



Editor Tinathan Royce

Issue 2

November 1990

Awards Competition Announced

he program: The first national awards competition for timber bridges is being launched by four major wood products trade associations and the USDA Forest Service. This competition is designed to stimulate innovative and efficient use of modern timber bridges in upgrading the nation's highway bridge infrastructure.

The Need: According to the Federal Highway Administration, approximately 240,000 U.S. Highway bridges have been declared either functionally obsolete or structurally deficient, requiring extensive rehabilitation or complete replacement. Many of these bridges are located on the secondary or rural highway system with spans of 50 feet or less, making them ideal candidates for replacement or rehabilitation by one of today's modern wood bridge systems. This new generation of wood bridges includes stress-laminated solid sawn designs, glued laminated timber systems, and composite lumber applications.

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Congress OK's Timber Bridge Initiative for '91

s part of the comprehensive budget recently enacted, the United States Congress has funded the Timber Bridge Initiative for fiscal year 1991. The Program will again receive \$2,000,000 for the construction of modern timber bridges throughout the nation. The Timber Bridge Information Resource Center is now accepting proposals for participation in this Initiative.

Each area has been assigned a Timber Bridge Regional Coordinator*. These coordinators can supply you with the required application package and will answer your questions. Please return the completed package to your Coordinator. The list of Coordinators, their address, and phone number, and the states they represent are as follows:

Region 1: Vernon Meyer; USDA-Forest Service; Federal Bldg., P.O. Box 7669; Missoula MT 59807; Telephone: 406-329-3388; STATES: Montana, northern Idaho, North Dakota, and northwestern South Dakota.

Region 2, 3, & 4: Clare Mitchell; USDA-Forest Service; Federal Bldg., 324 25th St., Ogden, Ut 84401; Telephone: 801-625-5260; STATES: Colorado, Kansas, Nebraska, South Dakota, Wyoming, Arizona, New Mexico, southern Idaho, Nevada, and Utah

Region 5: Dean Huber; USDA-Forest Service; 630 Sansome St., San Francisco, CA 94111; Telephone: 415-705-2871; STATES: California, Hawaii, Guam and Trust Territories of the Pacific Islands.

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Your University at Work

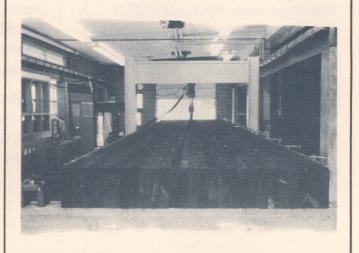
niversity of Wisconsin - New and unique timber bridge systems in the form of stress-laminated timber decks, glu-laminated decks, and many forms of stress-laminated parallel chord bridge configurations have been investigated, tested and built in a continuing program of research at the University of Wisconsin since 1985. Though use of stress-laminating to build a timber bridge seems to be commonly accepted, there were no stress-laminated bridges in the United States as short a time as five years ago, before the contemporary programs of timber research in the U.S. had started. The Ontario Ministry of Transportation, however, had already identified the technique of stress- laminating as an excellent means of rehabilitating existing timber bridges and constructing new spans. We were given a tremendous head start in developing stress-laminated bridge systems in the United States by the Ontario work. The University of Wisconsin first tested a 50ft. bridge, using a new form of stress-laminated construction which included heavy timber laminae and construction practices appropriate for the U.S. in the summer of 1985. That early test program led to construction of the first experimental stresslaminated timber bridge in the United States and a growth of interest in stress-laminating techniques among government transportation authorities and university researchers.

That first bridge test has been followed by a complete series of tests, development of analytical methods, and field studies of stress-laminated solid timber bridge decks. Based on our entire research program a proposed guide design specification for stress-laminated decks was prepared at the University and was given an initial approval by voice ballot at the annual meeting of AASHTO Bridge Engineers in May 1989. That guide specification has been subjected to a second letter ballot during the past summer and the voting is currently being tallied to see if it will become a part of the 1991 AASHTO Guide Specifications.

In addition to the research on plain solid stresslaminated timber bridges, further research at the University has been continuing since 1986 on new methods of constructing long-span timber bridges, beyond the span range of the plain decks. Configurations which have been and are being explored include bridges where many forms of parallel chord trusses are stress- laminated together, bridges which wood-plywood I beams are stress-laminated together, and parallel chord bridges wherein the top and bottom chords are separated by webs to form box girders. The truss systems have included configurations where the individual elements are doweled together and systems using metal connector plates. The box girder systems are using standard sized glu-laminated panels and beams which are then stress-laminated together to form multiple box girders.

The knowledge developed from the University projects has been distributed through nine university research reports, USDA Forest Product Lab reports (where support was provided by FPL), journal articles, and the proposed AASHTO Guide Specifications.

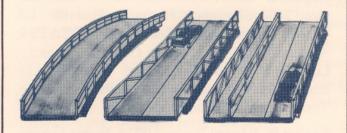
-Michael G. Oliva Associate Professor of Civil Engineering University of Wisconsin Madison, Wisconsin



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The Awards: This awards competition will recognize significant accomplishments in the design and construction of timber bridges nationwide. Awards will be presented in four categories:

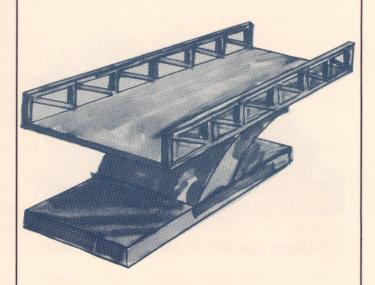
- pedestrian/light vehicular bridges
- vehicular bridges with main spans of less than 40 feet
- vehicular bridges with main spans greater than 40 feet
- rehabilitation of an existing bridge using timber



"Any timber bridge opened to traffic during 1987-89 is eligible for these initial awards."

The awards, to be known as the "Engineered Timber Bridge Awards", will be presented annually, beginning with the first winners to be selected in 1990. Those eligible to apply are architects, designers, engineers, contractors, sub-contractors, developers, owners, township, city, county, federal officials, and anyone else who is involved in creat-

ing modern wood bridges. Any timber bridge opened to traffic during 1987-89 is eligible for these initial awards. Stress-laminated solid sawn designs, glued laminated timber applications, structural composite lumber systems, or any other design using engineered wood products will be considered.

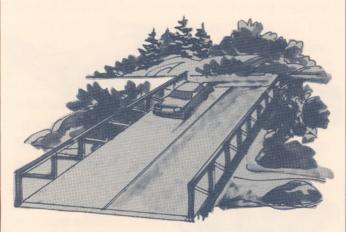


There will be award plaques and trophies presented in all four categories. These specially designed prestige trophies will include a color photo of the winning bridge, and the names of its designer, contractor, and owner or sponsor. One plaque will go to the design and construction team and a distinctive award plaque will also be placed on each award-winning bridge during a ceremony to be held at the bridge site. Winners will be selected by an experienced jury with expertise in timber bridge design. Entry kits will be available to timber bridge owners, designers, and contractors later in 1990.

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The Sponsors: This awards program is co-sponsored by the American Institute of Timber Construction (AITC); National Forest Products Association (NFPA); Southern Pine Marketing Council (SPMC); Western Wood Products Association (WWPA); and the USDA Forest Service. AITC has been identified as the secretariat for this awards program.



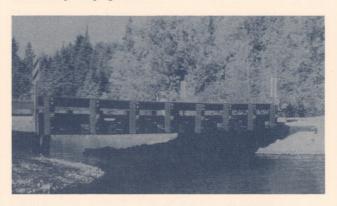
WANTED: THE NATION'S BEST TIMBER BRIDGES

Your Help is Needed: The costs of the Engineered Timber Bridge Award Program will be about \$35,000 for advertising and promotion, costs of judging, mailings, photography, trophies and awards, press kits, entry materials, and coordination. The USDA Forest Service has provided a grant of \$15,000 to initiate this activity. This leaves \$20,000 to be generated by the wood products industry. The sponsoring organizations invite you to consider a contribution to this important wood industry program. Anyone wishing additional information regarding this program should contact AITC at 11818 Mill Plain Blvd., Suite 415, Vancouver, WA 98684-5092, Telephone 206-254-9132, Fax 206-254-9456

-Tom Williamson American Institute of Timber Construction

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Region 6: William von Segen; USDA-Forest Service; 319 SW Pine St., P.O. Box 3623, Portland, OR 97208; Telephone: 503-326-2729; STATES: Oregon and Washington

Region 8: Robert Westbrook; USDA-Forest Service; 2500 Shreveport Highway, Pineville, LA 71360; Telephone: 318-473-7272; STATES: Alabama, Arkansas, Florida, Georgia, Kentucky, Louisiana, Mississippi, North Carolina, Oklahoma, Puerto Rico, South Carolina, Tennessee, Texas, Virgin Islands, and Virginia

Region 9: Edward Pepke; USDA-Forest Service; 1992 Folwell Ave., St. Paul, MN 55108; Telephone: 612-649-5238; STATES: Connecticut, Delaware, Illinois, Indiana, Iowa, Maine, Maryland, Massachusetts, Michigan, Minnesota, Missouri, New Hampshire, New Jersey, New York, Ohio, Pennsylvania, Rhode Island, Vermont, West Virginia, and Wisconsin

Region 10: Eugene Wheeler; USDA-Forest Service; 201 E. 9th Ave., Suite 201, Anchorage, AK 99501; Telephone: 907-271-2575; STATES: Alaska

*NOTE: The Forest Service does not have a Region 7.

-Tinathan A. Royce USDA-Forest Service Information, Planning & Analysis Morgantown, WV