

jersey mills bridge replacement over pine creek

Location:	Village of Jersey Mills, Lycoming County, District 3-0
Completion Date:	11.1.2005
Construction Cost:	\$4,110,000
MPMS #:	6010
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Themes:	Leverage and preserve existing investments; Understand the context; plan and design within the context

Project Overview: This project is the replacement of the bridge that carries State Route 414 over Pine Creek in northern Lycoming County. PennDOT and the local preservation society worked together to develop a solution that blends the bridge into the natural beauty of the Pennsylvania Northern Highlands. A series of alternatives were studied to arrive at the final design that limits environmental impacts and land acquisition.

Because of the valuable environmental resources in the area, a non-PennDOT Pine Creek Study Team along with assistance from the Lycoming County Planning Commission, put together the “Pine Creek Valley Management Plan” to provide direction on how to preserve the Pine Creek area. PennDOT worked closely with the Pine Creek Study Team, incorporating their recommendations and developing a design that blends with the rustic characteristics of the surrounding area. Innovative design and construction methods were also implemented to continuously maintain boater traffic. To protect boaters during the placement of beams and deck pans, PennDOT required the contractor to set up a portage service to transport boats and their occupants from a point upstream of the construction site, safely to a point below the construction site.

Another unique issue that the study team had to deal with involved an ACOE electronic flood gage used for data collection and prediction of downstream flood events. Considerable design and construction coordination efforts were required between PennDOT and the Lycoming County Planning Commission to maintain the gage’s operation.

Lessons Learned: A Design Exception was pursued and granted for horizontal curves with substandard radii. By lowering the design speed of the approach curves, PennDOT minimized environmental impacts and right-of-way acquisitions on both sides of the creek, reduced the length of the structure, allowed the use of a straight superstructure, and made the cost-effective pre-stressed concrete beams a viable option. The community expressed approval of the reduced design speed on the curves which will maintain slower speeds for vehicles entering the village.

Awards: The district has submitted this project for two award competitions:

- FHWA’s “2006 Excellence in Highway Design Competition”
- Portland Cemet Association’s “2006 Concrete Bridge Awards Competition”

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