

BAIT-UL-MASROOR MOSQUE

Neville Road | Stockleigh | QLD

CLIENT
Ahmadiyya Muslim Association of Australia (AMA)

TEAM
Commercial

© MTA Golden Moments, Ahmadiyya Muslim Association



This intricate project showcases our multi-disciplinary capabilities, with our Brisbane and Sydney teams working closely with the client to accommodate the worship needs for the 500 members of the AMA Community. Occupying an area of approximately 700m² and standing 7m high, the Bait-ul-Masroor Mosque has a capacity for 300 worshippers and comprises a main prayer hall, Mihrab locating the Qibla, male and female amenities, library, kitchen, large entry veranda, lobbies and minaret tower. An important element for our client was the orientation of the Qibla directing worshippers to the direction of the Kaaba in Mecca.

We performed soil testing on the building site including boreholes, DCP's and CBR's to determine the ground conditions prior to commencement of design. The site ground conditions were found to be firm during testing but posed significant difficulties during construction when they became saturated during the heavy rains of January / February 2013.

The structural design of light gauge and hot rolled steel roof trusses to support a fibre reinforced plastic dome was a significant design element for our team. Many aesthetic elements such as decorative inserts and ogee arch openings through the external concrete tilt panels walls had to be taken into account. We also provided structural engineering for bored pier foundations, strip footings, raft slabs, blockwork walls, decorative concrete tilt wall panels and roof steelwork including hot rolled and light gauge steelwork.

Our civil services consisted of external and internal work. External works comprised localised upgrading and widening road works to the Stockleigh / Neville Road intersection including pavement, drainage, signage and line marking. Our internal works comprised the design of the building platform earthworks, carpark earthworks, stormwater drainage, management of stormwater quality and quantity, carpark pavements, line marking and signage. Internal water and sewer reticulation was also provided, along with sizing of gutters, downpipes, stormwater storage tank and the on-site sewer wastewater treatment facility.

We managed an external sub-consultant to provide electrical and mechanical engineering services which included the external power supply, internal power and lighting, air conditioning and mechanical ventilation systems for the site. Careful consideration of the gender segregation requirements of the building was considered in the electrical and mechanical engineering designs.

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