



## JABAL AL KAABA HOTEL MAKKAH, SAUDIA ARABIA

The development parcel for Jabal al Kabba consists of approximately 54,000 square meters of land adjacent to the northeast corner of the Holy Mosque in Makkah.

The project consists of multiple hotel towers with an estimated capacity of 7,000 rooms. There are also a number of other key components to the project including dining areas for pilgrims, prayer facilities within the hotels, business and group meeting areas, restaurants, cafes, shops and of prime importance, the pedestrian connectivity to the Holy Mosque itself.

In addition it was also critical to look at the transportation connections, including bus and coach parking, to ensure the designs operated at peak efficiency.

Our work on Jabal Al Kaaba and a number of other developments in the region suggested that the fundamental drivers for the design were focussed around the "experience" of the pilgrim during Umrah and Hajj.

The major components of this experience are safety, comfort and accessibility during the internal, site-wide movements as well as the movements to and from the Holy Mosque.

Crowd flows as well as transport access were crucial aspects of the design. Ensuring safe, efficient egress and ingress during prayers and emergency conditions.

We provided pedestrian flow advice for the whole site. Our work focused on advising the architects and client on design which would define and enhance the comfort and safety aspects of pilgrim movements.

An understanding of the transportation and evacuation strategy around the site was crucial. Alongside a high level review of the site, key considerations were:

- Movements around Central Makkah;
- Analysis of BRT and Metro movements;
- Interface with adjacent Third Saudi Expansion
- On-site review of bus and car parking;

- Peak scenario identification (morning prayers, end of Ramadan prayers, Mina movements during Hajj)
- Pedestrian flow modelling – on site and routes to the Holy Mosque.

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Crowd flow modelling