
Taking designs to new heights

Airport 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

25K

Employees

400+

Locations

6

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 independently assessed Beaton Client Choice Awards in Australia and New Zealand.

2022 Beaton Client Choice Awards Winner:

- Best Provider to Property

2019 Beaton Client Choice Awards Winner:

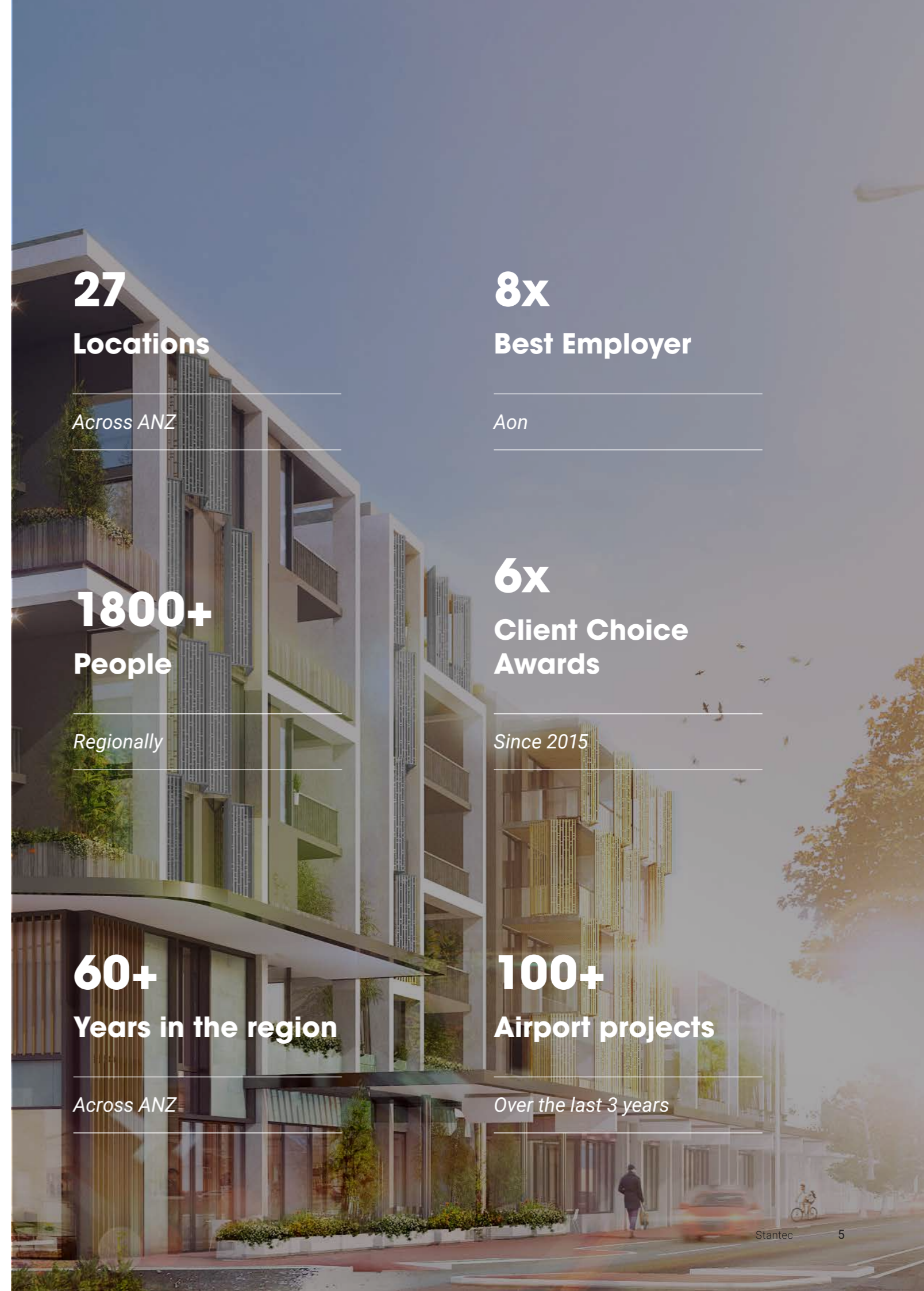
- Most Client Focused Consulting Engineer

2017 Beaton Client Choice Awards Winner:

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

2016 Beaton Client Choice Awards Winner:

- Best Provider to Property Sector



27
Locations

Across ANZ

8x
Best Employer

Aon

1800+
People

Regionally

6x
Client Choice Awards

Since 2015

60+
Years in the region

Across ANZ

100+
Airport projects

Over the last 3 years

Airport Infrastructure

Our experience

The Stantec Infrastructure team has accrued a wealth of experience working on airport projects that keep Australia moving.

Our multidisciplinary services team means that we work with clients across the entire airport infrastructure project, from feasibility to completion.

We apply industry-leading technology to effectively manage and deliver some of Australia's essential transport and airport infrastructure projects across the entire sector.

We have excellent working relationships with specialist external consultants required to inform complex and highly detailed projects, including geotechnical, surveying, arboriculture, heritage, environmental, planning and traffic consultants.

By working closely with local and state authorities, we're able to ensure projects obtain necessary approvals to comply with the relevant standards and legislations. Our team are continually striving for outcomes that solve and shape the communities we serve for the better.



Our specialist skillset

Our highly qualified group of design managers and technical experts oversee all phases of the design consultant's role in the airport projects.

Key strengths include:

- Design team coordination and management
- Project programming
- Stakeholder engagement
- Design services
- Construction Superintendent

Our specialised team uses the latest technology to produce innovative and cost-effective design solutions, minimising the whole life cost of the infrastructure.



Stantec's approach to the challenges presented on the Qantas headquarters redevelopment was both enthusiastic and thorough and the results speak for themselves

Craig Earley
Architectus



PROJECTS

Sydney Airport Pier C, Stage 6, NSW

Our team oversaw the modification services across four levels of the T1 terminal at Sydney Airport. The tasks consisted of installing two new escalators, the removal of two existing staircases and one existing escalator, base build works for four new tenancies and relocation of an international transfer desk. The installation of the two new escalators required a significant amount of assistance from our multidisciplinary team to guarantee secure implementation.

We completed this work to meet the project timeline by incorporating 3D scans provided by Sydney Airport Corporation Limited (SACL) and conducting multiple site visits. The services relocation was fully modelled and coordinated through Revit software to confirm the relocation would be achievable.

Project value: \$5 million
Completion: 2016



Growler Airborne Electronic Attack Capability Facilities Project, QLD

Stantec was employed via Point Project Management to produce the Functional Design Brief (FDB) and assist in establishing the Strategic Business Case (SBC) for the procurement of a managing contractor for the new Growler Airborne Electronic Attack Capabilities Facility.

Our team contributed by outlining vital information needed for future logistics, training, maintenance and technical facilities.

We were employed through the managing contractor, Lendlease, to complete the Mechanical, Electrical and Dry Fire Engineering work to carry out the facility designs. The main challenges faced were fulfilling the design and documentation of the additional scope for the project and meeting timelines. As the project is spread across four bases throughout QLD and the NT (Amberley, Delemere, Oakey and Tindal) the Stantec team united with various stakeholder groups at each base alongside the client delivery team.

Project value: \$300 million
Completion: 2019



PROJECTS

Hobart Airport Terminal Redevelopment, TAS

We supported the transformation of Hobart Airport, turning it into a modern international terminal. The redevelopment supports increased passenger numbers and offers an improved experience for airport visitors. The project includes a 1,200m² baggage hall extension and 2,400m² refurbishment to the existing terminal. Stantec faced challenges such as the upgrading, removing and

modifying of major plant elements while sections of the terminal were still operational. We accomplished a critical part of the refurbishment that saw a new services spine used to centralise services reticulation through a dedicated accessible pathway allowing the airport to have current and future flexibility.

Project value: \$10 million
Completion: 2016

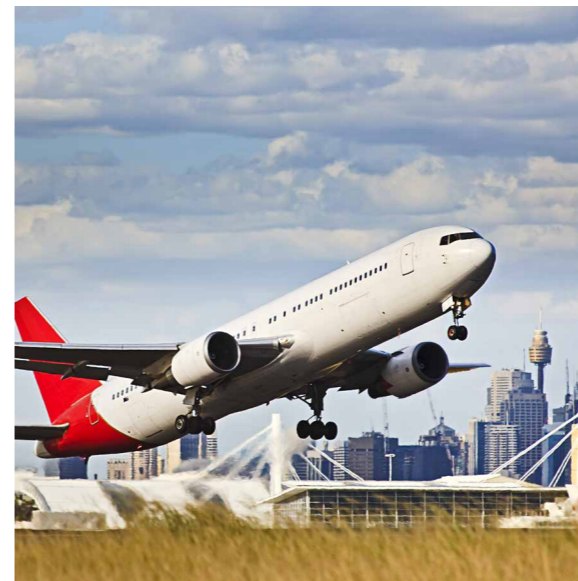


Sydney Airport Bifurcation, NSW

Our team delivered tender documentation for an array of services for the bifurcation upgrade work at Sydney International Airport. We completed the construction documentation on behalf of the subcontractors, which included upgrades to the Qantas arrivals level, Qantas Lounge, and an additional new food court area in the departures level with restaurants and sizeable central seating areas. Two new rooftop plant rooms were installed with a challenging

design requirement that needed to minimise the plant room size to maintain a clear line of sight from ground level. Our collaborative approach with all stakeholders enabled the completion of an accurate Revit model. We undertook full construction documentation and coordination for all the required services on this project.

Project value: \$40 million
Completion: 2016



Melbourne Airport New T4 Terminal & Pier G Construction, VIC

Our team provided over 80 site instructions, work sequences and inspection reports for Melbourne Airport's new T4 terminal project.

change tables and miscellaneous items. Stantec worked directly for Broad-Leighton, responding to all site engineer requests and liaising with all stakeholders during the project.

The work carried out included the designs and detail for temporary stability structures, crane lifting lugs, as well as new floors, ramps, handrails and screens, site shed roof, covered walkways, baby

Project value: \$55 million
Completion: 2015





Wellcamp Airport, QLD

The Australian construction materials and service provider Wagners required our help to design and document a new Greenfield airport.

The first stage involved a new terminal building with associated car parks, runway and several related hangars used to house the aircraft. Our team was responsible for outlining and fulfilling the electrical elements of the terminal building.

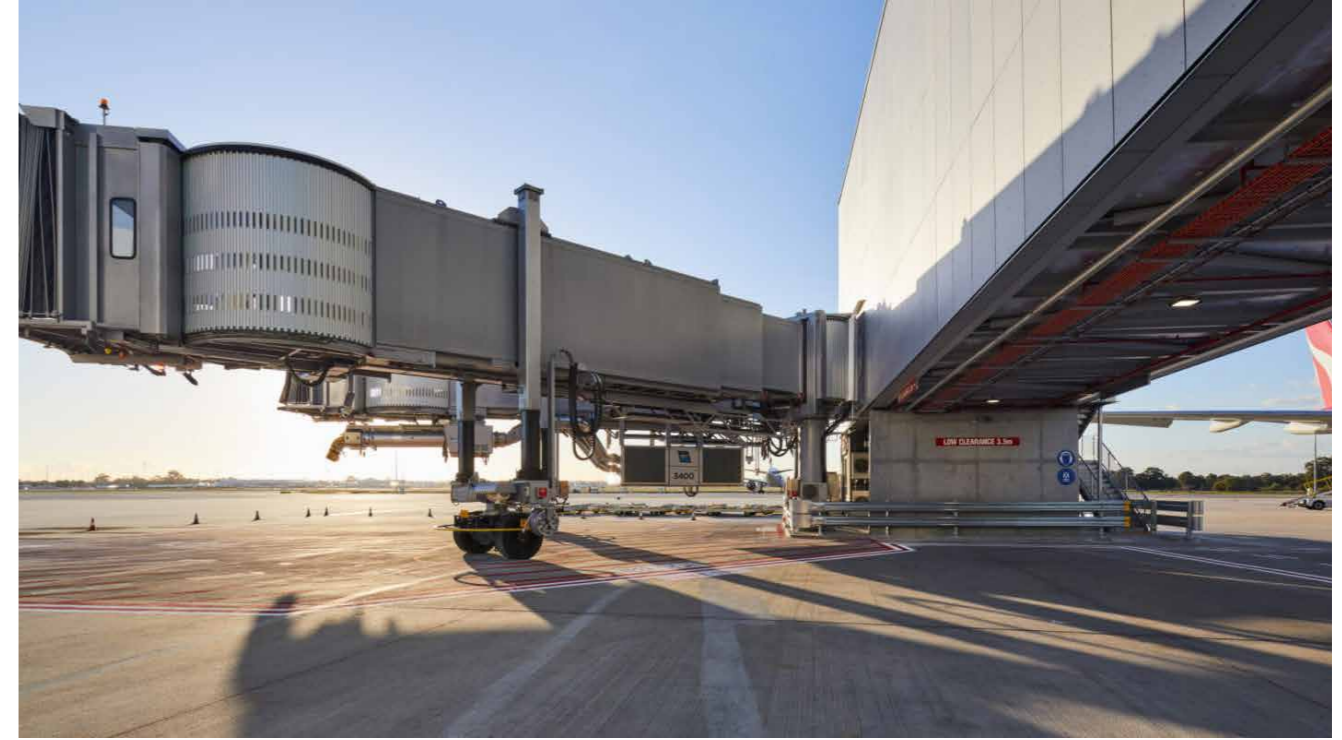
A range of work carried out includes installation of high voltage systems (within the airport site boundary), low-voltage power distribution, a backup generator power system, uninterruptible power supply (UPS), metering, internal and external lighting, public address systems (PA) and background music.

To ensure continual safety of the airport, we implemented emergency warning and intercommunication systems (EWIS) accompanying a hearing augmentation system. Adjoining this, our fire safety engineering team produced fire detection devices to identify and warn people when smoke, fire, carbon monoxide or other emergencies are present.

Our team administered proficient data communications and telephone systems for the airport's daily functioning.

We installed lightning protection and interfaced air-side lighting systems to meet Queensland's tropical location to protect the facility and its occupants.

Project value: \$150 million
Completion: 2014



International Gateway Upgrade Project, Perth Airport, WA

As part of the team under the contractor, Perkins, Stantec delivered full building services, along with civil and aviation scope for the new link structures for three gates at Perth Airport's Terminal 1 (International). We also delivered design, documentation and construction phase support.

Creating the three robust link structures, which fan out from the existing building posed some challenges working within a busy, live environment, and complying with airport restrictions and constraints. Stantec's design however, allowed the links to be prefabricated offsite, and transported to site for assembly. The 54m trusses were then lifted safely in position with minimal impact on operations.

Our work also included detailed dynamic analysis on the supporting pier, foundations and superstructure ensuring the design withstands the impact of a 70-tonne tug travelling along it with no movement consequences. The design also included plant rooms located at each individual gate, allowing them to be completely independent of the terminal building, thus reducing the impact on day-to-day activities.

The project is an example of Stantec working successfully in a complex brownfield infrastructure development environment with airside interfaces. Complex stakeholder engagement, consultation and negotiation was also involved to achieve project outcomes and buy in. Stantec also provided advice on programming and staging of works to improve project and cost outcomes.

Designed to comply with DOA requirements, the project delivers the standard of facility expected of an international airport and the passenger experience is considerably safer and more pleasant.

Project value: Confidential
Completion: 2021

**Winner of the Best Public Use Building
\$20M-\$50M at the Master Builders
Excellence in Construction Awards 2022**



Bankstown Airport - Services Infrastructure Strategy, NSW

As western Sydney continues to expand, Stantec was engaged to consider the various implications the growth will bring to Bankstown Airport.

Our engagement included strategically reviewing existing trunk services and infrastructure and identifying information gaps/issues that may impact future developments. Once this analysis was completed, Stantec then recommended strategies for the expansion or reinforcement of existing networks.

There were several challenges to consider, including the large area the airport covered (in excess of 300ha). There was also a lack of accurate inground services information, and there were questions around the ownership of the asset. Another problem was the source of flooding external to the site from the Georges River and overland flow from a large catchment upstream of the site.

Stantec subsequently prepared a consolidated airport-wide infrastructure document providing a big picture outlook. The report prioritised utility upgrades based on factors such as growth, age, redundancy and compliance. This will assist with capex forecasting by understanding priorities and costs against cashflow. The report also provided tools to support potential developments and identify future infrastructure.

Stantec's report can be updated on a regular basis as future demands change and further reviews are required.

Project value: Confidential
Completion: 2019



Banktown Airport AGL and Re-sheeting Works, NSW

Stantec was engaged to provide pavement strengthening of existing Taxiways, A1 and AB, K and Taxilane K and its' Apron Area to meet future traffic scenarios. We also provided Master Grading of Taxiways A, K and the Apron, to Code 3C. Master Grading of Taxilane K and the apron adjacent to the UNSW Hangar to meet the Code C/B requirements.

Challenges included achieving sign off from multiple stakeholders within a short timeline and construction had to be performed on time for another package to start under the AGL contract. Staging was also imperative to allow for continuous operation of the main taxiway into the hangar. The project required Stantec to coordinate and assist the Quantity Surveyor's costs assessment and the client's budget allocation and preparation.

In spite of challenges, Stantec delivered best value for money in the form of pavement overlay and pavement strengthening strategies to cater for future demand. We also completed the field investigation, including the non-disruptive FWD testing to determine the existing ground and pavement conditions and soil classification for export off site.

Contributing to the success of the project was Stantec's expertise in developing infrastructure in a live operational environment and mitigating the impact on airport operations. Our advice on probable costs, including infrastructure costs also assisted with project mandates.

Project value: \$20 million
Completion: 2020

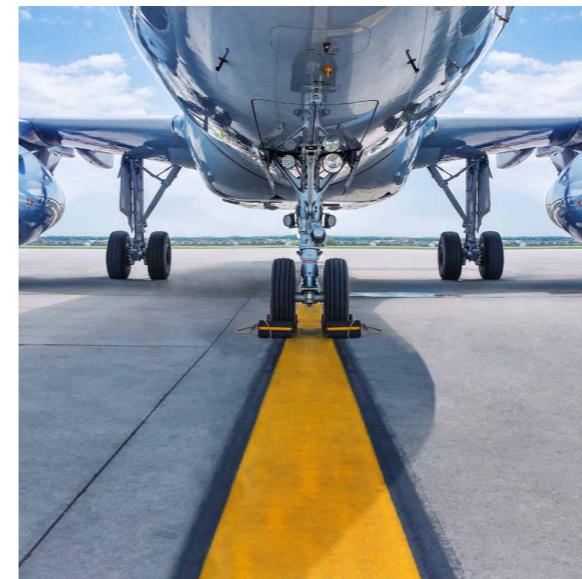


Bankstown and Camden Airports Technical Due Diligence

Bankstown Airport is the Sydney domestic and regional air hub for freight and commercial flights serving NSW and beyond. The airport is home to a wide variety of aircraft maintenance, operations, business and training schools including the University of NSW and NSW Police. Stantec were engaged to complete an extensive technical due diligence for the building services across the site. The works included a wide range of building types and

ages including large warehouses, a multi-story office building, workshops and air side services such as runways, taxi ways and navigational lighting systems. The project also included a 10 year capital works budget including major infrastructure such as precinct fire services, electrical distribution systems and air side drainage.

Project value: Confidential
Completion: 2015



Port Macquarie Airport Expansion, NSW

Our In line with the Airport's Master Plan, Stantec and Mode, were engaged to deliver the major upgrade/redevelopment of the existing Terminal Building. The objectives were to upgrade the existing facility, maximise the floor area and increase the functionality and capacity to improve the levels of service.

Key design features were the staged construction to allow the airport to remain in operation throughout the upgrade. Innovative design was also required to engineer a solution to fit within the project's modest budget. A range of services were provided by Stantec including

civil, structural, electrical, hydraulics and acoustics. Interior design services were provided by Mode.

The \$10 million project, which delivered a new and expanded Terminal building, was achieved ahead of schedule and with minimal disruption to day-to-day airport operations. The results have increased functionality and capacity, to help cater for forecast increases in airline services and passenger numbers over time.

Project value: \$10 million
Completion: 2019



Phase 3: Milford Sound Aerodrome

Stantec has been engaged to evaluate reports and pavement testing for Milford Opportunities Project. In addition, a technical evaluation of the runway and associated pavement will be done through a Falling Weight Deflectometer (FWD) and Multi-Speed Deflectometer (MSD) testing for the runway area. This will determine if any further Geotechnical site evaluation is required, including test pits and borings. In addition,

surface pavement modelling and design will be conducted to provide cross section information that will be used for pricing. Lastly, quantity surveying will assess preliminary estimates for civil works, including the runway area and a conceptual estimate based on GFA for buildings and structures.

Project value: Confidential
Completion: Confidential



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.



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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