CASE STUDY 13



TRUMPINGTON COMMUNITY COLLEGE, CAMBRIDGE

Product: VELUX Modular Skylights

Architect: Avanti Architects **Contractor:** Morgan Sindall



An inspirational new school, where stimulating space fosters effective learning

Located in the centre of the new Clay Farm urban extension to the south of Cambridge, the new Trumpington Community College was designed and built with strong sustainability in mind, featuring VELUX Modular Skylights.

Aiming for an 'excellent' BREEAM rating, sustainability drove every aspect of the college masterplan, including a transport target for 90% of students to arrive by foot, bicycle or public transport.

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Trumpington opened in September 2016 and is the first new secondary school in Cambridge for 50 years. Providing 750 places and specialising in science, it will meet the needs of this growing area, where 4,000 new homes will be built over the next ten years. Internally, the design is compact yet airy:

- Two L-shaped floor plates overlap around a central heart space
- · Corridors are kept to a minimum
- · A large, open staircase travels up through the three floors
- Cellular teaching spaces are combined with unstructured open plan areas
- Spaces can be adapted for different size groups, enabling individual learning.

There's also a specialist autism centre, and a sports centre with a vast Astro turf area. After hours, the building's facilities are opened up for use by the local community.

Welcoming external façades and spaces

Externally, the wrapped façade reflects the interior overlapping floor plates. A science and outside learning terrace faces south, making the most of fine weather days for teaching and learning in the fresh air.

The 'school square', a new public open space, faces the school and forms an attractive sequence of spaces flowing from the square into the building and out towards the south-facing terrace. The school is mainly clad in anodised aluminium, while the sports building is primarily brick, creating a textured interconnected aesthetic.

VELUX Modular Skylights and sustainable design

Light and fresh air fill the heart of the school thanks to the prolific use of VELUX Modular Skylights. Ventilation is primarily via this central space, where staff can remotely operate the motorised VELUX Modular Skylights whenever needed. Tempered air is also brought in through a buried labyrinth. Double-sided window glazing to classrooms also provide good natural daylight.

The future-proof design includes exposed concrete soffits providing thermal mass for cooling overnight, and cooler embedded pipework allowing activation for adaptation to future climate change. Renewable energy is provided by a ground source heat pump and PVs, and rainwater harvesting is also employed.

The VELUX Modular Skylights promote the energy efficiency of the building and offer a robust life expectancy, helping to deliver on an excellent BREEAM rating.

Work commenced in June 2014 and completed in June 2016.

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