



OLAYA TRANSFER STATION RIYADH, SAUDI ARABIA

BuroHappold Engineering was appointed as design lead for the \$150m Olaya Transfer Station, one of the three prestigious stations assigned for the new metro system for the Saudi Arabian capital.

The site for Olaya Metro Station is located directly above the intersection of two underground metro lines. It is also situated in the city centre between the two main urban arteries of King Fahad Road and Olaya Street and one block south of King Abdullah Freeway.

Internationally renowned architects Gerber Architekten were our sub-consultant for the project. The design intent was the creation of a highly attractive, visible and recognisable building so that the residents of Riyadh quickly embrace the benefits of the new Riyadh Metro System. The design is a reinterpretation of the Arabian desert landscape; the dramatic facade for the building is reminiscent of the desert rock formations found in the areas surrounding the city.

A key element of the design was the creation of a new accessible public plaza for the station. This new oasis provides an attractive urban public space for the residents of Riyadh.

BuroHappold took the role of lead consultant, coordinating the architecture with the engineering design along with the landscaping/externals and the cost planning. This demonstrates our ability to act for the client in a leadership capacity reducing interfaces for clients.

Our experts defined a construction sequence and groundwater regime which eliminated all tension piles from the inherited reference design, resulting in significant savings on the cost plan.

Using our people flow modelling experience, we were able to reduce internal floor area and ticket gates, saving on overall building costs for the same passenger flow. We were also able to “stress test” the station for the client to show capacity and resilience in future forecast scenarios and also demonstrate equivalence with UK and European operational standards.

The unique design of the station forms a clearly recognisable landmark on Riyadh’s most prestigious strip, which is equally as inspired and impactful as Riyadh’s other building icons, such as the Faisaliah

Tower and Kingdom Tower. BuroHappold led a multi-disciplinary international design team to help realise the client’s ambitious design intent and deliver a complex building in a busy urban environment.

CLIENT

Arriyadh Development Authority

ARCHITECT

Gerber Architekten

PROJECT VALUE

\$150 million

DURATION

2012 to present

SERVICES PROVIDED BY BUROHAPPOLD

Structural engineering, infrastructure and civil engineering, water engineering, geotechnical engineering, building services engineering, fire engineering, facades engineering, acoustic advice, access consultancy, security, waste management & logistics and people movement