

## Case study – DfE

# Belvidere Secondary School, Shrewsbury

New 3–storey Secondary School building.

### 1. Project Context

The project comprised of the construction of a new 900 pupil, 6,265m<sup>2</sup> purpose-built secondary school comprising teaching spaces, sports hall and welfare facilities to replace existing facilities on site as part of the DfE School Replacement Programme (SRP). The chosen building form, an L-shape building, was chosen to suit the specific site constraints. Alan Wood & Partners (AWP) provided C&S Engineering support with a scope including substructure, drainage and externals works design.

### 2. Design Objectives

The project aims to deliver a new and modern facility to replace an existing, unsuitable facility. The superstructure was provided using an off-site construction method, designed by the supplier in accordance with CF21 guidance.

### 3. Evidence of Compliance

Working with the project design team, DfE representatives, school personnel and the local authorities, AWP have helped ensure the school is suitable to meet the needs of its students and the new development meets the DfE standards. The development priorities sustainable Civil Engineering methods including the use of permeable paving, swales and French drains with a focus on promoting biodiversity.



Location:  
Shrewsbury



Client:  
Bowmer & Kirkland Ltd.



Architect:  
Stride Treglown



Value:  
£16m



Civil  
Engineering

Structural  
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Geotechnical and  
Geoenvironmental

Modern Methods  
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Engineer/  
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## 4. Innovation & Best Practice

The superstructure was provided using off-site construction methodologies developed specifically for the CF21 framework requirements. The substructure was designed to incorporate these details where required and to suit the site-specific conditions.

The drainage elements were designed taking consideration of the local authority hierarchy for design as well as the specific DfE standards and requirements.

All design was undertaken in accordance with the relevant codes, standards and best practise guidance.

## 5. Stakeholder Engagement

As part of the design process, Alan Wood & Partners produced 3D models, detailed drawings and design calculations for the various design stages including Draft CP, CP, Construction and H&S. In addition to this, AWP engaged with DfE representatives and other stakeholders during the process to ensure each design stage was successfully sign-off.

## 6. Visual & Technical Evidence

AWP provided technical drawings, 3D revit models and design calculations for substructure, below ground drainage and external works.

## 7. Outcomes & Impact

The new build school provides a comfortable, safe working environment for current and future generations ensuring they have a place to prosper.



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