A CONVERGENCE OF GREATNESS

DEVELOPER : The University of Queensland
MAIN CONSTRUCTION COMPANY : Hansen Yuncken
ARCHITECT : Lyons and m3architecture
STRUCTURAL ENGINEER : AECOM
CONSTRUCTION VALUE : $132 million

The Andrew N. Liveris Building at the St Lucia Campus of the University of Queensland is an innovative state-of-the-art 12-storey building space featuring an incredible glazed central atrium, suspended curved meeting pods and unique façade with an articulated glass veil.

Hansen Yuncken, with their exceptional track record across all sectors of the Australian building industry, was appointed to design and construct the project, which is now the tallest structure on the campus. Construction commenced in April 2019 and was handed over in July 2021.

The $132m building was realised thanks to the support of UQ alumni and principal sponsor Andrew Liveris, formerly CEO and Chairman of The Dow Chemical Company. The building will contain the School of Chemical Engineering, part of the Faculty of Engineering, Architecture and Information Technology.

The building is designed to be a vibrant hub for industry and interdisciplinary collaboration to address global challenges in areas such as energy, water, metals, bioengineering, gas, food production, materials, petroleum and mining. Excellence in research, teaching, student learning experiences and integration with other disciplines and external stakeholders will be facilitated by the design and layout of the building.

The new structure has an approximate gross floor area of 21,440m² and an effective height of 46m. A distinctive feature is the atrium from Level 4 through to the roof, with the atrium void open to the floors on Level 4 to Level 8. The design allows for a combination of open plan learning and collaboration spaces, project rooms, studios, laboratories, seminar rooms and plant facilities. Heavy equipment laboratory areas provide workshop type environments housing heavy equipment including furnaces.

Constructing the circular pods which cantilevered into the atrium provided one of the challenges on the project. Building in circles always poses issues as the components of concrete, steel and cladding require absolute accuracy. Hansen Yuncken had to build to strict dimensional control as there was no room for the level of tolerances usually seen when building straight walls.

The Andrew N. Liveris Academy for Innovation and Leadership has been established on Level 9 and will provide programmes to deliver a pipeline of effective and creative leaders for the digital era with the capacity to contribute to a sustainable future.

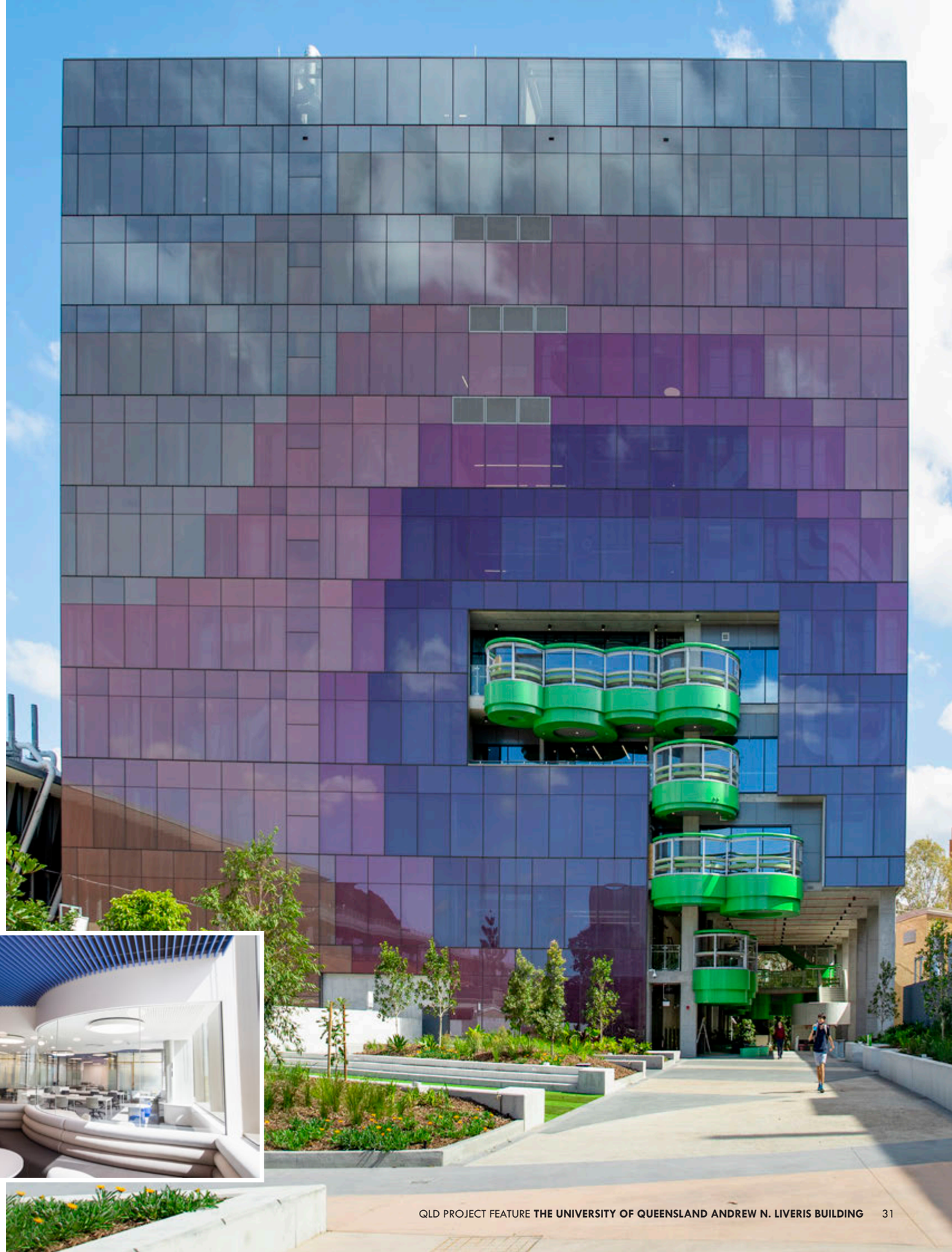
A further highlight is the scale of the pilot hall which extends from Levels 1-3 and is at the centre of the building. It will allow the fundamentals of processes used in industry to be replicated and demonstrated. Learning spaces and informal student areas overlook the pilot hall.

The design concept of the architects, Lyons + m3architecture, focused on creating a physical environment and identity that will allow the School to reinforce its strengths, including a strong emphasis on leadership in sustainability. The building's distinctive glass skin provides a highly energy-efficient façade, while creating a visual link to the older sandstone buildings on the campus. This was achieved using a glazed panel with a coloured ceramic frit that acted as a mirror to reflect the light from the sandstone buildings.

The Andrew N. Liveris Building is another successful addition to Hansen Yuncken's proud record in building landmark facilities across the education sector, with over $2.5 billion completed projects. In Queensland, the company completed the stunning Moreton Bay Foundation Building for the University of the Sunshine Coast in 2020, and the recently completed Student Services Hub also for the University of Queensland. In New South Wales, Hansen Yuncken has recently completed the Honeysuckle City Campus Stage 1A for the University of Newcastle.

Hansen Yuncken continues to drive change, implementing new technologies, methods and attitudes that change the way the industry approaches sustainable, quality projects that deliver real benefits to the Australian community.

For more information contact Hansen Yuncken, Level 1, 639 Wickham Street, Fortitude Valley QLD 4006, phone 07 3872 4000, email brisbane@hansenyuncken.com.au, website www.hansenyuncken.com.au



Below Hi-Reach Rentals Australia supplied two SC5000 single mast climbers on two elevations on the shear walls of the lift shaft and stair well sections.

Hi-Reach Rentals Australia has a mission to ensure the construction industry can work at heights with superior levels of safety by providing the nation's largest range of aerial equipment backed by unrivalled expertise.

Hi-Reach Rental's extensive range includes boom lifts, scissor lifts, spider lifts, cherry pickers, a range of specialised elevated work platforms, mast climbers, specialised scaffolding and swing stages, all of which are regularly serviced and maintained to the highest standards.

Hansen Yuncken contracted Hi-Reach Rentals to supply equipment for specific roles in the construction of the Andrew N. Liveris building at the University of Queensland's St Lucia campus. At 11-storeys high, the building will be the tallest building on the campus and the home for the School of Chemical Engineering.

The company supplied two SC5000 single mast climbers on two elevations on the shear walls of the lift shaft and stair well sections. "The façade contractors used the mast climbers to progressively install their monorail system up the building. This enabled them to bring their glass panels from inside the building onto the monorail then fix the panels from the mast climbers," explained Colin Fox, Managing Director of Hi-Reach Rentals.

Hi-Reach Rentals first conducted a site visit in order to inspect the access challenge first hand. "Our service always includes expert advice and providing optimal solutions for all access challenges on any project. Our recommendations are focussed on cost effective solutions to enhance productivity, combined with the highest safety standards," Colin explained.

The Hi-Reach mast climbers were in position for around six months at the building site. Hi-Reach provides expert installation of all their hire equipment by their experienced team. "This ensures total safety for staff and contractors working at heights which is integral to everything we do at Hi-Reach rentals," Colin added. "Safety is also a high priority for Hansen Yuncken and its Site Safety Officer was very satisfied with our policies and procedures."

Hi-Reach Rentals was established in 1996. Its Directors brought decades of combined experience in EWP and the construction industry, seeing a real need for specialist expertise in providing equipment for aerial work of all kinds, with round-the-clock, seven day a week service.

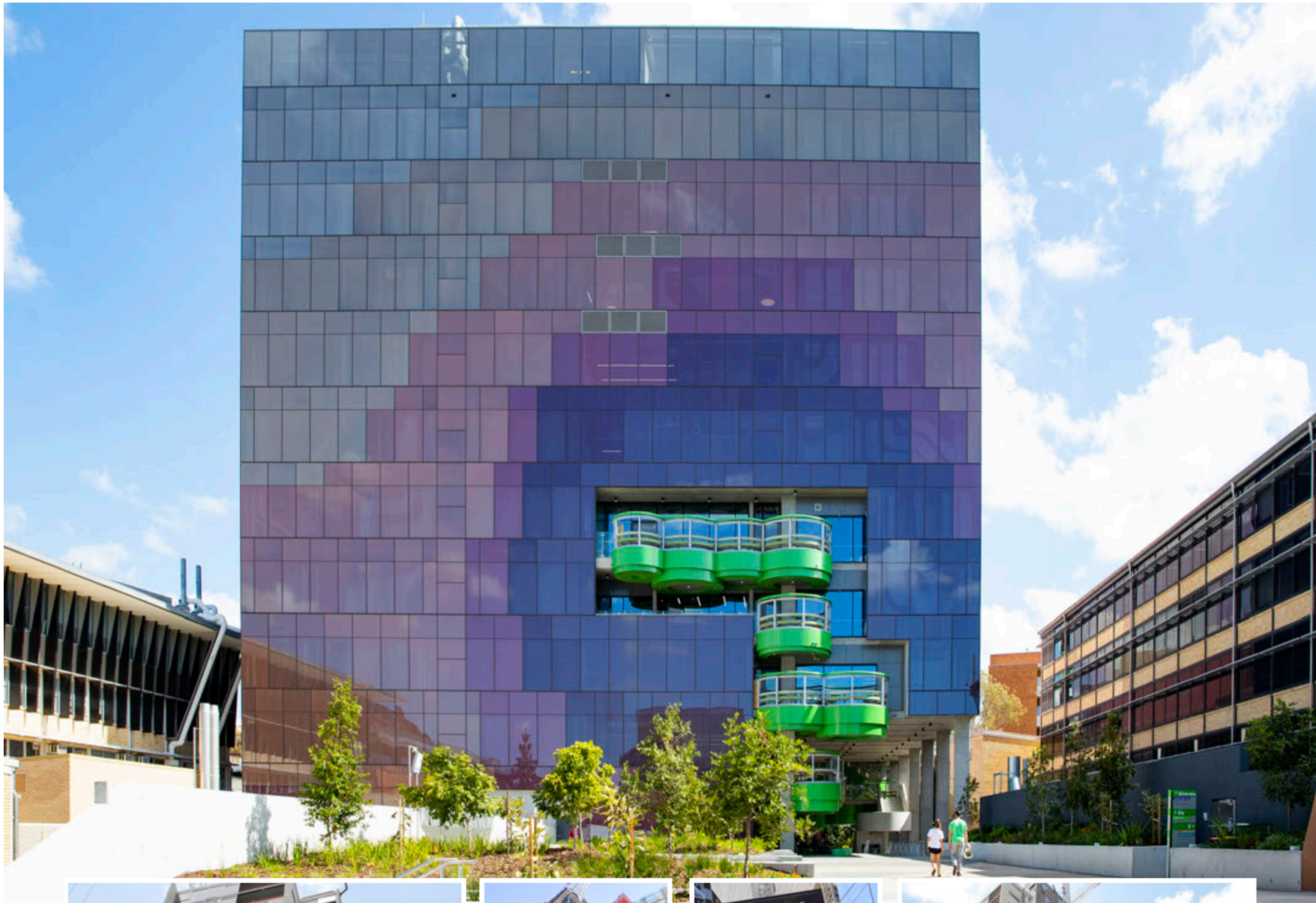
The majority of its work is in the south-east corner of Queensland with facilities in Brisbane, the Gold Coast and the Sunshine Coast. However, Hi-Reach's expertise and equipment has been called on for projects in all mainland capitals and New Zealand. "We work with a full range of construction businesses, from Tier 1 companies including Lendlease, Multiplex and John Holland, to smaller builders. Whatever the size of the project, we supply a highly flexible, customised solution." Colin said.

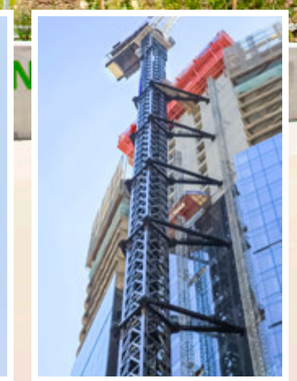
Hi-Reach has been engaged on many large projects where working at heights was particularly challenging. At the National Library in Canberra, Hi-Reach erected the largest freestanding Scanclimber mast climber in Australia, approximately 41m long and 23m high, to facilitate the removal of Carrara marble around the parapet. The mast climber was configured as a twin mast and had no ties to the building, which meant there was no patching required when the mast climber was removed.

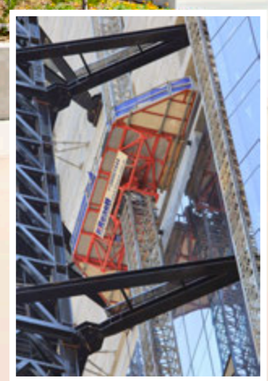
A project for the Auckland City Council saw four mast climbers employed on a two year project to replace granite cladding. The mast climbers transported workers and materials quickly and safely up and down the sides of the building and provided a stable and ergonomic working platform to a height of approximately 100m.

Elsewhere around Australia, Hi-Reach has provided equipment at the Brisbane Square project for Lendlease, University Hospital in Adelaide, the Wonthaggi Desalination Plant in Victoria, and the erection of light towers at Manuka Stadium in the Australian Capital Territory.

For more information contact Hi-Reach Rentals Australia, 28 Goodman Place, Murarrie QLD 4172, phone 1300 661 500, email enquiries@hireach.com.au, website www.hireach.com.au







University of Queensland Andrew N. Liveris Building, Queensland

Below Fitout Glass and Aluminium created unique coloured and curved glass features throughout the project.

Fitout Glass and Aluminium has added another quality project to their extensive portfolio with the completion of the Andrew N. Liveris Building at the University of Queensland's St Lucia campus. Contracted by Hansen Yuncken for the project, Fitout Glass and Aluminium manufactured and supplied all specified internal glazing requirements including doors, aluminium framing and glass partitions.

While most of the items represented standard products for Fitout Glass and Aluminium, there were a number of special finishes, such as the timber frames with curved glass panels on the top floor. "We gave special attention to the design and manufacture of the curved glass to meet the architectural specifications," said Company Director, Micah Woods. "The finished product looked very attractive after installation and is one of the unique features of the building."

Fitout Glass and Aluminium was involved on the project for around eight months, working closely with Hansen Yuncken to meet the construction timetable and to coordinate the installation of the glazing around the other trades working on the building.

"We have worked on a number of projects with Hansen Yuncken and it is always a very positive experience," Micah said. "In particular, the emphasis on safety on Hansen Yuncken's jobs is always of the highest standard and that fits in perfectly with our own approach to safety."

Fitout Glass and Aluminium's work on the Andrew N. Liveris Building reflected the values that the company brings to all its contracts. Quality of workmanship is of the highest priority and Fitout Glass and Aluminium always delivers on their commitments.

"Our track record has made us the preferred supplier of internal and external glass and glazing systems including the installation of internal office partitions, fabrication of aluminium framing and doors, installation of specialist hardware and door systems, frameless glass systems and balustrading in commercial applications to the construction industry in south-east Queensland," said Micah.

"We constantly work very diligently to make sure we retain that hard-earned position. Our large team of over 80 people plus a strong sub-contractor base, gives us the capability to service several projects at the one time without compromising quality or service."

Fitout Glass and Aluminium also has a focus on innovation to ensure their customers are offered the latest in design and products for their clients. Many are now seek superior environmental performance to achieve Green Star ratings and Fitout Glass and Aluminium can provide thermal and acoustic glass solutions to meet these standards and which do not impact on the mechanical or optical qualities of the glass.

From their 2,000m² office and aluminium fabrication facility in Eagle Farm, the trained and skilled Fitout Glass and Aluminium team manufactures windows and doors from raw extrusion to high quality finished products, always meeting clients' delivery schedules. At any one time, the company can have 200 individual projects underway. The company's manufacturing processes also focus on being environmentally responsible and sustainable.

Fitout Glass and Aluminium continues to grow across south-east Queensland, using market knowledge, experience and industry relationships to source innovative and unique products which maximise quality and cost effective solutions for their expanding client list. "We have the inhouse experience to anticipate issues in design and installation so that we can provide advice and solutions in the early stages of a project in collaboration with our builder clients," said Micah.

Fitout Glass and Aluminium is working with Hansen Yuncken on the refurbishment of the Thomas Dixon Centre in Brisbane's West End, the home of the Queensland Ballet. Another major current project is The Complex in Creek Street Brisbane for Hutchinson Builders.

For more information contact Fitout Glass and Aluminium, Lavarack Avenue, Eagle Farm QLD 4009, phone 07 3393 9033, email info@fitoutglass.com.au, website www.fitoutglass.com.au

Below Ellis Air completed design, construct and fitout of all mechanical services, including the Manifolded exhaust systems for the fume cupboards.

Ellis Air Conditioning Pty Ltd is an award winning, ISO Certified air conditioning and mechanical services company with a reputation for excellence across the commercial building industry.

Operating in both Victoria and Queensland, Ellis Air prides themselves on providing tailor made solutions for all heating, ventilation and air conditioning requirements, particularly for large, challenging projects including multi-story apartments, offices, education facilities, hospitals, clean room facilities and sporting facilities.

Ellis Air was engaged by Hansen Yuncken in May 2019 to design, construct and fitout all mechanical services at the unique Andrew N. Liveris Building which houses the School of Chemical Engineering at The University of Queensland's St. Lucia campus. The landmark 11-storey education facility has been designed to provide a significant teaching and research centre within the engineering precinct of the campus.

From Ellis Air's perspective, the project represented The University of Queensland's largest laboratory style project on the campus and consisted of specialist laboratory systems including manifold fume cupboard systems and the use of extensive laboratory gases, requiring the specialist expertise of Ellis Air's inhouse design team.

There were a number of unique features and challenges in the project. "Due to the complexity of the construction, we conducted a full BIM LOD400 service co-ordination among all trades. We also had to provide mechanical services on exposed ceilings throughout the project," said Project Director Joshua Daley.

Manifolded exhaust systems were designed and supplied by Ellis Air for laboratory fume cupboards. The manifolded exhaust system, with a primary fan and a backup unit in a common duct system, has higher energy efficiency than multiple, dedicated fans working independently. They save energy as less fan power is required and the airflow system is adjustable in response to varying requirements. They also require less energy to disperse exhaust plumes due to increased dilution and momentum of effluent.

A highlight of the Ellis Air's work was a mega riser of 16 sections, designed and built off site and installed into the central shafts of the building.

Ellis Air also supplied high/low pressure and high purity laboratory gas installations. Due to the hazardous nature of the chemical engineering activity in the building, dust extraction exhaust systems had to be built and certified to meet regulatory requirements.

"The Andrew N. Liveris Building project required a very significant effort by our team with up to 75 staff and subcontractors being involved at the peak of the work," Joshua said.

"This was an iconic project from many perspectives, principally because it is the largest laboratory of its kind for The University of Queensland and in fact is the largest one of its kind in Brisbane. We are delighted to have worked with Hansen Yuncken on the building and to have made a major contribution to the safe working of the facility."

Ellis Air is no stranger to large, challenging projects. The company also worked on The University of Queensland Elkhorn Building refurbishment at the Long Pocket campus in Indooroopilly where it completed PC2 microbiology and chemistry laboratory facilities.

In the health sector, one of Ellis Air's outstanding projects was at the new Roma Hospital, where all mechanical services were designed, constructed and installed, requiring a major effort from its team in a regional location distant from Brisbane.

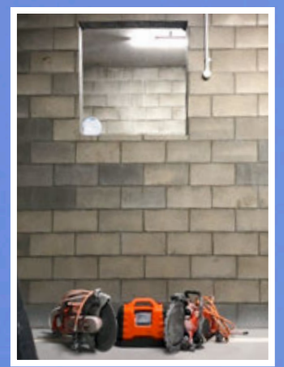
Major projects in the commercial sector undertaken by Ellis Air in Brisbane include the Queens Wharf development, where it is delivering the central infrastructure for air-conditioning and mechanical services to the precinct plus basement car park ventilation and the central energy plant. Also in Ellis Air's current portfolio are the 80 Ann Street and 300 George Street projects.

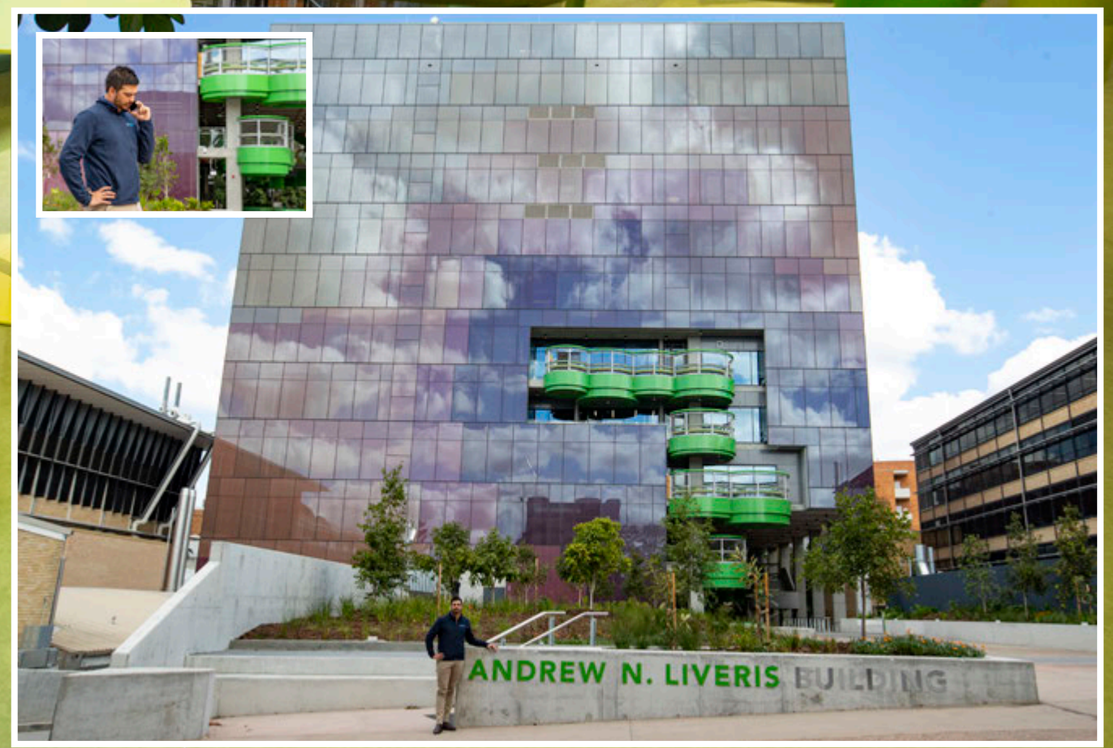
Ellis Air provides a complete package on any project from the concept stage to completion, enhancing efficiency and saving costs by eliminating the need to deal with multiple suppliers.

For more information contact Ellis Air Conditioning, 54 Alexandra Place, Murarrie QLD 4172, phone 07 3213 9700, email ellis@ellisair.com.au, website www.ellisair.com.au

Below Condrill Services completed a range of concrete cutting services across the project including the atrium void.

Below Yorke Consulting provided the blue-collar workforce for the project which included all skilled trades, hoist operators and traffic controllers.





Condrill Services is renowned for its professional capabilities in all aspects of concrete cutting and drilling, demolition and associated works. Established in Queensland in 1982, Condrill Services has won the respect and trust of the full spectrum of builders from Australia's leading Tier 1 construction companies through to operators in the domestic housing and renovation sector.

Hansen Yuncken engaged Condrill Services to undertake a range of concrete cutting services on the Andrew N. Liveris Building at the University of Queensland's St Lucia campus.

The building had a number of unique architectural features including an atrium from Level 4 through to the roof, with the atrium void open to the floors on levels 4-8. Along with standard concrete cutting tasks like cutting out doorways and lift shafts, the Condrill team had to scan all capping beams to identify the location of all reinforcing.

"We have the specialised equipment that allows us to provide a safe, non-destructive and rapid onsite imaging service in these situations," said Condrill Services' Project Manager, Ben Wilson. Condrill Services had 10 operators for approximately two years onsite from the commencement of the project.

Head-quartered on the Gold Coast with an additional office on the Sunshine Coast, Condrill Services undertakes projects from northern New South Wales, across south-east Queensland including Brisbane and has completed assignments in regional areas.

Condrill's portfolio includes iconic projects like the Gold Coast Hospital, the Gold Coast Convention Centre and Q1 Apartments. The company is currently working on the new Star Casino in Brisbane, the Queens Wharf project on the Brisbane River and is engaged on demolition and reconstruction works at the Star Casino on the Gold Coast.

"The Condrill Services fully trained team of operators is committed to ensuring all projects are completed to the highest standards of safety and cost effectiveness, whether it is a major infrastructure project or a standard domestic build," Ben said.

For more information contact Condrill Service, 4/54 Kingston Drive,Helensvale QLD 4212, phone 07 5519 9011, email admin@condrill.com.au, website www.condrill.com.au

Yorke Consulting is a specialist recruitment service provider offering labour hire and permanent recruitment solutions for their clients and candidates within the construction industry across South-East Queensland. Founding Directors, Rhys Yorke and Donald Stout established Yorke Consulting in January 2018 with a commitment to the highest standards of recruitment, with a mission to build long lasting business relationships.

Yorke Consulting successfully tendered for the labour hire contract with Hansen Yuncken providing the blue-collar workforce for the Andrew N. Liveris building project which included various skilled trades, hoist operators and traffic controllers.

The experienced and dedicated team of Yorke Consulting ensured all workers complied with the utmost professionalism, since the construction project was operating in a live campus environment.

Safety, quality and team-ship was paramount in delivering the project successfully on-time. Managing Director, Rhys Yorke, commented "The Andrew N. Liveris project was an exciting and positive experience for all our team which we trust will develop into a mutually beneficial long-term relationship with Hansen Yuncken."

Yorke Consulting offers total flexibility and a personal approach to their business, tailoring their services to meet most staffing requirements. "Through our rigid recruitment processes we endeavor to attract the best talent, offering reliable permanent and contract solutions," Rhys said.

Consistently building a loyal team of construction workers and with offices in Brisbane, Gold Coast and Sunshine Coast, Yorke Consulting are geographically well placed to respond to staff needs promptly and efficiently across Queensland.

Relationships, Service and Quality are the three areas which Yorke Consulting thrives upon. Seeking a reliable and trustworthy recruitment partner, look no further than Yorke Consulting.

For more information contact Yorke Consulting, Level 3, South Tower, 527 Gregory Terrace, Fortitude Valley QLD 4006, phone 07 3613 9030, email apply@yorkeconsulting.com.au, website www.yorkeconsulting.com.au