

OrbiPlate™

Bendigo Carpark Architectural Screen, VIC, Australia



The Project

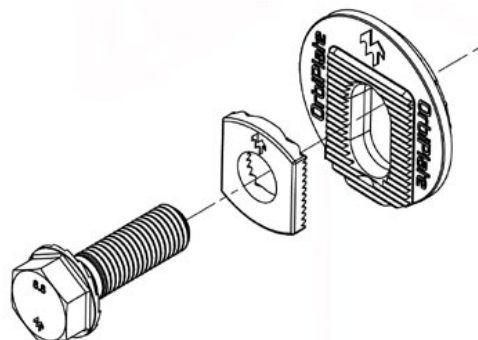
When leading, locally based Builder/Developer H. Troon began planning their multi storey carpark project in Bendigo, located in north-western Victoria, they could foresee some unique construction challenges ahead.

James Troon (H Troon) enlisted the services of Dale Baldi and his team at Statewide Panels in Shepparton.

Both James and Dale identified the key construction challenge as the fixing of the steel architectural screens to the exterior with little, if no margin for misalignment. How could this be achieved quickly and as cost effectively as possible?

The importance of speed and efficiency in connection was keeping the crane time down to an absolute minimum and limiting the disruption to traffic flow and its potential impact on businesses in the heart of Bendigo's CBD.

Furthermore, the crane would be blocking the main access to a busy shopping centre. With post installed anchors to be used on this project, the concern was the potentially significant idle crane time whilst the holes are drilled and the anchors set for each of the architectural screens.



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On the recommendation from Statewide Panels, James Troonput a call into Darren Metzke (Reid Account Manager) based in Shepparton, to discuss the project and the connection challenges it presented. In consultation with Reid's Victorian Sales Engineer, Vas Haitas, the solution to the connection challenge was obvious:

The Reid OrbiPlate! Having relayed the features and benefits of the OrbiPlate™ solution to James, Darren promptly arranged copies of the technical literature for the design team at H Troon. Upon a quick review of the technical documents, the OrbiPlate™ was almost instantly specified as the connection system of choice for the multi storey carpark.

The solution was to employ OrbiPlates and Ramset Trubolts on the upper brackets and Orbiplates and Ramset™ Chemset™ 502 and threaded studs on the lower brackets. The holes for the anchors were predrilled, then, when the panels arrived, the crane lifted them into place and they could be quickly secured with the Trubolts top and dry studs below, allowing the crane to move onto the next. Only after the crane's services were no longer required and the road cleared for traffic once again, were the panel's alignment finalised and the anchorages completed.

Paul Grech (H Troon - Site Foreman) stated **"Hats off to the OrbiPlate™! This product has not only simplified the installation of the safety screens but saved us up to 40% in time (with the crane onsite)"**.

Paul went on to add that "this site is in the centre of Bendigo's bustling CBD, and we needed to consider the needs of local traders and the community, so we aimed to minimise road closures and traffic disruption. By using the OrbiPlate™, we were able to install the screens much quicker, allowing us to clear the trucks and crane quickly, which definitely made the locals happy."

Based on a concept originally developed by independent NSW engineers John Burke and Alan Walsh, the patented OrbiPlate™ assembly provides a quick and effective, fully rated, structural connection. OrbiPlate™ overcomes the challenge regularly faced in concrete construction – accurately locating connection points in the concrete.

Paul Grech agrees, stating that "the OrbiPlate™ would be considered in other projects and applications. On this occasion, The patented OrbiPlate™ system delivers connection tolerances of 20mm in any direction. It is comprised of an 80mm main circular washer with an elongated slot surrounded by serrated teeth that provide the effective mechanical lock with a secondary, smaller washer used to position the main structural M20 bolt as required main access to a busy shopping centre. With post installed anchors to be used on this project, the concern was the potentially significant idle crane time whilst the holes are drilled and the anchors set for each of the architectural screens.



Upper connection: OrbiPlate™ and Ramset™ TruBolts



Lower Connection: OrbiPlate™ and Ramset™ ChemSet™ 502

For more information,



Watch this video



OrbiPlate™ Web page

For further information, please contact Ramset™

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