

NEW YORK STATE BARGE CANAL, EXCHANGE STREET LIFT
BRIDGE
(Erie Canal, Exchange Street Lift Bridge)
Exchange Street
Lockport
Niagara County
New York

HAER NY-511
HAER NY-511

WRITTEN HISTORICAL AND DESCRIPTIVE DATA

HISTORIC AMERICAN ENGINEERING RECORD
National Park Service
U.S. Department of the Interior
1849 C Street NW
Washington, DC 20240-0001

HISTORIC AMERICAN ENGINEERING RECORD

NEW YORK STATE BARGE CANAL, EXCHANGE STREET LIFT BRIDGE (Erie Canal, Exchange Street Lift Bridge)

HAER No. NY-511

Location: Exchange Street, Lockport, Niagara County, New York

Exchange Street Lift Bridge is located at latitude: 43.1768200, longitude: -78.6859216. The point represents the control tower and was obtained in 2009. There is no restriction on its release to the public.

Significance: Exchange Street Lift Bridge, located on the Erie Canal, is a component of the nationally significant New York State Barge Canal. It is one of sixteen such bridges constructed between Fairport and Lockport.

Description: The sixteen vertical-lift bridges on the Erie Canal are Warren pony trusses raised by an electrically-driven system of cables, counterweights, and sheaves. As described in the New York State Barge Canal National Register nomination, “the moveable truss is supported by vertical lifting frames at either end. When the bridge is ‘down’ the lifting frames retract into the pits” located behind the bridge abutments. “The bridge is raised by cables that run from fixed anchor points at the top of the pits, down around sheaves at the bottom of the lifting frame, back up to sheaves at the top of the pit, and down to cast concrete counterweights. When the counterweights sink into the pits...the cables pull the lifting frames upward by the sheaves at their lower corners.” Each bridge has a control tower, with the motors and gearing generally located in the pit nearest to the tower.¹

The vertical-lift bridge carries Exchange Street over the Erie Canal.² The steel Warren pony truss with decorative end posts sits on concrete abutments. It measures 133' long and 23.8' between curbs. The bridge has an open-grate deck for vehicular traffic and wood decking on the pedestrian walkways, which flank the truss and are lined with steel lattice. Steel stairways at either end of the west side of the bridge have cross-hatch treads and steel lattice railings. The machinery pits behind the concrete abutments are covered with cross-hatch plates. The bridge plate reads “McMyler-Interstate Co. Cleveland, Ohio, 1915.” The bridge is in good condition.

The control tower, located on the north bank of the west side of the bridge, is a two-story concrete building with a flat roof. The fenestration consists of two-over-two-light wood windows, and there is a pane-and-panel door. It is in good condition.

History: The bridge was constructed as part of Contract 106, awarded to W.S. Cooper Company of Cleveland, Ohio, on May 4, 1914, and under the supervision of A.S. Milinowski, State Assistant Engineer. The contract encompassed the construction of four lift bridges,

¹ Duncan Hay, “New York State Barge Canal,” National Register of Historic Places Registration Form, 2014, Section 7, Pages 21-22.

² Description of current conditions is based on a site visit made by the HAER recording team in summer 2009.

including this one. It was constructed by McMyler-Interstate Company. Alteration 1, approved September 10, 1914, changed the grade of the approach at Exchange Street.³

Sources:

Annual Report of the State Engineer and Surveyor of the State of New York for the Fiscal Year ended in September 30, 1914, Vol. 1. Albany: J.B. Lyon Company, 1915.

Hay, Duncan. "New York State Barge Canal." National Register of Historic Places Registration Form, 2014.

Historians: Laura S. Black and Jami Babb, summer 2009

Project Information: The Historic American Engineering Record (HAER) is a long-range program that documents and interprets historically significant engineering sites and structures throughout the United States. HAER is part of Heritage Documentation Programs (Richard O'Connor, Manager), a division of the National Park Service, United States Department of the Interior. The New York State Barge Canal Survey was undertaken in summer 2009 in cooperation with the Erie Canalway National Heritage Corridor (ERIE), Beth Sciumeca, Executive Director. Justine Christianson, HAER Historian, and Duncan Hay, ERIE, served as project leaders. The staff of the New York State Canal Corporation provided access to the sites. Craig Williams of the New York State Museum provided research materials and assistance. The HAER field team consisted of Jami Babb and Laura Black.

³ *Annual Report of the State Engineer and Surveyor of the State of New York for the Fiscal Year ended in September 30, 1914, Vol. 1* (Albany: J.B. Lyon Company, 1915), 311-12.

Appendix: Images of Current Conditions



Image 1: Exchange Street Lift Bridge elevation. Field photograph taken by HAER recording team, summer 2009.



Image 2: Control tower. Field photograph taken by HAER recording team, summer 2009.