

# CRANBOURNE AQUATIC & LEISURE CENTRE

HANSEN YUNCKEN  
CRANBOURNE VIC



## MAKING A SPLASH WITH INNOVATION

Water restrictions which limit pool top ups will not impact on the new Casey RACE Cranbourne (Recreation and Aquatic Ceentre) (RACE), thanks to the innovative thinking of builders Hansen Yuncken and their design team.

For the first time in Australia, an aquatic complex has been designed to harvest rainfall extensively, with storage tanks holding two million litres of water installed to supply all water for pool top ups and amenities.

"The only water the Cranbourneasey RACE will use from mains supplies should be for drinking water," explained Project Manager Paul Bolton.

"There is also a water treatment facility on site for the rainwater, a reverse osmosis system."

Green thinking didn't stop there, the project also makes extensive use of the power of the sun, with solar panels installed to heat the pools and water for showers. A boiler system is also in place for backup.

Hansen Yuncken had the \$37 million construction contract from the City of Casey for the new aquatic centre, which was designed by Cox Architects to be a complete family recreation experience. Facilities include an interactive splash park for children, water slides, a toddlers' pool with splash deck, leisure water pool, learn to swim pool, Olympic length pool with moveable boom, a program pool, spas, sauna, steam room, and multipurpose rooms which will new managers the YMCA will fit out for, aerobics, weight training and circuit training.and a comprehensive health & fitness club.

The fit out for the entire facility is being undertaken by the City of Casey ready for the YMCA to commence management on Council's behalf.

There is also a café, a crèche and an outdoor area. All of the pools are indoors, which allows for enjoyment by locals year-round, even in Victoria's chilly winters. A Public artwork will grace the front entrance, and one of the Commonwealth Games Fish artworks has been mounted inside.

Being an indoor facility added to the challenge for Hansen Yuncken, who also contributed to the design.

"Challenges included the physical engineering design, it is a complicated structure full of detail and constructed on poor soil conditions that required the entire area of the building to be excavated down to rock and then re-filled with compacted engineered fill," said Paul Bolton.

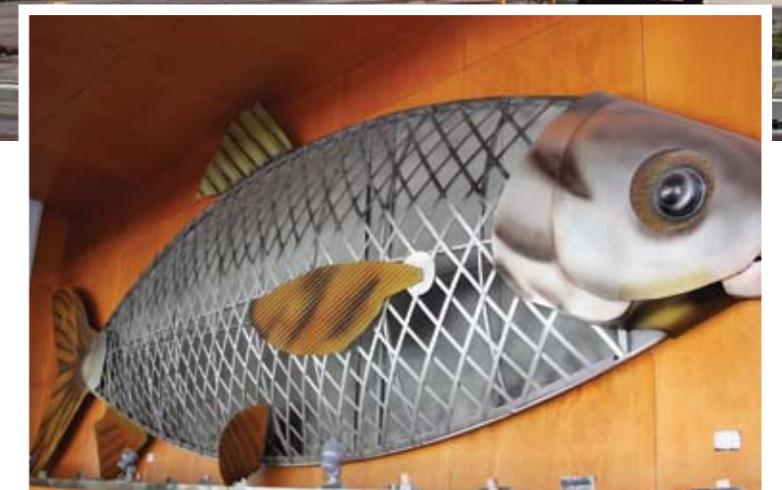
"And being a pool, you've got to build it like a fridge, no outside air can mix with the inside air so as to eliminate any condensation. Finishes also have to be able to withstand chlorine.

"There are a lot of curved block walls, tapered steel columns, the design was very challenging.

The mechanical systems include a rotary heat exchange, which saves energy."

Another part of the job which brought unique difficulties was the waterslides. One was from an Australian company, so reasonably straightforward to organise and install, but the other came from Canada.

Project Manager:  
Paul Bolton



The complications included dealing with fluctuating exchange rates, and coordinating people to come over from Canada and perform the installation, especially given the difference in time zones meant making calls during the wee small hours.

The whole project from go in July 2007 to whoah in March 2009 for a midyear handover, involved an average of 100 Hansen Yuncken workers on site at any one time. There were also a dozen subcontractors for areas including tiling, plumbing, electricals and roofing.

Hansen Yuncken are extremely busy builders. Amongst other projects, they are constructing the National Ice Sports Centre, the Wolgan Valley Resort and Spa in NSW for Emirates, and 120 Bay Street Port Melbourne.

They have won numerous awards, including Excellence in construction and design for K2 Public Housing, Excellence in design and construction for CH2 (Council House 2) also in Melbourne, and awards for Batman TAFE. They created Australia's first as built six Green Star building in CH2, setting new standards for environmental forward thinking.

A fourth-generation privately owned company founded in 1918, Hansen Yuncken have completed over 4,000 projects and are dedicated to Green construction principles, constantly raising the bar for ESD. They are active members of the Green Building Council.

They have offices around the nation, including Cairns and Tasmania, with a workforce of over 1,000 engaged at any one time on a variety of projects across all industries and sectors.



**HANSEN YUNCKEN**  
25 Huntingdale Road  
Burwood Vic 3125  
t. 03 9831 6500  
f. 03 9831 6599  
e. melbourne@hansenyuncken.com.au



## MAKING A BIG SPLASH WITH TILING

**W**hen the EPA are getting a company to supply and install the tiles for their new headquarters, that's an ESD endorsement par excellence. It's another feather in the cap for Ceramic Solutions, who are experiencing strong growth, and are working on tiling projects around the nation whilst operating on a sustainable basis.

"We have just completed the design, supply and installation of all tiling for the new Cranbourne Aquatic Centre. This includes tiles for all pools, pool decks, and amenities including the crèche and kitchens," said Director Oliver Huss.

Ceramic Solutions are Australian distributor for Agrob Buchtal a German company, who manufacture tiles from natural materials, and adhere to the strictest environmental standards throughout their manufacturing process, including recycling water, and recycling all waste products.

"Agrob's Hydrotect range of tiles also feature a unique infused coating, which is hydrophilic, making it easier to clean and thus cutting down on chemical use. Hydrotect eliminates odours such as ammonium and formaldehyde, as well as decomposing both nitrous oxide and sulphuric oxide. The tiles come in a range of 40 colors and include various slip resistances. The fixatives we use from BASF also have green credentials."

Seven Ceramics Solutions tradesmen worked on the Cranbourne site from January 08 to April 09 completing the massive job. It's one of many big jobs past and present. Ceramic Solutions have also completed the tiling for the Olympic training pools at the Australian Institute of Sport,

Melbourne Sports and Aquatic Centre's Commonwealth Games facilities, various training pools for the NRL and AFL in Queensland and NSW, the University of New England's new pool, Hepburn Spa's upgrade and the massive 3,000m<sup>2</sup> wave pool at the Darwin Waterfront.

In addition to their leisure expertise, Ceramic Solutions are presently undertaking the Gold Coast Airport upgrade while the facility continues to its operation as an airport.

Their workforce of tilers is highly mobile and extremely skilled at what they do. In 2003 Ceramic Solutions won an MBA Award for Excellence in Ceramic Tiling for the Monash Aquatic and Recreation Centre. Their service includes tile consultancy and preparation of shop drawings, supply and installation of tiles, and after sales service.



10/45 Normanby Road  
Notting Hill Vic 3168  
t. 03 9545 5322  
f. 03 9545 5611  
e. mail@ceramicsolutions.com.au  
www.ceramicsolutions.com.au



## POOLING RESOURCES

**D**avid Powick was involved in the Doncaster Aquatic Centre in 1969 while employed with Scott & Furry. Since then, David has been involved with the design, documentation and supervision of over 200 swimming pools/centres. David started David Powick & Associates Pty Ltd, in January 1998 specialising in swimming pools and building hydraulics. David has direct access to skilled independent structural, mechanical, electrical and pool construction consultants with a significant long term experience in the design and construction of aquatic facilities.

David Powick & Associates P/L (DPA), were commissioned to provide design, documentation and construction oversight for the aquatic components of Cranbourne Aquatic Leisure Centre.

DPA were responsible for: pools and associated balance tanks, pool tiling and fittings, such as handrails, feature water circulating and pumping systems and five water treatment plants.

Pool water is collected in a series of perimeter channels around each pool. It is pumped through sand filters, heated, passed through UV radiation to enhance disinfection and reduce chloramines, then chemically dosed with hypochlorite before being returned to the pools and the spa. Filter backwash water is recycled. It is collected and passed through a reverse osmosis (RO) treatment system before being returned to the pool systems as safe 'make-up' water. Water treatment plants are designed to cater for all bather loads, complying with current industry best practice.



The 51.5m pool and boom are designed to meet FINA requirements for competition length and lane widths and the pool has been fitted out for both 50m and 25m short course events. The boom is normally 'parked' at the deep end of the pool to form an end wall for a 25m short course, or divide the pool, into two. With the boom in a central position, half can be used as a warm up pool for 25m events.

**DAVID POWICK & ASSOCIATES Pty Ltd**  
PO Box 11  
Northcote Vic 3070  
t. 03 9486 8077  
f. 03 9482 5406  
e. powickassoc@bigpond.com



Cranbourne Aquatic & Leisure Centre at dusk



FOR THE RIDE OF YOUR LIFE



The Australian Waterslides & Leisure team have supplied a fantastic and fun-filled array of water slides for the Cranbourne Aquatic and Leisure Centre. The slides were handed over in March. Two more rides are designed for future installation - Stage One installation comprises of the Tipping Bucket, Lily Pad Walk, 2 Tandem Tube Raft Rides and a Space Bowl. The Raft rides are ridden by 2 x people on an inflatable tube and the Space Bowl is ridden one at a time. The rides are fast and exciting but fully compliant with safety requirements.

The architects specified aesthetically appropriate colours, specifically black and blue in the case of the Raft Ride, giving the illusion of more speed. The low maintenance, resilient fiberglass construction has a sanitary grade gelcoat for longevity. Although most of the slide is housed, the materials are UV protected. All products are made from Australian materials and guaranteed for five years.

Australia Waterslides installed the first water slide in Australia in 1979 and have since installed hundreds both throughout Australia and overseas. This experience ensures a unique blend of creativity, innovation and commercial reality.

Australian Waterslides also advise clients in the areas of concept and design, feasibility studies and park operations.

Methods of manufacture and installation keep improving. Mats are not a requirement as the smooth joining of the slide sections and accuracy of mouldings ensure a safe, smooth and comfortable ride. New high tech gaskets and sealants ensure the water stays on the inside of the flume and contributes to the longevity of the structure.

Australian Waterslides is committed to providing quality and service to all facets of the Waterpark and Leisure Industry around the world. New technology and innovations are constantly adopted.

**AUSTRALIAN WATERSLIDES & LEISURE**  
PO Box 2220  
Coffs Harbour NSW 2450  
t. 02 6658 9407  
f. 02 6658 9708  
e. [info@waterslide.net](mailto:info@waterslide.net)