

Case Study – Caving Complex



Brief Description

Paul Waite Associates were originally approached by Entre-prise to develop a design for a caving complex. This complex utilised the successful sprayed concrete on a pre-bent reinforcement cages. However this complex is much larger than previous and incorporates a tall cave structure to be used for abseiling and a high rope system as well as caving. Various methods were discussed for the main cave complex, including pre cast concrete, but a steel sub frame was finally chosen as a base to accept reinforcement to form the shell. The steel frame was designed and detailed to fit with the organic shape of the completed structure. The complex has a main cave chamber, leading to 3 caving passages that meander and cross over. The passages will also have water pumped through them and terminate in an egress pond, which users will have to dive underwater to exit the tunnels.

Technical Information

Contract: Complete

D&B Client: Entre-Prise (UK) Limited

Role & Challenges

Various methods were discussed for the main cave complex, including pre-cast concrete, but a steel sub frame was finally chosen as a base to accept reinforcement to form the shell. The steel frame was designed and detailed to fit with the organic shape of the completed structure.

When completed the complex gave a main cave chamber, leading to 3 caving passages that meander and cross over. The passages will also have water pumped through them and terminate in an egress pond, which users will have to dive underwater to exit the tunnels.

References:

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