

University Campus Suffolk (UCS) a joint initiative between the University of East Anglia and the University of Essex, which aims to improve accessibility to tertiary education within Suffolk by the creation of a new 'Education Quarter' in the centre of Ipswich and includes the relocation of the existing FE college. Phase one of the Ipswich Hub provides the UCS with a high quality landmark building on the waterfront.

Location	Ipswich, Suffolk
Year of completion	2008
Use of structure	University Building
Project Cost	£20million
Project Size	10,500 sq. m

Owner	University Campus Suffolk
Architect	RMJM
Consultants	Faber Maunsell
Main Contractor	Wilmott Dixon Limited
Frame Contractor	Whelan & Grant Limited.



### PROJECT DESCRIPTION

The Stage D structural design proposed 'BubbleDeck' for the horizontal structure, including the inclined roof structure. However this solution was quickly excluded by the construction teams at tender stage on account of the extended construction programme and increased cost. Post tensioned slabs were adopted as the preferred cost effective solution.

A concrete structure was adopted, however the inclined roof posed a particular challenge. The roof of the UCS Ipswich development inclines at 20° and traditional practice in UK has been to construct these roofs using structural steel frames and lightweight roofing materials. However, the provision of exposed thermal mass was a major consideration which would be more effectively solved by using concrete rather than steel. Exposing the soffit of the concrete slabs allowed the thermal mass of the structure to be used more effectively and also removed the need for additional finishing materials.

This project is also an excellent example to demonstrate the use of post-tensioned slabs to achieve the desired thermal mass affect. Hence post-tensioning solution was able to help project achieve "Excellent" BREEAM rating which places UCS Ipswich amongst only very few institutions in UK being able to boast of such a sustainable building.

PT Contractor	STRONGFORCE	
PT System	Bonded Flat Duct 3-4-5 MonoStrand system (15.7mm)	
PT tonnage	56 Metric Tonnes	
Project Duration for PT works	30 weeks	
Awards		
First Runner-up at 2008 Post-Tensioning Association awards		

