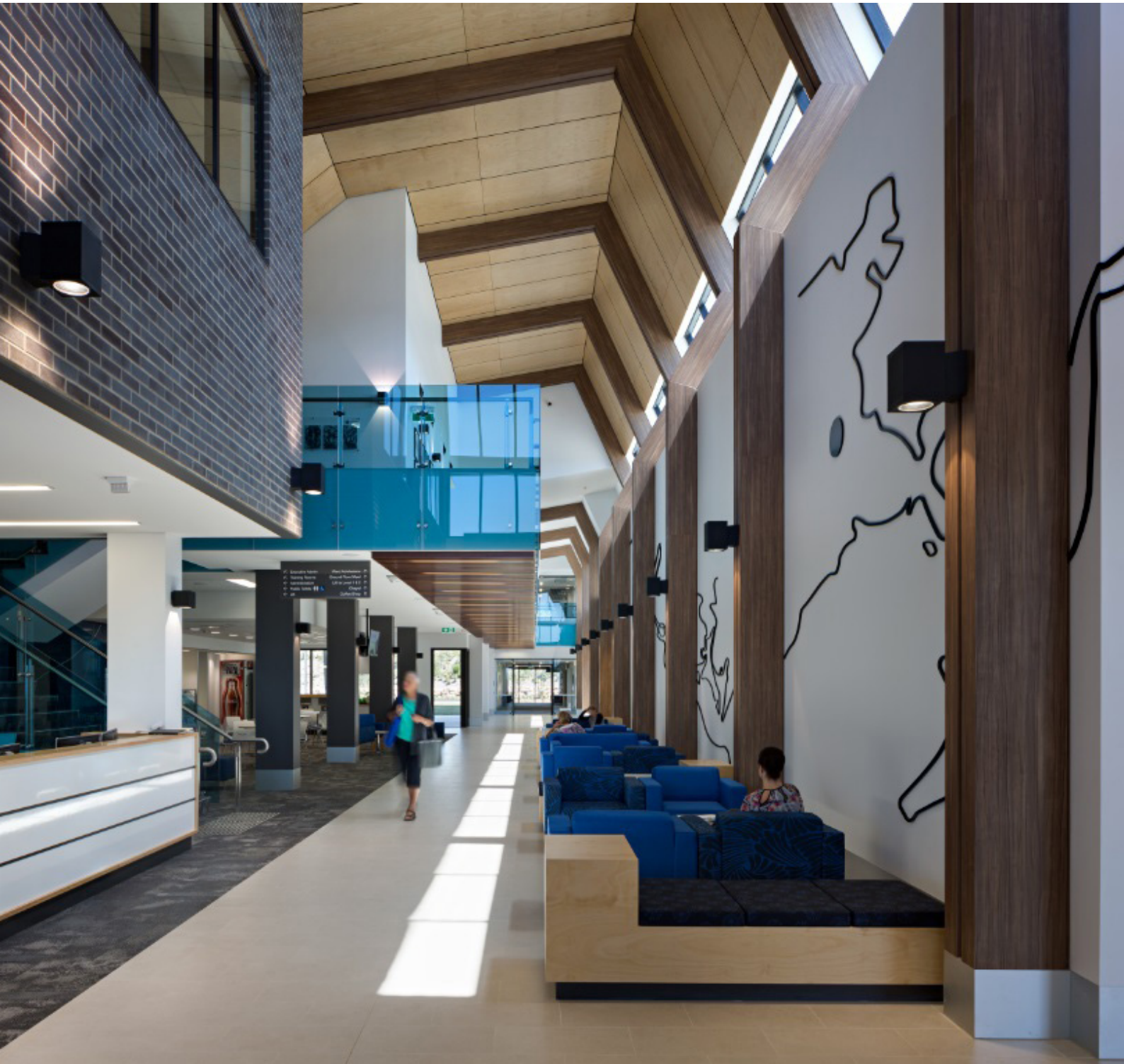
Stantec

Vital spaces for our communities

Health Capability Statement

Buildings | Australia & New Zealand



A community of experts

Stantec's global network of designers, engineers, scientists and project managers work together at the intersection of community, creativity and client relationships. Careful balancing of these priorities results in projects that advance the quality of life in communities across the globe.

But wherever Stantec is located it is our local teams who have the skills, experience and knowledge to drive the projects in their own back yards. In Australia and New Zealand (ANZ), our local offices of award-winning multi-disciplinary engineers have been helping both private and government clients build communities for over 60 years.

Our people have long-standing client relationships and are inspired to advance the communities in which they live, delivering cost-effective, quality consultancy services.

Whether we're partnering with clients to design a hospital or mixed-use development, a research facility or industrial park, an education campus or airport, we design with community in mind because we believe in the **power of places to transform lives**, to **meet the needs of a community today**, to help **fulfil its potential tomorrow**.

Our global business

22K	350	6
Employees	Locations	Continents

#01

From start to finish. Our team leaders continue to manage the projects for which they tender, right through to completion. Change in team management causes delays and undermines a project's stability and design direction. Continuity is more conducive to achieving your goals within programme and budget.

#02

Value-adding innovation. Stantec's Creativity & Innovation program encourages our global network of engineers to develop tools, processes and technology. These creative ideas might save time at the design stages of a project, reducing client costs. Others offer powerful marketing potential for stakeholder engagement. Celebrating our best ideas with investment means they are fully developed to benefit all our clients and communities, wherever they may be.

#03

The right experience. From research stations in Antarctica to solar projects in rural Australia. From bespoke luxury residences to affordable high-rise apartments. From stadiums to play parks… and everything imaginable in between. We have the right skillsets to help you achieve your construction goals.

#04

Focus on buildability. Engaging with engineers in the early stages can save time and money in the long-term. Pragmatic spatial considerations, site-appropriate construction methods, informed materials selection, compliance with legislation and consideration of the operational environment. Our advice gives reassurance to stakeholders, boards and financiers that all factors have been fully considered.

#05

We're at the right tables. Our people are active proponents within Australia's property industry, seeking positive change on behalf of their communities. The influential tables at which we sit include the Urban Development Institute of Australia, the Property Council of Australia, Consult Australia and Green Building Council of Australia.

We don’t just say we deliver outstanding solutions and client service. We prove it.

Stantec has been recognised numerous times at the independent Financial Review Client Choice Awards (Australia & New Zealand).

2019 Financial Review Client Choice Awards Winner:

- Most Client Focused Consulting Engineer

2017 Financial Review Client Choice Awards Winner:

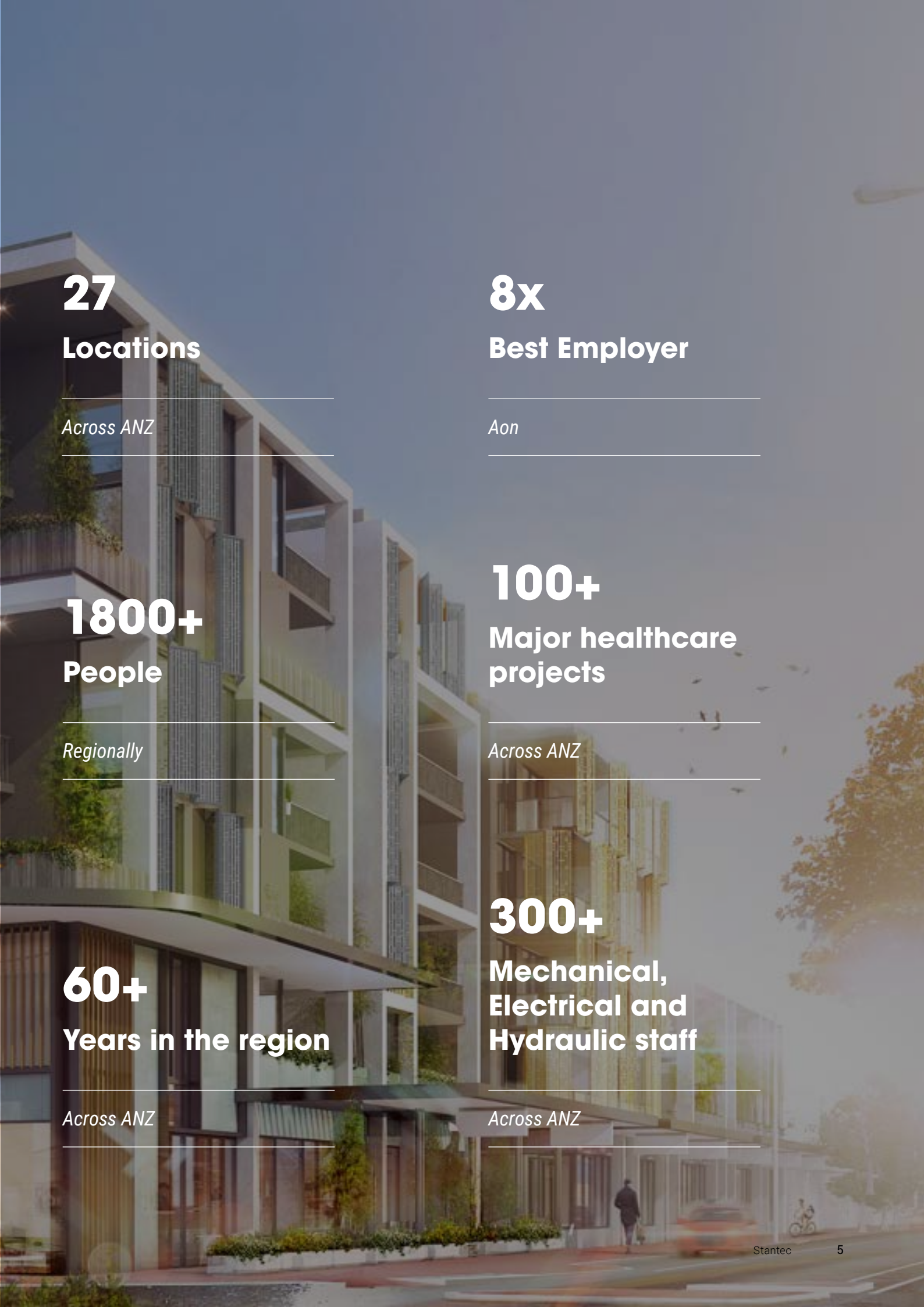
- Best Consulting Engineering Firm (revenue $50m-$200m)

2016 Financial Review Client Choice Awards Winner:

- Best Provider to Property Sector

2015 Financial Review Client Choice Awards Winner:

- Best Consulting Engineering Firm (revenue $50m-200m)
- Best WA Firm
- Most Client Focused Consulting Engineer



27

Locations

Across ANZ

8x

Best Employer

Aon

1800+

People

Regionally

100+

Major healthcare projects

Across ANZ

60+

Years in the region

Across ANZ

300+

Mechanical, Electrical and Hydraulic staff

Across ANZ

Minimising downtime

State-of-the-art design for those who need it most

Caring for the sick is something that Australians aspire to do well and with compassion. State-of-the-art facilities backed by innovative design enables health professionals to do their job well and give optimal care.

Upgrading, amending or expanding health facilities within a functioning hospital takes skill, foresight and innovation. Undertaking such a task can be depicted by the analogy of conducting open heart surgery, as like the heart, an existing hospital simply cannot stop providing it's life supporting service.

Stantec specialist health engineers understand why and how to achieve the desired construction goal with minimal disruptions to the working hospital. They understand that minimising downtime and construction impact on the existing hospital is a mandatory requirement.

That's why Stantec are the first choice for health and aged care projects.

We understand clinical function of the facility

Designing a hospital from a greenfield site requires the consultant to think further than the initial clinical needs of the facility. The hospital needs to be designed to ensure that:

- Maintenance and other service upgrades will have minimal disruptive effect on facilities and patients
- Infection control has been appropriately incorporated
- Future proofing for potential changes has been considered
- The facility has been designed to ensure an uplifting healing environment
- Solutions provide ongoing support and ensure the hospitals' future business continuity

We harness innovation

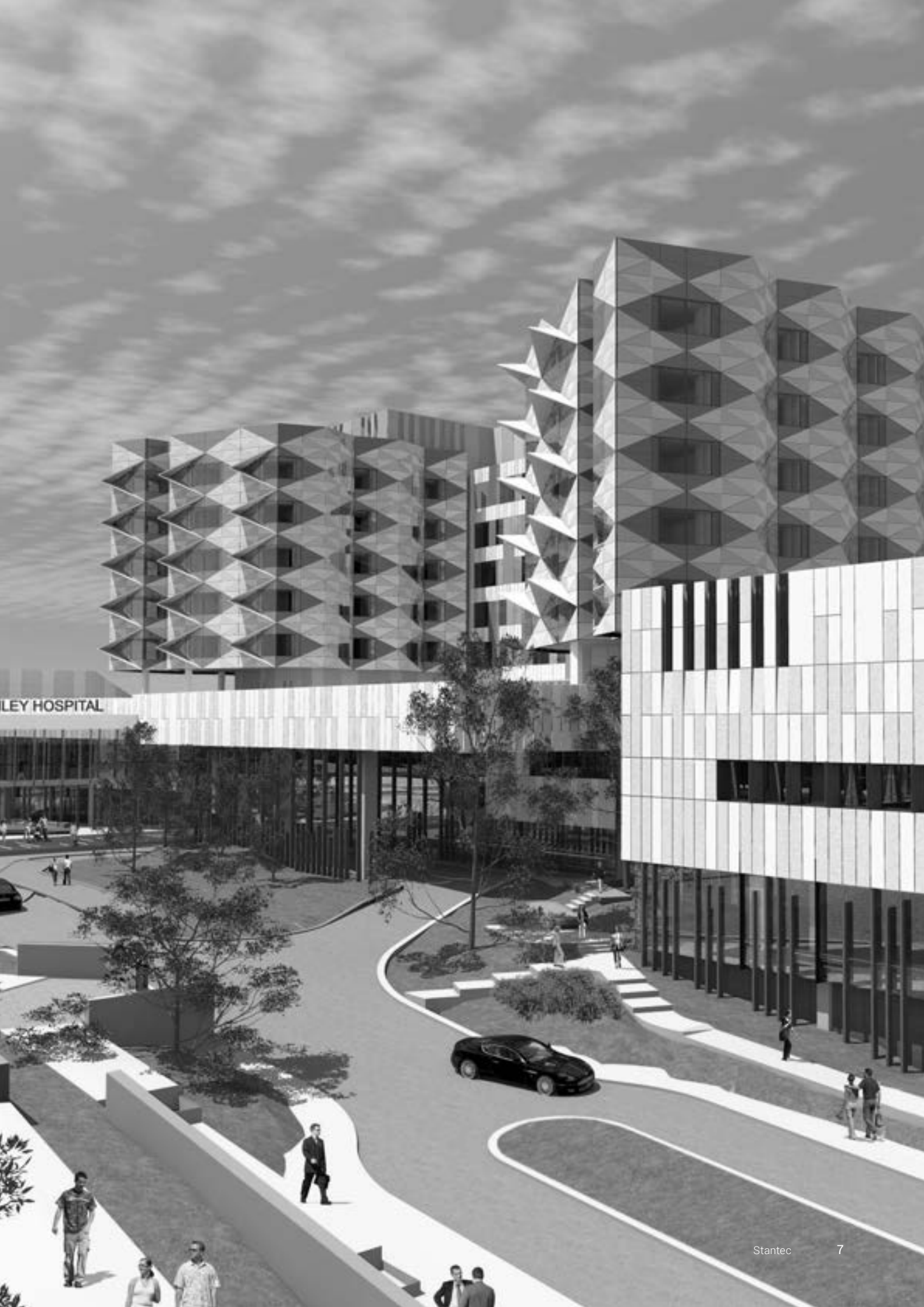
The trick to innovation in a health facility is to keep it simple and use common sense. It should be used to support minimising facility downtime, clinical maintenance, infection control and future proofing.

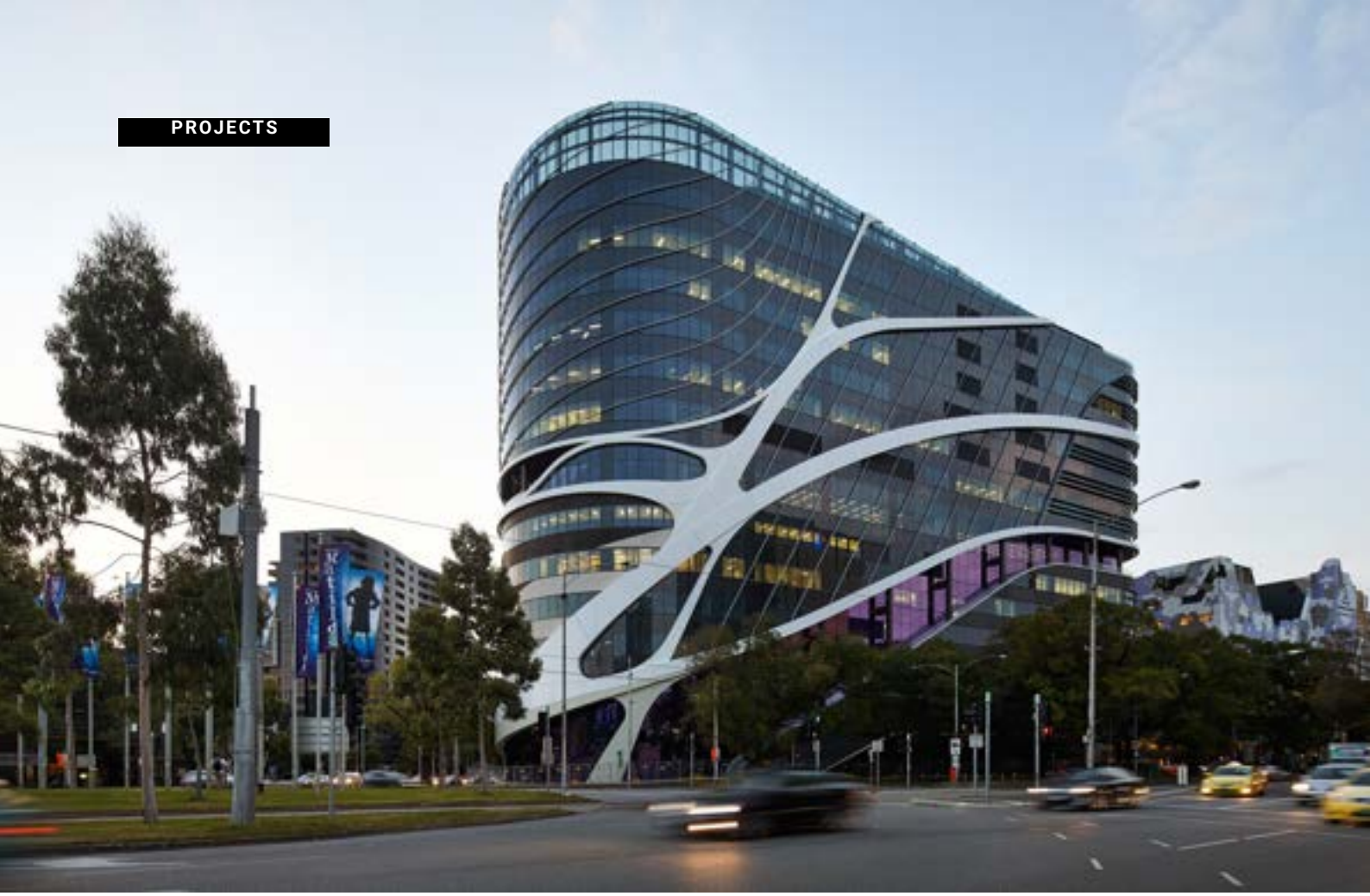
Embracing technology and using engineering techniques that have not been commonly used in the health sector will achieve these goals. Recent innovative techniques employed by the Stantec health engineers include:

- Utilising consolidation points and cross connect design solutions within the communication infrastructure to facilitate improved maintainability and future proofing
- Fully documenting the project in REVIT, allowing for clash detection and coordination between services, hydraulics and structure, which is useful in coordinating the in ground services trench running the full length of the site from the central energy plant
- Vast industry experience in 'uptime critical' facilities such as on-site IT/ communication/data center. Utilising the latest in data hall topology and cooling to bring cost effective and innovative solutions to hospitals
- Bespoke lighting solutions to create a distinct look to the facility as well as to improve the patient comfort and environment

Make sure that you get the most senior experienced team on the job. Ensure they really care about the project, that they'll provide continuity of service and that they have the proven capacity to deliver. Ask questions like… have they done it before? Did they do a good job? Did they understand the clinical nature of the project? The Stantec team can answer yes.

Matthew Quin
Senior Electrical Project Engineer, Principal


LEY HOSPITAL



Project value:
$1 billion

Completion:
2016

The Victorian Comprehensive Cancer Centre is a purpose-built centre-of-excellence for cancer research, treatment, care and education.

VCCC, Melbourne

The 130,000sqm facility is the home of the Peter MacCallum Cancer Centre, new cancer research and clinical services for Melbourne Health and the University of Melbourne. Located in Melbourne's prestigious Parkville Biomedical Precinct the VCCC aims to become one of the top 10 facilities of its kind in the world.

It was designed to deliver maximum functional area with a blend of clinical, administrative and research facilities and includes 96 overnight beds, 110 same-day beds, a dedicated clinical trials unit and accommodation for families of country patients. The facility also provides more than 20,000sqm of dedicated research space for up to 1,200 researchers, eight operating theatres, two procedure rooms, eight radiation therapy bunkers, education and training facilities, and eight gardens and terraces comprising low-allergenic plants and materials.

Stantec are proud to have contributed by providing electrical, security, vertical transportation and sustainability services.

Since opening its doors in June 2016, the development has been recognised with the Victorian Medal and the William Wardell Award for Public Architecture at the 2017 Victorian Architecture Awards.

It also took home the National Commercial/Industrial Construction Award (over $100m) at the 2017 Master Builders Australia Excellence in Construction Awards.

Joondalup Health Campus, Perth

The Joondalup Health Campus was completed in 2013 and is heralded as one of the biggest hospitals in Western Australia.

The project included the refurbishment and new works to the existing public hospital and construction of a new Private Hospital component.

Key components of the development included:

- Increase in public bed numbers to 505 beds
- A new 145 bed private hospital
- A new state-of-the-art emergency department
- 12 operating theatres
- Enabling works including car parking, landscaping, and relocation of the central plant and ambulance depot

One of the key challenges for the project involved the numerous stages for the redevelopment, which was delivered across a four year period.

Project value:
$390 million

Completion:
2013

Lismore Base Hospital Stage 3A&B, Lismore

Stantec have been engaged for the electrical, ICT and security services of the Lismore Base Hospital redevelopment project which provides improved access to a wider range of services, and additional capacity to respond to the rapid growth of the community.

The Stage 3A redevelopment delivers a contemporary facility in a mix of new and refurbished spaces. The new multi- storey development in Lismore included a new emergency department, expanded medical imaging capacity, a new renal dialysis unit and a new hospital mortuary.

Stage 3B redevelopment delivers a contemporary facility in a mix of new and refurbished spaces. The new multi-storey development and refurbished areas include biomedical engineering, Diagnostic Cardiology / Coronary Care Unit, Central Sterile Supply Department, Outpatients and Community Health, Pharmacy, Rehabilitation / Allied Health, Women's Care Unit (including Maternity IPU, Birthing and Special Care Nursery) and Helipad.

Project value:
$240 million

Completion:
2020

QEII Medical Centre, WA

The project is the largest of it's kind in Australia and was completed within an inflexible project programme and confines of a fully functional hospital site.

Stantec were responsible for the design and construction phase services for all the building services disciplines on this challenging project. The energy plant was required to accommodate the existing Sir Charles Gairdner Hospital, the Perth Children's Hospital (which has since been constructed), as well as the future relocation of the Women's Hospital.

3D Revit was utilised for the visualization of the installation, co-ordination of the services and the ongoing operation and maintenance of the building through interfacing to the site's facility management system.

The existing services and CEP were operational during the construction of the new facilities necessitating meticulously planned construction, commissioning, integration and change-over phases.

Project value:
$226 million

Completion:
2012

Albany Health Campus, WA

This new hospital provides 130 beds and comprises of:

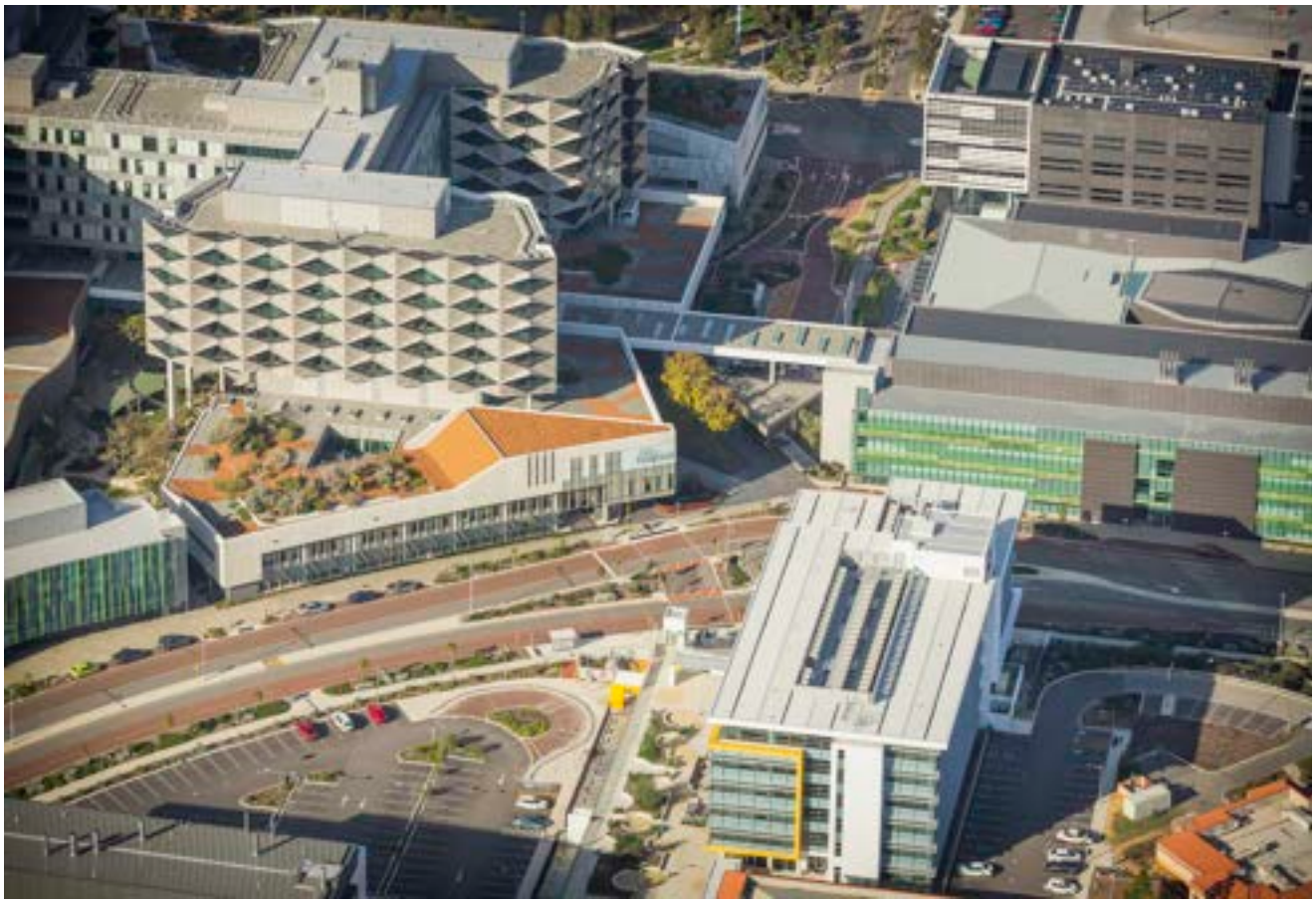
- A new central energy plant
- An emergency department
- A central sterile supply department and surgical services centre
- Five operating theatres
- In-patient and out-patient facilities
- A commercial kitchen and laundry

Continuance of services and the time constraints on this project posed a significant challenge to both the design team and contractors. The Stantec team carried out a detailed survey of mechanical services and equipment on the necessary upgrade works.

The Stantec sustainability team developed design outcomes to target a minimum 4-star Green Star performance. Significant cost pressures placed a high value for money approach on the sustainability strategy, with key outcomes including a 25% reduction in the overall energy consumption.

Project value:
$115 million

Completion:
2012



Project value:
$2 billion

Completion:
2013

The Fiona Stanley Hospital is the largest building project ever undertaken by the WA State Government.

Fiona Stanley Hospital, WA

This $2 billion health care facility is the major tertiary hospital in the south metropolitan area of Perth providing 783 beds including a 140-bed state rehabilitation service. The hospital includes 150,000sqm of floor space over five main buildings with state-of-the-art technology built into every level of the hospital.

Many initiatives implemented within the scope of Stantec provided services that contributed to this hospital being one of Australia's most technologically advanced hospitals:

- Utilisation of lighting control systems to provide greater control and energy efficient solutions
- A structured cabling system that truly incorporates all extra low voltage cabled services (not just the conventional voice and data). The system utilises a distributed consolidation point solution to provide a greater degree of flexibility
- A power infrastructure network which utilises diesel generators, gas co-generation plants and extensive load shedding capabilities to provide an enhanced level of redundancy
- Innovative lighting solutions to create a distinct look to the facility as well as to improve the patient comfort and environment
- Gearless, energy efficient drives and innovative solutions to lift recall for special hospital services

Project value:
$2 billion

Completion:
2017

Awards:
Public category in 2017 Sustainability Awards

National Health Facility Award at 2017 Master Builders Excellence in Construction

Sunshine Coast University Hospital, QLD

Stantec were the civil and structural technical advisors to Queensland Health on the $2 billion Sunshine Coast University Hospital. The project included gross floor area of 160,000sqm, the construction of 738 new hospital beds (with a master planned expansion to 900 beds) and will allow the servicing of around 10,000 patients per year.

Stantec's role involved:

- Assisting Queensland Health to establish the site's external services constraints
- Briefing and coordinating with stakeholders delivering the external municipal services to ensure that the proposed hospital site demands were met
- Providing input into the site's masterplanned layout in terms of sewer, water, stormwater, roads, earthworks and access, how these integrate internally, and how they interface with external infrastructure
- Establishing the technical civil and structural portions of the PPP Tender Brief
- Reviewing and assessing all bid documents relating to the tender's proposed servicing arrangements
- Providing detailed reports on all bidder's proposals with an acute focus on risk allocation and future servicing flexibility

Karratha Health Campus, WA

Karratha Health Campus (KHC) provides care for 50,000+ West Pilbara residents and represents the largest hospital infrastructure investment undertaken in regional WA. Constructed on a greenfield site near the town centre, at 13,000sqm KHC is nearly double the size of the Nickol Bay Hospital being replaced. The state-of-the-art facility with Helipad offers Emergency, Surgical, Maternity, Pathology, Pharmacy, Medical Imaging and Outpatient care in a single location.

Designed specifically for the region's humid conditions, the two-storey hospital meets criteria for the building to withstand cyclonic winds and flooding, and is capable of full operational activity post-disaster with strategies to maintain power and water supplies.

Our Acoustics, Audio-visual, Electrical, Fire Engineering/Protection, Hydraulics, Integration, Mechanical, Sustainability and Vertical Transportation engineers used 3D Revit to model the building, minimising issues in the design and achieving construction to programme.

The Health Campus delivers world-class health care for the growing Pilbara population, provides local access to a range of services and specialists, and reduces the need for patient transfers.

Project value:
$207 million

Completion:
2018

St John of God, WA

This project was a two-stage redevelopment and expansion of the existing private hospital including:

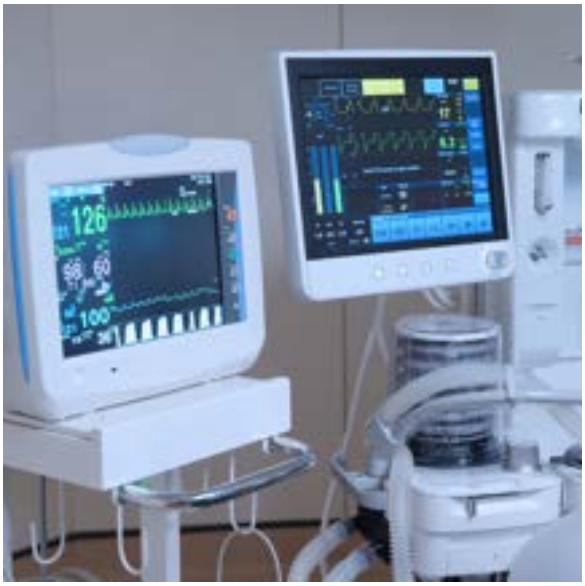
- Redevelopment of the existing seven-storey 400-bed hospital
- New Ambulatory Care Building inclusive of five additional operating theatres
- New four-storey Comprehensive Cancer Centre inclusive of Brachytherapy Bunker, four procedure/endoscopy rooms, day chemotherapy centre, pathology unit and 24-bed ward
- New ICU and CCU wards
- New 600 car multi-storey carpark

The electrical services for this project included:

- Provision of new standby diesel generator with gradual bumpless transfer
- Major upgrades and replacement of electrical infrastructure
- Major high voltage infrastructure upgrade including additional incoming HV switch-room
- Approximately 50 stages of hand-over and occupation

Project value:
$125 million

Completion:
Undisclosed



Casey Private Hospital, VIC

The 210 bed modern private hospital included eight operating theatres, a cardiac/vascular catheter laboratory, six birthing suites, ICU areas, consulting rooms, chapel and pastoral care as a well as a 350 basement carpark.

The project adopted a comprehensive BIM process from design through to 'As-built' documentation and models, and used cutting edge construction technology with modular bathroom pods.

The project's close proximity to heritage buildings required an innovative structural design to protect the footings of the historic cathedral.

Project value:
$100 million

Completion:
2017

St Stephens Hospital, QLD

The St Stephen's Hospital redevelopment was the first digital (paperless) hospital in Australia.

Stage 1 included the expansion of the existing surgical theatres to a total of five theatres, a three level inpatient unit, admissions and administration offices, outpatient medical suites, CSSD and back of house facilities, and the central energy facility.

The digital components are located within a n on-site data centre, which required redundant air conditioning systems and power supplies to provide full functionality to the site even during power outages. Other system resilience measures include the reticulation of duplicated fiber optic cabling between communications racks via redundant paths throughout the facility.

This project was fully documented in REVIT, allowing for clash detection and coordination between services, hydraulics and structure, which was particularly useful in coordinating the in-ground services trench running the full length of the site from the central energy plant.

Project value:
$94 million

Completion:
2014

Knox Private Hospital, VIC

The project comprised of the extension and refurbishment of the North and South Precincts at Knox Private Hospital. It involved the construction of new wards, supply, car park and operational areas within a very densely occupied hospital precinct.

Project challenges included designing infrastructure to ensure that existing operational areas of the hospital were not interrupted during the works.

Project design also included staging and buildability analysis to allow the project to proceed in a logical manner on site.

Project value:
$50 million

Completion:
2015

St John of God, VIC

The project involved a review of development strategies developed by third parties and a feasibility study based on the selected option.

The aim of the project was to improve capacity of the hospital and provide suitable accommodation that supports clinical services and volume.

Stantec were engaged to provide a variety of services, including electrical, hydraulics, mechanical and sustainability.

Project value:
$25 million

Completion:
Undisclosed

Project value:
$13 million

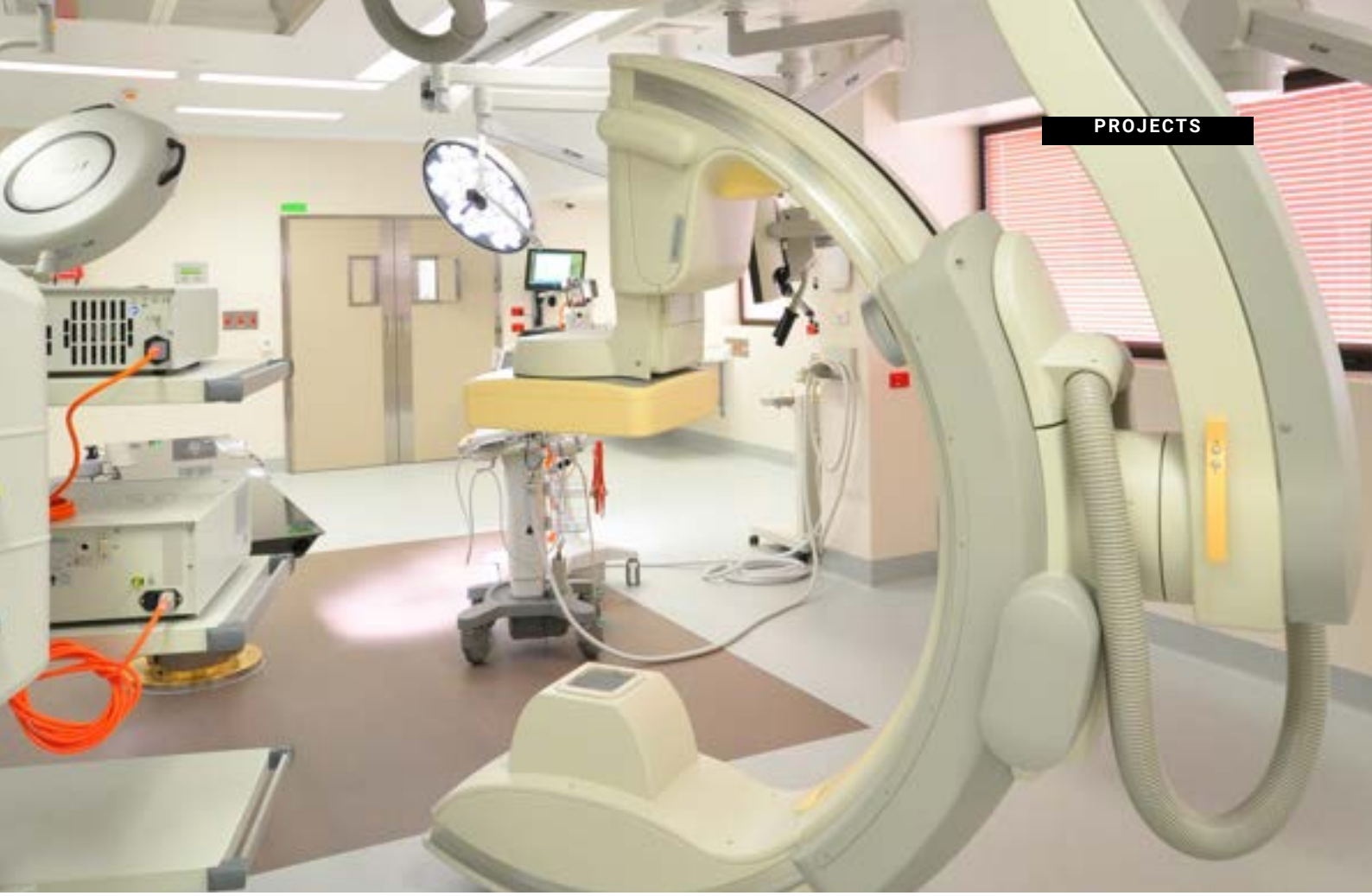
Completion:
2015

Kilmore District Hospital, VIC

The project involved master planning for the site inclusive of asset assessment in accordance with the requirements of Department of Health.

This also included the provision of Stage 1, including refurbishment of the peri-operative area, a new 30-bed ward extension to the hospital and a new outpatient services building.

The project doubled the hospital's bed and surgery capacity and included provision for a future physiotherapy gym. Project challenges included minimising disruption to hospital operations and ensuring optimal patient care.



Project value:
$35 million

Completion:
2017

Unitingcare Health, QLD

Stantec have been engaged by UnitingCare Health for a number of recent projects at The Wesley Hospital and St Andrews War Memorial Hospital.

The Wesley Hospital Theatre Expansion involved the construction of three new operating theatres and the complete replacement of a further four operating theatres. OT 17 is a hybrid theatre complete with a ceiling mounted CCT Imaging Unit.

New AC Plant Rooms were constructed and the existing 25 year old chilled water plant was replaced with a new system. This project also involved an upgrade to the back up generator, UPS and associated infrastructure.

St Andrew's War Memorial Hospital OT upgrade involved converting an existing OT to a Hybrid Theatre. The installation involved a ceiling mounted imaging unit which in turn required the replacement of all ceiling mounted services and lights.

The upgrade also included updating and increasing Medical Student facilities in each hospital.

Project delivery and offering

Buildings ANZ project coordination

No matter what the project, no matter what your needs are, we have the team to help make it happen.

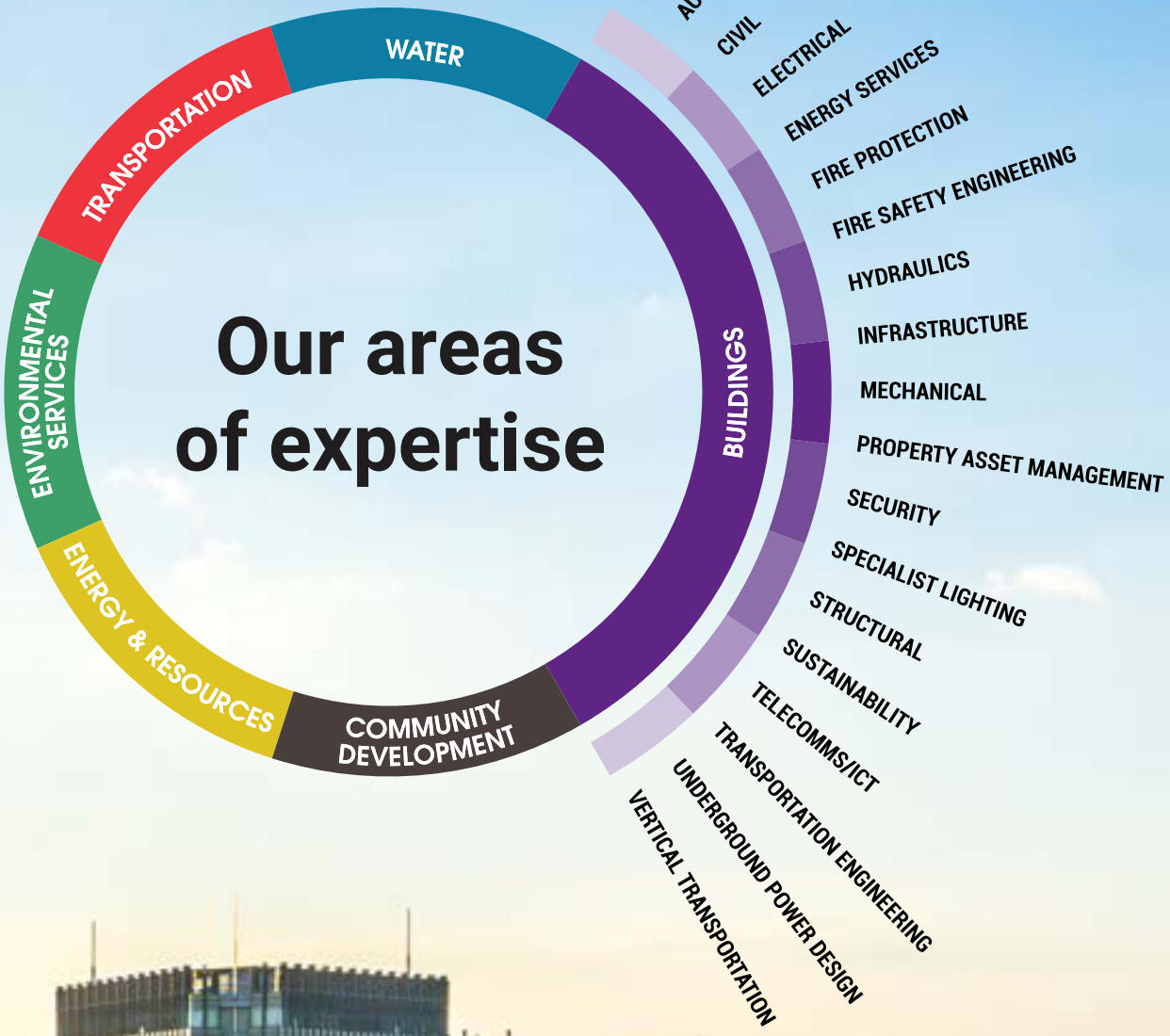
A Stantec Project Engineer will be:

- Responsible for ensuring cohesive team delivery
- The first point of contact for the client

What does this mean for our clients?

Not only will you receive the very best from all Stantec consultants, you will receive seamless design integration across all Stantec disciplines. This will result in identifying and minimising scope-gap, cost or programme risks.

Our areas of expertise



Working together

Communities are fundamental. Whether around the corner or across the globe, they provide a foundation, a sense of place and of belonging. That's why at Stantec, we always design with community in mind.

We care about the communities we serve—because they're our communities too. We're designers, engineers, scientists, and project managers, innovating together at the intersection of community, creativity, and client relationships. Balancing these priorities results in projects that advance the quality of life in communities across the globe.

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Connect with us

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