



BERNER CONSTRUCTION, INCORPORATED PROJECT SUMMARY

Project Title: Remediation Services at a Former Chemical Manufacturing Facility

Location: Baltimore, Maryland

Scope: Provide supervision, labor, materials, and equipment for the remediation and off-site disposal of impacted soil and the placement of a semi-permeable cap.

Berner Construction, Inc. (Berner) was awarded a contract from Legacy Site Services, Inc. for the remediation of metals-impacted soil from the operations of a former chemical manufacturing facility in Baltimore, MD. The scope of work for this project included the excavation and off-site disposal of impacted soils; installation of a semi-permeable cover over the area of impact; installation of a storm water management system with tie-in to the existing City of Baltimore storm sewer manhole; erosion and sedimentation controls; and site restoration. As part of the remediation project, Berner installed a horizontal well injection distribution system to allow future treatment of impacted soil and subsurface water.



Using a trench box to install stormwater piping

The total area of the site is 5.5 acres. The area within the limits of disturbance is approximately 2.8 acres. Four areas of impacted soil were excavated and backfilled. 1,600 cubic yards (cy) of impacted soil was removed and transported off-site for disposal. 700 cubic yards of borrow material was imported to backfill the excavation areas.

A new stormwater system consisting of a grass-lined swale, pre-cast concrete stormwater inlet structure, and 380 linear feet of stormwater piping was installed to collect stormwater from the site and convey it into the City of Baltimore stormwater system

The site restoration consisted of the installation of a multi-layered, semi-permeable cap placed over the disturbed areas of the site. The soil subbase was graded and compacted in a manner to promote positive drainage towards the grass-lined swale. The cap was then placed over the subbase. The cap consisted of a non-woven geotextile fabric layer covered by 3" of a dense graded aggregate (DGA). The DGA was covered with an HDPE geogrid material. Six inches of DGA was placed over the geogrid material. Each DGA lift was compacted and tested to meet the site-specific quality control requirements. The remaining areas were covered with topsoil and seeded.



Final site grading