

A WORLD CLASS FACILITY

Left The impressive National Life Sciences Hub at Charles Sturt University, Wagga Wagga Campus

The Charles Sturt University - National Life Sciences Hub awarded to Joss Construction will enable further research and training into the national priority areas of food production and security, plant and animal sciences, animal health and water and environmental sciences.

CHARLES STURT UNIVERSITY - NATIONAL LIFE SCIENCES HUB / JOSS CONSTRUCTION



Joss Construction was selected as the Head Contractor for the National Life Sciences Hub at Charles Sturt University.

Joss Construction was selected from an experienced and capable field of builders. Their hands on team approach and Company base in near-by Albury have enabled them to be highly responsive to project needs and issues.

The project design required robust discussions in order to achieve a balance between the requirements of multiple stakeholders and the constraints of a tight budget.

Some challenging elements presented on the project are noted below:

- The project was staged requiring a new access road to be constructed prior to commencement of building works.
- The 3 level project is set on a sloping site which required fill to a height of approximately 3.5 metres at one end
- The project was highly services oriented and had set plaster ceilings throughout all areas requiring a high level of co-ordination.
- Much of the fitout was based on one off custom design and required heavy consultation with design consultants during the shop drawing and prototype review process.
- Site access was restricted by a 3m high retaining wall

The experienced team at Joss Construction were able to work with all challenges resulting in a positive outcome on the project.

The National Life Sciences Hub made extensive use of an old material. The façade is built up of recycled bricks which contribute to thermal efficiency and provide a highly distinctive appearance. A recirculating chilled water system in the teaching laboratories will be used for heat rejection from experiments, significantly reducing wastewater during teaching. There is also high efficiency Powerpax chillers which will reduce energy demands within the Building.

Other techniques and materials included:

- Polished concrete floors
- Custom designed & built Trespa laboratory benches
- Custom designed overhead laboratory services droppers
- Rodeca Polycarbonate wall cladding
- Danpalon Polycarbonate Roofing and

- skylights
- Aluminium composite panelling
- Recycled Timber Cladding
- Plexiglass polycarbonate greenhouses
- Energy efficient indirect evaporative cooling systems
- Liquid nitrogen system
- Controlled environment Area including 20 Growth Chambers
- AQIS 5.2 (microbial) certification requirements
- Extensive waste water treatment including 6 dilution tanks (6 metres deep)
- Rainwater harvesting system
- Dynalite lighting control system
- Custom built lounge suites
- State of the art Building Management System
- Recycled Brick cladding including brick soffit linings
- Extensive external works consisting brick paving
- Custom built external concrete furniture

The project has been a complex journey from concept to handover and Savills Project Management has been fortunate to have Charles Sturt University's support and trust throughout the process. The result is a world class facility which enables the Faculty of Science to continue to deliver its research and teaching objectives well into the future.

Joss Construction have undertaken a number of recent projects for Charles Sturt University including:

- Live in accommodation at Bathurst, Orange and Wagga Campuses
- Vet Sciences – School of Clinical Teaching Centre (Wagga)
- Vet Sciences – Diagnostic Centre (Wagga)
- School of Dentistry & Health Sciences – (Wagga)
- School of Dentistry – Albury
- Teaching Commons Refurbishment (Wagga)

Joss Construction is proud to continue their association with Charles Sturt University in the ongoing expansion of their facilities.

For more information contact Joss Construction, 206 East Street Albury NSW 2640, phone 02 60 511 900, fax 02 60 217 054, website: www.jossgroup.com.au.
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Below Cube Furniture supplied laboratory benches, service walls, shelving, joinery, loose furniture and stainless steel benches for the Charles Sturt University National Life Sciences Centre

Below Hutchins Bros were appointed to deliver structural steel fabrication for the Charles Sturt University National Life Sciences Centre



Cube Furniture's involvement in the Charles Sturt University National Life Sciences Centre was primarily the supply of laboratory benches, service walls, shelving, joinery, loose furniture and stainless steel benches.

This Charles Sturt project is a bespoke building, with an extremely high specification, particularly in regards to infection control principles throughout. The product specified, and the guidelines to adhere to, could not be compromised, and therefore the margin for error was extremely minimal.

Trespa, a compact laminate from Laminex, was specified in a lot of the fit out, due to its chemical resistance and robust nature. The versatile Trespa product is ideally suited for this project due to the high chemical, scratch, wear, impact and moisture resistance properties. The product is challenging to use for various reasons. Firstly it cannot be cut on site, and is very difficult to use with traditional fixing. Therefore the engineering and design had to be managed prefabrication to mm tolerances. The form of assembly being primarily araldite and sykaflex glues. Cube Furniture are delighted with the outcome of the product.

Cube Furniture was developed from a commercial joinery business in 2006. The joinery was primarily a commercial furniture manufacturer, supplying retailers and government clients with standard line products and specified joinery. With imported products flooding the market, the Company found that they had to find a niche market and go direct to the end user, or simply incorporate a full range of products from seating and storage to more recently white goods and electrical. The decision was made to put everything under one roof and Cube Furniture have since fostered very good business partnerships with leading manufacturers and wholesalers around the country. These include Gregory Australia, TSA Metals, Pago Design, Thinking Ergonomics, DAL seating, Marco Engineering, Arredorama, Jardan, BCI, JAR, Goodguys, Capital Veneering and AWM.

Cube Furniture is based in Canberra and specialises in commercial fit outs, particularly focusing on federal government projects. The team manage fit outs both nationally and internationally for several federal government bodies and are preferred suppliers to key bespoke buildings in Canberra.

For more information contact Cube Furniture, phone 02 6239 3844, fax 02 6239 1915, website: www.cubefurniture.com.au

The National Life Sciences Hub at Charles Sturt University is registered for a Green Star - Education Design v1 rating and is targeting a 5 star Green Star rating. The development is set to represent Australian Excellence in sustainable building design. The structural framework for the building was comprised largely of steel.

Hutchins Bros were appointed to deliver structural steel fabrication for the project. The building involved ~400t of steel and purlins, 100% of which was manufactured in Australia. Hutchins Bros utilised their latest innovative equipment, the Python X beamline system to process the steel for the Charles Sturt University project. The machine enabled them to delivery product with improved efficiency and accuracy, a service they have been able to offer all customers since the equipment was commissioned.

Through its industry alliances Hutchins Bros can provide the entire Structural Steel package, from design and shop-detailing right through to fabrication, finishing and erection. The CSU project required high end 3 coat epoxy paint finishes to the exposed steel

elements which Hutchins Bros were able to deliver through the protective coatings arm of their business.

Putting into action their documented Workplace Health & Safety & Quality Management Plans, Hutchins Bros executed the project in a safe manner and achieved a high quality outcome, giving the client traceability and transparency on all levels.

Hutchins Bros is a member of the Australian Steel Institute and a signatory of its Environmental Sustainability Charter, meaning that through its commitment to environmental improvement it can offer its clients credit points under the green star rating system.

For more information contact Hutchins Bros Engineering, phone 02 6959 2699, email: hbc@hutchinsbros.com.au.

