



LOWY CANCER RESEARCH CENTRE



PROJECT MANAGEMENT / D & C : Bovis Lend Lease
CLIENT : UNSW
AREA : Sydney, NSW
PROJECT END VALUE \$ 100 Million
ARCHITECTS (CONCEPT + DOCUMENTING) : Lahznimmo Architects
ARCHITECTS (LABORATORY + LANDSCAPE) : Wilson Architects
STRUCTURAL ENGINEER : Taylor Thompson Whitting Pty Ltd
CIVIL SUBCONTRACTOR : Theos Bros

BUILDING A BEAUTIFUL

ANTI-CANCER BATTLEGROUND

A vital purpose like that served by the Lowy Cancer Research Centre for the University of New South Wales needs a building which inspires and reflects visionary ideals. Enter Bovis Lend Lease, who constructed the cutting-edge design by Lahznimmo Architects and Wilson Architects, incorporating both Green Star principles and the specialist needs of a medical research facility.

Both the Faculty of Medicine and the Children's Cancer Institute Australia will be using the Lowy Cancer Research Centre, the first time in Australia that both adult and childhood cancer research will be conducted in the same place.

As well as laboratories over four floors, administrative and dry research space, breakout and meeting spaces, staff common room and two basement levels of specialist plant and equipment, the Lowy Cancer Research Centre features a central atrium flooding the interior with natural light, and externally, embraces the Michael Birt Gardens, an important teaching resource and green space on the University campus.

"The building was designed to meet the existing Wallace Wurth building and wraps around an existing tree," explained Bovis Lend Lease Head of Design and Project Management, Jo Campbell. "In the post construction landscaping installation, we are going to where possible replace all the original plants from the Michael Birt Gardens, which are in and around the courtyard and will also form an underplanting of the building itself.

"The first stage of works was clearing and excavation. An ancient volcano had shattered rock around the area, and the site was a quarry which had been backfilled with refuse. We identified five environmental hotspots that required decontamination. When we excavated, there were groundwater issues due to the high water table in the area, so we ended up jet grouting the base at 3metre to 1metre centres."

The perimeter was fully piled and temporary whalers for the two basement levels were installed, once built, the structure provides support for the excavation. The structure is a post-tensioned concrete structure, leading edge protection was used, in the form of nets and handrails to prevent falls.

Other safety initiatives included trialling a portable access stair system by Combisafe, and also a new Plastic Reinforced shade cloth from Unispan, which is fixed to the inside of the scaffold, in lieu of the traditional chain wire mesh fixed externally.

It is a very interesting façade, a combination of precast, curtain wall and apolic façade with fixed sun shading. The precast was complicated to install, the pop-out on the Northern elevation used a purpose built gantry to lift underslung pre-cast panels into place. There are special touches throughout the building, such as the quartz carpet in the lobby on most floors. This is a homogenous pour of quartz chips in epoxy which is non-slip, easy-clean and extremely durable.

A Green Star rating for Design under the education tool has been sought, and all the interior solutions were driven by Green Star goals, such as low-VOC finishes, epoxies, and adhesives throughout.

There is a plant room on every floor for each lab and office area, this was chosen so the plant and equipment works most efficiently.

There has been a grouping of all noisy heat-generating pieces of equipment together to manage heat, and there is a co-generation plant going onto the roof, which will be hooked into the University's high voltage ring main, so the power will go back into the University's grid.

"The facility will collect stormwater to go into the University's stormwater system, which re-charges the aquifer below. We have built on the knowledge base of our work on the Royal North Shore Hospital Kolling Building. We had a lot of research knowledge already, and this project has now added a new dimension," said Jo.

Building further on this accrued experience, Bovis Lend Lease are currently working on the Liverpool Hospital Redevelopment, the North Shore Private Hospital extension, the Gold Coast University Hospital and the Royal Childrens Hospital in Victoria.

Work commenced on the Lowy in December 2007, and was completed within 23 months, despite the time-intensive jet grouting required at the start.

The Bovis Lend Lease Project Team of 17 included site engineers and other highly-skilled professionals. Approximately 1,860 workers were inducted on site, including the 85 separate subcontractors, consultants and suppliers, with an average of 270 workers onsite at any given point.

The result of all the applied effort and expertise is a spectacular workplace for those seeking answers to one of our darkest medical mysteries.

BOVIS LEND LEASE
The Bond, 30 Hickson Road
Millers Point NSW 2000
t. 02 9236 6111
f. 02 9232 8086
www.bovislendlease.com