

# Muscat Airport Interchange

Client: Muscat Municipality  
Contractor: CCC  
Location: Muscat, Oman  
Products: Rapidshor, Superslim Soldiers, GTX Beams

## Case Study

For contractor CCC the fish belly design for the new Muscat airport interchange twin north and southbound bridges, posed a formwork and shoring challenge for which they turned to engineers from equipment specialist RMD Kwikform to provide a solution.

As a gateway to the new Muscat International Airport the interchange is a flagship project for the Oman Government with the fish belly design of the bridge structures making them both functional and aesthetically pleasing. With thousands of commuters and visitors to Muscat expected to use the bridges, finding a cost effective swift solution to cast the bridge decks for what is an uncommon design posed a challenge for both CCC and RMD Kwikform.



Commenting on the project, CCC project manager said: "We have constructed many bridge structures throughout the middle east region but this was the first fish belly style design project we have worked on. The challenge was not necessarily the shape of the bridge itself but the cost of constructing such a structure. At first we thought we would need specially fabricated formwork to enable us to achieve the high quality finish we needed.

"Even when we first approached RMD Kwikform to design a solution the engineering team suggested a bespoke approach. But after we had completed the main technical assessment with the RMD Kwikform team, they were confident that they could come up with a solution using their standard equipment range. For CCC this was obviously something that would have a dramatic affect on the overall budget, significantly reducing the cost of hiring the formwork and shoring equipment."

By working through a number of solutions RMD Kwikform engineers were able to develop a formwork and shoring solution that utilised a combination of push pull props, Superslim Soldiers, GTX Beams and 80kN Rapidshor shoring. With the curved nature of the fish belly Rapidshor jacks were used to achieve the varying levels required for the cross section of the bridge, with U heads and varying leg lengths combining to achieve the support needed for the formwork shuttering.

Commenting on the project, RMD Kwikform regional sales manager, Bellphine Campbell said: "Because our Rapidshor shoring is so flexible and easy to assemble it allows our engineers much more scope to solutions using our standard equipment range. Because all of our products are designed to work together it is often the case that we can offer highly technical solutions without the need for expensive specials.

For those jobs that do need specials we also tend to integrate the specials design with standard equipment minimising the need for extra expenditure. For CCC, because we have worked with them on numerous projects, they know our capabilities and that we are always up for a challenge. So it was very rewarding for the team that we were able to tackle this project successfully, using standard equipment and ultimately saving them money."

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