

PARKING LOT REINA SOFIA (CÁDIZ)

Alongside the construction of the parking lot of San José, an underground parking at Plaza de Reina Sofia was built for the local parking company Emasa. After several unsuccessful tries by many different companies due to its complex operation, Parquigran S.L. was hired by the developer company to carry out the works for the parking, from emptying the site to works completion on surface.

This parking's constructive system is quite similar to the one of the parking lot Puerta del Mar. Besides this parking is located in the lowest area of Cádiz which adds an extra difficulty to the process of construction. For this reason the water table height is decreased and pressure in the shallow foundation increases. This foundation is made by two meters thick, in order to withstand pressure at underpressure, which is more than 14 Tm/m².

Depletion of water from the site has been much higher than other similar works. At some times, it has been used up to eleven drainage pumps, with an evacuation flow over 500l/s, reaching nearly 400 Hm³ from the Atlantic ocean.

This parking lot was totally completed on April 2003 and it has developed a representative parking work in the city of Cádiz.

PARKING CONSTRUCTION FIGURES:

- **Earthworks** **48000 m³**
- **Drainage** **400 Hm³ - 500 l/s**
- **Concrete used** **22000 m³**
- **Iron used** **2200 Tm**
- **Workforce** **200**
- **Project deadline** **12 months**