

PUNTA RATON BEACH

Geo Products, LLC | EnviroGrid® GeoCell
Panaostrich Corporation, S.A. | Panaweb

Background

The hilly Pacific coastline of Panama has witnessed the force of many storms and severe erosion forces, leading to a problem for the Punta Raton beach residences. In order to procure the most property out of the available space, contractors have been required to cut into the bordering slopes at a 70 degree angle.

Technical Information

MATERIALS USED:

EnviroGrid® EGA30 4" 2,100m²

APPLICATION:

Slope Erosion Control

PROJECT LENGTH:

4 weeks



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Punta Raton Beach Properties

Pre-EnviroGrid® Slope Erosion Control System



Finished Project showing termination of material

Left is complete, Right is original slope

Design Solutions

After analyzing many possible solutions in the geosynthetics market, Panaweb found out that the only system that could solve this problem in an efficient, timely, and cost effective way while remaining environmentally friendly, was the EnviroGrid® cellular confinement system (GeoCell).

Construction Overview

Construction began on the slopes, which were considered in critical condition at the time of the project. The soil in the area was very unstable, loose, and sandy. They proceeded to install the EnviroGrid® material on the slopes, using a dead man anchor at the top connected to polyethylene tendons to support the material and prevent sliding. The cells were then filled with sandy soil. At times, this process was impossible with heavy machinery and the cells had to be filled by hand. After compacted, the slopes were hydro-seeded with the root medium Brachiaria (by Hydrogreen of Panama) and several days were given to allow the vegetation to grow.

Results

After 8 days of watering, vegetation began to take root and by 3 weeks, abundant vegetation had grown on the slopes. The problem was solved. The EnviroGrid® cellular confinement system impeded further erosion and confined the soils on the slope to allow grass and other vegetation to grow.

EnviroGrid® was able to combat erosion control issues while making the Punta Raton Properties more attractive to international investors.

