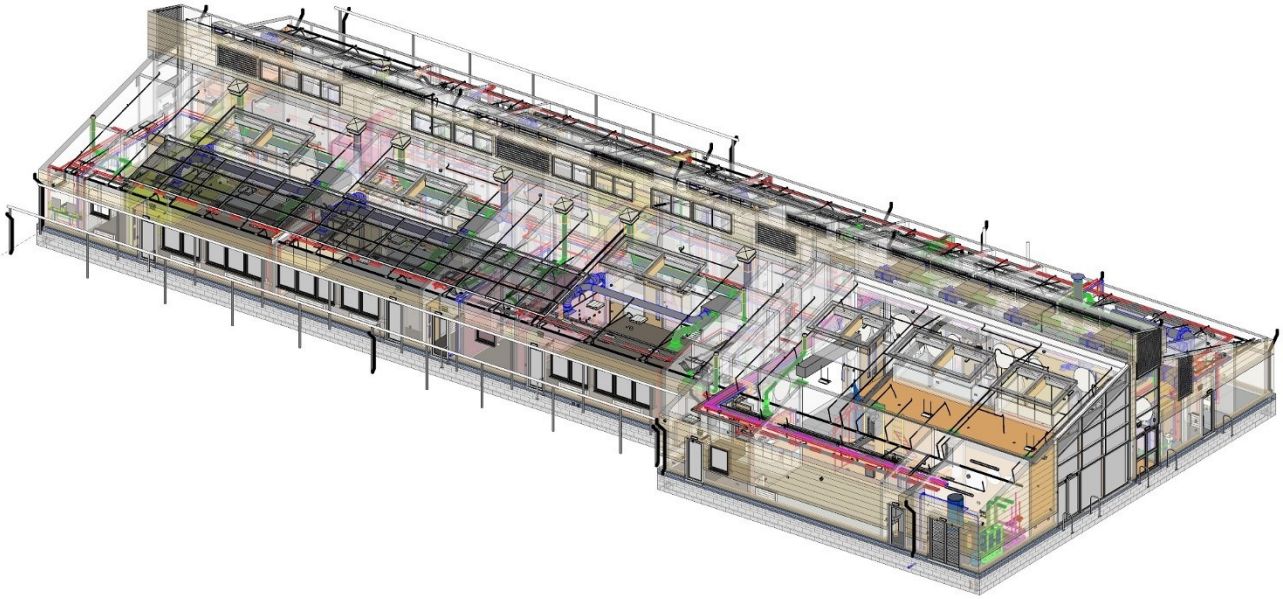


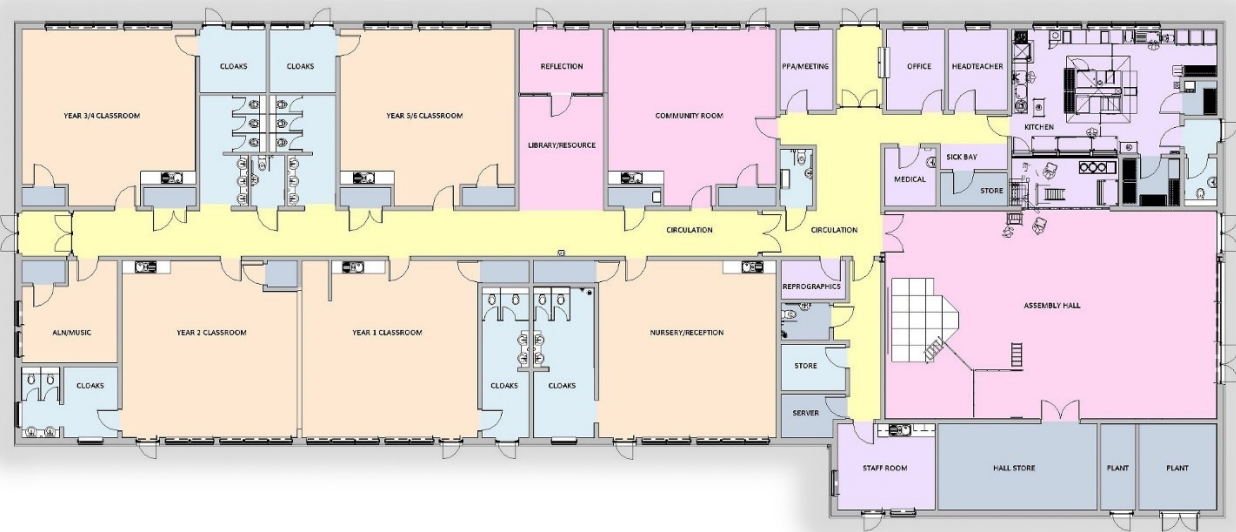
CASE STUDY: EDUCATION  
YSGOL LLANFAIR DYFFRYN CLWYD





**Above^** The project is BIM Level 2, with key principles and digital technologies used to produce structured 2d and 3d information, which the project end-user can refer to when managing the site. The production of a federated model has increased efficiency on site, sped up construction times and reduced waste.





## Sustainability and design

Design strategies have been taken to maximise sustainability and include:

- photo voltaic solar panels, which will be placed on south facing roof slopes to supplement energy provided via the national grid.
- natural ventilation, increased with lower level windows that open and louvres at higher level.
- relatively shallow room design, which encourages daylighting from windows and additional rooflights.
- water saving devices on all taps and WCs, strategy developed to comply with policy.
- surface water runoff produced by the development, which will discharge into Sustainable Drainage systems - either through soakaways, attenuation tanks or the use of permeable surfaces.
- Land drains, incorporated into the dedicated football pitch area, will help to control the surface water run off on site.

## Modern methods of construction

Structurally Insulated Panels (SIPs) were selected for use on Ysgol Llanfair DC by the main contractor. SIPs offer several advantages over traditional construction methods and AG|A worked closely with the manufacturer to ensure the system was detailed and specified correctly.

The main benefit to the client was the speed that the panels could be installed. This, coupled with the quality benefits associated with off-site construction, make SIPs a viable solution for schemes with tight programmes or restricted sites.

All clash-detection and multi-disciplinary coordination was completed in 3D such that the penetrations for rooflights, ducts, services and louvres were all manufactured in the factory.

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# CASE STUDY: EDUCATION

## YSGOL LLANFAIR DYFFRYN CLWYD

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### Name of Building

Ysgol Llanfair Dyffryn Clwyd

### Date

On Site June 2018

### Project Cost

£4m

### Building Type

Education - Primary

### Location

Llanfair Dyffryn Clwyd, Ruthin

### Client

Denbighshire County Council (in partnership with Church in Wales)

### Building Overview

Ysgol Llanfair Dyffryn Clwyd is a nursery, infant and junior school in the Vale of Clwyd, with approximately 92 full time pupils on roll.

To meet necessary educational requirements, permission has been given for this brand new school to be built on a new site within the village. Situated approximately 150 metres to the south west of the village centre, the new building will ensure the needs of current pupils can be met whilst providing increased capacity for up to 126 full time and 18 part time pupils within the village location.

Ainsley Gommon Architects worked closely with Wynne Construction and Denbighshire County Council on the technical design and construction stages for this Design and Build contract.

The designated site is currently pasture, with a gentle slope to the north and west, rising more steeply to the east. The design allows for a new vehicular entrance onto the site, a new bus lay-by, improved pedestrian and cycle links and drop-off zones for student safety.

The school design focuses on a central corridor with teaching, resource and community facility spaces of either side. Covered areas outside provide additional external day to day teaching options. The assembly hall / canteen space and community room are located close to the entrance to allow out of hours access whilst the rest of the school can be left secure.

Playing field and games court areas provide additional amenity space for pupils, with landscape provisions of planting beds, trees and seating areas emphasising a fluid transition between external and internal areas.

