

## Kirklees College

### About the project...

Relocation of Existing College Campus to the Landmark Waterfront Quarter Site, Huddersfield.

WML were commissioned in 2008 as Structural Engineering Consultant by Kirklees College (subsequently novated to the contractor Allenbuild) for this new build project on the landmark waterfront quarter site in Huddersfield.

The newly build college provides a 21st Century 'state of the art' learning facility in the centre of Huddersfield.

Project Value - £55m  
Client - Kirklees College  
Contractor - Allenbuild  
Duration - 2008 to September 2013

The facility provides a focused centre of excellence for the recent merger between Huddersfield and Dewsbury Technical Colleges.



### Stage of the project...

The College opened September 2013 and comprises three new interconnected buildings. A feature component of the building is the glass fronted 'street' which is framed by feature quality steelwork supported by the main concrete frame.

The frames are of in-situ reinforced concrete construction which in part extends to 9 stories with 300mm deep flat slabs to all floors and roofs. Stability is achieved by insitu RC Core walls which are constructed on site by slip forming construction techniques.

### WML role...

WML were originally appointed in 2006 as part of a design team to progress the development of a replacement for the existing dilapidated college facility. The original proposal comprised a part new build and part refurbishment scheme on the original existing Huddersfield Campus site. This design was developed to RIBA Stage C.



Following a review by the Learning Skills Council, the refurbishment scheme was abandoned and the team was commissioned to carry out a feasibility/options appraisal study of alternative development sites within the central Huddersfield area.

WML took a proactive role in this option appraisal, working closely with the team and in particular the cost consultant to advise on the structural implications and identify cost abnormalities of the various sites.

### Services provided...

WML were responsible for the following:

- Full Civil and Structural Services for Design and Site Monitoring for the duration of the contract (24 months). All elements of building structure
- Coordination of specialist retaining wall strengthening to provide support to existing high level ring road
- Coordination of specialist reinforced earth retaining wall to provide support to the new high level access road
- Roads and car parks
- Complex Drainage Scheme

### Key Issues...

Novated Design and Build Contract

- **Difficult Site Topography**  
Site steeply sloping in nature, several significant and high retaining walls on the site presented defining borders to the college footprint.



- **Boundary Stabilisation**  
Stabilizing the site boundary on this complex site was carried out as an enabling works package and any delays to this critical element of the work would have had a significant impact on the main contract.

Complex Drainage incorporating surface water attenuation and discharged to both canal outfall and to the public sewer. The foul drainage is a gravity system draining to a holding tank, from where waste water is pumped to discharge into the public sewer.

- **Japanese Knotweed**  
Encountered, during the early stages, the existing site was identified as being contaminated with Japanese Knotweed. WML attended site and worked closely with the Contractor to agree a quick and cost effective remedial solution, which avoided undermining Manchester Road
- **BREEAM**  
When completed the new facility is expected to achieve BREEAM Rating of 'Excellent' for its low Environmental Impact.

