Creager's Bridge
County Road 344 (Cole Road), spanning
the Erie (New York State Barge) Canal
Lyons
Wayne County
New York

HAER No. NY-187

PHOTOGRAPHS
WRITTEN HISTORICAL DATA

Historic American Engineering Record
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HISTORIC AMERICAN ENGINEERING RECORD

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Location: County Route 344 (Cole Road), spanning the Erie [New York State Barge] Canal two miles southeast of the Village of Lyons. Bridge is northeast of the junction of Schwab Road and the Lyons-Marengo Road and immediately northeast of the Clyde River bridge, Village of Lyons, Town of Galen, Wayne County, New York.

UTM: N 4766000
E 340820
New York State Quad: Lyons

Date of Construction: Plans prepared April 1909 and approved May 1909, contract let 1909, bridge superstructure erected in 1910, but bridge approach spans and deck not completed until late 1916. Bridge opened for traffic by May 7, 1917.

Style: Single span, ten panel, steel Parker truss.

Engineer/ Builder: Plans prepared in 1908 and approved in 1909 by the bridge division of the New York State Barge Canal under the direction of W. R. Davis, Chief Bridge Designer. Bridge built as part of Contract 47, awarded to the Crowell-Sherman Company on November 30, 1908. Bridge fabricated, under contract 3784, by the Penn Bridge Company, Beaver Falls, Pennsylvania, and possibly also erected by this company acting as a sub-contractor to the Crowell-Sherman-Stalter Company.

Present Owner: New York State.

Present Use and Condition: Bridge carries primarily vehicular traffic. Severe loss of section in the I beam floor stringers necessitated temporarily closing the bridge during mid-1987. Prior to being closed the bridge had a ten ton load limit.

Significance: Representative of one of the types of steel truss bridges built to cross the enlarged Erie [New York State Barge] Canal during this period.

Materials of Construction: Bridge consists of three spans: two simple span, reinforced concrete slab approach spans, one at each end of the steel Parker truss main span across the canal. Main span piers are solid, reinforced concrete, 27 feet high, supported by a

15 foot deep timber pile footing. Both abutments are concrete. Bridge required a total of 143,000 pounds of structural steel. Upper chord fabricated from two channels joined by batten plates and lacing bars. Four angles with lacing bars form columns. Diagonals use two angles with batten plates. Bottom chord fabricated from two plates and two angles joined by batten plates. Steel plate floorbeams with a 19.25 inch web carry 10 inch I beam stringers. Bridge has upper lateral diagonal "X" bracing, lower lateral "Warren" bracing, and inclined end posts with portal bracing.

Dimensions: The three spans have a total length of 240 feet. The two concrete approach spans are each 28 feet long. The ten panel main truss span is 181 feet between the centers of the end pins and has an out-to-out width of 19 feet, a center line of truss width of 17 feet 8 inches, and a curb-to-curb width of 15 feet. Bridge deck surface area is 4,600 square feet. Riveted plates with a 19 inch web form the 18 foot 11 inch long floor beams. In each floor bay, seven I beam stringers spaced 2 feet 5 inches apart carry the open grate steel deck. Each of the eight interior truss panels has a length of 18 feet 3 inches. The length of the truss panel at each end of the span is 17 feet 6 inches. Truss panels are 18 feet high at the portals and rise to reach a height of 30 feet at the center of the span. The reinforced concrete pier foundations are 27 feet by 10 feet 4 inches at the base and rise 13 feet. Atop each pier foundation are two columns 5 feet 7 inches by 6 feet 6 inches at the base and 10 feet and 9 inches tall. These two columns are capped by a concrete beam 19 feet 10 inches long. Each pier required 114.2 cubic yards of concrete. The bridge affords 180 feet of horizontal clearance. Bottom chord is 32 feet 2 inches above the bottom of the centerline of the canal and permits a vertical clearance of 18 feet for navigation. Vertical clearance between the deck and the lowest portal brace is 12 feet 4 inches.

Significant Exterior Features: Some of the inclined end posts are stamped "Cambria," indicating that the steel was rolled by the Cambria Steel Company, Johnstown, Pennsylvania.

Major Alterations and Additions: The original wooden deck was approximately 3 inches thick. An open grate steel deck replaced the wood deck during the last major renovation in 1945.

Project Information: The documentation of Creager's Bridge was prepared by the Historic American Engineering Record (HAER), National Park Service, during the summer of 1987 for the New York State Historic Bridge Recording Project. This project was sponsored by the New York State Department of Transportation and under the supervision of Eric DeLony, Chief & Principal Architect, HAER. This report was written by Andrew Cole and Charles Scott. When citing this report, please credit the Historic American Engineering Record and the authors.

This bridge is located on property acquired by the State of New York from William Creager. Before the Erie [New York State Barge] Canal was dug through this area, the only bridge near this site was the two span Whipple bowstring arch bridge crossing the Clyde River at a point approximately 500 feet south of the present canal bridge. This bowstring arch bridge was the original "Creager's Bridge." The original plan for bridges across the canal, devised in 1901, called for twelve or fourteen panel Warren style trusses. By the time the canal construction actually began after 1910 the design of the bridges across the canal had been significantly modified.

The present Creager's Bridge was erected as part of canal construction Contract 47. This contract included excavation of the canal and construction of all canal crossings in the 14.46 miles between Galen and Lyons. Contract 47 was awarded to the Crowell-Sherman Company, Cleveland, Ohio, on November 30, 1908. In February 1909, the contract was transferred to the Crowell-Sherman-Stalter Company. The abutments, piers, approach spans, and main span superstructure of Creager's Bridge were completed in 1910 and work on Contract 47 continued until December 31, 1912 when the contract was canceled to permit a major modification of the contract specifications. Work on Contract 47, including the bridge, remained suspended until a contract to finish this section of the canal, Contract 47A, was awarded to the Central Dredging Company, Cleveland, Ohio, on March 22, 1916. In August of 1916 the completed superstructure of the Creager's Bridge was raised from its piers to permit the passage of a canal dredge to the western end of Contract 47A. By December the bridge had been lowered to its piers, the floor and deck installed, and approaches filled. During the first five months of 1917 work continued on filling, lining, and grading the approach roads and installing bridge coping and highway railings. Creager's Bridge opened to traffic in June of 1917.

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