

STANLEY BROOK BRIDGE

HAER NO. ME-45

Acadia National Park Roads & Bridges

Spanning Stanley Brook, Stanley Brook Motor Road, and Seaside Trail on Barr Hill-

Day Mountain Carriage Road

Seal Harbor Vicinity

Hancock County

Maine

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WRITTEN HISTORICAL AND DESCRIPTIVE DATA

PHOTOGRAPHS

MEASURED AND INTERPRETIVE DRAWINGS

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

HISTORIC AMERICAN ENGINEERING RECORD

STANLEY BROOK BRIDGE

HAER No. ME-45

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LOCATION: Spanning Stanley Brook, Stanley Brook Road, and bridle trail on Barr Hill-Day Mountain carriage road at post 30, 1 mile north of Seal Harbor, Mount Desert Island, Hancock County, Maine

Quad: Seal Harbor, ME
UTM: 19/560000/4906450

DATE OF CONSTRUCTION: 1933

ARCHITECT: Charles W. Stoughton

ENGINEER: Paul D. Simpson

CONTRACTOR: Rockefeller work crews under the supervision of estate superintendent S. F. Ralston

STRUCTURE TYPE: Three span stone-faced reinforced concrete filled spandrel arch bridge

FHWA STRUCTURE NO.: 1750-026S

SIGNIFICANCE: The triple-arched Stanley Brook Bridge spans Stanley Brook, the Stanley Brook Road connecting Seal Harbor with the Park Loop Road, and the historic Seaside Path bridle trail. One of the most formal of the Rockefeller carriage road bridges, the site is also significant for its intact planned landscape, designed by landscape gardener Beatrix Farrand.

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

HISTORY

The Stanley Brook motor road was constructed by John D. Rockefeller, Jr. in the early 1930s to serve as link between Seal Harbor (where his summer home, the Eyrie, was located) and the "Mountain Road" (Jordan Pond-Bubble Pond) motor road, which became the western link of the Park Loop Road. At about the same time, he began construction of the Barr Hill-Day Mountain carriage road, which ultimately connected his estate with a loop road around Day Mountain, the final segment of his carriage road system. Where the carriage road crossed the new motor road, a bridge was required to separate the two roads. Rockefeller and his engineer, Paul D. Simpson, chose a bridge design which would cross the motor road, the adjacent Seaside Path bridle trail (a popular route between Seal Harbor and the Jordan Pond House, now a pedestrian trail), and Stanley Brook on three separate semicircular arches.

Rockefeller engaged New York architect Charles W. Stoughton to design the bridge. Stoughton, who had designed several bridges for Rockefeller's Pocantico Hills estate in New York, had also prepared designs for several of the carriage road bridges on Rockefeller's Mount Desert Island roads. Paul Simpson was to handle the engineering work and prepare the working drawings. In February 1933, Rockefeller told Simpson "The Stanley Brook bridge is one of the first things that will be undertaken in the spring," and directed him to have the working drawings ready when the work season opened.¹

The bridge was ready for bids in the winter of 1933-34. Three bids were received. Wyman and Simpson (this was Walworth Simpson, Paul Simpson's brother), which had recently completed the Jordan Pond Road Bridge [HAER No. ME-44] for Rockefeller, submitted the low bid of \$29,500. B. W. Candage & Son of Seal Harbor, who had also built a number of the carriage road bridges, bid \$30,617.68, and LeMcLaughlin, Inc. bid \$39,000 on the project. However, Rockefeller's estate superintendent, S. F. Ralston estimated he could build the structure for \$25,123.55,² and Rockefeller directed him to proceed with the construction.²

¹John D. Rockefeller, Jr., to Paul D. Simpson, 10 February 1933. Rockefeller Archives Center, Simpson Family Papers, Record Group IV3A10, Box 1 Folder 5.

²William D. Rieley and Roxanne S. Brouse, *Historic Resource Study for the Carriage Road System, Acadia National Park, Mount Desert Island, Maine* (Boston, MA: National Park Service, North Atlantic Regional Office, May 1989), 237.

Ralston had constructed the Jordan Stream West Branch, Amphitheatre and Cliffside bridges [HAER Nos. ME-42, ME-43 and ME-41] and had overseen much of the carriage road construction.

Walworth Simpson wrote Rockefeller, asking why his firm was not allowed to build the bridge, despite having submitted the low bid. He asked if Rockefeller was displeased with the work on the Jordan Pond Road Bridge. Rockefeller replied that the work was generally satisfactory, though he did not like the way several stone courses appeared to run down hill. This was a minor criticism, he added, pointing out that "[T]he reason why your bid on a subsequent bridge was not accepted was because we have ourselves developed a technique in bridge building as a result of which we are able to build less expensively than by contract."³

No reports were located detailing the construction of the bridge, but construction photographs show that it was completed in 1933. Ralston managed to build the bridge for \$23,928.23, which was \$1,195.32 less than his original estimate. Rockefeller found this cost savings "most gratifying." He was very pleased with the structure, stating "I am much pleased with this result, which I know is due in large measure to your wise planning and careful supervision of the work."⁴

In August 1934, Rockefeller wrote landscape gardener Beatrix Farrand, who was advising him on roadside plantings as well as overseeing the establishment of a vast pleasure garden at the Eyrie. He stated that his estate gardener, Charles Miller, was planting numerous evergreen trees in the vicinity of the bridge with the idea of blocking out views of the numerous roads which came together in the vicinity. He asked Mrs. Farrand to decide on the actual decorative planting around the bridge, both on the motor road and the approaches from the carriage roads. He indicated that Miller would be able to do the work when the planting season resumed in the fall.⁵

³Walworth Simpson, Wyman & Simpson, Inc., Augusta, ME to John D. Rockefeller, Jr., 6 June 1933; Rockefeller to Simpson, 31 July 1933. Rockefeller Archives Center, Office of the Messrs. Rockefeller, Record Group 2, Homes (Seal Harbor), Box 123 Folder 1238.

⁴Rockefeller to S. F. Ralston, Seal Harbor, ME, 8 January 1934. Rockefeller Archives Center, Office of the Messrs. Rockefeller, Record Group 2, Homes (Seal Harbor), Box 121 Folder 1219.

⁵Rockefeller to Beatrix Farrand, Bar Harbor, ME, 10 August 1934. Rockefeller Archives Center, Office of the Messrs.

Mrs. Farrand evidently provided instructions for planting at the site, as her "road notes" for November 1934 indicated a great deal of work had been carried out.

At the Stanley Brook Bridge, further inspection showed how much the planting had improved the whole neighborhood. The pines had quite transformed the slopes, and big groups of sumachs near the bridge, cedars north of the bridge and shrubs on the spaces between the trail, the bridle path and the large road have very much "furnished" the whole scheme. Mrs. Farrand feels, and thinks Charles [Miller] agrees with her, that if it be possible to plant four maples north and south of the bridge (two on the north and two on the south) it would materially add to the attractiveness of the bridge arch itself. Sufficient root run should be provided for the four trees and this would probably mean cutting out a little on the west side of the road. Mrs. Farrand feels quite distinctly that this tree planting would be most desirable, as otherwise there is no way of veiling or framing the big arch. . .

At the southeast end of the bridge, it was suggested that two good redberried elder berries be planted, one accompanied with roses and the other with sweet fern or *Diervilla*.⁶

Later in the month, she wrote Rockefeller that she and Miller had located maples for the planned planting on or near the (Little) Long Pond Road, a carriage road on the Rockefeller estate.⁷

In August 1935, Frederick Law Olmsted Jr. visited the site with Rockefeller and Ralston. Olmsted noted that some pools had been formed along the brook by the construction of check dams. He investigated Mrs. Farrand's suggestion to plant maples at the bridge piers and concurred with her advice. However, he indicated planting the maples would require both digging and

Rockefeller, Record Group 2, Homes (Seal Harbor), Box 72 Folder 738.

⁶Farrand, "Rockefeller Roads, November 11, 1934."
Rockefeller Archives Center, Office of the Messrs. Rockefeller,
Record Group 2, Homes (Seal Harbor), Box 72 Folder 738.

⁷Farrand to Rockefeller, 19 November 1934. Rockefeller
Archives Center, Office of the Messrs. Rockefeller, Record Group
2, Homes (Seal Harbor), Box 72 Folder 738.

blasting with black powder to get trees to grow on the west side of the road. Ralston indicated the work would be carried out forthwith.⁸

Mrs. Farrand's planting scheme was evidently adopted, as mid-1930s photographs of the site show the four young "sentinel" trees in place at the base of the bridge piers. However, maples were employed only on the west side of the bridge, ashes replacing them to the east. Acadia National Park Resource Management staff helped identify other plantings at the site as possibly being introduced as part of the landscape scheme; these included the sweet fern and wild roses identified in Mrs. Farrand's notes, as well as hobblebush, witch-hazel, huckleberries and bittersweet, other plants she commonly employed in roadside plantings. Charles Miller's pines and spruces had thrived and were partially successful in blocking out the views of the roads, but his cedars were shaded out by the more-rapidly advancing trees and had largely died. On the approaches from the carriage roads, specimens dating approximately to the construction of the bridge include hemlocks, white and red spruces, birches, aspen and red maple.⁹

The bridge was the last carriage road bridge designed and built for Rockefeller on Mount Desert Island. (The later Triad-Day Mountain Bridge [HAER No. ME-46] was built by the Bureau of Public Roads in order to carry the Park Loop Road beneath the carriage road system.) With the completion of the Day Mountain Loop in the late 1930s, the Stanley Brook Bridge was used for access from the Eyrie carriage roads to the new mountain loop (and to the Day Mountain Summit road which was subsequently constructed). The attractive three-arched bridge is appreciated by motorists traveling along the Stanley Brook Road below; many stop to view or photograph the handsome structure. The bridge is now located within Acadia National Park, though the Seaside Path and the Barr Hill carriage road system remain a part of the Rockefeller estate.

A 1990 bridge safety inspection by the Federal Highway Administration found the bridge "deficient or structurally

⁸"Acadia National Park, Mount Desert Isle, Maine - Report of Visit by Mr. Olmsted, July 31-August 2, 1935. Library of Congress, Manuscript Division, Record Group 9138, Folder 8.

⁹Stanley Brook Bridge photographs, 1933-37. Rockefeller Archives Center, Office of the Messrs. Rockefeller, Record Group IV3A10, Simpson Family Papers; Interview with Judy Hazen Connery and Linda Gregory, Acadia National Park Resource Management staff, July 1994.

obsolete," but did not suggest posting the structure. It recommended repointing deteriorated mortar joints, removing vegetation from the wingwall areas, and repair of scour at the pier base rising from Stanley Brook. Moderate to severe efflorescence was noted on the underside of all spans, and moisture was detected on the face of stones under the arches. The bridge's design load was unknown, but FHWA engineers estimated it at H-15, meaning the structure should be able to bear a two-axle truck weighing 15 tons.¹⁰

Vanasse Hangen Brustlin, Inc., an engineering firm under contract with the North Atlantic Regional Office of the National Park Service, inspected the bridge again in 1993. Finding the same conditions present, they recommended a rehabilitation program which would include waterproofing the entire roadway and outlet off the structure, the construction of a drainage system to divert water away from the northeast wingwall, resetting approximately three-quarters of the upper 3' of the parapet wall, and removal of the calcium carbonate deposits or efflorescence.¹¹

DESCRIPTION

The 1933 Stanley Brook Bridge is a three-span stone-faced reinforced concrete structure carrying the Barr Hill-Day Mountain carriage road over Stanley Brook road. The structure measures 200' long, though its ends peel off on the south or downstream side. Its three arches cross, from west to east, the Seaside Path, Stanley Brook Road, and Stanley Brook, a small stream emanating from Triad-Day Mountain Pass. The central arch has a clear span of 32', and rises 23' 6" above the roadway. The two side arches are each 12' wide and stand 9' 10" over the trail and 14' 8" over the stream. The broken stone carriage roadway is 20' wide for the length of the bridge, except at the ends, where the parapet walls flare out.¹²

The bridge's stone substructure is clad in quarry-faced random ashlar granite. Projecting blocks provide a heavy, three-dimensional texture. Stone scuppers project from the wingwalls. The three arches are defined by rough-dressed arch radiating

¹⁰U.S. Department of Transportation, Federal Highway Administration, "Bridge Safety Inspection Report, Carriage Road over Stanley Brook Road, Acadia National Park, Str. No. 1700-026S" (Sterling, VA: Federal Highway Administration, Eastern Direct Federal Division, 22 June 1990), 2-8.

¹¹Vanasse Hangen Brustlin and McGinley Hart, 116.

¹²Ibid., 114.

voussoirs or ring stones of varying dimensions, and the arches are capped by heavy keystones. Unlike most of the carriage road bridges, the stone parapet is peaked, rising from 3' at the ends to 5' 11" at the center. It is pierced by deep beveled crenellations to either side of the center, and is capped by heavy dressed coping stones. The curtails or curved ends of the parapet walls are likewise peaked. A stone-floored viewing platform or turret is located at the northwest end and incorporates a carved datestone bearing the date of construction, 1933.¹³

The bridge spans a narrow valley where Stanley Brook drops sharply on its route to the sea at Seal Harbor. The stream's course was altered to provide for the best crossing and to form small pools for visual interest. Mrs. Farrand's plantings here escaped the 1947 Bar Harbor fire and have come into maturity, the pines forming a dense thicket to either side of the road, and the sentinel trees enhancing the space between the arches.

¹³Ibid.

BIBLIOGRAPHY

PRIMARY SOURCE DOCUMENTS

Federal Highway Administration Reports

U.S. Department of Transportation, Federal Highway Administration, "Bridge Safety Inspection Report, Carriage Road over Stanley Brook Road, Acadia National Park, Str. No. 1700-026S" (Sterling, VA: Federal Highway Administration, Eastern Direct Federal Division, 22 June 1990)

Correspondence

Farrand, Beatrix, to John D. Rockefeller, Jr., 19 November 1934. Rockefeller Archives Center, Office of the Messrs. Rockefeller, Record Group 2, Homes (Seal Harbor), Box 72 Folder 738.

Ralston, S.F., Seal Harbor, ME to John D. Rockefeller, Jr., New York, extract, 7 April 1932. Rockefeller Archives Center, Office of the Messrs. Rockefeller, Record Group 2, Homes (Seal Harbor), Box 123 Folder 1240.

Rockefeller, John D., Jr., to Beatrix Farrand, Bar Harbor, ME, 10 August 1934. Rockefeller Archives Center, Office of the Messrs. Rockefeller, Record Group 2, Homes (Seal Harbor), Box 72 Folder 738.

--to S. F. Ralston, Seal Harbor, ME, 8 January 1934. Rockefeller Archives Center, Office of the Messrs. Rockefeller, Record Group 2, Homes (Seal Harbor), Box 121 Folder 1219.

--to Paul D. Simpson, Seal Harbor, ME, 23 December 1931. Rockefeller Archives Center, Simpson Family Papers, Record Group IV3A10, Box 1 Folder 4

--to Simpson, 10 February 1933. Rockefeller Archives Center, Simpson Family Papers, Record Group IV3A10, Box 1 Folder 5.

--to Walworth Simpson, Augusta, ME, 31 July 1933. Rockefeller Archives Center, Office of the Messrs. Rockefeller, Record Group 2, Homes (Seal Harbor), Box 123 Folder 1238.

Simpson, Walworth, Wyman & Simpson, Inc., Augusta, ME to S.F. Ralston, Seal Harbor, ME, 5 September 1932. Rockefeller Archives Center, Office of the Messrs. Rockefeller, Record Group 2, Homes (Seal Harbor), Box 123 Folder 1238.

--to John D. Rockefeller, Jr., 6 June 1933. Rockefeller Archives Center, Office of the Messrs. Rockefeller, Record Group 2, Homes (Seal Harbor), Box 123 Folder 1238.

Manuscripts

Farrand, Beatrix. "Rockefeller Roads, November 11, 1934." Rockefeller Archives Center, Office of the Messrs. Rockefeller, Record Group 2, Homes (Seal Harbor), Box 72 Folder 738.

Olmsted Brothers. "Acadia National Park, Mount Desert Isle, Maine - Report of Visit by Mr. Olmsted, July 31-August 2, 1935. Library of Congress, Manuscript Division, Record Group 9138, Folder 8.

Historic photographs

Stanley Brook Bridge photographs, 1933-37. Rockefeller Archives Center, Office of the Messrs. Rockefeller, Record Group IV3A10, Simpson Family Papers.

SECONDARY SOURCE DOCUMENTS

National Park Service Reports

Rieley, William D., and Roxanne S. Brouse. *Historic Resource Study for the Carriage Road System, Acadia National Park, Mount Desert Island, Maine*. Boston, MA: National Park Service, North Atlantic Regional Office, May 1989.

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

Books

Roberts, Ann Rockefeller. *Mr. Rockefeller's Roads: The Untold Story of Acadia's Carriage Roads and Their Creator*. Camden, ME: Downeast Books, 1990.

HISTORIC AMERICAN ENGINEERING RECORD

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STANLEY BROOK BRIDGE

HAER NO. ME-45

Barr Hill-Day Mountain Carriage, spanning Stanley Brook, Stanley Brook Motor Road, and Seaside Path.

Acadia National Park Roads and Bridges

Seal Harbor VICINITY

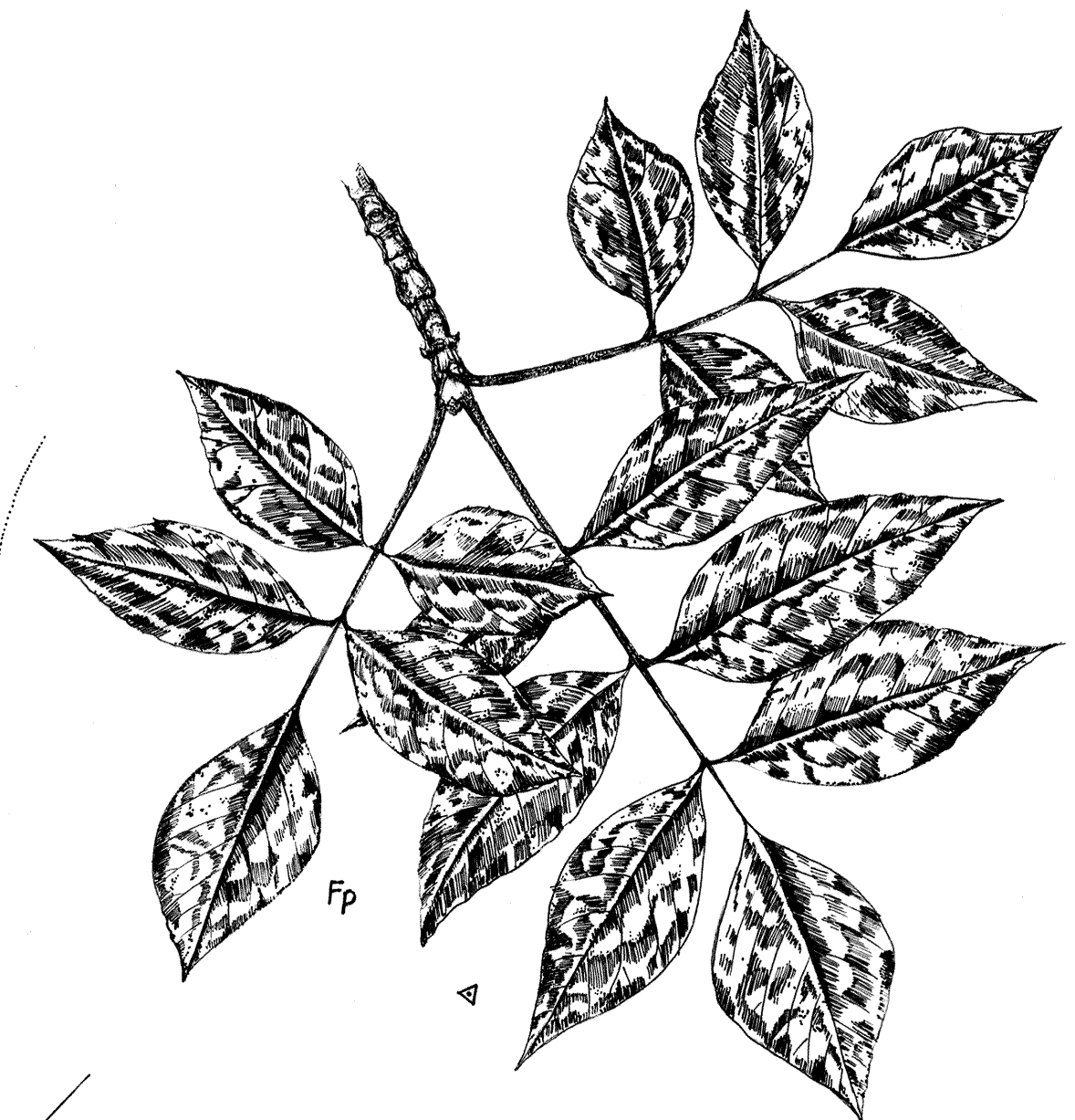
Hancock County

Maine

JET LOWE, PHOTOGRAPHER, SEPTEMBER 1994

ME-45-1	SOUTH ELEVATION FACING NORTH
ME-45-2	3/4 VIEW FACING NE
ME-45-3	STANLEY BROOK ARCH DETAIL FACING NNW
ME-45-4	E APPROACH, FACING W SHOWING PARAPET CURTAILS
ME-45-5	DECK AND RAILS FACING WEST

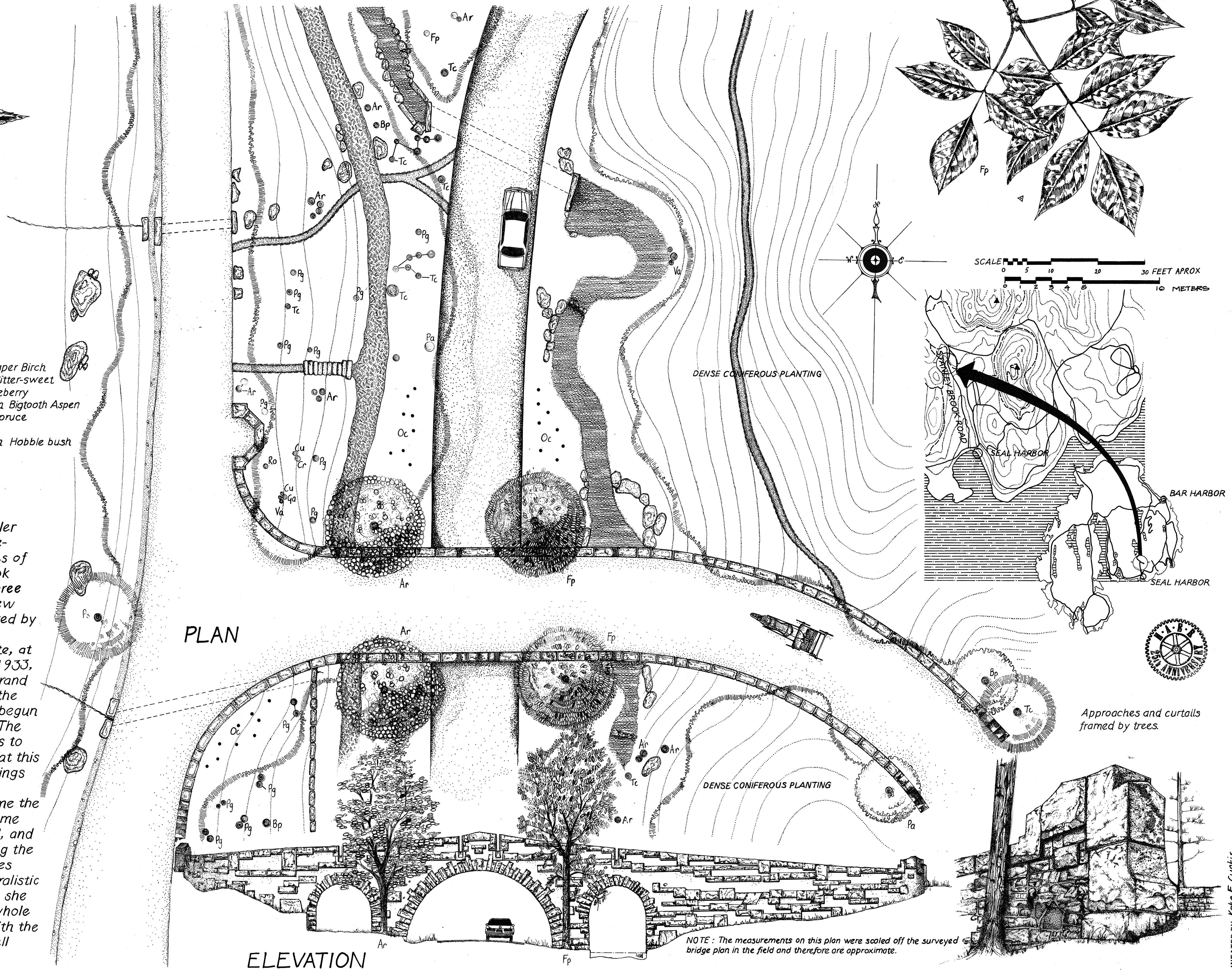
STANLEY BROOK BRIDGE 1933



PLANTING KEY

- | | |
|--|--|
| Ar <i>Acer rubrum</i> Red Maple | Bp <i>Betula papyrifera</i> Paper Birch |
| Cr <i>Cornus rugosa</i> Dogwood | Cu <i>Celastrus rugosa</i> Bittersweet |
| Fp <i>Fraxinus pennsylvanica</i> Green Ash | Ga <i>Gaylussacia</i> Huckleberry |
| Oc <i>Osmunda claytonia</i> Interrupted Fern | Pa <i>Populus grandidentata</i> Bigtooth Aspen |
| Pg <i>Picea glauca</i> White spruce | Pr <i>Picea rubens</i> Red Spruce |
| Ps <i>Pinus strobus</i> White Pine | Ro <i>Rosaceae</i> Rose |
| Tc <i>Tsuga canadensis</i> Hemlock | Va <i>Viburnum alnifolium</i> Hobble bush |

The Stanley Brook Bridge is the last of the Rockefeller carriage road bridges to be constructed. The granite-faced structure is a meeting point of different modes of transport, spanning Stanley Brook, the Stanley Brook motor road, the Stanley Brook carriage road, the Stanley Brook motor road, and the historic Seaside Path trail on three semicircular arches. The bridge was designed by New York Architect Charles W. Stoughton and constructed by Rockefeller's own crews under the direction of S. F. Ralston, superintendent of his Seal Harbor estate, at a cost of \$23,928.32. Following its completion in 1933, Rockefeller engaged landscape gardener Beatrix Farrand to prepare a planting scheme for the site. Much of the landscape she designed is still intact. Planting was begun by Mr. Miller, (Rockefeller's gardener at his home "The Eyrie"), who planted densely a variety of evergreens to block out views of the numerous roads converging at this point. Farrand concentrated on the decorative plantings directly around the bridge, employing sentinel trees (Maples and Ashes) at the bases of the piers to frame the arches of the structure. Trees were also used to frame the approaches to the bridge from the carriage road, and also various mainly native shrubs were planted along the road sides to enhance the setting. This site illustrates well Farrand's use of the contrast between the naturalistic and formalistic landscape. Visiting the site in 1934, she commented how the plantings had "improved the whole neighborhood." Mr. Rockefeller was very pleased with the bridge, stating it was "interesting to look at and well built."





FACT No. ME. 45-1



HAER No. ME. 45.2

HAEC No ME 45-3



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HAER N. N.E. 45. 9