



August 2012 Contractor appointed October 2012 Final business case approval May 2013 GMP agreed June 2013 Start on site **December 2016**Completion

# **Key Points**

- UK CCS overall Most Considerate Site 2017.
- The building is also provided with bio-mass boilers as well as a Combined Heat & Power (CHP) plant.
- The BREEAM assessment for the project is "Excellent."
- ANNUAL CO<sub>2</sub> EMISSIONS 97.14kg/m.
- LED low energy lighting throughout.
- Maximised daylight to minimise use of artificial light.

# A Major landmark in the redevelopment of the Ulster Hospital

The new 30,000m<sup>2</sup> Inpatient Ward Block (IWB) is the first phase of the extensive £261m Phase B Redevelopment Programme at the Ulster Hospital. The seven storey ward block provides 12 inpatient wards comprising 288 single rooms with en-suite bathrooms







The accommodation provides a new Day Surgery, (four operating theatres, one of which is ultra-clean), a three procedure room Endoscopy department, Angiography department, Cardiac Investigation Unit, Robotic Pharmacy department and a Public Café.

The large full height windows and the transparency through the depth of the plan ensure that all departments feel strongly connected to nature, breaking with the inward-looking, institutional feel that still dominates many hospitals.

Internally, careful consideration has been given to the choice of materials and colours to create different identities for each department. This assists with orientation and provides a therapeutic environment for patients, visitors and staff.

### **Client Engagement was Key**

Early engagement with the Client team allowed a full scale mock-up to be constructed and tested within a purpose built temporary building, to allow the end users to complete all the necessary tests and inspections prior to sign-off and approval.

GRAHAM worked very closely with the client to successfully deal with any design changes that occurred throughout the project that increased the contract value, to ensure that Value Engineering measures were targeted and the Project was successfully delivered within budget.

The healthcare environment provided a number of unique challenges that GRAHAM had to take into account.

- Work had to be carefully co-ordinated and conducted without impacting ongoing acute services and access for the public and blue-light routes.
- There was a particular focus on vibration analysis so as not to interfere with sensitive imaging and scanning equipment, operations, or patient care.
- Detailed planning and sequential implementation was therefore critical, as well as close consultation with the client and construction partners.

#### **Innovation**

GRAHAM researched and proposed an alternative specification compliant theatre wall system. We undertook a detailed review with the Trust to provide assurance that the proposed system would meet requirements and be HTM and HBN compliant. This included a visit to the manufacturing facility in Germany and to a local hospital to inspect the theatre system in use. Following the visit, the system was adopted and resulted in a £1m saving to the Trust with no loss of quality or compliance.

All bedrooms have been provided with innovative 'out of bed' sensors and lighting that link to the local nurse station to alert the staff if someone has got out of bed.

The Pharmacy department was inefficient in terms of space, stock control and high staffing costs. GRAHAM worked with supply chain member Rowa and proposed a prefabricated automated storage and dispensing system, significantly reducing the space required and automatically ordering new stock. The system can also dispense medicine throughout the hospital using a Pneumatic Tube Transport System, negating the need for porters to deliver medicine.

## Facts and figures

- Project name
   Inpatient Ward Block
- Location
   Ulster Hospital, Belfast
- NHS Client
   South Eastern Health & Social Trust
- Principal Supply Chain Partner
   GRAHAM Construction
- Contract value £85,000,000
- Building size 30.000 m<sup>2</sup>
- Start on site
  June 2013
- **Completion**December 2016

"This complex building project has been managed extremely well by the Graham Construction team. Construction has been completed to the highest standards and managed effectively without any disruption to hospital services. Excellent communications with the Trust have been maintained throughout the project."

Maureen Toner, Senior Project Manager (Strategic and Capital Development)

"This hospital is a state-of-theart facility which can deliver the very highest health care and it is going to serve us for the next 50 years and beyond."

Seamus McGorran, Director of hospital services (South Eastern Trust)