

LITTLE HARBOR BROOK BRIDGE  
Acadia National Park Roads & Bridges  
Spanning Little Harbor Brook on Asticou-Jordan Pond Carriage Road  
Northeast Harbor Vicinity  
Hancock County  
Maine

HAER NO. ME-32

HAER  
ME  
5-NORHAY  
4-

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

HAER  
ME  
5-NORHAY  
4-

HISTORIC AMERICAN ENGINEERING RECORD

LITTLE HARBOR BROOK BRIDGE

HAER No. ME-32

LOCATION: Spanning Little Harbor Brook on Asticou-Jordan Pond carriage road, 1 mile SW of Jordan Pond House, Seal Harbor vicinity, Mount Desert Island, Hancock County, Maine

Quad: Southwest Harbor, ME  
UTM: 19/558300/4907075

DATE OF CONSTRUCTION: 1919

ARCHITECT: William Welles Bosworth, New York, after an existing structure in Central Park

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.: 1700-040S

OWNER: Acadia National Park, National Park Service

SIGNIFICANCE: Copied from a bridge in New York's Central Park, the Little Harbor Brook Bridge bears the Asticou-Jordan Pond carriage road across an intermittent stream on a shallow segmental arch. The bridge design was adapted for three other structures on the Rockefeller carriage road system on Mount Desert Island.

PROJECT INFORMATION: Documentation of the Little Harbor 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

John D. Rockefeller, Jr. began expanding his estate carriage road system on Mount Desert Island beyond the boundaries of his estate in 1917. One new segment was intended to connect the Jordan Pond House, which Rockefeller had acquired, with the Brown Mountain Road (now Maine Highway 198) north of Northeast Harbor. The Northeast Harbor Village Improvement Society (VIS) was then engaged in an effort to construct a series of bridle paths, and Rockefeller intended his road to provide a connection between the two systems. The new road would have to cross Little Harbor Brook, a small mountain stream which drains The Amphitheatre between Penobscot and Cedar Swamp mountains, just west of Mitchell Hill. The crossing would require a new bridge, the second on the carriage road system.

Rockefeller asked New York architect William Welles Bosworth, who had done extensive work for him in New York, to design the bridge. Bosworth had designed the first of the bridges for the Mount Desert carriage road system (Cobblestone Bridge, HAER No. ME-31). On 5 August 1918, Rockefeller wrote Bosworth, asking him to "please suggest a design of a masonry type bridge, with a concrete core, the same as the one you designed before, but adapted to a much smaller stream, and of a much less important roadway." Bosworth accepted, and sent back a sketch for a segmental arch bridge with a rustic boulder parapet, mimicking the coping stones which lined the adjacent parts of the road.<sup>1</sup>

The following March, Rockefeller told his carriage road contractor, A. E. Clement, that he had changed his mind about the design after seeing a small bridge in New York's Central Park

---

<sup>1</sup>Vanasse 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), 35.

which pleased him. (This was the Gap Stowe Bridge across an arm of The Pond, opposite 59th Street). Rockefeller had this bridge drawn and set the blueprint to Clement to figure out a new bid.<sup>2</sup>

Because the new design was for a low bridge, Rockefeller did not think it would be necessary to face the structure with small stones, as had been done with the recently-completed Cobblestone Bridge [HAER No. ME-31]. Instead, he suggested the bridge could be faced entirely with roughly dressed split stone.<sup>3</sup>

Clement had submitted a bid of \$2,500 for the construction of the bridge depicted in the original blueprint, a figure Rockefeller thought excessive. In sending Clement the plans for the new design, Rockefeller stated that he had engaged two engineers to figure out the costs for the structure, and that they had come up with estimates of \$1,100 and \$1,200 respectively, though these figures were for the net cost and did not reflect a profit for the contractor. Rockefeller wrote that the figures confirmed his belief that Clement's bid was too high. Since steel prices had dropped with the conclusion of World War I and labor was more plentiful, he urged Clement to submit a new and lower bid.<sup>4</sup>

Rockefeller also forwarded the blueprint to his carriage road engineer, Charles P. Simpson, for examination. Simpson replied that he did not think he could improve upon its general design. However, because the banks of the stream at the chosen crossing were both low, he recommended lowering the height of the bridge, either through flattening the arch, lowering the spring line, or some combination of the two. Lowering the bridge would lessen the amount of fill needed for the approaches and improve its overall appearance.<sup>5</sup>

---

<sup>2</sup>John D. Rockefeller, Jr., New York, to A. E. Clement, Seal Harbor, ME, 29 March 1919. Rockefeller Archives Center, Office of the Messrs. Rockefeller, Record Group 2, Homes (Seal Harbor), Box 122 Folder 1231.

<sup>3</sup>Rockefeller to Clement, 29 March 1919, *op cit.*

<sup>4</sup>*Ibid.*

<sup>5</sup>Charles P. Simpson, Essex, CT to Rockefeller, 7 April 1919. Rockefeller Archives Center, Office of the Messrs. Rockefeller, Record Group 2, Homes (Seal Harbor), Box 122 Folder 1231.

A week later, Rockefeller wrote back to Simpson, inviting him to come to New York to see the prototype in Central Park and to meet with architect Bosworth. Rockefeller suggested that the site visit would make it easier for Simpson to go over the construction details with Clement on his return. Rockefeller also wanted Simpson to visit his father's estate at Pocantico Hills, where he was engaged in building another private carriage road system. Rockefeller, who planned a trip to France in mid-May, asked Simpson to come at the beginning of the month and invited him to bring along his wife. Rockefeller would, of course, defray any costs associated with the trip.<sup>6</sup>

Rockefeller instructed his personal secretary, Charles O. Heydt, to make the arrangements for Simpson's New York visit. In addition to the bridge he wanted copied, he also wanted Simpson to see "the Narrow High Bridge" across the end of The Lake; this latter structure would be the prototype for a later bridge on the Acadia system (West Branch Jordan Stream Bridge, HAER No. ME-42]. Heydt was to arrange for Simpson to meet with Stoughton at the bridge, and for the remainder of his stay, including the trip to Pocantico Hills.<sup>7</sup>

Rockefeller also told Heydt to have Simpson and Bosworth discuss Simpson's proposed modifications of the design, particularly the lowering of the approaches. Simpson had also suggested widening the roadway from 15' to 16', and Rockefeller agreed. Heydt was to make sure the engineer and the architect come to a "complete agreement" on the design and appearance of the bridge so that the work could proceed smoothly.<sup>8</sup>

Although Rockefeller continued to employ A. E. Clement on the construction of the Asticou-Jordan Pond Road, he did not award him the bridge contract. Instead, he asked another Seal Harbor construction firm, B. W. Candage & Son, to do the work. The firm

---

<sup>6</sup>Rockefeller to Simpson, 15 April 1919. Rockefeller Archives Center, Office of the Messrs. Rockefeller, Record Group 2, Homes (Seal Harbor), Box 122 Folder 1231.

<sup>7</sup>Rockefeller to Charles O. Heydt, New York, 30 April 1919. Rockefeller Archives Center, Office of the Messrs. Rockefeller, Record Group 2, Homes (Seal Harbor), Box 122 Folder 1231.

<sup>8</sup>Ibid.

had done extensive masonry work for Rockefeller on his estate, and would build the lion's share of the carriage road bridges. The Candages estimated the cost of the Little Harbor Brook Bridge at \$2716, \$216 higher than the Clement bid which Rockefeller had found excessive.<sup>9</sup>

The structure was completed in the fall at a cost of \$2861.37. On 25 November, Rockefeller wrote Sam Candage, thanking him for photographs of the newly completed structure. He commended the contractor, telling him he was "perfectly delighted with the finished result," and congratulating him on the "very artistic work" which he had done. Rockefeller had already awarded the Candages the contract for another bridge based on the same design (Jordan Pond Dam Bridge, HAER No. ME-33) and told him that if he constructed that bridge to look the same, he would be "more than pleased."<sup>10</sup>

The bridge has remained in continuous use. A 1993 inspection by Vanasse Hangen Brustlin, Inc., a Boston engineering firm, found the structure in generally good condition, though there was some minor cracking of the exposed concrete arch intrados, deteriorated mortar joints between the voussoirs, moderate calcium carbonate deposition, and a worn roadway surface. To deal with the problems, the firm recommended waterproofing the entire roadway to convey water away from the bridge, repointing the voussoirs, and removal of the calcium carbonate leachate.

#### DESCRIPTION

One of the smaller bridges on the Rockefeller carriage road system, Little Harbor Brook Bridge is a single-span segmental arch bridge of reinforced concrete construction faced in native granite. The random ashlar stone cladding, which gives the bridge a rustic appearance, conceals the reinforced concrete substructure but the intrados or underside of the arch, generally not visible, is exposed concrete. The bridge measures 41'6" long and is built on a tangent. Its shallow segmental arch has a clear span of 18'10" and stands 4'6" above the water level. To either side of the arch are 10" diameter weep holes with projecting stone scuppers, details copied from the Central Park

---

<sup>9</sup>"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.

<sup>10</sup>"Bridges Built by B. W. Candage."

LITTLE HARBOR BROOK BRIDGE  
HAER No. ME-32  
(page 6)

bridge. Above the arch, stone parapet walls follow the line of the curve and terminate in battered square piers. The date of construction, 1919, is carved into the southwest curtail.<sup>11</sup>

---

<sup>11</sup>Vanasse Hangen Brustlin and McGinley Hart, 35.

BIBLIOGRAPHY

- "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.
- Rockefeller, John D., Jr., New York, to A. E. Clement, Seal  
Harbor, ME, 29 March 1919. Rockefeller Archives Center,  
Office of the Messrs. Rockefeller, Record Group 2, Homes  
(Seal Harbor), Box 122 Folder 1231.
- to Charles O. Heydt, New York, 30 April 1919. Rockefeller  
Archives Center, Office of the Messrs. Rockefeller, Record  
Group 2, Homes (Seal Harbor), Box 122 Folder 1231.
- to Charles P. Simpson, Sullivan Harbor, ME, 15 April 1919.  
Rockefeller Archives Center, Office of the Messrs.  
Rockefeller, Record Group 2, Homes (Seal Harbor), Box 122  
Folder 1231.
- Simpson, Charles P., Essex, CT, to John D. Rockefeller, Jr., New  
York. Rockefeller Archives Center, Office of the Messrs.  
Rockefeller, Record Group 2, Homes (Seal Harbor), Box 122  
Folder 1231.
- Vanasse 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.



HISTORIC AMERICAN ENGINEERING RECORD

INDEX TO PHOTOGRAPHS

HAER  
ME  
5-NORHA.V  
4-

LITTLE HARBOR BROOK BRIDGE

HAER No. ME-32

Little Harbor Brook Carriage Road, spanning Little Harbor Brook  
Acadia National Park Roads and Bridges  
Northeast Harbor Vicinity  
Hancock County  
Maine

JET LOWE, PHOTOGRAPHER, SEPTEMBER 1994

ME-32-1                    SOUTH ARCH FACING NORTH

ME-32-2                    EASTERN PORTAL FACING WEST ACROSS BRIDGE



HAER No. ME. 32.1

