

During construction of the Bridge 5 on Dubai – Fujairah Freeway Project, temporary retaining system has been designed in vicinity on Pier 2, in order to protect and minimize any possible interaction between the new excavation and the already constructed and existed water pipes and gas line pipes.

Retaining system has been designed as a Berlin concrete wall, applied by shotcrete, thickness of 10 cm, reinforced with one layer of steel mesh A193 and anchored with 3 series of temporary prestressed anchors.

As a Post-Tensioning Sub-contractor for the bridge works on the project, Freyssinet was requested to perform design, supply and installation of 76 ground anchors in 3 layers, consisting of 2 strands 15.7 mm diameter. For this purpose, Freyssinet used greased unbonded strands with 3C15 anchorages, inserted in the drilling hole of 100 mm diameter, different length of 13.5 , 17.5 and 10.5 m.

In order to maintain accurate application of prestressing force, Freyssinet used calibrated load-cells and dial gauges.

## Repairs

### Supply and Installation of Ground Anchors

Dubai-Fujairah Freeway Contract  
Fujairah - UAE



#### Client

Ministry of Public Works U..A.E

#### Consultant

Dorch Consult

#### Contractor

Al Ahmadiyah Aktor LLC

#### Construction

October - December 2010