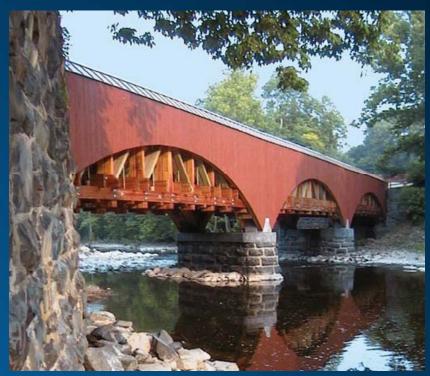
#### TOHICKON AQUEDUCT REHABILITATION

Delaware Canal National Landmark 1992-2001



William Collins, RLA, Simone Collins Landscape Architecture

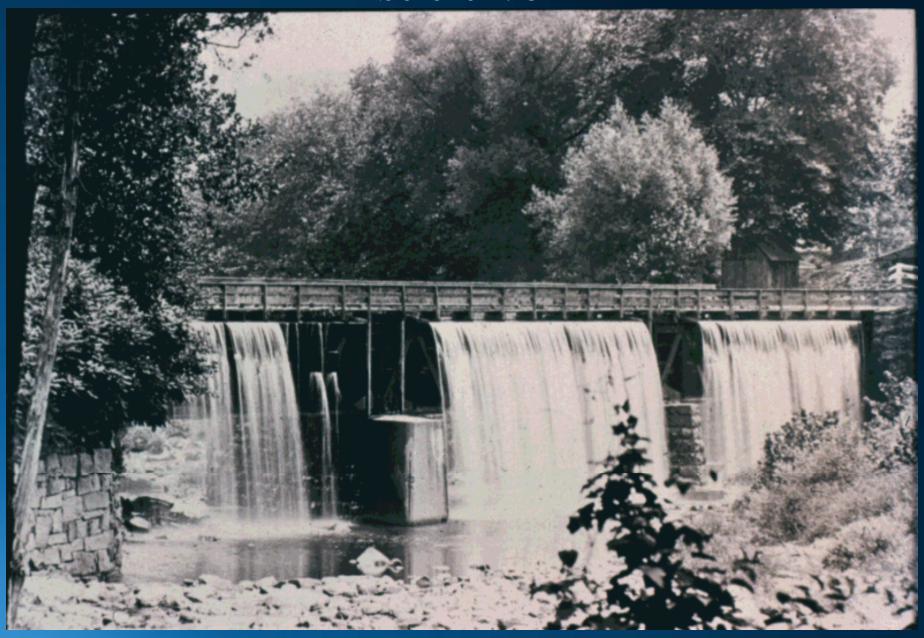
David C. Fishetti, P.E., DCF Engineering - superstructure engineer

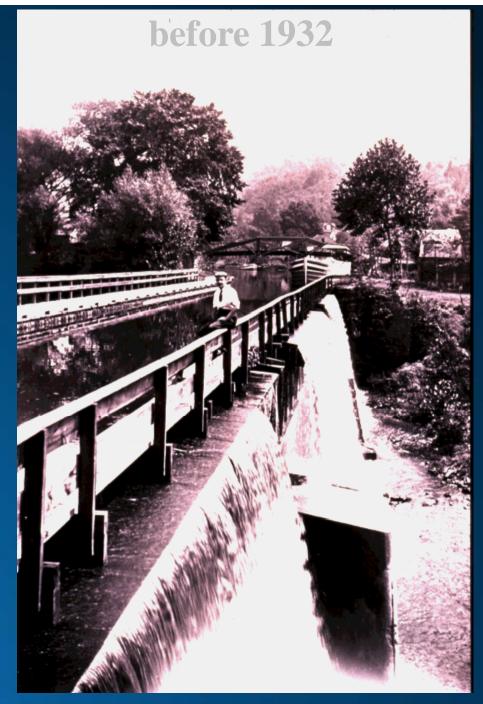


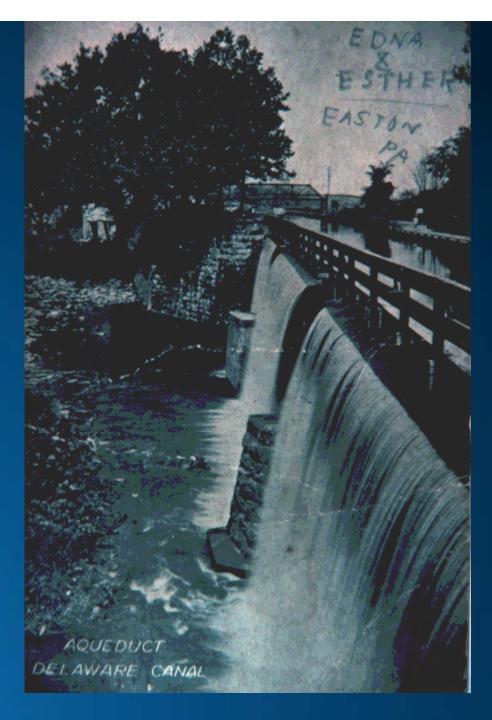
1992



#### before 1932



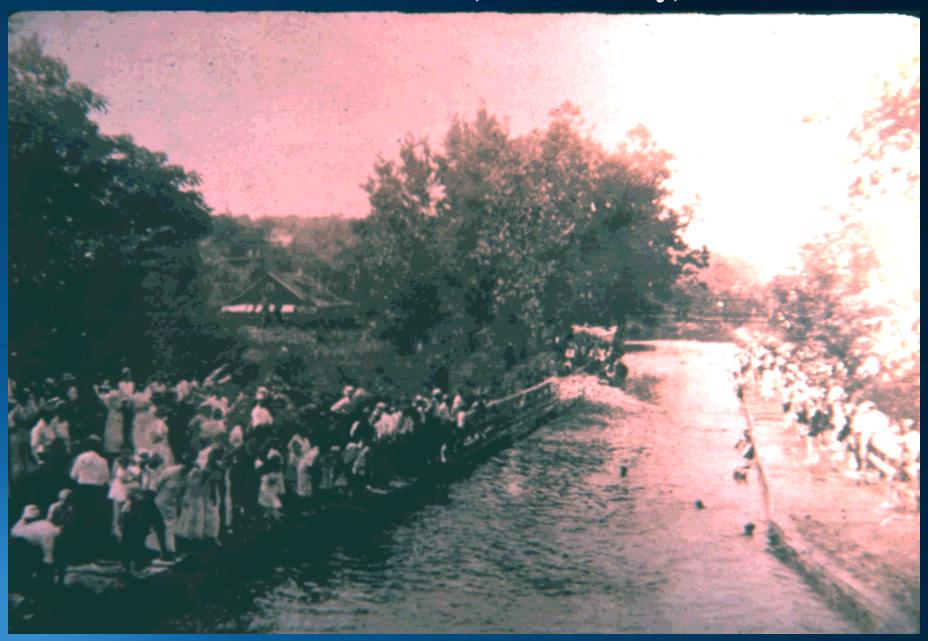




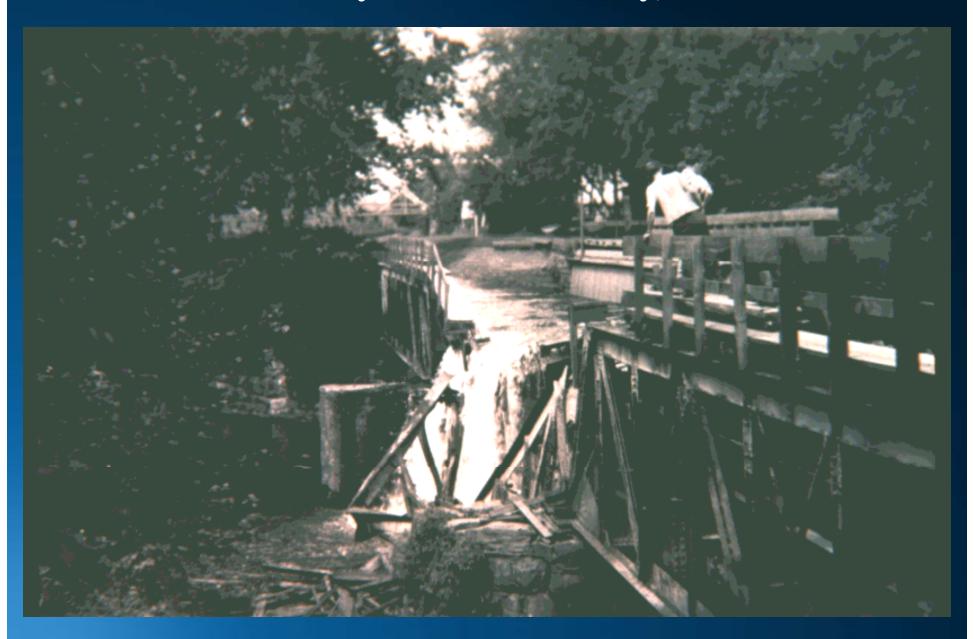
## Commercial operation 1832 - 1932

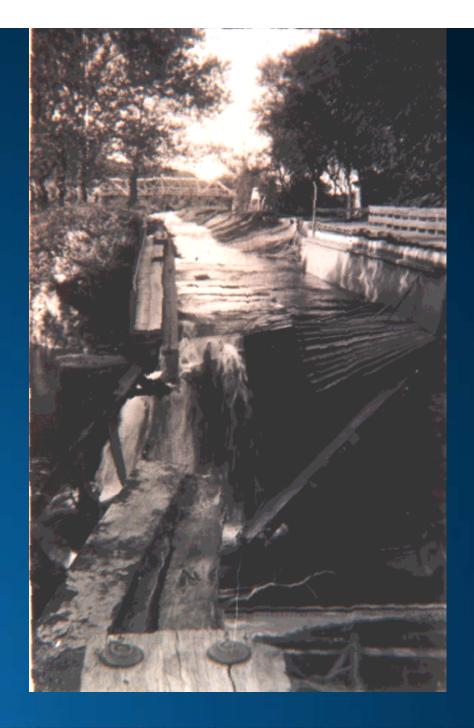


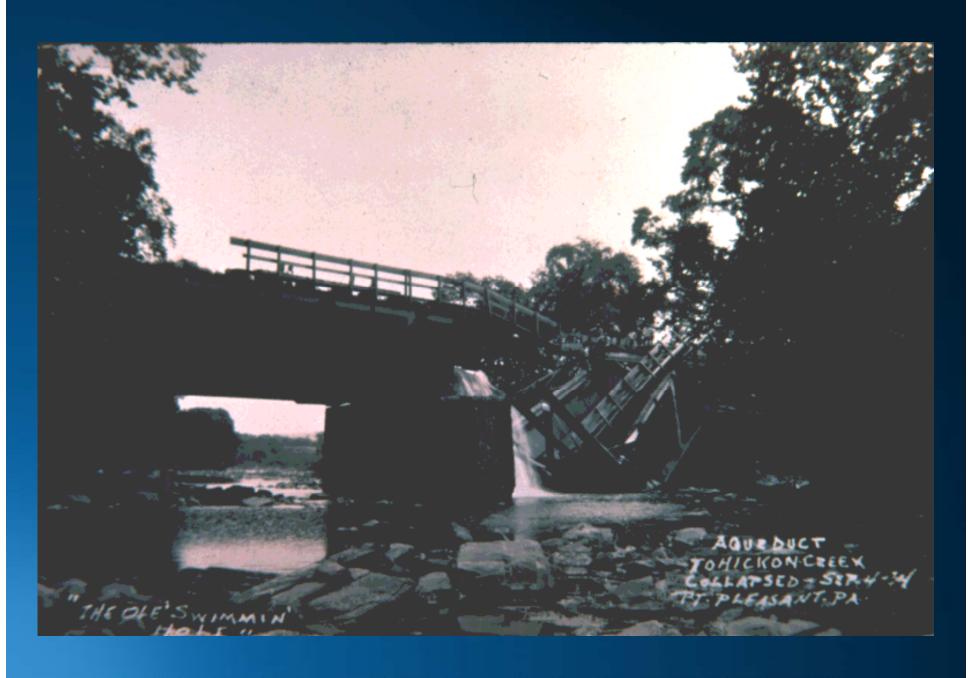
## Ole swimmin' hole, Labor Day, 1932

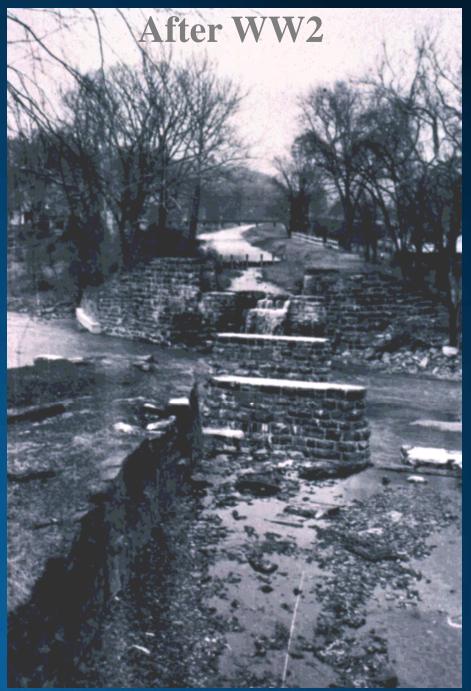


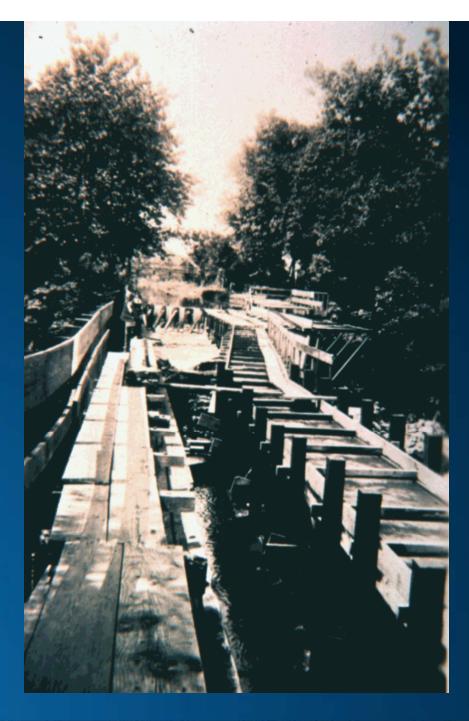
#### Two days after Labor Day, 1932











## New state park aqueduct





## 30-35 years useful life





TOHICKON AQUEDUCT - Second National Covered Bridge Conference, Dayton Ohio 2013

#### Gift Bridge – Guelph Ontario, 1992 (TF Guild)

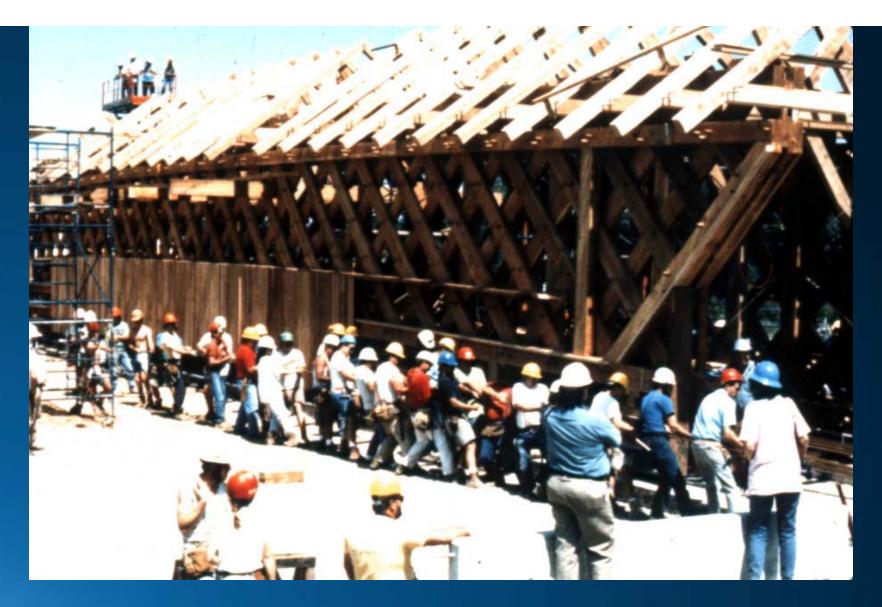




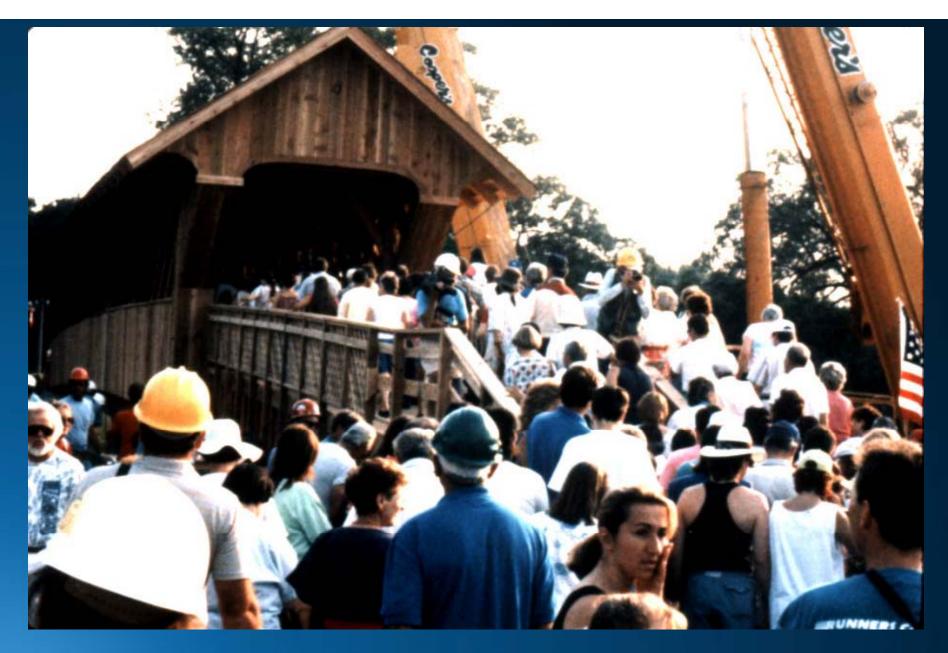
## Town Lattice Truss fabrication



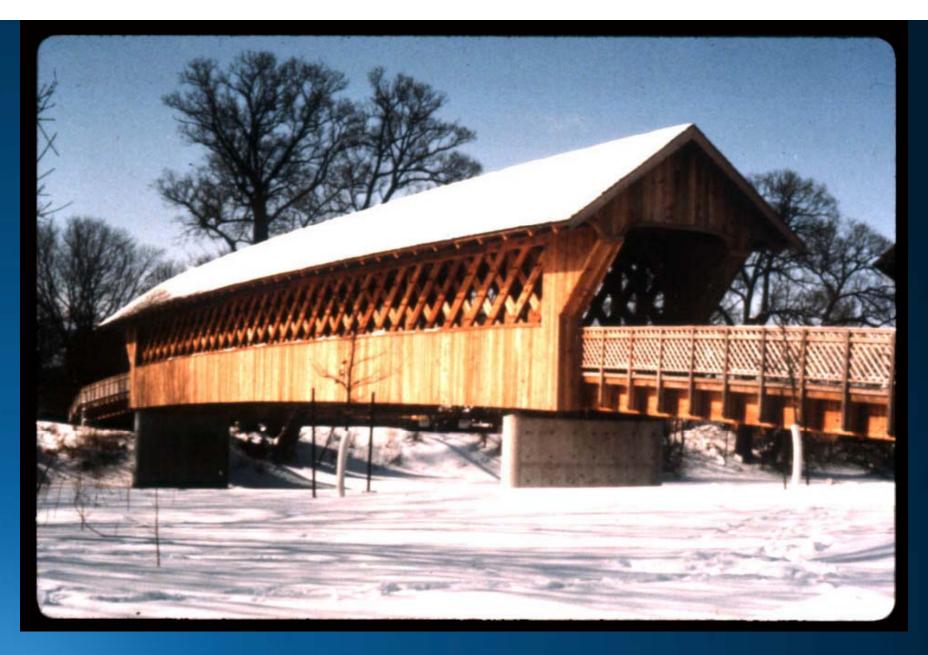
# Hand-raising trusses



Moving trusses into position

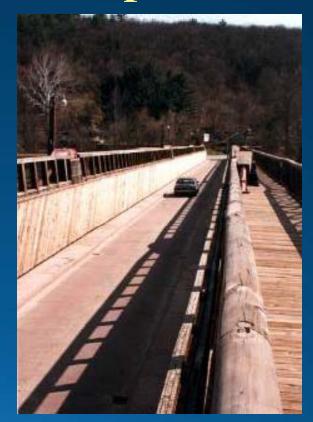


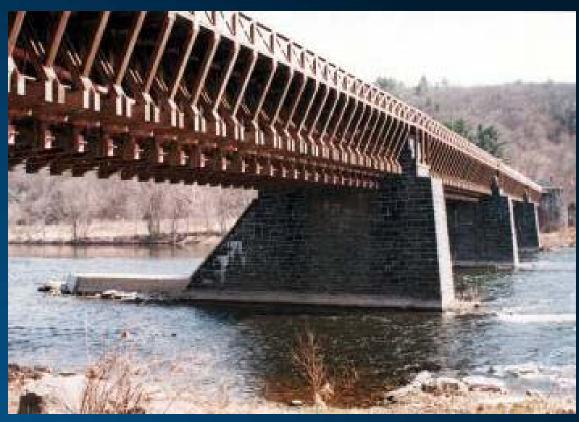
Opening



# Gift Bridge

# Inspiration



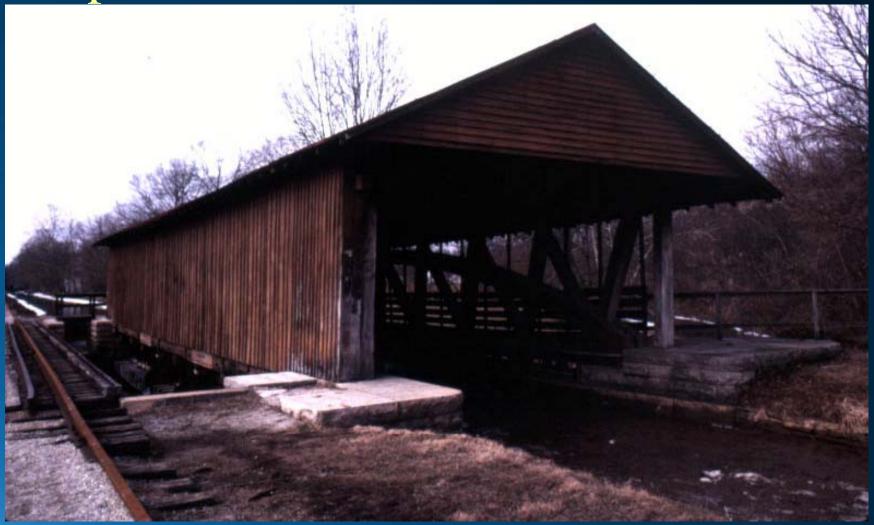


Rehabilitation by NPS

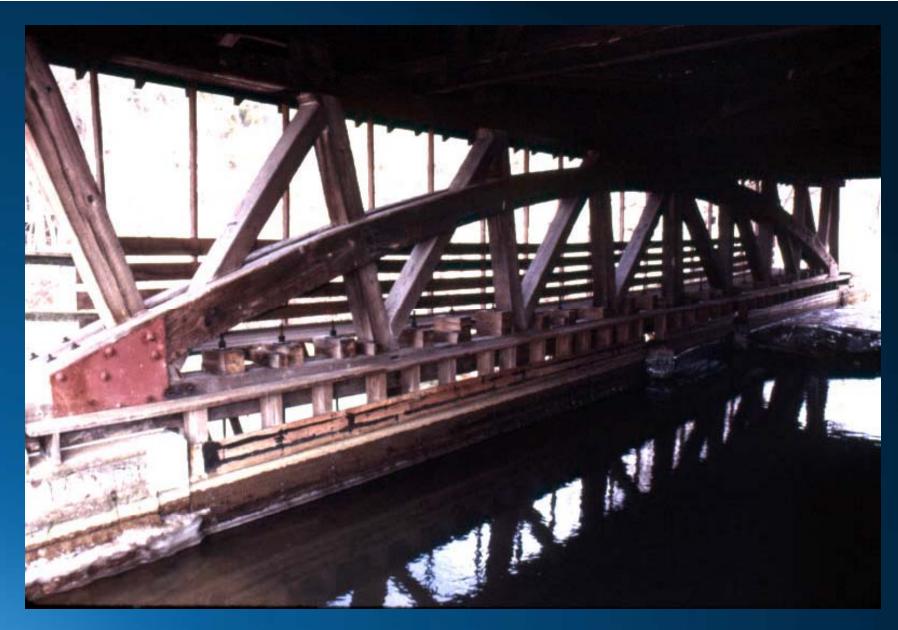
#### **Roebling Aqueduct**

former Delaware & Hudson Canal Lackawaxen, PA

Inspiration

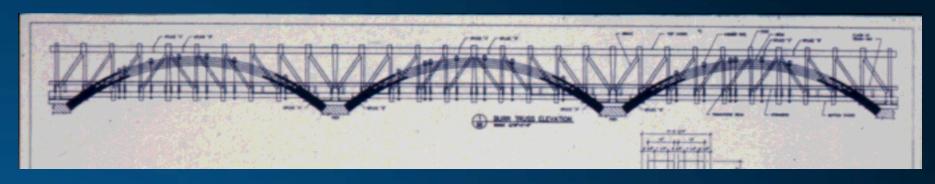


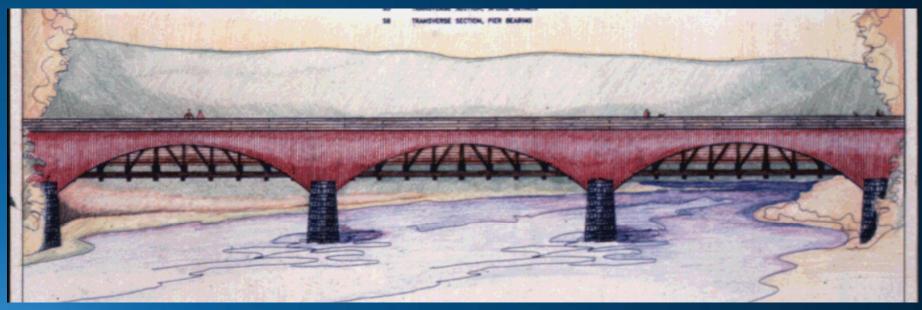
Duck Creek Aqueduct Swiftwater Canal, Matamoras, IN



Duck Creek Aqueduct - Burr Arch Truss

## **Engineering and Architecture**







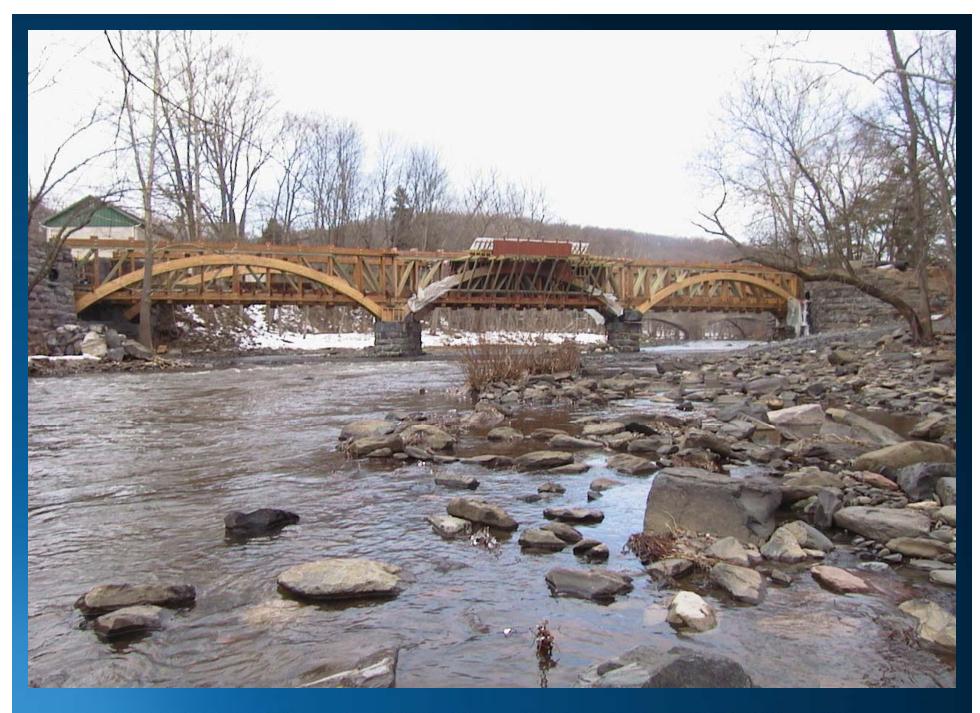
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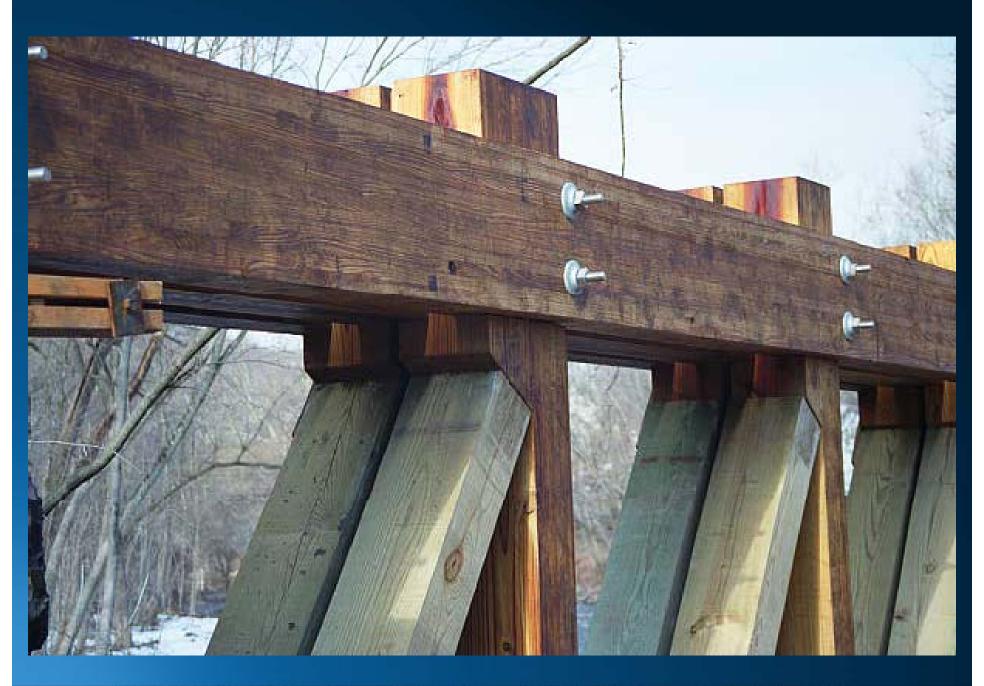


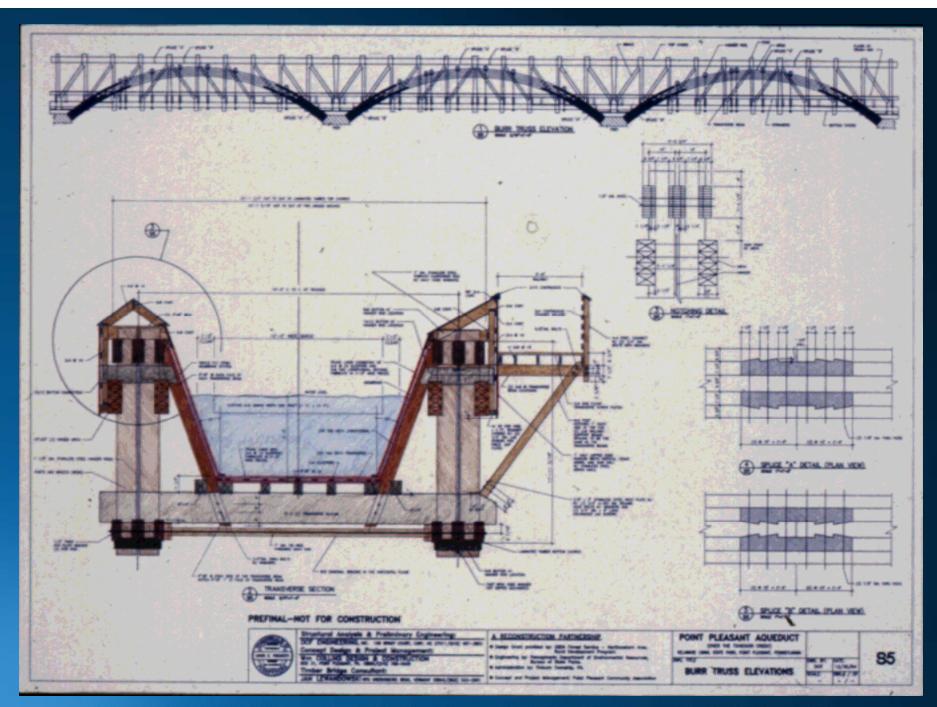


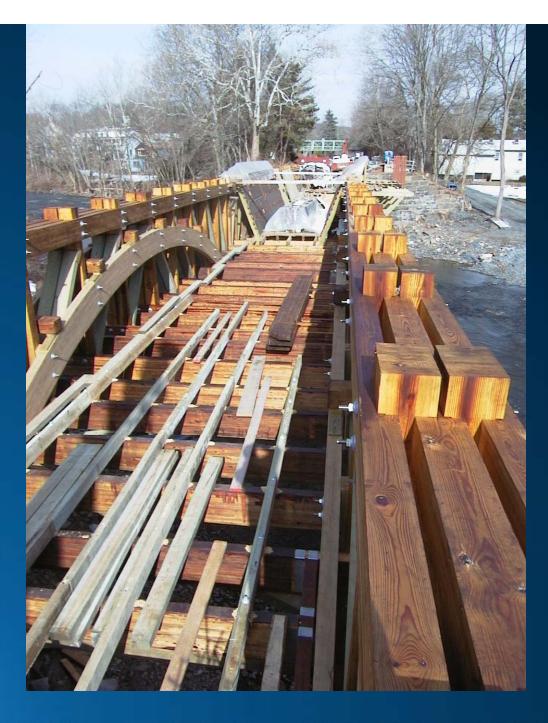
TOHICKON AQUEDUCT - Second National Covered Bridge Conference, Dayton Ohio 2013





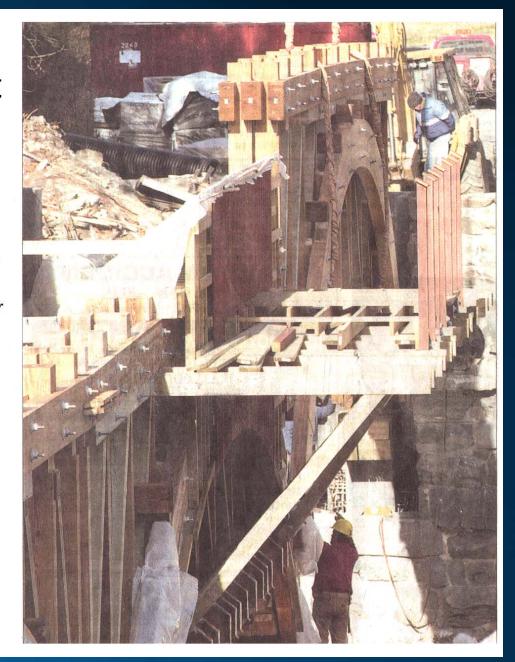


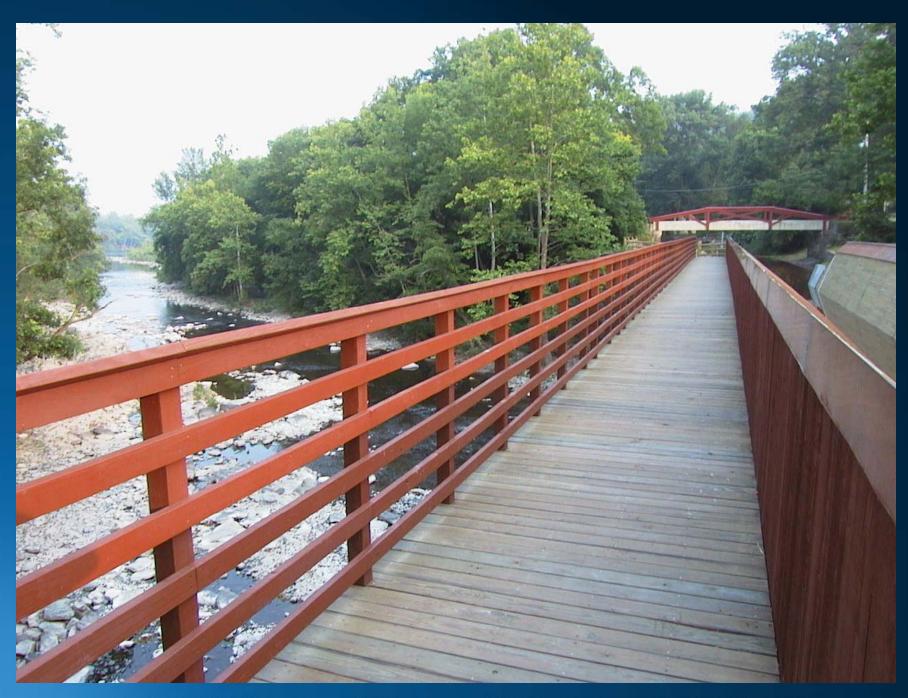




# Canal aqueduct taking shape

The 200-foot-long structure spans the Tohickon Creek and brings the Delaware Canal one step closer to being fully operational.







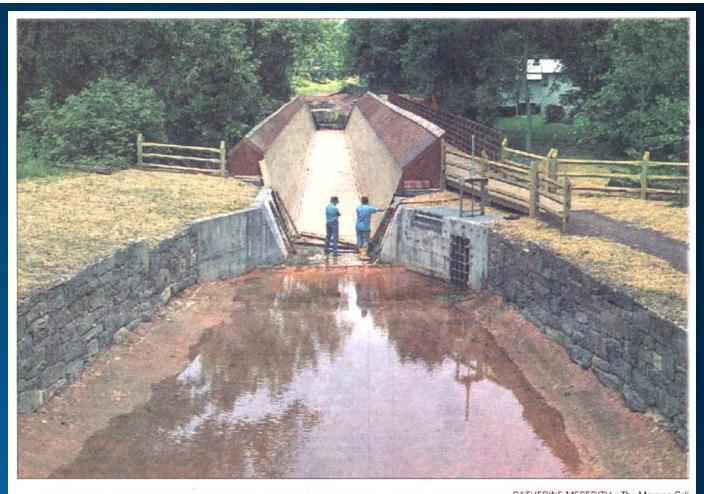


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Workers for J.D. Eckman contractors stand at the refurbished Tohickon Aqueduct near Point Pleasant. Students and professors of the University of Maine are testing a new polymer that is supposed to reinforce the timber construction.

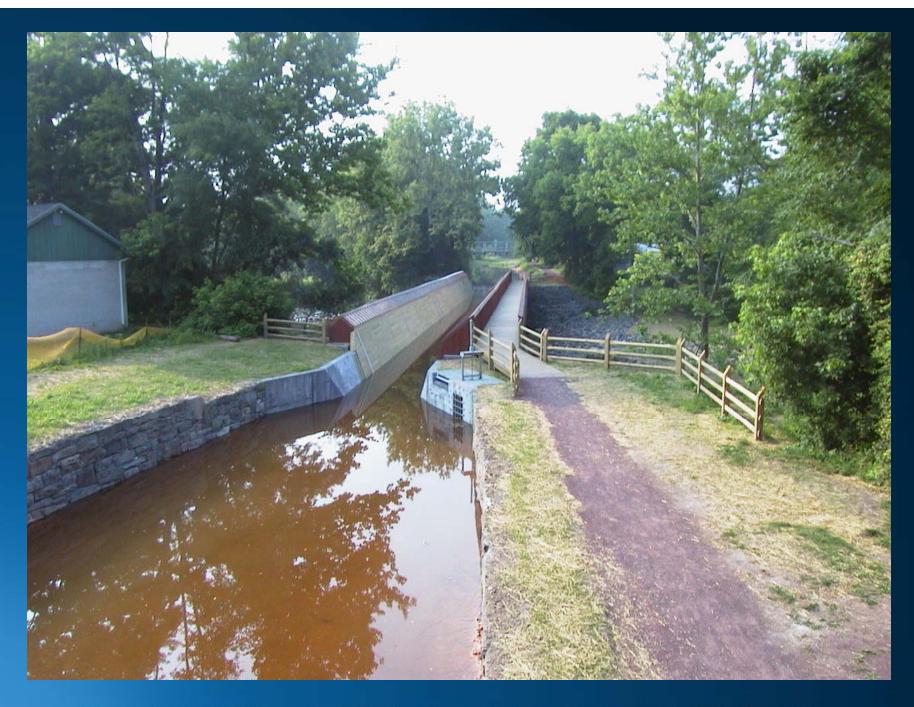
# Tohickon Aqueduct project becomes college experiment

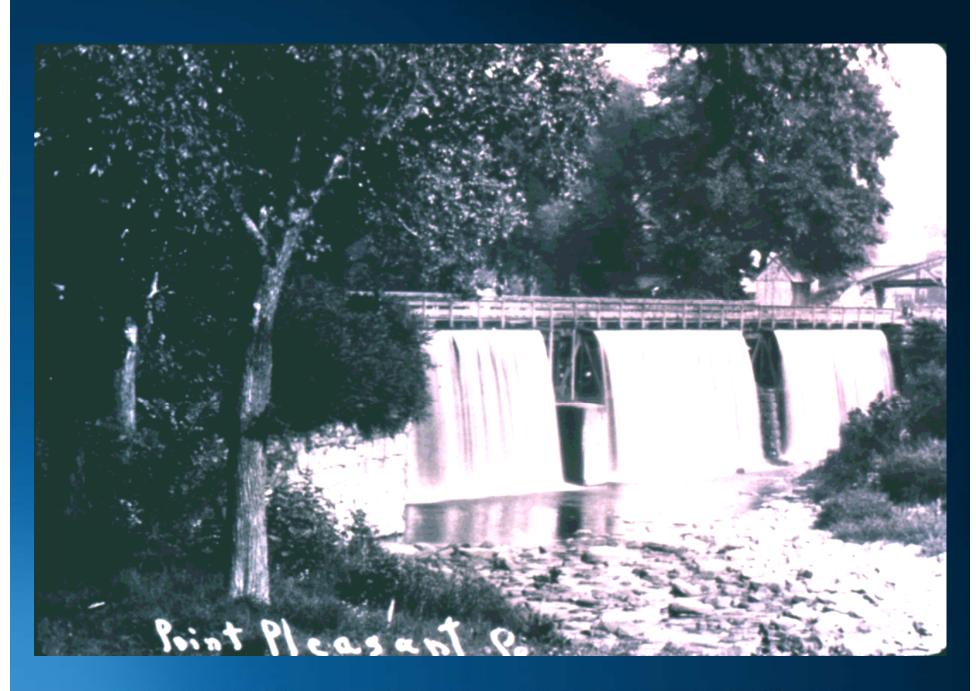






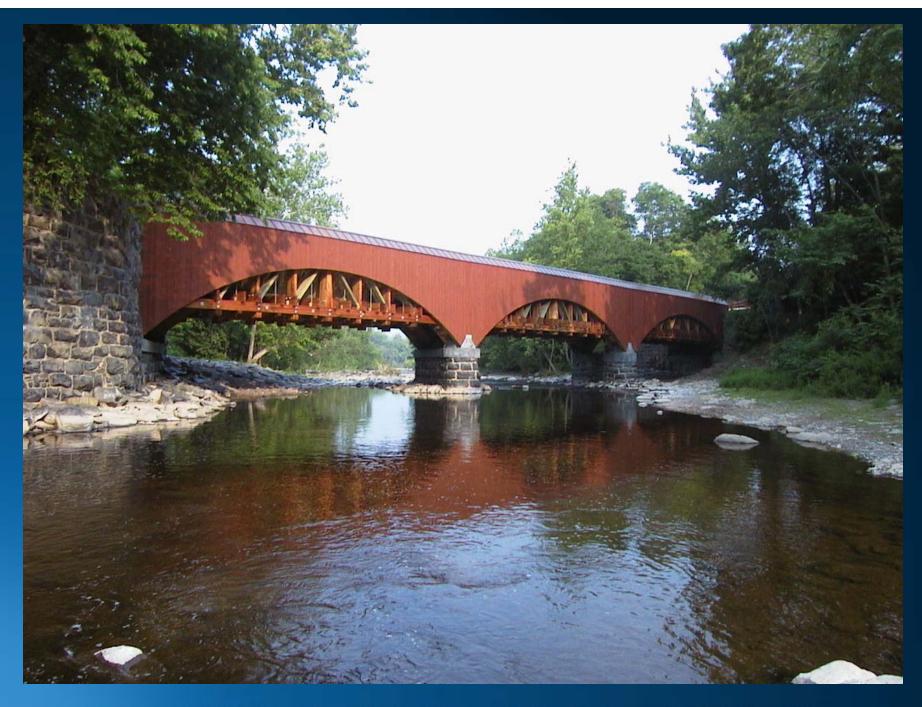
TOHICKON AQUEDUCT - Second National Covered Bridge Conference, Dayton Ohio 2013





# Approximately 30-35 years useful life





TOHICKON AQUEDUCT - Second National Covered Bridge Conference, Dayton Ohio 2013

#### Costs

\$100,000 US FOREST SERVICE timber engineering

\$2.1M PennDOT / FHWA,

**PA Department of Conservation and Natural** 

Resources

## Acknowledgements

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**Joseph Dudick** – (former) Director of the Pennsylvania Rural Development Council.

**James Eppley, P.E.** – Chief Engineer, Bureau of Facilities Design and Construction, Pennsylvania Department of Conservation and Natural Resources.

**James Kernoshak, P.E.** – Project Engineer, Bureau of Flood Protection Projects, Pennsylvania Department of Environmental Protection.

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Thomas Lurz - Member, Friends of the Delaware Canal, and volunteer data-gatherer.

Sheree Lurz - Member, Friends of the Delaware Canal, and volunteer data-gatherer.

**Ken Lewis** – Manager, Delaware Canal State Park.

Bonnie Tobin – Volunteer Coordinator, Delaware Canal State Park.



Opening – "Aqueducky" race

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