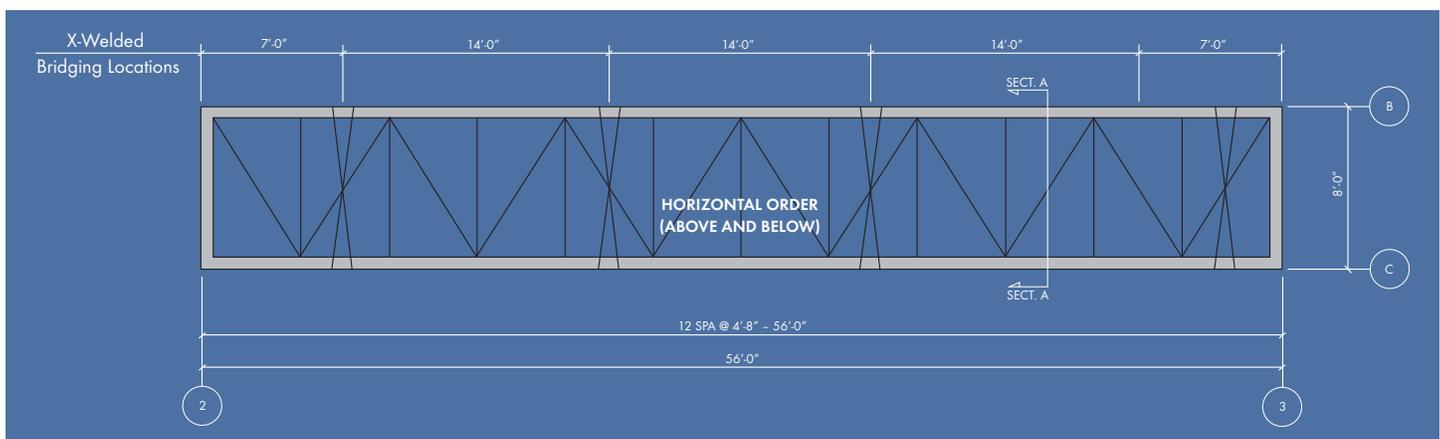




Outdoor Pipe Bridge Does Double Duty

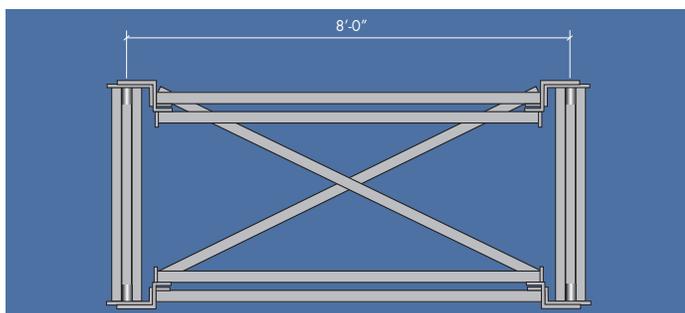
New Millennium custom designed and built a box truss pipe bridge for BASF that supports loads in all directions.



Top view of the 56' box truss that was fully shop assembled prior to galvanizing. Horizontal joists supported seismic and wind lateral loads and vertical joists supported the gravity loads. All loads were transferred through knife plates at the columns.

BASF needed an outdoor bridge to carry cables and piping. New Millennium's solution was to connect two vertical joists and two horizontal joists put together in a unique application with angle bracing to keep it rigid.

"The reinforced box truss can carry the gravity, pipe, snow, and ice loads, as well as seismic and wind loads that are lateral," says Joe Voigt, Sales Engineer, New Millennium Building Systems.



"As joists manufacturers, we aren't usually asked to design for lateral loads, but this was a unique project and we custom-designed the solution that met all the customer's needs," Joe adds. "The fact that this is installed in a seismically active area, made the project even more interesting."

The custom-designed clip angles that hold the horizontal joists to the vertical joists were fabricated from steel and located at the panel points of the vertical girder. Detailed field drawings were provided to the crew onsite to ensure its safe and accurate installation. "However, in this particular project, it made much more sense to completely assemble this piece and deliver it to the site completely ready for installation," says Joe.

This end view of the customized box truss (marked "Sect A" in the diagram above) shows the custom-designed angle bracing that keeps the box rigid and connects the horizontal and vertical joists.

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