

The Palmerston Regional Hospital represents the innovation of Australian medical services with contemporary facilities and the latest technologies. The project merges new construction techniques with the future of medicine to create an environmentally sustainable advanced hospital for the Northern Territory.

Jointly funded by the Australian and Northern Territory Governments, the \$170 million Palmerston Regional Hospital project has opened the doors to a wealth of healthcare services to one of Darwin's fastest growing areas. The hospital is classified as Level 3 which means the care provided is for the management of low complexity and low activity cases.

The hospital incorporates 22,500m² of operational floor space over two levels. Level 1 incorporates the emergency department, administration, outpatients, a rehabilitation centre, the Geriatric Evaluation and Management (GEM) service, and back of house facilities such as the hospital kitchen, while operating theatres and surgical,

maternity and general medical wards are located on Level 2.

The hospital will deliver a range of core services including a suite of general medical and surgical services and 24/7 emergency. Support services will also be accessible at the hospital with outpatient services, sub-acute integrated treatment areas, specialist support services such as pathology and pharmaceuticals.

The state-of-the-art design blends the natural environment sympathetically with the new building. Greeting patients and visitors is an arcade entrance which runs the entire length, of the building and reaches 11m in height. The open, modern face of this entrance

enhances the contemporary services and facilities beyond. The entrance area also houses a café, open waiting areas and linked bridges which have a sophisticated glazed treatment.

A village feel is at the heart of the hospital design, with open courtyards making the most use of Palmerston's tropical climate. All wards open out to local vegetation or onto courtyards. The hospital is also built to post disaster specifications and is able to function for five days independently post disaster (ie. cyclone/power outage).

Palmerston Regional Hospital is located near the new \$6.4 million Stuart Highway and Temple Terrace intersection – infrastructure which has also been designed to accommodate future growth. It's predicted the greater Palmerston and rural region will increase by 17% between 2011 and 2021 to 70,000 people.

"The new hospital will also reduce pressure and waiting times at Royal Darwin Hospital, promote innovation in healthcare delivery and also aims to improve Aboriginal health through culturally appropriate services," said Glen Brady, Northern Territory Government Project Director.

The hospital infrastructure provided additional arterial roads and a major intersection to improved access to the growing rural population located on

the edge of the City. Glen explains the project has included provision of future expansion to accommodate additional development of the health precinct and a broader scale of the Palmerston Regional Hospital project.

In a long list of deliverables the project has accomplished, the employment of local people and the resultant boost to the economy is regarded as a stand out outcome. "We are very proud of delivering local jobs. We've also been able to deliver the project on time and to budget," Glen said.

"We used a staged contract delivery model which meant we could use local trade packages and have the flexibility of employing local people. Our mission was to use 90% local trades and products and we are currently sitting at 98% – only two trades that could not be sourced from the area because they weren't available," explains Glen.

Completion of the project is expected in March 2018 with an opening in July 2018.

For more information contact Department of Infrastructure, Planning and Logistics Northern Territory Government, Level 5, Energy House, 18 – 20 Cavenagh Street, Darwin NT 0801, phone 08 8929 4633, email media.dipl@nt.gov.au, website www.nt.gov.au

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A FIRST-CLASS INSTALLATION

NT Project Group, is a comprehensive and professional company dedicated to ensuring a high quality build from design to completion, while importantly maintaining first-class safety standards for their team. The 11 month Palmerston project required a broad range of skills, undertaken by the team of 80 from NT Project Group working on the hospital.

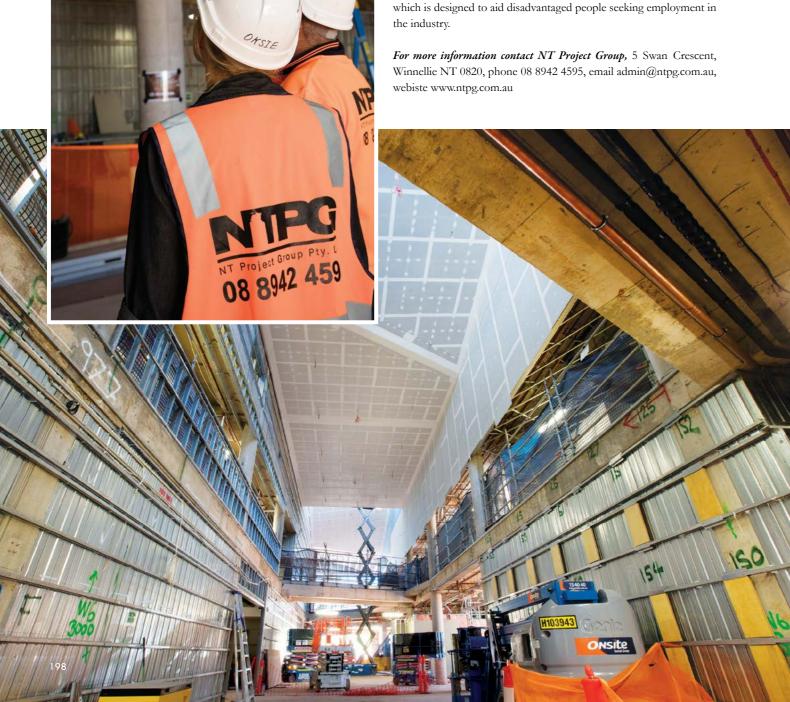
equipment, the internal glazing and supports for specialist medical imaging equipment."

"We supplied and installed the engineered ceiling partition system, so that's the walls and the ceilings," says Director, Jade Cameron. "We also installed all the doors, hardware, frames, fixtures, fitting and

The project was a complex engineering task due to the Palmerston Hospital being a Class 9 building. This meant it had to be carefully constructed to withstand cyclonic or seismic activity were it to occur.

"The construction methodology had to be centered around protecting people inside the building from falling walls or ceilings in such an event. Everything is engineered around the Building Movement Report. This called for extensive planning as they had to consider all aspects of the installation, right from what type of screws to use, to wall supports and even to the fixing of simple things such as a TV bracket or a soap dispenser," explained Jade.

NT Project Group is committed to a buy-local policy for all suppliers and materials used along with all employees hired, avoiding subcontracting labour as much as possible. This can pose a challenge as the size of the market in Darwin can be limiting. Building the hospital meant organising procurement plans early to ensure enough notice was given to suppliers to avoid timelines being affected. Supporting the local communities in the Northern Territory is an integral principle to NT Project Group. The company has a pre-apprenticeship programme





COSTS COUNT

QS Services provide independent, impartial, meaningful, and sound advice as quantity surveyors in their role to the Northern Territory Government's Department of Infrastructure Planning and Logistics associated with the Palmerston Regional Hospital, which is located on an approximately 45 hectare site close to the Stuart Highway and Temple Terrace intersection near Palmerston.

Comprised predominantly of eight zones - designed to deliver the most technologically advanced hospital building in the Northern Territory and provide modern health service for Palmerston and Darwin rural residents - this \$170 million facility (jointly funded by the Australian and Northern Territory Governments) is scheduled to open its doors to patients in mid 2018.

During construction, as is typical on large infrastructure projects, quantity surveyors are called upon to review site progress and fairly value progress payment claims at regular intervals, and also to review the value of variations (changes to design or quantities) with appropriate rates/benchmarking against similar projects.

Review of tender recommendations was also undertaken - checking for arithmetic accuracy, transparency, and ensuring no transposition errors - to enable successful tenderer appointment via the Managing Contractor, Lendlease; several of which are listed on the official website.

Furthermore we attend and participate in regular project control site meetings (typically every two weeks), discussing issues and orderly identifying changes and reviewing their outcomes.

Construction will be complete in March 2018, after which the Department of Health will commence fitout and commissioning of medical equipment.

QS Services are a Darwin based quantity surveying and cost consultancy, established for over 27 years and have the capability and capacity to assist in providing cost estimates and cost advice on all sorts of building, civil and marine projects, including private, institutional and defence projects, throughout the Northern Territory and elsewhere.

For more information contact QS Services, 5 Whitfield Street, Darwin NT 0820, phone 08 8941 0116, email info@qsservices.com.au, website www.qsservices.com.au

QUALITY ACCESS SOLUTIONS AND SCAFFOLDING

All the scaffolding needs for the sizable Palmerston Regional Hospital project were delivered seamlessly by the professional NT Scaffolds team. NT Scaffolds began work on the project in May 2016 and are expected to finish towards the end of this year.

The Palmerston Regional Hospital was comprised of eight buildings which all had to be scaffolded simultaneously. "There were always new drawings coming out, so things were always changing all the time," says Office Manager, Bianca Van Zwol.

With over 35 years of industry experience and a dedicated team of 10 experienced scaffolders working on the job, they were able to adapt with ease to meet the needs of the client.

As industry leaders in scaffolding access solutions, the company pride themselves on being a one-stop-shop for all scaffolding requirements. The hands-on company are involved in the hiring, labour and sales of scaffolding work, while also offering design and engineering services, independent audit reports and a 24 hour response service in case of any issues that may arise onsite.

Additionally they own and operate their own transport systems, rendering them capable of working in regional and remote, hard-to-reach areas. NT Scaffolds offer services to a diverse range of industries from offshore/onshore oil and gas rigs, defence, mining, commercial and residential construction. Important to the company is the direct employment of around 30 trained professionals, with skills in advanced scaffolding and rigging, ensuring quality work and reliable service.

Raising money for charitable causes is a way for NT Scaffolds to give back to their community. Sponsoring local sporting groups such as boxing, bodybuilding, football teams and motocross events allow them to show their support for worthy causes.

Other jobs in the pipeline for NT Scaffolds include scaffolding the \$500 million upgrade at the Tindal RAAF Base in Katherine.

For more information contact NT Scaffolds, 16 Sadgroves Crescent, Winnellie NT 0821, phone 08 8947 5592, fax 08 8947 5542, email info@ntscaffold.com.au, website www.ntscaffolds.com.au











A NAME YOU CAN TRUST

Halikos Roofing's experienced and dedicated team met the multiple challenges for accuracy and exacting standards on complex roofing and cladding installation for the Palmerston Regional Hospital. The Darwin based company began work onsite in October 2016, and is expected to finish in November 2017.

"As the whole building is clad in multiple metal cladding profiles, horizontal and vertical, as well as the Express Wall and Vitracore products interfacing, intricate flashing details were needed to make sure interfaces came together," Halikos Roofing General Manager, Darren Mullan said. "Despite the complexity of the wall cladding, I'm happy to say that the Halikos crew met the challenge head on and the finished product is a reflection of the guys ability and dedication to the job," said Darren. Roofing involved the installation of Steeline GRP Steel Rib 675 roof sheeting, insulation, vapour barriers and ply which were all detailed to manage the 24 hour a day air-conditioning of the hospital.

"The emphasis was on energy efficiency, so part of the roofing and cladding scope involved the installation of over 15,000m2 of CSR Bradford high density, 75mm PIR insulated board on top of all concrete roof slabs and behind some of the wall cladding," Darren said.

For Halikos Roofing, established in 1987, the professionalism of its team puts it ahead of its competitors. "The strength of our company is undoubtedly the guys who turn up for work every day. We have long term staff who have worked for Halikos Roofing for up to 25 years.

Our core group of staff are well respected by the builders we work for," Darren said.

At the peak of the project, 28 staff were employed onsite. The company began as a roofing contracting business and has since grown into the Halikos Group, a multi-faceted company encompassing multiple arms and providing a variety of services. Halikos Roofing works extensively right throughout the Northern Territory, Top End coastal islands, and in parts of Western Australia and Queensland. Current projects include the Delamere project and the NACC Tindal project at Katherine for the Defence Department.

For more information contact Halikos Roofing, 24 Pruen Road, Berrimah NT 0828, phone 08 8935 3990, email roofing@halikos.com.au, website halikos.com.au

NO IOB IS TOO HARD

Safety and quality were priorities for C & V Concretors on the construction of the Palmerston Regional Hospital. The Darwin based, Northern Territory company provided all the concreting works for the hospital's footings, columns and slabs.

"The safety criterion on this development was very advanced and more demanding, which we applied accordingly," C & V Concretors' Owner, Con Pizanias said. The company employed around 50 staff onsite comprised of concretors, steel fixers, an excavation crew and formworkers. A feature of the job was the use of a new product, a Densi-Proof membrane which helped the concrete to cure and harden. "It was expensive but it worked very well," Con said.

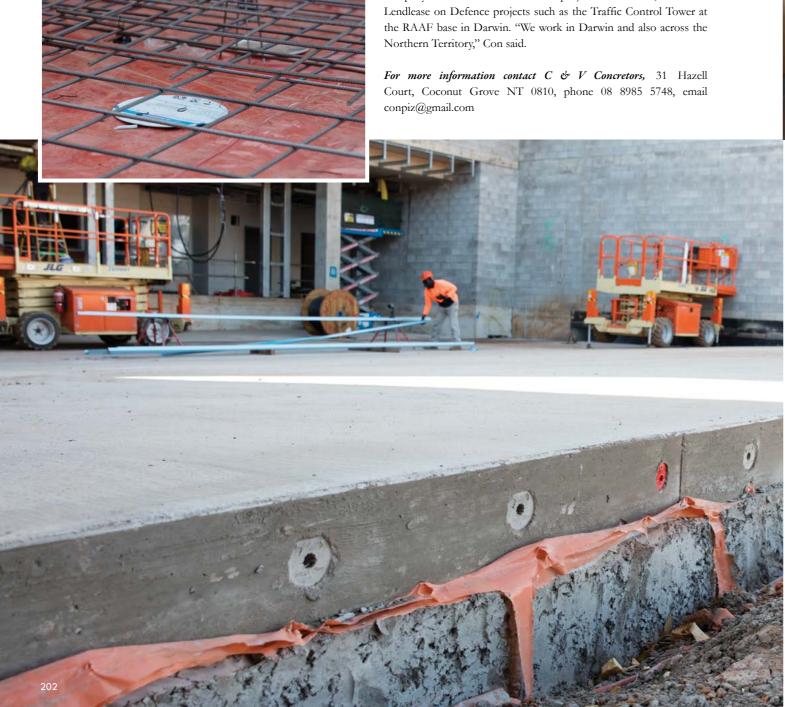
C & V Concretors began work on the Palmerston Regional Hospital in January 2015 and completed its contract early this year;

however they have been back onsite for smaller jobs. C & V Concretors was established in 2000, with Con bringing a wealth of experience to the table. "I've been in the industry since 1981. The company has been growing fast since it was established."

"We began with housing slabs and driveways and then moved onto the large-scale jobs. We do a lot of work for the Defence Department and in civil construction generally," Con said.

"We emphasise quality in everything we do and we understand the environment in which we work. Safety is our priority. We also employ the right amount of personnel on our jobs. We don't cut corners and we do what we need to do to get the job done. The weather in the NT is often against us, so we will start work at 3am when it's cool to avoid the heat. We work quickly and all our people are focused on getting the concreting right."







EXCELLING IN JOINERY

For 4 Kitchens, the success of the Palmerston Regional Hospital development relied on strong coordination between trades.

"As this was a hospital development, you have to make absolutely sure that everything is being constructed and installed with precision," 4 Kitchens Owner, Mario Tsirbas said.

4 Kitchens supplied and installed all the joinery on the project as well as stainless steel benches. Joinery and related products were required for staff stations, receptions and the ward areas. "It is a large scale project," Mario said.

The company began work in May 2017 and expected to finish in September/October 2017. "4 Kitchens was well placed to deliver for our clients. We understand the scope of works and what needs to be delivered for a project of this type. For a hospital development, the risks are too great if you get it wrong," Mario said.

All the joinery was manufactured by 4 Kitchens and subcontractors were employed to assist with product manufacture where needed. "Coordination is our strength. The logistics of supply and installation on these large scale projects are critical. You need to get the right materials to site on time," he said.

4 Kitchens specialises in large scale commercial developments and has worked extensively on fitouts for medical and government facilities. The company also has a focus on the kitchen and home renovation market. The company was established in 2009 and has grown strongly since then, doubling in size each year to become the largest manufacturer



of joinery in the Northern Territory. Employing 28 staff, 4 Kitchens had around 18 crew on the Palmerston development at its peak.

Current projects include joinery for the Catholic Primary School in Zuccoli, and it has just finished work on the Akoya Apartments, also in Darwin. 4 Kitchens works across the Northern Territory and also sends products to Adelaide, Sydney and Broome, with installation networks in other capital cities.

"Our strength is that we never let our clients down. We focus on delivering what we say we are going to deliver, on time and to budget, with a minimum of fuss," Mario said.

For more information contact 4 Kitchens, 39 Winnellie Road, Winnellie NT 0820, phone 1300 454 824, email info@4kitchens.com.au, website www.4kitchens.com.au