

PROJECT DESCRIPTION SLOPE & ROCK PROTECTION LANDFILL FOR GROUND LEVELLING

Project: Cultural Village
Location: Doha, Qatar
Year: 2011

Design of 14 m high geogrid reinforced wall, using Geoweb® geocells as facing elements



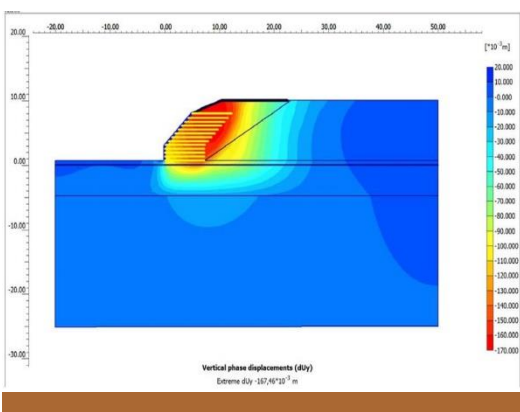
PROJECT DESCRIPTION

The 82 million US Dollar project Cultural Village is built in the north of Doha, Qatar. It is located on the eastern coast between the West Bay and the pearl of Doha with a total area of 99 hectares. The project concept reflects the Qatar heritage through traditional architecture. In addition to theatres, libraries, art galleries and museums, the Cultural Village includes an amphitheater and other academic facilities. It further includes a retail complex, a resort, and an air-conditioned, outdoor plaza for public events.



PROJECT FACTS

- Construction site was elevated up to 20 m by reclaimed soil to raise the buildings
- Reduction of transport costs by the use of local fill material for retaining wall construction
- Construction of 14 m height retaining walls with inclination of 75° on clayed sand and sandy silt with stiffness modulus ranging from 3 to 20 MN/m².
- Geogrid reinforcement layers with Geoweb® facing
- Varying ground profiles



OUR SERVICE

- Determination of representative cross sections for the wall design considering varying ground conditions
- External and internal design (ULS) of geogrid reinforced walls with Geoweb® facing considering seismic loading according to British Standard BS 8006 and DIN 1054 and DIN 4084
- Settlement analysis by numerical methods for Serviceability (SLS)
- Geotechnical Consultancy during construction