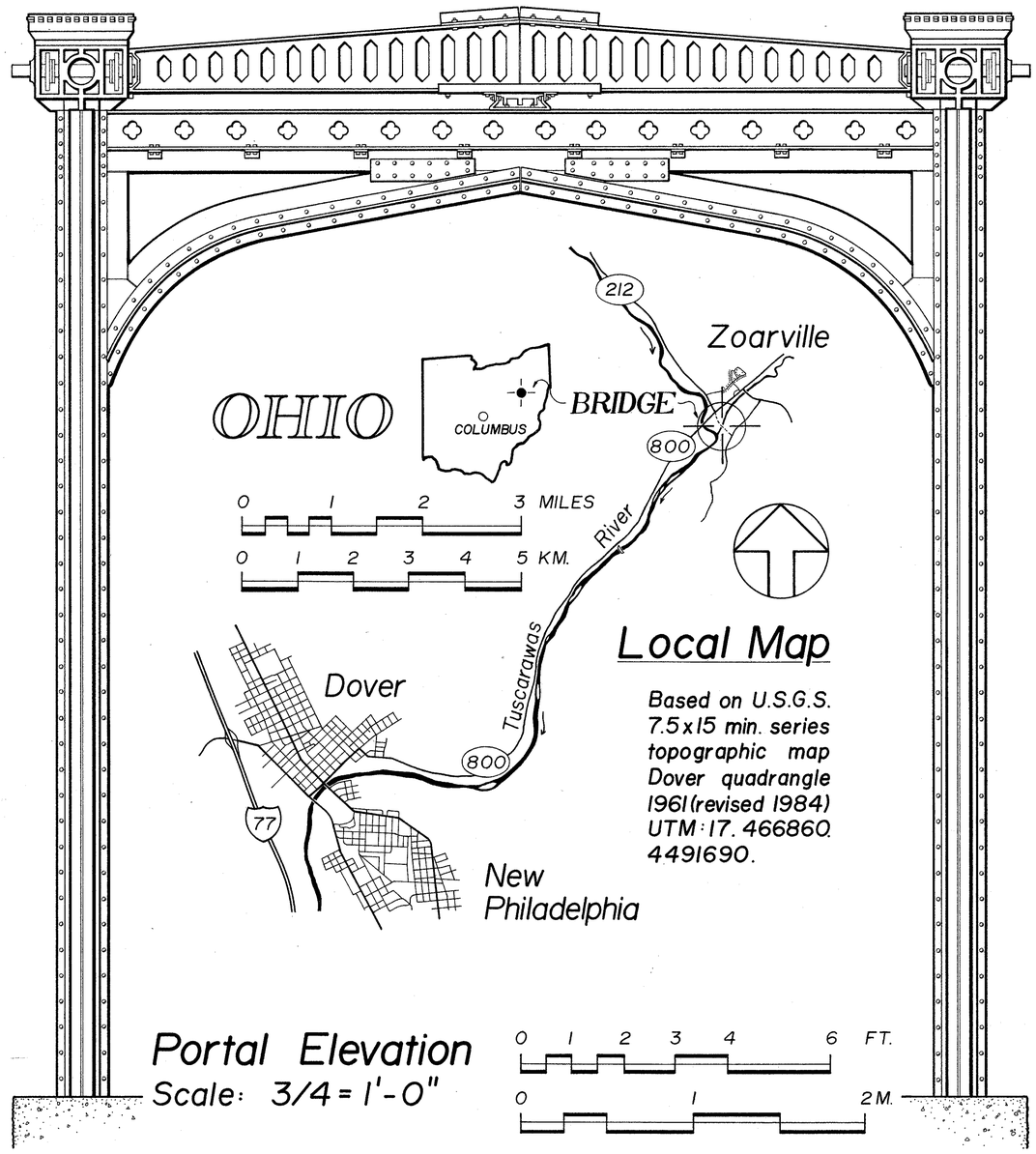
ZOARVILLE STATION BRIDGE

RELOCATED • 1905

DOVER • 1868

The Zoarville Station Bridge is the only Fink through truss known to exist in the United States. The Fink truss was invented by Albert Fink and patented in 1851. The builders of this example, Smith, Latrobe and Company of Baltimore, Maryland, specialized in this truss type. In this design, they reduced the number of posts and ties used in most Fink trusses. The bridge is distinctive for several other reasons: round iron columns similar to those manufactured by the Phoenix Iron Company of Phoenixville, Pennsylvania; a combination of such columns with flat plates and angles in the end towers; foot boxes which permit adjustment of the level of each post and the tension in the ties; and unusual ornamentation which is integral to the structure.

The men who built the bridge, at its original location at Canal Dover in 1868, were leaders in the American civil engineering profession: consulting engineer Benjamin Henry Latrobe, Jr., vice-president Charles Hazleworth Latrobe, chief superintendent Frederick Henry Smith, and president Charles Shaler Smith, one of the greatest American engineers of his day. Smith, Latrobe and Co., founded in 1865 and incorporated in 1869 as the Baltimore Bridge Company, could boast of having built over 13 miles of bridges and construction projects worth 5 million dollars by 1880.



ZOARVILLE

This bridge was part of the three-span Canal Dover River or Factory Street Bridge, erected in 1868 over the Tuscarawas River at Canal Dover, Ohio. When the bridge was replaced in 1905, this span was moved to its present site. It was abandoned in the 1940s.

The Ohio Cast- and Wrought-Iron Bridges Recording Project II is part of the Historic American Engineering Record (HAER), a long-range program to document historically significant engineering and industrial sites in the United States. The National Park Service, U.S. Department of the Interior, administers the HAER program. The Institute for the History of Technology and Industrial Archaeology, Dr. Emory L. Kemp, Director, sponsored the project with the assistance of the Ohio Historical Society, Gary Ness, Director, and David A. Simmons, historic bridge specialist, and the Department of Architecture at the Ohio State University, Jose Oubrerie, Chairman. The field team under the direction of Eric DeLony, Chief and Principal Architect, HAER, consisted of Chris Payne, (Columbia University), architectural supervisor; Joseph Boquiren (University of Maryland) and Attila Kovacs (Technical University of Budapest, ICOMOS), architects; Wm. Michael Lawrence (University of Illinois at U-C), historian; and Joseph Elliott (Muhlenberg College, Pennsylvania), photographer.

DELINEATED BY: Chris Payne, 1992

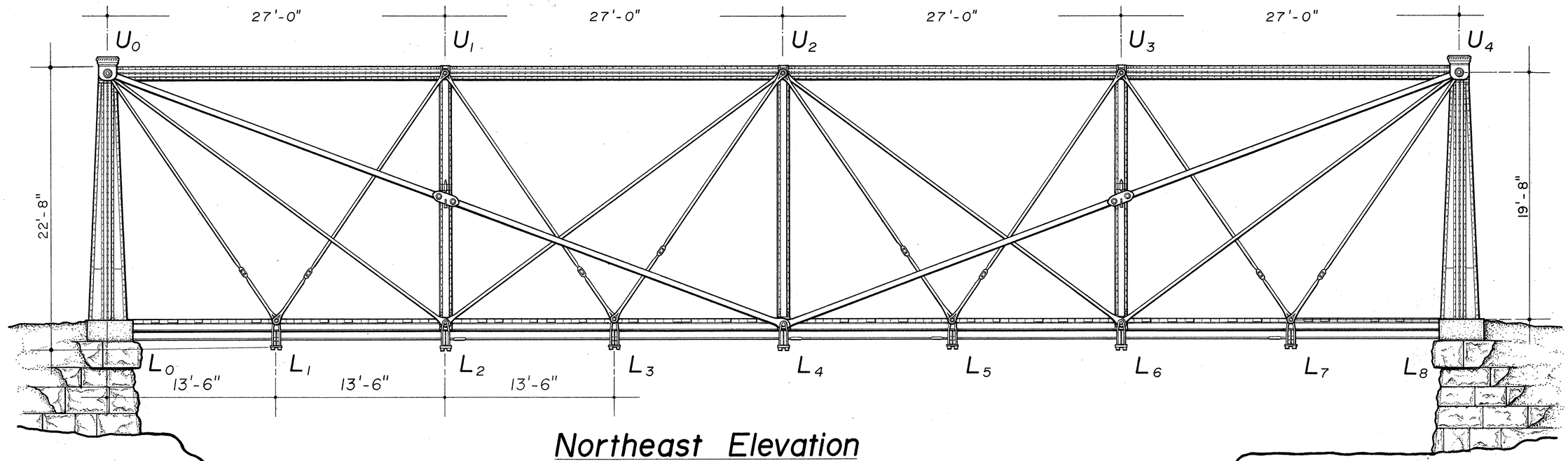
CAST AND WROUGHT IRON BRIDGES RECORDING PROJECT, OH
NATIONAL PARK SERVICE
HISTORIC AMERICAN ENGINEERING RECORD
UNITED STATES DEPARTMENT OF THE INTERIOR

ZOARVILLE STATION BRIDGE - 1868
ABANDONED SECTION OF RT. 212 SPANNING CONOTTON CREEK
ZOARVILLE VICINITY TUSCARAWAS COUNTY OHIO

HISTORIC AMERICAN ENGINEERING RECORD OH - 84

SHEET 1 OF 3

TRIM LINE

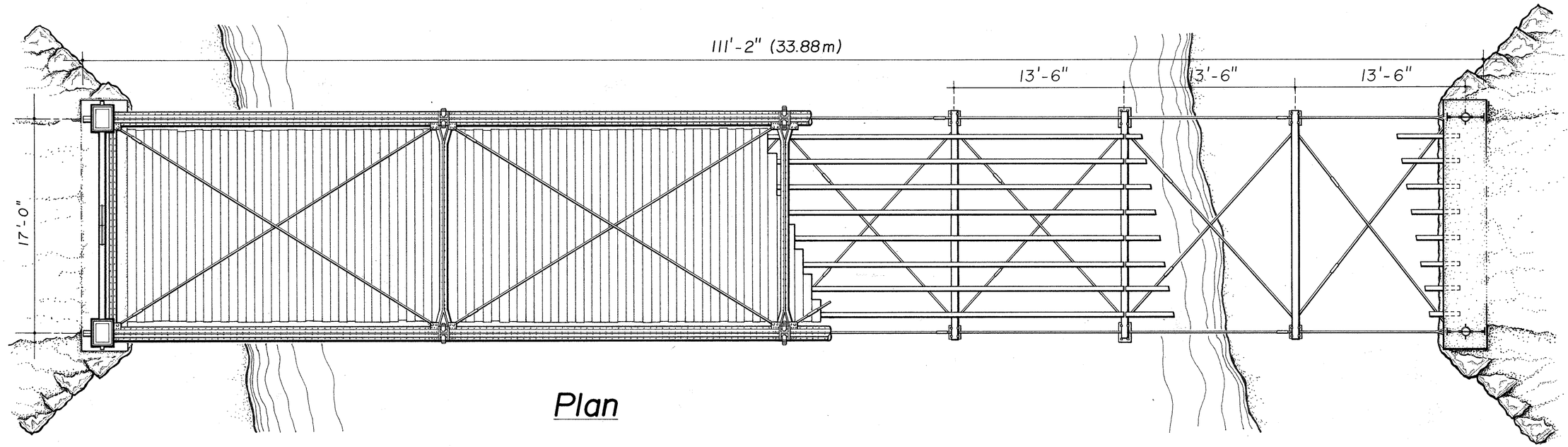


Northeast Elevation

Scale: 1/4" = 1'-0"

0 1 2 5 10 20 FT.

0 1 3 6 M.



Plan

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SHEET 2 OF 3

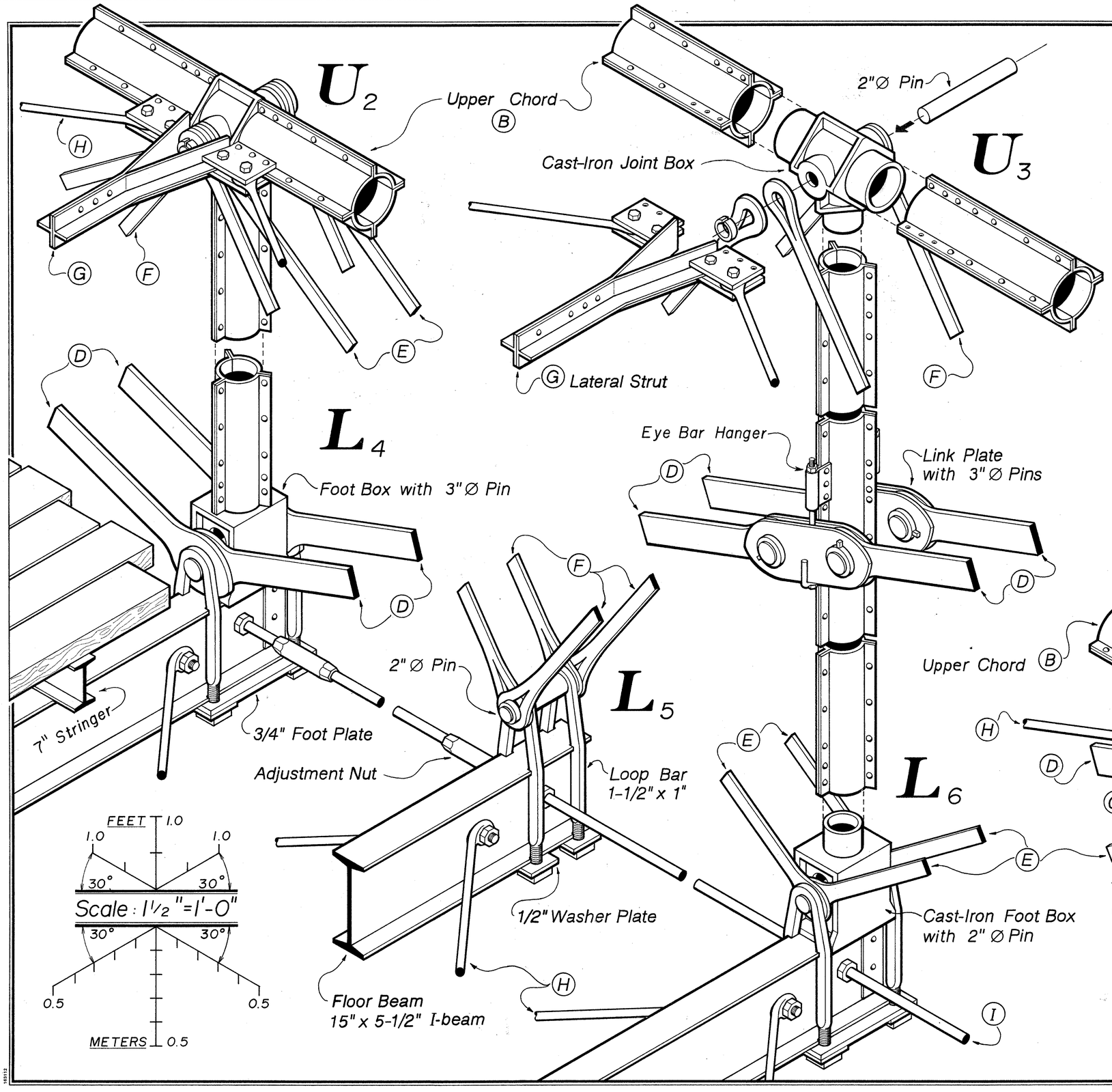
163112

TRIM LINE

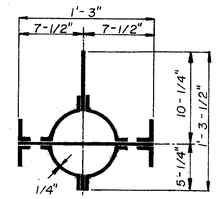
TRIM LINE

CONNECTION DETAILS

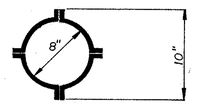
Scale: 1-1/2" = 1'-0"



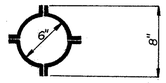
Ⓐ
End Tower 8" Ø Phoenix Column with 1/4" splice plate & 2-1/2"x 2-1/2"x 1/4" angles.



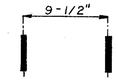
Ⓑ
Longitudinal 8" Ø Phoenix Col.



Ⓒ
Vertical 6" Ø Phoenix Column



Ⓓ
Two Diagonal Eye-bars
4" x 3/4"



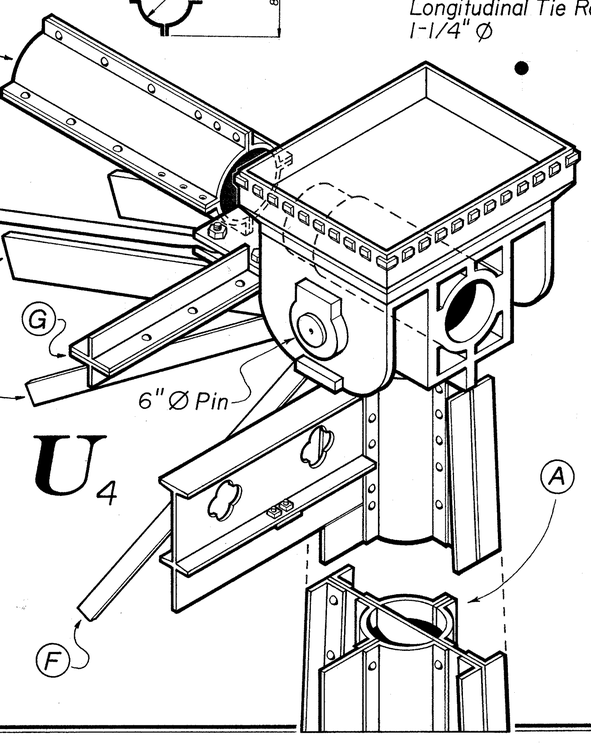
Ⓔ
2 Diagonal Eye-bars
2" x 1/2"

Ⓕ
Two Diagonal Eye-bars
1-3/4" x 1/2"

Ⓖ
Two Tees
5" x 2-1/2" x 3/8"

Ⓗ
Lateral Diagonal Tie Rod
1-1/4" Ø

Ⓘ
Longitudinal Tie Rod
1-1/4" Ø



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SHEET 3 OF 3

185112

TRIM LINE