

The Sandgate Waste Water Treatment Plant

This project encompasses constructing a clarifying tank with bioreactor channels running around its external wall. The overall structure is colloquially called a "scooter". The diameter of the clarifying tank is 45m, the diameter of the baffle wall on the outside of the tank is 64.5m and the diameter of the outside wall is 84m, the height is 5.7m.

The project is located at Boondal in Brisbane and is being constructed by the Brisbane Water Enviro Alliance (B.W.E.A), which is made up of John Holland Pty Ltd, Brisbane City Council, Brisbane Water, Aquatec-Maxcon Pty Ltd, MWH (Environmental Engineers) and JWP (Consulting Engineers). RMD Australia's client is John Holland Pty Ltd

RMD supplied 540m² of Reflex Panels to form up the clarifier tank wall and the baffle wall forms; the pour length is 8.0m (4 panels long) and 6m high (2 x 2.4 + 1.2 Panels) The accompanying photograph shows the Reflex shutters with Super Slim Soldiers running up the back of them, these are required to strengthen the join in the panels when the panels are being gang lifted.

The clarifier tank is a "floating tank", that is it has no starter bars or any fixings down to the footings whatsoever, it sits or "floats" on top of a rubber strip to provide a seal, this means that the tank walls require back propping until the full circumference is achieved, RMD supplied Tilt Slab Props for this purpose.



RMD Australia also designed a mobile soffit support for the launder channels that run around the inside and outside of the Clarifier Tank walls, to do this Rapidstage Scaffolding was utilised to support a 10m soffit form. After each pour the soffit form was lowered onto wheels and moved around the tank to the next pour.

Hyperdome Shopping Centre Extensions

This project consists of a 15,000m² extension to the existing Hyperdome Shopping Centre in Loganholme, Brisbane. The extension includes a bowling alley, gymnasium, car park, food court, cinemas, a grand entrance stairway, restaurant and retail outlets.

RMD Australia's Reflex curve wall formwork system was used to form



concrete curved retaining walls for the new grand entrance stairway; the walls are up to 5m in height and 300mm thick. Also Super Slim Soldiers were used to span an area where clear access of approximately 3m was required to allow site traffic to travel under the area of deck being constructed.

RMD's client, Swiftform chose RMD Australia for these aspects of the project because RMD supply the most labour saving equipment for the project and also supply design drawings required to submit to principal contractor Adco Constructions.

Swiftform have used the Rapidshor shoring system on several other projects and found it quick, easy and adaptable when using it on high decks.

Also it is easy to run Hyplanks through the system to be used as working decks. This is the first time Swiftform have used Reflex on a project and they were very pleased that it worked so well. Their Site Foreman indicated that Reflex was very quick and easy to use and set-up, making the construction of concrete curved walls a simple process.



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Adelaide Airport Redevelopment

By the end of 2005, Adelaide Airport will have the newest and most efficient aviation terminal in Australia, with a new \$260 million state-of-the-art facility now under construction. The building will be two-storey with a mezzanine level, and will be approximately 750m long and up to 110m wide.

Incorporating the latest in design and technology, Adelaide's new terminal will service the needs of regional, domestic and international travellers from one building.

systems able to process up to 3,000 passengers an hour. Flight information and other technology will be specified for service well into the future, with other features including:

- 14 glass-sided aerobridges - the most advanced of any Australian airport
- Capacity to accommodate 27 aircraft simultaneously
- 40 common use check-in counters
- 9 automated baggage carousels
- Under cover passenger drop-off areas and expanded taxi/bus ranks
- 38 retail outlets
- Approximately 2000 car parks
- 120,000 square metres of tarmac

Construction of the new terminal began in November, 2003 and is progressing on target for completion in late 2005. It is being constructed by Hansen Yuncken adjacent to the present international terminal.

RMD Australia is supplying equipment to a number of subcontractors on the site but the main one is Manuele Engineers. RMD has supplied ultra heavy-duty Megashor for back propping to the primary steel beams at the first and second floor levels to enable the suspended slabs to be poured, as well as raking Megashors for steel column propping.

Manuele Engineers were particularly happy with the solution because the cost of the equipment was well within their budgetary requirements and the

modular Megashor allowed for re-use in various heights from zone to zone along the project length.

RMD Australia's Megashor is an ultra high-duty modular propping system designed for axial loads up to 1,000kN. Its real strength lies in its versatility because Megashor can be configured in a variety of different applications, from heavy lifting towers to travellers for tunnel formwork, bracing for excavations, shoring and trusses.

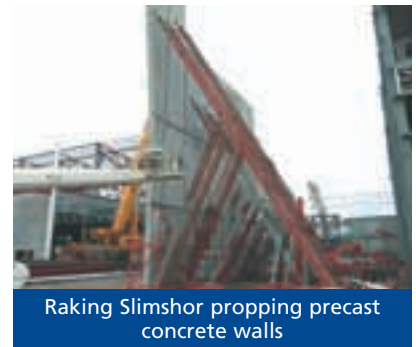
Another product been used on the site is Slimshor racking props which are been used to prop up precast concrete walls so they are held stable in high winds. The Slimshor components connect directly to Super Slim Soldiers. The addition of adjustable Jacks at the ends of the Super Slim Soldiers with suitable end connections convert the Super Slims into highly effective push-pull props, which are easily adjusted by rotating the Super Slim Soldier body.



Raking Megashors propping steel columns

Freight handling and commercial facilities also will be expanded to support Adelaide's growing importance as a tourism and trade destination.

The new terminal will feature state-of-the-art passenger facilities and security



Raking Slimshor propping precast concrete walls

Celeste Apartments



The Celeste Apartment project is located at Breakfast Point in Sydney; it is being constructed by Westform Formworks Pty Ltd. To reduce construction time on this project and thereby reduce costs, Wesform decided to pour the structures columns and slabs at the same time. This construction method meant that Westform wouldn't be able to secure the Airedek soffit formwork to the columns for the forming of the slabs, as normally occurs, and therefore they would be unable to stabilise the Airedek panels. However by using

Rapidshor shoring towers, instead of props, in a 1.8m x 1.8m grid at 3.6m centres both ways as bracing bays, the structure was totally stabilised.

The Celeste Apartments is the first project that Westform Formworks have utilised the Airedek system on and they were extremely happy with the faster erection times, which provides a saving in labour costs and also because it eliminated the usual untidy timber and ply off cuts that can hinder safety at construction sites.

Mildura Waste Water Treatment

A new \$12.2 million water treatment plant is currently being constructed in Mildura, Victoria. The first stage of the project will allow for the processing of 20 megalitres of water a day, which supplies up to 10,000 people.



Ultimately the total capacity will be 80,000ML after a further three sections of the project are completed. The plant is being constructed to remove high levels of blue green algae toxins from water taken from the Murray River.

RMD Australia supported our client, G & A constructions on this project by supplying Reflex formwork to construct the circular PAC contact tank and wash water tank. The main reason Reflex was used on this project is because Reflex makes the construction of curved concrete walls easy due to it being a pre-assembled panel that is easily adjusted to suit the dimensions of just about any curved wall.



Conventional formwork consisting of plywood, Super Slim Soldiers and Alform Beam was used to construct the filter, clarifier and flocculator tanks.

Victoria Point Shopping Centre



Extensions to the Victoria Point Shopping Centre, located at Victoria Point in Queensland will amount to approximately 10,000m² of extra shops and car parking, which will require approximately 4,000m² of undercroft area for floodwater, approximately 10,000m² of roof area at a height of 6.5m, approximately 2,500m² of

mezzanine area and it all must be completed for handover in September 2004 to be open for trade at Christmas.

The Rapidshor shoring system was used with Albeam as primary beams, with a leg grid of 1.8m x 2.4m. Rapidshor supporting Airodek 3m beams was used under the deck area, with a 3m x 1.8m leg grid. Swiftform, our client, supplied Hyplank as a working deck on the Rapidshor, which is easily moved during erection and stripping.

Using this RMD equipment allowed Swiftform to erect the false work extremely quickly. Also, the supply of Airodek 3m Beams and Albeam as Primary Bearers negated the need for the client to supply 150 x 77 LVL.

Swiftform were highly satisfied with the saving in time and labour they experienced as a result of the excellent assembly and stripping times achieved using Rapidshor.



Darwin LNG Project

The Darwin LNG project is being constructed by the worlds largest privately owned construction company, Bechtel. RMD Darwin branch won the contract to provide false work support to the 2,700m³ turbine slab. The slab was to have been completed in 3 x 900m³ pours re-using one set of Rapidshor equipment.

The original delivery date was postponed approximately two months due to the site experiencing quagmire conditions with over 2,000mm of rain falling during the last wet season. The unforeseen delay resulted in the Bechtel ordering two sets of Rapidshor equipment to hasten completion. Obtaining another 81 tonne of equipment proved easier said than done, however with the assistance of the other RMD Australian and overseas branches we were able to supply the client in a timely fashion.

The first of the three pours was completed over twelve hours on May 15.



Mt Lindesay Highway - Middle Rd Overpass



The new overpass over the Mount Lindesay Highway is necessary because the population in the area is rapidly expanding and consequently traffic congestion is becoming a major problem. In fact another overpass was built approximately 8km down the Highway twelve months ago.

The overpass is 125.5 metres from abutment to abutment and the bridge is approximately 9m to the top of the slab.

RMD's Megashor was used as beams to span from the abutment wall over the batter to the Rapidshor. The Rapidshor shoring system was used for soffit support. Alform Beam was used as primary bearers on a deck that was used under Megashor, as a working deck and for access.

Special hinge assemblies were used to allow adjustment to side form wings. Special Super Slim Soldiers were used to form the angle required in the side form wings.

Approximately 90,000kg of Rapidshor and Super Slim Soldiers were supplied to the site for Stage 2. Our client, George Simpson Builders used RMD Australia on this project because they are highly satisfied with the previous service provided by RMD.

The Tweed Shire Council Reflex Projects

The Tweed Shire Council have been building reservoirs in Northern NSW area for at least two decades. They have always used RMD Australia equipment and because they have enough work for

the next ten years they decided to purchase a system that they can use for that period of time. The new Reflex curved wall formwork system is ideal for their requirements because of its high productivity and labour gains. The majority of the reservoirs will be 32m in diameter and 7.2m high. The walls will be poured in four full height segments.

RMD Australia supplied special 3.6m high reflex panels with special splice plates to eliminate the need for any stiffening soldiers across horizontal joints. Super Slim Soldiers, push/pull props and accessories were supplied for plumbing purposes with special walkways on external and internal forms. A pour rate of 1.5m per hour will be achieved.

A close relationship between RMD Australia and Tweed Shire Council over a long time frame played a significant role in initial negotiations. RMD's proven reliability and service also played a major part in obtaining the order.

The Tweed Shire Council is extremely happy with Reflex and hope to use it to its fullest advantage.

