Catalunya Wharf, Port of Barcelona. Spain

Project details

Country: Spain
Client: PORT OF BARCELONA
Date: 2016
Scope: Ports
Activity:
Construction project

Project drafting service: Civil engineering work for new Catalunya Wharf Syncrolift.

The purpose of the civil engineering project drafting service for the new Catalunya Wharf Syncrolift is to adapt the existing port infrastructure to new needs arising from the actions planned by the company awarded with management of the port.

The civil engineering project was drafted for a vessel lifting system at the Catalunya wharf and the necessary transfer system to be implemented in the area, using the space available between the wharf buildings and the travel-lift pit under the current concession. The project also includes dredging the former floating dock, to the south of the Catalunya wharf.

In particular, the main project activities were:

- Defining operations for dredging and/or re-grading the bottom of the area under the syncrolift platform and former floating dock.
- Defining earth work
- Closing off the perimeter of the backfill area (sheet piling, banks, etc.)
- Pile structure to support the lifting system hoists
- Pile structure to support the floor slabs in the operations and transfer system area. This pile structure extends over the current wharfs and sheets of water.
- The support slab must have all of the necessary conduits embedded in it to be able to extend the utility grids in the future. All of the utility grids will be defined by the company awarded the contract.
- Defining the drainage system and draining the first rainwater to the treatment plant (this plant is not part of the project).
- Defining the superstructure and roads.

The research and preliminary work undertaken are shown below:

- Inspection of work area

- Compilation of existing information: topography, bathymetry, grids, dredged material characterisation, spraying room projects, geometric and load features of the syncrolift, etc.
- Supervision of the geotechnical campaign.