

COBIGUA PORT – PUERTO BARRIOS (GUATEMALA)

Cobigua Port consists of one concrete wharf supported by 1600 concrete piles. Due to the heavy earthquakes occurred in 1976 and in 1999, more than 1000 concrete piles and the platform were severely damaged and the Port was out of service for a long time.

Damages were mostly caused by breakings between concrete piles and platform with wrecked concrete and heavy damages to the steel reinforcement. Many attempts were carried out by the Port Authorities to repair the damaged concrete piles with traditional systems but without results.

In 2000, Sinit was called to demonstrate his technologies carrying out some tests on the damaged piles: results were so positive that Sinit was awarded the contract for the general rehabilitation of the jetties.

Repair works varied from replacement by welding of the damaged reinforcement, filling up the cavities between platform and piles heads and reconstruction of the missing concrete above and under water using some 20.000 kilos of Subcom T.260 (a thixotropic, solventless, two packs, epoxy mastic designed for underwater and other wet applications) and SUBCOM 150 (fluid underwater curing epoxy compound for pressure injection grouting or, mixed with selected aggregates, to form mortar for general repairs).

Other utilised special Sinit materials: INJECTION 1 low viscosity injection resin, #108 MORTAR, thixotropic, rheoplastic, non-segregating, non-shrink, high strength mortar, with high bond to steel and concrete, and L.A. 2S, two-component, low-viscosity, solventless, liquid epoxy adhesive were also used to complete the work.

The whole work was completed in 6 months to full satisfaction of the Client.



Typical ruptures between concrete piles and platform



View of the rehabilitation with Subcom T.260 replacing concrete between piles and platform