management Category Date: 08/29/2012

Management Category Explanatory Narrative:

As approved by the park superintendent on August 29, 2012, Thunder Hole meets both of the criteria for the “Should be Preserved and Maintained” management category; the site meets National Register of Historic Places criteria, and the site is compatible with the park’s legislated significance.

In the enabling legislation of Sieur de Monts National Monument from July 8, 1916, Congress cited Mount Desert Island’s distinction as Champlain’s landing place and the great scientific interest in its topography, geology, fauna, and flora. The legislation indicated the primary purpose of the monument was to protect these significant resource values, warning all unauthorized persons “not to appropriate, injure, destroy, or remove any of the features or objects included within the boundaries.” Although providing resource-based outdoor recreational opportunities was not specifically stated in the enabling legislation, such was the intent of the many people who donated thousands of acres for creation of the park.

The lands that comprise the Thunder Hole area were among those that the Town of Bar Harbor transferred to John D. Rockefeller, Jr. for the reconstruction of Ocean Drive. These lands were in turn donated by Rockefeller to the National Park Service. The subsequent development of Thunder Hole as a recreational destination within the park supports this intent.

Management Agreements:

Type of Agreement: Concession Contract/Permit

Management Agreement Expiration Date: 12/31/2024

Management Agreement Explanatory Narrative:

Dawnland, LLC. The Concessioner shall provide, operate, and maintain the required and authorized visitor services and any related support facilities and services…for Thunder Hole – Retail. Contract from 2014 to 2024. Facilities assigned with real property improvements and maintenance/housekeeping/groundskeeping responsibilities.

Legal Interests:

Type of Interest: Fee Simple

Narrative:

Located in managed wilderness?: No

Adjacent Lands Information

Do Adjacent Lands Contribute? Yes

Adjacent Lands Narrative:

Adjacent lands are lands outside the cultural landscape boundary, including lands inside or outside the park. While not lands per se, the view of the horizon line to the east across the Atlantic Ocean is a critical part of the historic views from Ocean Drive in general and Thunder Hole in particular. The views to undeveloped Great Head and the distant Schoodic Peninsula landforms, and the Old Soaker outcrop, are also critical. Thunder Hole has long been a popular recreational destination because of the spectacular panoramic views to the east.

National Register Information

National Register of Historic Places

Documentation Status: SHPO Documented

Documentation Narrative Description:

The origins of Acadia National Park date to July 18, 1916 when it was proclaimed Sieur de Monts National Monument. On February 29, 1919 it was established as Lafayette National Park, and on January 19, 1929 the name was changed to Acadia National Park. The Thunder Hole area was added to the park in 1931.

On July 1, 1996, the Maine Historical Preservation Commission (SHPO) concurred with the National Park Service (NPS) that the Thunder Hole Ranger Station (Gift Shop) was eligible for listing in the National Register of Historic Places.

On June 29, 2007, the Multiple Property Documentation Form (MPDF) titled, "Historic Resources of Acadia National Park" was approved by the Keeper of the National Register. The MPDF identified historic contexts, property types, and registration requirements with which to evaluate park resources. The contexts were "Community Development and the Origins of Acadia National Park (1890-1937)," "John D. Rockefeller, Jr. and the Development of the National Park System (1913-1958)," and "Rustic Design (1890 -1958)" and its subthemes, "Picturesque Style (1890-1950)" and "Rustic Design of the National Park Service (1916-1958)." The three property types were: Circulation Systems, Visitor Facilities and Developed Areas, and Park Administration and Support. Registration requirements for listing properties in the National Register under this multiple property group included meeting Criteria A, B, and/or C in the areas of Architecture, Community Development, Conservation, Engineering, Entertainment/Recreation, Landscape Architecture, Other (Philanthropy), and Transportation.

On August 29, 2012, the CLI for Thunder Hole was approved by the Park Superintendent, and on September 25, 2012, the Maine SHPO concurred with the findings of the CLI. The CLI determined that Thunder Hole met the 2007 MPDF's registration requirements for Visitor Facilities and Developed Areas property type under the historic context "Community Development and the Origins of Acadia National Park (1890-1937)" and the historic context "Rustic Design (1890-1958)" and its two subthemes "Picturesque Style (1890-1950)" and the "Rustic Design in the National Park Service (1916-1958)." Local level significance was identified under Criterion A in the area of Entertainment/Recreation and Criterion C in the areas of Architecture and Landscape Architecture. The period of significance was identified as 1890-1937, beginning when village improvement associations and societies (VIA and VIS) on Mount Desert Island improved or constructed trails to provide recreational access from the villages to scenic destinations, and ending when the VIA/VIS transferred maintenance responsibility for their paths within park boundaries to the NPS.

Portions of Acadia's historic motor road and hiking trail systems are within the Thunder Hole area, and have been determined eligible for listing in the National Register. Regarding the motor roads, on March 26, 1993, the Maine SHPO determined that the segments of the motor road system on Mount Desert Island were eligible for listing on the National Register of Historic Places. On July 1, 1996, the Maine SHPO confirmed this determination, and concurred with the NPS's list of individually-named motor road segments. On September 18, 2008, the SHPO concurred with the findings of the CLI, "Historic Motor Road System, Acadia National Park," which determined that all individual road segments comprising the motor road system were contributing resources and eligible for listing in the National Register, as well as certain pullouts, parking lots, and access roads; walkways, trails and steps; and scenic views and vistas along the historic motor road system corridors. At Thunder Hole, this included Ocean Drive (part of the Park Loop Road). Regarding the hiking trails, on December 17, 2001, the Maine SHPO determined the park's trails were eligible for the National Register. On September 20, 2017, the SHPO concurred with the findings of the CLI, "Historic Hiking Trail System – Bar Harbor District, Acadia National Park," which determined that the district's trails and certain associated features were contributing resources and eligible

for listing in the National Register. At Thunder Hole, this included the Ocean Path (Trail #3). A National Register nomination for the hiking trail system is currently underway.

Since the completion of the original Thunder Hole CLI in 2012, an amendment and update have been approved for the "Historic Resources of Acadia National Park" MPDF. On June 5, 2013, the Keeper of the National Register accepted an amendment that added Buildings and Structures as a property type to the existing historic context, "John D. Rockefeller, Jr. and the Development of the National Park System (1913-1958)." The amendment did not pertain to the resources at Thunder Hole. On June 26, 2017, the Keeper approved a comprehensive update, which incorporated the 2013 amendment and added two new historic contexts: "The Rusticator Period (1835-1890)" and "National Park Service Development of Acadia National Park (1916-1958)." The update identified Thunder Hole as part of the new NPS Development context, in addition to the previously identified Community Development and Rustic Design contexts.

According to research conducted for the Thunder Hole CLI Update, and the categories of National Register documentation outlined in the "CLI Professional Procedures Guide," the areas and periods of significance of this developed area, and major resources that contribute its significance, have been determined eligible for listing in the National Register. Therefore, for purposes of the CLI, Thunder Hole is considered "SHPO – Documented."

Eligibility: Eligible -- SHPO Consensus Determination

Concurrence Eligibility Date: 09/25/2012

Concurrence Narrative:

On September 25, 2012, the Maine State Historic Preservation Office concurred with the findings of this report and the categorizations of the Thunder Hole landscape resources and features as contributing and non-contributing. The SHPO suggested changing the period of significance from 1929-1934 to 1890-1937 for its recreational significance, and recommended revisting this period when an appropriate historic context is developed in the future. The SHPO also made suggestions for improving the statement of significance. All of these changes are reflected in this report.

Significance Level: Local

Contributing: Contributing

Classification: Site

Statement of Significance for National Register of Historic Places:

Thunder Hole, a developed area at Acadia National Park, is significant under National Register of Historic Places Criterion A in the area of Entertainment/Recreation, and Criterion C in the areas of Architecture and Landscape Architecture. Under Criterion A, Thunder Hole is locally significant as a developed area in the park that embodies the efforts of local residents and park leaders to improve, enhance, and control the visitors' experience of this natural resource. Since first portrayed by painters and writers in the mid-nineteenth century, year round residents and summer travelers have continued to seek out this seaside destination to enjoy the panoramic views and witness the ocean's crashing waves. Under Criterion C, Thunder Hole is locally significant for its embodiment of the earlier Picturesque design style as promoted by Mount Desert Island's village improvement groups, John D. Rockefeller Jr., and the Olmsted Brothers landscape architectural firm, and the later Rustic Design of the National Park Service (NPS) design style as implemented the NPS, the Civilian Conservation Corps (CCC), and the Works Progress Administration (WPA). At Thunder Hole, the two design styles blend seamlessly and create a compelling landscape that highlights the drama of this natural resource.

The period of significance for Thunder Hole is 1890-1937. The period begins when village improvement associations and societies (VIA and VIS) on Mount Desert Island improved or constructed trails to provide recreational access from the villages to scenic destinations such as lakes, woodlands, and shorelines. In 1929 the Thunder Hole Demonstration Section along Ocean Drive was completed, which served as a guide for the reconstruction of the entire Ocean Drive in 1933-1934 and ultimately made possible the development of park facilities at Thunder Hole. The period ends when the VIA/VIS transferred maintenance responsibility for their paths within park boundaries to the NPS.

The following statement of significance is organized by National Register criteria with a focus on the Thunder Hole developed area. While the motor road and hiking trail systems have been determined eligible for listing in the National Register, they are not comprehensively evaluated in this CLI because only small portions of the system are within the Thunder Hole boundaries. Both the motor road system and hiking trail system are considered separate property types with unique areas and periods of significance. These circulation systems and their associated built features have been evaluated in separate Cultural Landscape Inventories.

CRITERION A
Entertainment/Recreation:
Thunder Hole is significant under Criterion A for its association with the historic contexts identified in the 2017 MPDF, “Community Development and the Origins of Acadia National Park (1890-1919)” and “National Park Service Development of Acadia National Park (1916–1958).” Thunder Hole has long been a destination on Mount Desert Island’s eastern shore, and its popularity can be traced to the mid-1800s and the arrival of Thomas Cole, a leading artist of the Hudson River School. Cole painted scenes of the rough ocean, colorful cliffs, and rugged mountains, and spent much of his time along the island’s eastern coastlines that he described as “iron bound [with] threatening crags, and dark caverns in which the sea thunders.” (HT CLR 2006: 19-20, citing Noble 1964: 270)

Cole’s paintings and writings inspired other artists such as Frederic Church, Thomas Birch, and William Morris Hunt to visit. Although transportation to this part of Maine was difficult, an annual summertime influx of visitors, called the “rusticators,” began to descend on the area throughout the 1860s and 1870s to see the dramatic scenery told by these artists. Visitors began using old lumber roads as walking paths to scenic vistas, particularly those situated above the tree lines of the mountains. Touring the island’s rock formations and climbing along the shore, known as “rocking,” was also a popular pastime. Many of the rocks were named, including Thunder Cave [Thunder Hole], the name of which first appeared on a map in 1881.

Walks to the rock formations as well as inland mountains and lakes were described in travel guides for the island written in the 1860s and 1870s. The guidebooks harkened back to the pre–Civil War era of mountain tourism by combining poetry written during this earlier period and frequently emphasizing the visual qualities captured in paintings by Cole and Church. One such writer, Clara Barnes Martin, published her first guide to Mount Desert Island in 1867. In her 1874 guide, she described a route from Newport [Sand] Beach via Thunder Hole to Otter Creek Road as “a sort of bridle path” (Ocean Path, Trail #3). (HT CLR 2006: 34,36)

The many paintings and writings produced by the rusticators introduced the island to the larger public, and by 1880 Mount Desert Island was being hailed as one of the most beautiful vacation spots in the country. Wealthy visitors seeking relief from hot summers in Boston, New York, and Philadelphia were among the tourists, and many built massive summer homes, euphemistically known as “cottages,” in and around Bar Harbor, Seal Harbor, and other towns. Access to the Thunder Hole area greatly improved in the late 1880s with the Town of Bar Harbor’s construction of Ocean Drive along the shoreline from Sand Beach to Otter Point.

Around this time, there was a growing movement throughout the northeast United States to improve the physical and cultural qualities of villages and towns. To this end, several village improvement associations and societies (VIA/VIS) were established in the 1890s on Mount Desert Island, and in addition to focusing on their town centers, worked cooperatively across the island to map, improve, and maintain the existing trails and construct new trails. Although walking paths certainly existed on the island before the incorporation of the various VIA/VIS, they were subsequently maintained and improved by these groups as

part of island's the hiking path system. The Ocean Path (#3) was within the Bar Harbor VIA district and was maintained by them. The Bar Harbor VIA also built a new trail from Thunder Hole to Cadillac Cliffs by 1906 (#345). Both trails increased visitation to Thunder Hole. (MPDF 2007: E41,F85)

In 1901, the Hancock County Trustees for Public Reservations (HCTPR) was established to acquire and control land for public use, which included the protection of walking paths and scenic vistas. The HCTPR received their first parcels of land in 1908, and by 1913 it controlled over 5,000 acres of land on Mount Desert Island. However, many year-round residents, and especially local merchants, were opposed to the increasing limits on places for development. This prompted the HCTPR to seek long-term protection of the lands from the federal government, and with the financial support of summer resident John D. Rockefeller, Jr., successfully established Sieur de Monts National Monument in 1916. At this time, over 6,000 acres of HCTPR lands became part of the monument, which later expanded and became Lafayette National Park (1919) and then Acadia National Park (1929).

In the early 1920s superintendents throughout the NPS were grappling with access issues, and how to balance providing park visitors safe and efficient access while not destroying the resources for which the parks had been established to preserve. Part of the solution was the careful planning and construction of park roads and facilities. In 1922, with popularity of automobile travel increasing, NPS Director Stephen Mather requested that superintendents develop a general roads program for their parks. For Acadia National Park, "Mountain Road" (later named Jordan Pond/Eagle Lake Road) and Cadillac Mountain Road were planned and built, with Rockefeller again providing some of the financial support. Another part of the solution was the development of a design style that came to be known as Rustic Design of the National Park Service, which aimed to protect the scenic qualities of landscapes and to provide new design and development that was compatible with the qualities of the natural environment.

With his interest in the park's motor roads continuing to grow, Rockefeller embarked on a small reconstruction project along a 500-foot stretch of the Town of Bar Harbor's Ocean Drive at Thunder Hole, to demonstrate what the entire length of an improved Ocean Drive could become. Visitation to Thunder Hole likely increased at this time to see the new road, and when completed in 1929, the demonstration section was favorably received. The following year, Rockefeller proposed a much larger motor road system of scenic roadways taking motorists from the mountaintops to the coasts. In order to control how his vision might be realized, Rockefeller proposed that he assume the costs associated with its construction. Although the park, the Town, and year-round residents were in favor of the plan, a very vocal group of summer residents were opposed to it, prompting Rockefeller to retract his offer. Nevertheless, the Town decided to sell its interests in Ocean Drive to Rockefeller, and encouraged him to let the offer "lie on the table" for a year. During this time, the Town agreed to sell its interests in the entire Ocean Drive to Rockefeller, who in turn would transfer it to the federal government. By 1933, the dire economic conditions brought forth by the Great Depression had silenced most opposition to the multi-million dollar project, and implementation of Rockefeller's plan was resumed.

The next segments in the motor road plan were the remainder of Ocean Drive. A section running south from the Thunder Hole Demonstration Section to the surveyed line for the Otter Cliffs segment was completed by August 1933, while the section to the north to Sand Beach and the neighboring Satterlee property at Great Head was completed in August 1934. At Rockefeller's insistence, parking lots were built at six locations along Ocean Drive to accommodate visitors in cars, including one opposite Thunder Hole, as an alternative to roadside parking that might mar the scenic view. The parking lots were sited back in the trees to be less intrusive, and accessed by short roads. A feature unique to the Thunder Hole area was the construction of a ranger station on the west side of the parking lot in 1934 by the WPA, one of the Roosevelt administration's New Deal make-work programs. The Ranger Station offered visitors ranger-led tours and information, and a few years later, a restroom.

Other improvements at Thunder Hole, and throughout the rest of the park, were accomplished by another New Deal program, the CCC. The CCC reconstructed the Ocean Path (#3), built steps and handrails down to the Thunder Hole, and installed curbs, walkways, steps, and plantings at the parking lot. The work in the Thunder Hole area was essentially completed by 1934, and on the park's 1935 Master Plan, the site is identified as a major developed area. Historic photographs from the 1930s and subsequent decades confirm this, showing scores of visitors taking in the views and witnessing the power of the ocean. In 1937, management and stewardship of all hiking trails within Acadia National Park's boundaries was

transferred to the National Park Service.

CRITERION C
Architecture and Landscape Architecture:
Thunder Hole is significant under Criterion C for its association with the "Rustic Design (1890-1958)" historic context identified in the MPDF, under the subthemes "The Picturesque Style (1890-1950)" and "The Rustic Design of the National Park Service (1916-1958)." Both design styles are evident at Thunder Hole, but their origins are traced to different constituents. Rather than compete, the two styles blend seamlessly and create a compelling landscape that highlights the drama of this natural resource.

The origin of Rustic Design can be traced back to the nineteenth and early twentieth century social movements to protect and preserve natural scenery for the public's benefit. In 1916, Frederick Law Olmsted, Jr. articulated this philosophy in the enabling legislation of the NPS, which sought to conserve natural scenery in parks while providing public access to them. In the early years of the NPS, landscape architects, architects, and engineers recognized the need to develop unified design principles and standards that would guide the development of park facilities and simultaneously protect a park's natural, cultural, and scenic resources. The new style came to be known as Rustic Design of the National Park Service. It drew heavily from the Picturesque style, which incorporated natural features and materials with rustic constructed features to create an effect that was naturalistic and romantic rather than artificial and contrived. It was also influenced by the Prairie Style that emphasized the use of native plants. In the NPS Rustic Design style, constructed features utilized labor-intensive methods that created a rugged, frontier-like quality appropriate to a wilderness setting. Though general design standards—such as those presented in Albert Good's "Park and Recreation Structures" and published by the NPS—remained the same throughout the national parks, site features were typically customized with local materials, such as stone or wood, to fit the local environment in which they were constructed. By the end of the 1920s, the NPS Rustic Design style guided plans and specifications for site features and structures, techniques for the location of roads and trails in relation to natural scenery, methods to repair construction damage to natural conditions, and construction of park facilities. (MPDF 2007: E35,E61-E62)

The park's first master plan in 1927 embraced the characteristics of the NPS Rustic Design style in proposals for new facilities, but also recognized the physical character of the park's existing facilities. Fortunately, the style was appropriate for the scenery of Mount Desert Island that had attracted tourists and summer residents since the mid- to late-nineteenth centuries, and encouraged the land preservation and conservation efforts that ultimately established Acadia National Park. The NPS Rustic Design style complemented the Picturesque style of the existing hiking trails built and maintained by the various village improvement groups and the carriage roads constructed by John D. Rockefeller, Jr., both of which were designed to highlight views, retain mature vegetation, and blend in with the surrounding landscape by using local stone in bridges, guardwalls, and culverts.

In the summer of 1929, Rockefeller reconstructed a portion of Ocean Drive in the vicinity of Thunder Hole to demonstrate what a reconstruction of the entire length of Ocean Drive could become. The completed road was 24 feet wide with 2-foot shoulders in order to accommodate the parking of cars along the west side to preserve the panoramic ocean view to the east. The road section exhibited qualities of the Picturesque style with its use of native stone in the rubble-lined ditches, drop inlets, and headwalls, and the continued use of large guardwall stones that were already present along Ocean Drive and also used on the Jordan Pond/Eagle Lake motor road and the carriage roads.

With the successful completion of the demonstration section, Rockefeller and the park began planning and constructing a 14-mile system of scenic roadways taking motorists from the Jordan Pond/Eagle Lake Road (the park's first motor road) to the ocean views on the eastern shore of the island. The route included the Thunder Hole demonstration project, as well as the entirety of Ocean Drive from Sand Beach to Otter Cliffs. Rockefeller also hired the Olmsted Brothers, a landscape architectural firm based in Brookline, Massachusetts, as consultants.

When completed in 1933-1934, Ocean Drive's curvilinear alignment along the shoreline, the use of native stone in the guardwalls and culvert headwalls, and the abundant sweeping vistas were all representative of the Picturesque style. The reconstructed Ocean Drive was also designed with a narrower cross-section than the demonstration section, in part because Rockefeller felt the presence of parked cars along the

road was distracting. To discourage visitors from parking along the road and disrupting the ocean views, Rockefeller directed Olmsted to site parking lots at various locations along the drive. One such parking lot was at Thunder Hole, which Olmsted placed on the west side of Ocean Drive, accessed by two short roads. As it was located up the hill from the Thunder Hole and separated from it by mature trees that were intentionally retained, the parking lot was generally inconspicuous—another characteristic of the Picturesque style.

Subsequent improvements in the Thunder Hole area were accomplished by CCC and WPA in 1933-1934 using the NPS Rustic Design style to harmoniously blend site features with the Ocean Drive, the parking lot, and the surrounding landscape. The CCC reconstructed the Ocean Path (#3) at the same time as the Ocean Drive reconstruction, with both projects sharing materials. Under the direction of Benjamin Breeze, the park's landscape architect, the CCC also installed granite curbs in the parking lot, built stone steps and walkways from the parking lot to the Thunder Hole, and erected safety handrails along the slippery rocks around the Thunder Hole. The CCC also planted native trees, shrubs, and turf in the Thunder Hole area to hide construction scars and further blend the new facilities with the surroundings. The WPA built a small one-story, wood-frame ranger station on the west side of the parking lot. The building featured a bellcast hip roof, board and batten siding, wood casement windows, stained exterior, and a stone chimney and foundation. The siting and scale of the ranger station, and its use of native materials, were consistent with the NPS Rustic Design style, and it became a model for subsequent park buildings.

National Register Significance Criteria:

A - Associated with events significant to broad patterns of our history

C - Embodies distinctive construction, work of master, or high artistic values

National Register Criteria Consideration:

National Register Periods of Significance (with Historic Context Themes):

Time Period: CE 1890 - CE 1937

Historic Context Theme	Subtheme	Facet	Other Facet
Creating Social Institutions and Movements	Recreation	General Recreation	
Developing the American Economy	Transportation by Land and Air	Carriage Roads, Touring Roads and Parkways	
Expressing Cultural Values	Landscape Architecture	Rustic Architecture	
Expressing Cultural Values	Landscape Architecture	Protection Of Natural And Cultural Resources	
Shaping the Political Landscape	Political and Military Affairs 1865-1939	The Great Depression And The New Deal, 1929-1941	
Transforming the Environment	Conservation of Natural Resources	Origin And Development Of The National Park Service	
Transforming the Environment	Conservation of Natural Resources	The Great Depression And Conservation	

Area of Significance:

Area of Significance Category: Architecture

Area of Significance Subcategory:

Explanatory Narrative:

Area of Significance Category: Entertainment - Recreation

Area of Significance Subcategory:

Explanatory Narrative:

Area of Significance Category: Landscape Architecture

Area of Significance Subcategory:

Explanatory Narrative:

NRIS Information:

NRIS Name:	Historic Resources of Acadia National Park MPS
NRIS ID:	64500982
Primary Certification Date:	06/26/2017

State Register Documentation:

Identification Number:	MHPC #1491-12
Name:	Thunder Hole
Listed Date:	09/25/2012

National Historic Landmarks:

National Historic Landmark? No

Theme:

Contributing:

NHL ID:

NHL URL:

Date:

Statement of Significance for National Historic Landmark:

World Heritage Site:

World Heritage Site? No

Category:

WHS ID:

WHS URL:

Date:

Is Resource within a designated National Natural Landscape: No

Chronology and Physical History

Chronology:

Year	Event	Major Event Narrative
BCE 10500 - 5000	Inhabited	After the Ice Age, the earliest Indian hunting bands move into Maine's tundras in pursuit of caribou, musk ox, mammoth, and other wildlife. (Prins and McBride 2007: xv)
BCE 5000 - 1604	Inhabited	Indian families seasonally fish and hunt sea mammals in Mount Desert Island's coastal waters and collect shellfish on mudflats. Over many generations, shells accumulate at coastal camping sites, forming shellheaps. These sites also contain stone and bone tools, including harpoons, fishhooks, projectile points, awls, and (later) small native copper beads and thin copper blades. (Prins and McBride 2007: xv)
CE 1604	Explored	French explorer Samuel de Champlain names "Isle des Monts Deserts" for its high barren peaks. The Etchemin (later called Wabanaki) Indians guiding him know the island as Pemetic, meaning "range of mountains." (Prins and McBride 2007: i-ii; CLR 2006: 12)
CE 1620 - 1625	Settled	By the early 1620s epidemics and warfare have nearly annihilated the indigenous communities occupying the coastal territories from Mount Desert Island to Cape Cod, leading to European land claims and settlement. (Prins and McBride 2007: ii)
CE 1688	Settled	Private ownership begins when Mount Desert Island is given as a feudal fief by Louis XIV to Antoine de Lamothe, the self-proclaimed Sieur de la Mothe Cadillac.
CE 1713	Settled	Louis XIV is defeated and all of the Acadia region lands (except Cape Breton) are ceded to England.
CE 1763	Settled	English begin settling area after Treaty of Paris is signed.
CE 1777	Built	A road between Cromwell Cove in Bar Harbor and Sand Beach is in use by 1777. Today it is called Schooner Head Road.
CE 1827	Built	By 1827, a toll bridge is built across the Mount Desert Narrows to connect the island and the mainland.
CE 1844	Explored	Thomas Cole, a leading artist of the Hudson River School, arrives on Mount Desert Island. This marks the beginning of the island's tourist economy as other artists, writers, scientists, and travelers begin to flock to the area. In time, wealthy visitors build massive summer 'cottages.'
CE 1860 - 1929	Inhabited	From the 1860s through 1920s, Indian families are encamped in Bar Harbor, selling crafts and canoeing/hunting services to island locals and tourists. Encampments are relocated numerous times during these years. (Prins and McBride 2007: xxii)
CE 1860 - 1879	Explored	In the 1860s and 1870s, an annual summertime influx of visitors, called the "rusticators," make use of lumber roads and old Wabanaki trails to explore the island.
CE 1866	Built	Road built leading to Otter Creek and Otter Cliffs. It is now called Otter Creek Road.

Year	Event	Major Event Narrative
CE 1874	Built	In an 1874 guidebook by Clara Barnes Martin, a route from Newport [Sand] Beach via Thunder Hole to Otter Creek Road is described as “a sort of bridle path.” This is the early route of the Ocean Path (Trail #3).
CE 1881	Established	Thunder Hole is identified on a map. It is labeled as Thunder Cave.
CE 1881 - 1891	Established	Bar Harbor Village Improvement Association (VIA) is established in 1881 and incorporated in 1891.
CE 1887	Built	On Mount Desert Island, the Town of Bar Harbor builds Ocean Drive between Schooner Head Road and Otter Creek Road.
CE 1892	Established	The Bar Harbor VIA forms the Roads and Paths Committee. They eventually work together with other island towns to create and maintain an extensive network of scenic trails.
CE 1901	Established	George Dorr and Charles W. Eliot organize the Hancock County Trustees of Public Reservations to acquire land parcels on Mount Desert Island to protect water supply and preserve walking paths and scenic vistas. It receives tax-exempt status in 1903.
CE 1903	Established	Maine legislature permits towns to ban automobiles. Some of the roads near Bar Harbor are affected.
CE 1909	Established	Automobiles banned throughout Mount Desert Island.
CE 1913	Established	Automobile ban is lifted.
CE 1913	Built	John D. Rockefeller, Jr. begins construction of his first carriage road on his Seal Harbor estate.
CE 1916	Established	On July 8, Sieur de Monts National Monument is established. The park is comprised of around 6,000 acres that were under the stewardship of the Trustees.
CE 1916	Established	National Park Service (NPS) established.
CE 1919	Established	On February 16, Sieur de Monts National Monument becomes Lafayette National Park.
CE 1922	Planned	As requested by NPS Director Stephen Mather, Superintendent George B. Dorr develops a road plan for the park. It includes a motor road between Jordan Pond and Eagle Lake and to the summit of Cadillac Mountain. Rockefeller pledges his financial support.
CE 1922 - 1923	Built	Construction of what will become Jordan Pond/Eagle Lake Road is begun in 1922 and advances 4,300 feet by 1923. Work is halted due to public opposition, but Dorr and Rockefeller successfully promote the projects at congressional hearings in 1924 and construction resumes.
CE 1924	Built	Preliminary grading for Cadillac Mountain Road is begun in mid-1924 by NPS crews.
CE 1926	Established	Director Mather initiates interbureau agreement between NPS and Department of Agriculture’s Bureau of Public Roads (BPR).
CE 1927	Built	Jordan Pond/Eagle Lake Road completed 1927.

Year	Event	Major Event Narrative
CE 1927	Planned	The park's first master plan in 1927 supports the development of motor roads to improve access and the existing trail system.
CE 1928	Planned	Charles W. Eliot II prepares alternative master plan that supports the two existing motor roads but recommends no others be built.
CE 1929	Built	Ocean Drive Demonstration Section completed.
CE 1929	Established	On January 19, Lafayette National Park is renamed Acadia National Park.
CE 1930 - 1933	Planned	In association with Rockefeller, the Olmsted firm reveals 14-mile comprehensive motor road plan from Jordan Pond/Eagle Lake Road to Hunter's Beach and Route 3. NPS and year-round residents support the plan but summer residents oppose it. Rockefeller pledges $4 million for the project but then briefly withdraws offer in mid-1931 due to the opposition. The project resumes in 1933.
CE 1931	Land Transfer	Town of Bar Harbor transfers Ocean Drive to the park.
CE 1931	Built	Cadillac Mountain Road completed in 1931.
CE 1933	Established	The Civilian Conservation Corps (CCC) is established as part of President Roosevelt's New Deal program. CCC contributes to fabricating some of the site details along the motor road system as well as revegetation projects.
CE 1933	Planned	Rockefeller again makes the offer to fund the motor road project and construction resumes. Controversial route through the Tarn valley and around Gorham Mountain is abandoned in favor of a proposed route across the north and east slopes of Champlain Mountain.
CE 1933	Built	Ocean Drive, from Thunder Hole to Otter Cliffs Road, is completed in 1933.
CE 1933	Built	Six parking lots built along Ocean Drive, including one at Thunder Hole.
CE 1933 - 1934	Built	CCC reconstructs Ocean Path (#3) in the Thunder Hole area.
CE 1933	Built	CCC builds walkways, steps, and handrails at Thunder Hole.
CE 1934	Built	Ocean Drive, from Thunder Hole to Sand Beach, is completed in 1934.
CE 1934	Built	Ranger Station built at Thunder Hole.
CE 1935	Built	Schoodic Point Road completed in 1935.
CE 1935	Planned	The 1935 Master Plan indicates Thunder Hole as a developed area.
CE 1936	Built	Stanley Brook Road completed in 1936.
CE 1936	Built	Otter Cliffs Road completed in 1936
CE 1937	Planned	Maintenance and stewardship of VIA and VIS trails within park boundaries is transferred to the National Park Service.
CE 1938	Built	Kebo Mountain Road completed in 1938. The use of rectilinear quarried guardwall stones begins with this project.

Year	Event	Major Event Narrative
CE 1939	Built	Otter Cove Causeway and Blackwoods Road completed in 1939.
CE 1940	Built	Champlain Mountain Road completed in 1940.
CE 1940	Built	Kebo Mountain Road Extension completed in 1940.
CE 1941	Built	A small restroom is built just southwest of the Thunder Hole Ranger Station.
CE 1941	Planned	Master plan in 1941 documents existing conditions and proposed facilities in the park and at Thunder Hole, which shows the parking lot, Ranger Station, and trails.
CE 1941	Built	Day Mountain Road completed in 1941.
CE 1941	Built	Paradise Hill Road completed in 1941.
CE 1942	Abandoned	CCC camps closed in Acadia due to World War II.
CE 1947	Destroyed	Devastating fire burns over 17,128 acres of land on Mount Desert Island (around 11,753 acres of which are currently in the park). It reaches Thunder Hole on October 23.
CE 1951	Built	Day Mountain Road Extension completed in 1951.
CE 1952	Built	Paradise Hill Road bridges completed in 1952 as well as several Access Roads connecting local roads to the motor road system.
CE 1955 - 1957	Altered	Most motor roads repaved with a modern plant-mixed, hot-asphalt bituminous concrete surface treatment, and many shoulders reconditioned.
CE 1958	Built	Bureau of Public Roads Project 4A2 completed in 1958. This represents the final segment of the motor road system.
CE 1958 - 1961	Planned	A vista plan for the motor road system is developed. Thunder Hole is part of a vista that offers ocean views.
CE 1965	Reconstructed	Path system in lower area of Thunder Hole is reconstructed with new walks, walls, steps, and handrails.
CE 1969	Altered	Two-way traffic pattern changed to a one-way flow from north to south along a twelve-mile stretch of the historic motor system, from Sieur de Monts Spring to the intersection of Day Mountain Road, Day Mountain Road Extension, and Stanley Brook Road. This opens up the right lane for parking.
CE 1970 - 1979	Altered	Parking management stones added along portions of the historic motor road system.
CE 1978	Built	New culvert built under parking lot to capture runoff from intermittent stream. Parking lot and access roads are repaved.
CE 1980 - 1989	Altered	In the 1980s, the park loop road, from Kebo Mountain Road to Sieur de Monts Spring, is also converted to one-way traffic.
CE 1989 - 2021	Memorialized	Since 1989, as part of Wabanaki cultural revitalization, some Wabanaki participate in sweat-lodge and other spiritual rituals at various locations on the island. (Prins and McBride 2007: xxv-xxvi)
CE 1990	Altered	The culvert pipe and headwall is replaced at the north entrance of the Thunder Hole parking lot.

Year	Event	Major Event Narrative
CE 1992 - 1993	Reconstructed	The lower area path system is completely reconstructed again. An accessible ramp in the form of a switchback was built in the top half of this area. The remainder of the walk essentially follows the 1965 alignment, but the new walks, steps, and walls are built to better respond to the geology of the surrounding ledges.
CE 1998	Altered	The well cap at Thunder Hole is reconstructed.
CE 1999	Reconstructed	A single unit vault toilet is constructed at the southwest corner of the parking lot.
CE 2001 - 2002	Reconstructed	An accessible ramp, steps, and walks are built in the upper area, replacing the three existing walks and steps built by the CCC.
CE 2000 - 2010	Reconstructed	Stone masonry along lower walkway is repaired due to storm damage.
CE 2003	Reconstructed	Roof of ranger station replaced-in-kind.
CE 2005	Built	Accessible walkway and foundation drains built at ranger station.
CE 2015 - 2017	Rehabilitated	The Ocean Path is rehabilitated. (PEPC 29590, PMIS 160803)
CE 2015	Rehabilitated	The upper section of the Thunder Hole viewing area is repaired and rehabilitated. (PMIS 208491, PEPC 53409)
CE 2017	Rehabilitated	The Thunder Hole parking lot is resurfaced. (PMIS 221605)

Physical History:

INTRODUCTION

The following section provides information on the physical development and evolution of the site, organized by time periods. Development that has occurred since the original CLI was completed in 2012 is summarized under “Updates, 2013-2021.”

FOOTPATHS AND ROADS, PRIOR TO 1922

Native American Settlement:
Native American peoples have inhabited the land now called Maine for 12,000 years. Today four distinct tribes—the Maliseet, Micmac, Passamaquoddy and Penobscot—are known collectively as the Wabanaki, or "People of the Dawnland." Mount Desert Island has been the center of Wabanaki traditional homelands for thousands of years. Long before Europeans arrived, the Wabanaki traveled to the island in seaworthy birchbark canoes, setting up temporary camps near places like Somes Sound – the deep channel that almost splits the island into two halves – to hunt, fish, gather berries, harvest clams, and trade with other Wabanaki. (Acadia NP website)

When Europeans first visited the area just over four centuries ago, Mount Desert Island was seasonally inhabited by no more than a few hundred people. The Etchemin (later called Wabanaki) Indians guiding French explorer Samuel de Champlain in 1604 called the island Pemetic, meaning "range of mountains." Because of its high barren peaks, a prominent coastal landmark for seafarers, Champlain named it Isle des Monts Deserts, "Island of Barren Mountains." Champlain's first encounter with the island's Indians may have taken place near Thunder Hole, at Newport Cove (historically known as Stag Gove), an ideal location for beaching a fleet of bark canoes on Sand Beach and having an eastern lookout from Great Head. (Prins and McBride 2007: i,xv,67-68; CLR 2006: 12)

With epidemics and warfare nearly annihilating the indigenous communities occupying the coastal territories from Mount Desert Island to Cape Cod by the early 1620s, much of this land was largely cleared for European settlement. Having lost most of their relatives and neighbors, Wabanaki survivors joined other decimated groups and restructured their social lives. Their existence was further complicated because of fur trade competition and the French and English claims for land. The Wabanaki's enduring interrelationships and close ties to familiar places in a common ancestral homeland are traceable in the well-known multi-ethnic Indian encampments on Mount Desert Island from the mid-1800s through the early-1900s. (Prins and McBride 2007: ii)

European Settlement:
In 1688 King Louis XIV granted the island to Antoine de la Mothe Cadillac in an effort to establish an outpost of French feudalism, but widespread settlement did not follow due to the continual threat of war between England and France. After the signing of the Treaty of Paris in 1763, the English began to dominate the area and gradually displaced the earlier inhabitants. These new settlers also hunted and fished, but supplemented their livelihood through farming, logging, and especially shipbuilding. This yielded surpluses of fish, lumber, ice, and granite that were traded locally and to distant ports. The Towns of Mount Desert, Eden (later Bar Harbor), Southwest Harbor, Tremont, and Gouldsboro were founded around this time. (MR CLR 2007: 15)

In these early days, old Native American footpaths were used to move goods and supplies, and over time some were widened for use as horse roads and for logging carriages. New roads were also built, ranging from rudimentary roads cut by loggers to public roads built to improve trade, such as a road built in 1777 from Cromwell Cove in Bar Harbor to Sand Beach (north of Thunder Hole, now called Schooner Head Road). By 1827, a toll bridge was built across the Mount Desert Narrows to connect the island and the mainland, and by 1866 there was a road leading to Otter Creek and Otter Cliffs (south of Thunder Hole, now called Otter Creek Road). (MR CLR 2007:16; HT CLR 2006: 24)

The Influence of the Rusticators and the Cottagers:
By the mid-nineteenth century, tourism was beginning to displace the extraction of natural resources as the driving force in the area's economy. This change began in 1844 when Thomas Cole, the leading artist of the Hudson River School, arrived on Mount Desert Island. Cole spent much of his time along the coastlines near his lodgings at Lynam's Homestead at Schooner Head, as well as at Great Head and Otter Cliffs where he painted scenes of the rough ocean, colorful cliffs, and rugged mountains. Cole also explored the interior of the island, climbing Green [Cadillac] Mountain and other peaks to document the vast expanse of water and land. One of Cole's journal entries describes his impressions of the coastal landscape, and offers an indirect reference to Thunder Hole:

"September 3. The ride here to Lynham's [sic] was delightful, affording fine views of Frenchman's Bay on the left, and the lofty peaks of Mount Desert on the right. The mountains rise precipitously—vast bare walls of rock, in some places basaltic appearances. Those near us, I should suppose, were not far from 2000 feet above the sea. The road was exceedingly bad, stoney and overhung with the beech and spruce, and, for miles, without inhabitant. We lost our road too, and came to a romantic place near a mountain gorge, with a deserted house and a piece of meadow. One might easily have fancied himself in the forests of the Alleganies [sic] but for the dull roar of the ocean breaking the stillness. The beaches of this region are remarkably fine. Sand beach is the grandest coast scenery we have yet found. Sand Beach Head, the eastern extremity of Mount Desert Island, is a tremendous overhanging precipice, rising from the ocean, with the surf dashing against it in a frightful manner. The whole coast here is iron bound— threatening crags, and dark caverns in which the sea thunders. (HT CLR 2006: 19-20, citing Noble 1964: 270)

Cole's paintings and writings inspired other artists such as Frederic Church, Thomas Birch, and William Morris Hunt to visit. The island's rich natural resources also attracted the leading scientists of the day. Schooner Head, Otter Cliffs, and a trail around Great Head (Great Head Trail, Trail #2) were thus among the earliest destinations for other artists, scientists, and tourists. (HT CLR 2006: 25)

Although transportation to this part of Maine was difficult at this time, an annual summertime influx of visitors, called the "rusticators," began to descend on the area throughout the 1860s and 1870s. Visitors lodged at private homes or inns, such as the Jordan Pond House, and began using the old lumber roads as walking paths to scenic vistas, particularly those situated above the tree lines of the mountains. Touring the island's rock formations and climbing along the shore, known as "rocking," was also a popular pastime (Figure 1). Many of the rocks were named, including Thunder Cave [Thunder Hole], the name of which first appeared on a map in 1881. (HT CLR 2006: 34,36; Hill 1996: 15)

Walks to the rock formations as well as inland mountains and lakes were described in travel guides for the island written in the 1860s and 1870s. The guidebooks harkened back to the pre–Civil War era of mountain tourism by combining poetry written during this earlier period and frequently emphasizing the visual qualities captured in paintings by Cole and Church. One such writer, Clara Barnes Martin, published her first guide to Mount Desert Island in 1867. In her 1874 guide, she described a route from Newport [Sand] Beach to Otter Creek Road, via Thunder Hole, as "a sort of bridle path" (Ocean Path, Trail #3). (MR CLR 2007: 16-17; HT CLR 2006: 34,36)

The many paintings and writings produced by the rusticators introduced the island to the larger public, and by 1880 Mount Desert Island was being hailed as one of the most beautiful vacation spots in the country. Wealthy visitors seeking relief from hot summers in Boston, New York, and Philadelphia were among the tourists, and many built massive summer homes, euphemistically known as "cottages," in and around Bar Harbor, Seal Harbor, and other towns. (MR CLR 2007: 17)

Construction of Ocean Drive:
In the late nineteenth century, year-round residents on Mount Desert Island began to expand the local road system to serve the growing number of tourists and to encourage them to visit the island's natural wonders. In 1887, the Town of Bar Harbor constructed a road along the eastern shoreline from Sand Beach to Otter Cove. Little is known about its construction, but according to a map by Colby and Stewart, the road likely followed, and perhaps displaced, the route of the old bridle path (#3). The road connected Schooner Head Road and Otter Creek Road, and made possible a convenient loop back to Bar Harbor via the Gorge between Newport [Champlain] and Dry [Dorr] Mountains. According to M.F. Sweetster in 1888, this road "provided remarkable views of marine scenery." (MR CLR 2007: 17,28; Hill 1996: 119, 124, citing Chisolm's Mount Desert Guidebook, M.F. Sweetster, 1888; CLI review comments, Becky Cole-Will)

The first use of the name Ocean Drive to describe the new town road came in a written account from 1892, from W.H. Sherman:
"The Ocean Drive is one of the grandest shore roads on the island. Here the visitor has a remarkable ocean view. The road leads southward from the village, entering the woods at Schooner Head…then

on past Great Head and Thunder Cave to Otter Cliffs Road. On one side of the road tower the Peak of Otter (Gorham Mountain) and Newport (Champlain) Mountain, the sides overgrown with noble forests of pine and spruce; while on the other is a grand battlement of cliffs. In some places the road runs down close to the water's edge; in others it winds along the edge of the precipice, and the base of which, hundreds [scores] of feet below, the ocean is beating and throbbing continually. Nothing but sea meets the eye eastward; but what a sea." (Hill 1996: 121, from Sherman's Guide to Bar Harbor, W.H. Sherman, 1892.)

The road first appeared on a map in 1893 but was unnamed. In 1896, both Ocean Drive and Thunder Hole were labeled on a map (Figure 2). Thunder Hole was clearly a destination by this point, accessible by a road and trail (#3). There are later references to "an old parapet at Thunder Hole," but it is unclear if this was a structure associated with the road or the trail, or perhaps a natural feature of the rocky shoreline. In 1906, another trail (#345) was built, connecting Thunder Hole to Cadillac Cliffs to the southwest. Sometime in the early 1900s, portions of the road were lined with large stones set in the shoulder that served as guardwalls (Figure 3). (HT CLR: 2006: 46,49,89,91; MR CLR 2007: 43)

Village Improvement Groups, the Trustees for Public Reservations, and the National Monument: Increases in tourism and land development on Mount Desert Island were paralleled by organized actions aimed at bettering public amenities and preserving the area's natural beauty. This effort began in earnest in the 1880s with the establishment of local village associations and societies that improved the appearance of public areas in and around the island's towns. One group was the Bar Harbor Village Improvement Association (VIA), formed in 1881 and incorporated in March 1891. Initially, the group was comprised primarily of summer residents but eventually grew to include year round residents, especially those with business interests. In 1892, the Bar Harbor VIA created a committee specifically for roads and paths: "to examine and report upon the condition of the roads, paths, sidewalks and sign posts and to make recommendations…for the improvement of the same. (MR CLR 2007: 18; HT CLR 2006: 42-43)

The success of the Bar Harbor VIA led to the incorporation of the improvement groups in Northeast Harbor, Seal Harbor, and Southwest Harbor. Unlike other improvement groups that sprang up across the country during this period, these four groups extended their work beyond village centers, across the island through the work of their roads and paths committees. The groups worked cooperatively through a Joint Path Committee, and their combined efforts led to the construction and maintenance of approximately 250 miles of recreational walking paths. Some trails were endowed by association members, and received continued maintenance funding as well as commemorative markers. (HT CLR 2006: 43)

Throughout the country, the acquisition of land for preservation was deemed a worthwhile goal of village improvement groups. On Mount Desert Island, there was a growing concern among the summer residents that the island's natural resources were being squandered not only by the developers buying up huge tracts of land, but also from lumbering, which locally had been made increasingly profitable through the introduction of portable saw mills. In 1895, the Roads and Paths Committee recommended its members donate or purchase parcels so that the trails and scenic vistas could be protected and preserved from developers and loggers. (MR CLR 2007: 18)

These calls to action did not have a great impact until 1901 when two summer residents, George Bucknam Dorr, a founding member of the Bar Harbor VIA, and Charles W. Eliot, president of Harvard University, gathered a group of residents to form the Hancock County Trustees of Public Reservations. Their mission was to acquire land parcels on the island, mainly to protect the local water supply while at the same time preserve walking paths and scenic vistas. In 1903 the Trustees were incorporated and given tax-exempt status by the state. In 1908, on behalf of the Trustees, Dorr helped facilitate acquisition of 85 acres of the Green [Cadillac] Mountain summit area, and in 1909 purchased Boiling Spring at the Gorge where a bottle works had once stood, and surrounding lands in what would become Great Meadow. Naming the ten-acre parcel Sieur de Monts Spring, Dorr built a spring house and an Italian Renaissance style canopy structure over the spring to enable visitors to see the source of water. (MR CLR 2007: 18)

By 1913, the Trustees had preserved over 5,000 acres on Mount Desert Island. However, the organization had its share of critics who argued against removing large tracts of land from the tax rolls and possibly discouraging development and commerce. Given the Trustees political vulnerability, Dorr argued that to protect the lands for all time the Trustees should seek federal assistance. At the time, however, there were several bills stalled in Congress proposing establishment of national parks. Dorr asked President Wilson to instead make these lands part of a national monument, which did not require an act of Congress. After much lobbying and title searches, Sieur de Monts National Monument was authorized on July 8, 1916. At this time, the Trustee's reservation had grown to over 6,000 acres protecting four lakes and ten mountains, with a contiguous boundary superimposed over a mosaic of donated lands with extant features. By October of that year, Dorr, as the monument's first superintendent, reported that 105,255 tourists and 15,361 automobiles had visited the park. Ocean Drive and the Thunder Hole area were not included in the boundaries of the park at this time, as they were still owned by the Town of Bar Harbor. (MR CLR 2007: 19)

Automobile Restrictions:
The fact that automobiles had entered Sieur de Monts National Monument was remarkable in itself because of the often contentious battle over automobiles that had strained the relationship between the year-round residents and the summer residents for years prior to the monument's establishment. The automobile question was essentially a referendum on road building on the island; the year-round residents saw the roads as a pipeline for economic opportunity because they accommodated tourists and summer residents, while the summer residents viewed the roads as a threat to the reasons they came there in the first place-- the island's isolated natural beauty. In 1903, the cottagers successfully lobbied the state legislators to give town voters the power to prohibit cars on the island. The cottagers won the vote to restrict cars from selected roads near Bar Harbor (it is not known if this included Ocean Drive) and in 1909 were able to extend the ban throughout the island. Year-round residents protested the ban on economic and democratic grounds. George Dorr was able to promote a compromise lifting the vehicle prohibition in Bar Harbor, the economic hub of the island, but maintaining it in other exclusive towns. By 1913, however, automobiles were ubiquitous and the prohibition of cars had been lifted. (MR CLR 2007: 19)

John D. Rockefeller's Carriage Roads:
Having recently bought his 150-acre estate named "Eyrie," in Seal Harbor, summer resident John D. Rockefeller, Jr. was troubled at the repeal of the automobile ban and concerned that more cars would threaten the area's tranquility. Rockefeller shared his concerns about automobiles in 1915 when he donated money to the Trustees to complete the required title searches for the national monument. According to historian Neil Maher, it was the presence of cars that inspired Rockefeller to begin construction of carriage roads, first at Eyrie and then eventually on lands held by the Trustees or owned by the park. (MR CLR 2007: 20; HAER No. ME-11 1995: 15,17)

Rockefeller's keen interest in road building can be traced to his father and the carriage road system at Forest Hill, his childhood home in Cleveland. Rockefeller often performed some of the maintenance on the roads, resurfacing, clearing brush, and planting trees. Later, at the family estate at Pocantico Hills north of New York City, he helped lay out the carriage roads along the contours of the land and sought out views that reflected what he thought were the best scenic highlights. Young Rockefeller was also influenced by family excursions to the recently completed Central Park in the 1870s. There, carriage paths designed by Frederick Law Olmsted and Calvert Vaux offered uninterrupted carriage riding thanks to the ban of omnibuses, hacks, and railroads from the drives and the diversion of city traffic to sunken roads cutting across the park. (MR CLR 2007: 20)

The technical challenges of building carriage roads on Mount Desert Island were too great for Rockefeller to ignore. Sparing no expense, he enlisted the services of the best engineers, architects, and designers, many of whom worked with him at Pocantico Hills. Construction began in 1913, and in 1918 Rockefeller received approval to extend the carriage roads onto national monument lands. When building carriage roads on federal property, Rockefeller typically chose the route, provided funds for the engineering and construction, and prepared contract documents for Superintendent Dorr 's signature. (MR CLR 2007: 20-21)

Rockefeller's attention to detail resulted in carriage roads that excelled in their Picturesque style design and craftsmanship. State of the art construction techniques were used to build the roads with gentle curves and grades that fit the topography, and which also took advantage of the scenic views. For the park, distinctive features such as rustic stone-faced arched bridges, hand laid rock walls and embankments, large coping stones serving as guardwalls, and gatehouses designed in the French Norman Revival style ultimately had a profound effect on the design and character of future park developments, including the future reconstruction of Ocean Drive and the development of facilities at Thunder Hole. For the local economy, the new construction provided year-round work for a number of islanders through the Depression. When the last segment was completed in 1940, the carriage road system totaled fifty-seven miles in length. (MR CLR 2007: 21)

Lafayette National Park:
The National Park Service (NPS) was established in 1916, the same year that Sieur de Monts National Monument was established. Primarily because of George Dorr's dedication and tireless promotion, the national monument was later reauthorized as Lafayette National Park in 1919, so named to honor the island's colonial heritage. The park was the first national park east of Mississippi River and the only park in the country created solely from donations of private land. (MR CLR 2007: 21)



Figure 1. An undated postcard of "rocking" at Thunder Hole. Note the pulley and cable crossing a chasm next to Thunder Hole, as well as the absence of any paths. There is no historical reference to the pulley. (Acadia NP Archives)

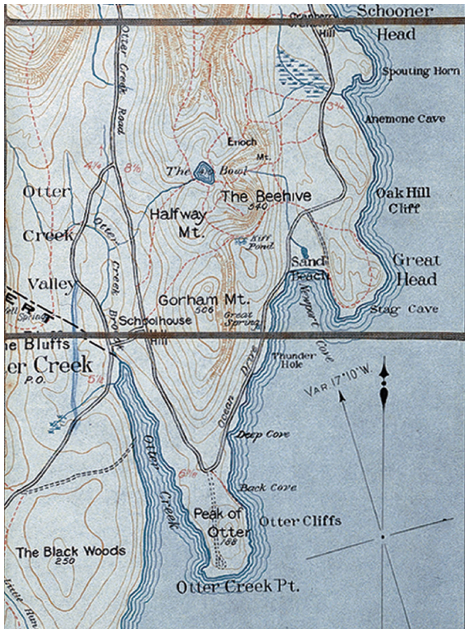


Figure 2. Thunder Hole and Ocean Drive were identified on an 1896 path map of Mount Desert Island by Bates, Rand, Jacques. (Pathmakers, Cultural Landscape Report for the Historic Hiking Trail System of Mount Desert Island--hereafter HT CLR--2006: 49)



Figure 3. View looking south towards Otter Point along Ocean Drive, c.1928. The Ocean Path (#3) is not clearly visible; it may have shared the road in this area. (Cultural Landscape Report for the Historic Motor Road System--hereafter MR CLR--2007: 88)

PLANNING AND CONSTRUCTING THE HISTORIC MOTOR ROAD SYSTEM, 1922-1933

Initial Road Plans and the Agreement with the Bureau of Public Roads:
NPS Director Stephen Mather was a strong advocate of roads in the national parks, and had long recognized that the "greatest flow of tourist gold" followed the routes of improved highways. In 1922, Mather instructed Superintendent Dorr and all national park superintendents to prepare maps, estimates, and other data concerning proposed road projects. These were to be packaged and submitted to Congress as part of a general roads construction program in the national parks aimed at bolstering chances of obtaining funds, which up to this time had been minimal. Finally, by 1924 Congress authorized $7,500,000 for road construction in the national parks. (MR CLR 2007:21-22)

To make certain the overall visual and ecological effect of road construction would be minimized and effectively harmonize with the natural environment, Mather required the development of design standards and arranged for careful construction supervision. Mather also worried that the major road construction projects made possible by the large appropriation might cause unnecessary damage to scenery and that the varied skill levels of NPS engineers and different approaches to road building would hinder the agency's ability to manage such projects. Mather's solution was to establish an interbureau agreement with Department of Agriculture's Bureau of Public Roads (BPR) in January 1926, in which the BPR would undertake surveys, develop specifications, and supervise construction while NPS engineers and landscape architects would undertake the planning and review. (MR CLR 2007: 22; from NPS "1925 Annual Report," as cited in MPDF 2007: E75)

Rockefeller's Role in Construction of the First Motor Road:
Fulfilling Director Mather's road project request of 1922, Superintendent Dorr drew up a plan for a motor road stretching from Eagle Lake Road (Route 233), alongside Eagle Lake and Jordan Pond, to the Jordan Pond Tea House, a popular island eatery since 1896. The "Mountain Road," as it became known, echoed a route proposed much earlier, in 1888. According to Dorr, such a road was necessary "to enable our rangers to pass readily between the northern and southern sides of our mountain range, for wildlife and woods protection." The plan also called for a route to the top of Cadillac Mountain and a variety of trails. (MR CLR 2007: 23; from Butcher, "Carriage Roads and Bridges…" as cited in HAER No. ME-11 1995: 20)

Predictably, Rockefeller took great interest in Dorr's idea, both from a road-building point of view but also as a way to counter his automobile nemesis. Ever since he began constructing carriage roads around the "Eyrie," motorists had attempted, and usually succeeded, in driving on them. This practice only grew worse after he donated many of the carriage roads to the park. Rockefeller was also alarmed that motorists were pressuring park officials to officially open the carriage roads to cars. The motor roads, he thought, would keep the automobiles off his prized carriage roads. (MR CLR 2007: 23)

Rockefeller and Dorr were well acquainted through the planning and construction of the carriage roads. The two men, along with Charles W. Eliot of the Trustees, agreed that automobiles were not a passing fashion and that their presence and access to park roads needed to be carefully controlled. While Rockefeller wished the motor roads to be as scenic as the carriage roads, he also desired them to be independent of the carriage roads through bridges, grade separations, and gatehouses so that the distinctiveness of both systems could be maintained, much like the circulation systems in New York City's Central Park. Wishing to ensure that if any road was to be built that it be built well, Rockefeller offered the services of Paul Simpson and Walters Hill, his carriage road engineering and surveying team. (CLR 2007: 23)

In June 1922, Director Mather and Assistant Director Cammerer visited the park to discuss Dorr's road plans. Cammerer's trip report noted the scenic qualities of the proposed motor roads, and focused on the desirability of having them in place as a barrier to wildfire as well as making the park's scenery accessible to the typical citizen. Both motor roads in Dorr's plan were approved, with Cammerer emphasizing that the plan should be kept confidential to avoid inflation of land values. Rockefeller had received a copy of the map of the proposed route, but as Dorr had expressed doubts that enough public funding would be approved, he then composed a letter of financial commitment to the project. Thus, Rockefeller formally began his involvement with the creation of Acadia's historic motor road system and ultimately pledged $150,000 to compensate for insufficient funding from the federal government. (MR CLR 2007: 24)

Construction of the first 0.8-mile-long section of the Jordan Pond/Eagle Lake Road began in the fall of 1922, and was completed in September 1923. However, even before it was finished, opposition surfaced from summer residents on Mount Desert Island, led by Pennsylvania Senator and Northeast Harbor resident, George Wharton Pepper. In January 1924, Pepper voiced his concerns to Secretary of the Interior Hubert Work, convincing him to issue a temporary injunction halting construction, pending a public hearing that was scheduled for March 26, 1924. In the interim other summer residents spoke out against the two motor roads and a perceived threat to the wilderness quality of the backcountry regions through which the motor roads would travel. At the hearing in Washington D.C., Rockefeller and Dorr rallied enough support to lift the injunction, mainly due to the broad support of the year-round residents, the Maine congressional delegation, and through personal testimonies and written letters from influential road proponents such as Charles W. Eliot. The hearing did, however, heighten the concern for the motor road's impact on the surrounding landscape, and when construction of the next section of was resumed, more attention was given to minimize construction scars. (MR CLR 2007: 24-26)

Jordan Pond/Eagle Lake Road was completed by 1927 and paved in 1928. Cadillac Mountain Road was begun in 1924, soon after the hearings, but did not begin in earnest until 1928 through the agreement with the BPR. It was completed in 1931. Both roads featured drainage systems with stone headwalls and box culverts, and guardwalls made of large granite boulders like those used on the carriage roads and along Ocean Drive. (MR CLR 2007: 24-26)

NPS Rustic Design and the 1927 Park Master Plan:
By the end of the 1920s, planning, design, and construction of park facilities throughout the NPS became increasingly standardized. Projects were characterized by the emerging NPS Rustic Design style, which derived from the Picturesque style in landscape design, the "wilderness" qualities of the early parks, and the Prairie style emphasis on native plants. Features constructed in NPS Rustic Design utilized labor-intensive methods to create a rugged and frontier-like quality appropriate to a wilderness setting. General standards were developed, but they allowed flexibility so that features could be customized with local materials such as stone or timber to fit the setting. (MR CLR 2007: 26-

27)

Lafayette National Park was unique because it was located adjacent to communities with an established infrastructure and summer tourism industry, and its development and boundaries had been mostly shaped by private interests. Park projects were guided by the Picturesque style traditions already established, and this was continued through the use of the NPS Rustic Design style that allowed for such integration. The park's first master plan, completed in 1927, reflected this complex relationship. In addressing increasing visitation, which was 70,000 a year in mid-1920s, the master plan proposed a general development scheme that included the "essential extensions of the park, plans for roads and trails, utility sites, and other developments," illustrating that present and future construction projects were part of an overall plan. (MR CLR 2007: 27)

The 1927 master plan supported the nearly completed Jordan Pond/Eagle Lake Road along with the recently approved Cadillac Mountain Road project. Chief NPS Landscape Engineer Thomas Vint and Assistant Director Cammerer reviewed and approved the plan, and in a memorandum to Secretary Work remarked that normal objections to road construction in wilderness areas did not apply to Lafayette National Park because the Mount Desert Island landscape had existing wagon roads and had been logged for years. The memorandum went on to state that roads in national parks provided access to areas that would otherwise be unreachable except by "the most strenuous of exertions" and that roads could serve a public that by and large "…(did) not desire walking trips over rugged territory or strenuous climb." The plan also acknowledged the well-designed hiking trail system that was developed and maintained through private funds in collaboration with village improvement societies. (MR CLR 2007:27-28; from Cammerer and Vint, "Memorandum on a Development Plan…," as cited in MPDF 2007: E31,63,65)

Not surprisingly, proposals made in the 1927 master plan met some resistance. Earlier, in 1926, a group of summer residents, still stung by their defeat in the 1924 hearings, hired landscape architect Charles W. Eliot II to work on an alternative park development plan. Eliot II was a summer resident on Mount Desert Island and grandson of Trustees founder Charles W. Eliot. The plan, "The Future of Mount Desert Island," was published in 1928, and proposed doubling the acreage proposed in the master plan and establishing ten "wilderness zones" that would be separate from developed areas. Eliot wrote, "the introduction of large scale man-made objects such as buildings, roads, etc., should be avoided as far as possible." As for the motor roads, he felt the existing system, including the proposed Cadillac Mountain Road, was sufficient and that the best way to take in the scenery was by walking on the trails and footpaths. The park did not adopt Eliot's plan. (MR CLR 2007: 28; from Eliot, "The Future of Mount Desert Island," as cited in HAER No. ME-11 1995: 24)

The 1927 master plan served as the foundation for many of the projects completed in the park from 1928-1940. However, it did not specifically address the Thunder Hole area because it was still owned by the Town of Bar Harbor. In 1929, Lafayette National Park was renamed Acadia National Park. Significantly, the legislation authorized the expansion of park acreage through donations but gave no power to purchase additional lands. (MR CLR 2007: 28)

Ocean Drive Demonstration Project:
By the summer of 1929, with his interest in motor roads in Acadia National Park continuing to grow, Rockefeller embarked on a small project along Ocean Drive to demonstrate what a reconstruction of the entire length of Ocean Drive could become. Supported by funding from the Town of Bar Harbor through a $2,000 grant from the State of Maine, Rockefeller directed his engineers and construction crews to reconstruct a 500-foot section of Ocean Drive at Thunder Hole. The completed road was 24 feet wide, with 2-foot shoulders that could accommodate the parking of cars along the west side. The road section also featured rubble-lined ditches, stone drop inlets and reinforced concrete pipes with stone headwalls, and guardwall stones that continued the use of the existing stones already present along Ocean Drive and also used on Jordan Pond/Eagle Lake Road and the carriage roads. The Ocean Path (#3) allowed townspeople and visitors to observe the demonstration section and the ocean views, undoubtedly making Thunder Hole an even more popular destination. The demonstration section was completed in the late summer of 1929. (MR CLR 2007:28)

Rockefeller's Comprehensive Motor Road Plan:

With the Ocean Drive demonstration section complete, construction of Cadillac Mountain Road underway, and the Jordan Pond/Eagle Lake Road almost two years old, Rockefeller became a leading proponent of the automobile in the park. His earlier idea of a limited number of motor roads separate from his carriage roads expanded into a much larger motor road system of scenic roadways taking motorists from the mountaintops to the coasts. In order to control how his vision might be realized, Rockefeller proposed that he assume the costs associated with its construction. His change of heart toward automobiles may have come in light of the success of the demonstration project and the good effect of his sponsorship of roadside improvements and landscaping in Yellowstone National Park. (MR CLR 2007: 32)

In August 1929, Rockefeller hired the Kidde Construction Company of New York City as a consultant to study the possible routes for the motor road system he had in mind, which would connect the Jordan Pond/Eagle Lake Road to the ocean views on the eastern shore of the island (Ocean Drive). A month later, Rockefeller also brought in the expertise of the Olmsted Brothers, a landscape architectural firm based in Brookline, Massachusetts. The Olmsted firm's services were initially solicited to settle a dispute between Superintendent Dorr and Rockefeller about the location of a new motor road and entrance road in the vicinity of the Sieur de Monts Spring area. (MR CLR 2007: 32-33)

In 1930, after almost a year of study, collaborating with engineers Hill and Simpson through the Kidde Construction Company, and correspondence on the matter of the expanded Motor Road System, Frederick Law Olmsted, Jr. prepared a lengthy report to sum up the conclusions of the firm's planning effort and a proposed 14-mile circuit route (Figure 4). Olmsted noted:
"…that the use of motor cars is, with all of its limitations and drawbacks, one of the important means of enabling people to enjoy such a region and tends to be used for more "man-hours" of enjoyment than any other one means, regardless of any one's opinion of relative human values..." (MR CLR 2007: 35, citing Frederick Law Olmsted Jr. to John D. Rockefeller, Jr., 11 July 1930, Rockefeller Family Archives, Homes, box 124, folder 137).

The Thunder Hole demonstration project, as well as the entirety of Ocean Drive from Sand Beach to Otter Cliffs, was included in the proposal. The Ocean Drive route would follow essentially the same line as the existing town road, although some minor changes in alignment would be necessary. Olmsted recommended that the reconstructed road not be widened to the same width as the demonstration segment at Thunder Hole. The route was also contingent on the Town of Bar Harbor turning over this drive and the adjacent lands to park, via Rockefeller (Figure 5). (MR CLR 2007: 34; Drawing, ACAD 123-60124, 1930)

News of Rockefeller's plan, which would cost him around $4 million dollars, received a favorable response from the NPS. When made public in late September 1930, it was announced that the project would employ 500 men for three years, a significant number as the country was in the midst of the Great Depression. The headlines, however, caught the residents of Mount Desert Island off guard, as Superintendent Dorr had been reticent about the road planning effort. Generally, the wealthy summer residents were opposed to it, especially the proposed route through the Tarn and Sieur de Monts Spring. Rockefeller, Dorr, and Olmsted were repeatedly criticized in editorials, and letters sent to the Secretary of the Interior Ray Wilbur insisting that he refuse Rockefeller's offer. Others landowners simply said they would not sell their land to make the project possible. The year-round residents, it should be noted, were generally in favor of the road plan, especially the Bar Harbor Board of Trade that recognized the important economic link between the town economy and the tourist dollars the proposed motor roads would bring. (MR CLR 2007: 35-39)

In January 1931, Rockefeller informed NPS Director Horace Albright of his intentions to retract his offer due to the overwhelming criticism. In a letter to the communities of Mount Desert Island he wrote: "I have no desire to be put in the position of forcing on upon even a small minority of the people who frequent Mount Desert Island something they do not want." (MR CLR 2007: 35-37; from "Rockefeller Moves to Withdrawal Offer…," 28 January 1931, as cited in HAER No. ME-11 1995: 29-30)

Town Sells Ocean Drive to Park:

Despite Rockefeller's withdrawal of the offer, in March 1931 the Town of Bar Harbor voted to abandon their ownership interest in Ocean Drive, fulfilling a precondition to the commencement of Rockefeller's road program. Going one step further, town officials passed a resolution appealing to Rockefeller that he reconsider his decision. Similar appeals were also tendered by the NPS, and in May 1931 Rockefeller agreed to let his request for release from the motor road project to "lie on the table" for the period of one year. During this period, the leadership of the Department of the Interior advanced several projects that would enable the road program to be resumed. One such task involved sorting through the legal details of the Town of Bar Harbor's abandonment of Ocean Drive, which were being worked out in close consultation with Rockefeller and the NPS (the land transferred to Rockefeller, then Rockefeller deeded it to the NPS). Rockefeller also sought out the Olmsted firm's services for the reconstruction of Ocean Drive, with the assistance of his engineers Hill and Simpson. (MR CLR 2007: 39-40)

The Road Program Begins:
In early 1933, Secretary Wilbur, of the outgoing Hoover Administration, was making plans for his political retirement. Rockefeller was anxious to have some agreement on paper as to the planning and execution of the Motor Road System before Wilbur's departure. At the same time, he did not want to appear too eager, as his enthusiasm for road building had been the source of so much controversy. Rockefeller's solution was to draft a letter for Wilbur's signature where the Secretary would appear to approach Rockefeller with a proposed understanding of the responsibilities of the parties involved. Wilbur's acceptance and return of this draft effectively took the road program "off the table" and allowed construction to proceed. (MR CLR 2007: 41)

The year 1933 thus became a watershed year for the motor road program at Acadia National Park. All approvals necessary to begin Rockefeller's plan, meeting with so much controversy in 1930, had finally been secured. As much as anything else, the deepening Great Depression eliminated the vocal opposition to the multi-million dollar building project. In its worst period, the Depression left fifteen million people out of work, and economies based on tourism, like those at Mount Desert Island, were hit hard as Americans simply went without vacations and eliminated leisure time expenses. (MR CLR 2007: 42)

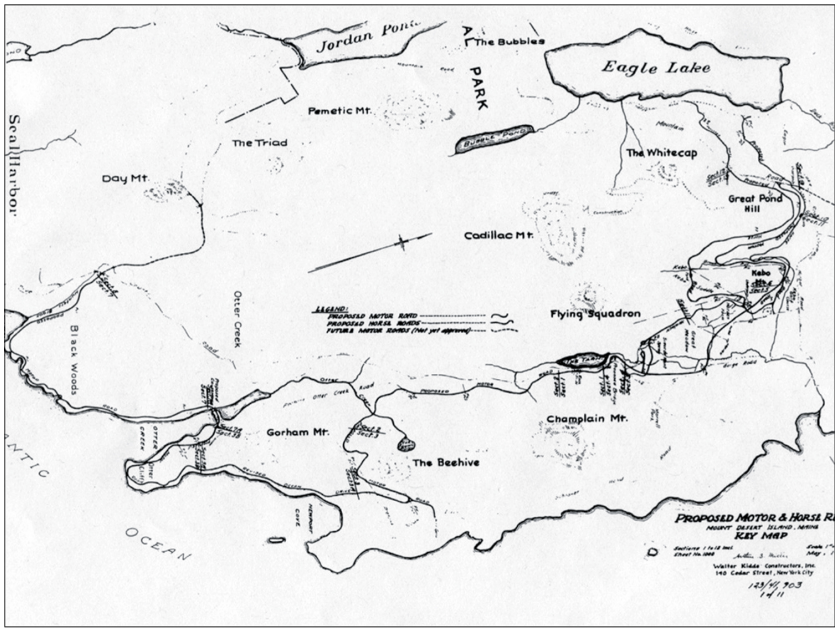


Figure 4. Key map of Rockefeller's motor road proposal by the Kidde Construction Company, 1931. Ocean Drive is at lower left. (National Park Service, Denver Service Center Microfilm Collection)

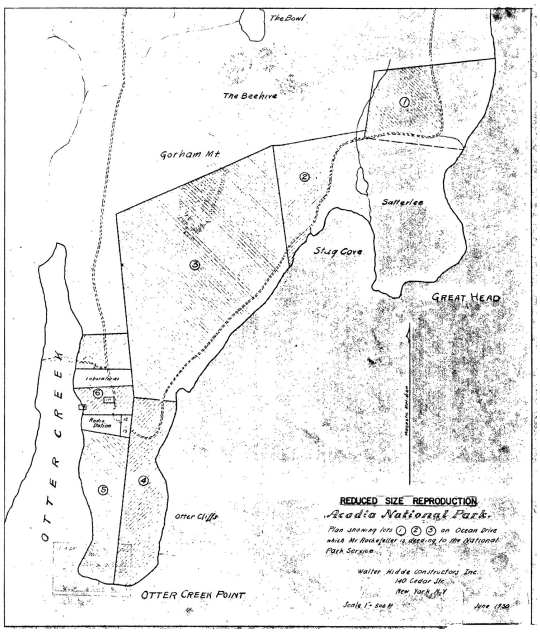


Figure 5. Plan showing the parcels along Ocean Drive that Rockefeller would later deed to the park. Thunder Hole is located in Parcel 3. (Denver Service Center, ACAD 123-60124, 1930)

PLANNING AND CONSTRUCTING THE HISTORIC MOTOR ROAD SYSTEM, 1933-1958

Reconstruction of Ocean Drive and Construction of the Thunder Hole Parking Lot:
During 1933, there was much progress on Rockefeller's proposed motor road system. Perhaps one of the biggest changes came about in early that year when engineers Hill and Simpson were conducting a preliminary survey of a possible route around the north end of Champlain Mountain. This route was preferable to the controversial route through the gorge at the Tarn and over Gorham Mountain because it was shorter in length and less expensive. Rockefeller had avoided it until this time because he thought it impossible to obtain land for the alignment from the wealthy summer residents along Schooner Head Road. However, thanks to the previous years of advanced planning, the reconstruction of Ocean Drive was well ahead of this project and was ready to begin in April 1933. (MR CLR 2007: 41-42)

The segment of Ocean Drive to be reconstructed first was the section running south from the Thunder Hole Demonstration Section, completed in 1929, to the surveyed line for the Otter Cliffs segment. This section was completed by August 1933. Work then began on the segment of Ocean Drive extending north from Thunder Hole Demonstration Section to Sand Beach and the neighboring Satterlee property at Great Head, which was completed in August 1934 (Figure 6). (MR CLR 2007: 43)

As noted earlier, Olmsted took care in his correspondence with Rockefeller and Hill to avoid what he perceived as errors in the Thunder Hole Demonstration Segment. In his report from July 1930, Olmsted had described this segment as being too wide. Although no cross-section documents survive for the demonstration section, Hill described its cross-section, and the new proposed cross-section, to Rockefeller in a letter:
"In answer to your letter of the 25th: You asked if it is the plan to make the road on the Ocean Drive the same width and general character throughout as the stretch previously built at Thunder Hole. My understanding of Mr. Olmsted's cross sections call for an 18' traveled way with a 2' shoulder of fairly good earth material, making a grass border on each side. But on the curve at Monument Cove (south of Thunder Hole) he has widened to a 24' travel way and on the small curve south of that he has widened to a 20' way, still keeping the two foot soft earth shoulder."

"On the section previously built at Thunder Hole we started with a 24' travel way, a one foot hard shoulder on the west and a 2' hard shoulder on the east side. When we put the hard top surface on we topped both shoulders as well as the travel way, and we also found that we had a lot of water in the ditch at times so we oiled that as well, and I have noticed that about all the parking has been done using the ditch as well as the road. This really gives a 32' roadway on that section." (MR CLR 2007: 43, citing Walters Hill to John D. Rockefeller, Jr., July 1933, Olmsted Papers)

Olmsted later confirmed Hill's account of the two cross-sections, but emphasized that there was to be no "topped ditch" in the new cross-section. (MR CLR 2007: 43, citing Memorandum from Olmsted Bros. Landscape Architects to John D. Rockefeller, Jr., 11 April 1933, Olmsted Papers.)

As to the informal widenings that Olmsted and Hill were busy laying out on the curves of the southern section of Ocean Drive, Rockefeller added his own emphatic instructions:
"Dear Mr. Hill: Mr. Olmsted tells me that any questions in connection with the southern section of the Ocean Drive which you brought up were settled satisfactorily during his recent visit. I find on talking with him that he had forgotten our agreement not to have any more parking places provided along the edge of the road south of the Thunder Hole, but rather to provide such spaces off the road under the trees at various convenient and available intervals. Even if parking along the road does not block the road, it so seriously detracts from the beauty of the ocean view that it seems to me greatly to be deplored. I thought it was clear in your mind that no more roadside parking provision was contemplated."

"Upon learning of this misunderstanding, I at once communicated with Mr. Ralston and asked him to stop construction on any roadside parking places. Mr. Olmsted will try to go to Maine for a day or two in the not distant future and locate with you appropriate interior parking places. When this is done, work thereon can be undertaken without delay, unless it interferes with traffic... (MR CLR 2007: 44, citing John D. Rockefeller, Jr. to Walters Hill, 26 June 1933, Rockefeller Family Archives, Homes, box 127, folder 123.)

Hill immediately ordered that the roadside parking spaces be obliterated. When Olmsted arrived three weeks later, he found:
"enlarged round place, for turning and stopping to see the view, just south of cove, where the old cemented granite parapet borders the road, had been graded when Rockefeller's communication had been received, but Hill had loamed the area over and sprinkled it with hunks of weathered granite to keep automobiles out and partly planted. (MR CLR 2007: 44, citing Intra-Office Trip Report, 11-12 July 1933, Olmsted Papers.)

Five new parking lots were designed to offer an alternative to roadside parking alongside the west side of Ocean Drive, including one just opposite Thunder Hole, while a sixth parking lot was built on the east side of the road at Sand Beach out of the old Ocean Drive roadbed (see Figure 6). The Thunder Hole parking lot featured a rectangular layout set back from the road about fifty feet. Parallel parking spaces were provided on each long side of the lot and accessed from Ocean Drive by two short access roads. Trees were retained on the slope between the parking lot and the drive. The addition of the parking lot thus created two distinct areas—upper and lower—at Thunder Hole. In March 1934, bituminous surface treatment was applied to all of the parking lots. (MR CLR 2007: 44)

Olmsted also advised Rockefeller on the layout of Thunder Hole's "pedestrian concourse" and on minor changes to the sidewalk curbing next to the old parapet at Thunder Hole (the location of this parapet is unknown). The concourse may have been a reference to the walks around Thunder Hole itself, walks between Thunder Hole and the parking lot, or the walk along the east side of the parking lot. Unfortunately, no detailed drawings of the area from this time period have been found. (MR CLR 2007: 44)

The New Deal and the Civilian Conservation Corps:
Beginning in 1933, the Roosevelt administration's "New Deal" make-work programs were passed into law as an effort to stop the downward spiral of the nation's economy during the Great Depression. The New Deal provided money and labor to the NPS, mostly through the Public Works Administration and the Emergency Conservation Works Act. The New Deal affected the physical development of national parks more than any other single political, economic, or social force. (MR CLR 2007: 42)

One of the New Deal's work relief programs was the Civilian Conservation Corps (CCC), which was comprised of unemployed young men who performed "Emergency Conservation Work." Aware of the opportunity that the CCC presented to the development of Acadia's facilities, Rockefeller and Superintendent Dorr took steps to obtain the greatest benefit from the availability of that labor. Two CCC camps were located within the park, and Camp NP-1 in particular at McFarland Hill, was involved in many work projects from 1933 until 1942 when the program was ended with the outbreak of World War II. In addition to trail and landscaping work, the CCC fabricated many of the site details for the motor roads such as granite curbs, wood gates and fences, and signs. (MR CLR 2007: 42)

Reconstruction of the Ocean Path (#3) and CCC Site Work at Thunder Hole:
NPS work projects for the CCC were prepared by each park's superintendent and submitted to Acting NPS Director A.E. Demaray for approval. Ideally, projects to be carried out by the CCC were in accordance with the park master plans. Acadia had prepared such plans in 1927 and 1932, and would again in 1935 and 1941 due to the park's constantly expanding boundaries and the degree of local involvement. Superintendent Dorr had extensive lists of project proposals, many of which came from his personal vision for the park. As part of the 1932 development plan, Dorr recommended that "the principal work on trails would be improving existing trails especially where stepping stones are needed and...a continuing construction appropriation of perhaps $5,000 a year for reconstruction." One of the projects recommended by Dorr was to rebuild the Ocean Path (#3) in cooperation with Rockefeller's reconstruction of Ocean Drive. (HT CLR 2006: 123, citing "Notes Dictated by Mr. Taylor" (Dorr's ideas as interpreted by Mr. Taylor), September 15, 1932, NPS Boston Support Office National Register files)

CCC records describe relocation and reconstruction of the Ocean Path. Work was completed in three sections between 1933 and 1937: (1) from Sand Beach to the north end of Otter Cliff (3,000 ft

with 1,000 feet of connector paths); (2) along Otter Cliff s (1,500 feet); and (3) around Otter Point (3,000 feet). New path construction included stone steps, retaining walls, gravel surface, coping stones, and the addition of fill and plantings between the road and trail. Rock tree wells were built to preserve existing trees where the grade changed. Historic images and correspondences indicate that some of the work in the Thunder Hole vicinity occurred during 1933 and 1934 (Figure 7). (HT CLR 2006: 130,147)

The trail and motor road projects proceeded simultaneously as planned, and the two sets of workers shared construction materials, with excess debris from the road used on the trail. Initially, the quality of the work on the trail had some shortcomings, so Rockefeller wrote to NPS Director Arno Cammerer recommending a young talented landscape architect by the name of Benjamin Breeze be appointed to direct the project. Breeze was apparently a good choice; according to S.F. Ralston, Rockefeller's supervisor at Seal Harbor, "the [CCC] laborers…are doing much better than when I last wrote you and are taking care of our surplus material as fast as we can deliver it." (MR CLR 2007: 44 -45, from HAER No. ME-11 1995: 36 citing S.F. Ralston to John D. Rockefeller, Jr., 26 November 1933)

The CCC installed granite curbs in the parking lots along Ocean Drive and erected park signs that resembled local island sign posts. At Thunder Hole, pink granite curbing and a sidewalk were built along the east side of the parking lot. The CCC also installed protective hand railings along the south side of the ledge overlooking Thunder Hole itself, which were comprised of metal posts and two railings made of rope or thick wire (Figure 8). The CCC presumably built a switchback path and two sets of stone steps leading down to the Thunder Hole from Ocean Path (#3) and Ocean Drive as well as three separate walks and steps leading to the parking lot (Figures 9 and 10). The steps in both areas featured rough cut granite of varying widths and lengths. Later trail maps also indicate that the trailhead for the Cadillac Cliffs to Thunder Hole Trail (#345) was on the west side of the parking lot around this time. However, sometime between 1937 and 1968 this trail was abandoned. (HAER No. ME-11 1995: 36; HT CLR 2006: 128,314-315)

Rockefeller was also involved in giving instructions to the CCC forestry crew under Superintendent Dorr's supervision as they worked adjacent to the new Ocean Drive. Writing to Dorr in January 1934: "...The reports are generally favorable. Apparently the work is much better than any forestry work that has been done by town men in recent years. In some instances burning has been done in places where good trees were burned, necessitating their being cut down. In one instance a fire had been made under a moss covered bluff that could be seen from the roadside. These are slips which always have to be guarded against and are to be regretted.

"If you feel it is wise, I should be disposed to suggest that the men continue their work down to the Ocean Drive but that they be instructed to cut only actual dead stuff down or standing, leaving the cutting of less good material to be done in the spring by some of our specially selected men when the snow is off the ground and careful selection can more easily be made…" (MR CLR 2007: 45, citing John D. Rockefeller, Jr. to George Dorr, 22 January 1934, Rockefeller Family Archives, Homes, box 127, folder 124)

Construction of Thunder Hole Ranger Station:
In 1934, a ranger station was constructed on the west side of the Thunder Hole parking lot under the auspices of the Works Progress Administration, a New Deal program that provided funding for conservation and recreation development. The building was one of the first at Acadia designed in the NPS Rustic Design style and was inspired by regional architectural forms (Figures 11 and 12). The 26x16-foot one-story frame structure was set on a stone foundation and featured a hipped roof and vertical board and batten siding. The interior included a ranger's room with a stone fireplace and another room that served as a store. In the late 1960s, the building was converted into a concessioner's gift shop and information center. (Drawing, ACAD 123-1021A, 1934; List of Classified Structures, 2012)

By late July 1934, the reconstruction work along Ocean Drive was largely complete and the roadsides were seeded with a mixture of bentgrass and hard fescue. The road's curvilinear alignment along the shoreline, the use of native stone in the guardwalls and culvert headwalls, and the abundant

sweeping vistas were all representative of the Picturesque style. Ocean Drive also represented the first section of Rockefeller's comprehensive yet controversial motor road system to be completed. Rockefeller was obviously pleased when he wrote to Superintendent Dorr in August 1934:
"...It is needless to say that I went not once, but three or four times to the Ocean Drive and was thrilled with its beauty and completely satisfied with the result of the rebuilding of the road. I think Mr. Olmsted was most successful in his designing of the road and that Mr. Ralston has been equally successful in the construction of it. I was delighted to see your No Parking signs and during my several visits to the Drive saw only one car parked on it. The parking areas seem to me most convenient and adequate and to leave no just reason for any parking on the road itself.

Rockefeller was also pleased with the reconstruction of the Ocean Path (#3) and offered Dorr some final recommendations regarding landscaping:
"…I would hope that you would proceed to refine and develop the area adjoining the Ocean Drive on both sides as rapidly as that is possible. By this I mean the completion of the paths, the improvement and planting of the roadsides, some of which we have left graded but raw, also the sides of the path which we constructed to the north, the planting which is desirable to screen the parking places at different points and to soften certain places along the ocean side…" (CLR 2007: 44-45, citing John D. Rockefeller, Jr. to George Dorr, 9 August 1934, Rockefeller Family Archives, Homes, box 127, folder 123.)

In 1937, the National Park Service assumed responsibility for the maintenance of the Ocean Path and all trails within the park boundaries that had been constructed or improved by the village improvement associations and societies.

Construction of the First Restroom and Other Improvements:
In the 1935 Master Plan, as well as subsequent master plans in the 1940s, Thunder Hole was identified as a major developed area in the park (Figure 13). To this end, additional visitor facilities were added to the site. In 1939, a one-story frame restroom was proposed just to the southwest of the Ranger Station. Drawings indicate the structure was to be serviced by a two-inch water line that came in from the northwest and connected to a six-inch sewer line that headed northeast to a 2,000-gallon septic tank just north of the parking lot, from which a sewer sludge line headed under Ocean Drive and out to the sea. The drawings also indicate the restroom was in place by 1941 and that the Ranger Station was connected to a telephone line. (HT CLR 2006: 124; Drawing, ACAD 123-5355, 1939; Drawing, ACAD 123-41023, 1949)

One notable project that was not implemented was a plan to establish concessions at Thunder Hole. Earlier, in 1934, the Acadia Corporation had been formed to lease spaces for concession in the park. Rockefeller was interested in the design of such buildings in the park and took out a stock subscription in the corporation, whose objective, in Rockefeller's words, was to "protect the park against concessionaires from outside who might carry on their operations with less consideration for the Mount Desert Island traditions than would be the case with a corporation composed of summer and winter residents of the Island." The Acadia Corporation had leased the popular Jordan Pond House and the Stanley Lobster Pound at Seawall to concession operators, and was in the process of developing concessions at the summit of Cadillac Mountain and at Otter Creek. However, in 1939 NPS Director Arno Cammerer wrote a confidential letter to Rockefeller stating his opinion that certain areas of the park—Thunder Hole among them—should be kept free from such intrusions. (MPDF 2007: E33-34, citing Letter from John D. Rockefeller, Jr. to David Rodick, 27 October 1941, and Letter from Arno Cammerer to John D. Rockefeller, Jr., 27 April 1939, Rockefeller Archive Center, Record Group 2, Box 62, Folders 620 and 619)

In the fall of 1947, a massive fire on Mount Desert Island consumed 17,128 acres of land, around 8,750 acres of which were in the park. The fire reached the Thunder Hole area on October 23 and presumably damaged or destroyed vegetation in the area. It is unclear to what extent the Ranger Station or restroom were damaged, if at all, as there would have been an ample supply of ocean water to save them. A historic photograph from the 1950s show that there was a small wood kiosk mounted on a post adjacent to the Thunder Hole, which likely served as storage for safety equipment, as indicated by the Eastern District Monthly Report (July 1953) from a chief ranger: "Miss Blanche Glithers fell into the Thunder Hole but was rescued by another park visitor who jumped in after her.

Our life ring at the Thunder Hole paid for itself that day" (see Figure 9). By the late 1950s, a metal pipe handrail had been added along portions of the steps, which appeared to have some gaps between the treads (Figure 14). (Acadia NP GIS: "fire47 polygon"; CLI review comments, Becky Cole Will)

Completion of the Motor Road System and Development of a Motor Road Vista Plan:
In 1958, the last segment in Rockefeller's comprehensive motor road plan, BPR Project 4A2, was completed. Rockefeller died at the age of eighty-seven on May 11, 1960, and was able to realize a vision that occupied well over three decades to complete and extended 33 miles on Mount Desert Island and the Schoodic Peninsula. The road project was part of Mission 66, a ten-year service-wide program of park development designed to help the national park system accommodate the enormous increase in visitation after World War II.

Another plan prepared around this time was a Vista Plan for the motor roads. In 1958, the park's landscape architect, E.S. Whitaker, prepared drawings and descriptions of seventy vistas along various motor road segments on Mount Desert Island (in 1961, the plan was revised to include an additional vista at Schooner Head Overlook and adjust the widths of several other vistas). A majority of the vistas offered outward views of the mountains, lakes, and shorelines, although a few vistas provided inward views that showcased other natural features in the park, such as the diversity of forest vegetation and unique geological features.

Whitaker defined a vista as "a roadside area of specific location and size" and assigned a number to each one, beginning at the north end of Paradise Hill Road, continuing counterclockwise around the park loop road, and ending at the top of a Cadillac Mountain Road. Other vistas were located at Pretty Marsh, Ship Harbor, and Schoodic Head. In addition to a unique number, the vista plans included bearings and widths of the clearings. It is not known if the seventy-one vistas were marked in the field.

Whitaker noted that none of the vistas were new and that none would have to be cleared of mature vegetation to establish the vista. According to Whitaker: "at each of these locations clearing to establish a vista had been done at a previous time or, due to the 1947 fire, a vista has become established that is desirable to retain." The management goal of the vistas was "to hold conditions at the present [1961] status" but acknowledged that removal of growth would be periodically needed, and only after careful study by park staff "on the ground" (Whitaker, Memorandum).

The Thunder Hole developed area was part of the longest vista along the historic motor road system, beginning north of Sand Beach and ending just north of Otter Cliffs. The vista offered eastward views and was described as: "views of the ledges, shoreline, Egg Rock, Schoodic Peninsula, Outer Frenchman Bay, Great Head, and Newport Cove…nearly two miles long and caused naturally by ledge rock…any tree growth should be encouraged and retained." The importance of this vista and the other 70 vistas was identified in the 1991 public review draft of the park's General Management Plan/Environmental Assessment and the 1992 General Management Plan. (General Management Plan/Environmental Assessment 1991: 43-44,230-233)

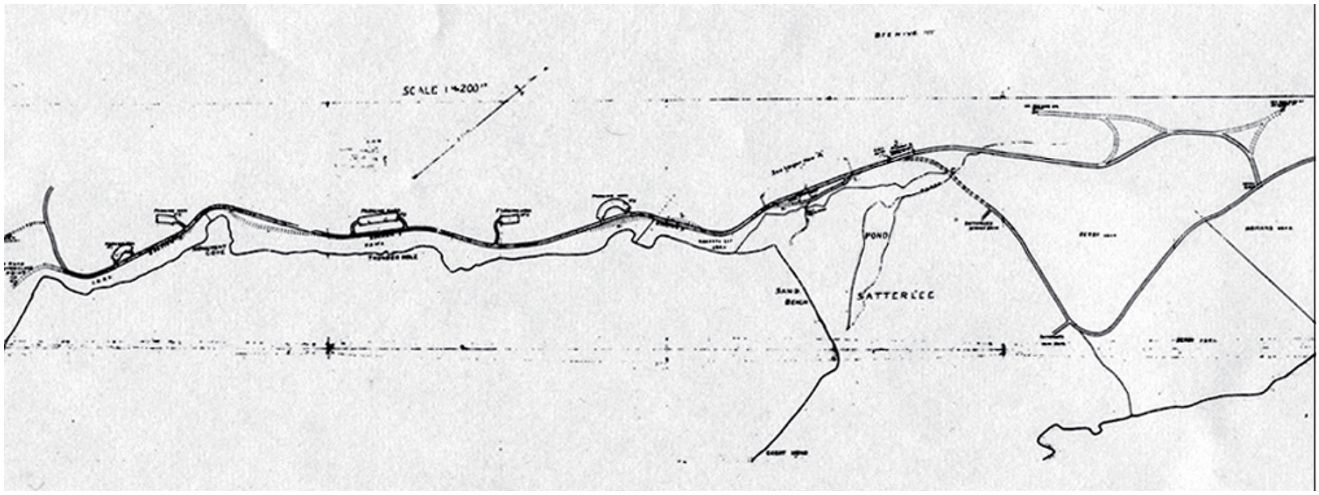


Figure 6. The reconstruction of Ocean Drive, 1934, and the six parking lots. Thunder Hole is the third parking lot from the left. (Rockefeller Archives Center)



Figure 7. CCC work crew in c.1934 reconstructing the Ocean Path (#3) parallel to the reconstructed Ocean Drive. (HT CLR 2006: 130)



Figure 8. A ranger led tour of Thunder Hole in the 1930s in this view looking east. Note the CCC's handrails on the south side of the ledge overlooking the Thunder Hole. There are no handrails on the north side. (Harpers Ferry Center, HPC-001535)

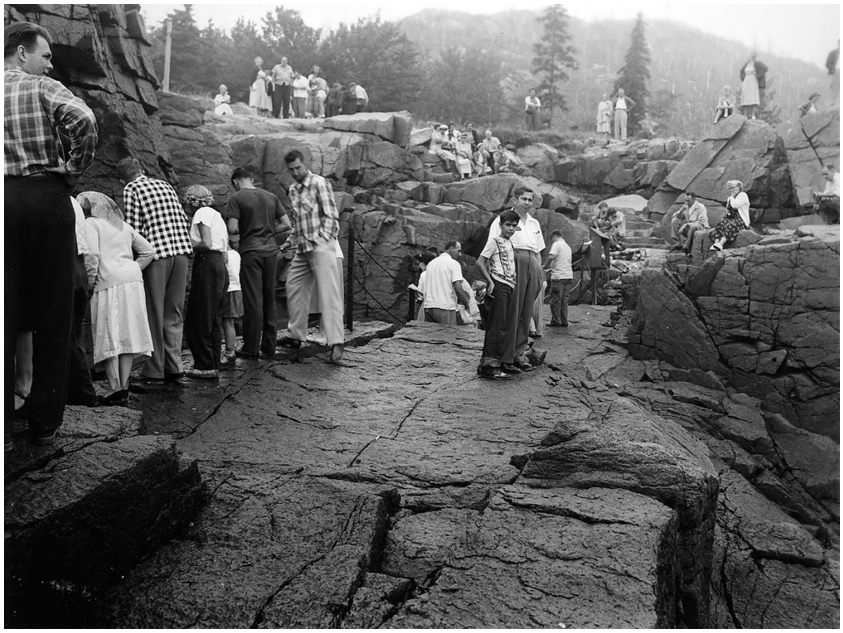


Figure 9. View looking west from Thunder Hole (image left) in 1953. Two sets of steps built by the CCC are visible heading up the hill. A small kiosk is seen adjacent to the Thunder Hole. (Acadia NP, Otis Sawtelle Research Center)

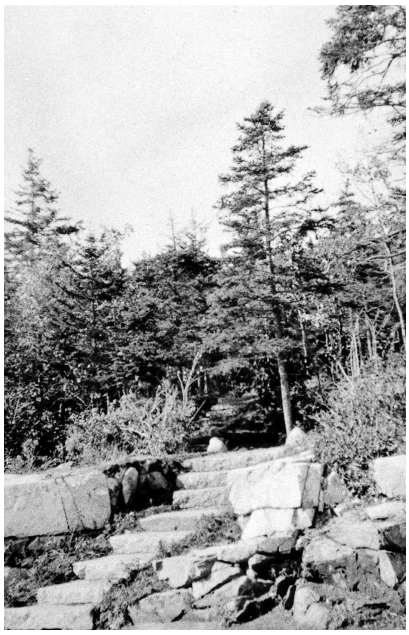


Figure 10. New steps constructed at Thunder Hole, c.1934. (HT CLR 2006: 128)

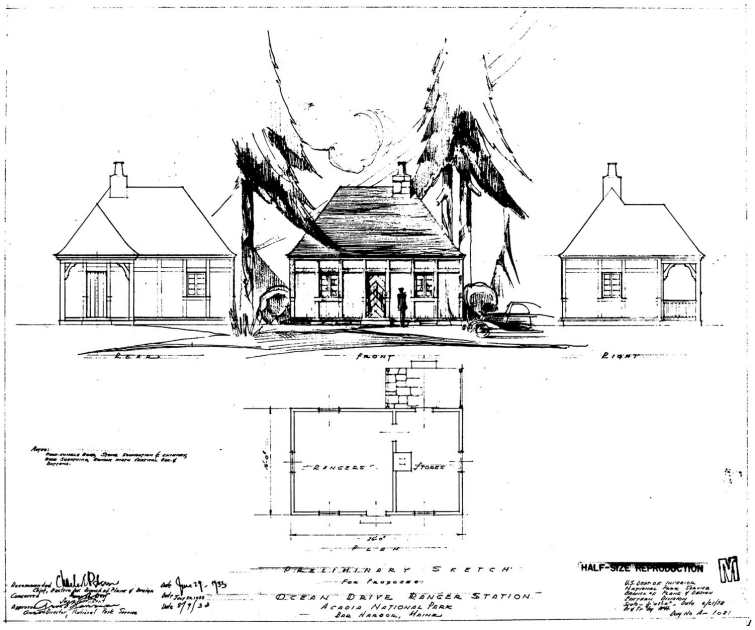


Figure 11. Rendering and plan of the Thunder Hole Ranger Station. (Denver Service Center, ACAD 123-1021, 1933)



Figure 12. View looking west at the front of the Ranger Station in the 1960s or 1970s. (ACAD NP files)

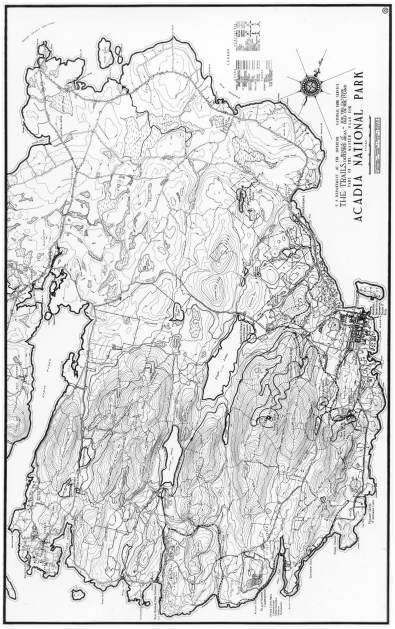


Figure 13. Portion of the park's 1941 Master Plan showing Thunder Hole. The semicircle drawn around the Thunder Hole area indicates its status as a developed area. (ACAD NP files)

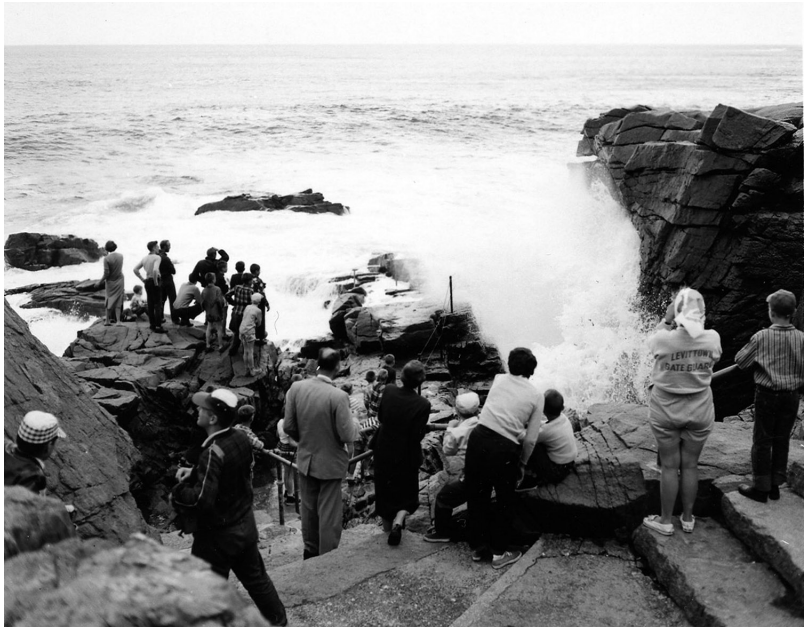


Figure 14. Good view looking east at rough seas at Thunder Hole in 1958-1965. Note the rough cut stone steps and pipe metal hand railing leading down to Thunder Hole, as well as the gaps between some of the steps. (ACAD NP Archives)

IMPROVEMENT PROJECTS AT THUNDER HOLE, 1958-2021

Mission 66 and First Reconstruction of the Lower Area Walkway System:
Other Mission 66 programs at Acadia focused on developed areas by adding restrooms, improving access, and upgrading utilities. Work at Thunder Hole was focused on the path systems, and a plan prepared in 1961 was apparently aimed at improving and simplifying the existing circulation pattern for better safety. In the upper area between Ocean Drive and the parking lot, the three existing CCC-period stone steps and walks were to be replaced with a single staircase and straight path to the drive. In the lower area between Ocean Drive and the Thunder Hole, the CCC's path alignment was to be essentially left intact, but would also include improved wider steps, higher retaining walls, and post and cable handrails on both sides of the path. The ramps were to be surfaced with exposed aggregate concrete with pink granite. The new path also connected to an existing trail and conspicuous wider area referred to as a "Photographic Vantage Point." This feature may have been the old parapet referenced earlier. (Drawing, ACAD 123-2882, 1961)

Another plan was prepared in 1964 with more site details and a few changes. The staircase in the upper area was modified to include a ninety degree turn and the walkway to the drive was slightly curved. The post and cable handrails adjacent to the Thunder Hole were changed to post and chain (Figure 15). The following year, the plan was modified again and packaged as three separate projects: walkway system for the upper area, landscaping for the upper area, and walkway system for the lower area. In the upper area, the staircase was changed back to its straight 1961 design and the walk to the drive was designed with two curves. In the lower area, the alignment of the walk featured numerous curves and steps with few straight sections. The plans called for concrete surfaced walks, concrete steps with evenly spaced treads, stone retaining walls, galvanized pipe handrails (some set in top of retaining walls), and post and cable handrails. Proposed plantings included Carolina rose, Virginia rose, witch hazel, and hobblebush. As with the 1961 plan, there was a connection to the adjacent trail and the "Photographic Vantage Point" (Figure 16). (Drawing, ACAD 123-3131, 1964; Drawing, ACAD 123-3131A, 1965)

Photographs from the late 1960s and late 1970s indicate that only the walkway for the lower area was constructed, and that the CCC's three existing steps and walks between Ocean Drive and the parking lot remained in use. Another photograph from the early 1970s shows a portion of the

walkway system in the lower area leading to Thunder Hole, which is less rustic in character than the previous CCC design (Figure 17, see Figure 14). (Drawing ACAD 123-41061, 1995)

Change in Travel Direction and Other Miscellaneous Work:
Increasing use of the historic motor road system continued into the late 1960s, resulting in more safety and traffic congestion issues. This resulted in changing portions of the system from two-way travel to one-way travel. In the spring of 1969, a twelve-mile portion of the park loop road—from the south half of Kebo Mountain Road Extension (at the Sieur de Monts entrance) to the intersection of Day Mountain Road, Day Mountain Road Extension, and Stanley Brook Road—was changed to a one-way traffic pattern proceeding south (clockwise around the island) to alleviate congestion along the coastline. The direction was based on a visual preference study that indicated that one-way travel in a clockwise direction provided more of the most preferred views than would travel in a counterclockwise direction. This change made it possible for visitors to park in the right lane of the road. Along Thunder Hole, this allowance made it possible for visitors to park along Ocean Drive, which was counter to Rockefeller's wishes of prohibiting parking along the drive. The one-way traffic pattern was extended in the late 1980s when the beginning point was changed to the intersection of Kebo Mountain Road and Jordan Pond/Eagle Lake Road. ("Environmental Assessment of One-Way Traffic on
Two Segments of the Park Loop Road: Lower Mountain Road and Kebo Mountain Road" December 1987: 4,13-14).

In the 1970s, the park installed parking management stones along portions of the historic motor road system to control parking. The stones were placed along the road shoulders in heavy visitor use areas, such as Sand Beach and the Jordan Pond House, to discourage parking on and damaging the grass. The stones were generally rounded in shape and smaller in size than the larger rectangular and angular shaped stones that comprised the historic guardwalls. Due to its popularity, parking management stones were installed in the Thunder Hole area.

From the 1970s through the 1990s, several projects related to infrastructure were completed at the Thunder Hole developed area. In 1978, the ditch in front of the Ranger Station was regraded to lead to a new culvert installed to the south of the building. The culvert was built to capture runoff from an intermittent stream at this location and the pipe was placed under the parking lot. The parking lot and entrance roads were then repaved. In 1990, the 12" corrugated metal pipe culvert under the beginning of the north parking lot access road was replaced with an 18" reinforced concrete pipe and new headwalls. The entirety of Ocean Drive was repaved at this time. In 1998, the below-grade well cap north of the Ranger Station was replaced with a new concrete pad and above-grade well cap. Around this time, another culvert was built just to the north of the Ranger Station, also with pipe under the parking lot. Also, precast concrete curbs were installed along portions of the north entrance at an unknown date, which contrasted with the appearance of the original granite curbs. (Drawing, ACAD 123-60266A, 1978; Drawing, ACAD 123-41061, 1995; Drawing, ACAD 123-41931A, 1990; Drawing, ACAD 123-60267, 1990; Drawing, ACAD 123-41076A, 1998)

Second Reconstruction of the Lower Area Walkway System:
The lower area walkway system was completely reconstructed again in 1992-1993 (Figure 18). In this project, an accessible ramp in the form of a switchback was built in the top half of this area. The lower leg of the switchback featured a semicircular patio, a larger version of the nearby "Photographic Vantage Point" on the adjacent trail, which by this time had been removed (though the connection to the trail was retained). The remainder of the walk essentially followed the 1965 alignment, but the new walks, steps, and walls were sited to better respond to the geology of the surrounding ledges. In the retaining walls, for example, the granite facing was laid out in a random broken pattern at the bottom of the wall, and then transitioned to a more defined ashlar pattern at the top (Figure 19). Handrails were a combination of galvanized pipe and nylon coated galvanized cable. Materials included exposed aggregate walks, crushed aggregate paths, concrete steps, granite steps, cobblestone swales, wayside signs on granite bases, warning signs, and a stone entrance sign. New plantings included sweetfern, bayberry, speckled alder, beach plum, Virginia rose, common blackberry, withered viburnum, perennials, and a native grass seed mix. In other areas, existing vegetation was preserved. (Drawing, ACAD 123-81468, 1993)

Construction of the Second Restroom and Reconstruction of the Upper Area Walkway System:
In 1995, survey work was undertaken in the upper area in preparation for the construction of a new restroom and improved access from the parking lot to Ocean Drive. Around 1999, a 16x10-foot vault toilet clad in white cedar shingles was constructed at the southwest corner of the parking lot (Figure 20). (Drawing, ACAD 123-41061, 1995; Drawing, ACAD 123-41077A, 1999)

In 2001-2002, the walkway system between Ocean Drive and the parking lot was altered with the construction of new walks, steps, and an accessible ramp in the form of a switchback similar in design to the switchback in the lower area built a decade earlier (Figure 21). This entire structure replaced the existing center and south sets of steps and walks built by the CCC, leaving only the north set of steps and walk. This walkway system also aligned with the walkway system on the east side of Ocean Drive leading to the Thunder Hole. Materials included concrete steps, exposed aggregate walks, granite block retaining walls, and stainless steel handrails. A few trees were removed for the project but most were retained, and the disturbed areas were loamed and seeded. Sometime in the 2000s, an accessible walk was built from the front of the Ranger Station to the rear of the building, where a small portable restroom was also added at some point. (Drawing, ACAD 123-60373A, 2001)

Thunder Hole continues to be one of the park's most popular destinations. The parking lot and right lane of Ocean Drive are often filled to capacity in the busy summer months, and particularly after big storms when the Thunder Hole is at its most impressive. The park has attempted to protect sensitive vegetation at Thunder Hole by installing rope barriers.

Updates, 2013-2021:
Since the original CLI was completed in 2012, several projects have been completed at Thunder Hole. The park rehabilitated the Ocean Path in 2015-2017, which repairs to trail surfaces and engineering features (PEPC 29590, PMIS 160803). That same year the upper section of the Thunder Hole viewing area was rehabilitated (PMIS 208491, PEPC 53409). In 2017 parking lot improvements included an application of surface and crack sealants, re-painting parking spots, and treating the surface pavement (PMIS 221605).

Development of Transportation Plan.
Between 2007 and 2017, annual visitation to Acadia National Park grew by 59%, with 3.5 million visits recorded in 2017. Most visitation occurs from June through October. The most popular destinations include Cadillac Mountain, sites along the Ocean Drive corridor, and Jordan Pond. In 2019 the park completed a
Final Transportation Plan / Environmental Impact Statement to outline a comprehensive approach to providing safe and efficient transportation to visitors to Acadia National Park while ensuring that park resources and values are protected and visitors are able to enjoy a variety of high-quality experiences. The plan presented several alternatives to address transportation and congestion issues, and all included variations on a reservation system that would involve fees designed to support plan actions. (FTP/EIS 2019: iii-iv)

The plan's preferred alternative and proposed action (Alternative C) proposed establishment of a timed-entry reservation system for the Ocean Drive corridor, Cadillac Mountain Road, and the Jordan Pond House north lot during the peak season.
"During initial implementation of the plan, all other parking lots in the park would continue to be managed on a first-come, first-served basis; however, the alternative includes an adaptive management strategy that directs park managers to monitor traffic and resource conditions elsewhere in the park. If monitoring indicates traffic or resource conditions are worsening beyond acceptable thresholds (discussed in detail in chapter 2 and appendix A), access to Island Explorer routes entering the park, vehicle access to other parking lots, or vehicle access to the entire Park Loop Road may be added to the reservation system." (FTP/EIS 2019: vii)

At Thunder Hole, an additional key action in Alternative C included the near-term retention of right lane parking along Ocean Drive, but eventually phasing this out. (FTP/EIS 2019: vii)

In the fall of 2019, a pilot test of the reservation system was conducted at the Sand Beach Entrance

along the Ocean Drive corridor and at the entrance to Cadillac Mountain. The Cadillac Mountain pilot was successful, but the Sand Beach pilot revealed that timed entry at this location required additional study. The park decided to postpone the reservation system at Ocean Drive, thus delaying timing on eliminating right lane parking. (Review comments: Gladstone, 26 July 2021)

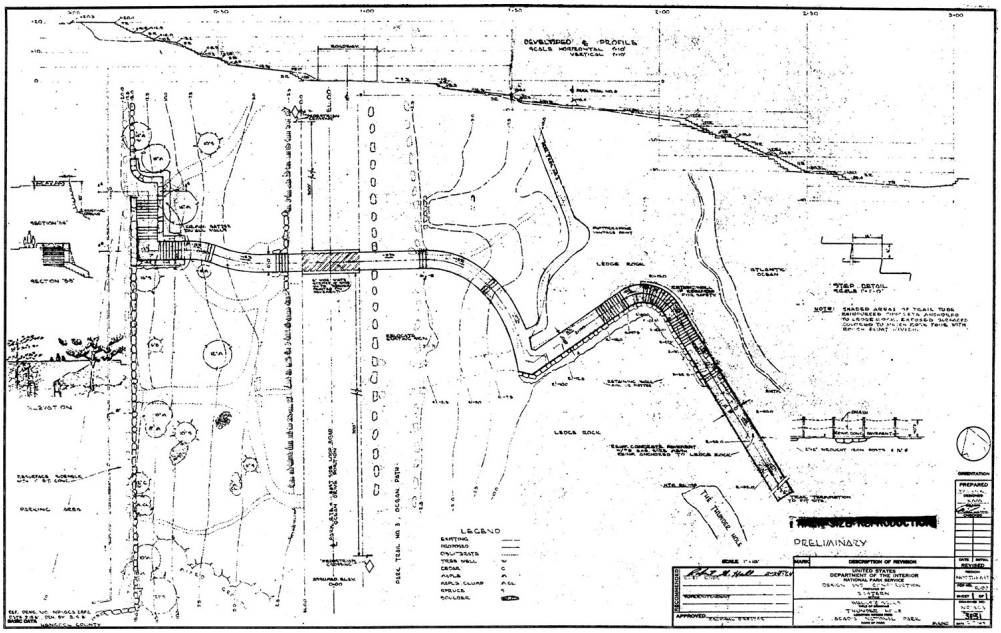


Figure 15. Early plan for the redesign of the Thunder Hole walkway systems, 1964. (Denver Service Center, ACAD 123-3131, 1964)

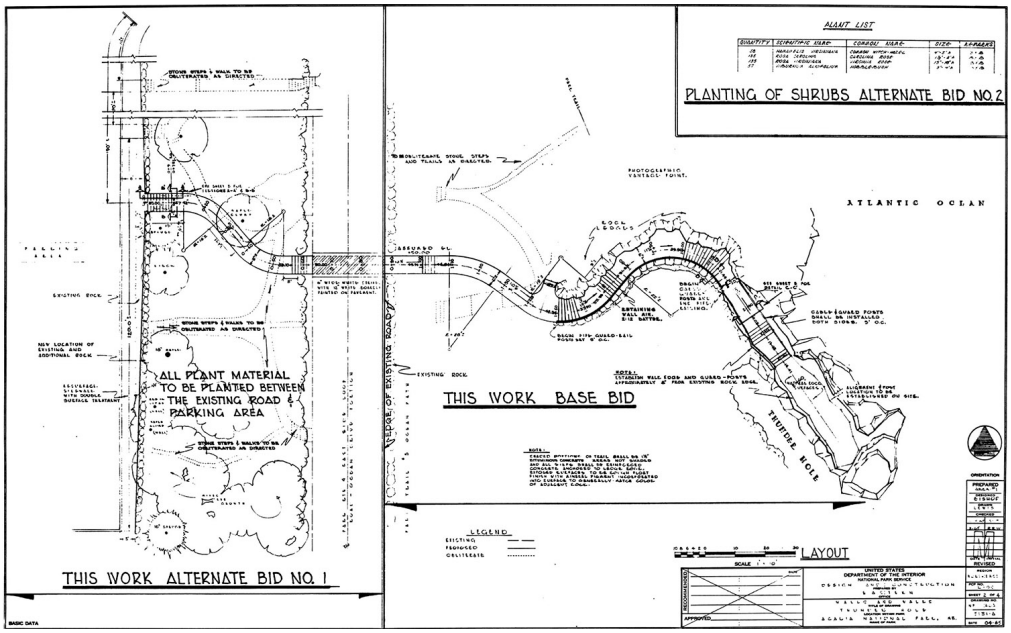


Figure 16. Revised plan for the redesign of the Thunder Hole walkway systems, 1965. (Denver Service Center, ACAD 123-3131A, 1965)



Figure 17. View looking east in 1971 at the lower area walkway system leading to the Thunder Hole. Compare this view with Figure 14. (Acadia NP Archives)

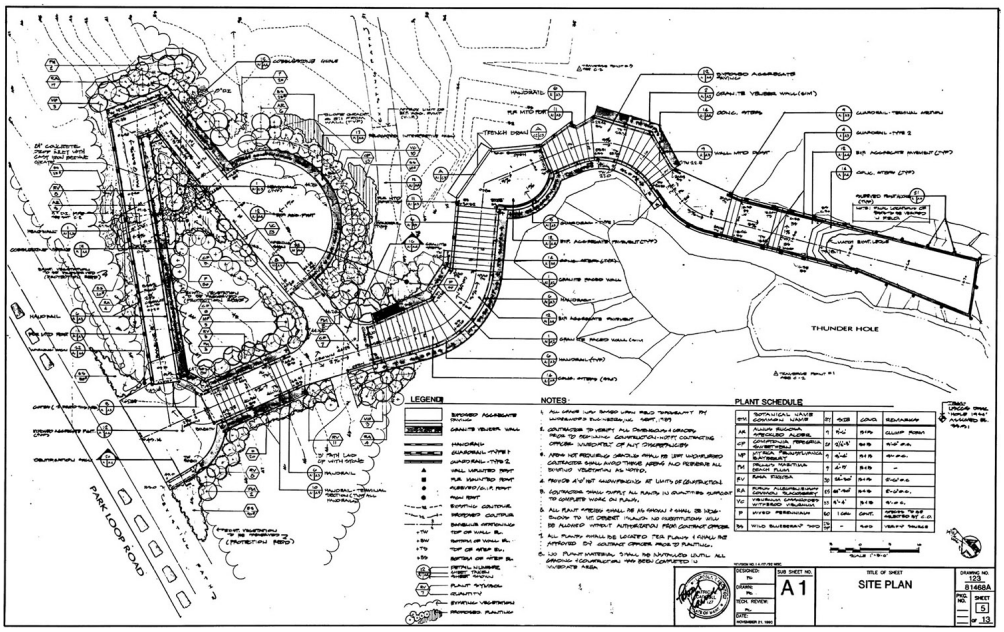


Figure 18. Plan for the redesign of the lower area walkway system, 1992-1993. (Denver Service Center, ACAD 123-81468, 1992-1993)

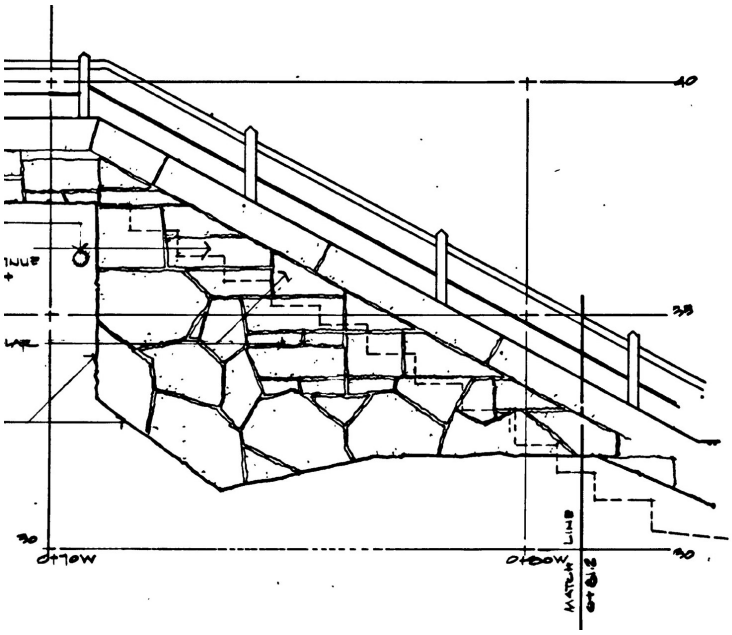


Figure 19. Detail of one of the retaining walls in the lower walkway system, 1992-1993. (Denver Service Center, ACAD 123-81468, 1992-1993)

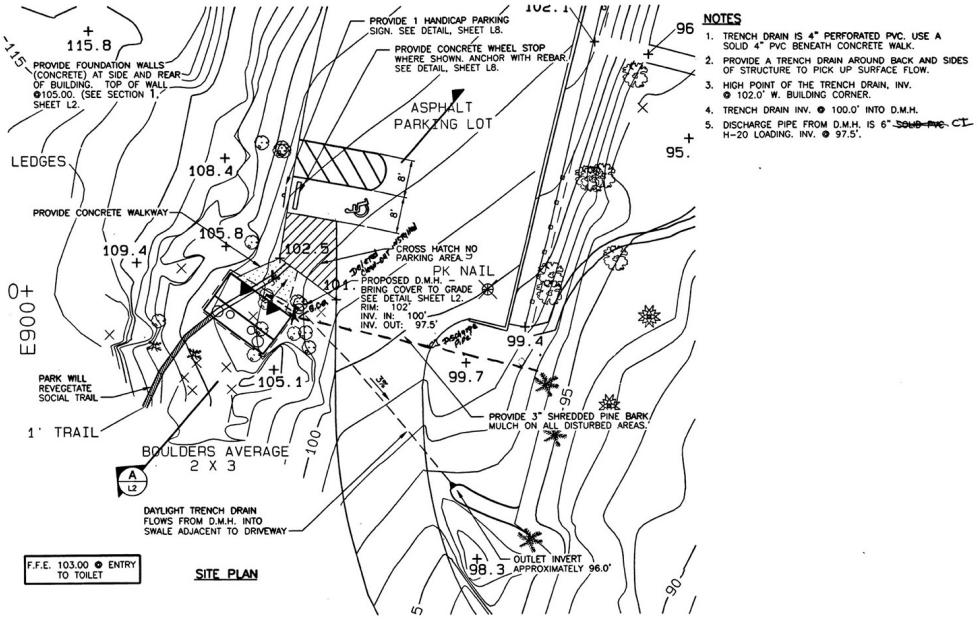


Figure 20. Plan of the new restroom at the Thunder Hole developed area, 1999. (Denver Service Center, ACAD 123-41077A, 1999)

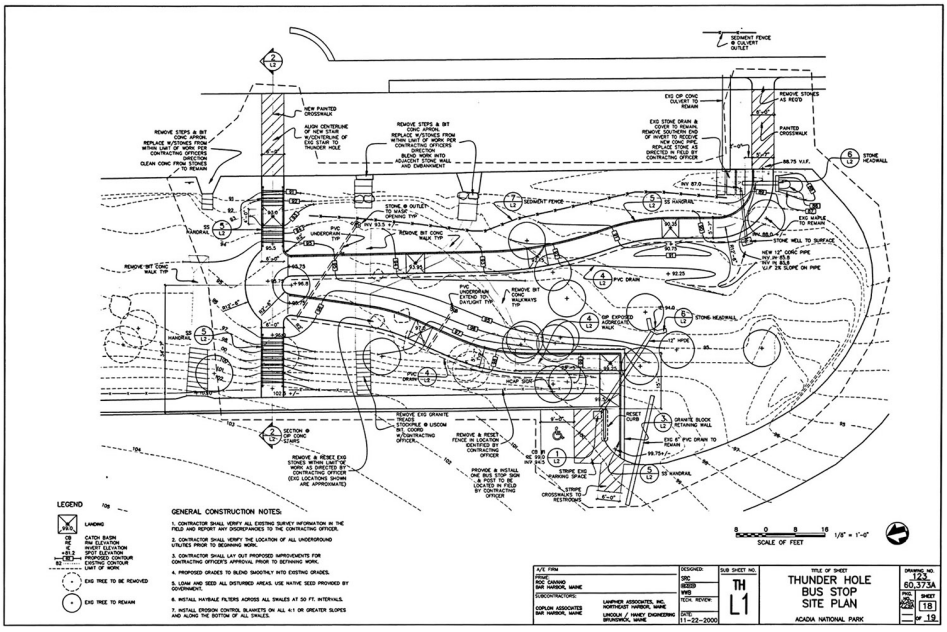


Figure 21. Plan for the redesign of the upper area walkway system, 2001. (Denver Service Center, ACAD 123 -60373A, 2001)

Uses

Functions and Uses:

Major Category	Category	Use/Function	Historic	Current	Primary
Government	Government Office	Comfort Station (Latrine)	Yes	Yes	No
Commerce/Trade	Business	Concession	No	Yes	No
Transportation	Pedestrian-Related	Hiking Trail	Yes	Yes	No
Transportation	Road-Related	NPS Class I Principal Road	Yes	Yes	No
Recreation/Culture	Outdoor Recreation	Outdoor Recreation	No	Yes	Yes
Recreation/Culture	Outdoor Recreation	Outdoor Recreation	Yes	No	Yes
Landscape	Scenic Landscape	Overlook	Yes	Yes	No
Transportation	Road-Related	Parking Area	Yes	Yes	No
Government	Government Office	Ranger Station	Yes	Yes	No
Landscape	Scenic Landscape	View	Yes	Yes	No

Public Access:

Public Access: Other Restrictions

Public Access Narrative:

Ocean Drive and the Ocean Path are open all year. The Thunder Hole Ranger Station and the restroom are open seasonally. Paths at Thunder Hole remain open but can be impassable in the winter or during storm events, at which times gates are closed. The Island Explorer free bus service stops here frequently during the summer months.

Associated Ethnographic Group

Ethnographic Group: Songish

Current: Yes

Historic Yes

Ethnographic Group: Santa Rosa Band of Cahuilla Indians, California

Current: Yes

Historic Yes

Ethnographic Group: Scott Family Descendants

Current: Yes

Historic Yes

Ethnographic Group: Taylor Family Descendants

Current: Yes

Historic Yes

Ethnographic Study Status: Yes-Unrestricted Information

Ethnographic Narrative:

In 2007, the report, “Asticou’s Island Domain: Wabanaki Peoples at Mount Desert Island, 1500-2000, Acadia National Park, Ethnographic Overview and Assessment, Volume 1 and Volume 2,” was completed by Harald E.L. Prins and Bunny McBride, through the National Park Service Northeast Region Ethnography Program, under cooperative agreement with the Abbe Museum in Bar Harbor, Maine. The historical-ethnographic overview of Acadia National Park spans almost 500 years and covers a wide coastal stretch between Penobscot and Gouldsboro Bays, as well as surrounding areas. As stated in the report’s Executive Summary: “such breadth of coverage is necessary in order to take in the park’s center piece on Mount Desert Island, plus Isle au Haut and Schoodic Peninsula, along with various land holding arrangements (including easements) on numerous offshore sea-islands in this area. The study explores the shifting but ongoing relationship between this habitat and Wabanaki peoples – a group of northeastern Algonquian-speaking ethnic groups or tribal nations today distinguished as the Abenaki, Maliseet, Mi'kmaq, Passamaquoddy and Penobscot.” (Prins and McBride 2007: i)

The report’s findings indicate that:
“Mount Desert Island has been a nexus point over the centuries for Wabanaki peoples – not only part of their prehistoric and historic hunting, fishing, gathering and trading range, but a strategic location in military maneuverings during the colonial wars and American Revolution, a prime place for marketing traditional crafts (and thereby for sustaining knowledge concerning the making of these crafts) and more recently a center point in their individual and collective efforts toward cultural reclamation. Their deep and intertwined connection to the area is reflected in traditional Wabanaki legends and place names. It is also evident in the names and genealogical information of specific 19th-century Wabanaki individuals identified in this study – most of whom have descendants associated with two or more of Maine’s still existing tribal groups. (Prins and McBride 2007: iv)

The 2007 report does not specifically reference Thunder Hole. Other terms searched in the report included: Great Head, Newport Cove, Ocean Drive, Sand Beach. For more information, please refer to Asticou’s Island Domain or contact park staff.

Analysis & Evaluation of Integrity

Analysis and Evaluation of Integrity Narrative Summary:

The physical integrity of the Thunder Hole landscape is evaluated by comparing landscape characteristics and features present during the period of significance (1890-1937) with current conditions. Many of the historic characteristics and features are unchanged. The natural systems and features that historically shaped this shoreline site and carved out the inlet named Thunder Hole are extant. They are most obvious below, or east of, Ocean Drive and the Ocean Path, where vast granite ledges and jagged outcrops slope down to the sea, interrupted only by scattered patches of grasses and groupings of shrubs and trees. Above, or west of, the road and trail are the historic Thunder Hole Ranger Station and parking lot. The hipped roof, vertical wood siding, and stone chimney of the rehabilitated building, constructed by the Works Progress Administration (WPA) in 1934, still evokes Acadia's interpretation of the National Park Service (NPS) Rustic Design style. The siting of the parking lot away from the road to avoid marring the panoramic views represents the influence of the Picturesque style as promoted by John D. Rockefeller, Jr. and executed by the Olmsted firm. The screen of vegetation that was retained to help conceal it from the road, only to be lost in the 1947 fire, has returned to fulfill its original purpose. Some of the walkways, stone steps, and granite curbs originally installed by the Civilian Conservation Corps (CCC) also remain and contribute to the site's rustic character. The Thunder Hole developed area has also maintained its role as a major scenic destination. Ocean Drive and the Ocean Path, themselves historic resources reconstructed in 1933 in the Rustic Design style, continue to provide vehicular and pedestrian access to the Thunder Hole area and to the panoramic scenic vista that has been identified in both the 1991 public review draft of the park's General Management Plan/Environmental Assessment and the 1992 General Management Plan.

Since 1937, modifications have been made to some of the walkways at Thunder Hole to meet federal accessibility requirements and to replace features that have deteriorated in this harsh seaside setting. Two of the current walkway systems between the parking lot and the Thunder Hole are non-contributing features, but for the most part have been carefully sited and designed to have minimal visual impact. The use of native stone in these structures has helped blend them in with the surrounding landscape, although some of the granite facing has been lost due to recurring storm damage. Additionally, the use of stainless steel handrails on the walkway systems, and pre-cast concrete curbs along portions of the parking lot, are not consistent with the site's rustic design vocabulary. Parking is now allowed along the right lane of Ocean Drive, and negatively impacts the ocean view, particularly when utilized in the busy summer months, but this provision will be phased out after 2021. In the lower area, the development of numerous social trails over the years has damaged the some of the fragile vegetation and has created soil erosion problems. In the upper area, a new restroom has been built at the southwest corner of the parking lot, and two culverts with stone headwalls have been installed, but overall these features are not distracting. The additions of a flagpole and accessible walk at the Ranger Station, and wayside signs and trash cans at several locations are consistent with the site's use.

INTEGRITY

Thunder Hole is identified in Acadia National Park's 2017 Multiple Property Documentation Form (MPDF) as a developed area within the Visitor Facilities and Developed Areas property type. The MPDF outlines registration requirements that developed areas need to possess to be eligible for listing in the National Register of Historic Places. Developed areas should retain sufficient integrity of setting and design to convey their historic use, including the principal circulation system and site organization. The developed area should retain the majority of built features designed and constructed during the height of the New Deal programs between 1933 and 1942. Buildings or other site features constructed after 1942 that clearly follow the Rustic Design vocabulary may also be significant. Historic buildings should be in their original locations and maintain their historic relationships with associated structures and objects. Integrity of materials and workmanship are also important; buildings should be clearly identifiable as NPS or CCC rustic structures, with little or no alteration to historic facades. Sufficient small-scale structures such as water fountains, fireplaces, etc. should also be present to communicate the historic design vocabulary. Associated landscape features and principal vistas should also be intact. Similarly, developed areas associated with Rustic Design as expressed in the Picturesque style should be clearly visible elements associated with the work of the village improvement societies or the Olmsted Brothers firm. While some loss of historic features, materials, or spaces can be expected along with new additions, sufficient remaining historic resources must be present to illustrate the historic design. Later additions may be eligible if

they clearly meet the design objectives and vocabulary established by the NPS between 1916 and 1942 or are directly associated with the work of the VIA/VIS, HCTPR, George B. Dorr, or other local conservation efforts. Finally, continuity of historic use as a recreation area, summit, scenic destination, or other public developed area should be considered, as it may be essential to the retention and integrity of physical features representative of the Picturesque or NPS Rustic Design styles. This CLI has determined that Thunder Hole meets the registration requirements for the Visitor Facilities and Developed Areas property type. (MPDF 2017: F81)

Location:
Location is the place where the historic property was constructed or the place where the historic event occurred. The location of the developed area's built features around the Thunder Hole is unchanged. The parking lot still provides parking to visitors traveling on Ocean Drive, and walkways lead from the parking lot to the Thunder Hole. The Ocean Path, reconstructed at the same time as Ocean Drive, also remains in its original location. The historic Ranger Station is still on the west edge of the parking lot, but the restroom location has changed from behind the building to the southwest corner of the parking lot.

Design:
Design is the combination of elements that create the form, plan, space, structure, and style of a property. The combination of elements that characterize Thunder Hole's current built landscape is recognized today as the Rustic Design style and its subthemes, Picturesque and NPS Rustic. Frederick Law Olmsted, Jr. sited the Thunder Hole parking lot behind, or west of, Ocean Drive as an alternative to parking cars on the road itself so that the scenic ocean view to the east would be preserved. The parking lot still serves this function, but the allowance of parking along Ocean Drive negatively impacts the historic view. Thunder Hole's rustic character as applied by NPS landscape architects and built by the CCC and WPA is still evident in the siting and design of the Ranger Station, the alignment and materials of the walkways between the parking lot and the Thunder Hole, and the overall preservation of panoramic views from the site. Since the historic period, some of the walkway system has been rebuilt to meet accessibility requirements and to replace deteriorated features in this harsh seaside environment, and a new restroom has been constructed. However, as a whole, these changes do not detract from the site's Rustic Design style that aimed to integrate the built features with the natural landscape.

Setting:
Setting is the physical environment of a historic property. The relationship between Thunder Hole's built features—the motor road, trail, parking lot, walkways, and Ranger Station—and the shoreline scene of rocky ledges, sparse and hardy plants, and oceanside viewsheds is unchanged since the historic period. The setting of Thunder Hole as a major recreational destination for panoramic scenic views in the park continues to impress today.

Materials:
Materials are the physical elements that were combined or deposited during a particular period of time and in a particular pattern or configuration to form a historic property. Thunder Hole's rocky ledges shaped the physical characteristics of the Ocean Drive and Ocean Path reconstructions, as well as the locations and designs of the parking lot and walkway systems. Consistent with the Rustic Design style, native materials were used in the construction of built features. The original native granite is still present in the parking lot curbs and the remaining steps. Some post-historic additions to the site have successfully made use of the native granite, such as in the retaining walls in the accessible walkway systems built in the 1990s and 2000s. Although some granite has been lost to storm damage, those that remain help blend the features with the surrounding rocks and ledges. The Ranger Station's stone foundation and chimney, wood siding, and wood shingles harmonize with the surrounding landscape and other buildings in the park. Historic CCC-period vegetation can also be found in certain locations and has matured to blend in with the surrounding vegetation. Unfortunately, the stainless steel railings along the ramps and steps and the concrete curbs at the north parking lot entrance are contemporary materials and do not evoke a rustic character.

Workmanship:
Workmanship is the physical evidence of the crafts of a particular culture or people during any given period in history or prehistory. The vertical board and batten siding, stone foundation and chimney, and hipped roof of the Ranger Station illustrate the work of the WPA and NPS designers to integrate the building with the surrounding landscape. The rough cut granite used by the CCC in the construction of site's curbing and steps is still evident, and upon closer examination the tool marks are still visible. The granite curbs are mostly short in

length, and contrast with the modern long sections of concrete curbs. More refined concrete curbs and steps have been added in several locations, but as a whole they do not detract from the historic scene.

Feeling:
Feeling is the property's expression of the aesthetic or historic sense of a particular period of time. The motor road, parking lot, trails walkways, Ranger Station, and restroom are common to developed areas in national parks. The design, materials, workmanship, and setting of these features at Thunder Hole convey a rustic character. The fact that Thunder Hole has long served as a scenic recreational destination with unparalleled panoramic views of the coast also contributes to the rustic park feeling.

Association:
Association is the direct link between an important historic event or person and a historic property. Most of Thunder Hole's historic features and vistas are still present and intact. They directly link the site to its long role as a scenic destination, the work of the Olmsted firm, NPS, CCC, WPA, and the Rustic Design style.

The next section presents an analysis of landscape characteristics and their associated features and corresponding List of Classified Structures names and numbers, if applicable. It also includes an evaluation of whether the feature contributes to the property's National Register eligibility for the historic period (1890-1937) contributes to the property's historic character, or if it is noncontributing, undetermined, or managed as a cultural resource. If a feature is non-contributing, it is evaluated as "compatible" (visually congruent with the historic character of the landscape) or "incompatible" (visually incongruent with the historic character of the landscape).

Landscape Characteristic: Natural Systems and Features

Historic and Existing Conditions:
Natural systems and features are the natural aspects that have influenced the development and physical form of the landscape, and can include geology, geomorphology, hydrology, ecology, climate, and native vegetation. The rugged mountain peaks, woodlands, lakes, marshes, and coastlines that describe Acadia National Park and Mount Desert Island owe their present appearance to the last ice age that covered the region with thousands of feet of ice. In its retreat, it left scarred granite mountains interspersed with glacial lakes and U-shaped valleys littered with massive boulders and deposits of till. From the mountaintops to the seashores, diverse communities of plants and animals emerged and thrived.

In 1604, geographer and mapmaker Samuel de Champlain described "Isle des Monts Deserts" as a range of mountains with mostly rocky and treeless summits, and woods of pine, fir, and birch. Up until the mid-nineteenth century, European settlers, much like the Native Americans before them, depended on these natural resources for their livelihood. Consumed with hunting, fishing, farming, and logging, the island's scenery probably went largely unnoticed to most residents. This changed when Hudson River School artist Thomas Cole arrived in 1844 to paint the island's scenery. Many other artists, as well as writers, scientists, and the curious traveler descended on the island in the decades that followed. As they explored, one of their favorite destinations was Thunder Hole, along the island's east coast.

The Thunder Hole, historically also called Thunder Cave, is itself a naturally formed inlet along the rocky shoreline (Figure 22). On calm days, the Thunder Hole is quiet and unassuming, but, "when the right size wave rolls in…a deep thunderous sound emanates. The cause is a small cavern formed low, just beneath the surface of the water. When the wave pulls back just before lunging forward, it dips the water just below the ceiling of the cavern allowing air to enter. When the wave arrives full force, it collides with the air, forcing it out, resulting in a sound like distant thunder. Water may splash into the air as high as 40 feet with a roar!" (http://www.acadia.ws/thunder-hole.htm)

Surrounding the Thunder Hole are massive rock outcroppings and tilted granite ledges interspersed with vegetation and storm-tossed logs (Figure 23). The landform of the Thunder Hole area slopes upward from the ocean to an elevation of about 40 feet above sea level at Ocean Drive and to an elevation of around 70 feet at the Ranger Station. This rocky landscape was one of the last areas consumed by a massive fire in the fall of 1947 that charred 17,128 acres of Mount Desert Island. A comparison of aerial photographs from 1944 and 1953 shows that many trees were lost. Another aerial photograph from 1956 indicated a mass of trees around and just south of the Ranger Station, and another at the south end of the area between the parking lot and drive, while the remainder of the Thunder Hole area had only a few scattered trees. The area between Ocean Drive and shoreline was particularly devoid of trees during this period; so much so that in the 1958 and 1961 vista plans, the recommendation for this area was to encourage and retain any tree growth that was present. (Acadia NP GIS: "fire47 polygon")

Vegetation within the Thunder Hole developed area can be characterized into three classifications: open headland/beach strand, aspen-birch woodland, and mixed conifer-deciduous woodland. The open headland/beach strand generally corresponds to the rocky ledges on the east side of Ocean Drive. Plants here grow in scattered patches and include seaside goldenrod (Solidago sempervirens), roseroot stonecrop (Rhodiola rosea), creeping juniper (Juniperus horizontalis), sea-rocket (Cakile edentula ssp. edentula), and oysterleaf (Mertensia maritime). The aspen-birch woodland straddles both sides of Ocean Drive in a clumped discontiguous canopy (25-60% coverage) (see Figure 23). Species include red spruce (Picea rubens), quaking aspen (Populus tremuloides), bigtooth aspen (Populus grandidentata), northern lowbush blueberry (Vaccinium angustifolium), mountain-cinquefoil (Sibbaldiopsis tridentata), gray birch (Betula populifolia), paper birch (Betula papyrifera), eastern white pine (Pinus strobus), northern red oak (Quercus rubra), and poverty oatgrass. The mixed conifer-deciduous woodland occupies areas around the parking lot in an evenly-dispersed continuous canopy (60-100% coverage) (Figure 24). Species include quaking aspen, bigtooth aspen, gray birch, and paper birch. (Acadia NP GIS: "veg1997finalpolygon")

Although much of the vegetation at Thunder Hole is thriving, some plants in the lower area between the Ocean Path and the shoreline are threatened by the network of social trails that have developed over time and by visitors that have unintentionally trampled on the fragile vegetation. This human impact has also increased erosion. The park has attempted to protect sensitive vegetation at Thunder Hole by installing rope barriers. An intermittent stream is located to the southwest of the Ranger Station. Its historic condition is not known, but in 1978 a culvert was installed on the west side of the parking lot to direct it under the parking lot.

Landscape Features:

Feature Name	CLI Feature ID	Feature Contribution	CRIS-HS Resource ID	Associated CRIS-AR ID	FMSS Record Type	FMSS Record Number	FMSS Exact Match
The Thunder Hole	156483	Contributing			Location	99629	No

Landscape Characteristic Graphics:



Figure 22. View looking east at the Thunder Hole and the lower portion of the walkway system. (OCLP 2019, DSC-0095)



Figure 23. View looking east at the ledges, outcrops, and vegetation between Ocean Drive and the shoreline. Vegetation in this area is susceptible to erosion and foot traffic. (OCLP 2019, DSC-0090)



Figure 24. View looking southwest an vegetation on the land side of Ocean Drive, from the north entrance to the Thunder Hole developed area. Note the Thunder Hole Ranger Station and parking lot. (OCLP 2019, DSC-0077)

Landscape Characteristic: Spatial Organization

Historic Condition (through 1937):
Spatial organization is the three-dimensional organization of physical forms and visual associations in a landscape, including the articulation of ground, vertical, and overhead planes that define and create spaces. After the Ocean Drive and Ocean Path were reconstructed in 1933-1934, a parking lot was set out on the west side of the drive, and walks were built to connect the parking lot to the Thunder Hole. In 1934, a ranger station was built near the northwest corner of the parking lot at the edge of the surrounding woods. The construction of these features essentially created two distinct spaces on either side of the drive. To the east of the drive was the lower area that sloped down to the sea, which features the Ocean Path and connecting paths to the Thunder Hole, and the best locations to take in the panoramic ocean views. To the west of the drive was the upper area that sloped up to the parking lot, Ranger Station, and restroom. Walks and steps connected these areas together.

Post-Historic and Existing Conditions:
By 1941, a restroom was built just to the southwest of the Ranger Station, which was later removed and replaced in the late 1990s by a larger restroom at the southwest corner of the parking lot. The walkway system in the lower area was rebuilt in the mid-1960s and early-1990s, and in the upper area in the early 2000s, but overall they did not significantly alter the site's spatial organization (Figure 25).

Landscape Characteristic Graphics:



Figure 25. View looking west at the Ocean Path and Ocean Drive, separated by a stone guardwall. The developed area's lower area is to the left, the upper area is the the right. (OCLP 2019, DSC-0080)

Landscape Characteristic: Vegetation

Historic Condition (through 1937):
Vegetation includes deciduous and evergreen trees, shrubs, vines, groundcovers, and herbaceous plants and plant communities, whether indigenous or introduced in the landscape. Many CCC projects at Acadia were aimed at returning disturbed areas to their natural state, primarily through the installation of new plantings. When the reconstructions of Ocean Drive and the Ocean Path were completed, the CCC was responsible for the post-construction site work, which included planting newly graded areas along the road and trail, and likely at the Ranger Station, parking lot, and walks. In a letter to Superintendent Dorr, Rockefeller also recommended plantings along the drive "to screen the parking places at different points and to soften certain places along the ocean side…" As is the case throughout the park, detailed information regarding the CCC's planting efforts are not known. However, it seems unlikely that large trees would have been chosen on the ocean side of the drive because of the desire to preserve the ocean views. The CCC also engaged in forestry work and roadside cleanup along Ocean Drive, which involved cutting and burning dead plant material. (Acadia NP GIS: "fire47polygon"; CLR 2007: 44-45, citing John D. Rockefeller, Jr. to George Dorr, 9 August 1934, Rockefeller Family Archives, Homes, box 127, folder 123)

Post-Historic and Existing Conditions:
Some of the CCC's plantings were undoubtedly damaged or destroyed when the Mount Desert Island fire reached the Thunder Hole area on October 23, 1947. Although it is unclear which plantings survived, those that did have now blended in with the aspen-birch woodland and mixed conifer-deciduous woodland plant communities present today. New plantings and turf were installed during the reconstructions of the walkway systems. In the lower area, proposed plantings in the 1965 project included Carolina rose, Virginia rose, witchhazel, and hobblebush, and in the 1992-1993 project they included sweetfern, bayberry, speckled alder, beach plum, Virginia rose, common blackberry withered viburnum, perennials, and a native grass seed mix. Some of these remain today and have blended in with the vegetation that was retained during construction (Figure 26). In the upper area, native grasses were planted and many existing trees were retained (Figure 27). There are several other isolated areas of turf generally located around trailheads, along the edges of the parking lot, and around the Ranger Station.

Landscape Features:

Feature Name	CLI Feature ID	Feature Contribution	CRIS-HS Resource ID	Associated CRIS-AR ID	FMSS Record Type	FMSS Record Number	FMSS Exact Match
CCC Plantings	156485	Contributing			Location	99629	No
Turf Areas	156487	Contributing			Location	99629	No

Landscape Characteristic Graphics:



Figure 26. View looking southeast at the vegetation around the 1992-1993 walkway system between Ocean Drive and the shoreline. The Ocean Path is in the foreground. (OCLP 2019, DSC-0088)



Figure 27. View looking northeast at retained trees around the 2000-2001 walkway system between Ocean Drive and the parking lot. The historic granite curbing and sidewalk associated with the parking lot is also visible. (OCLP 2019, DSC-0082)

Landscape Characteristic: Circulation

Historic Condition (through 1937):
Circulation refers to the spaces, features, and applied material finishes that constitute systems of movement in a landscape. The early development history of the Thunder Hole area is a history driven by access, as some of the island's earliest travel routes passed alongside it: by 1874 a bridle trail (Trail #3) had been built, by 1888 the Town of Bar Harbor constructed a road (Ocean Drive) connecting Schooner Head Road and Otter Creek Road, and by 1906 the Bar Harbor VIA built a trail (Trail #345) to Cadillac Cliffs.

However, it was Rockefeller's construction of a portion of Ocean Drive at Thunder Hole in 1929 that began the transformation of Thunder Hole into a major park destination. In 1930, Rockefeller offered to fund the construction of a park-wide motor road system, connecting the Jordan Pond/Eagle Lake Road and Cadillac Mountain Road to Ocean Drive. In 1931, the Town of Bar Harbor sold its interests in Ocean Drive to Rockefeller (who in turn donated it to the park), and in 1933-1934, the entirety of Ocean Drive was reconstructed. At the same time, the Ocean Path was reconstructed by the CCC. The design of both the road and the trail evoked the same Picturesque style characteristics that had been so effectively used on Rockefeller's carriage roads and on the two motor roads: the harmonious blending of rustic constructed features with the surrounding natural features, through sensitive design and local materials.

The Olmsted firm was involved in the design of Ocean Drive as well as six parking lots along its route to discourage cars from parking on the drive itself. The rectangular-shaped parking lot at Thunder Hole was sited west and up the hill from the drive so that it would be as inconspicuous as possible. Existing trees between the lot and drive were retained to provide additional screening. The CCC installed curbs along the east side of the parking lot and a series of three stone steps and walks from the parking lot to the drive. Another system of gravel walks and stone steps was built from the drive to the Thunder Hole, weaving through the outcrops and ending at a flat ledge where rope and wire handrails were placed above the hole. Like the Ocean Drive and Ocean Path, these features were rustic in their design and construction.

Post-Historic and Existing Conditions:
Ocean Drive and the Ocean Path continue to bisect the Thunder Hole developed area and both are in good condition. A portion of the trail has been paved to improve accessibility, extending from directly across from the bottom of the upper walkway system's accessible ramp to the top of the lower walkway system's accessible ramp. The road and trail are separated by a guardwall comprised of angular ledge stones that characterize much of Ocean Drive and other segments of the historic motor road system, as well as Rockefeller's historic carriage road system (see Figure 25).

The CCC's walkway system from Ocean Drive to the Thunder Hole survived the hostile oceanside environment for about thirty years until 1965, when it was rebuilt with wider concrete steps, new stone-faced retaining walls, and post and cable handrails. This structure lasted just shy of thirty years, until 1992-1993 when it was rebuilt again, this time with the addition of an accessible route near the drive. This system is extant today and features exposed aggregate crushed aggregate surfaces, concrete and granite steps, cobblestone swales, retaining walls with granite facing, and galvanized pipe and nylon coated cable handrails (Figure 28, see Figure 22). Both the 1965 and 1992-1993 reconstructions generally followed the CCC's alignment from the drive to the Thunder Hole.

Only one of the CCC's three stone steps and walks remains between Ocean Drive and the parking lot, and it is in good condition (Figure 29). The center and south steps/walks were removed in 2000 -2001 and replaced with a new walkway system, which included an accessible ramp. It is extant today and features concrete steps, exposed aggregate walks, granite block retaining walls, and stainless steel handrails (Figure 30, see Figure 27). Another set of CCC-period stone steps associated with the Ocean Path leads to the some of the outcrops and ledges that surround the

Thunder Hole. Numerous social trails also crisscross the ledges. Sometime in the 2000s, an accessible walk was built from the front of the Ranger Station to the rear of the building, where a small restroom has been added.

In 1969, the two-way traffic pattern changed to a one-way flow from north to south along a twelve-mile stretch of the historic motor system, from Sieur de Monts Spring to the intersection of Day Mountain Road, Day Mountain Road Extension, and Stanley Brook Road. This opened up the right lane of Ocean Drive for parking, which is often filled to capacity during the summer months. With the completion of the park's transportation plan in 2019, right-lane parking will eventually be phased out. Gravel has replaced the grass shoulder (see Figure 30). Traffic flow into and out of the Thunder Hole parking lot is not changed, however.

The parking lot at Thunder Hole, and the rough cut granite curbs and walk on its east side, are extant and in good condition (Figure 31, see Figure 27). At an unknown date, precast concrete curbs were installed along a portion of the site's north access road, likely in response to erosion in this area and to prevent parking on the shoulders. However, their smooth and light-colored appearance detracts from the historic rustic character of the site (see Figure 24). The Island Explorer free bus service stops here frequently during the summer months.

Note: The entirety of the motor road and hiking trails—and their associated features—is not comprehensively evaluated or mapped. They are considered separate property types and have their own unique areas and periods of significance. The resources of the historic motor road system were fully evaluated in a CLI and determined eligible for listing in the National Register on September 18, 2008. The historic hiking trail system in the Bar Harbor District, including the Thunder Hole area, was evaluated and determined eligible for listing in a CLI on September 20, 2017.

Landscape Features:

Feature Name	CLI Feature ID	Feature Contribution	CRIS-HS Resource ID	Associated CRIS-AR ID	FMSS Record Type	FMSS Record Number	FMSS Exact Match
Ocean Drive (Reconstructed) (portion) (MR300A	156489	Contributing	41058		Location	61716	Yes
Parking Lot (60115-001)	156491	Contributing	751089		Location	61775	Yes
Ocean Path (Trail #3) (portion)	156493	Contributing	751421		Location	62122	Yes
Granite Curbs and Sidewalk at Parking Lot (60115-003)	156495	Contributing	751421		Location	99629	No
CCC Stone Steps and Walk	156497	Contributing	751421		Location	99629	No
Lower Walkway System, Ocean Drive to the Thunder Hole	156499	Noncontributing – Compatible			Location	99629	Yes
Upper Walkway System, Ocean Drive to Parking Lot	156501	Noncontributing – Compatible			Location	99629	Yes
Accessible Walk at Ranger Station	156503	Noncontributing – Compatible			Location	99629	No
Concrete Curbs at North Parking Lot Access Road	156505	Noncontributing – Compatible					No

Landscape Characteristic Graphics:



Figure 28. View looking northeast at accessible ramp portion of the 1992-1993 walkway system between Ocean Drive and the Thunder Hole. (OCLP 2019, DSC-0092)



Figure 29. View looking west at the CCC-era stone steps and walk between Ocean Drive and the parking lot. The Ranger Station is in the background. (OCLP 2019, DSC-0269)



Figure 30. View looking southwest at the steps of the 2000-2001 walkway system between Ocean Drive and the parking lot. The right lane of the drive is shown here is for bus parking only. Note the gravel shoulder. (OCLP 2019, DSC-0086)



Figure 31. View looking south at the historic granite curbing and sidewalk on the east side of the parking lot. In the distance is the new restroom. (OCLP 2019, DSC-0084)

Landscape Characteristic: Buildings and Structures

Historic Condition (through 1937):
Buildings are elements constructed primarily for sheltering any form of human activity in a landscape, while structures are elements constructed for functional purposes other than sheltering human activity. In 1934, a ranger station was built on the northwest side of the Thunder Hole parking lot. The 26x16-foot one-story frame building featured a stone foundation and fireplace, vertical board and batten siding, wood casement windows, and a wood shingled hipped roof. The two-room building was constructed by the Works Progress Administration and was one of the first park buildings designed in the NPS Rustic Design style.

Post-Historic and Existing Conditions:
By 1941, a small restroom was built just to the southwest of the Ranger Station. In the late 1960s, the Ranger Station was converted into a concessioner's gift shop and information center, and is still provides these uses today (Figure 32). In 1978, the ditch in front of the Ranger Station and parallel to the parking lot was regraded to lead to a new culvert installed to the south of the building. The culvert was built to capture runoff from an intermittent stream at this location and the pipe was placed under the parking lot. Around 1999, a 16x10-foot vault toilet clad in white cedar shingles was constructed at the southwest corner of the parking lot (see Figure 31). In 1998, a well head north of the Ranger Station was repaired, and sometime after this date a cast iron drop inlet culvert and pipe under the parking lot was installed just to the southeast of the well. In 1999, a culvert was installed at the southeast corner of the parking lot to direct water under the newly-constructed upper walkway system. Sometime in the 2000s, a small portable restroom was installed behind the Ranger Station.

Landscape Features:

Feature Name	CLI Feature ID	Feature Contribution	CRIS-HS Resource ID	Associated CRIS-AR ID	FMSS Record Type	FMSS Record Number	FMSS Exact Match
Thunder Hole Ranger Station (BLDG072)	156507	Contributing	41098		Location	59995	Yes
Restroom at Parking Lot (B-310)	156509	Noncontributing – Compatible			Location	59996	Yes
Portable Restroom at Ranger Station	156511	Noncontributing – Compatible					No
Culvert under Parking Lot (North)	156513	Noncontributing – Compatible					No
Culvert under Parking Lot (South)	156515	Noncontributing – Compatible					No
Culvert under Upper Walkway System	156517	Noncontributing – Compatible					No

Landscape Characteristic Graphics:



Figure 32. View looking west at the front of the Thunder Hole Ranger Station, built in 1934 by the Works Progress Administration. It is now a concessioner gift shop and information booth. (OCLP 2019, DSC-8041)

Landscape Characteristic: **Views and Vistas**

Historic and Existing Conditions:
A view is the expansive and/or panoramic prospect of a broad range of vision that may be naturally occurring or deliberately contrived. A vista is a controlled prospect of a discrete, linear range of vision, which is deliberately contrived. The panoramic views of the sea from Mount Desert Island's rocky eastern shoreline have attracted locals and impressed visitors for centuries. The views were the subjects of paintings by Thomas Cole and for countless others who followed. Access to the views were made possible by a bridle path in 1874 that became today's Ocean Path and later by a road in 1888 that became today's Ocean Drive. Finally, the views were a destination that inspired John D. Rockefeller, Jr. to make it a part of his grand motor road system for all motorists visiting Acadia National Park. The view was so cherished that Rockefeller insisted that visitors not be allowed to park on the newly reconstructed Ocean Drive and potentially mar the view. As a result, the Olmsted firm sited parking lots behind, or west of, the drive.

In 1958 and 1961, the park documented 71 notable vistas along the motor road system. The entirety of Ocean Drive was identified as Vista #46. The Thunder Hole developed area is within Vista #46, which offers a view looking eastward:
"Views of the ledges, the shore line, Egg Rock, Schoodic Peninsula, outer Frenchman Bay, Great Head and Newport Cove [Sand Beach], nearly two miles in length and caused naturally by ledge rock." (GMP/EA 1991: 116, Appendix D; GMP 1992: 33)

The 1991 public review draft of the General Management Plan/Environmental Assessment and the 1992 General Management Plan identified the importance of the 71 views and vistas along the motor roads. Development of a Historic Motor Road Vista Management Plan for all historic vistas along the motor road system was completed in 2016.

The panoramic view (Vista #46) at Thunder Hole is extant today (see Figures 22-23, 26-28). From the parking lot, the vista is framed by mature trees, but from the Ocean Drive, the Ocean Path, and the ledges to the east the vista is wide open. When present, buses and cars parked in the right lane of Ocean Drive mar the view of the ocean. Additionally, reflection from the stainless steel handrails on both the upper and lower walkway systems can be distracting, especially on sunny days. The views of the Thunder Hole are also extant from much of the lower walkway system.

Landscape Features:

Feature Name	CLI Feature ID	Feature Contribution	CRIS-HS Resource ID	Associated CRIS-AR ID	FMSS Record Type	FMSS Record Number	FMSS Exact Match
Panoramic View of Ocean (portion of Vista #46)	156519	Contributing			Location	61716	Yes
Views of the Thunder Hole	156521	Contributing					No

Landscape Characteristic: **Small Scale Features**

Historic and Existing Conditions:
Small-scale features are elements that provide detail and diversity for both functional needs and aesthetic concerns in the landscape. There are no known small-scale features associated with the development of Thunder Hole prior to 1933-1934. At that time, the CCC installed signage to identify Thunder Hole for travelers on Ocean Drive, but the locations and designs of the signs are unknown. A photograph from c.1970 shows an elongated diamond-shaped wood sign identifying Thunder Hole. It was painted black with yellow lettering and stationed along Ocean Drive.

Historic photographs from the 1950s show a wood kiosk mounted on a pole next to the Thunder Hole. Although no longer extant, it stored safety equipment. There are no indications of waysides or site furnishings associated with the lower area walkway system reconstructions in 1965, but wayside signs and a site identification sign were included in the 1992-1993 reconstruction. These features were built into the retaining walls and are extant today. Another wayside sign is located in front of the Ranger Station and is set on a concrete pad. Nearby is a flagpole located in front of the Ranger Station, but its installation date is unknown. The site also provides several wood and metal trash cans and regulatory signs. There is a stone bench next to the Island Explorer bus stop, but there are no picnic tables at Thunder Hole; instead, most visitors seem content to sit on the rocks or retaining walls in the lower area.

Landscape Features:

Feature Name	CLI Feature ID	Feature Contribution	CRIS-HS Resource ID	Associated CRIS-AR ID	FMSS Record Type	FMSS Record Number	FMSS Exact Match
Wayside Signs	156523	Noncontributing – Compatible					No
Informational/Directional Signs	156525	Noncontributing – Compatible					No
Entrance Sign	156527	Noncontributing – Compatible					No
Flagpole	156529	Noncontributing – Compatible			Location	99629	No
Trash Cans	156531	Noncontributing – Compatible			Location	99629	No
Stone Bench	199242	Noncontributing – Compatible					No

Condition

Assessment Interval (Years): 7

Next Assessment Due Date: 09/28/2028

Condition Assessment and Impacts

Condition Assessment: Fair

Assessment Date: 09/28/2021

Condition Assessment Explanatory Narrative:

The condition of the Thunder Hole landscape is “fair.” The property shows clear evidence of minor disturbances and deterioration by natural and/or human forces, and some degree of corrective action is needed within 3-5 years to prevent further harm to its cultural and/or natural values. If left to continue without the appropriate corrective action, the cumulative effect of the deterioration of many of the landscape characteristics will cause the property to degrade to a poor condition.

Soil erosion and the loss of vegetation between Ocean Drive and the shoreline caused by visitors who venture away from the designated walkway system and paths continue to be a problem. Parking is allowed in the right lane of Ocean Drive at Thunder Hole, which conflicts with the design intent expressed by John D. Rockefeller, Jr. and implemented by the Olmsted firm to preserve the scenic view. Yearly maintenance is required on components of the lower walkway system due to the severe environmental conditions

Condition Assessment: Fair

Assessment Date: 08/29/2012

Condition Assessment Explanatory Narrative:

The condition of the Thunder Hole landscape is “fair.” The site shows clear evidence of minor disturbances and deterioration by natural and/or human forces, and some degree of corrective action is needed within 3-5 years to prevent further harm to its cultural and/or natural values. If left to continue without the appropriate corrective action, the cumulative effect of the deterioration of many of the character defining elements will cause the site to degrade to a poor condition.

Soil erosion and the loss of vegetation between Ocean Drive and the shoreline caused by visitors who venture away from the designated walkway system and paths continue to be a problem. Parking is allowed in the right lane of Ocean Drive at Thunder Hole, which conflicts with the design intent expressed by John D. Rockefeller, Jr. and implemented by the Olmsted firm to preserve the scenic view. Yearly maintenance is required on components of the lower walkway system due to the severe environmental conditions.

Impacts

Type of Impact: Erosion

Other Impact:

External or Internal: Internal

Impact Narrative: An ongoing threat is erosion, which should be monitored around the paths after major storms.

Date Identified: 09/28/2021

Type of Impact: Exposure to Elements

Other Impact:

External or Internal: Both Internal and External

Impact Narrative: Due to the site's harsh seaside environment, the condition of retaining walls, steps, path surfaces, and handrails, especially those between Ocean Drive and the Thunder Hole, should be regularly evaluated so that heaving, cracking, and spalling do not advance so as to become a safety issue.

Date Identified: 09/28/2021

Type of Impact: Operations On Site

Other Impact:

External or Internal: Internal

Impact Narrative: John D. Rockefeller, Jr. wished to prohibit parking along Ocean Drive because he felt it would mar the scenic view. Parking is currently allowed in the drive's right lane, but will be phased out after 2021.

Date Identified: 09/28/2021

Type of Impact: Visitation

Other Impact:

External or Internal: Internal

Impact Narrative: The stretch of Ocean Drive from north of Sand Beach to south of Thunder Hole is heavily congested during the summer months. Parking capacities at the parking lot should be monitored as the number of cars and buses increases. Visitors who venture off of the built circulation system threaten to damage and trample the fragile vegetation.

Date Identified: 09/28/2021

Type of Impact:	Climate change effects
Other Impact:	
External or Internal:	External
Impact Narrative:	Due to the seaside location, the impacts of climate change should be monitored. Sea level rise, storm damage, and higher tides may increase in frequency.
Date Identified:	09/28/2021

Treatment

Stabilization Measures

Treatment Documents

Treatment Type: Rehabilitation

Treatment Completed: Yes

Document Type: General Management Plan

Title:

IRMA Link:

Narrative:

According to the park's 1992 General Management Plan (GMP), Thunder Hole falls within two management zones: cultural zone and a natural zone. The Ranger Station falls within the cultural zone-preservation/adaptive use subzone, which aims to "use, with necessary modifications, of historically significant structures for leasing, public activities, or administrative activities and functions that perpetuate the characteristics that qualify these resources for listing on the National Register of Historic Places." The parking lot and walkways in the upper area, as well as the motor road and hiking trail segments that are within the site boundaries, fall within the cultural zone-preservation subzone, which aims to "preserve and interpret historic sites, structures, ethnographic resources, objects, and landscapes that are important because of their aesthetic value or their association with persons, events, or periods in human history and that merit full communication of these values to the public." The lower area and intervening spaces around the upper area fall within the natural zone-natural environment subzone, which aims to "conserve natural resources and provide environmentally compatible interpretive and recreational activities in ways that do not adversely affect those resources and processes." (GMP 1992: 57-59)

In the park's 2016 Foundation Document, the Thunder Hole area coincides with several of the park's fundamental resources and values, including Range of Visitor Experiences, Glacial Landscape, Mosaic of Habitats Supporting Diverse Flora and Fauna, Legacy of Conservation Ethic and Philanthropy, Network of Historic Roads and Trails, and Scenic Resources and Values. (FD 2016: 7-9)

Based on the management zones in the 1992 GMP, the identification of the site as a fundamental resource in the Foundation Document, and the recent landscape rehabilitation work along the Ocean Path, the treatment "Rehabilitation" is the appropriate treatment approach for the Thunder Hole landscape.

Approved Treatment Costs

Cost Narrative:

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Supplemental Information:

Supplemental Information Title: No Title (Location of Restroom), 1939.

Supplemental Information Narrative:

Drawing, ACAD 123-5355

Supplemental Information:

Supplemental Information Title: “Thunder Hole,” Sheet 1 of 1, 1941.

Supplemental Information Narrative:

Drawing, ACAD 123-41023

Supplemental Information:

Supplemental Information Title: No Title, (Location of Water Line), 1953.

Supplemental Information Narrative:

Drawing ACAD 123-60183

Supplemental Information:

Supplemental Information Title: “Reconstruct Walk System,” Sheets 1 and 2 of 2, 1961.

Supplemental Information Narrative:

Drawing, ACAD 123-2882

Supplemental Information:

Supplemental Information Title: “Walls and Walks,” Sheet 1 of 1, 1964.

Supplemental Information Narrative:

Drawing, ACAD 123-3131

Supplemental Information:

Supplemental Information Title: "Walls and Walks," Sheets 2-4 of 4, 1965.

Supplemental Information Narrative:

Drawing, ACAD 123-3131A

Supplemental Information:

Supplemental Information Title: "Plan," no sheet number, 1978.

Supplemental Information Narrative:

Drawing, ACAD 123-60266A

Supplemental Information:

Supplemental Information Title: "Thunder Hole Plan," Sheet 95 of 156, 1990.

Supplemental Information Narrative:

Drawing, ACAD 123-41931A

Supplemental Information:

Supplemental Information Title: "Site Plan," Sheet 5 of 13, 1991.

Supplemental Information Narrative:

Drawing, ACAD 123-81468

Supplemental Information:

Supplemental Information Title: "Layout and Drainage Plan," Sheet 3 of 13, 1992-1993.

Supplemental Information Narrative:

Drawing, ACAD 123-81468A

Supplemental Information:

Supplemental Information Title: "Thunder Hole," Sheets 2 and 3, 1995.

Supplemental Information Narrative:

Drawing, ACAD 123-41061

Supplemental Information:

Supplemental Information Title: "Thunder Hole," Sheet 1 of 3, 1995.

Supplemental Information Narrative:

Drawing, ACAD 123-41061

Supplemental Information:

Supplemental Information Title: "Thunder Hole Well Improvements," Sheet 5- of 53, 1998.

Supplemental Information Narrative:

Drawing, ACAD 123-41076A

Supplemental Information:

Supplemental Information Title: "Thunder Hole Site Plan," Sheet 5 of 63, 1998.

Supplemental Information Narrative:

Drawing, ACAD 123-41077A

Supplemental Information:

Supplemental Information Title: "Thunder Hole Bus Stop Site Plan," Sheet 18 of 19, 2001.

Supplemental Information Narrative:

Drawing, ACAD 123-60373A

Landscape Documents:

File Name	Date	Attachment Type
ACAD Thunder Hole CLI_Concurrences 2012-2021.pdf		

Source