



■ Slope Stabilization

Reference Details:

**Owner** Perirube,  
Lisbon, Portugal +++  
**General Contractor**  
EDIFER and  
TECNASOL-FGE,  
Amadora, Portugal

**DSI Services** Supply of  
15,460 m DYWIDAG  
Permanent Anchors and  
345 m DYWIDAG  
Temporary Anchors.



## DYWIDAG Permanent Strand Anchors secure residential area in Portugal

### Construction of flats in Quinta de São Mateus Dafundo, Lisbon, Portugal

In order to build flats on the hill of Dafundo, located approximately 15 minutes south of Lisbon, it was necessary to construct 700 m of retaining walls anchored with DYWIDAG Permanent Strand Anchors. By using this slope stabilization technique, it was both possible to build flats with one of the nicest views towards the delta of the Tagus river and the Atlantic Ocean and to increase the safety of the existing houses at the bottom of the instable hill, that where in danger of being destroyed by landslides during every rain season.

It was necessary to provide a gallery within the basements of flats to ensure access for restressing of the anchors in the future. Twenty-five load cells were also installed to monitor the actual load of the DYWIDAG Strand Anchors.

The anchors were assembled by DSC in Spain in only 10 weeks time and the installation works at the job-site were completed in October 2002.