

HADLOCK BROOK BRIDGE

Acadia National Park Roads & Bridges

Spanning Hadlock Brook on Upper Hadlock Brook Carriage Road

Northeast Harbor Vicinity

Hancock County

Maine

HAER NO. ME-37

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WRITTEN HISTORICAL AND DESCRIPTIVE DATA

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

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HISTORIC AMERICAN ENGINEERING RECORD

HADLOCK BROOK BRIDGE

HAER No. ME-37

LOCATION: Spanning Hadlock Brook on Hadlock Pond carriage road, 1 mile N of Brown Mountain Gate House, Northeast Harbor vicinity, Mount Desert Island, Hancock County, Maine

Quad: Southwest Harbor, ME
UTM: 19/557000/4908000

DATE OF CONSTRUCTION: 1926

ARCHITECT: William Welles Bosworth, New York, after an existing structure in Central Park and Little Harbor Brook Bridge

ENGINEER: Paul D. Simpson, for John D. Rockefeller, Jr.

CONTRACTOR: B. W. Candage & Son, Seal Harbor, ME

STRUCTURE: Stone-faced reinforced concrete filled spandrel arch bridge

FHWA NO.: 1700-0023S

OWNER: Acadia National Park, National Park Service

SIGNIFICANCE: Copied from a bridge in New York's Central Park, Hadlock Brook Bridge bears the Hadlock Pond carriage road across its namesake stream on a shallow segmental arch. The bridge design was used for three other structures on the Rockefeller carriage road system on Mount Desert Island.

PROJECT INFORMATION: Documentation of Hadlock Brook Bridge is part of the Acadia National Park Roads and Bridges Recording Project, conducted in 1994-95 by the Historic American Engineering Record of the National Park Service. This is one in a series of project reports. HAER No. ME-13, ROCKEFELLER CARRIAGE ROADS, contains more specific information on the park carriage road system.

Richard H. Quin, HAER Historian, 1994

This is one in a series of reports prepared for the 1994-95 Acadia National Park Roads and Bridges Recording Project. HAER No. ME-13, ROCKEFELLER CARRIAGE ROADS, is an overview history of the entire carriage road system.

HISTORY

In 1925, John D. Rockefeller, Jr. began planning for the construction of a new segment for his Mount Desert Island carriage road system. This new link would connect the Brown Mountain Road (now Maine Highway 198) with Aunt Betty Pond, a lovely but isolated small lake on the interior of the island. Originally planned as a bridle path, narrower than the standard carriage roads, the new "Hadlock Pond Road" would parallel the West Sargent Mountain Road (part of the "Around the Mountain" loop system) at a lower elevation, and allow for a loop trip over different routes. At the head of Upper Hadlock Pond, the new road would cross Hadlock Brook, requiring the only major bridge on the segment. Although the road was designed as a bridle path, the bridge would be built wide enough to handle carriage traffic.

Rockefeller chose to have the bridge built after the general plan of the Gap Stowe Bridge in New York's Central Park. He asked New York architect William Welles Bosworth, who had copied the design for two other bridges on the Rockefeller carriage road (Little Harbor Brook, HAER No. ME-32, and Jordan Pond Dam Bridge, HAER No. ME-33), to send copies of the plans for the Jordan Pond Dam structure. Those plans would be used in planning the new bridge over Hadlock Brook.¹

Rockefeller engaged the Seal Harbor construction firm of B. W. Candage & Sons to construct the bridge. The Candages, neighbors to Rockefeller's estate, had constructed most of the other bridges on the system to this point. The Candages submitted a \$6893.60 bid for the construction. Although this figure was more than twice the price for the two identical bridges already constructed, Rockefeller awarded them the work, expecting the bridge to be substantially complete by the end of the year.

¹Vanasse Hangen Brustlin, Inc. and McGinley Hart & Associates, *Historic Bridge Reconnaissance Survey, Carriage Road System, Acadia National Park*, draft edition (Boston, MA: National Park Service, North Atlantic Regional Office, September 1993), 70.

At the end of 1925, Rockefeller wrote Sam Candage concerning the bridge.

What about the little bridge on the bridle path above Hadlock Pond? Perhaps from Mr. Heydt I have gained the impression that seemed to be some doubt as to what type of bridge had been decided upon. I am sure that you will remember that I told you last summer I wanted to copy the bridge which you built at the Jordan Pond Dam, only making it even rougher and with less tooling than that bridge. I am also quite sure that I sent you duplicate blueprints of the bridge. You were hoping to put the footings in when the water was low last fall. This I supposed to have been done, and in fact, was hoping to hear that the bridge had been built before cold weather set in. What is the situation? I am anxious to use this bridle path this coming summer.²

The bridge was not ready at the beginning of the coming summer, but the construction was largely completed by August. In late June, Charles Heydt reported that he had looked into the project and assured Rockefeller the work would be completed in July and within the original budget estimate of \$6893.60. In August, however, Heydt reported that payments of \$6,704.03 had already been made on the project, and that Candage had submitted another bill for an additional \$1,468.03, which would bring the total to \$8,172.06. As this figure represented a cost overrun of \$1,278.46, Rockefeller wrote Candage for an explanation. Rockefeller pointed out that the Little Harbor Brook Bridge, of which the Hadlock Brook Bridge was a duplicate, had only cost \$2,843.08, and the identical Jordan Pond Dam Bridge cost \$2,735.11, or even less. Rockefeller stated that since Candage's original bid was more than twice the price for the first two bridges, he had figured this would be an extreme bid, and that the actual costs would show an underrun, rather than overrun, from the figures. Rockefeller indicated he was "disappointed" at the outcome, and asked Candage to better itemize his bills so

²John D. Rockefeller, Jr., New York, to Sam Candage, Seal Harbor, ME, 31 December 1925. Rockefeller Archives Center, Office of the Messrs. Rockefeller, Record Group 2, Homes (Seal Harbor), Box 122 Folder 1237.

that he could scrutinize them more closely and thus come to an understanding about the cost overruns.³

On a positive note, Rockefeller told Candage that his architect, Bosworth, had inspected the various bridges which had been completed and was "greatly pleased" with them. He had noticed that the edges of the posts or curtails on the new bridge were rather sharp, and thought they might be cut back or smoothed to improve the appearance of the bridge.⁴

The bridge has remained in continuous use. A summer 1993 inspection by Vanasse Hangen Brustlin, Inc., a Boston engineering firm, noted some deteriorated conditions, including severe calcium carbonate deposition, moderate mortar joint deterioration, partial blockage of the stream beneath the bridge by debris and accompaniment scouring around the wing walls, and wearing of the roadway surface. The report recommended measures to deal with the problems, including waterproofing the roadway to convey water away from the bridge, repointing the failing mortar joints, removal of the efflorescence, and construction of a special roadway treatment over the arch crown to resist the wearing.⁵

DESCRIPTION

One of four nearly identical bridges on the Mount Desert Island carriage road system, Hadlock Brook Bridge is adapted from the design of the Gap Stowe Bridge in New York's Central Park. The single-span segmental arch structure is of reinforced concrete construction but is faced in the island's native granite. Built on a tangent, the bridge measures 46'10" long and bears a 15' wide roadway. The arch has a clear span of 18'10" and rises 7'2" from the spring line. The bridge's wing walls are faced in granite, and the parapet walls, which follow the curve of the

³Rockefeller to Candage, 30 August 1926. Rockefeller Archives Center, Office of the Messrs. Rockefeller, Record Group 2, Homes (Seal Harbor), Box 122 Folder 1237.

⁴Ibid; "Bridges Built by B. W. Candage," MSS, 19 August 1927. Rockefeller Archives Center, Office of the Messrs. Rockefeller, Record Group 2, Homes (Seal Harbor), Box 121 Folder 1217.

⁵Vanasse Hangen Brustlin and McGinley Hart, 70-72.

arch, are of solid stone, terminating in square end posts or curtails. The arch itself is defined by arch radiating voussoirs or arch ring stones of varying size with a central keystone on each side. At either side of the arch are 8" diameter weepholes with projecting stone scuppers, an architectural detail copied from the Central Park Bridge.⁶

The bridge crosses Hadlock Brook a quarter mile above Upper Hadlock Pond in an open wooded glade. Vegetation is mixed, but hemlocks predominate near the site. The rocky stream channel is heavily braided as it approaches the bridge but comes together just above the structure. The Hadlock Brook Trail crosses the bridge, heading southeast to Hadlock Pond and northwest to connections with the Maple Spring and Sargent Mountain South Ridge trails.

⁶This description is based in part on the bridge description in the Vanasse Hangen Brustlin/McGinley Hart report, p. 70, from field measurements taken by the HAER recording team in summer 1994, and from a site visit in June 1995.

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