

EMAL's GATE ACCESS AND PARKING

Abu Dhabi



EMAL's GATE ACCESS AND PARKING

TYPE OF PROJECT
**Asphalt Pavement
Reinforcement**

YEAR OF CONSTRUCTION
2015

CLIENT
**Emirates Global Aluminium
(EGA)**

CONTRACTOR
**Amana Steel Buildings
Contracting Co L.L.C**

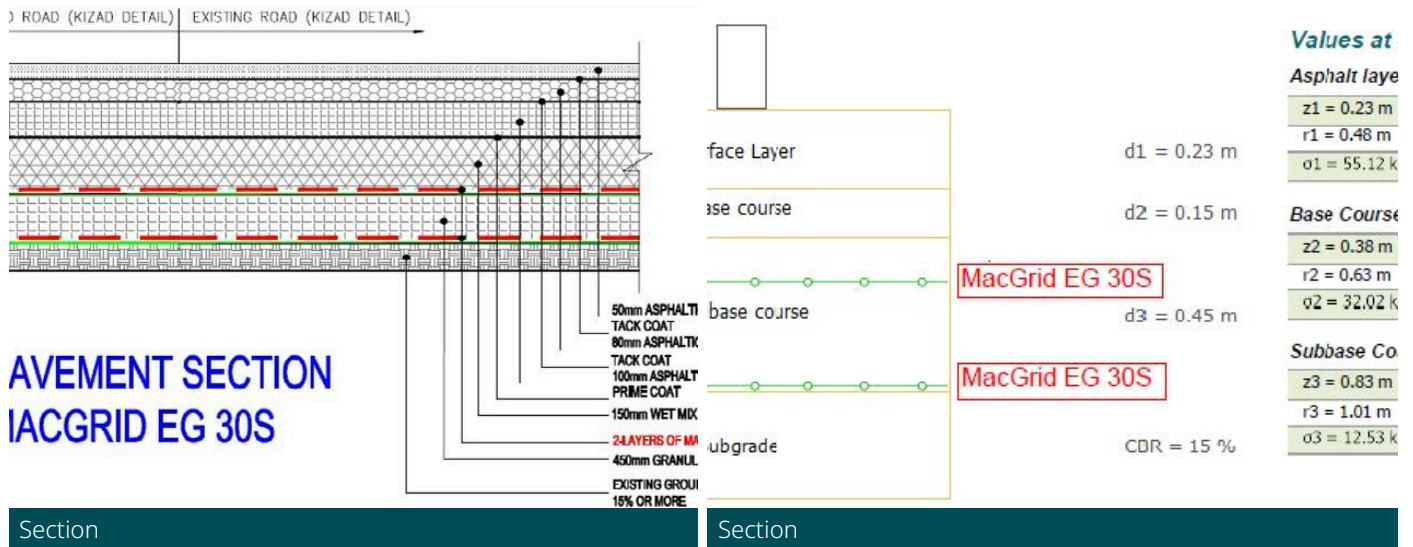
DESIGNER
**Al Suweidi Engineering
Consultants**

PROD. RELATED
Biaxial Geogrids (25,000 M2)

Challenge

The proposed project "Gate Access & Parking for Emirates Aluminium (EMAL)" consisted of design and construction of road pavement and parking facilities, wherein the existing subgrade was weak in nature with very low CBR value such that the Factor of Safety in the original pavement design was lower than the requirement. Initial proposal of ground improvement considered by the 'client / consultant' was deep removal of weak soil, backfilling & compaction works in

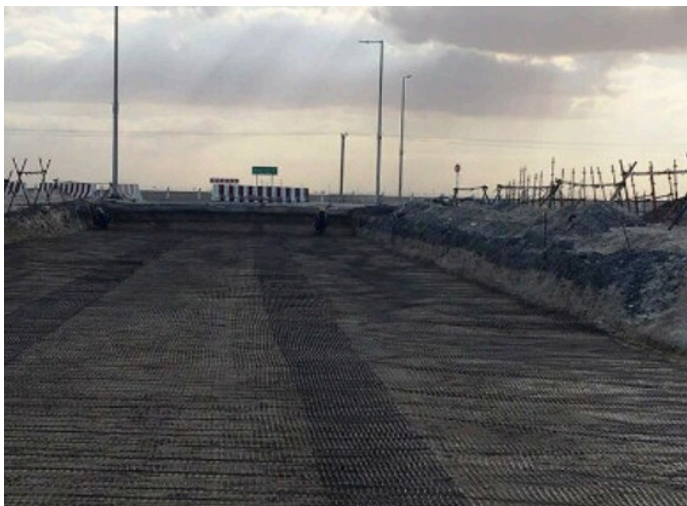
order to improve the subgrade CBR value. Understating that the conventional ground improvement of soil replacement can prolong the project duration considerably since it requires massive earth works, the alternate option of ground stabilization by installation of geogrid in pavement layers was proposed by Maccaferri and was approved by the client after proper verifications and evaluation of its benefits.



Solution

Maccaferri proposed ground stabilization with two layers of bi-axial extruded polypropylene geogrid within the base & sub-base layers to reduce differential settlements and increase bearing capacity. Based on Maccaferri's past experience, bi-axial geogrids performs

best for unbound pavement layer applications due its uniformly distributed rectangular apertures that results in effective interlocking & better transfer of tensile forces through the ribs & junctions.



During Construction



During Construction



OPEN GOOGLE MAPS



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