

Up on the roof

A roof top extension at Southampton General Hospital scooped the Best Health Building prize at the LABC South East Building Excellence Awards. Neil Ferris, Building Control Manager for Southampton and Eastleigh Building Control Partnership, discusses the project and his department's role in the design team



The Southampton General Hospital North Wing roof top extension to the paediatric theatres was managed and built by BAM Construction for the Southampton University Hospital Trust - and this award endorses the high quality project team approach adopted by all those involved in the scheme.

BAM Construction led the project team under a P21 contract. Architectural design was provided by Studio Four Architects; structural engineering services were provided by Capita Bobrowski; mechanical and electrical services were provided by Henderson Green while the Estates and Capital Development department of Southampton Universities Hospital NHS Trust provided design advice from the user perspective. Meanwhile, the building control consultancy service was provided by Southampton & Eastleigh Building Control Partnership.

All parties involved in the project have extensive knowledge of the existing building having worked

together on previous schemes, adding value and helping to reduce the risks associated with the provision of new operating theatres and recovery space to the roof top of an existing fully functional hospital.

In 2007 the client issued a brief that outlined requirements regarding new paediatric operating theatres and recovery facilities to meet the growing demands on the hospital. These facilities had to be close to the existing theatres and had to be operational by the beginning of 2009.

One location met the brief - on top of the existing three-storey north wing building. Directly below this location was the cardiac intensive care unit which would remain fully functional throughout the project.

The design had to move at speed to meet the delivery programme. Therefore, the project was split into shell and fit out stages allowing the design and procurement process to be developed independently, albeit at the same time. Extensive consultation was undertaken

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with the end users throughout this design period. Building control worked proactively through the project in helping to develop the scheme, providing regular feedback and suggestions on achieving compliance.

The existing building was built with provision for upward extension. Existing in situ reinforced concrete columns were exposed above the existing roof level to allow vertical continuation of these main structural elements. New composite in situ concrete floors were cast and the existing curtain walling was extended around the shell of the building.

All materials and plant for the project had to be craned up to the roof area necessitating detailed co-ordination with the Trust regarding vehicle and pedestrian diversions.

The fit out had its own logistical challenges as the adjacent live existing plant room had to be extended and reconfigured.

A critical feature of the project was the introduction of a hospital street to match that provided in the recently





◀ completed adjacent building. Carefully located compartment doors and dry riser landing valves were agreed at an early stage ensuring that the building met the requirements of the Building Regulations, and particularly the Hospital Fire Design Code HTM 05:02.

In terms of sustainability, the consequential improvement requirements of ADL2 applied to the scheme. A programme of linked energy reduction measures was agreed with the Trust in order to ensure compliance. This included improvements to fabric

insulation, new meter reading arrangements and improvements to lighting systems, all contributing to meet an overall carbon management programme.

The internal fit out work was completed to a very high standard. The users viewed the fit out works regularly during the construction period, giving feedback to the project team in order for adjustments to be made prior to occupation. Building control carried out regular routine inspections of the work helping to ensure work was

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completed on time and that systems and services were fully functional at handover.

The project was completed in December 2008 after extensive commissioning was carried out.

Paediatric theatres, the recovery suite and support areas became fully operational in February 2009.