

LEADING THE WAY

The \$100M UNSW Kensington Colleges redevelopment includes construction of 5 buildings varying between 5 & 8 storeys comprising 922 beds, 5 deans apartments, 23 tutor studios and the upgrade of Gate 5 Avenue.

MAIN CONSTRUCTION COMPANY : Richard Crookes Construction
 PROJECT MANAGERS : Root Projects Australia
 CONSTRUCTION VALUE : \$95 million
 COMPLETION DATE : February 2014
 ARCHITECT : Bates Smart
 STRUCTURAL ENGINEER : Robert Bird Group Pty Ltd
 PLANNING (TOWN PLANNING) : Urbis Pty Ltd



Root Projects Australia (RPA) was appointed to develop a project definition plan and feasibility study plus assist with the preparation of a business case for the redevelopment of The Kensington Colleges.

Over the past 3 years Root Projects Australia has managed over \$270m worth of construction work on behalf of UNSW. The University Terraces Student Accommodation project was successfully completed on time for occupation in Semester 1, 2013. The Kensington Colleges was also operational for Semester 1, 2014 and the Wallace Wurth Medical Research facilities, incorporating the Institute Of Virology (The Kirby Institute), is scheduled for completion in April 2014.

RPA is currently providing full project management consultancy services to manage the redevelopment of the colleges under a 'design and construct' procurement methodology whilst the refurbishment of Goldstein Hall was delivered through a traditional, fully documented contract.

An aggressive program required the new facility to be fully operational by January 2014. To achieve this, a two-stage procurement strategy was adopted proposing early appointment of the contractor to develop the design and Development Approval under an ECI Agreement, followed by a D&C contract for the documentation and construction works. Construction activities included an early works package to clear the site and the diversion of major services.

The ECI and D&C methodology were seen to be the most suitable vehicle to deliver the project within the time and cost constraints; however there have been various challenges to overcome throughout the process. These challenges include:

- Ensuring the ECI contractor delivered a high-quality finished product within the project budget;
- Ensuring the ECI contractor's project design team maintained a high-

quality design that achieved compliance with the project budget based on the tender design;

- Working with authorities to ensure approvals were achieved within the project program and
- Ensuring the D&C contractor achieved practical completion within the project program.

The density of the development has required the existing development controls to be tested. Intensive and successful negotiations with the Randwick City Council and the Joint Regional Planning Panel resulted in a Development Approval being achieved in February 2012 without any significant constraints being imposed.

There has been extensive use of stunning glazed bricks (32 different colours) on the project which were used to brand each of the Colleges. This required the contractor to provide a number of prototype panels in

order to perfect the laying technique (i.e. eliminate chipping) and agree to colour combinations.

The project has been undertaken within the operating environment of the University, which required careful management of WHS issues, services interfaces and potential disruption to University activities.

RPA has extensive experience dealing with complex and challenging projects. The company is recognised for delivering optimal results for their clients on each and every project. The team is constantly looking for new ways to better serve the industry and is today a leading provider of strategic planning and project management services across Australia.

For more information contact Root Projects Australia Pty Ltd, Sydney: phone 02 92518040, Melbourne: phone 03 9654 0488, website www.rootprojects.com.au

REDUCING IMPACT

Environmental Strategies worked closely, and maintained continuous communication with the civil contractor, Site Auditor and the Client of the Kensington College project. This enabled a successful and timely outcome for the delivery of the project, whilst improving the environment for future generations of students.

Environmental Strategies was engaged to complete two phases of works for the redevelopment project at the University of NSW. These were the soil remediation and validation works, and also the waste classification works for the bulk excavation.

Prior to the original construction of Baser and Goldstein Colleges, historical filling had contaminated the soil. These localised areas of soil contamination were encountered during the initial investigation stages of the works, which meant that the site was essentially unsuitable for the proposed residential development.

Environmental Strategies supervised the excavation, removal and validation of these areas to ensure that the remaining soils did not pose any unacceptable risk to human health or the environment, and that the proposed residential development could go ahead successfully.

The remediation and validation work was completed under a Statutory Audit process – a requirement under Development Application Consent Conditions – which meant that all works had to be reviewed and signed off by a NSW EPA Accredited Site Auditor prior to the commencement of construction. This had the potential to slow down the development at UNSW, however Environmental Strategies worked closely with the civil contractors and were made available on short notice to ensure the project deadlines were achieved.

Environmental Strategies found that the soil contamination at UNSW extended further than what was described in the previous consultant's data. By having experienced scientists on the ground, they were able to make judgement calls straight away to minimise the need for re-mobilisation to site, and minimise disruption to the site activities.

Following this successful phase of work, Environmental Strategies completed a detailed soil characterisation assessment for the remaining soils that were to be bulk excavated, so that the building's basement could be constructed. An estimated 54,000 tonnes of soil was classified for removal offsite, either for reuse off site, or for disposal to landfill.

Having a strong understanding of the current NSW EPA regulations and guidelines meant that Environmental Strategies was able to minimise the amount of soil required to be disposed to landfill – not only reducing the impact to our already overburdened landfills, but also resulting in significant savings to the project in disposal fees.

Environmental Strategies is a professional services firm established to provide high quality, specialist consulting services in environmental and water resource investigations, land and groundwater remediation, environmental management and environmental auditing. They are known for providing significant benefits by using experienced and client focused, success driven people, who have the customers' objectives clearly in mind.

For more information contact Environmental Strategies, Suite 15201, Locomotive Workshop, 2 Locomotive Street Eveleigh NSW 2015, phone 02 9690 2555, email admin@environmentalstrategies.com.au, website www.environmentalstrategies.com.au





NATURAL SURROUNDS

Cabbage Tree Landscapes was contracted by **Richard Crookes Construction** to supply & install the soft landscaping for the **University of NSW Kensington College Project**. The scope of work included planted areas, turf areas & artificial turf along with the installation of steel edging.

The execution of the work was complex due to the location of the project, site access for deliveries & constraints within the site. Cabbage Tree Landscapes and their team of professionals worked diligently to perform all works with ease.

Styroboard foam sheets were used in the roof terrace areas in order to bulk out the gardens & turf areas whilst reducing soil volume & weight on the slabs.

Styroboard has many construction benefits as well as having a positive effect on our commitment to the environment. During the manufacturing process, Styroboard produces no ozone depleting gases and uses no CFCs. Styroboard does not degrade into harmful substances nor does it contaminate ground water. The foam sheets are lightweight, strong, clean and easy to handle.

The \$110M University of NSW Kensington College redevelopment includes 3 buildings which vary between 5 & 8 storeys and comprise 920 beds, 5 deans apartments, 23 tutor studios, the upgrade of Gate 5 Avenue, full height glazed windows, timber screens, angled brick walls, a new pedestrian link, landscaping, rooftop courtyard area, and the refurbishment of the iconic Goldstein Dining Hall.

Cabbage Tree Landscape covers many facets of landscaping including design, construction & maintenance along with irrigation design & construction. With a commitment to staying ahead within their industry, Cabbage Tree Landscapes aspires to innovation and all design is done using the latest CAD technology.

The strength of their design team has allowed Cabbage Tree Landscapes to achieve and maintain a recognised level of leadership within their industry. Their experienced and passionate staff approach each project with dedication and creativity whilst using crucial methods of plant selection.

With an emphasis on quality, innovative design and professional service, Cabbage Tree Landscapes provide spectacular, well-crafted landscape designs that will certainly prove impressive on every occasion.

For more information contact Cabbage Tree Landscapes, phone 9875 5120, email info@cabbagetree.com.au





EXPERIENCE DOWN UNDER

ACE Demolition & Excavation (ACE) has had extensive involvement with the development of the Kensington Campus. The team at ACE have been responsible for the site remediation works including removal of all contaminated materials and the demolition of the existing Basser and Goldstein Colleges which included the existing Pedestrian Link Bridge, B16 Goldstein College Block A, B18 Masters Residence, C16 Goldstein College Block B, C18 Basser College, D14 Baxter College, D16 Goldstein Hall and a number of secondary buildings.

The team also completed a massive 40,000m³ excavation and shoring works including sheet piling in order to facilitate the new works which comprised the construction of high quality contemporary accommodation in five identifiable and distinct colleges.

More recently, ACE was appointed to carry out the complete detail and bulk demolition works, which includes all excavation, and shoring works to facilitate the Main Building. All demolition projects of this size are challenging. The majority of demolition works were buildings comprising two, three, four and five stories. All of the work has been carried while the university remained operational, so logistical and safety aspects of the project have remained the main concern.

ACE boasts a highly professional and skilled team who are able to effectively carry out the following services:

- Asbestos Removal
- Demolition
- Excavation
- Vibration Free Excavation in Rock
- Shoring Systems
- Contaminated Waste Removal
- Waste Management
- Site Remediation
- Civil Work
- Piling
- Underpinning
- Rock & Soil Anchors

Established more than 17 years ago, ACE has managed a wide range of projects throughout Sydney. The company has built a strong reputation in the industry with proven methods and expertise to undertake a diverse range of projects. Employing over 100 people, the team has a depth of industry knowledge and cumulative years of experience.

With extensive safety, environmental and quality systems, ACE is licenced and fully insured and DEEWR Code Compliant. ACE has affiliations and memberships with industry authorities and organisations and long standing relationships with key builders and developers.

ACE Demolition & Excavation Pty Ltd

For more information contact ACE Demolition & Excavation, phone 02 9644 5596, fax 02 9644 5595, email: mail@acedemolition.com.au, website www.acedemolition.com.au



MASTERS OF RECYLING

New Buildings - create large volumes of Waste. That's why Dial A Dump Industries (DADI) are contracted to remove all the Building and Demolition waste from projects like the Kensington College redevelopment at University of NSW.

DADI's job has been to keep the site clean of construction waste for workers and students by supplying on average three 17m³ skip bins daily up to six days a week for the duration of construction. By the end of the project, the Company estimates they will have supplied around 400 skips to the site.

That's not the end of the story however, because once the rubbish is taken to DADI's Genesis Recycling Facility at Eastern Creek, it is sorted and processed into materials for further reuse in the construction sector. The Genesis Plant recycles more than 90% of this C&D waste. "It's the best form of recycling it just keeps going around and around," commented Dial A Dump spokesman, Michael Harloff.

Established in 1984 by Managing Director Ian Malouf, Dial A Dump work closely with clients to assess needs and develop comprehensive waste management plans. These plans are implemented by a team of over 150 staff utilising plant and equipment comprising 40 late model trucks (cranes, tippers, eight wheelers, trailers, skip trucks), forklifts, excavators, loaders, telehandlers, crushers and over 3,200 waste bins up to 49 m³ in size.

Having a fully computerised operating system and state-of-the-art interactive GPS units fitted to all the company vehicles ensures maximum efficiency, giving DADI the ability to track each order and corresponding bin(s) from booking, through delivery to final removal to the Eastern Creek site, which has Sydney's largest landfill for non-recyclable C&D waste. The company has also recently introduced a Smartphone App for its account customers which enables direct online bookings and SMS order confirmation.

DADI's focus on innovative waste solutions and constructive redeployment through their state-of-the-art recycling centre have made them a vital link in the chain for Green Star projects, including 8 Chifley Square for Mirvac, and Central Park for Watpac. They have also provided waste management services for all of the recent projects at Sydney University, and are contracted to provide services for Barangaroo until 2017.

"We have continually expanded our services to cater for the needs of our customers, focusing on unequalled service, competitive rates and a faultless track record," said Michael.

For more information contact Dial A Dump Industries Pty Ltd, 32 Burrows Road Alexandria NSW 2015, phone 02 9519 9999, email sales@dadi.com.au, website www.dadi.com.au