

**SYCAMORE HEIGHTS**  
**TAGAYTAY MIDLANDS, TALISAY, BATANGAS, REGION IV-A, PHILIPPINES**

Reinforced Soil Walls and Slope Reinforcement

**Problem**

One of the recent developments in Tagaytay Midlands, Talisay, Batangas involved construction of the Sycamore Heights, an Asian contemporary-themed community fronting the famous Taal Lake.

The project was divided in several phases. The first phase of the development required a 420 meter-long earth retaining structure along the community's boundary line that is directly adjacent to an existing creek. The needed retaining wall has varying heights from five meters to about 20 meters. A standard road was designed to be immediately above the wall.

**Solution**

In close coordination with the Project's Consultant (TCGI Engineers), Maccaferri engineers assisted in the design of the most economical earth retaining structure possible.

Using Maccaferri's MacGrid high tenacity woven polyester geogrids for soil reinforcements, various sections of a wrap-around geogrid reinforced soil wall system have been recommended. Maccaferri gabions and Reno mattresses were also incorporated as primary protection at the toe of the reinforced soil wall.

Besides the MacGrid wrap-around geogrid system's constructability and being a cheap alternative to other earth retaining systems, another distinct advantages of the system are the ability to be fitted to non-conventional slope geometry requirements and the achievement of green facing on the facing that camouflages well with the lush landscapes.

**Client:** Belle Corporation

**Designer / Consultant:** TCGI Engineers

**Contractor:** M.B. Maligaya Construction

**Products used (Qty.)**

- MacGrid WG N/A
- MacBag N/A
- Gabion N/A
- Reno Mattress N/A
- MacTex Non-woven Geotextile N/A
- MacDrain W N/A

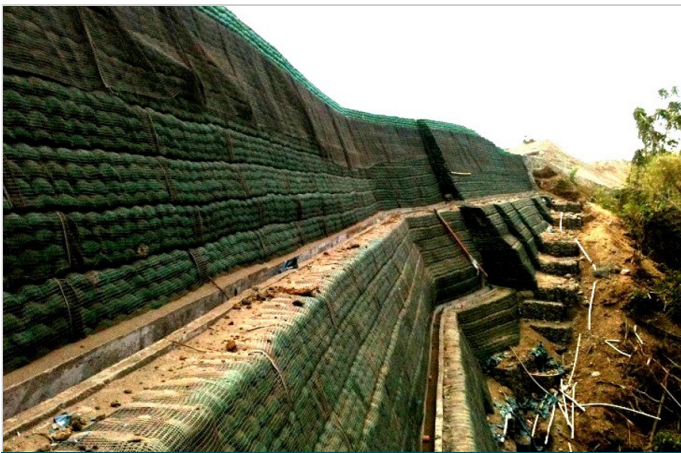
**Date of construction:** 11/2013 - 09/2014



January 2014 - During Construction



January 2014 - During Construction



March 2014 - During Construction



August 2014 - Near Completion



August 2016- Project Near Completion



August 2016- Project Near Completion