



A "Design & Construct" Contract

Outdoor 50m (FINA) Pool, Adjacent Water Slide and Associated Infrastructure

Whilst "design and construct" is a common delivery method for Crystal Pools, the concept of building a major (albeit Stage 1) aquatic development in Broken Hill presented Crystal Pools with a range of challenges and daunting logistical issues.

Broken Hill is a truly vibrant and culturally rich city known as the 'Silver City'. Nevertheless, it is located in the centre of the sparsely populated outback of Western NSW, close to the SA border. The decision to redevelop and revitalise the original 1937 pool complex was made after very careful research and master planning. This was expertly provided by the Town Council and their appointed architects.

Based on Crystal's experience with many similar projects, the first step was to assemble a strong project team with the necessary expertise and commitment to satisfy Council's high expectations.

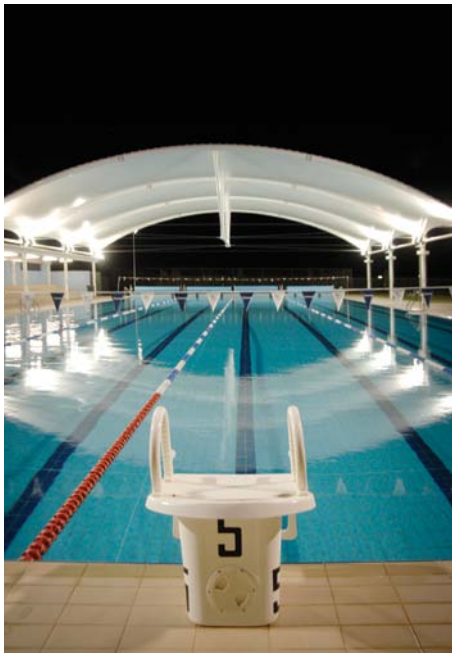
Our very first appointment was Geoff Ninnis Fong & Partners (GNFP) who designed the water retaining structures and the Pool Water Treatment (PWT) Plant. Closely after this, Crystal appointed Trisley Hydraulic Services Pty Ltd to supply and install an appropriate PWT plant.

Based on Crystal's policy of using local resources, wherever possible, they also appointed Timperio Enterprises Pty Ltd (a local Broken Hill contractor) for the construction of the PWT plant room, the gas containment room and other associated building works.

Stemming from Council's consideration of all available pool options, a reinforced formed and poured pool construction was selected due to its unique cost effectiveness and its proven longevity.

The soiled water gutters on both pools were set on generous grade to operate in accordance with open-trench drainage. This method is widely considered preferable because of its efficiency and its ability to collect the total plant flow over the full length of the gutter. This construction method also precluded the need for any soiled water piping, which would have otherwise been installed external of the water retaining structure. A prefabricated panel type pool would not have provided the same benefits.

The construction of significant swimming pools in remote locations relies heavily upon applied experience that firstly establishes a workable cost plan. Next comes a robust design and committed project team who must understand and respects the Client's needs and aspirations. Although the delivery of large swimming pools in regional areas is never easy, the North Broken Hill Pool is now blessed with a new 8 Lane x 50m (FINA compliant) competition pool and an exciting new water slide.



POOL AND PLANT DETAILS

Project Name	North Broken Hill Pool, STAGE 1
Address	336 McCulloch Street, Broken Hill, 2880 NSW
Practical Completion	20th March 2009
Principal	Broken Hill City Council (BHCC)
D&C Head Contractor	Crystal Pools Pty Ltd
Crystal's Aquatic Engineer	Geoff Ninnes Fong & Partners Pty Ltd
Crystal's Building Contractor	Timperio Enterprises Pty Ltd
Crystal's PWT Subcontractor	Trisley Hydraulic Services Pty Ltd
Pool Number & Type	2 Pools - 8 Lane 50m + Slide Catch pool
Total Pool Surface Area (m²)	942
Total Pool Volume (m³)	1,362
Pool Tiling	Metz DIN Standard Tiles
Pool Filtration	3 x Chadson MHS7250 (21.75m ²)
Plant Capacity (m³/hr)	645 (approx 180 l/sec)
Water Treatment	PAC, Elemental Gas Chlorine (4kg/hr) & Soda Ash
Pool Heating	Techno Solace Panel 480m ² with 205kw Heat Pump
Shade Structure #1 (50m Pool)	Ferrari 9025 (Approx 50m x 26.5m)
Shade Structure #2	Monotec 370
Water Slide by	Australian Waterslides with a 8m tower x 70m long



POINTS OF INTEREST

TOWN POPULATION (2011): 21,500

DISTANCE FROM CRYSTAL HQ: 1,144 (About 12hrs driving time)




THE USE OF A DESIGN AND CONSTRUCT CONTRACT: Subject to the existence of well constructed and detailed brief, the D&C process is an effective and proven mechanism, which can provide tangible cost savings and responsive delivery times. The D&C process is best confined to a short list of prequalified and experienced pool builders.

EDITORIAL RECOGNITION: Splash Magazine (June/July Issue – 2009)



This case study is one of hundreds of major commercial pool projects successfully delivered by Crystal Pools. Since 1957 they've made it a point of integrity to share knowledge, giving open advice to all enquiries. So at any stage in your pool project (any size, any type, new pools or renovations, a plant upgrade or a technical question) Crystal Pools are the master pool builders you can talk to.

 crystalpools.com.au

 (02) 9875 4555  (02) 9484 1019  paulh@crystalpools.com.au

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