Case study

Orsett Heath Academy, New Secondary School

A new three-storey Secondary School offering sports and events hall, changing facilities, dining hall, activity studio, staff offices, play areas and pitches, and modern teaching spaces.

The structural design for the building consists of a three-storey steel structure with composite concrete floors. The steel structure is of modular construction and built off-site, then delivered with the majority of fixtures and finishes complete.

The sports hall, main hall, dining hall and activity studio are traditional steelwork construction. To overcome the challenges faced when coordinating the junctions between traditional build and modular framed portions, BIM and clash detection techniques were utilised.

The civil design included producing a drainage design including the application of appropriate SuDS. External works designs were also carried out as part of the scope of works.

Alan Wood & Partners produced design calculations for both modular and traditional build structures, as well as drawings and 3D modelling for the traditional build portion and the foundations. Surface and foul water drainage design and drawing packages were also produced. Designs and drawings were coordinated across all disciplines within the design team with regular meetings and communication within the team.

Alan Wood & Partners

Location:
Essex

Client:
McAvoy Group

Architect:
Stride Treglown

Value:
£21m

Civil Engineering | Structural Engineering | Geotechnical and Geoenvironmental | Modern Methods of Construction (MMC)

Engineer / Manage / Deliver /