The Galleries, Dubai

Country: Dubai  
Timescale: January—August 2009  
Structure: The Galleries, Downtown  
Client: GHD  
CPT Treatment used:  
DuoGuard™ Hybrid Anode ™ System

The Galleries building was part of the extensive Limitless development in the Jebel Ali area of Dubai. A $149m value project, The Galleries provides 198,000 sqm of useable space split into four office buildings.

Problem
Towards the end of the construction phase, issues with basement leakage were observed and following investigation works, chloride contamination from the local groundwater was evident. With the prospect of chloride induced reinforcement corrosion establishing in the basement over the life of the structure, a preventative cathodic protection system without ongoing maintenance was required.

Solution Developed
Following an extensive examination, the consulting engineers, GHD, specified the use of DuoGuard 500 anodes in selected locations of the basement to provide localised corrosion protection to areas of significant moisture ingress.

Benefits
Steel and anode connections from each zone of DuoGuard anodes were terminated within an enclosure such that the system could be monitored as required, and also to provide the option of delivering further current if deemed necessary. The system was monitored with over 100 MN15 reference probes provided by CPT, which facilitated calculation of steel reinforcement corrosion rates over the life of the structure.

CPT Products Used:
- DuoGuard™ 500  
- DuoCrete SD Mortar  
- GAN 3 Monitoring syst.  
- MN15 Ref. Electrode

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