



Cross Section through Central Area



Ventilation Tower and Daylighting

NATURAL VENTILATION AND DAYLIGHTING

Design & Technology Centre, Wymondham, Norfolk

Client:

The Board of Governors

Client Contact: Mr C Richardson,
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The deep plan building is almost wholly naturally ventilated and lit.

Daylight is brought deep into the building by the use of high level windows forming a cruciform shape over the largest classrooms and at first floor level and over the central resource area. These windows are protected from excessive solar gain by deep overhanging eaves. The central resource area is also lit from rooflights on the north facing slopes of the roof.

Natural ventilation is provided by cross-ventilation (corner classrooms & projecting bays), high level opening vents (first floor classrooms) and a ventilation tower placed over the central resource area. This ventilation tower is driven by the combined effect of the warm air rising in the central resource area (stack effect) and the differential air pressure caused by wind blowing over the roof. Control of the ventilation tower is automatic, with a manual over-ride.

Consultants:

Environment: Norfolk Property Services
Natural Ventilation: Monodraught UK Ltd