

Al Reem Island Bridge

CLIENT: Meinhardt Ltd

LOCATION: Abu Dhabi

YEAR OF COMPLETION: 2023

Situated between the east side of Abu Dhabi and north-west area of Al Reem Island, the bridge was constructed in the early 2000's to provide access on to the island to facilitate a large masterplan development aiming to accommodate circa 210,000 residents.

The bridge consists of precast concrete beam decks supported on reinforced concrete crossheads, columns, pile caps and piles. The original design was carried out to existing standards at the time of the construction; however, these were found not to comply with Abu Dhabi's current requirements and strengthening was required to bring the bridge up to current design standards.

We were appointed by Meinhardt to assist them with the independent assessment of the bridge and the remedial works to be carried out.

Our scope included establishing a full analysis model of the bridge to check the design against current standards and quantify the strengthening measures undertaken, including CFRP strengthening of the deck spans and increasing the pile cap capacity with a RC strengthening beam.

KEY FACTS:

- Independent assessment
- Remedial and strengthening works
- Precast concrete beams
- Reinforced concrete substructure

