MACCAFERRI

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ATI PORT EXPANSION
MANILA, NCR, PHILIPPINES

Ground Improvement

Problem

As Asian Terminals Inc. (ATI) continues to expand capacity and boost efficiency at the crucial trade gateways for the Philippines, major upgrading projects at the Manila South Harbor are currently underway to support the growing economy. The 137.5-hectare (1.375 km²) Port of Manila is entirely made of reclaimed land; hence, port developers and engineers are looking for cost-effective alternatives to improve the port expansion grounds.

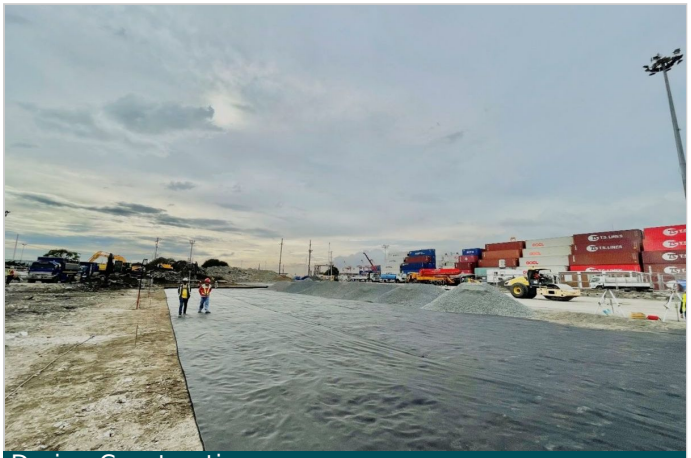
Solution

In order to address the challenge of improving the port expansion grounds at the Manila South Harbor, Asian Terminals Inc. (ATI) is implementing a cost-effective solution. The solution involves the construction of a 460mm thick base layer consisting of crushed rocks. To enhance the performance of the base layer, a non-woven geotextile is placed underneath it, serving as a separator from the improved subgrade. Additionally, biaxial geogrids are incorporated in the midsection of the base layer to provide reinforcement.

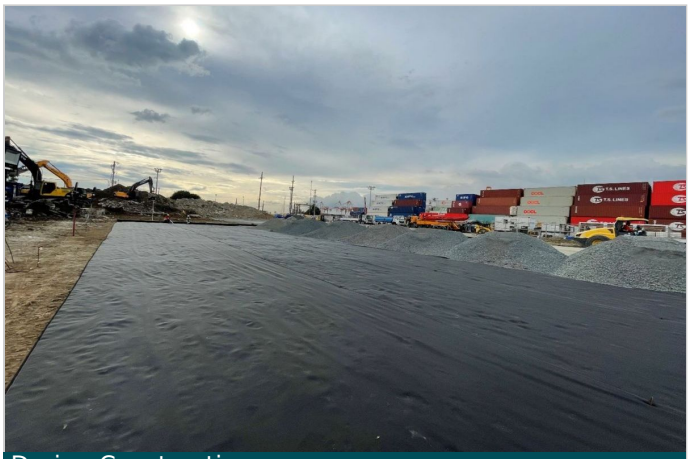
The non-woven geotextile acts as a barrier, preventing the base layer from mixing with the underlying subgrade and maintaining its structural integrity. The inclusion of biaxial geogrids further enhances the strength and load-bearing capacity of the base layer, ensuring it can withstand the demands of the port's operations.

This comprehensive solution not only addresses the immediate need for improving the port expansion grounds but also takes into account long-term stability and cost-efficiency. By utilizing appropriate materials and reinforcing techniques, the Manila South Harbor can support the growing economy, accommodate increased capacity, and enhance operational efficiency as a crucial trade gateway for the Philippines.

Client: Asian Terminals Incorporated
Designer / Consultant: Royal Haskoning
Contractor: SB Construction
Products used (Qty.)
Date of construction: 06/2022 - 07/2023



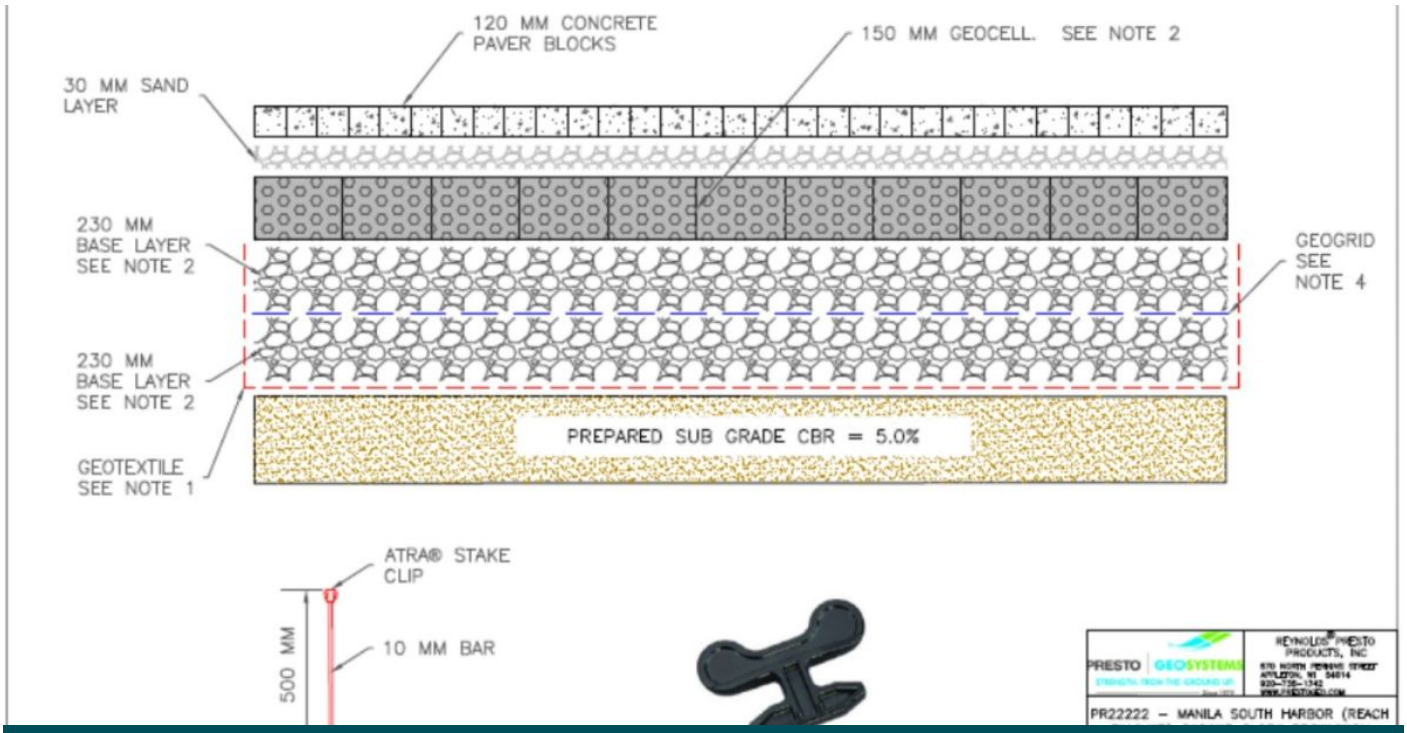
During Construction



During Construction

During Construction

During Construction



cross section

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