

ROUTE 233 BRIDGE

Acadia National Park Roads & Bridges  
Spanning Route 233 on Paradise Hill Road  
Bar Harbor Vicinity  
Hancock County  
Maine

HAER NO. ME-17

HAER  
ME  
5-BAHA.V  
19-

WRITTEN HISTORICAL AND DESCRIPTIVE DATA

PHOTOGRAPHS

HISTORIC AMERICAN ENGINEERING RECORD  
National Park Service  
Department of the Interior  
P.O. Box 37127  
Washington, D.C. 20013-7127

HISTORIC AMERICAN ENGINEERING RECORD

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ROUTE 233 BRIDGE  
(Eagle Lake Road Overpass)

HAER No. ME-17

LOCATION: Spanning Maine Route 233 on Paradise Hill Road at Cadillac Mountain Entrance, Bar Harbor vicinity, Acadia National Park, Mount Desert Island, Hancock County, Maine  
Quad: Bar Harbor, ME  
UTM: 19/561150/4914200

DATE OF CONSTRUCTION: 1951

DESIGN: Bureau of Public Roads, U.S. Department of Commerce

ENGINEER: George O'Neil, Bureau of Public Roads, Resident Engineer

CONTRACTOR: Harold MacQuinn Construction Company, Hulls Cove, Maine

STRUCTURE TYPE: Stone-faced reinforced concrete filled spandrel arch bridge

FHWA STRUCTURE NO.: 1700-020P

OWNER: Acadia National Park, National Park Service

SIGNIFICANCE: This structure provides a grade separation between the Paradise Hill Road and Maine Route 233, giving park visitors unimpeded access to the Park Loop Road without having to pass through the congested streets of Bar Harbor.

PROJECT INFORMATION: Documentation of the Route 233 Bridge is part of the Acadia National Park Roads and Bridges Recording Project, conducted in 1994-95 by the Historic American Engineering Record.

Neil Maher, Historian, 1995

This is one in a series of reports prepared for the Acadia National Park Roads and Bridges Recording Project. HAER No. ME-11, ACADIA NATIONAL PARK ROADS AND BRIDGES, contains an overview history of the park road systems. In addition, HAER No. ME-56 is a detailed account of the Paradise Hill Road on which the bridge is located.

## HISTORY

The Route 233 Bridge was constructed to provide a grade separation between the Paradise Hill Road, which connects the Park Loop Road to Halls Cove on Maine Route 3 northwest of Bar Harbor, and Route 233, generally known on the island as the Eagle Lake Road. This bridge, along with Paradise Hill Road, was the last major portion of the Acadia National Park road system to be constructed, and allowed visitors to enter the park without having to pass through the crowded streets of Bar Harbor. Like many other park bridges, the Route 233 Bridge was made possible indirectly through the generosity of John D. Rockefeller Jr. Although he did not fund the construction of the bridge, Rockefeller had the road route surveyed in the 1930s, donated the necessary land for the right-of-way to the park, and kept up pressure on government officials to fund the road and the bridge.

Before construction of the Paradise Hill Road and the Route 233 Bridge could begin, the Town of Bar Harbor had to authorize the construction of the bridge and another overpass crossing the New Eagle Lake Road [HAER No. ME-18]. In a September 1939 letter to his friend, former National Park Service Director Horace M. Albright, Rockefeller expressed concerns that business interests in Bar Harbor might attempt to prevent such authorization. Businessmen, he feared, might protest having the principal park entrance relocated away from the village and pressure town officials to deny permission to construct the bridges over the Eagle Lake and New Eagle Lake roads.<sup>1</sup> In order to bring the matter before the March 1940 town meeting, Rockefeller asked Leo Grossman, Assistant Highway Engineer of the Bureau of Public Roads, to have a plan for the road drawn up for consideration.<sup>2</sup> Later that year Rockefeller transferred the land constituting the

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<sup>1</sup>John D. Rockefeller Jr. to Horace Albright, 28 September 1939. Rockefeller Archives Center, Office of the Messrs. Rockefeller, Record Group 2, Homes (Seal Harbor, Box 122, Folder 72.

<sup>2</sup>Rockefeller to Leo Grossman, Assistant Highway Engineer, Bureau of Public Roads, 4 October 1939. Rockefeller Archives Center, Office of the Messrs. Rockefeller, Record Group 2 Homes (Seal Harbor), Box 122, Folder 72.

major portion of the road route to the government under the stipulation that the Town of Bar Harbor would authorize the project. Town officials accepted these conditions and the project was authorized by the National Park Service.<sup>3</sup>

Although construction of the Paradise Hill Road was completed in October 1941 under Bureau of Public Roads supervision, funding appropriations for this work did not include sufficient monies to construct the Eagle Lake Road and New Eagle Lake Road bridges, as well as a third and much larger bridge over Duck Brook [HAER No. ME-30]. Paradise Hill Road, therefore, remained unusable. Concerned over the suspension of this project, Rockefeller wrote to National Park Service Director Newton B. Drury in July 1944, urging that once World War II ended the park service complete the Acadia road system in general and the Paradise Hill Road bridges specifically. Drury replied that the Acadia park work program was in good order and that plans for the three bridges, including the Route 233 Bridge, were already prepared. Drury added that while specifications for the bridge could not be drawn up because it would be necessary to include wage and hour rates based on prevailing prices, he assured Rockefeller that suspended public works projects would be reinstated at the conclusion of hostilities.<sup>4</sup>

Rockefeller wrote his good friend, former NPS director Horace Albright, in July 1947 to ask him to urge the construction of the three Paradise Hill Road bridges. He remarked that he and Mrs. Rockefeller had just driven over the completed sections of the road but were disappointed that the lack of bridges prevented them from driving over the rest, and the drive had made them "all the keener" to see the bridges completed without much more delay. Albright looked into the matter and wrote back two days later that estimates had been prepared, and that the Route 233 Bridge was expected to cost \$48,457. However, he reported that Associate Director A. E. Demaray had written him that, because of the small appropriation for the NPS for 1948, the work at Acadia could not be pursued.<sup>5</sup>

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<sup>3</sup>National Park Service, "Acadia National Park Master Plan, 1940" (Richmond, VA: National Park Service, 1940), 4.

<sup>4</sup>Rockefeller to Newton B. Drury, Director, National Park Service, 13 July 1944; Drury to Rockefeller, 17 July 1944. Rockefeller Archives Center, Office of the Messrs. Rockefeller, Record Group 2, Homes (Seal Harbor), Box 123, Folder 75.

<sup>5</sup>Rockefeller to Albright, 14 July 1947; Albright to Rockefeller, 16 July 1947, in Joseph W. Ernst, editor, *Worthwhile Places: Correspondence of John D. Rockefeller, Jr. and Horace M.*

Rockefeller and Albright continued to discuss the situation through the summer. Rockefeller hinted to Albright that he might be willing to "make a contribution" to the park to see the bridge project proceed, but Albright suggested the government might be able to move ahead with the project if Congress could be convinced to appropriate the funds. Rockefeller was encouraged in August when Director Drury made a visit to the park and affirmed his interest in having at least one of the bridges built as soon as possible. Unfortunately, Thomas C. Vint, the Chief of the Branch of Plans and Design who was accompanying Drury on the trip, pointed out that the estimates for the cost of the bridges had risen dramatically--perhaps as much as 100 percent. Albright wrote Rockefeller again that month, stating that Drury did not see how any funds could be appropriated to the project as of yet. Rockefeller wrote back asking whether or not it might help the project go ahead if he were to offer to match federal expenditures, but Albright urged him to wait, as Drury was working on getting funds released.<sup>6</sup>

In September, Director Drury wrote Rockefeller that if the National Park Service received its requested appropriation, construction of the three bridges would begin as soon as the funds were released on 1 July 1948.<sup>7</sup> The park service estimated that the construction of the Route 233 Bridge and the New Eagle Lake Road Bridge would cost approximately \$152,000. The funds were subsequently released and the contract for the two bridges was awarded to Harold MacQuinn of Hulls Cove, who employed more than fifty men on the project. George O'Neil of the Bureau of Public Roads was resident engineer.<sup>8</sup>

Drury notified Rockefeller in January 1951 that the Route 233 Bridge was finally under construction. Although cold weather had resulted in a suspension of work during the winter months, both overpasses were 49 percent completed. Drury added that he thought prior difficulties in obtaining the structural steel needed to reinforce the bridges had been overcome and anticipated

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Albright (New York: Fordham University Press for Rockefeller Archives Center, 1991), 240-41.

<sup>6</sup>Rockefeller to Albright, 20 August 1947, in Ernst, 246-49.

<sup>7</sup>Drury to Rockefeller, 9 September 1947. Rockefeller Archives Center, Office of the Messrs. Rockefeller, Record Group 2, Homes (Seal Harbor), Box 123, Folder 77.

<sup>8</sup>"Acadia's Stone Bridges Link Past and Future," *Bar Harbor [ME] Times*, 23 April 1987.

no further problems.<sup>9</sup> The bridge was completed soon afterwards, and the Paradise Hill Road opened in 1955.

A 1990 inspection of the Route 233 Bridge by the Federal Highway Administration determined the bridge "structurally sound" but in need of rehabilitation. The bridge safety inspection report recommended an expenditure of \$1,750 for rehabilitation work, which included repairing deteriorated mortar joints in the parapet, and sealing minor cracks on the surface. Minor efflorescence in the underside of the arch was also noted, as were clogged weep holes.

#### DESCRIPTION

Spanning Route 233 on Paradise Hill Road .1 mile north of the Cadillac Mountain Road, the Route 233 Bridge is a large stone-faced reinforced concrete structure. The bridge's span length is 42' 9" while its total length runs 99'. The structure carries a two-lane road 20' wide. The minimum vertical clearance of the bridge arch is 14' 3". The bridge crosses Route 233 on a 30° skew, with the result that the arch barrel is angled. The stone-faced parapet walls extend 2' 3" above the deck.<sup>10</sup>

Stone used in the masonry facing, on the parapets, and the wing walls, is ashlar cut native pink granite. Slender arch radiating voussoirs define the curve of the semicircular arch. The intrados of the arch barrel is also faced in granite.

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<sup>9</sup>Drury to Rockefeller, 26 January 1951. Rockefeller Archives Center, Office of the Messrs. Rockefeller, Record Group 2, Homes (Seal Harbor), Box 123, Folder 77.

<sup>10</sup>U.S. Department of Transportation, Federal Highway Administration, "Bridge Safety Inspection Report, Paradise Hill Road Over NPS Route 100, Acadia National Park, Str. No. 1700-010P, Inspected: June 26, 1990" (Sterling, VA: Federal Highway Administration, Eastern District Federal Division, 1990), 3.

## BIBLIOGRAPHY

Correspondence

- Drury, Newton B. to John D. Rockefeller Jr., 26 January 1951.  
Rockefeller Archives Center, Office of the Messrs.  
Rockefeller, Record Group 2, Homes (Seal Harbor), Box 123,  
Folder 77.
- to Rockefeller, 17 July 1944. Rockefeller Archives Center,  
Office of the Messrs. Rockefeller, Record Group 2, Homes  
(Seal Harbor), Box 123, Folder 75.
- to Rockefeller, 9 September 1947. Rockefeller Archives  
Center, Office of the Messrs. Rockefeller, Record Group 2,  
Homes (Seal Harbor), Box 123, Folder 77.
- Ernst, Joseph W., ed. *Worthwhile Places: Correspondence of John  
D. Rockefeller, Jr. and Horace M. Albright*. New York:  
Fordham University Press for Rockefeller Archives Center,  
1991.
- Rockefeller, John D. Jr. to Horace Albright, 28 September 1939.  
Rockefeller Archives Center, Office of the Messrs.  
Rockefeller, Record Group 2, Homes (Seal Harbor), Box 122,  
Folder 72.
- to Leo Grossman, Assistant Highway Engineer, Bureau of  
Public Roads, 4 October 1939. Rockefeller Archives Center,  
Office of the Messrs. Rockefeller, Record Group 2 Homes  
(Seal Harbor), Box 122, Folder 72.
- to Newton B. Drury, Director, National Park Service, 13 July  
1944; Drury to Rockefeller, 17 July 1944. Rockefeller  
Archives Center, Office of the Messrs. Rockefeller, Record  
Group 2, Homes (Seal Harbor), Box 123, Folder 75.

National Park Service Reports

- National Park Service, "Acadia National Park Master Plan, 1940."  
Richmond, VA: National Park Service, 1940.

Federal Highway Administration Reports

- U.S. Department of Transportation, Federal Highway Administra-  
tion. "Bridge Safety Inspection Report, Paradise Hill Road  
Over NPS Route 100, Acadia National Park, Str. No. 1700-  
010P, Inspected: June 26, 1990." Sterling, VA: Federal  
Highway Administration, Eastern Direct Federal Division,  
1990.

Newspaper Articles

- "Acadia's Stone Bridges Link Past and Future," *Bar Harbor [ME]  
Times*, 23 April 1987.

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(Eagle Lake Road Overpass)

↳ Park Loop Road, spanning route 233 (Eagle Lake Road)

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Bar Harbor Vicinity

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Maine

JET LOWE, PHOTOGRAPHER, SEPTEMBER 1994

ME-17-1

FACING E, WEST ELEVATION

ME-17-2

FACING S, ALONG DECK





ACADIA  
NATIONAL  
PARK  
Cadillac Mt. Entrance  
←

ACER No ME 17-1

Low A  
HAER



HAER No. ME. 172