

ABU DHABI PLAZA

Nur-Sultan (Astana)

The tallest tower in Central Asia at its completion in 2020, Abu Dhabi Plaza's Main Tower is 382m tall and 78 storeys.

From an original Norman Foster concept, the design encompasses 5 towers across a 45,000m² footprint. Combining hotel, residential, retail and office accommodation in 550,000m², Abu Dhabi Plaza is the epitome of a modern mixed-use development in Central Asia. The apartments atop the main tower provide 360o views across the steppe landscape.

THE CHALLENGES

Taking an inherited design and developing it into an optimised and constructable solution.

The JV took over a partially constructed foundation with multiple flaws and proceeded to strengthen and reconstructed these all the while moving forward with the execution of the project. Working in BIM the JV's design team reviewed all design parameters, redesigned and resolved all coordination issues for 5 towers that sit atop 4 basement carpark levels and 2 shopping levels.

Completely redesigning the 3 main towers as composite structures, we optimised the floor plate designs and incorporated the steelwork tonnage saved into 'erection columns' to rescue cycle times resulting in a 9-month reduction on the initial project programme.

Construction through -50oC temperatures.

Adapting marquee temporary structures as 'heated zones' to allow large scale raft foundations and vertical climbing enclosure structures heated to allow concreting of otherwise exposed floor slabs, both through winter.

The full story of the challenges and lessons learnt on this project can only be told 'face to face'.

EPPIC PARTNERS

As Project Director Bill was responsible for the total management and planning of the design-construct phase of delivery.

Nicos was responsible for all commercial aspects of the procurement and contracting process, including local government liaison.

Matthew was responsible for the re-design multi-disciplinary consultant team who converted the concept design into a solution that focussed on constructability and optimisation.



Client/Developer: **Abu Dhabi Plaza Eurasia**

Architect: **HKR**

Contractor: **Arabtec - CCC JV**

Project Director: **Bill Parker**

Deputy PD & Commercial Director: **Nicos Papandreou**

Technical Director: **Matthew J. Esther**

Contract Form: **Design Construct**

Contract Value: **1.1B USD**