

Case study

National Centre of Food Excellence

The National Centre of Excellence for Food Engineering in Sheffield, near the Olympic Legacy Park, is a research-led facility focused on advancing food production engineering.

The key design challenges and solutions include:

Ground Conditions: Issues such as former basements and shallow coal workings required grouting and the installation of a reinforced raft foundation with tied-in pads and ground beams to support the high load and flexibility demands.

Structural Constraints: The need for extensive M&E services, including significant plant space and clear service zones, led to the adoption of a slimflor flooring system with deep decking supported by asymmetric beams. This minimized the structural zone to balancing load capacity and planning height restrictions. 500mm.

Drainage System: The facility's diverse effluent requirements necessitated a separate foul storage tank and shut-off penstock, specialised internal drainage system allowed for controlled disposal and preventing contamination of the adopted drainage system.

Alan Wood & Partners were responsible for the **structural design** of the frame and foundations, including masonry detailing, metal deck floor layout, and drainage solutions as part of their deliverables.



Location:
Sheffield



Client:
Sheffield Hallam
University



Architect:
Arctica



Value:
£5.7m



Civil
Engineering

Structural
Engineering

Engineer /
Manage /
Deliver /