

LOCAL BRIDGES WITH T.I.P. FUNDING



RETTEW MILL ROAD OVER COCALICO CREEK BRIDGE REPLACEMENT

Ephrata Township, Lancaster County, PA

RETTEW provided surveying, engineering, and environmental permitting for a two-span replacement bridge on Rettew Mill Road. Services included complete bridge and roadway engineering and environmental analyses involving wetland investigation, cultural coordination, categorical exclusion evaluation, and a PA DEP Chapter 105 permit application. The new 130-foot-long prestressed-concrete bridge replaced the existing timber-covered bridge at the site. RETTEW obtained all required approvals from PennDOT through the local match reimbursement program and also provided construction observation and management services.

ABCD awarded RETTEW an Outstanding Achievement Award certificate for Rettew Mill Road Bridge. ACEC/PA also awarded RETTEW a Diamond Award Certificate.

ASHMEAD ROAD OVER TOOKANY CREEK BRIDGE REPLACEMENT

Cheltenham Township, Montgomery County, PA

RETTEW is currently providing engineering services to replace the structurally deficient Ashmead Road Bridge located over Tookany Creek. RETTEW will use form liners to replace the ornamental stone arch aesthetic aspects of the existing bridge—an important feature to the Township.

RETTEW is also providing roadway and bridge design, hydrology and hydraulic analysis, and environmental and historical permitting. In addition, RETTEW is coordinating closely with five utility companies that have utility lines attached to the underside of the existing bridge.

FOREMAN ROAD OVER AMTRAK BRIDGE REPLACEMENT

West Donegal Township, Lancaster County, PA

RETTEW provided preliminary engineering, final design, and construction management services for this bridge replacement over Amtrak railroad lines. RETTEW also provided environmental clearances including a wetland investigation and delineation, cultural resource coordination, and a categorical exclusion evaluation and Section 4(f) evaluation.

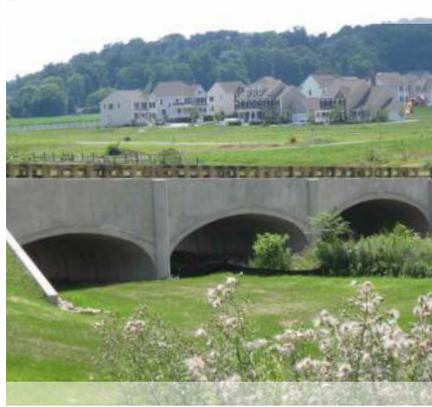
The new Foreman Road Bridge over Amtrak is a single, 94-foot span consisting of a prestressed-concrete I-beam bridge structure. RETTEW designed the bridge on a horizontal curve using straight beams, which were carefully located around the radial alignment, so that the varying overhangs fell within PennDOT design criteria.

LOCAL BRIDGES WITH LOCAL FUNDING



WASTEWATER TREATMENT PLANT BRIDGE REPLACEMENT *Manheim Borough, Lancaster County, PA*

Following a flood event, RETTEW inspected this existing bridge over Chiques Creek. The bridge pier exhibited settlement indicative of undermining caused by stream scour. The Manheim Borough Authority wanted to relocate the bridge leading to the wastewater treatment plant upstream to better align with the new entrance to the plant and keep the existing bridge in service while the new bridge was constructed. RETTEW designed a two-span adjacent concrete box-beam bridge with a composite deck. The bridge size was necessary in order to adequately pass the required storm events. In addition, the project presented strict floodplain requirements, erosion and sediment control measures, NPDES concurrence, and an archaeological investigation prior to construction.



VILLAGE GRANDE BRIDGE OVER MILLER'S RUN *East Hempfield Township, Lancaster County, PA*

RETTEW provided a full range of engineering services for a 241-home age-restricted community. As part of this project, the site called for a bridge to be constructed to link the roadway land network to other communities, including the development's recreational trails. RETTEW investigated the most economical structure, both in initial construction cost and long-term maintenance cost, and selected a 100-percent precast-concrete buried arch bridge. As a result, we met the needs of the community while proving a cost-effective design that blended with the surrounding area.



MIDDLE CREEK ROAD COVERED BRIDGE *Ephrata Township, Lancaster County, PA*

RETTEW coordinated, designed, and permitted the reconstruction of the circa-1873, National Register-listed bridge which stood on Rettew Mill Road for nearly 140 years. When the bridge needed replaced, county and township officials were challenged with how to preserve historic Keller's Covered Bridge—the only white-painted covered bridge in Lancaster County.

RETTEW, Lancaster County, Ephrata Township, PennDOT, PA DEP and the Pennsylvania Historical and Museum Commission reached an agreement whereby the covered bridge was disassembled, stored off site and reconstructed on Middle Creek Road, replacing a steel truss bridge that closed in 1990. The relocation allows Keller's Covered Bridge to maintain its listing on the National Register of Historic Places and remain part of Lancaster County's covered bridge history.