

Third Bridge over the Panama Canal

Corozal West, Republic of Panama



Location of future bridge alignment.

O-cell Testing Across the Panama Canal

The Atlantic Bridge over the Panama Canal will be the third bridge to span the canal. Owned by the Panama Canal Authority, the bridge will be the first bridge built on the Atlantic Side of Panama located approximately three kilometers north of the Gatun Locks. The bridge will have a vertical clearance of 75 meters above the canal allowing Post-Panamax container ships to pass below. The center span will be 530 meters long, making it the longest concrete cable stayed bridge in the world.



Project Info

Owner:	Panama Canal Authority
Client:	Puente Atlantico SA (PASA)
Prime:	VINCI Construction Grands Projets
Designer:	HPDI and Louis Berger Group
Project Cost:	\$366,000,000
Completion Date:	Est. July 2016

Services Provided

- O-cell test design
- Assembly and Installation of O-cells and Instrumentation and Integration into Drilled Shafts
- SONICaliper profiling
- Testing, Analysis and Reporting of Load Test Results

Loadtest was utilized to provide full scale testing and equipment on six bored piles, three on each side of the canal. Working on both sides of the canal made careful planning and coordination between Loadtest and PASA key in making the program a success. Piles ranged from 1500 mm to 2500 mm in diameter and depths up to 54 meters.

The load tests proved out the designs for construction with the largest test providing more than 160 MN in test load. Instrumentation throughout the pile, including multiple levels of strain gages, allowed analysis of load transfer to different soil strata layers. With the information delivered to the client, redesigns of the bored piles provided savings of time and money to the client.