



BERNER CONSTRUCTION, INCORPORATED PROJECT SUMMARY

Project Title: Covered Bridge Parking Lot Drainage, Phase II Clean-Up

Location: Valley Forge National Historic Park, Valley Forge, PA

Scope: Provide labor, materials, and equipment to excavate, transport, and dispose of lead-contaminated soil

Berner Construction, Inc. (Berner) was subcontracted by the BPA Environmental services, Inc. (BPA), under contract with the National Park Service to conduct the Phase II clean-up of the lead-contaminated soil from the vicinity of the Historic Covered Bridge within the Valley Forge



National Historic Park. The lead soil removal effort was part of the on-going effort by the National Park Service to remove contamination from the park grounds. The lead soil was deposited on park grounds more than 50 years ago in a dry tributary of Valley Creek. During heavy rain storm events, the dry tributary would convey stormwater into Valley Creek thus carrying lead-contaminated soil into the creek.

Berner's responsibilities included preparation of Site Specific Safety and Health Plan, Erosion and Sediment (E&S) Control Plan, Work Plan, and Transportation, Treatment and Disposal Plan. The E&S Control Plan was submitted to the Chester County Soil Conservation District for approval prior to conducting intrusive activities.

The project implementation including the installation of erosion control measures; constructing a temporary decontamination area for personnel and equipment; maintaining site security; collecting soil characterization samples for off-site disposal; excavation of approximately 500 cubic yards of lead contaminated soil; and site restoration.

During the excavation effort, Berner utilized a hand-held x-ray fluorescence (XRF) meter to provide rapid, on-site measurements of the lead concentration in the soil. The XRF was used to screen the excavation areas prior to collecting confirmation soil samples for laboratory analysis and to identify hot spots not meeting the cleanup objectives. Hot spot areas were excavated until the XRF readings were below cleanup objectives.



Berner restored the site by reconstructing the dry tributary using on-site soils. The reconstructed dry tributary was lined with geotextile fabric and 12- to 24-inch rip rap.