

Location:	Jefferson Township, Washington County, District 12-0
Completion Date:	6.06.03
Construction Cost:	\$1,852,315
MPMS #:	30809
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Themes:	Leverage and preserve existing investments; Understand the context; plan and design within the context

Project Overview: The existing pony truss bridge that carried Meadowcroft Road (SR 4018) over Cross Creek was posted with a weight restriction, was too narrow and the alignment was not conducive to allow large commuter buses to cross the bridge to gain access to the Meadowcroft Museum of Rural History. Although the museum wanted to have the bridge replaced, the bridge would need to blend into the rural architecture that the Museum is showcasing. Also, the bridge is adjacent to the Meadowcroft Rock Shelter and any structure would be visible from the observation deck for the rock shelter. This rock shelter is on the World List of Historic Places and receives thousands of visitors a year.

The District collaborated closely with the museum's director and developed a solution that would be sensitive to the Museum and its surrounding historic and cultural context. The design incorporated concrete form liners for the concrete on the bridge. The patterns and colors of the masonry effect were picked to closely mimic walls and foundations within the colonial village in the museum. Steel beams were painted to match the weathering steel guiderail and give a rustic effect. The large stones from the old masonry abutments were re-laid to build a wall and create a parking area for the rock shelter. Many existing trees were also kept to provide a visual buffer between the shelter and the structure and additional trees were planted after the structure was built. Some original abutment stone were also used to create a parking area for the Rock Shelter.

This project was also used as a research study by the University of Pittsburgh and PennDOT to test the strength of concrete filled steel grid bridge decking.

Lessons Learned: Aside from providing improved access and mobility to the area, the Meadowcroft bridge project contributed positively to the surrounding context's aesthetics. In particular, the bridge's unique design features complemented and enhanced the setting for the Meadowcroft Museum and Rock Shelter.

The project team also believes that when stakeholders are included in the design process, the product is usually one which everyone can be proud of.

Awards: Project highlighted on the Pittsburgh local news television channels, various local newspaper articles, articles in the Civil Engineering Magazine and the ASHE magazine "The Scanner"

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