



GEOSYSTEMS

PORT OF EVERGLADES

Intermodal Container Transfer Facility (ICTF)

GEOWEB® Load Support

Presto Geosystems' GEOWEB® system offered a solution for stabilizing sand infill and preventing long-term differential settlement in the gantry crane ways located under the Roller Compacted Concrete (RCC).

PROJECT TEAM:

Owner: Florida East Coast Railway (FEC)
Contractor: Milord, General Contractor
& Gonzales and Sons,
Sub-Contractor
Material Supplier: RH Moore & Associates

PROJECT SUMMARY:

The GEOWEB® system, consisting of a 6-inch deep mid-size cell over a high strength woven geotextile, was installed on each side of the 4 roller compacted concrete (RCC) gantry crane ways at the Port of Everglades, FL intermodal container facility. The GEOWEB system is used to control differential settlement on the areas adjacent to the crane ways. The crane ways consist of 18 inches of RCC installed on sheet piles 7 ft. on center.

The infill specified for the GEOWEB system was ¾ inch limerock with limited fines to allow drainage. With the unique benefits of GEOWEB confinement, the contractor was allowed to substitute a lesser quality, on-site fill material which resulted in the savings of both time and money. The on-site material consisted of coarse, screened sand.



Presto Geosystems recommended that the Contractor expand the GEOWEB sections to maximum width of 9.2 feet with a length of 25 feet to eliminate waste and cutting of panels. Following this recommendation, the Contractor noted a doubling of their installation rate.



*Left Image: GEOWEB system with sand infill.
Right Image: Project aerial view.*

PROVEN SOLUTION

The GEOWEB system is a thirty year proven solution for heavy load applications over soft subgrades in the rail/intermodal industries.

The 3D confinement system solves soft soil challenges for roadways, intermodal/port yard surfaces, bridge abutments and high-stiffness tracked foundations.

Right Image: A front end loader spreads the infill within the GEOWEB sections. The GEOWEB cellular structure confines and stabilizes the infill, reducing the stresses reaching the sub grade.



The GEOWEB sections are stretched open and connected with ATRA® keys within the crane ways.



Individual GEOWEB sections are shipped in compact bundles; expanded to cover 9.2 ft. widths and 25 ft. lengths.



Infill is delivered to the GEOWEB sections by a backhoe/bucket.



GEOWEB sections infilled with coarse on-site sand.



Installing roller-compacted concrete (RCC) in the lanes for the rubber-tired gantry cranes.

PAVEMENT PERFORMANCE

The GEOWEB solution behaves like a semi-rigid slab which improves load distribution and reduces vertical stresses reaching the sub grade. The end result will be a more durable sub grade that increases pavement life by preventing long term settlement and consolidation.



FEC was one of the first port facilities in Southeast Florida to use roller-compacted concrete (RCC) ■

Ribbon cutting ceremony upon completion of the new intermodal facility.



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