



**Crack Injection - Concrete Coatings - Concrete Repair** 

## Manila International Container Terminal – Berth 1 – 5 rehabilitation

Philippines



## **General contractor**

Consortium with Prime BMD (prime BMD have 3 subcontractors, Hydros, Subsea and another one yet to be defined)

Customer/Owner ICTSI

Engineer GHD

**Freyssinet subsidiary** Freyssinet International & Cie (Rueil-Malmaison)

**Others subsidiaries** Sixense

Works period Start date: May 2019 End date: October 2020





Located in the very center of Manila, MICT is one of the busiest Container Terminal of the Country.

Berth 1, 2, 3 and 4 were built in the 80's, and are a 900m long reinforced Concrete deck on pile, 20m wide.

Berth 5 was built in 1995, and is a 400m long, steel sheet pile key wall

The different elements of the structures were showing significant deterioration due to corrosion and FREYSSINET PrimeBMD Consortium were contracted to undertake a major rehabilitation and life extension of the wharves. All works are executed while the Terminal is under operation.

## **FREYSSINET MISSION**

Freyssinet is responsible for the following repairs under the wharf, above water level: Epoxy resin crack injections 163m2 of concrete Patch repairs 763m3 of Concrete Encapsulation by Dryshotcrete and microconcrete Cathodic Protection by installation of 18, 000Sacrificial Anodes 30, 000m2 of hydrophobic Silane application 144 external Post-Tensioning Cable investigation, protection and/or replacement PrimeBMD 's scope under Freyssinet 's Management: Repair and restoration of coating to steel sheetpile wall Cathodic protection of steel sheetpile wall by Sacrificial Anodes (diving works) Concrete repair of piles underwater (diving works)Restoration and replacement of Fender, bollards and crane tie downs



