

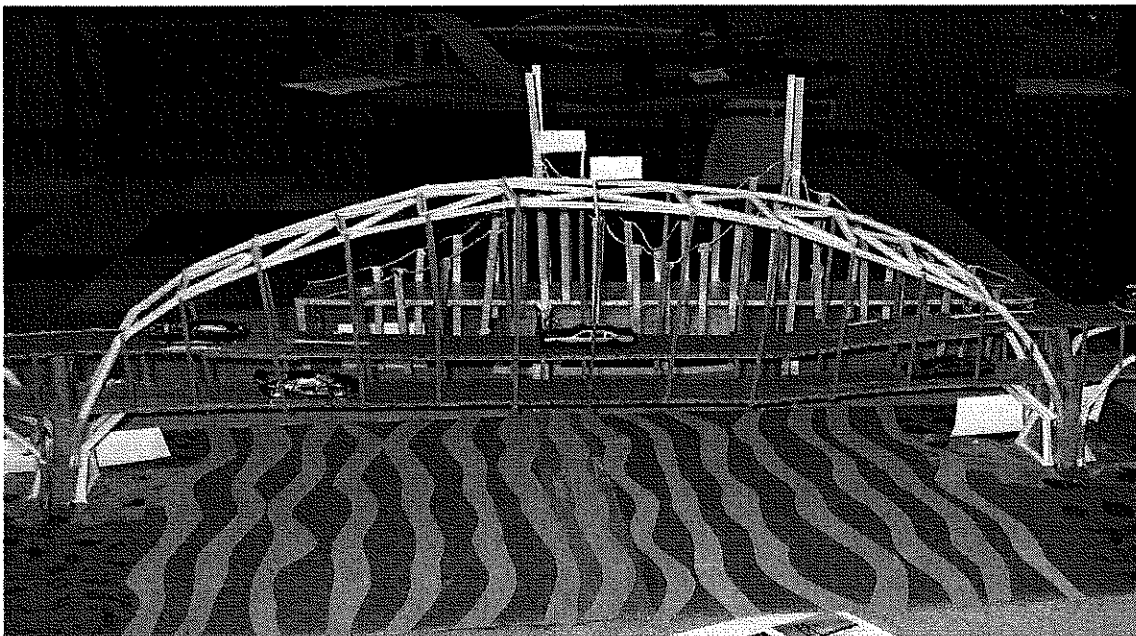
Portland Bridge Project

We've been studying bridges in class. Now it's your turn to build your interpretation of a Portland bridge using materials you can find at home. You can make a realistic version, or a creative bridge inspired by your favorite Portland bridge. Get creative using materials such as toothpicks, spaghetti, popsicle sticks, recycled materials, cardboard, etc. This is a family project and can be completed with parents and siblings.

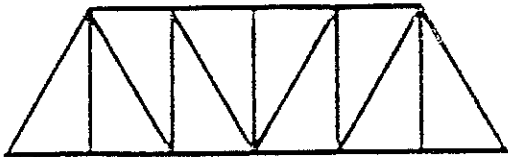
Requirements:

- o Your bridge should not be bigger than 2ft long x 1ft wide.
- o You should be able to find most of your materials at home.
- o Your name and the name of the bridge must be clearly visible.
- o Have fun!

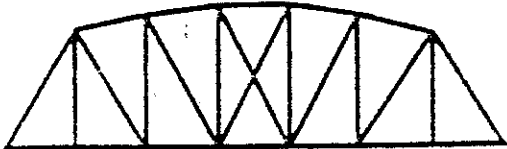
Your bridge is due on Friday, February 26th



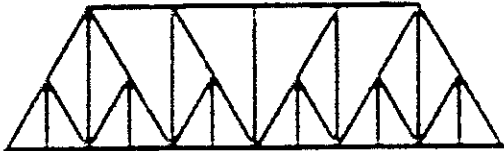
TRUSS BRIDGE DESIGNS



Pratt



Curved chord Pratt



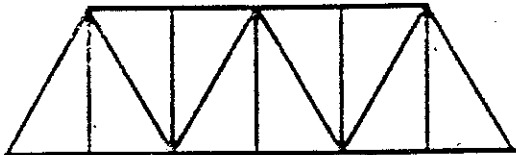
Baltimore (Pratt)



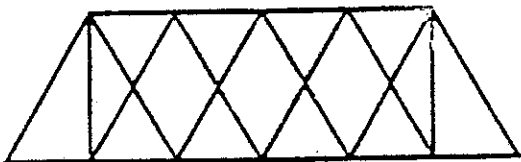
Pennsylvania (Pratt)



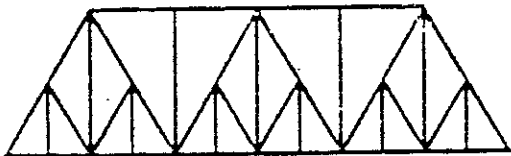
Warren
(without vertical supports)



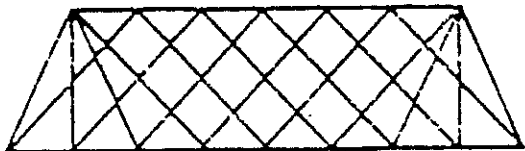
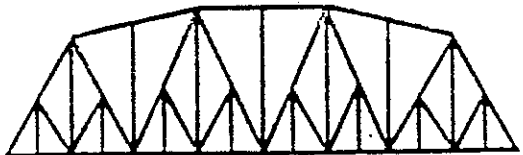
Warren
(with vertical supports)



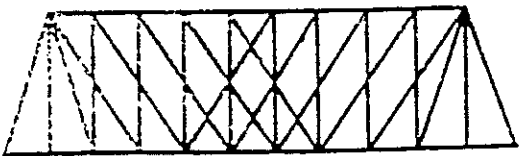
Quadrangular Warren



Subdivided Warren types

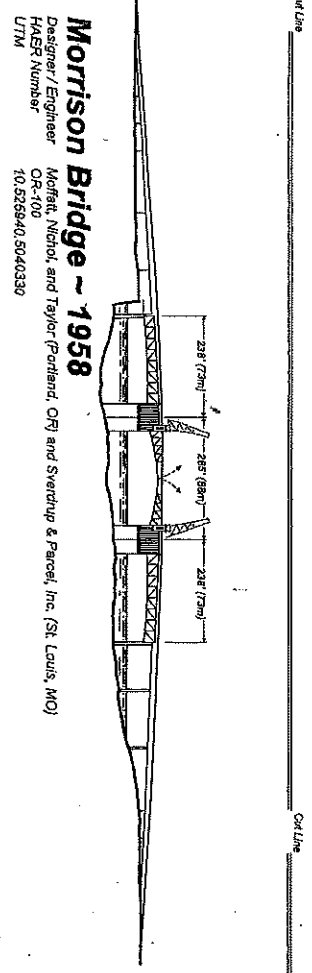


Lattice

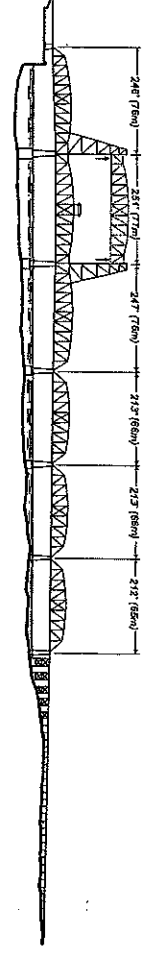


Whipple

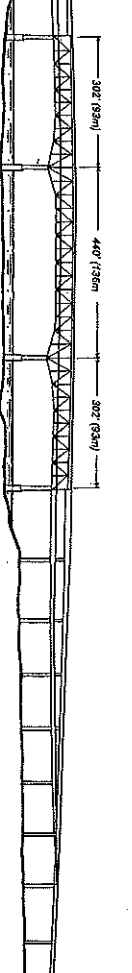
HAER/ODOT WILLAMETTE RIVER BRIDGES RECORDING PROJECT, 1999



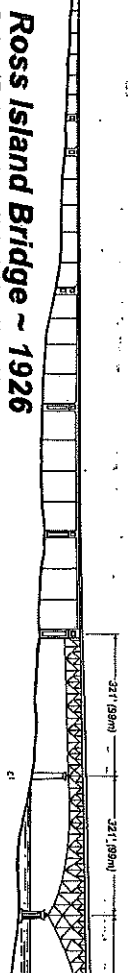
Morrison Bridge ~ 1958
 Designer/Engineer Moffatt, Nield, and Taylor (Portland, OR) and Stenstrup & Parcel, Inc. (St. Louis, MO)
 HAER Number OR-102
 UTM 10.5239440.5040330



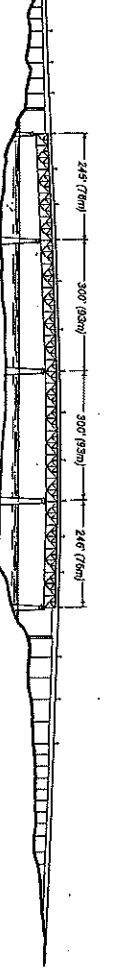
Hawthorne Bridge ~ 1910
 Designer/Engineer Waddell & Harrington (Kansas City, MO)
 HAER Number OR-20
 UTM 10.5239355.5039310



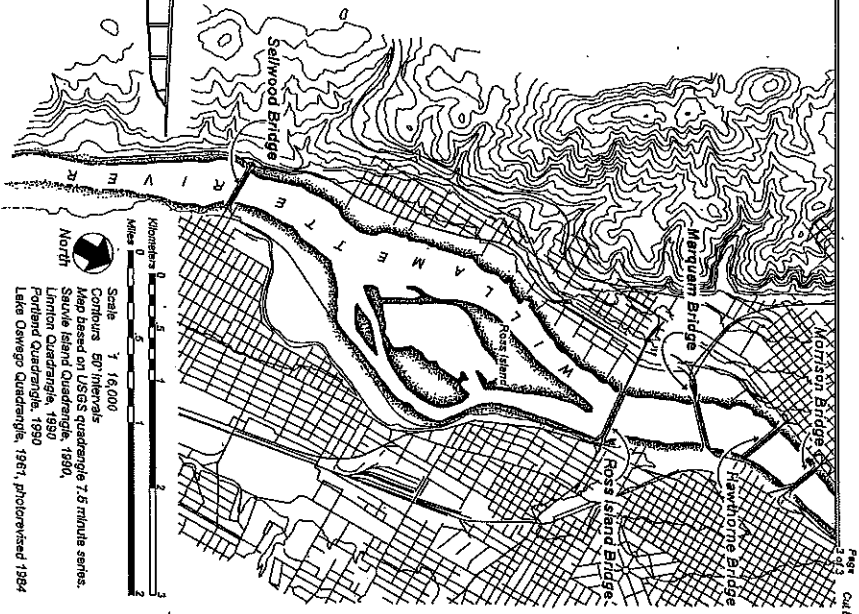
Marquam Bridge ~ 1966
 Designer/Engineer Oregon State Highway Department
 HAER Number OR-306
 UTM 10.5239300.5039240



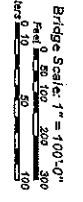
Ross Island Bridge ~ 1926
 Designer/Engineer Gustav Lindenthal (New York, NY)
 HAER Number OR-402
 UTM 10.5239290.5039480



Sellwood Bridge ~ 1925
 Designer/Engineer Gustav Lindenthal (New York, NY)
 HAER Number OR-103
 UTM 10.5239220.5039490



Scale 1" = 16,000'
 Contours 50' intervals
 Map based on USGS quadrangle 7.5 minute series:
 Searsville Island Quadrangle, 1950
 Union Quadrangle, 1950
 Lake Oswego Quadrangle, 1961, photorevised 1964



Bridge Scale: 1" = 100'-0"
 Feet 0 50 100 200 300
 Meters 0 50 100 200 300

This recording project is part of the Historic American Engineering Record (HAER), a long-range program to document historically significant engineering, industrial, and maritime works in the United States. The National Park Service, U.S. Department of the Interior, administers the HAER program. The Willamette River Bridges Recording Project was co-sponsored during the summer of 1999 by HAER under the general direction of E. Blaine Cliver, Chief of HAER/HAER, and by the Oregon Department of Transportation (ODOT) Region 1, Kay Van Sichel, manager, and Robert W. Haidow, Ph.D., historian.

The field work, measured drawings, historical reports, and photographs were prepared under the general direction of project leader Eric Delony, Chief of HAER, Richard O'Connor, Ph.D., HAER historian, and by Christine Theodoropoulos, AIA, PE (University of Oregon), architectural supervisor, and Joseph Bouvier, RA, of Portland, OR, architectural foreman. The Willamette River Bridges Recording Project team consisted of historians Judith McGraw, Ph.D., Sharon Wood Wortman, M.Ed., and Linda Dadds, M.A., all of Portland, OR, and architect Eric Kenyon (Southern California Institute of Architecture), Manuel Hernandez (US/COMOS-United Engineers/Catedral de La Plata, Argentina), Shiamon Sordell (University of Oregon), and Nicholas A. Zdyrcyn (University of Oregon), James B. Neuman (ODOT) did large format photography.

