

FULL MARKS FOR RESILIENCE AND EFFICIENCY



LA MARE DE CARTERET SCHOOL GUERNSEY

The new £60m La Mare de Carteret School (LMDC) in Guernsey will replace the existing educational buildings and complete a programme of school redevelopment on the island, while providing excellent new facilities for both the students and wider local community.

The client's primary objective is to replace the tired existing facilities with a new school of the highest quality, to bring LMDC in line with other schools on the island. To meet this objective, BuroHappold Engineering has ensured that our integrated design complies with the 2013 building regulations wherever possible.

As maintenance of systems is problematic on Guernsey, the client wanted the new school to include robust structures and systems that would last. In response, our building services team have designed a hybrid heating system which uses a combination of both air source heat pumps and gas fired heating plant. If one half of the system fails, the other half will be unaffected, ensuring resilience of supply.

We have also striven to provide energy efficient solutions in order to bring the school in line with UK standards, and our facade design incorporates natural ventilation wherever possible. This allows air to pass through the facade, limiting solar gain and overheating, and also creating a pleasant, airy classroom environment.

For our structural design, we have worked in close partnership with engineering specialists on the island to develop solutions that work well for the Guernsey construction industry, and ensure that the project is deliverable and affordable.

The building framing design has been developed in tandem with the service routing, and we have adopted a short span shallow structure in the corridors to allow primary service routing. In addition, the members that run parallel to the corridors have been pushed up into the slab depth to prevent obstruction to the services, creating an elegant, fully integrated system.

CLIENT
The States of Guernsey

ARCHITECT
Design Engine

PROJECT VALUE
£60 million

**SERVICES PROVIDED BY
BUROHAPPOLD**
Building services engineering (MEP),
structural engineering, fire engineering,
acoustic design, transport and mobility