

Project Info



28 / 11 / 17



CC5™ Batched Rolls



2,600m²



Transverse and Longitudinal layers



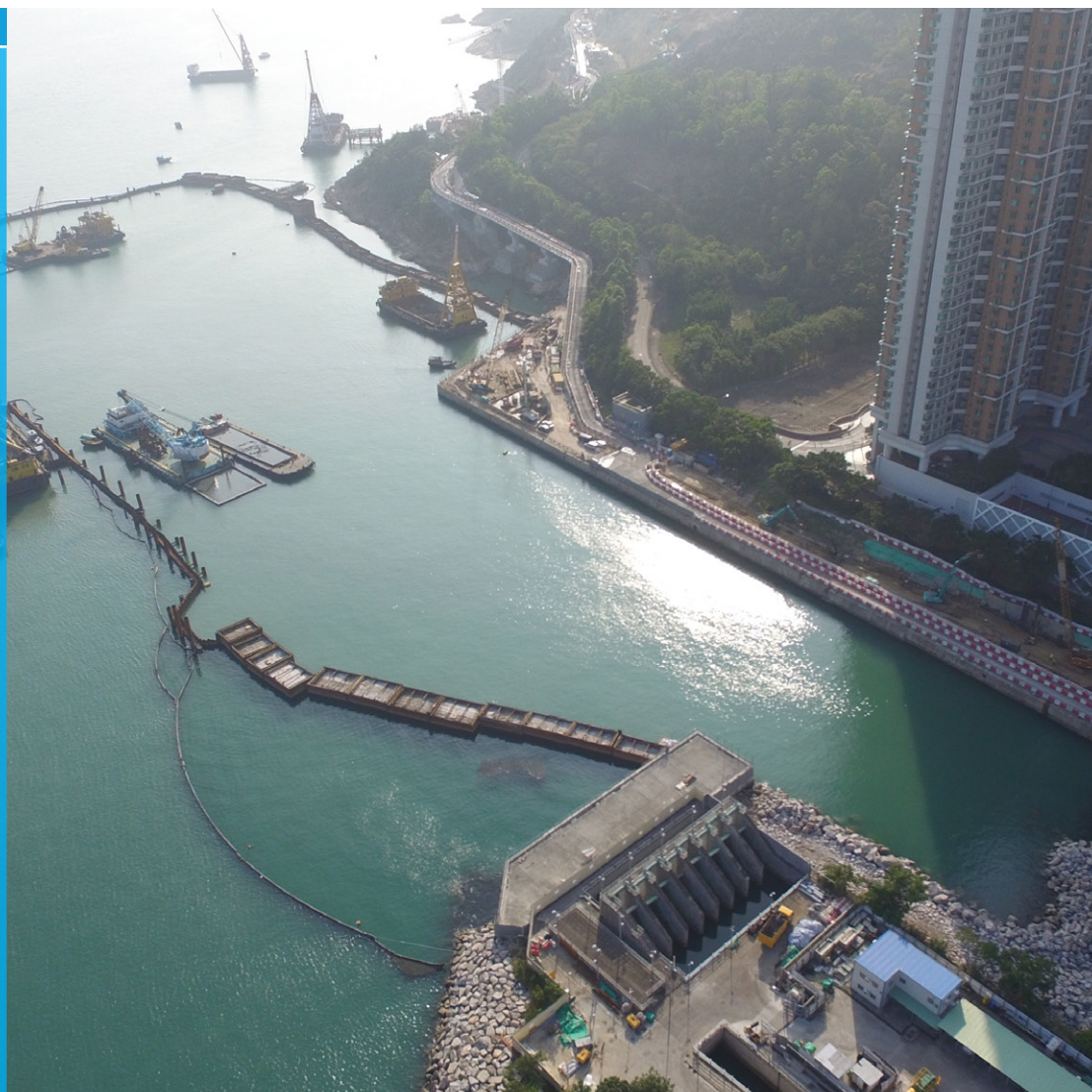
Tseung Kwan O, Hong Kong



CRBC – BuildKing Joint Venture



CC5™ was used to provide containment and protect rockfill material for a temporary embankment in Hong Kong



The completed temporary installation in Junk Bay, Hong Kong

In November 2017, Concrete Canvas® GCCM* (CC) was used to cover ballast fill materials in a steel tank cofferdam in Hong Kong. The cofferdam had been temporarily constructed in the sea off the site of a new highway which was being constructed along the coast of Junk Bay. As an environmental protection requirement, a cofferdam was erected in the sea to enclose the entire construction site, within which the remediation took place. The cofferdam consisted of a series of sheet piles at the middle and large steel boxes at either end. Concrete Canvas was chosen to confine the fill materials in the steel tanks due to its ease and speed of installation.

A highway would be constructed on the reclaimed land joining Lam Tin tunnel to Tseung Kwan O, bringing an additional route from Kowloon city to Tseung Kwan O new town. The works were carried out by CRBC and Build King in a Joint Venture for CEDD (Civil Engineering & Development Department) Hong Kong, with consultation services from Aecom Asia Co., Ltd.

CC5™ was specified for the installation, and was delivered to the site in batched rolls. Work was limited to manual operation at the steel tank cofferdam, where access was tricky and mechanical lifting equipment were not available. The installation team began by filling the steel tanks with rock and soil, which was spread and levelled. They then unrolled the CC5, which was pre-cut to fit the tank. Once laid and checked, sea water was used to hydrate the CC.

2,600m² of CC5™ were installed in 10 days by 3 people, despite restricted access at sea.

*Geosynthetic Cementitious Composite Mat





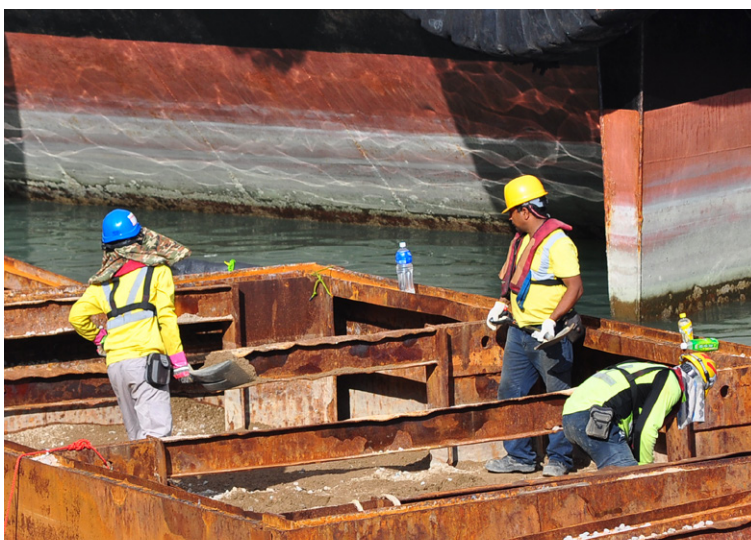
The area of the bay being sectioned for embankment construction



Construction of the tunnel underway



The rockfill material used to fill the steel boxes



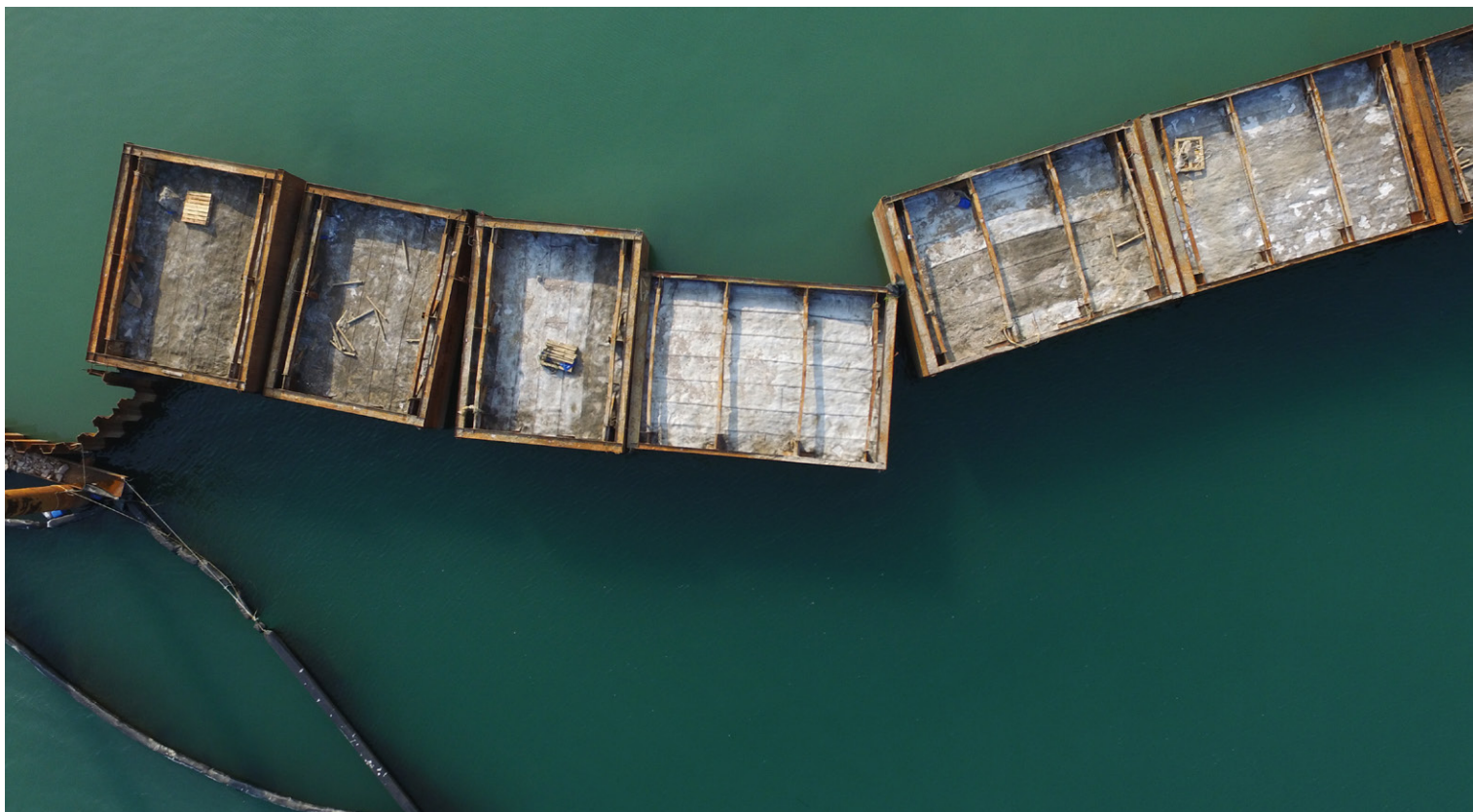
The team spread and levelled the rockfill material prior to CC installation



The batched rolls were delivered to the boxes via boat



The batched CC was pre-cut to required lengths



An aerial view of some completed sections of the installation



CC installed boxes leading to the dock