

CVN Dry Dock Floor Repairs

Client:

United States Navy

Location:

Bremerton, WA

Services Provided:

- Recommendations for foundation rehabilitation
- Monitoring and real-time data

Value Provided:

- Monitoring system detected real-time vertical deflections

Background & Project Challenges

Being one of the few naval dry docks with the capacity to service the Navy's largest vessels, Dry Dock 6 required a precise monitoring system to prevent stressing of the large monolith floor slab during repairs. The U.S. Navy specified a system that would allow detection of real-time vertical deflections of the dry dock floor at each grouting location to 0.05 of an inch (1.3mm).



Geocomp Role & Accomplishments

Geocomp assisted the United States Navy in the foundation rehabilitation of Dry Dock 6 located in the Puget Sound Naval Shipyard. The foundation of this structure had been severely distorted due to heavy use and repeated dewatering of the soil sub-structure. The rehabilitation comprised of compaction grouting at 500 discrete location.

Geocomp provided a complete system that used radio-controlled automated survey equipment to continuously monitor multiple points around each grouting location.

The readings were graphed real-time on a local laptop computer. Use of wireless technology made this system extremely flexible and straightforward to operate and setup. This was key to the contractor as it minimized disruption to the contractor's activities and allowed him to finish ahead of schedule.

This project illustrates the integration of Geocomp's specialized services and experience in monitoring and real-time data presentation to solve our client's problems with cost-effective solutions.