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GALVANIZING IN AQUATICS & ARCHITECTURE

INDOOR SWIMMING POOLS

61
galvanize
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In this issue

Aquatics: Growth of indoor swimming pools.

Westpac Call Centre

Editorial

George Thomson
Rosemary Scott

Prepared by

Galvanizers Association of Australia

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ASSOCIATION OF AUSTRALIA



Lakeside Leisure Centre, Port Stephens, NSW

Hot dip galvanizing steel

The sport of swimming has flourished in recent years, when Olympic publicity in particular has brought its popularity to a wide section of the community.

The significant development of hydrotherapy and aquatic exercise treatments has extended the value of 'swimming' to people of all ages. The requirement for facilities to best accommodate their variety of lifestyles has been well addressed by many public authorities and resulted in major aquatic centre projects.

The principle has often been further extended to cover gymnasiums and other dry-sport games in total leisure complexes within local government civic centres.

Economic and planning projections require extensive architectural design development having regard to the growing levels of community participation.

Design

The level of participation and economic analysis are important features of design and require study of community needs and interests.

As major capital investment and large running costs are involved, a fair return to owners and public authorities is needed to justify the investment and to provide for future expansion.

In this context careful asset management plans, with a low maintenance regime, are essential.

Incorporating such factors in a complex requires a structure able to accommodate a number of forms, shapes and site limitations where the use of steel is frequently selected as the most suitable structural material.

Steel's most important attributes are:

- Long-spanning capability with open site lines
- Low structural presence and space occupation
- Design flexibility for future additions
- Many suitable connecting methods such as bolting, welding and pinning.

These features lend themselves particularly well to such structures, however a design adjustment is required to counter the fact that warm water in a pool generates humid chlorine-laden air from water treatment and with its constant surface wetness of the steel.

Heated pools need a raised temperature for swimmer comfort but the resulting evaporation creates corrosive conditions for steel and the need for upgraded steel protection.

The design task described requires the engineering considerations of such features as insulation, ventilation and top quality corrosion control in an environment analogous to marine exposure. The value of a protective coating is measured by its prior proof of suitability, intact installation and long term reliability.



Queanbeyan Aquatic Centre, NSW



Queanbeyan Aquatic Centre, NSW



Lakeside Leisure Centre, Port Stephens, NSW

Maintenance

Pool maintenance includes ensuring water quality, services to the public and fabric preservation, all within a high level of surface wear and impact. The need for maintenance derives not only from these conditions but also the degradation of organic paint coatings by UV radiation.

Galvanizing is immune to UV, has outstanding abrasion resistance and good evidence of over 30 years to first maintenance.

Community

Mr Peter Smith, Associate Director of Prior + Cheney Architects summarises by saying, "swimming facilities require highly detailed research to offer a large community segment maximum utility and fulfilment from this enjoyable activity."

This company, whose work is now featured in *galvanize!*, has been designing aquatic facilities for over 18 years and has produced many examples of steel frame structures used in a striking and attractive manner.

Even in Australia's climate, such facilities have become an invaluable aid to our good health and athletic aspirations and have achieved increasingly wide appeal.