Oostende Harbour – New Entrance for the Port

Financed by: Client

Client: Ministry of the Flemish Community, Division of Waterways in the Coastal Zone

Date: 2000

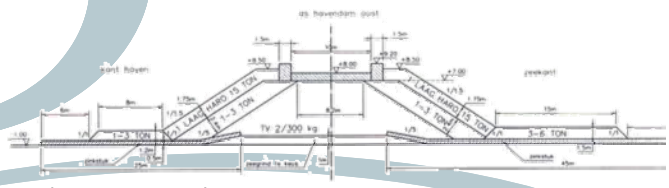
Budget: € 185 000

Location: Belgium, Ostend, on the North Sea shore

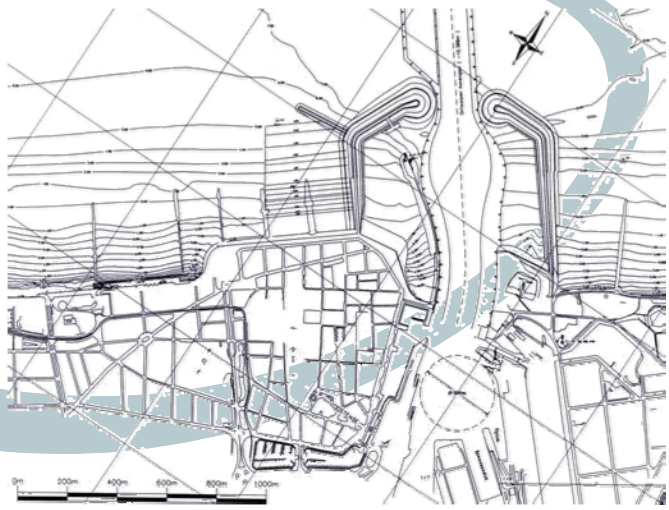
Assignment:
Design of a new harbour entrance for allowing the port to receive ships with a draft of 10m in the future. Budget estimate and tender documents.

Scope of Services:
- Design and tender documents for the new harbour entrance
- Design of breakwaters in open sea ;
- Nautical expertise ;
- Design of access channel ;
- Incorporation of harbour structures in an urban environment.
- Dredging in the open sea works.

Technical Description:
- The approach to the Port of Ostend is difficult because of strong tidal currents which are parallel to the coast and because of a sinuous entrance from the shipping lane to the Port. The distance for the vessels to stop in the lee zone of the present jetties is too short for safe harbour entrance during heavy seas and spring tides.
- The Harbour Authorities and the Flemish Ministry want to enlarge the capacity of the port by allowing larger ships (draft increase from 7.5 m to 10 m) and to improve the safety for incoming ships.
- The renovation and extension programme of the harbour entrance includes two breakwaters and an enlarged new access channel in straight line to the deeper waters.
- A pre-design was made and tested by the hydraulic laboratory of Flanders on the ships simulator. The design was then worked out accordingly and tender documents were produced.



Breakwater cross-section



Proposed new layout - Predesign

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