

Central Railroad of New Jersey:
Newark Bay Lift Bridge
Spanning Newark Bay
Newark
Essex County
New Jersey

HAER No. NJ-37

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NJ,
7-NEARK,
16-

PHOTOGRAPHS

WRITTEN HISTORICAL AND DESCRIPTIVE DATA

Historic American Engineering Record
National Park Service
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Central Railroad of New Jersey:
Newark Bay Lift Bridge

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Location: Spanning Newark Bay
Newark
Essex County
New Jersey

Date of Erection: 1924-25 (Demolished 1980)

Designed by: J.A.L. Waddell

Owner: Central Railroad of New Jersey

Use: Railroad bridge

Significance: The Newark Bay Bridge was constructed near the end of J.A.L. Waddell's career. He was an early proponent of the vertical lift bridge, designing and building his first in 1892. Waddell's landmark book, Bridge Engineering, published in 1916, deals specifically with vertical lift bridges (Chapter XXXI). He predicted a widespread utilization of the type, a projection that was not proven true. The Newark Bay Bridge, a dual track bridge with double lift spans (one of 210' 9" and the second of 299'), was constructed after 30 years of experience for Waddell.

References: Waddell, J.A.L.; Bridge Engineering, John Wiley & Sons, INC., (New York: 1916); Chapter XXXI.

Patent Stamp:
Waddell Vertical Lift Bridge
Patented USA Aug. 24, 1909, Mar. 22, 1910
Mar. 29, 1910, May 31, 1911
Other Patents Pending
Patented in Canada Feb. 1, 1910, Mar. 8, 1910

Transmitted by: Kevin Murphy, Historian HAER, June 1984.