LOADTEST
The Rajiv Gandhi Sea Link Project

Project:	**Rajiv Gandhi Sea Link**
Location:	Mumbai, India
Client:	Maharashtra State Road Development Corporation Ltd
Project Description:	The Rajiv Gandhi (formerly the Bandra-Worli) Sea Link is an eight-lane, 5.6km (3-mile) bridge connecting the Bandra province and Mumbai's suburbs. The sea link consists of approach viaducts and two cable-stayed bridges supported by a single tower. Some of the project's numerous features are:

- An 8-lane bridge with 2 lanes dedicated for buses
- 500m long cable-stayed bridge at Bandra Channel (single support tower)
- 350m long cable-stayed bridge at Worli Channel for each carriageway (twin support tower)
- State-of-the-art systems for traffic monitoring, surveillance, information and guidance, instrumentation, emergency support, etc.
- Modern toll plaza of 16 lanes with automated toll collection system

Under construction, May 2008

The main developer of the project, the Maharashtra State Road Development Corporation Ltd. (MSRDC), awarded the construction contract to the HCC (Hindustan Construction Company) and its foreign partner, the China Harbour Engineering Corporation.

The load tests were the first **O-cell® bi-directional** load tests performed in India. Three multi-level and one single level O-cell bi-directional load test served to validate the design assumptions and provided key data in selecting the final toe elevations for the working piles. Due to the highly variable subsurface geology, final design was performed on a pier by pier basis. At the main pylon, the results of the load tests allowed the pile lengths to be shortened to approximately one-half the lengths estimated during the preliminary design, resulting in a saving greater than 500 m in total pile length.

The bridge opened July 1, 2009.

Lower level O-cell arrangement

Upper level O-cell arrangement

Tremmie Guide

Source: india-server.com