



# Ysgol Pen Barras and Rhos Street School



## PROJECT SUMMARY

**As part of the school's development programme there was a radical plan to relocate 2 primary schools into one single site. As part of this relocation, the priority for both the County Council and the Welsh Government was to have the new schools built utilising BIM level 2.**

Incorporating a primary steel frame and the use of advanced structural timber technology meant an innovative approach to the design and construction method could be adopted. This complex hybrid project took advantage of the sustainability and performance efficiency that our BBA Accredited i-SIP full structure provides. Through effective collaboration with Wynne Construction and architects Lovelock Mitchell, a completed construction design meant that the client's performance specifications were agreed 9 months prior to the start date.

Using Innovare's expertise in offsite technology, combined with BIM level 2 design, ensured that performance efficiency was at the heart of every aspect of the project.

## DESIGN DEVELOPMENT PARTNERSHIP TO INCREASE EFFICIENCY:

- Using scaffoldless erection and a lean installation team enabled construction to be completed by just 2 three-man teams and 2 cranes on site.
- Cold bridging and low air permeability figures assisted to a final U-value of 0.15w/m2k and an airtight, thermally efficient building envelope across the entire structure.
- Over 10,000m2 of i-SIP components including internal and external walls and roof cassettes were erected in only 13 weeks – 55% faster than a traditional build to handover of a watertight structure.
- Using i-SIP technology will reduce on-going operational and maintenance costs across the lifecycle of the building.

## UNCOMPROMISING QUALITY

Speed did not compromise quality or creativity, with the school achieving the BREEAM Excellent standard. In addition, the project achieved 'Best SIPS Project' at the Structural Timber Awards 2018.

Project	Ysgol Pen Barras and Rhos Street School, Glasdir
Client	Denbighshire County Council
Contractor	Wynne Construction
Architect	Lovelock Mitchell Architects
Value	£10.5m
Location	Ruthin
GIFA	GIFA 4,000m <sup>2</sup>



**Tom Rhodes, Architect – Lovelock Mitchell, said:**

*"This was the first time Lovelock Mitchell has worked with Innovare, we were very pleased with how the SIP solution was able to fully realise our design without compromise. We were impressed with how effectively they were able to seamlessly integrate into the BIM Level 2 environment. The next project with them is already underway."*



**Andy Garner, Design Manager - Wynne Construction, said:**

*"Innovare demonstrated their knowledge of the BIM level 2 process and provided full model capability through the IFC format. This allowed key design integration between all parties ensuring a full collaborative process, model co-ordination, leading to a clash free federated BIM model prior to commencement on site."*