

# PROJECT SHEET

**CILL RÓNÁIN HARBOUR DEVELOPMENT**  
GALWAY, IRELAND

## BOSKALIS WESTMINSTER: SKILLS, RESOURCES, EXPERIENCE

Boskalis Westminster provides clients with tailored, project specific solutions for all dredging and marine construction services, as illustrated by the following project summary.

## PROJECT DESCRIPTION

The contract included:

- The construction of a 550m breakwater
- The widening and upgrading of the existing pier
- The creation of a deepwater berth for fishing boats
- Provision of a cargo quay
- Provision of a pedestrian only zone for users of the ferries
- A berth for the lifeboat
- The provision of a slipway
- Provision for future roll-on roll-off cargo service

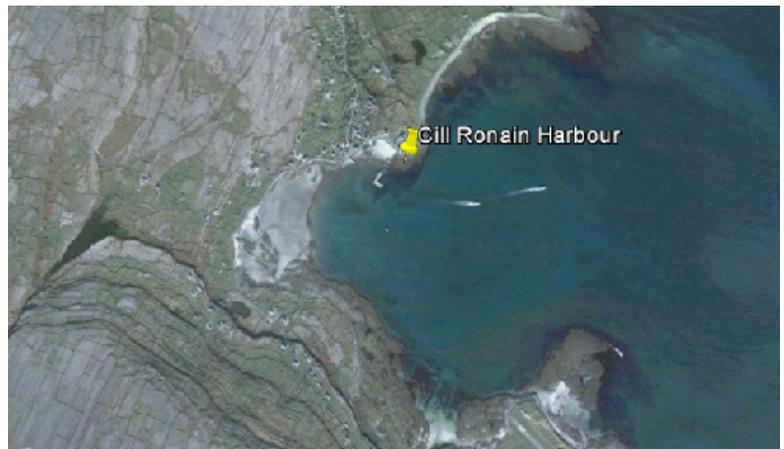
The project required dredging of hard rock. This was pre-treated, by drilling and blasting, prior to the dredging, and the dredged rock was re-used in the breakwater construction. Additional rock armour for the breakwater was imported from a quarry in Ireland. The rock was transported by large flat top barge to the site, where it was transhipped onto smaller barges. Over high water, the smaller barges manoeuvred as far inshore as water depth allowed and off-loaded on to the seabed. At low water the rock was recovered by a land based excavator and transported by dump truck to the stockpile area and breakwater for construction.

Particular attention was required with regard to the Health and Safety aspects of working offshore and the highly sensitive environment within which all of the works took place.

The development site is located within the Inis Mór Island candidate Special Area of Conservation (cSAC). This cSAC was designated due to the presence of a range of coastal habitats of high conservation value; these include EU Annex 1 habitat types. A small area of one of these habitats, Perennial Vegetation of Stony Banks (1220), is present within the development site. cSACs areas are given special protection under the European Union's Habitats Directive. They provide increased protection to a variety of wild animals, plants and habitats and are a vital part of global efforts to conserve the world's biodiversity.

## FEATURES

Project Name	Cill Rónáin Harbour Development
Client	Galway County Council
Contractor	Westminster Dredging Company Ltd (Now Boskalis Westminster Ltd)
Location	Galway, Ireland
Execution period	58 weeks, July 2007



Throughout the blasting period, a marine mammal observer was employed to watch for seals, dolphins and other mammals which could have been disturbed by the drilling and blasting activities.

The physical observational limits were 1,000m from the blasting location and observation was required one and a half hours before and after the blasting time. The marine mammal observer was empowered to delay any blasting for thirty minutes after sighting of a marine mammal at the surface. If sightings continued into the evening, a cut-off point was reached when we were required to fire the shot as it was forbidden to have explosives "live" during the hours of darkness. During the project, seals, dolphins and even a basking shark were observed by the marine mammal observer.

The fuel tank employed was double-skinned to control any piercing of the inner tank wall and oil drums were stored on a specific plastic drip tray.

### Principal Quantities:

Pre treatment and dredging of rock	66,000m <sup>3</sup>
Dredging overburden	95,000m <sup>3</sup>
Dredging Unsuitable Material under Breakwater	20,000m <sup>3</sup>
Reclamation	38,000m <sup>3</sup>

### Breakwater

- Imported rock	89,000 tonnes
- Rock from dredging	52,000m <sup>3</sup>

### Disposal to dump area

54,000m<sup>3</sup>