Introduction: About Me

- Website created and maintained by me.
- Photos, Advocacy, & Documentation
- 35 States
- 4 Canadian Provinces
- Some Overseas Countries
- 4883 Bridges Listed Currently
- 15 Years

- I work in the office and also handle historic bridge matters.
- Steel Fabricator
- Restoration/Relocation of Historic Bridges &
- Hot Rivets
141 Bridge (Delray Connecting Railroad)

270 Bridge (Demolished) (Delray Connecting Railroad)

DC Bridge #1

Hot Metal Escape Bridge (Swing Bridge)

Short Cut Canal Bridge

Short Cut Canal 21
A Leading Tourist Attraction?

Zug Island

PURE MICHIGAN

U.S.S. GREAT LAKES WORKS SECURITY WARNING

Any area within a 100' of a docked Ship is considered a SECURE AREA Under Homeland Security. Any Individual within a 100' of a docked Ship must possess a TWIC card.

CAMERAS PROHIBITED

NO TRESPASSING
PRIVATE PROPERTY
OF
UNITED STATES STEEL CORP.

VIOLATORS WILL BE PROSECUTED TO THE FULLEST EXTENT OF THE LAW
Due to inaccessibility of bridges, photos by others are used extensively. Thank you to the following photographers/sources:

- michiganrailroads.com
- Chosen Won (YouTube)
- Richard H. Scheel
- Nathan Nietering
- Ernest B. Novak
- Detroit Public Library
- Detroit Historical Society
- Wayne State University Digital Collections
- Google StreetView
“Modern” bridge, built in 1976. (And sadly the only bridge I have photographed at Zug Island)
Hot Metal Escape Bridge

Warren through truss swing bridge. Bolted connections and rolled steel beams.
Hot Metal Escape Bridge

Approx. 260 foot swing span. Approx 315 feet total length.
Hot Metal Escape Bridge

Deck is capable of both railroad and highway traffic.
Short Cut Canal Bridge

Strauss trunnion bascule bridge built in 1922.
Bascule leaf completely removed and replaced in 1957.
The new 1957 leaf is surprisingly similar in appearance to the 1922 leaf.

Note plate girder approach span to right, also replaced today.
An extremely rare example of a below-ground counterweight on a railroad bascule bridge.
The bridge tender house is relatively attractive for a railroad bridge in an industrial setting.
Short Cut Canal Bridge

125 feet of navigation clearance. Approx. 170 foot bascule span. Approx. 260 feet total length.
Two bascule bridges built in 1914 by Scherzer Rolling Lift Bridge Company. Rolling lift bascules.

Due to proximity of these bridges, a single bridgetender house controlled both bridges.
The two bridges replaced a single existing swing bridge.
Steel fabrication/erection: Pennsylvania Steel Co. of Steelton, PA
Substructure contractor: Ginzel and Towler of Detroit.

Substructure design by the Engineering Dept. of Solvay Process Company.
Originally operated with a 37 HP AC motor, with means provided for hand operation.
Originally built to carry a combination of highway and railroad traffic, plus 4 foot cantilevered sidewalks.
141 Bridge

Historical photo of bridge.
Bridge being raised.
The 210 Bridge was designed for railroad traffic only.
The bridge was operated with two 30 HP AC motors, with means for hand operation available.
Remains of the bridge approach are still present next to the bridgetender house.
In the early 1900s, Chicago city engineers including city engineer John Ericson and city engineer of bridges Thomas Pihlfeldt, developed a very reliable and cost-effect design of bascule bridge.
Later, another city engineer of bridges, Hugh E. Young decided that Chicago’s bridges were so efficient that he opened a business on the side called the Chicago Bascule Bridge Company to design these bridges for other customers.

Hugh E. Young
Bascule Bridge Engineers

The Wayne County Road Commission was one of those customers, and they hired Hugh. E. Young to design three bascule bridges.

Hugh E. Young
Up until 2013, all three remained. However, the Fort Street Bridge was demolished and replaced.
A 1922 advertisement for the Chicago Bascule Bridge Company included a drawing of the Fort Street Bridge.

Essentially, an employee of the City of Chicago designed a bridge for Wayne County, Michigan!
Hugh E. Young or the Chicago Bascule Bridge Company can be found on the River Rouge bridge plaques.
Hugh E. Young’s name appears on the Fort Street Bridge plans and shop drawings.
Hugh E. Young’s name appears on the Fort Street Bridge plans and shop drawings.
Interior view of tail pit and machinery room taken during prep for demolition.
Interior view of tail pit and machinery room taken during prep for demolition.
Interior view of tail pit and machinery room taken during prep for demolition. Rack and pinion system.
Fort Street Bridge

Demolition
Fort Street Bridge

New Bridge
Fort Street Bridge

New Bridge
Dix Avenue Bridge

Built 1927. Similar to Fort Street Bridge
Historical photo showing bridge deck.
Historical photo showing bridge open.
A pony truss design, similar to that found on many Chicago bridges.

Built 1922 by the Strobel Streel Construction Company of Chicago
A pony truss design, similar to that found on many Chicago bridges. Above is the 100th Street Bridge over Calumet River in Chicago.
Bridge in raised position.
The original Jefferson Avenue Bridge from 1882, shown above, was a primitive European style bascule/drawbridge, replaced in the 1890s by a swing bridge.
In May 2013, a legally intoxicated bridgetender lowered the Jefferson Avenue Bridge BEFORE a freighter had passed under the bridge!
The bridge was placed in the raised position and left there until a repair contract was let.
Original section to left, new (bolted) section to right.
Completed repairs.
Conclusion/Questions

Photo Credits/Sources:
- HistoricBridges.org
- Historic American Engineering Record
- Randy Mulder
- Upper Peninsula Regional Digitization Center
- Toronto Public Library

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Email: nathan@historicbridges.org