

Woolacotts.
CONSULTING ENGINEERS

Health & aged care.



Company overview.

Woolacotts Consulting Engineers is part of the Daly International group of companies. Together, we employ more than 280 people to provide project delivery and management services throughout Australia and the United Kingdom.

Services

STRUCTURAL ENGINEERING

CIVIL ENGINEERING

HYDRAULIC ENGINEERING

ASSET AUDITING

DRAFTING

Sectors

COMMUNITY INFRASTRUCTURE

EDUCATION

HEALTH & AGED CARE

INDUSTRIAL & AVIATION

JUSTICE & EMERGENCY

RESIDENTIAL

Employees

200

AUSTRALIA

80

UNITED KINGDOM



Locations

UNITED KINGDOM

- Glasgow, Scotland
- Manchester, England
- Theale, England
- Reading, England

Locations

AUSTRALIA

- Sydney
- Melbourne
- Brisbane
- Adelaide
- Perth



Known for excellence, Woolacotts provides high quality structural, civil, and hydraulic engineering services Australia-wide.

Woolacotts Consulting Engineers

Established in the early 1930s by Frank Woolacott, a structural engineer and architect, Woolacotts has a long, proud history.

Known for exceptional design and responsive service, Woolacotts provides structural, civil, and hydraulic engineering services to a wide variety of clients.

We have played a role in shaping many of Australia's hospitals, aged care facilities, schools, universities, colleges, prisons, parks, civic buildings, industrial and aviation facilities.

Today, Woolacotts is a division of Daly International.

Daly International

With operations that span Australia and the United Kingdom, Daly International is an infrastructure deployment and project delivery organisation. The company employs more than 280 people to provide engineering, design, property, town planning, construction and project management services.

Daly International works on projects for a diverse range of clients in the energy, environment, telecommunications, resources and commercial sectors.

The company prides itself on its well-proven record of international experience matched with detailed local expertise, gained over 20 years of operations.

Why Woolacotts?

Health infrastructure experts

With experience spanning over 500 health and aged care projects, we know health infrastructure projects are unlike any other. We understand the challenges of working within busy operational hospitals – delivering critical services, maintaining emergency access, and working within constrained sites.

Buildability factors

We consider factors that could have a detrimental impact on an operating hospital. We take steps to minimise noise, dust, and vibration.

National capability

With offices around Australia, we have the capability to handle health and aged care projects around the country.

Constrained sites

We have extensive experience working with constrained sites, including Blacktown and Mount Druitt hospitals, Sydney Airport, and the University of New South Wales.

Adaptability

The needs of the health and aged care industry are constantly changing. We understand the need for the design to be functionally capable and adaptable. We create designs that can be adapted to future needs with minimal refurbishment.

Client focus

We pride ourselves on our client focus and responsiveness. We foster strong, long-lasting relationships with our clients – relationships that often span decades.

Our services.

We have decades of experience working with hospitals and aged care facilities.

Structural engineering

- New buildings and structures
- Building refurbishments and heritage
- Hospital and medical centre design
- Medical research facility design
- Aged care building design
- Retirement village design
- Multi-storey car park design
- Retro-fitting of new equipment certification
- Reinforced, post-tensioning, metal formed, precast concrete framing
- Precast and modular wall design
- Deep basements and retaining structure design
- Vibration analysis and control

Civil engineering

- Road alignment and pavement design
- Vehicular and pedestrian bridge design
- Residential, public and industrial pavement and car park design

- Traffic modelling and intersection analysis
- Water sensitive urban design
- In-ground storm water and drainage
- On-site detention and pollution controls
- Flood modelling

Hydraulic engineering

- System audits and assessments
- Feasibility and design
- Building storm water management
- Water supply and reticulation
- Gas supply and reticulation
- Sewerage and waste water design
- Fire hydrant and hose reel systems design
- Sprinkler and dry fire systems design

Asset management

- Compliance auditing
- Condition assessment and remediation
- Expert witness



**“We are experts in the health sector;
our experience spans more than
500 health projects.”**

Stephen Branch
Principal Engineer & Operations Director

Key projects

University of Western Sydney

New clinical school

The UWS Clinical School at Blacktown/Mt Druitt Hospital brings together expert medical teachers and has new facilities to create outstanding opportunities for clinical education.

Our appointment as structural, civil and hydraulic engineers for the design of the \$20.6 million clinical school included research laboratories, administration offices, specialist equipment and a 161 seat lecture theatre.

The school needed a separate identity to the hospital. The architect designed a glass facade etched with the building name at the main entry. The structure to support the facade consisted of RHS steel columns with a circular steel beam to support the cantilever corner. The columns are laterally supported by the roof and the concrete slab at the base.

The facade is set on an incline. To ensure standard aluminium mullions, heads, sills and glazing could be used for the facade, RHS steel columns and an intermediate inclined support structure was designed.

The building required excavation for the lower storey. To maintain the stability of the existing structure, we designed a cantilever bored pier and shotcrete wall to act as an underpinning system which also provided vertical and lateral support for the new building.

The external walls of the lecture theatre were designed to be on an incline and included parapets. To allow for the effective construction of the steel stud framed acoustic walls, an inclined intermediate support structure was supplied.

Existing hydraulic services required relocation and extension to serve the new building. As these services supply water, gas, sewer and fire systems to the existing building, the design needed to ensure that supply was maintained throughout construction.

MBA AWARD
COMMERCIAL
PROJECT SITE
SAFETY

MBA AWARD
EXCELLENCE IN
CONSTRUCTION





Jeta Gardens Retirement Village

Jeta Gardens is the first retirement and aged care resort in Australia to base its design, services and management on eastern values and philosophies.

The \$25 million project consists of single storey retirement villas, double storey retirement apartments, a club house and an aged care facility. The site also provides the community with hectares of landscaped gardens and parklands including a Chinese garden and lakes.

We were engaged to provide engineering consultancy services for the stage one works, which involved the preparation of the civil operational works for the subdivision, road design, creation of parkland fronting Logan River and bridge design.

Our key tasks included:

- Design and documentation of the structural portions of the shared vehicle maintenance bridge
- Design and documentation of the civil portions of the shared vehicle maintenance path, concrete path removal, fence relocation, kerb, gutter, path and driveway
- Preparation of erosion and sediment control plan
- Structural design of all retaining walls and provision of certification after construction
- Confirmation of no excess fill in the area inundated by the designated flood
- Inspection and reporting during construction on conformance with design intent.

Forensic medicine facility John Hunter Hospital

The John Hunter Hospital is the principal referral centre and a community hospital for Newcastle, Lake Macquarie and Northern New South Wales. It contains the only trauma centre in New South Wales outside of the Sydney Metropolitan Area, and has the busiest emergency department in the state.

The new forensic medicine facility receives approximately 1200 cases each year, of which around 1000 proceed to coronial autopsy. These include homicides, suspicious deaths, aviation accidents, deaths of young persons, unidentifiable cases and examination of skeletal remains.

Our role in the \$15 million forensic medicine facility at the hospital involved the design and documentation of structural and civil engineering portions of the project.

The work involved new mortuary areas, laboratories, office space for forensic services and car parking facilities. The facility also houses the latest in high-tech medical imaging technology.

The new facility has been designed to cope with disaster situations. Facilities in the car park can accommodate freezer containers in the event of a major disaster.

The building was located on a challenging site – it was steeply sloping, which required coordination between architectural design, civil engineering and structural engineering.

An existing storm water pipe required diversion around the building, and storm water flow paths provided to convey existing storm water around the site.

Casuarina Grove NSW Department of Ageing, Disability and Home Care

Commissioned by the NSW government, Casuarina Grove is the first purpose-built village for people with intellectual disabilities and complex needs associated with ageing.

The facility houses 96 people and is the first government project to achieve a four star rating under the Green Start Healthcare Pilot Tool.

In addition to regular nursing amenities, the Casuarina Grove complex offers a unique level of specialised direct care service to be delivered by nursing staff trained in both disability services standards and aged care standards.

Residents have their own bedroom, ensuite, kitchen, dining room, lounge and living areas.

Each of the 10 homes also has an outdoor entertaining area and large bathroom with a state-of-the-art specialised spa bath.

Casuarina Grove also has a sensory room, a multi-purpose room for activities or staff training and various outdoor recreational spaces.

Sustainable environmental initiatives on the Casuarina Grove project included:

- Specification of improved insulation in wall and roof construction,
- Water sensitive urban design collection and re-use of rainwater, secondary treatment of stormwater prior to discharge to natural streams
- Construction and operational waste management plans
- Water efficient fittings and devices
- Re-use of demolition materials reduced volume of landfill waste.

BELOW

Casuarina Grove aged care facility in NSW



Australian Hearing Hub

Macquarie University

BELOW

An architect's rendering of the Australian Hearing Hub at Macquarie University, NSW

The Australian Hearing Hub at Macquarie University is a unique, world class facility purpose designed for research, training, teaching and learning in hearing, and hearing related speech, language and reading disorders.

This project will bring together key University research groups in hearing and cognitive sciences, neurosurgery, special education and electronic engineering with major organisations involved in developing hearing technologies and services, including Nano Fabrication.

When completed, the building will be:

- Seven storeys
- 20,000 square metres of net lettable area
- 24,000 square metres of ground floor area
- 34,000 square metres of built area
- Car parking for 340 cars
- Relocation of two existing MEG machines
- Construction of specialist anechoic ('no echo') chambers

“The Hearing Hub is a unique, world class facility.”

Stephen Branch
Principal Engineer
& Operations Director



Anechoic chamber

- Construction – concrete (insitu, precast), masonry, other recommended by acoustics
- Isolation from remainder of building, ground – tuned rubber bearings.

Theatre Construction

- Seating – concrete (insitu, precast), inclined slab with add on seats, ventilation through seats

- Walls – masonry, precast concrete, sandwich panel, other recommended by acoustics

Green Star

- Environmental management plan
- Waste management plan
- Reuse of demolition and excavated materials
- Use of recycled structural steel
- Use of recycled concrete aggregate

- Design for disassembly
- Use of insulation in facade/ roof
- Natural car park ventilation
- Fuel efficient transport
 - Spaces for hybrid and small cars
 - Car parking spaces for car pooling
- Cyclist facilities
- Rainwater collection and reuse
- Storm water runoff detention and quality improvement



Various projects

Our health and aged care projects range from car parks and specialist equipment installation through to major works such as the design and construction of new hospitals.

RIGHT

Inside the University of Western Sydney clinical school, NSW

Some of our other health and aged care projects include:

Mona Vale District Hospital

- New children's ward
- Design proposals for stage two
- Recovery and intensive care wards

Mater Misericordiae Hospital, Waratah

- New clinical sciences building
- New radiotherapy block
- Intensive care ward

Liverpool Hospital

- Hospital linen service

St Margaret's Hospital, Darlinghurst

- Additions and major alterations

Wyong Hospital

- New Wyong Hospital, Kanwal

Lismore Base Hospital

- Theatre and ward block expansion
- New children's and recovery wards

Calvary Hospital, Wagga Wagga

- New nursing home
- New day care facility

Royal North Shore Hospital, St Leonards

- New nurse teaching facility
- New oncology department

Concord Repatriation Hospital

- Civil works and additions

Gosford Hospital

- Stage three

Townsville General Hospital

- Oncology building

Hunter Area Health Service

- Earthquake rectification

Cumberland Hospital, Parramatta

- Drainage and report

Royal Perth Hospital

- Proposed magnetic imaging equipment installation

Lourdes Hospital, Dubbo

- Day care centre

Macquarie Hospital, Ryde

- Alterations and additions to centre

Wollongong Hospital

- Car park and clinical services block





St John of God Hospital, Burwood

Woolacotts was engaged to complete traffic engineering advice for the master plan and stage one and two works at St John of God Hospital in Burwood, NSW.

The works associated with the master plan included reconfiguration of the site and new hospital buildings, including additional treatment areas and additional consulting rooms.

We prepared a traffic impact study for the works, which was submitted to council as part of the development application. We also provided advice on the layout of parking areas and vehicle access points to the site. The report also considered parking requirements at the site.

Chatswood Community Health Centre

NSW
government

The new \$3.6 million Chatswood Community Health Centre was completed in September 2010 as part of the Royal North Shore redevelopment project. The centre provides easily accessible facilities for children, adults, and families in a new, purpose-built centre, close to the heart of Chatswood, NSW.

The centre is a single-storey facility spanning two street frontages. The building contains consultancy rooms and general meeting and public education seminar areas. A car park and driveway were also constructed to serve the building.

Woolacotts were engaged to undertake all structural, civil and hydraulic engineering design aspects of the project.

The new building provides a comfortable environment for patients and safe, well-designed facilities for employees.

Our clients and partners



Our clients

Woolacotts and Daly International work with a long list of government and blue chip clients, including Telstra, Optus, Vodafone, Commonwealth Bank, Westfield, Stockland, AGL, UNSW and Macquarie University.

In the health and aged care sector we have extensive experience working with governments, hospitals, research facilities, laboratories, prisons, aged care facilities and pharmaceutical companies.

Quality assurance

At Woolacotts, we want to be recognised as the highest quality provider of project delivery services.

That's why we have an established, quality assured management system.

We conduct regular reviews of our quality management systems in partnership with our clients to ensure that project planning, executing, monitoring and control processes reflect the scope of each project.

Our integrated management system for the provision of property, planning, design and project management services is compliant with:

- Quality Management ISO9001:2008
- Relevant state and federal government legislation

Safety, health and environment

Safety and health

Woolacotts Consulting Engineers is a values-driven organisation. Looking after the safety and wellbeing of our people is a core value that we share with our parent company, Daly International.

Safety is paramount for both our employees and suppliers – whether in our offices or on site.

As part of our integrated management system, we operate our own health, safety and environment policy. Adherence by staff is a mandatory condition of employment.

Environmental and social responsibility

Corporate social responsibility is another core value at Woolacotts.

We recognise our projects have significant outcomes beyond those within our scope of direct management. We strive to implement, deliver and manage our projects in a way that provides a net benefit environmentally, socially and economically.

We seek to provide leadership in sustainability, education, advice and support to our people, clients, suppliers and communities in which we operate.

Woolacotts.

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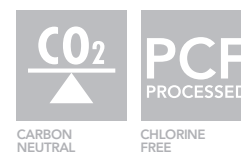
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