

THE CASITAS AT CANYON RANCH

CARMONA, CAVITE, REGION IV-A, PHILIPPINES

Reinforced Soil Walls and Slope Reinforcement

Problem

The Casitas at Canyon Ranch is the first ever fully-serviced development in the Philippines established by Century Properties Group, Inc., one of the country's leading real estate developer.

One of the challenges in developing The Casitas was the terrain of saleable lots. A retaining wall has been required to separate the upper and lower blocks of residential lots. Initial design of a reinforced concrete retaining wall was found to be unsuitable. A green slope finish was also preferred for aesthetics since the area was planned as the exhibit spot in promoting the Canyon Ranch residential complex. Also, cost has been one of the factors that must be considered in the solution.

Solution

Maccaferri engineers recommended a 6m-high reinforced soil wall using Green Terramesh units. Halfway through the construction, it has been decided to increase the required height of the retaining structure to nine meters in total. The remaining upper three meters of the reinforced soil wall was constructed using Maccaferri's MacGrid high-tenacity woven polyester geogrid. Both Green Terramesh and MacGrid geogrid allow establishment of vegetation in the facing, which suited the customer's requirements.

Client: Century Communities Corporation

Designer / Consultant: VJS Builders

Contractor: VJS Builders

Products used (Qty.)

- Green Terramesh	1,755 sq.m.
- MacGrid WG	878 sq.m.
- MacTex Non-woven Geotextile	10,260 sq.m.

Date of construction: 06/2007 - 10/2007



Before Construction



During Construction



Near Completion



Project Completed