

Industry & Logistics

Axis Alexandria: a carbon-neutral industrial development delivered in South Sydney

Axis Alexandria is a multi-level industrial facility consisting of nine units ranging from 1,000 to 7,000 m² and a 36-metre-wide shared hardstand for vehicles. Requiring significant design engineering and incorporation of advanced technologies, each unit includes a light-duty car park for each office, heavy-duty hardstands, and composite structure multi-level warehouse, with a two-storey office and solar power.



It sits on a prime 1.69-hectare brownfield site in south Sydney and is the first multi-storey facility of its kind in Australia, for Australia's largest industrial owner and developer, Goodman.

Innovative sustainability

Regenerating the brownfield site, innovation, and sustainability were at the forefront of the design process. Envisioned in collaboration with architects FJC Studio (formerly FJMT Studio), Axis Alexandria sets new benchmarks for sustainability with a 410 kW PV solar array directly benefitting the customers occupying the building. It features water harvesting, electric vehicle charging, diverse drought-resistant landscaping, smart meters to help manage electricity consumption, and LED lighting and daylight harvesting to reduce energy use by 60-80%. It's targeting 5-Star Green Star Design and As-Built v1.3.

Reducing environmental footprint

Early in the design phase of Axis Alexandria's development, the project team identified recycled steel as a key material that could be incorporated into the industrial facility's construction. BESIX Watpac's partnership with a trusted supplier played a pivotal role in the successful execution of this initiative.

Together, the teams navigated the complexities of sourcing and repurposing recycled steel, ensuring it met stringent quality standards. Throughout delivery, over 1,500 tonnes of 80% recycled steel was incorporated into the main structure of the project. This saw significant cost efficiencies and displayed BESIX Watpac's dedication to closing the material loop and achieving a more circular construction model.

Indigenous outcomes key to project success

Axis Alexandria is committed to achieving positive social outcomes. The project engaged seven indigenous businesses including surveyors, craneage, plant and equipment hire, signage, and scaffolding. The total spend related directly to Indigenous businesses amounted to AU\$1.3 million (€790,000), meeting the project target of 3% of the original contract value. Project commencement was marked with a Welcome to Country ceremony by the Metropolitan Local Aboriginal Land Council to acknowledge the traditional owners of the land.

Unique site restrictions create innovative delivery methodology

Site restrictions for the project include a 6 metre proximity limit from the building to the site perimeter and a transgrid easement running through it adding complexity to the construction process. To overcome the challenge, an innovative methodology of building the warehouse from the inside-out was employed. Crane lifts were carefully planned and executed to lift materials over the steel structure from the inside-out and into position, remaining at all times below Sydney Airport's capped ceiling height restriction (RL47.5).

Aesthetic and amenities focus on environmental well-being

Goodman's Axis Alexandria is a prominent facility balancing raw industrial style with a refined premium aesthetic. The development focuses on environmental well-being, featuring superior air ventilation, natural light penetration, and the use of sustainable materials.

Best-in-class amenities will help deliver a more productive and enjoyable working day for the building's occupants, with the expansive green spaces of Sydney Park enhancing the focus on well-being.

Project details

Axis Alexandria

Location

Sydney, Australia

Client

Goodman

External partners

FJC Studio – Architect (formerly FJMT Studio), SBA Architects, Costin Roe Consulting Engineers

Contract type

Design & Build

Construction period

2021 - 2023

Contract value

AU\$45 million (€27 million)

16,081 m²
multi-level industrial warehouse and office development