

Leighton News

September 2004





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IN BRIEF



Grain exports in WA being boosted

More than 60,000 tonnes of additional grain storage capacity is being added to the Albany grain terminal in Western Australia, providing a significant boost to the State's shiploading facilities.

The existing terminal was commissioned close to 50 years ago. Although upgraded and extended several times over the ensuing years, it now requires major expansion and enhancement to cope with increasing demand for its services.

Terminal owner CBH Limited has awarded a \$97 million engineer, procure and construct contract to Leighton Contractors. The contract to boost the capacity of the terminal includes new silo storage, upgrades to conveyors, grain elevators and ship loaders, and enhanced dust control systems, mechanical instrumentation and electrical control systems.

Leighton general manager Ray Sputore said that the increased storage and loading capacity would also be matched by improved transport access, including upgrading the road and rail in-loading facilities.

He said that CBH and Leighton Contractors had put together an integrated design and construction team to deliver the project.

"When completed, the upgrade will deliver a quicker grain delivery process, greater operating efficiencies, a safer

work environment and additional shipping capacity," he said. "These factors are all very important to the economy of Western Australia."

Work, which started on site in July, will take just under two years to complete.

Alliance to build outback road

Construction in remote areas of Australia requires special expertise and the ability to fully support teams in the field for long periods.

Having such expertise and also particular skills in modern roadmaking techniques are just some of the reasons why Leighton Contractors has been selected by Queensland Main Roads as its preferred alliance partner to upgrade 22 kilometres of the Barkly Highway in north-western Queensland.

Located near Camooweal and to be known as the Barkly Highway-Nowranie Creek Alliance Project, the contract will involve widening and strengthening the existing narrow sealed pavement and also constructing several bridges. Currently, many of the bridges along the route can only be crossed by heavy vehicles at less than 15 kilometres an hour.

Last year, a report published by the Australian Automobile Association stated that the project had a high cost/benefit ratio, that it was expected to reduce operating costs for vehicles and " ... improve safety and flood

immunity/ reliability". The latter is of extreme importance during the region's annual wet season.

Queensland civil manager Tom James said that his team had formed a strong relationship with the Injilandji-Dithanooi people, the indigenous traditional owners, and that they intended to develop it into an ongoing working relationship.

The Alliance is currently working to refine the design and establish the scope of work and key parameters for the Project Alliance Agreement, as well as the estimate of cost to undertake the project.

An initial priority is to identify locations along the route which are suitable for obtaining and processing pavement materials.

New surface mining contract in WA

Gold Fields Limited, one of the world's largest precious metals producers, has entered into an alliance with Leighton Contractors to undertake the surface mining at its Songvang mine.

Songvang – the Vietnamese word for 'river of gold' – is part of the company's Agnew gold operation in Western Australia.

The \$45 million contract includes waste removal and ore extraction from two pits over the life of the contract. The work will conclude in June 2007.

A bridge segment being lifted into place by a night shift working on the M7 Motorway near Hoxton Park Airfield, Sydney (cover).

Victoria's Country Fire Authority is one of the emergency services to benefit from the new 'alerting system' being installed by LSE Technology (above).

GOLD MILL

will boost productivity

Gold Fields Limited has proceeded with the development of a new gold mill at its St Ives mine in Western Australia.

This mill will initially supplement then take over from an existing but aging mill at the mine and boost overall productivity.

To do this, it has awarded a \$103 million negotiated contract to a joint venture of Leighton Contractors and Roche, both of which have existing relationships with Gold Fields.

The joint venture will engineer, procure and construct the new mill on the basis of a feasibility study undertaken by Roche. Leighton Contractors brings expertise in the earthworks, civil engineering, mechanical and process to the project.

The new mill will operate 24 hours a day and will have a throughput of 4.5 million tonnes per annum. This is substantially higher than the existing mill's annual throughput of three million tonnes.

The major challenges for the joint venture include an extremely tight schedule for a design and construct phase – only 14 months.

\$73 million mining contract

At about the same time, Leighton Contractors has

also negotiated a new \$73 million contract with Gold Fields Limited to continue its mining operations at St Ives.

Leighton has had a relatively long association with Gold Fields at this mine site, having initially worked under a previous contract for the mining company.

The new contract initially runs for two years, has an option to extend to five years and provides strong incentives for Leighton Contractors to exceed specific performance levels.

Developed especially to meet Gold Fields' requirements at the St Ives mine, its terms reflect the innovative approaches that Leighton Contractors can bring to the negotiating table.

Process and mechanical manager

Jeremy Robertson

Mining manager

Mark Bailey

The Mars Pit at St Ives.







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A SHORT LIFE

for a very large facility

A \$10 million precast factory, which was commissioned in May, is expected to be decommissioned before the end of next year.

The plant, which provides jobs for close to 200 people, was constructed by the Abigroup-Leighton Joint Venture specifically to supply concrete bridge segments for the Westlink M7 motorway in Sydney.

The 40-kilometre-long motorway is now being constructed in Sydney by the Abigroup Leighton Joint Venture. The new toll road will directly link the city's heavily trafficked M2, M4 and M5 motorways.

Over 100 bridges are being built by the joint venture. Thirty-three of them will be of box girder construction. This requires around 2700 individual bridge elements to be cast and then transported to the various bridge construction sites by drop-deck low loaders. These enormous vehicles can carry loads of between 30 and 100 tonnes per trip.

The precast facility, which has been built on a 10-hectare site at Eastern Creek – about the mid-point of the M7's route – is now producing 10 sections a day for the motorway's span-by-span and balanced cantilever bridges.

Two very large buildings form the hub of the plant:

- The 114-metre-long reinforcement building,

which prepares the steel rod 'cages' prior to concrete being poured.

- The casting building, a massive 252 metres long, where the segments are being formed and cast.

To ensure that each bridge segment fits its 'neighbour' perfectly, everything in the plant follows a very strict sequence. In essence, all of the segments are cast in the order they will be used to construct each bridge.

When ready, the cast segments are lifted by one of the 110-tonne straddle carriers and then relayed to an 8.5-hectare storage yard, which can hold up to 550 units.

The final segments are scheduled for casting towards the end of 2005. The facility is then expected to be decommissioned and demolished, and the site fully restored to its original condition.

M7 project director
Tony Spink

M7 design manager
Dave Nelson

More than 2700 massive concrete segments, some weighing up to 100 tonnes, being relocated from the casting building by a straddle carrier.

EMERGENCY SERVICE

Victoria to commission new alerting system

More than 29,000 emergency services workers throughout Victoria will be immediately 'on call' when the State's new \$100 million emergency alerting system (EAS) is commissioned in about 18 months.

The importance of the system was underlined by Police and Emergency Services Minister Andre Haermeyer, who said that it would both significantly boost emergency response times and increase the safety of emergency services workers.

"The EAS will replace a range of fragmented, ageing and unreliable alerting systems which, at best, only covered 50 per cent of the State," he said.

LSE Technology (a Leighton Contractors subsidiary) has been awarded the contract to finance, design and construct the system for the State of Victoria, and then operate it for a period of seven years.

All of the equipment and the technical expertise is being supplied by LSE, while ABN AMRO is the underwriter and arranger/structurer for the transaction.

LSE divisional manager John Lush said the system

would provide a highly reliable means of delivering short text messages to volunteers and staff of the Country Fire Authority, Rural Ambulance Victoria and the Victoria State Emergency Service.

The system will use well-established paging technology from almost 200 transmitters throughout the State, with duplicated main and standby control sites in Melbourne.

ES



"The key objectives are to provide virtually saturation coverage and the extremely high reliability required when lives are at stake. We have selected a very well-proven technology which, by operating at low data rates and the optimum radio frequency, can reach places which are out of the range of mobile phones," he said.

The paging system uses the 150MHz frequency band, which has longer reach and better in-building

penetration than higher frequency mobile phone signals. The low data transmission rate of 512bps ensures reliable transmission in areas where the radio frequency signal is either weak or noisy.

Although the design work is well advanced, the major challenge now being faced is obtaining access to the sites in the short time that is available.

"We must have a trial network in operation before

the end of the year, and the complete network must be in service in time for the 2005/06 bushfire season," said project manager Glenn Campbell.

"However, we are receiving a great deal of cooperation from local communities who, for the first time, will enjoy the benefits of a fully integrated service that allows volunteers and key staff to be contacted at any time – wherever they are and whatever they are doing," he said.

Project manager
Glenn Campbell

PROSPECTS

strong in managing director's forecast for 2005

The past 12 months have not been without their problems at Leighton Contractors, but there is a lot to look forward to, says new managing director Peter McMorrow.

"As we focus on rebuilding and strengthening the company's structure, by learning from our past, we can move forward and be more equipped to face the challenges of the future," he said.

"We have streamlined our risk management procedures by establishing a National Risk Management Team. This new business unit will ensure that upgraded risk management procedures and tender guidelines are implemented properly.

"We have also established a National Mining and Plant Group, which has overall responsibility for all mining projects throughout Australia and for the management of all mining and construction plant. This new business unit will provide Leighton Contractors with more opportunities to service existing mining clients on a national basis (see the adjacent article).

"With these new business units, we will maintain and develop opportunities on a national level," he said.

Additionally, while the completion of the Hilton Redevelopment Project and a turn around at the Spencer Street Project will continue to be an issue, Peter McMorrow aims to get the focus of the entire organisation squarely on the future.

"In 2004/05, we have some very specific goals that are designed to reposition the business," he said.

"Our experience in the delivery of complex infrastructure, particularly land transport projects that involve alliances or joint ventures, have been one of our strengths and we will continue to build on this strength.

"Leighton Contractors' 55-year history and a proud tradition of re-invention, innovation and the continual delivery of groundbreaking projects, provide a good basis for believing that there are many strong reasons to be optimistic," he said.

FOCUS on mining

A booming minerals sector has given Leighton Contractors the incentive to capitalise on its recent success in the mining industry with the establishment of a new national mining arm – Leighton Mining.

Laurie Voyer, the director and general manager of the new division, believes that a number of opportunities exist in this thriving sector, spurred on by huge demand from Asia; in particular China.

“Leighton Mining is about delivering better service to all of our customers, some of whom are structured on a national basis,” he said.

The company is very specific about where it wants to go with the new division, particularly in the early stages of its development on the national stage.

“In the first instance, Leighton Mining will concentrate on expanding our service and exploring new opportunities with existing clients, and targeting new clients where we can deliver economies of scale and create value in their business,” he said.

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FOCUS

on mining

At present, Leighton Mining operates in Queensland and Western Australia, with the focus:

- in Queensland on coal surface mining contracts for the BMA alliance at the Peaks Downs and for Macarthur Coal at the Coppabella and Moorvale Mines;
- in Western Australia, where it is contracted to gold miner, Gold Fields at St Ives and Songyang, and to BHP Billiton at the Yarrrie Nimmingarra iron ore mine.

“There is no doubt that we want to expand our reach in the market. I would like to see us reach a position where we are working with our existing clients and mining other minerals for them,” Laurie Voyer said.

“We want to get to a situation where Leighton Mining can offer an increased range of services to clients – from feasibility studies to providing total ‘pit to port’ services.”

Leighton Mining will work under all forms of contracts, from open book alliances to traditional schedule-of-rates contracts.

The new mining arm will develop the capability to look at selected offshore opportunities with its existing clients.

“Again, it’s about servicing the clients as best we can,” said Voyer. “If they have mining interests overseas and want our skills and

expertise on these sites, we will investigate doing the work.”

Voyer confirmed that, currently, opportunities in this sector with an existing client were being investigated. “Yes, we are in talks, and looking to assist them overseas with a number of proposals.”

Working in partnership has been key to the significant success and repeat business of Leighton’s existing mining contracts and Voyer is keen to see more of this occur.

In Western Australia, Leighton is in joint venture to develop a new gold crushing plant at St Ives for Gold Fields, with the joint venture resting heavily on the successful relationships developed through existing working arrangements.

Leighton is part way through its second surface mining contact at Gold Fields’ St Ives mine and was recently awarded a further surface mining contract at its Songyang mine.

Leighton’s excellent safety and industrial relations records also make it popular in Queensland, particularly at Peak Downs where these factors – along with a commitment to purchase new equipment for a significant mine expansion – led to a renewal of its contract for the fourth time.

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FOCUS on mining

"Our approach and the continual cooperation between Leighton and this client make all the difference," said Voyer.

"They value our input. We have learned to share and to trust one another over the years that we have been working on site at Peak Downs.

"So now, if we think there is a better way to do something, the client is more than happy to listen and accept our advice – particularly when we can offer solutions that save them time and money.

"Conversely, when they have a problem with scheduling or the like we sit down with them and work through it," he said.

On-going staff training is another important and differentiating feature in Leighton Mining's way of doing business.

"Our people are first-rate and we invest in them and spend a significant amount of time training them to be better.

"We also have a specific policy of promotion from within the team. This works because our experienced staff are given opportunities to grow in their jobs, allowing for greater staff retention and continuity in relationships with our clients.

"This, matched with Leighton Contractors ability to operate and maintain an up-to-date fleet of equipment, makes Leighton Mining a very attractive contract miner."

At present, there are no plans for Leighton Mining to undertake any underground mining operations.

"Let's wait and see," says Voyer. "There are plenty of surface mining opportunities to tackle before we start going underground."

The new mining division operates out of Leighton Contractors' offices in Brisbane and Perth.





TRADE SURGE

predicted after Brisbane sewer is completed

Construction of a sewer does not normally 'hit the headlines'. However, the \$15 million Trade Coast sewer in Brisbane will have an enormous impact on the development of the city.

It represents far more to the region than laying the average suburban sewer.

Brisbane Water regards it as an 'important wastewater infrastructure project' which will link two very fast-growing commercial and industrial areas totalling about 8000 hectares of land near the mouth of the Brisbane River.

Now, dubbed the 'Trade Coast Precinct' by the Brisbane City Council and Queensland Government, the region is predicted to contribute \$4.9 billion to South East Queensland's economy by 2010. To date, industrial and commercial development in this area has been hampered by limited sewerage capacity.

However, the design and construction of the new wastewater facilities also present more than the average set of problems. That is why Brisbane Water has entered into an alliance with Leighton Contractors, Parsons Brinckerhoff, Cardno MBK (QLD) and Coffey Geosciences to come up with the solutions and undertake construction.

The easier part of the new project involves installing 12.5 kilometres of pumped rising mains, constructing three new pumping stations

and modifying a further four. The difficulties are created by the need to put a 760-metre-long pipeline across the river.

Tunnelling would go through soft clays and/or a thick band of coarse gravel, which each create some significant problems:

- laying the pipeline along the river bed is impractical because oil tankers often drop anchor in this precise area to help them turn before berthing; and
- a sensitive conservation corridor is immediately adjacent to the new pipeline's route.

At least 12 alternatives were assessed and a pilot hole bored before the alliance selected the ultimate solution – a 400mm pipeline passing 50 metres below the Brisbane River, tunnelled by an 800mm deep-horizontal directional drill.

This work was completed early in August. The remaining works are targeted for completion by March next year.

Project manager
James Whybrow

RENAISSANCE

for Southport's central business district

The \$62 million Nexus Towers residential tower development marks the start of a transformation for Southport, the Gold Coast's traditional central business district.

Long regarded as the commercial heart of the Gold Coast, Southport is undergoing a renaissance, which is being underpinned by the continued generational shift to apartment-style living.

Nexus Towers is one of three major new residential developments now being constructed at Southport. They alone will add 400 units, homes and apartments in the next two years – and a further dozen towers are now at the proposal stage.

When completed by Leighton Contractors in December next year, Nexus Towers will be one of Southport's largest mixed-residential developments and, already, it is proving to be highly successful.

The developer, Gordon Property Developments (GPD), reports that, to date, about 90 per cent of the 172 apartments in the 21-level North Tower and the 27-level East Tower have been pre-sold.

Chairman Noel Gordon said that most of the new development's future residents were active retirees already living in the region.

"About 60 per cent of the 150 already-committed Nexus buyers will swap

their current 'residential home' lifestyle for apartment-style living," he said. "Living here at Nexus, they can access cinemas, shopping, restaurants, cafes, and medical and professional services within walking distance of the towers."

The twin-tower residential and retail development will provide outstanding on-site facilities including a 20-seat private theatre, swimming pool, spa, sauna, barbeque areas, an indoor-outdoor residents' lounge, a function centre, gymnasium, landscaped surrounds and a grassed piazza.

It is being constructed right in the heart of Southport, adjacent to the historic Guardian Angels Catholic Church – which is very much a local landmark.

Both of the towers have a mix of penthouse, sub-penthouse, three-bedroom and two-bedroom apartments and also some home-office configurations.

For much of last year, GPD and Leighton Contractors worked intensively on the design and construction estimates as a boom hit the Queensland construction sector, increasing sub-contractor rates significantly.

Due to industry-wide increases in apartment construction costs, Leighton Contractors \$52 million estimate of construction costs in May 2003 soared to \$62.5 million within seven months.

Therefore, once agreement was reached in January this year, Leighton started work on site almost immediately.

Nexus Towers maintains Leighton Contractors' involvement on the Gold Coast, with work including the recent upgrade of the Gold Coast Airport and the ongoing development of the River Links and Oyster Cove canal subdivisions.

Project Manager
Greg Muir

The Nexus site, reflected in the tower crane's cabin window.



POWERFUL

future for wind energy in Australia

Several forms of alternate energy have been gaining rapid acceptance in the world in recent years – among them being wind farms.

Although only a few yet dot the Australian landscape, the Lake Bonney area of South Australia is already shaping up as having great potential for success.

Recently, Vestas–Australian Wind Technology awarded an \$11 million contract to Leighton Contractors for the civil and electrical works associated with the new 23-turbine Canunda Wind Farm.

Its site is adjacent to the National Power/Babcock & Brown Lake Bonney Wind Farm, where Leighton Contractors is also currently involved in the construction of a 46-turbine farm under a contract from Vestas. This contract is worth about \$20 million.

Leighton's work on the Lake Bonney project is close to completion and the specialist team working there is moving over to the site of the new wind farm, which is being developed by the UK-based International Power.

The site is said to have the three key components needed for a successful wind energy project:

- strong and proven wind resources;
- proximity to the transmission grid; and
- strong local community support.

Leighton is designing and constructing the foundations, electrical reticulation system and access roads for the 'windmills', to be powered by Vestas V80 turbines.

The V80 turbine is the Danish company's largest and most powerful wind turbine

generator. Mounted on 67-metre-high monopole towers, the three-bladed rotors are 80 metres in diameter and have a rated output of two megawatts.

The towers are connected to the wind farm's substation by a 33-kilovolt collection system. A control room and meteorological monitoring mast, which are also included in Leighton Contractors' scope of works, will complete the project.

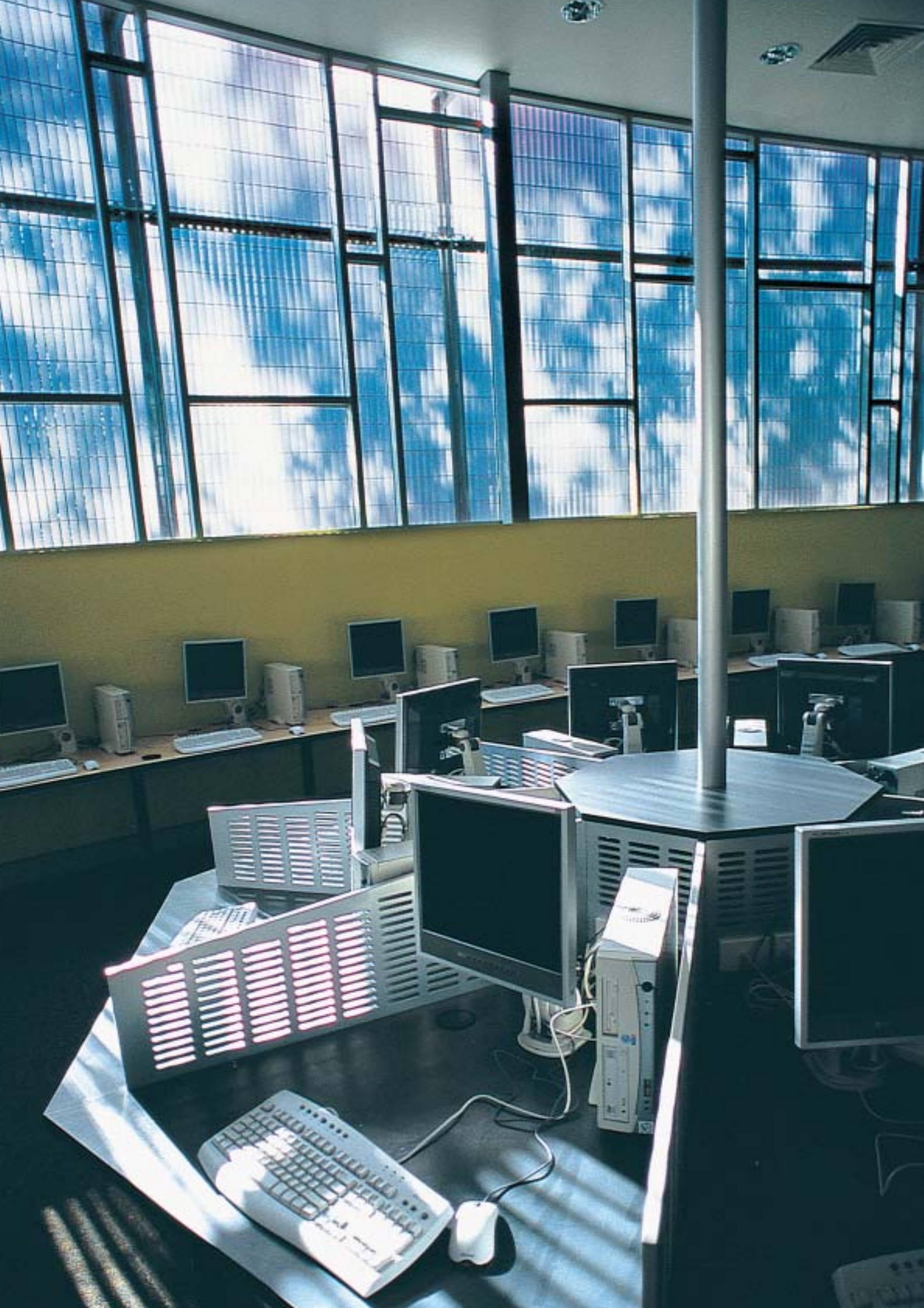
International Power (Australia), which will own and operate the Canunda Wind Farm, will sell all of the power generated from the project to the national energy wholesaler and retailer, AGL.

When the wind farm becomes commercially operational in the first quarter of 2005, AGL expects to buy 135,000 megawatt hours of wind generated energy from Canunda annually. This is enough energy to power about 30,000 homes.

Project manager
Rene Govers







TRANSPLANT

for heart of university campus

The Queensland University of Technology's (QUT) Carseldine campus, which serves 3500 students, now has a new 'heart' that has changed the shape and feel of the institution.

The campus had evolved on a piecemeal basis over several decades. Although it was meeting functional demands, only limited consideration had been given to the cumulative effect of the separate buildings and the spaces between them.

Therefore, creating a new and distinctive focal point for the Carseldine campus was a major challenge set by QUT.

"This is the most important development on this campus in 25 years; we wanted to get it right. We have, and the facilities speak for themselves," said Professor Ruth Matchett, QUT's Director of Northern Campuses. "The campus community is simply delighted with the finished product."

This result was achieved through an \$8.2 million program undertaken by Leighton Contractors, which extends the company's substantial involvement in the education sector (including recent work at the Australian Catholic University).

The QUT project involved constructing:

- a spacious courtyard for meeting, socialising and dining;
- an 'all hours' student computing lab;
- group study areas and flexible teaching spaces featuring the latest technology, including indoor and outdoor wireless links.
- a student centre;
- library archive facilities;
- a bookshop;
- student guild facilities;
- a café; and
- a new campus entrance.

The contract, which was awarded to Leighton Contractors in May last year, involved very careful planning and construction sequencing to ensure that student life was not interrupted during important periods, particularly at exam times; also that there was no detrimental effect on the childcare centre.

The various student facilities have been linked via a 4.2-kilometre internal and external network of polish-finished walkways and pathways. In turn, the campus is linked with its hill and forest setting by natural vegetation being

introduced into the courtyard in a structured manner.

In the design, steps were taken to make surfaces unsuitable for skateboarding. High quality and durability concrete was used on facing edges, rather than timber, and varying the finish on paved surfaces minimises opportunities for smooth, uninterrupted skating.

Project manager
Iain Ward

The recently completed 24-hour access Learning Commons Room, which is equipped with 80 PCs.



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Safety officer James Trebert, with colleagues at an M7 Motorway construction site.

Photography in this issue:

Fairfaxphotos, pages 2 & 8

Greg Tossel, page 5

Rob Parsons, 'Through the Looking Glass Photography',
cover and pages 6, 11-17, 20-22

