

RAISING THE BAR IN HEALTHCARE

DEVELOPER : Cabrini Health Limited
MAIN CONSTRUCTION COMPANY : Kane Constructions
ARCHITECT : Bates Smart
SUPERINTENDENT : Aurecon
CONSTRUCTION VALUE : \$75 million



The Cabrini Health Gandel Wing includes a radiotherapy centre, 10 acute care bays, nine bed short stay area, extended emergency department, 97 in-patient beds, 34 oncology and infusion treatment bays, bringing a new level care and comfort, to patients.

Cabrini Malvern's Gandel Wing has been designed to optimise patient comfort and is a major step forward for Cabrini in their continuous efforts to provide the best possible care. The building comprises of 13-floors including four basement levels. The interior design challenges outdated operational norms to bring a new level of quality treatment, comfort and serenity to the patient.

The new wing includes a radiotherapy centre and a contemporary day oncology unit, expanded maternity facilities including additional beds, and an improved cardiac services unit to urgently treat issues of cardiac rhythm and cardiac failure. The facility contains an improved emergency department, which will enable Cabrini Health to treat increasingly complex patient presentations, medical wards for the treatment of neurology, stroke and infectious diseases, and a greater proportion of single patient rooms.

Kane Constructions was appointed under a Design and Construct contract to deliver the \$75 million project in quarter one of 2017. With up to 300 workers onsite during peak periods, Kane remained well ahead of programme, with commissioning commencing in March 2019.

"The adjacent hospital buildings remained operational whilst we completed critical services diversions, demolition works and construction of the new Gandel Wing. We maintained a high level of communication with key stakeholders to discuss potential impacts to any of the facilities, services, patients, visitors or staff ahead of time," said Assistant Project Manager, Carl Naidoo.

"The cores and other vertical elements were changed to precast. We also modified the design of the in situ floor slabs, changing them to flat plates. This assisted with the speed of construction as well as providing clear ceiling space for the coordination of services," said Carl. Ceiling space is always at a premium, especially in hospitals where the many services required compete for room in the ceiling cavity.

"We used a prefabricated edge formwork for the floor plates. The custom designed, light gauge steel module system of the slab profile is quickly assembled, dismantled

and reused, contributing to the speed and quality of the build," said Carl. "The façade is clad with 19,000 hollow terracotta baguettes to suit the design of the existing building and surrounding neighbourhood. The articulated façade and the baguettes cast lively patterns of shade and light while providing privacy for patients and neighbours," said Carl. "It was challenging to execute the high quality design in the required time period."

Kane is a privately owned commercial construction company active in all sectors of the industry. With a turnover of \$1 billion and over 500 full time employees, the company operates along the east coast of Australia and overseas from offices in Melbourne, Sydney, Brisbane and Canberra. Head office is located in Richmond, Melbourne.

Founded in 1973, Kane have successfully completed over 2,000 projects across all sectors of the industry. The organisation brings the knowledge, experience and financial stability of a large well established construction company that has been delivering projects for over 45 years.

Kane's portfolio of award winning projects include the \$45 million Geelong Library & Heritage Centre which won the 2016 Master Builders Australia National Commercial Master Builder of the Year Award, and the \$66 million University of Melbourne Arts West Redevelopment which won the 2017 Master Builders Association of Victoria Master Builder of the Year Award.

Recently, the \$59 million University of Melbourne Western Edge Bioscience Stage 1 Main Works project won the 2018 Master Builders Association of Victoria Excellence in Health and Safety Award. Heading into 2019, the team are currently delivering several notable projects including the \$102 million Ballarat GovHub, \$55 million Cato Square project, \$25 million Geelong Performing Arts Centre Redevelopment and the \$48 million Penguin Parade Visitor Centre Development project.

For more information contact Kane Constructions, 658 Church Street, Richmond VIC 3121, phone 03 8420 1200, email viccontact@kane.com.au, website www.kane.com.au



A HEALTHY FITOUT

AC Interiors manufactures and supplies specialist joinery and cabinetry items. At Cabrini Health Gandel Wing, AC Interiors completed the fitout for 120 bedrooms and ensuite bathrooms. Manufacturing was at their 2,500m² facility in Carrum Downs and started in July 2018.

“At our factory we firstly completed a prototype of a full bedroom fitout for the architects, clients and builders to see a finished product for approval,” said Director, Barney Vassiliou.

“We manufactured bedheads, wardrobes, entertainment units, wall panelling and vanities for the bathrooms. The joinery was a combination of laminates and Corian for the vanities,” said Barney. “Corian is often used in hospitals for infection control. All Joinery had a combination of vertical and horizontal grain patterns, hence all laminating was done by hand and required skilled tradesman.”

“We had a relatively small installation period commencing in January 2019 with up to 27 installers at installation peak to finish the project in just 10 weeks. With such a short installation period, we had the majority of joinery fabricated and ready to go, once installation started.”

“We specialise in high end work for hotels, aged care, education, offices and apartments and the joinery at the Gandel wing was of a high standard,” said Barney. “At AC Interiors we have latest technology machinery and software that enhances the quality and fabrication of our products.”



AC Interiors was established after the restructuring of Aartek Cabinets which started business in 1995. The company works across the commercial, health, education and aged care sectors as well as in hotels and apartments across Victoria.

In 2015, AC Interiors were contracted for the complete fitout of Bendigo Base Hospital for Lendlease. The large scale project included joinery and cabinetry for bedrooms and bathrooms, administration and offices, patient and staff kitchens as well as reception and common areas. We have completed many major projects over the years including EPA VIC Fitout, CH2 Melbourne City Council Building, Royal Dental Hospital, Waterfront City, VCCC, and many more.

For more information contact AC Interiors, 37 Lakewood Boulevard, Carrum Downs VIC 3201, phone 03 9775 0663, email barneyv@aciaust.com.au, website www.aciaust.com.au

SWITCHED ON

Claude Neon is well renowned for their specialised colourful and eye catching signage. They offer inhouse expertise across design consultancy, manufacture and installation techniques; whilst their custom technology advancements within façade lighting, solar power advertising and service and maintenance programs, have them remain as the frontrunner in their industry.

In May 2018, Claude Neon received an initial briefing for the identification signage at the new Cabrini Health Gandel Wing. The project required the coordination of the architects, engineers and Claude Neon inhouse designers. “We stayed as close to brief as possible adapting the positioning and size in relation to the vertical baguettes as it affected the overall constructability of the sign,” said Designer, Layton Thomson.

Claude Neon made three identical signs for the western and southern façades and for the curtain wall of the main entrance. Shop drawings were completed by September 2018 for a manufacturing process of six weeks. The signs are stacked with red Cabrini above and the white Gandel Wing sign. Letters are fabricated from aluminum with Polycarbonate face and backlit with LEDs. “The project was particularly challenging because we had to provide hidden structural

rails and spigots for the signs and have the letters appear as though they were floating in front of the façade. We spent two weeks coordinating with the façade installers for a team of five to abseil in and complete the installation,” said Project Manager, Kim Kennedy.

Whilst the brand was established in 1914, Claude Neon will celebrate their 100th year in Australia, in 2020. As Australia’s oldest signage innovator, they continue to look for new technologies to turn the ever changing signage landscape into vibrant and sustainable energy efficient, carbon neutral solutions.

A network of over 40 employees Australia wide and New Zealand, they offer a comprehensive service from initial consultation and design, through to planning, project management, as well as installation and ongoing maintenance. Claude Neon continues to work across hospitals, councils, universities, stadiums and commercial projects. The company supplies all forms of large scale signage, neon conversions/servicing, building façade illumination and solar powered lighting displays.

Other major works recently performed by Claude Neon include; Bankwest Stadium Parramatta, Marvel Stadium Docklands, 1 O’Connell Street Spire Circular Quay, Hayden Orpheum Theatre Cremorne and the Blacktown Hospital. Claude Neon continues to provide “Green Star” signage solutions across all mediums in static, environmental and digital formats.

For more information contact Claude Neon nationally, phone 1800 504 208, email info@claudeneon.com.au, website www.claudeneon.com.au



KNOWLEDGE, INNOVATION AND CAPABILITY

PJM Engineering Services specialise in design, engineering, supply, installation and commissioning HVAC and mechanical systems in the health, commercial, industrial and education sectors. In April 2017, PJM commenced the design and drafting of the HVAC services for the Cabrini Health Gandel Wing. The mechanical systems for the new wing including numerous air handling plant, chilled and heating water systems, new cooling tower, ventilation for dedicated isolation rooms, air to air heat exchanger plant, general and toilet exhaust, and life safety smoke management systems.

PJM were also responsible for the coordination of the mechanical systems with other services including electrical, hydraulic, medical gas, pneumatic tube and communications. “This involved weekly model submissions from all services subcontractors,” said PJM Engineering Manager, Matt Payne. “We used a range of BIM related technologies and software during the design stage, including 3D scanning and cloud based model management.”

“One main challenge of the job was fitting the significant number of building services required within the 600mm ceiling cavity. In collaboration with the Kane Constructions and AECOM, we

optimised a heat recovery system changing from hydronic to air based, making for a more efficient operation,” said Project Manager, Nick Meade. “We also managed the integration of the new systems into the existing infrastructure whilst ensuring the hospital’s day to day operations were not affected.”

Prefabrication is becoming more of a focus for PJM and at Cabrini the complex HVAC prefabricated services risers were lowered into two 8-storey voids using the onsite tower crane. “Prefabrication is a very efficient way to install HVAC services. Manufacturing in a controlled environment assists with better quality control and installing a series of complete riser modules rather than assembly onsite provided a substantial benefit to the project programme,” said Nick.

Established in 1981, PJM currently employs over 130 staff including engineers, project managers, estimators, draftsmen and qualified plumbers. PJM also commission their installations with NEBB certified commissioning technicians.

For more information PJM Engineering Services, 10 Aristoc Road, Glen Waverley VIC 3150, phone 03 9560 3111, email general@pjmeng.com.au, website www.pjmengineering.com