



# New Life for an Old Bridge

## Built to Move

The Schuylkill River Trail is the third home for this wrought iron bowstring truss bridge. Historic newspaper articles and photographs suggest it was originally built in 1878 to cross the Schuylkill Canal in Palo Alto. In 1893, the County dismantled and moved it for reuse over the Schuylkill River in Mount Carbon, less than a mile from its original location. In 1926, a new bridge bypassed it and the truss sat quietly until 1974, when the Schuylkill County Municipal Authority (SCMA) purchased the structure to carry a water line over the river, providing it with a renewed purpose for the next 49 years.



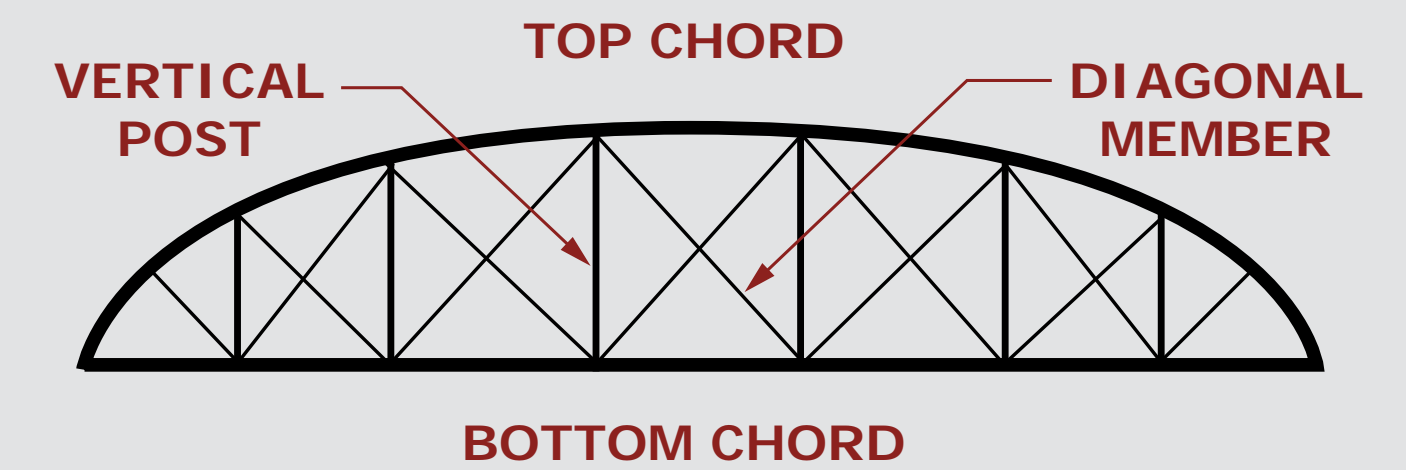
Undated photograph of bowstring crossing the Schuylkill Canal in Palo Alto, view to southwest. The bowstring was paired with another arched bridge crossing the Schuylkill River. (Photo source: Schuylkill County Historical Society)



Photograph of the 1926 construction of the bridge that bypassed the bowstring, seen beyond the new structure. In 2023, PennDOT moved the bowstring from this location adjacent to Mount Carbon Arch Road to the trail, four miles north.

## What is a Bowstring Truss?

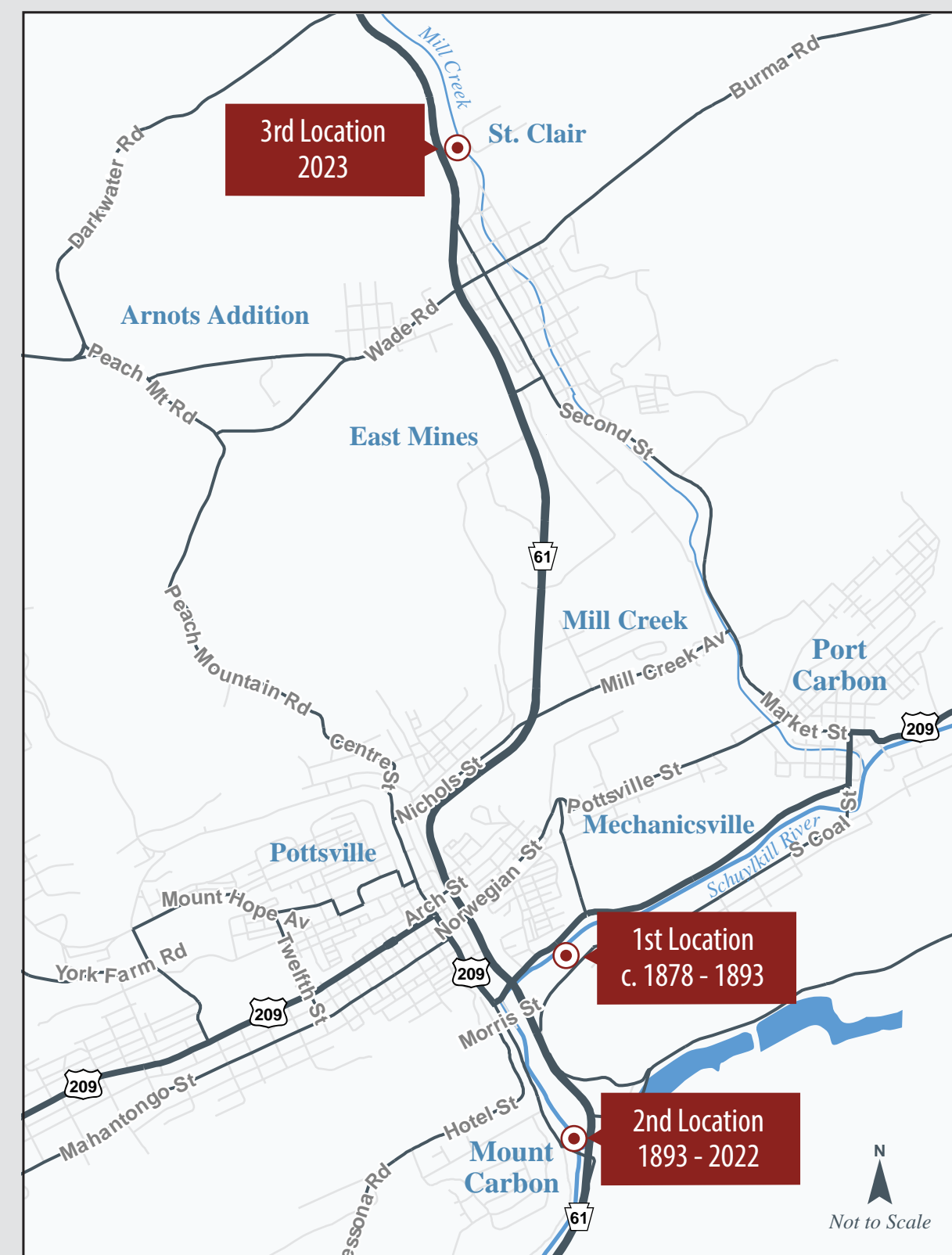
A truss is an arrangement of connected members often forming triangles within a larger frame. A bowstring truss bridge has an arched top chord joined at the ends by a straight bottom chord, with vertical posts and diagonal members in between. The elements work together in compression and tension to create a sturdy structure.



Historic postcard of the bowstring at Mount Carbon. The current railing was inspired by the lattice railing in this image.

## Journey to Its Final Home

In 2021, the Pennsylvania Department of Transportation partnered with SCMA and Schuylkill River Greenways National Heritage Area to relocate the bridge once again. Its lightweight construction, good condition, and historical significance made the bowstring a perfect candidate for preservation and adaptive reuse. One hundred thirty years after its move to Mount Carbon, the structure was dismantled and rehabilitated to carry the Schuylkill River Trail over Mill Creek in 2023. This unique bridge's preservation and adaptive reuse benefiting future generations align with Schuylkill County's legacy as a home to American innovation and industry.



## Preservation and Rehabilitation

This bridge is one of only three remaining bowstring trusses in Pennsylvania. Its materials, design and technology exemplify Pennsylvania's important role in American bridge-building history. Retaining, repairing or recreating the unique features including the chords, vertical and diagonal members, connections, and decorative bracing between trusses was a project priority.



The bowstring in its second location, crossing the Schuylkill River between Mount Carbon Borough and State Route 61. The water line was added to the bridge in 1924.

The bridge components were largely in good condition. Members beyond repair were replaced in-kind where possible. A metal lattice railing similar to the original and a lightweight deck were added. Community partners helped guide the rehabilitation and chose the truss, railing and deck colors.



Two cranes lifted the 37,000 pound bowstring off its Mount Carbon abutments in 2022. After careful disassembly, an Ohio blacksmith transported pieces to his shop for rehabilitation. It was reassembled and placed on this trail in 2023.

