



### ***A Brief History of Metal Truss Bridges in Texas***

A truss bridge is one made of triangular components. Truss bridges consist of groupings of these triangles, usually built of wood, metal, or concrete. Truss members are in compression or tension, and thus can carry heavy loads. Bridges have a truss on either side of the roadway. Railroad companies built the earliest truss bridges in Texas in the mid-nineteenth century, using steel or iron. The construction and failure of some cast iron bridges led to bridge builders using more wrought iron, which proved to be less prone to cracking under heavy weight.

The National Park Service's Historic American Engineering Record (HAER) has an [informative poster on the different types of trusses](#). Also see TxDOT's [Truss Visual Glossary](#) of truss parts and terms.

### **County and Local Roads in the Nineteenth and Early Twentieth Centuries**

- Texas allowed counties to pass bonds for road and bridge construction
- Metal truss bridge manufacturers sold truss bridges to counties as cheap, strong, and safe
- Majority of county road truss bridges date to this time period of construction

### **Named Auto Trails**

- Communities improved roads for increased automobile traffic, tourism, and military convoys
- Truss bridges can be found along these historic named routes, such as the Bankhead Highway, the Meridian Highway, and the Old Spanish Trail

### **Early Development of the THD and U.S. Highway System**

- Texas Highway Department created in 1917
- Standardized plans for truss bridges on state roads
- Common truss types include Warren, Pratt, and Parker

### **Texas Roads in the Great Depression and World War II**

- Truss bridges were easily moved. Counties moved some trusses to new locations depending on needs

- THD constructed large deck truss bridges to improve crossings over lakes and larger waterbodies
- Fewer truss bridges constructed during this time period, but some rural trusses built in the 1930s

For more information and a detailed history about truss bridge design in Texas, please see the [Historic Road Infrastructure of Texas, 1866-1965, Multiple Property Submission](#) (large PDF)

#### Further Reading

Cooper, James L. *Iron Monuments to Distant Posterity: Indiana's Metal Bridges, 1870-1930*. Indianapolis: DePauw University, 1987.

Mead & Hunt. *Historic Context and Comparative Analysis Report: Statewide Study of Bedstead Truss Bridges*, prepared for the Texas Department of Transportation, 2009.

Parsons Brinkerhoff et al. *A Context for Common Historic Bridge Types, NCHRP Project 25-25, Task 15*, report prepared for the National Cooperative Highway Research Program Transportation Research Council, National Research Council, October 2005.

Stocklin, Barbara. *Historic Bridges of Texas, 1866-1945, Multiple Property Submission*, National Register of Historic Places, 1996.