

## A DURABLE WORKING PLATFORM FOR THE CEBU-CORDOVA LINK EXPRESSWAY CEBU, CENTRAL VISAYAS, PHILIPPINES

### Basal Reinforcement

#### Problem

Cebu-Cordova Link Expressway, also known as the Cebu-Cordova Bridge, is a toll bridge expressway that will link mainland Cebu in Cebu City to Mactan Island through the municipality of Cordova. It is currently one of the largest infrastructure projects in the country with a span of 8.5 kilometers and a navigational clearance of 51 meters. The bridge will have two lanes in each direction to serve approximately 50,000 vehicles daily and will allow large sea vessels to pass underneath.

Having a safe and durable working platform that will support heavy straddle carriers during the launching of the bridge girders in the causeway precast yard is critical to the success of the project. Comprehensive calculations and recommendations were needed to address the issue of insufficient bearing resistance in some areas of the causeway precast yard.

#### Solution

Maccaferri Philippines (MPI) provided design and technical assistance and worked with the contractor, Cebu Link Joint Venture, a consortium composed of Spanish contractor Acciona Construction and Philippine firms First Balfour and DMCI.

MPI proposed a solution to stabilize the granular working platform of the reclaimed grounds of the Cebu-Cordova Bridge for a safe and convenient expressway experience. MacGrid EG, a high-density polyethylene (HDPE) geogrid, was used to stabilize the granular working platform and to create a mechanically-stabilized layer. Maccaferri Philippines supplied 23,000 square meters of MacGrid EG40S and 16,000 square meters of MacGrid EG30S.

The construction of the bridge was commenced in 2017. It is planned to be completed by March 16, 2021, for the 500th-anniversary celebration of Christianity in the Philippines. Once completed, it will be the longest and tallest bridge in the Philippines and will provide a safe, quick, scenic, and convenient expressway experience.

**Client:** Cebu Link Joint Venture

**Designer / Consultant:** Strasky, Husty & Partners, Ltd.

**Contractor:** Cebu Link Joint Venture

#### Products used (Qty.)

|              |                      |
|--------------|----------------------|
| - MacGrid EG | 39,000 square meters |
|--------------|----------------------|

**Date of construction:** 09/2019 - 03/2021



MacGrid EG rolls



Project site



On-going installation of MacGrid EG



On-going installation of MacGrid EG



MacGrid EG for the Bridge Girder Straddle Carriers on Reclaimed Grounds