



CASE STUDY

Watertight Raft

PROJECT OVERVIEW

Project: World Trade Center
Helsingborg KV Regula/Primula
Customer: Midroc Property
Development AB
General Contractor: Allbygg i
Höganäs AB
Product: PrimX Watertight Raft
Usage: Trade Center, hotel, offices,
residential
Address: Redaregatan, Helsingborg,
252 25, Sweden
Cast: Nov. 2019 – Aug. 2020
Area: 4 529 m² (48 750 sq ft)
Slab thickness: 350 mm (13.78 in)
CO₂ savings: 81 522 kg (179 725 lb)



CUSTOMER

Developed by Midroc Property Development AB, the World Trade Center will be an important visual landmark for Helsingborg's new district on Oceanpiren, and a future destination in the city. It is a new multi-story building right by the water, a stone's throw from Helsingborg Central Station. Office and hotel premises will include shared reception and conference rooms, a gym, and relaxation areas.

The restaurant with outdoor seating by the water and the roof terraces are additional benefits that enrich both work and private life. The basement is home to a bicycle garage with opportunities for repairs and a charging station for electric bicycles.

CHALLENGE

Both buildings - Regula and Primula, rise up at the end of the pier, just a few meters from where the ferry from Elsinore passes, marking the gate to Sweden. The unusual location places great demands on the building's construction, the technical solutions, its function, the way it mediates the transition from city to sea, and especially the efficiency of watertight systems due to high groundwater pressure.

The Primekss team's challenge was to build a watertight raft. According to the project design, the foundations of both buildings have one slab and a common basement area located at the end of the pier.



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Low maintenance



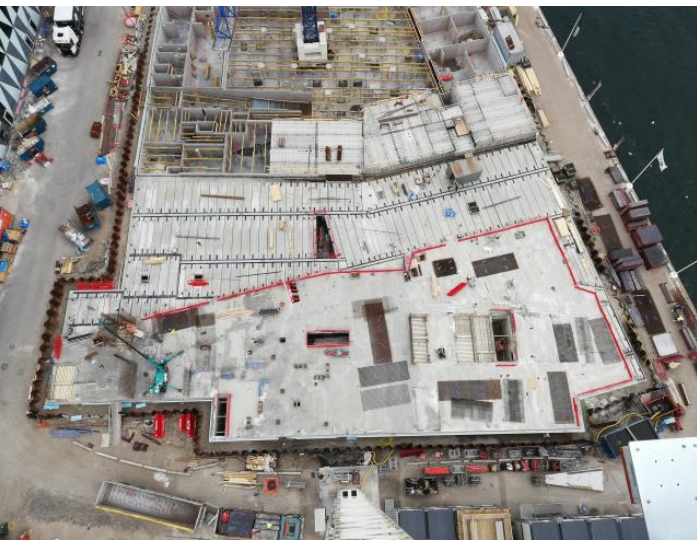
Stays flat

40% Less CO₂ emissions

Hygienic

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SOLUTION

PrīmX Raft foundations were chosen as the ideal solution to meet the project requirements.

Instead of steel bars, the PrīmX Raft uses steel fiber reinforcement and a special zero-shrinkage additive system that make it possible to construct watertight structures that eliminate the need for the waterproofing membrane that is traditionally used for waterproofing structures of this type.

Benefits of the PrīmX Raft:

- › significantly reduced steel work, saving weeks of construction time;
- › savings on waterproofing membrane (cost of materials and installation work);
- › less manpower involved in construction;
- › perfect for limited area building space;
- › saved approx. 50% of the steel that would have been needed if traditional steel mesh reinforced concrete had been used.

Project result: impressive time and cost savings due to reduced steel work, less steel reinforcement needed and savings on the waterproofing membrane.

During the process, our online quality system, PrimeQuality, was used to constantly check and monitor 21 key parameters to ensure a perfect, transparent process.



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