

WAY OF THE FUTURE

CLIENT : Poly Developments & Holdings
MAIN CONSTRUCTION COMPANY : BESIX Watpac
ARCHITECT : Grimshaw
STRUCTURAL ENGINEER : WSP
TYPE : Commercial



Poly Centre is an A-grade office tower comprising over 17,000m² of innovative work spaces with dual floor village configurations, bespoke fitouts, state-of-the-art facilities, open communal spaces, unique outdoor areas, and over 500m² of George Street retail.

Poly Centre is a 25-storey commercial tower located at 210 George Street in the heart of Sydney. With over 17,500m² of commercial and retail space, this 110m tall building will provide value for both employees and the public. BESIX Watpac undertook ECI and Design and Construction of Poly Centre.

“The ECI commenced in 2018 and demolition began in 2019 with construction underway in 2020,” explained Project Manager, Tim Hensel. “Construction was undertaken through the thick of COVID, light rail completion, bush fires and most recently the La Niña events.”

“The unique design and prime location also provided numerous challenges for the construction team over the project.”

Designed by international architecture firm Grimshaw, Poly Centre’s solid, sculpted core sits on the eastern boundary of the site, while west facing George Street floorplate is expressed as a continuous glazed vertical element spanning the length of the tower.

The building’s design aims to synthesise sustainability and flexibility by maximising natural light and utilising environmentally conscious and efficient measures to minimise running and maintenance costs. Architectural and structural flexibility will allow tenants to modify their workplace layouts depending on their needs.

Poly Centre’s evolutionary Air Village design – dual floor connected occupancies that have double height spaces – has already received international acclaim, winning the 2020 MIPIM Architectural Review’s Future Project Award for office and office-led development.

“The Air Villages incorporating double height precast columns, fascia and GRC pillars are the standout element for the project and the final product looks fantastic when walking along George Street,” Tim explained.

“There are about 550 precast panels, each weighing up to 16 tonne and over 1,300 curtain wall panels in this structure and the complex façade with curves and GRC elements required careful design and construction coordination to achieve the detail we have today.”

Poly Centre forms part of the transformation of Sydney’s Circular Quay precinct alongside brand new ferry wharves, light rail and a raft of commercial redevelopment. To conform with the high standard of quality created by its neighbouring structures, the building utilises materials and finishes and identifies as a PCA A-Grade building.

It’s the fourth iconic building constructed by BESIX Watpac in the George Street precinct. “In 2009 we completed 275 George Street, a 32-Level commercial office tower for Charter Hall, then in 2015 we started work on 333 George Street. In 2018 we completed the award-winning York & George, 38-storey mixed use high rise for TAP Sydney Pty Ltd,” NSW General Manager, Peter Furlong said.

BESIX Watpac has been part of Australia’s contracting fabric for over four decades and made its mark in New South Wales with major projects in the commercial and residential, transport, health and education sectors including the Museum of Contemporary Art, Forensic Medicine and Coroner’s Court, Hornsby Ku-ring-gai Hospital Stage 2 Redevelopment, and Sydney Metro Barangaroo Station.

Across the country the company has built several of Australia’s leading stadiums, such as the Suncorp and Gabba Stadiums, Queensland and Victoria’s schools PPP packages and delivered more than 40 hospitals across the east coast.

“We are a leading Australian multi-disciplinary construction company backed by a century of global expertise and financial strength,” said Peter. “A wholly owned subsidiary of the award-winning international contractor BESIX Group, we specialise in complex construction across all sectors. Our point of difference is the way we collaborate with architects, consultants and suppliers to bring our client’s vision to life. Importantly, this means assembling the best team to manage and guide the design development and achieve the best value project.”

BESIX Watpac’s experienced design managers, inhouse engineering team and construction specialists, work side-by-side with their partners to challenge the constructability of a project. BESIX Watpac has more than 150 inhouse engineers operating from three global hubs in Brisbane, Dubai and Brussels.

“Our specialists are embedded in project teams to interrogate the design; de-risking projects, maximising value, and delivering certainty,” Peter added. “We are members of the Infrastructure Sustainability Council (ISC) and the United Nations Global Compact, and we design and build projects that achieve world class ratings.”

For more information contact BESIX Watpac, Level 24, 44 Market Street, Sydney NSW 2000, phone 02 8741 7400, email receptionbne@watpac.com.au, website besixwatpac.com.au



Below New Edge Group provided the mechanical air conditioning and ventilation, BMS and BIM management/coordination.

New Edge Group were engaged by BESIX Watpac under a D&C role for Poly Centre, where New Edge developed the design from a very preliminary stage through to completion.

New Edge undertook the mechanical air conditioning and ventilation, Building Management System (BMS), and BIM management and coordination for the project.

“There were a number of sustainable initiatives for the mechanical services of the project,” said New Edge Pre-Construction Director, Shannon Hanly-Jones. “These included high efficiency water cooled chillers, very low temperature air supply systems, electronically commuted fans and energy efficient control strategies to optimise the buildings low turn down efficiency.”

The small building footprint of Poly Centre meant plant rooms and risers were tight and presented a number of coordination difficulties. In addition to this the floor-to-floor heights within the plant rooms were very limited.

“Locating air intakes due to the site limitations was challenging as the building was bounded on all sides by neighbouring properties,” said Shannon.

“Extensive work within the digital built space was required to coordinate these extremely tight plant rooms. Close collaboration with our site team was required to prepare detailed methodologies to enable the construction of these congested areas,” said Shannon

New Edge developed a range of innovative solutions to ensure the success of their brief on this project including prefabricated riser frames that were incorporated into the concrete pours, reducing both construction time and risks associated with having open risers during construction. Due to limited roof access and space for rigging, New Edge prefabricated the modules for rooftop installation.

“The top commercial floor of the building is a double height space where the architectural intent was to expose the curved structural roof structure,” said Shannon.

“As a result the mechanical systems serving this floor were distributed via an underfloor

system. Underfloor systems must be served by warmer air than conventional mechanical systems and overcoming this issue created a unique mechanical system for this floor.”

New Edge Group is a family-owned Australian business specialising in electrical and mechanical design and construct contracting and is supported by their specialist 24/7 maintenance servicing division.

The company views the key to their success is in being selective in the types of projects they undertake, and the clients that they want to form trusted partner relationships with. New Edge Group takes a considered approach to their work and provides their employees with gratifying projects to work on where they can feel empowered.

“Clients feel assured they are working with a dedicated, amiable and competent team that is highly energetic, passionate and takes pride in everything that we do. A team that takes safety seriously, is innovative, and enjoys seeing the design intent come to fruition for each project,” said New South Wales State Manager, Danny Canal.

New Edge Group’s solutions have contributed to several award winning projects which is testimony to their project execution, communication and teamwork. “Setting the Standard – Your Vision. Our Future” is the company philosophy forged through very strong relationships with clients, suppliers and associated professionals. Today, New Edge are the leading bespoke electrical and mechanical contractors of choice.

New Edge is currently close to completing another highrise tower in Macquarie Park, 5.5 Star NABERS, 5 Star Greenstar and WELL Platinum rated. Currently in progress is the Rosebery Engine Yards, a 15,000m² repurposing of a heritage asset to a new commercial building incorporating 5 Star Greenstar, 5 Star NABERS, expose services and double height spaces. Along with numerous projects in the Health, Mission Critical & Industrial sectors.

For more information contact New Edge Group, 5/24 Daniel Street, Wetherill Park NSW 2164, phone 02 9725 5555 email info@newedgegroup.com.au, website www.newedgegroup.com.au



Below Dynamite Electrical Services were contracted to provide all of the base electrical works at the Poly Centre.

Below UTJ Interiors installed the reception desk/feature wall, subframe for fabric ceiling, end-of-trip vanity units and more.



Dynamite Electrical Services were contracted to provide all base electrical works including switchboards, submains, lighting and emergency lighting and power installation at the Poly Center.

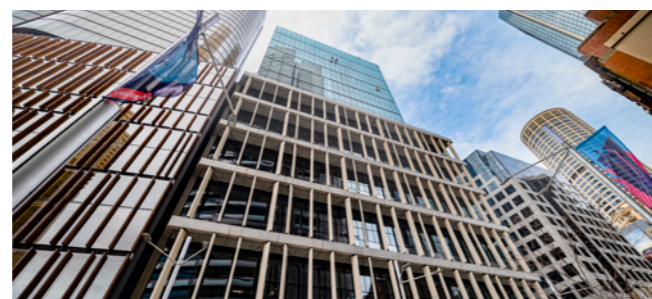
“The largest issue Dynamite Electrical faced was the after effects of the COVID pandemic in terms of procurement,” said Program Manager, Reuben Hartshorne.

“Due to most of the buildings’ lights running on the DALI lighting control system, almost all light procurement was pushed back by months due to chip shortages.” Additionally, Dynamite Electrical managed subcontractors for security, DAS, fibre backbone and the generator.

Established in 1992, Dynamite Electrical is a medium sized Electrical Contractor whose core strengths lie in the successful delivery of electrical, security and communications systems for medium to large residential and commercial projects, most of which are for top tier clients. The company prides itself on returning value to their customers as well as their own business, through transparent, professional and timely communication and correspondence.

With over 30 years in the construction industry Dynamite Electrical have completed a number of landmark projects and earned a reputation of consistently completing all projects on time and budget.

Dynamite Electrical is currently finishing 1EPD located at 1 Eden Park Drive, Macquarie Park which is a seven-storey cutting-edge modern commercial building for Watpac. Dynamite is also working on NINE Willoughby for Mirvac.



For more information contact Dynamite Electrical, 1053 Botany Road, Mascot NSW 2020, phone 02 9669 3311, email admin@dynamitegroup.com.au, website dynamitegroup.com.au

UTJ Interiors took on a range of work for the Poly Centre project including the reception desk, reception feature wall, steel inserts to the stone wall, subframe for the ceiling, and the end-of-trip vanity units.

“Poly Centre boasts double height ceilings throughout. The lobby area has a 7m ceiling height,” said Managing Director, Paul Van de Haar. “UTJ and our subcontractor Twisted Metalcraft provided floor to ceiling Granex Bronze Mirror Stainless Steel in a matt finish, V-Grooved and folded to the feature wall. Twisted made a faultless contribution on this project”.

“To the lift lobby sandstone wall, UTJ installed the Folded Bronze Wall joints. To the ceiling, we installed the subframe for the Newmat stretched fabric ceiling. The reception desk substrate is marine ply and had to be precision built to support the stone cladding.” UTJ also built the vanity units in the end-of-trip facilities (excluding stone) using a Laminex Natural Walnut.

“Poly Centre is the type of job where UTJ really shows its versatility and capability. It was tricky, precise work requiring a lot of specialist experience. The architect Woods Bagot dreamt up this incredible design, Watpac built it and UTJ Interiors provided the finish.

We’re really proud of our involvement” said Operations Manager, Michael O’Neill. “This job included a lot of high, potentially dangerous work. We take the safety of our guys very seriously and we’re proud also of our safety record”.

“UTJ turned 70 years old last year. My grandfather started the business, my father and I took it to the next level, and these days we’re doing Sydney’s most prestigious commercial work,” said Paul. “We have a factory full of experienced staff and super high-tech machinery and we have a site crew that get the job done every time, on time. Our factory and site crews work together seamlessly with fantastic teamwork these days.

UTJ Interiors is one of Australia’s premier manufacturers of custom joinery and detailed veneering. Specialising in hotels, universities, schools and commercial facilities. Recent projects include Crown Casino, UTS Science Building, Sofitel Hotel Darling Harbour. Current projects include Sandstones Hotel – Luxury 6 Star hotel in Bridge Street Sydney and the Reserve Bank redevelopment in Martin Place Sydney.

For more information contact UTJ Interiors, 234 Berkeley Road, Unanderra NSW 2526, p. 02 4271 5522, www.utjinteriors.com.au