

# brunnerville road bridge over hammer creek

<b>Location:</b>	Warwick and Elizabeth Townships, Lancaster County, District 8-0
<b>Completion Date:</b>	6.06.05
<b>Construction Cost:</b>	\$871,000
<b>MPMS #:</b>	20117
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<b>Themes:</b>	Leverage and preserve existing investments; Understand the context; plan and design within the context

**Project Overview:** The project is a replacement of a historic arch earth filled bridge over Hammer Creek with a new form-lined bridge, two-lane approach roadway realignment, Several features added to the uniqueness of this project including bog turtle inspection mitigation prior to the beginning work, special Maintenance Protection Traffic signage for an adjacent hiking trail, stream restoration plans which included rock stream bank rock lining, re-vegetation, and the placement of “V” weirs in the stream. landscaping, and a Memorandum of Agreement (to provide the bridge date stone to an adjacent property owner for public display), and other miscellaneous construction features. Also, weathering Steel guide rails were used instead of standard galvanized steel rails to enhance the historic character and setting of the project.

Special trailblazing signs were used to detour the hiking trail during construction. Special coordination was required with the US Army Corps of Engineers and Pennsylvania DEP for bog turtle habitat and a local stream restoration group was consulted during the design of the project. A Plain Sect farmer was identified within the project area and his concerns were identified and PHMC was consulted throughout the entire project due to the historic nature of the project setting.

**Lessons Learned:** Early and regular coordination with key stakeholders, including US ACOE, DEP, and PHMC is always essential but is especially important in a historic bridge replacement project.

Drainage was a major concern to the design team. For this project, the designers had to take into account the actions of an adjacent property owner who built a garage over an existing mill race. This configuration created a sheet flow condition from an upland agricultural area that had to be accounted for in the design of the new structure and associated drainage features.

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