



## Structural – West Thames College



### Project details:

The college building is a 5 storey, reinforced concrete frame structure and includes fair faced concrete walls and columns. Due to the nature of the underlain bearing strata, and the use of lightweight concrete, the design team were able to adopt pad foundations, avoiding piling. Despite the additional cost in using lightweight concrete the savings made from avoiding piling and reducing reinforcement, typically 13%, more than offset this cost.

The lightweight concrete was produced using Lytag<sup>®</sup> lightweight aggregate giving a weight reduction of around 25%. By adopting this approach, coupled with the used of cement replacements, GGBS in this instance, also improved the environmental credentials of the building. By doing away with the piles and caps saves around 4% of the carbon footprint of a building.

### Project:

Isleworth Campus, West Thames College, London

### Date:

2009

### Client:

West Thames College

### Architect:

MacKenzie Wheeler

### Structural Engineer:

AECOM

### Main Contractor:

Osbourne plc

### Readymix supplier:

London Concrete

