



Pouring concrete over galvanized reinforcing bar in the retaining wall for Royal Brighton Yacht Club's reclamation project. Corrosion protection is vital for reinforcement in this corrosive marine environment.

## Galvanizing as insurance

The galvanizing of 'rebar' is a cheap form of insurance against corrosion of steel reinforcement in concrete structures exposed to marine environments, according to Eddie Barron, joint proprietor of Berwick Drafting and Design service.

Mr Barron designed the reclamation project at Royal Brighton Yacht Club to provide 3700 square metres of hard standing for Olympic class yachts. A perimeter retaining wall was built, pumped with sand onto which a concrete slab was poured. Galvanized reinforcing bar was used in the precast wall panels and in the cap beam which ties the piles together. It was also used in the foundations for three cranes which will lift boats out of the water onto the hard standing. All ancillary

steelwork such as boarding platforms and trollies for the boats is also galvanized.

Mr Barron says galvanized rebar was the obvious choice for this application. He says it is used extensively in marine environments and he has used it previously in building a floating marina system at West Haven Boat Harbour in Hastings, Victoria.

Mr Barron says small cracks will inevitably appear in the concrete used in the project. Since part of the concrete is under water

continuously and the cap beam is in the splash zone, salt water will penetrate by capillary action. Unless reinforcing steel is galvanized it could corrode causing spalling,

The concrete used in the project has the higher than normal cement content specified by the Port of Melbourne Authority for such applications. This denser concrete mix also helps protect the reinforcing steel.

The project took six months to complete and has a design life of 40 years.



General view of Royal Brighton Yacht Club's reclamation project.