

Mesaimeer Road Upgrade Project

CLIENT: Consolidated Contractors Company

LOCATION: Doha, Qatar

YEAR OF COMPLETION: 2021

As part of a wider scheme to upgrade 4km of existing dual carriageways on Mesaimeer Road, Consolidated Contractors Company (CCC) constructed six bridges for Asghal, totalling 2,700m in length. All bridges were constructed using the balanced cantilever method, with post-tensioned precast segments. The longest spans, where the alignment crosses Salwa Road, are supported by extradosed cables. These are the first cable-supported bridges constructed in Qatar,

We undertook erection engineering for CCC, deriving precambers cast into the segments and predicting deflections at each stage to be used in alignment and geometry control throughout the works. Segment erection used a combination of lifting frames and cranes. Our analysis took into account the method chosen for each cantilever.

We also undertook structural checks at each stage of the construction process, and advised on phasing of temporary works including prestressing bars,

We further provided design services relating to the permanent bearings and shear keys, as well as design and checks for a number of temporary works items.

KEY FACTS:

- Erection engineering
- Precast segmental
- Balanced cantilever
- Extradosed cable-supported

