



BERNIER CONSTRUCTION, INCORPORATED PROJECT SUMMARY

Project Title: Dam Repairs and Restoration at Willow Grove Naval Air Station Joint Reserve Base (NASJRB)

Location: Willow Grove, PA

Scope: Restoration of stormwater runoff swales; dam repair; installation of emergency spillway, box culvert, and pond aeration system

The Willow Grove NASJRB project was implemented in three phases. The first phase included restoration of the existing stormwater runoff swales. The goal of this phase of the project was to modify the swales to comply with current stormwater management design standards since the original swales were undersized. The project scope included the excavation of 4,000 cubic yards of soil, replacement of the topsoil, placement of 2,000 tons of rip rap material for energy dissipation, and the installation of 24,000 square feet of erosion control blanket.



Stormwater Swale Restoration

The second phase included repairs to the existing dam. The dam was damaged during a storm in 2001. This project was to implement the dam repairs following an engineering design that included restoration of the dam breast, emergency spillway, and aeration system. Bernier Construction performed the excavation and construction of the emergency spillway that included placement of 8,200 tons of rip rap for spillway protection. 1,500 tons of armor rock and 4,500 tons rip rap protection were placed on the dam breast. The project also included the installation of a 180-ton, segmented, post-tension box culvert.



Dam Repair and Box Culvert Installation

The final phase of the project was the installation of 2,000 feet of 350 MCM 3-phase direct burial power cable for supplying power to two new floating aeration systems. The new aerators will maintain dissolved oxygen in the pond, preventing stagnation.

Bernier Construction provided all of the resources and equipment to complete this project. The project was completed two weeks ahead of schedule even though the project start was delayed four weeks.