



# DELIVERING ESD EXCELLENCE

Baulderstone receives ESD Award for Flinders Medical Centre Redevelopment

**MAIN CONSTRUCTION COMPANY :** Baulderstone  
**CLIENT :** SA Health/Southern Adelaide Local Health Network/Flinders Medical Centre  
**PROJECT MANAGER :** Department of Planning, Transport and Infrastructure  
**PROJECT END VALUE :** \$162 Million  
**COMPLETION :** September 2012  
**ARCHITECTS :** Woodhead  
**SERVICES ENGINEER :** Aecom  
**STRUCTURAL ENGINEERING :** Aurecon

Baulderstone has established a first in the construction of healthcare facilities in Australia with the award of the nation's first 5 star Green Star "As Built" rating signifying "Australian Excellence" for key elements of the \$162m Flinders Medical Centre redevelopment in Adelaide's southern suburbs. The four-stage redevelopment at the Flinders Medical Centre (FMC) has introduced new benchmarks in design, construction and the delivery of health care in Australia. It will transform the patient experience at FMC and will also generate real savings in annual operating costs across the hospital precinct.

The award for Baulderstone's construction of the FMC redevelopment follows the award of a 5 star Green Star Design Rating to the hospital's planning and engineering team last year. This team included representatives of AECOM, Woodhead, Aurecon and Rider Levett Bucknall. The construction award is conferred by the Green Building Council of Australia (GBCA) with 5 stars recognising "Australian Excellence" according to environmentally sustainable design (ESD) principles.

Government of South Australia agencies including SA Health Asset Services, Southern

Adelaide Local Health Network and the Department of Planning, Transport and Infrastructure's Building Management team played key roles through the life of the FMC redevelopment. The peak workforce for the project saw over 150 people working on site.

Sustainable features across the project include the largest solar hot water system in South Australia (with 286 solar panels) which will provide hot water across the entire hospital precinct. The solar panels will also cut energy consumption and annual energy costs by \$400,000, as well as reducing carbon dioxide emissions by 70%, or by around 380 tonnes - the equivalent of taking 1400 cars off the road permanently.

Water saving initiatives have been achieved using new water efficient coolers and a system for harvesting rainwater and grey water for reuse. This will cut annual water consumption by more than 60 million litres each year. The installation of Australia's largest energy-efficient centralised air conditioning system will result in improved indoor air quality with a low energy solution.

"Baulderstone is proud of its record when it comes to buildings with excellent ESD credentials," said Baulderstone General Manager

Michael Harper. "The award not only recognises the outstanding ESD of the design team working on the project but also the ability of a company such as Baulderstone to deliver the project realise these design features in the built form."

The construction program at the FMC redevelopment commenced with a five month planning process involving Baulderstone, the client and subcontractors. Construction commenced in late 2007 and the centrepiece of the redevelopment is the construction of a new South Wing building. This three-storey building is linked to the main FMC complex and includes a Birthing and Assessment Suite and Maternity and Gynaecology Ward

Services previously offered in the main FMC building were moved into the new South Wing to create room in the main hospital in order to accommodate ten new state-of-the-art operating theatres (plus capacity for 2 additional future theatres), Day of Surgery Unit, Intensive Critical Care Unit, the establishment of an Acute Medical Unit and a new Cardiac Care Unit. Increasing demand on emergency services led to the expansion and redevelopment of the Emergency Department, including an additional 21 treatment cubicles.

**Image** The four-stage redevelopment at the Flinders Medical Centre (FMC) has introduced new benchmarks in design and construction.

The project team faced significant challenges with construction taking place in and around a hospital operating at full tilt night and day.

"Heavy demolition work was required alongside the still fully functioning old operating theatres," said Baulderstone Project Manager Angus Ferguson. "This was a formidable challenge not only for the project team but also for the medical staff and patients across the redevelopment zones."

Other challenges included demolishing a large concrete slab in an area close to existing operating theatres and ensuring it could be moved out of the demolition zone with minimum noise. FMC management instituted a noise policy which enabled the Baulderstone team and subcontractors to work on site during designated hours that fell outside operations on patients.

Safety was the paramount consideration with every decision made by the Baulderstone team. The success of this approach was underscored by the project team recording 1323 days Lost Time Injury (LTI) free during construction.

Mr Harper paid tribute to the team of Baulderstone employees, project builders, subcontractor partners and the FMC staff. "The achievement at Flinders Medical Centre underscores the power of our "Safety Matters" campaign and just how influential it is on the

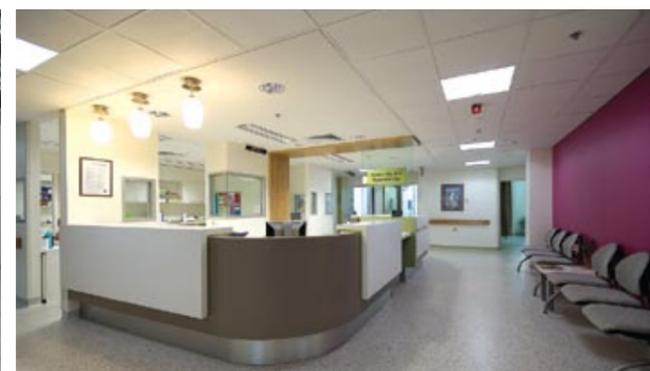
work practices of every individual across every one of our sites in South Australia," he said.

Baulderstone was founded in Adelaide in 1946 and the Company's story is inextricably linked to the development of Adelaide. An arm of Lend Lease Corporation, Baulderstone has a long-standing history with contractors and suppliers across the State and is fundamentally connected to how South Australians live, work and play.

Baulderstone is currently delivering a number of other projects in South Australia including the expansion of the Adelaide Convention Centre, the Illumin8 Building at Adelaide University, the Adelaide Oval Redevelopment, the Southern Expressway Duplication and the Sustainable Industries Education Centre as part of the Tonsley Park Redevelopment. Each of these projects will have a transformative effect on the South Australian community.

Baulderstone joined the Lend Lease Group in 2011. It is a business unit of Lend Lease's Australian construction business whose capabilities focus on engineering, infrastructure construction, building and infrastructure services.

**For more information contact Baulderstone South Australia** Level 14, 431 King William Street, Adelaide SA 5000, phone 08 8202 8888, fax 08 8202 8999, website [www.baulderstone.com.au](http://www.baulderstone.com.au)



**Below** MedMech used their expertise install medical gas reticulation pipework and associated equipment at the Flinders Medical Centre.  
**From left to right** Aaron Feeney, Graham Hemsley, Bill Feeney (Director)

## ESTABLISHING THE FLINDERS MEDICAL CENTRE LIFELINE



Every day, thousands of lives depend on the proper operation of medical gas systems. Medical gas installation is one of the most vital processes at all hospitals and health clinics and a hospital's medical gas system can literally be a patient's lifeline.

Over a four year timeframe MedMech used their expertise install medical gas reticulation pipework and associated equipment at the Flinders Medical Centre (FMC). MedMech used six members of their highly skilled team to install gas pipes from the plant room to the new South wing and medical gas headers for oxygen, medical air, nitrous oxide and suction, reticulated to new risers for future medical gas upgrades. MedMech also were responsible for the upgrade of the Emergency Department, Radiology Department and Operating Theatres.

"The continuous operation of the hospital during construction and installation presented some unique challenges. Close collaboration with Baulderstone, Secon Consulting Engineers and FMC personnel ensured that we could streamline procedures so that we could connect new medical gas systems whilst the existing gas systems were in use through all phases of the upgrade. Downtime through shutdowns was minimised through consultation and co-ordination. The team approach really improved every aspect of this project and ensured that the project ran smoothly" said Managing Director Bill Feeney.

Current projects that MedMech Solutions is working on include three major laboratory gas projects at the University of Adelaide and University of South Australia and the new South Wing Radiology and Theatres

at the Lyell McEwen Hospital MedMech Solutions Pty Ltd specialises in design, installation, maintenance and repair work of medical and laboratory gas reticulation systems and installation of operating theatre, high dependency, coronary care and intensive care products. MedMech carry out installation of mechanical services pipe work for heating and chilled water systems and installation of refrigeration pipework. MedMech is dedicated to providing clients with the highest quality of service and is committed to excellence in safety, health and environmental management.

**For more information contact MedMech Solutions Pty Ltd**, U6/25 Research Road Pooraka SA 5095, phone 08 8262 4873, fax 08 8262 4794, email MedMech@bigpond.com, website www.MedMech.com.au

## ITALIA TILING GETS CLEAN BILL OF HEALTH

**Below** Italia Tiling waterproofed, screed and tiled complete areas in the new South Wing Building of the Flinders Medical Centre.

Italia Tiling was engaged by Baulderstone the builders, to provide the complete supply and fixing of tiles at the Flinders Medical Centre hospital redevelopment project in Adelaide which was designed by Woodhead Architects.

"We are committed to achieving the highest standard of workmanship. Our tiling work is both functional and durable, to meet the ever increasing demands on hospitals" said spokesman, Rajan Cherian.

Staged at intervals over a three year time frame, using excellent project management skills, Italia Tiling had the expertise and resources to waterproof, screed and tiled complete areas in the new South Wing Building. These areas including Emergency Department, Critical Care Unit and Birthing suites, all while the main hospital remained operational.

Italia Tiling has worked on a number of significant hospital projects and can demonstrate a wealth of experience suited to servicing the tiling requirements of the health sector. Their successful portfolio of completed contracts and reputable history within the building trade has allowed them the opportunity to work with some of Australia's largest construction contractors.

The well-established tiling company was also the tiling contractor for the redevelopment of the Lyell McEwin Hospital, Queen Elizabeth Hospital and Flinders Centre for Innovation in Cancer. "All of the projects required careful planning and execution to achieve the standards set by the Health Industry". Italia Tiling also has completed tiling contracts on 100 bed Nursing Home Residential facilities and several apartment complexes. The personnel in Italia Tiling have over ten years industry experience specialising in providing tiling services to

the commercial sector and have recently taken over the company. Italia Tiling has the commitment and expertise to deliver superior quality finishes to large and small commercial and residential projects around the Adelaide region. They have a qualified, dedicated team of tilers and supervisors who are attentive to detail and all installations are carried out to the highest level of Australian standards.

Italia Tiling offer a wide range of services including ceramic and porcelain tiling, glass mosaic tiling, granite, marble, sandstone and limestone tiling and installation of stone kitchen bench tops.

**For more information contact Italia Tiling Services Pty Ltd**, 73 Grange Road Welland SA 5007, phone 08 7200 2213, email rajan@italiatiling.com.au

