

HAER
ILL
16-CH1G
161-

WEST ADAMS STREET, CHICAGO RIVER BRIDGE
(Chicago River Bascule Bridge, West Adams Street)
I&M Canal National Heritage Corridor
Chicago
Cook County
Illinois

HAER No. IL-51

PHOTOGRAPHS

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

HISTORIC AMERICAN ENGINEERING RECORD

Index to Photographs

HAER
ILL
16-CH16,
161-

WEST ADAMS STREET, CHICAGO RIVER BRIDGE
(Chicago River Bascule Bridge, West Adams Street)
I&M Canal National Heritage Corridor
Chicago
Cook County
Illinois

HAER No. IL-51

NOTE: Photographs taken by Jet Lowe, photographer, 1987

- IL-51-1 GENERAL VIEW OF BRIDGE AND BRIDGE TENDERS' HOUSES FROM THE SOUTHEAST LOOKING NORTHWEST.
- IL-51-2 VIEW FROM JACKSON BOULEVARD, LOOKING NORTH.
- IL-51-3 VIEW OF BRIDGE AND BRIDGE TENDER'S HOUSE.
- IL-51-4 VIEW FROM RAILING LOOKING NORTH TOWARDS MONROE AVENUE.

HISTORIC AMERICAN PHOTOGRAPHS

WEST ADAMS STREET, CHICAGO RIVER BRIDGE
(Chicago River Bascule Bridge, West Adams Street)
I&M Canal National Heritage Corridor

HAER
ILL
16-CH15,
161-

HAER No. IL-51

Location: I & M Canal National Heritage Corridor
West Adams Street crossing the Chicago
River (South Branch)
Chicago, Cook County, Illinois

UTM: 16 E.447050 N.4636360
Quad: Chicago Loop

Date of Construction: 1926

Builder: Substructure, Fitzsimons & Connell
Dredge and Dock Company

Superstructure, Strobel Steel
Construction Company

Present Owner: City of Chicago

Present Use: Bridge

Significance: The development of the Chicago trunion
bascule bridge occurred during the first
three decades of the twentieth century.
Despite the controversy over patent
infringement -- Joseph E. Strauss
charged the City of Chicago engineers
with infringing on his patented Strauss-
Trunion bascule bridge -- the Chicago
bascule received great acclaim within
the civil engineering profession. The
design of the Adams Street Bridge was
specifically modified to accommodate the
congestion of the area.

Project Information: The Illinois and Michigan Canal was
designated a National Heritage Corridor
in 1984. The following year HABS/HAER
embarked on an extensive inventory and
documentation project of the 100 mile-
long corridor. Field work for this
project was concluded in 1988. Final
editing of the documentation was
completed in 1992.

Historians: Charles Scott, Frances Alexander, and
John Nicolay, 1986.

The substructure of the Adams Street Bridge was constructed by the Fitzsimons & Connell Dredge and Dock Company; the superstructure was constructed by the Strobel Steel Construction Company. The Chicago trunnion bascule bridge was developed to accommodate the heavy demands of both land and water traffic. However, because of the congestion at Adams Street, a different design for the bridge's lifting machinery was required. The machinery on the east side of the bridge bears directly on the masonry with the outermost trunnions resting on steel columns, and the inner trunnions resting on steel S-girders. On the west side of the bridge, however, the outermost trunnions support the machinery and rest on longitudinal girders spanning from the front to the rear of the piers. The inner trunnions rest on S-girders. The presence of a railroad track on the west side of the bridge prevented any great extension of machinery; thus, the arm is quite short, needing only a shallow pit. The volume of the counterweight box has been reduced below the most desirable dimensions.

The Adams Street Bridge is a single-deck, double-leaf, trunnion bascule bridge. The bridge measures 199'-0" from center to the center of the trunnions and has a clear span of 173'-0". The superstructure is a steel deck truss with riveted gusset-plate connections. Width measures 64'-0" and has four lanes for vehicular traffic and two sidewalks. The guard rails contain decorative ironwork. The rusticated concrete abutments contain several small, glass, block windows. The bridge tender's houses, one on each side of the lift span, are designed in the Beaux-Arts style. The houses are identical in design and feature a lightly scored concrete veneer with chamfered corners and ornamental pilasters, a sopraporta (overdoor) with a decorative arch, numerous multi-light windows along the facade of the pylons, and large, one-over-one-light, double-hung, sash windows below a mansard-like tin roof with a raised diamond pattern.

SOURCES:

"Aesthetic Design for Drawbridges," Engineering News. v. 70 (November 6, 1913): 926.

"Chicago Settles with Strauss for Infringing Bridge Patent," Engineering News-Record, v. 85 (December 9, 1920), 1158-59.

Chicago Bascule Bridge- Design and Operating Features," Engineering News Record, v. 85 (September 9, 1920): 508-514.

Donald N. Becker, "Development of the Chicago Type Bascule Bridge, " Transactions of the American Society of Civil Engineering. v. 109 (1944): 995-1046.

Donald N. Becker, "The Story of Chicago's Bridges," Midwest Engineer, 2 (January 1950): 3-9.

Chicago Department of Public Works, Chicago Public Works: A History (Chicago: Rand McNally, 1973).

"The Chicago Type of Bascule Bridge," Engineering Record, v. 42 (July 21, 1900): 50-52.

"The Lift of Bascule Type Movable Bridges," Engineering Record, v. 42 (July 28, 1900): 73.