

NEW YORK STATE BARGE CANAL, LOCK O3
(Oswego Canal, Lock O3)
Corner of Oneida and First streets
Fulton
Oswego County
New York

HAER NY-532
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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

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HAER No. NY-532

Location: Corner of Oneida and First streets, Fulton, Oswego County, New York

Lock O3 is located at latitude 43.323770483, longitude -76.418449647. The point represents the upstream lock gates and was obtained in summer 2009.

There is no restriction on its release to the public.

Significance: Lock O3, located on the Oswego Canal, is a component of the nationally significant New York State Barge Canal. The lock retains the original DC electro-mechanical gate and valve operating machinery.

Description: Lock O3 is located about ½ mile north of Lock O2 on the east bank of the Oswego River.¹ The site consists of the lock chamber and its associated structures, a lockhouse, various auxiliary structures, a pedestrian utility bridge, and the Fulton Dam. There is no powerhouse at the site. It is accessed by an asphalt road that leads to an asphalt-covered parking lot.

The lockhouse is on the east side of the lock chamber. The single-story concrete building with a concrete chimney sits on a concrete foundation. The gable-front roof is covered with asphalt shingles, with the gable ends having horizontal board infill. It has modern one-over-one-light vinyl windows with steel mesh coverings. The entrance is a wood pane-and-panel door. A generator extension is located to the north, and a shed addition built of concrete block is attached to the side of the extension. The lockhouse is in good condition.

A modern storage shed is located near the lockhouse. The frame structure with vertical-board paneling has an asphalt-covered gable roof and sits on a concrete foundation. The entrance is a wood vertical-board door. The structure is in good condition but is non-contributing.

The lock has a 27' lift to the south with normal pool elevations of 308' below and 335' above. The chamber walls are scored concrete with cast-iron quarter-round coping. Vertical cutouts with cables inside are located in the chamber walls. There are double-leaf, steel miter lock gates at each end of the chamber, operated by spars and gear trains powered by the original DC electro-mechanical gate machinery. This machinery, along with the valve operating machinery used to control the flow of water through the culverts in the chamber walls, is covered by open-grate machine covers. Riveted-steel machinery electrical cabinets are located at each corner of the lock. The capstans are on a raised concrete platform surrounded by a steel railing and open grates. Concrete-filled cast-iron bollards on concrete pads line each side of the lock chamber. Post-and-rail fencing and pipe railing surrounds the public access side of the lock, and the site is illuminated by modern light fixtures. The lock is in good condition.

¹ Description of current conditions is based on a site visit made by the HAER recording team in summer 2009.

Control stand shelters are located on the landward side of the lock chamber, at the upstream and downstream corners. The shelters are single-story frame structures with horizontal wood siding and a gable asphalt roof with vinyl sliding windows and a pane-and-paneled door. The shelters sit on concrete foundations and are in good condition.

A truss utility/pedestrian bridge spans the downstream end of the lock. The bridge has wood plank decking and pipe railing. Also located at the downstream end of the lock is a stairway built of open-grated steel treads on concrete abutments with a pipe railing. Both the bridge and the stairs are in good condition.

Concrete guide piers located south of the lock show signs of severe spalling. A concrete slab dock has concrete-filled cast-iron bollards on it and a steel gutter that runs along the east side. This allowed water to flow on the east side of the lock into a penstock. The structure is in fair condition. The concrete guide walls are in various conditions. The northeast one is built of a mixture of concrete and stone and appears to be in good condition while the northwest one, constructed of the same materials, is fair. The southeast guide wall is concrete and sits on concrete piers, with concrete-filled cast-iron bollards on top. The section of the guide wall nearest the lock gates is newer concrete and is part of the Fulton Canal Harbor, but the wall as a whole is in fair to poor condition.

Spanning the Oswego River is the concrete, fixed crest Fulton Dam. The dam appears to be in good condition.

History: The construction of Lock O3 was part of a 1906 contract (Contract No. 10) that covered 1.2 miles along the riverfront in the Fulton area. The contract involved building two locks (excluding the gates and valves) and six sets of head gates, along with raising two existing dams across the Oswego River. The contract was originally awarded to Mosier & Summers of Buffalo, New York, in June 1906, but was re-assigned to McDermott Contracting Company of Philadelphia, Pennsylvania, in April 1909. In 1911 and 1912, Contract 10 was re-let as Contracts 10A and 10B.²

Contract 10A, let on December 14, 1911, to T.A. Gillespie of New York City, covered the completion of the dams and Tainter gates. As stated in the *Annual Report* from that year, the contract “provided for completing the remaining construction on the southerly end of contract No. 10, which was canceled by resolution of the Canal Board, July 19, 1911.” The work had been completed by April 1914.³ Oswego Construction Company won Contract 10B, which was let on March 4, 1912, and covered the completion of the north end of Contract 10. State Assistant Engineer Harry H. Brown oversaw the work, which consisted of excavating the prism and building a docking wall between locks O2 and O3, building Lock O3, and raising the dam.

² *Annual Report of the State Engineer and Surveyor of the State of New York for the Fiscal Year ended in September 30, 1909, Vol. 1* (Albany: J.B. Lyon Company, 1910), 139; *Annual Report of the State Engineer and Surveyor of the State of New York for the Fiscal Year ended in September 30, 1912, Vol. 1* (Albany: J.B. Lyon Company, 1913), 177-78.

³ *Annual Report, 1912, 177-78; 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), 207-8.

A modification approved on September 10, 1912, provided for the installation of gates, valves, and needle-beams, which had previously been included in Contract 33. The work was completed in September 1914.⁴

The power equipment was covered under Contract 93, awarded on August 12, 1913, to MacArthur Bros. Co. & Lord Electric Co.⁵

Repairs and alterations were made to the lock after its initial completion. In 1943, the State of New York's Department of Public Works embarked on a project to replace the corroded buffer beams at the end of each lock. Buffer beams, located in a recess in the lock approach wall, could be swung across the channel to support the needle dam used to dewater the lock. The replacement plans called for using a vertical-lift type supported on towers. Locks O1 through O5 had the new buffer beams installed.⁶

The 1949 *Annual Report* indicates the Department of Public Works was planning on starting a long-term project to lower approximately thirty-two lock sills so as to provide a minimum 13' depth and altering the lock gates to fit. Sill and gate work was done at Lock O3 in 1956 as part of Contract No. US100 and might have been the result of that initiative. That same year, the lock valves were replaced as part of a complete overhaul. Other work included repainting all the steel and making repairs to a disintegrated concrete culvert. In 1983, new lower gates were installed at the lock under Contract M83-2 D250547. An additional maintenance contract (D253870) was let in 1992. The dam was rehabilitated in 1988 under Contract D500504, along with the dam at Lock O2.⁷

Sources:

Annual Report of the State Engineer and Surveyor of the State of New York for the Fiscal Year ended in September 30, 1909, Vol. 1. Albany: J.B. Lyon Company, 1910.

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⁴ *Annual Report, 1912*, 178-179; *Annual Report, 1914*, 209.

⁵ Noble E. Whitford, *History of the Barge Canal of New York State* (Albany: J.B. Lyon Company, 1922), 561.

⁶ State of New York, Department of Public Works, *Annual Report of the Superintendent for the Year 1943* (Albany: Williams Press, Inc., 1944), 47.

⁷ State of New York, Department of Public Works, *Annual Report of the Superintendent for the Year 1949* (Albany: s.n., 1950), 93; State of New York, Department of Public Works, *Annual Report of the Superintendent for the Year 1949* (Albany: s.n., 1950), 93, 125-26; State of New York, Department of Public Works, *1957 Annual Report* (Albany: s.n., 1958), 81; Maintenance Contracts, 1983, 1988, 1992.

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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.

Appendix: Images of Current Conditions



Image 1: Overview of lock chamber with lockhouse to the right of the chamber. Field photograph taken by HAER recording team, 2009.

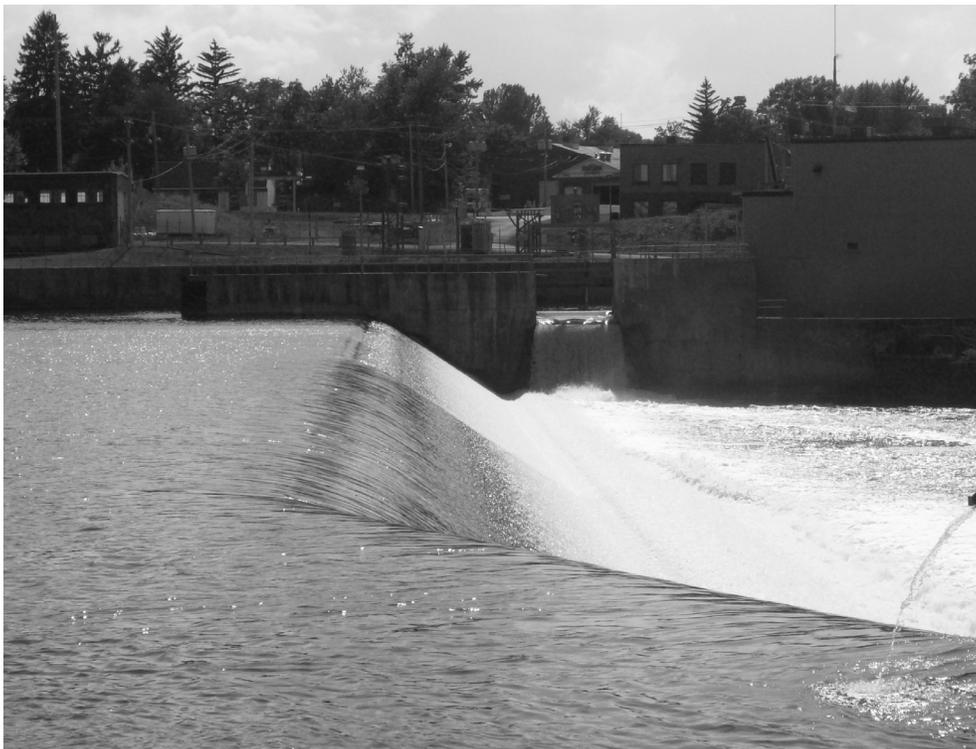


Image 2: View of Fulton Dam. Field photograph taken by HAER recording team, 2009.