

AL QUDRA COMMERCIAL BUILDING DANET-AREA Abu-Dhabi (UAE)

NEW BUILDING

Client: Al Qudra Holding, Abu Dhabi

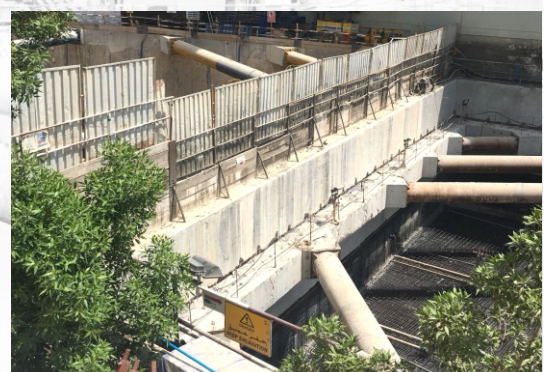
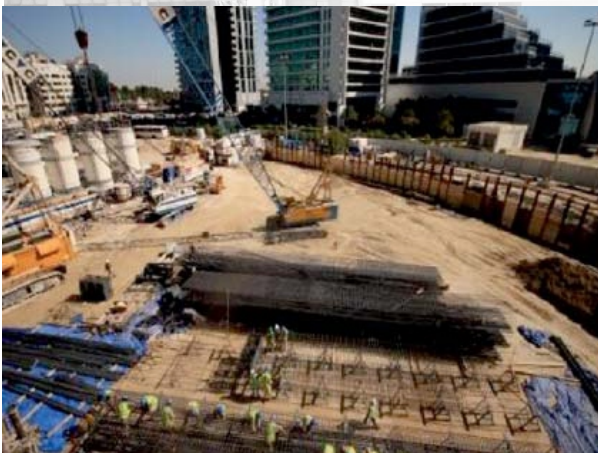
Contractor: Polensky+Zoellner W.L. I, Abu Dhabi

Architects: Al Salam Consulting Engineers, Abu Dhabi

Our services: Optimization of column/wall location to eliminate transfer elements and reduced thickness of transfer slabs
Reduced number of piles to 60 from 220 after value engineering the foundation system
Structural design
Establishing the basis
Preliminary design
Developing static design concept
Schematic design
Final static calculations, itemized drawings

Brief description: New building of a high rise with 22 upper floors and 5 basement floors
- ground level for shops, mezzanine floor for offices, upper floors with 228 apartments, multistorey car-parking
- building height 81 m
- GFA 39025 m²
- walls, columns, beams, stair flights and typical floors constructed as conventional, cast in-situ reinforced concrete
- floor slabs constructed as post-tensioned slabs
- transfer slab (1.4 m thk) at mezzanine and ground floor levels to enable different floor layout between typical floors and ground floor / mezzanine floor and basement
- basement floors constructed as post-tensioned slabs (0.26 m) on reinforced concrete columns and walls
- shear walls in both directions for resisting lateral load
- structure rests on raft foundation, complemented by tension piles below the podium area to resist the water uplift
- raft general thickness is 1.5 m

Completion: 2018 (ongoing)



Pictures / Illustrations: ProfessorPfeiferandPartner PartGmbH, Al Salam Consulting Engineers