

Athabia Flyover

Client: Ministry of Transport & Communications
Contractor: Larsen & Toubro Oman LLC
Location: Muscat, Oman
Products: Paraslim

Case Study



Sustained social and economic development in Oman has led to the need for the redevelopment and extension of national infrastructure throughout the state. Having developed and utilised Paraslim across the globe, RMD Kwikform has introduced the system into the Omani market for the first time.

Faced with the task of widening the Athabia Flyover on the Sultan Qaboos Road, a major road in Oman's capital city Muscat, contractors Larsen & Toubro Oman LLC approached RMD Kwikform for a solution that could meet the tight programme times and safety concerns of the project.

Commenting on the reasons for bringing Paraslim to the Middle East and its use on the Athabia Flyover project, Steve Phillips, Resident Director - Oman said: "Paraslim is ideal for this kind of bridge work where the existing flyover is widened to accommodate an additional lane to ease the traffic flow. There is live traffic over and under the bridge and it is practically impossible to close the traffic below to put up scaffolding. Paraslim maintains simplicity in its application while overcoming complex engineering obstacles, efficiently keeping projects on time and more importantly on budget.

"As well as its simplistic application and time saving capabilities, Paraslim embodies innovation towards site safety with the ability to be pre-assembled

offsite and only brought on site when preparations have been completed, leading to a cleaner and clearer site."

RMD Kwikform was able to supply a bespoke Paraslim system with the ability to overcome the technical constraint of shoring the Athabia Flyover without relying on a grounded support system that would obstruct the flow of traffic travelling underneath it while the project is underway.

Due to the lack of a grounded support structure RMD Kwikform Engineers were faced with the challenge posed by the problem of up-lift of the cantilever deck caused by wind passing underneath the bridge, a difficulty usually eliminated by a ground-up shoring solution acting as an anchor to the bridge deck.

RMD Kwikform Sales Engineer Bellphine Campbell commented: "For this project RMD Kwikform specially designed a brand new component to tackle the unavoidable problem of up-lift of the paraslim decking.*The Paraslim Tie Guide Channel is fixed with the Paraslim Bracket cast to prevent the uplift of the platform due to wind. We sold a solution rather than a product as using Paraslim has reduced the cost for the contractor in terms of labour, equipment, traffic diversion & time."

The modified Paraslim shoring has been a success for the project allowing Larsen & Toubro Oman LLC to pursue the project as planned casting the cantilever slab without the need for shoring from the ground, overcoming a major obstacle in the project through an innovative engineering solution.

Mr. James D'Souza – Construction Manager of Larsen & Toubro Oman commented: "The use of Paraslim has been so successful that despite its size the Athabia Flyover development has become a showcase project in Muscat and has generated a lot of interest through Oman and the construction industry.

"Devising a solution that involves keeping a main road open and performing its regular duties while major rehabilitative work is being performed on a bridge overhead is no easy task, and RMD Kwikform was able to provide an efficient and effective means of achieving this goal."

