

32 SANSON BY ROCKWELL LAHUG, CEBU CITY, REGION VII, PHILIPPINES

Reinforced Soil Walls and Slope Reinforcement

Problem

Rockwell Land Corporation developed a luxury condominium project in Lahug, Cebu City, Philippines. It is a 3.2-hectare project consisting of four residential towers with various amenities.

The development is adjacent to a creek, and the Project Consultant (Meinhardt Philippines Inc.) decided to replace the old stone masonry wall along the creek boundary because the finished grade line of the project was designed to be higher than the existing wall's height.

Solution

Based on the data provided by the Project Consultant, Maccaferri engineers recommended a mechanically-stabilized earth (MSE) wall system using Terramesh System units. The wall system has retained heights up to eight meters for a total wall length of 266 meters. A minimum embedment of one meter was required. The MSE wall was founded on a stable hard rock strata. In addition, a 2m-wide Reno mattress has been placed on the toe of the MSE wall for scouring protection. Maccaferri's MacTex nonwoven geotextile was used as separator and filtration material behind the Terramesh System facing units.

The backfill in the reinforced zone of the MSE wall was required to be compacted to minimum 95% of MDD by Standard Proctor.

Client: Rockwell Land Corporation

Designer / Consultant: Meinhardt Philippines, Inc.

Contractor: ASEEC

Products used (Qty.)

- | | |
|-------------------------------|-----|
| - Terramesh | N/A |
| - MacTex Non-woven Geotextile | N/A |

Date of construction: 07/2014 - 01/2015



October 2014



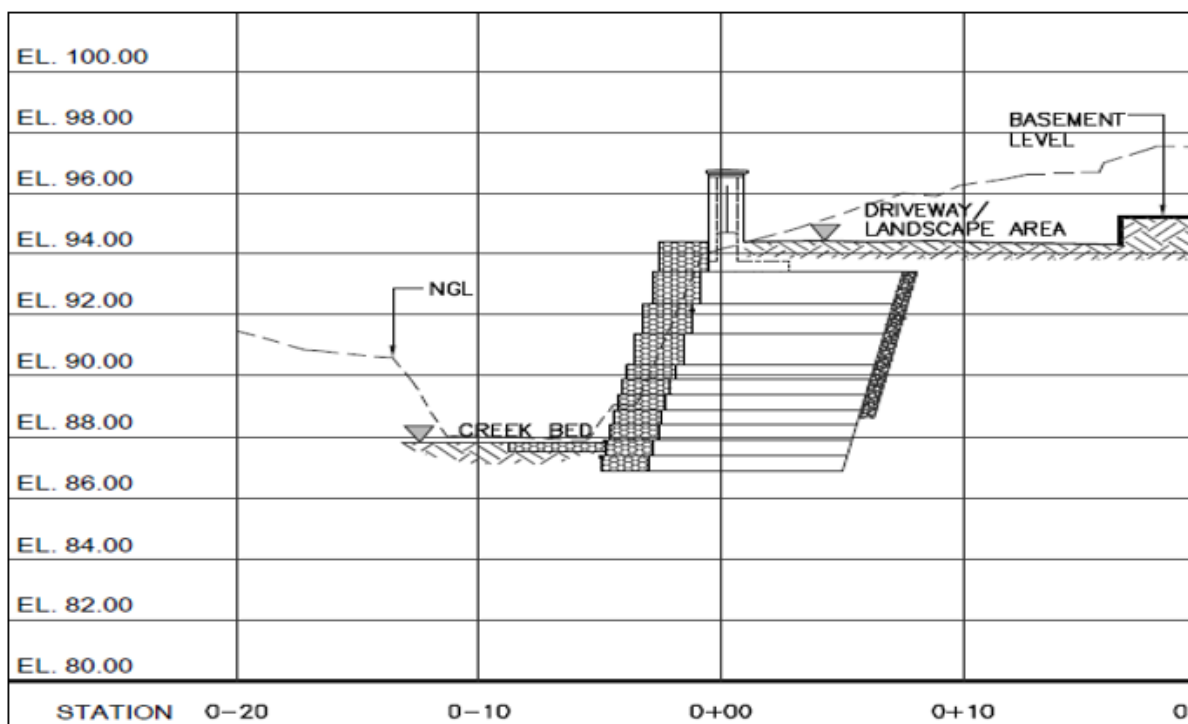
October 2014



October 2014 - During Construction



Site Development Plan



Typical Cross Section Detail