Tensar Mechanically Stabilised Layers helps reduce the frequency of maintenance on heavy duty pavements during its service life

Roads, Pavement & Surfaces
№ 475

Phu My ICD

Ba Ria, Vung Tau Province, Vietnam

CONSTRUCTED IN 2021

Benefits

Cost reduction from thinner pavement design
in granular material used.

Increase in pavement design life
compared to the original design

Mitigate differential settlement
on soft ground treated with cement deep mixing (CDM)

More performance with less cost

The client needed to construct one inland container depot (ICD), approximately 37.8 ha. in order to provide services such as transshipment, storage, warehousing, customs clearance, loading and unloading. The project's key objective is to ensure a high performance road network for cargo transportation.

CLIENT'S CHALLENGE

The road network inside the depot serves the transportation of predominantly super heavy cargo. The client sought a pavement optimization solution that can withstand approximately 2.5 million tons of cargo per year during the first five years (first phase) and 5 million tons of cargo per year during the subsequent 10 years (after the first phase).

TENSAR SOLUTION

After comparing several options, Tensar's mechanical stabilization solution was chosen for its cost reduction and its ability to increase the structure's performance. Tensar Stabilisation geogrids were incorporated into the aggregate base course to extend the pavement's service life and improve its bearing capacity. Additionally, the mechanically stabilised layers effectively mitigate potential differential settlement, a common issue in areas treated by cement deep mixing (CDM) column. Two years after construction, the pavement structure remains in good condition, capable of serving heavy-duty transportation in this port.

