



BG Group
ENGINEERS



Building Services Division

www.bgggroup.com.au

Who We Are

Established in 1993, BG Group is a multi-disciplinary design consultancy located across four states and territories with a philosophy focused on client relationships and a high level of expertise.

Since our foundation we have built and developed a strong loyal client base built on trust, integrity and personal service.

BG Group offers civil, structural, building services and energy engineering along with asset management services utilising leading edge modern technology and software, embracing Building Information Modelling (BIM) whilst ensuring the highest standards under our ISO9001 certification.

Our management have both Australian and international experience and work together seamlessly, regularly improving systems and processes and reinvesting in the company.

We are more than an enthusiastic and proactive team of specialist engineers. We are outcome focused and consider the bigger picture to deliver tailored solutions that add value both now and over the lifecycle of the asset.

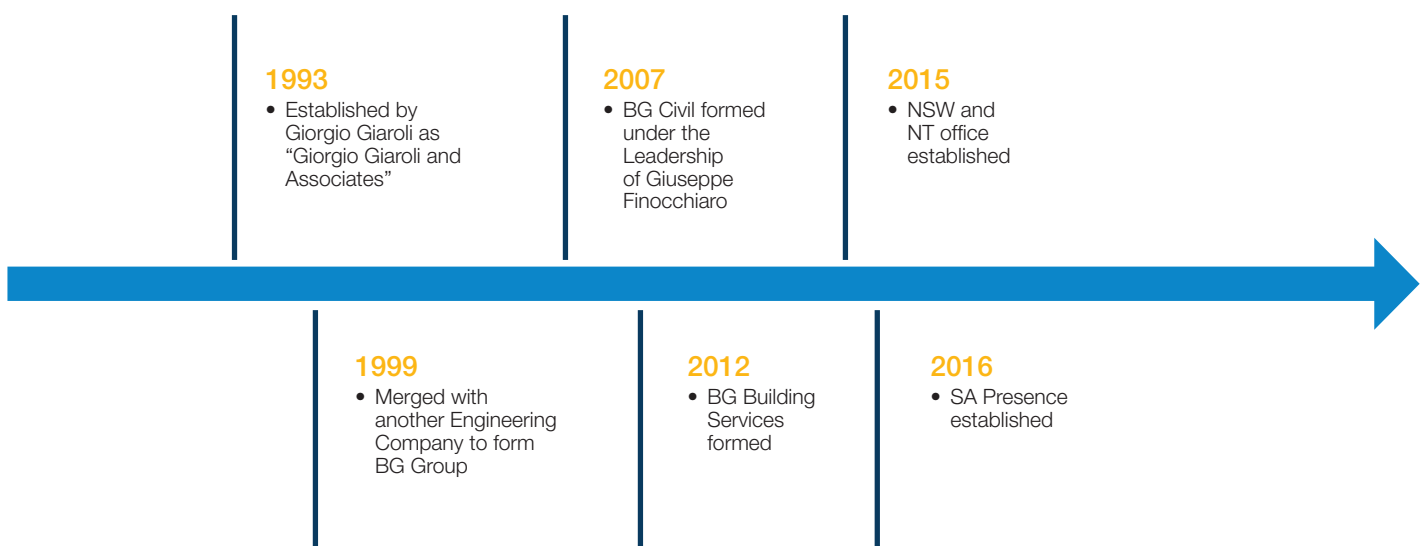
Today the founding director is ever present, offering leadership, expert advice and mentoring across the group maintaining the company culture and work ethic.

Why Choose BG Group

- We are client focused, and believe in relationships and credibility.
- We have extensive experience and understand how buildings function and operate.
- We employ registered professional engineers.
- Our engineers have worked globally and use modern methods, technologies and innovations.
- We are small enough to provide a personal service yet large enough to deliver outcomes.
- We are privately owned, flexible and agile, never fixated.

We listen.

History Timeline



Our Core Capabilities

Mechanical Services

- Air conditioning
- Heating
- Mechanical ventilation
- Fume and dust extraction
- Smoke control
- Stair pressurisation systems
- Compressed air
- Cold rooms and freezers
- Kitchen exhaust systems
- Vertical transpiration
- Process plant
- Humidity control
- Heat recovery systems
- Building management systems

Electrical Services

- General and specific power
- Communication systems
- General and specific lighting
- MATV and pay TV
- Electrical distribution networks
- Public address systems
- Evacuation lighting
- Lighting controls
- CCTV systems
- Standby power generators
- LV underground reticulation
- Nurse call systems
- Audio visual systems
- Security and access control
- Patient protection systems
- Car park lighting
- Park and sportsground lighting

Hydraulic Services

- Sanitary sewage and plumbing
- Roof and surface water
- Trade waste
- Rainwater retention and distribution
- Backflow prevention
- Gas reticulation
- Fire hydrant and hose reel systems
- Irrigation systems
- Potable water systems

Energy Services

- Photovoltaic design
- Power purchase agreements
- Energy audits (level 1 to 3)
- System comparisons
- Thermal modelling
- Nabers assessments
- Energy monitoring

Facility / Asset Management Services

- Data collection / asset inventories
- Maintenance specifications
- Maintenance management
- Financial forecasting
- Compliance audits
- Risk analysis reports

Building Services Engineering

Building services are fundamental components of the built form, providing the life of a building through thermal comfort and utility needs, making it habitable.

It is imperative building services are designed correctly considering all stakeholders, operational running costs, functionality and aesthetics.

Working with other design teams, the BG Group Building Services design expertise extends both across Australia and internationally, considering modern design philosophies, whole of life, high efficiency mechanical and electrical equipment, and wastage.

Our Building Services engineers are not fixated, remaining open minded as to solutions around affordability and other criteria. We have international experience so can bring a wide spectrum of expertise to the design team.

Mechanical Engineering

Whether we are designing for city or regional areas, we have experience for multiple mechanical services solutions considering different climates, humidities and regional

challenges. Variable refrigerant volume, chilled water and hybrid systems, as well as ventilation and other specialist services are all within our capability, designed using the latest software technology, as well as BIM/REVIT drafting tools.

Our mechanical engineers are also registered by professional bodies across Australia.

Electrical Engineering

Our electrical engineers are adept at finding the right solution for lighting, power reticulation and specialist services and have experience across multiple market sectors, using the latest software technology available, as well as BIM/REVIT drafting tools. Our electrical engineers are also registered by professional bodies across Australia.

Hydraulic Engineering

We can provide full hydraulic design using modern solutions whilst keeping things simple.

Our engineers have worked across multiple sectors and regions and adept in all forms of fluid reticulation and fire services.

Asset Management and Energy Engineering

Asset Management

As well as design we work with our clients during whole of life offering asset data collection, financial forecasting, asset inventories, compliance audits, maintenance specifications and procurement services. Our engineers have extensive experience in this space having worked on multiple government and private sector projects using smart data collection methods.

Through working with industry partners, we are also able to work using BIM models as a platform for facility management services.

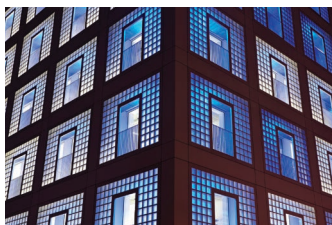
Energy Efficiency Services

As part of our expertise we are able to offer

sustainability engineering to both reduce energy consumption, meet compliance, or review carbon production. This can be delivered via industry standard tools, such as a NABERS Assessment, or via alternative methods.

We work together with stakeholders and industry partners to ensure targets are being met, consider opportunities and return on investment for capital expenditure, whilst design alternative solutions such as photovoltaics (solar) or co-generation plant.

With rising energy costs, monitoring energy usage is fundamental, a service we can design and implement, including physical displays and lobby screens.



Building Information Modelling (BIM)

BG Group are advocates of modern methods applied within the construction industry.

We are fully converse with the process of Building Information Modelling (BIM) and have invested heavily in both hardware/software, resources and training, to not only keep up, but elevate us to a level of being leading edge.

By using this method we can offer benefits to our clients during the design, construction and operational stage of a building asset including:

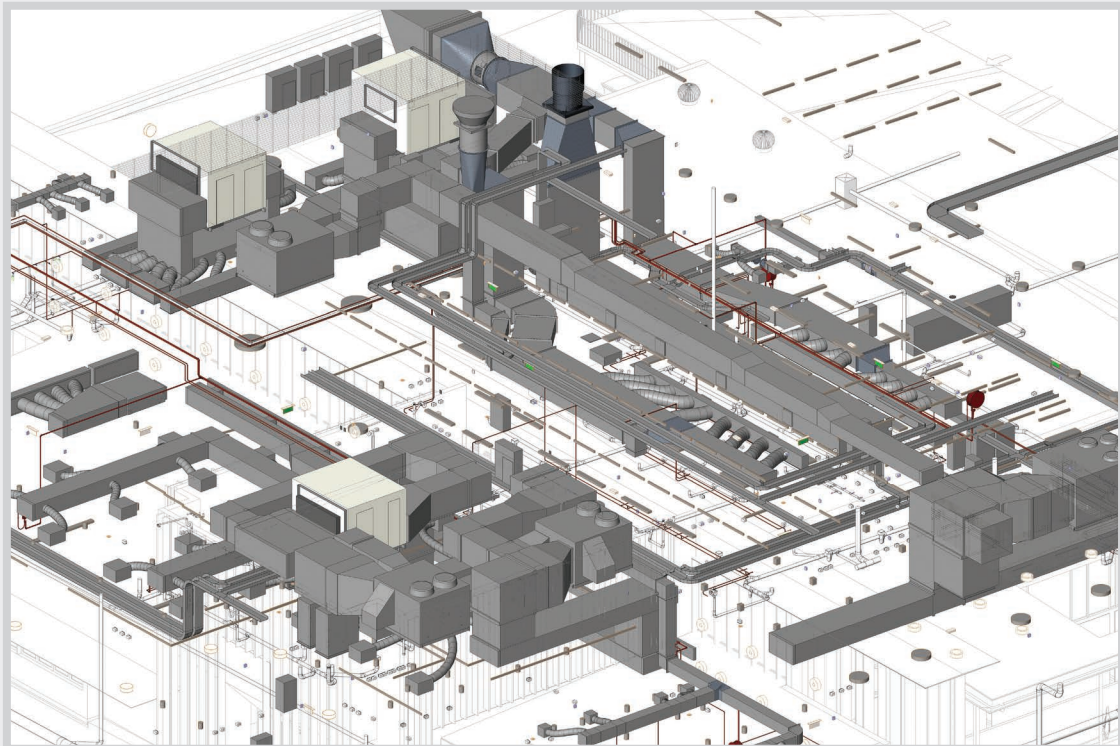
- lower project costs
- faster construction time
- pre-fabrication opportunities
- clash detection
- avoidance of rework
- improved communication with the design team
- better project outcomes
- model use in facility management
- value engineering

Within the BIM process we use various software solutions, REVIT being a key example. REVIT is now applied as a standard minimum across our projects and is the most widely used software with the highest level of multi-disciplinary integration.

Project Experience

Our BIM Specialists have worked on numerous projects using the process and associated software, some recent ones including;

- Hotel Yarrabilba
- Gladys Street Multi-Use Development
- Land 121 Defence
- Sinnamon Village Aged Care Facility.



Hotel Yarrabilba – mechanical, electrical and hydraulic services

Our Team Project References

Our engineers have worked on multiple projects across several different sectors, both within BG Group and through their own career journey.

Sanofi Consumer Healthcare (QLD)



Working to a tight programme, BG Group designed the mechanical, electrical, hydraulic and structural services for an expansion to a process plant in Brisbane. This included new dispenser and coating plant in controlled environments for temperature, humidity and pressure gradient, and comprised new chilled water plant, air handling units, switchboards, and associated hydraulic and structural plant decks. Engineers: Majdi Hawari, Robert Saunders, George Houslip, Brendan Anderson.

INPEX Ichthys LNG Project (NT)



Engineers within our team worked on the INPEX complex in Northern Territory across multiple buildings within the onshore complex. This included mechanical and electrical services to buildings such as warehouses, office complexes, laboratories and security buildings. Engineers: Robert Saunders, Brendan Anderson, Majdi Hawari.

Bluecare Carina (QLD)



Engineers within our team worked closely on the Azure Blue aged care facility providing management and design for the mechanical solution. The facility used modern inverter technology with high efficiencies to reduce energy consumption whilst provide localise control. The design accommodated heating and cooling requirement as well as mechanical ventilation from amenities. Engineer; Robert Saunders.

Air Services Australia Control Tower Upgrade Programme (National)



An interesting national project involving the upgrade of mechanical and electrical services to multiple control towers, working closely with Air Services Australia. This included Sydney, Perth, Coolangatta and Karratha as well as several others. The project required site inspections, design and construction management. Engineers: Robert Saunders, Brendan Anderson.

Gladstone Hospital Theatre and High Dependency Unit Upgrade (QLD)



Engineers within our team worked on the refurbishment at Gladstone Hospital in central Queensland. This consisted of existing theatre and high dependency units which included HEPA filtration, UPS, body and cardiac protection. Engineers: Majdi Hawari, Brendan Anderson.

FMG Rowley Yard (WA)



Working to a tight timeframe, our engineers worked on the mechanical design for the locomotive service depot in northern WA. This consisted of engineer fume exhaust, compressed air, air conditioning, and welding extraction services. With automated equipment, the project was challenging and rewarding. Engineers: Robert Saunders, Brendan Anderson.

Cinema Complex Centre James Street (QLD)



BG Group were employed to design the building services to a major refurbishment to five new auditoriums. The auditoriums have advanced systems including lighting controls, audio control and high efficiency air conditioning. Engineers: Majdi Hawari, Brendan Anderson, George Houslip.

Hotel Yarrabilba (QLD)



BG Group were employed to design the building services to a two storey hotel comprising a bistro, function rooms, gaming room, sports bar, commercial kitchen, carparks and bottle shop. An interesting project completed successfully. Engineers: Majdi Hawari, Brendan Anderson, George Houslip.

Redcliffe Caboolture Mental Health Unit (QLD)



Engineers within our team worked on the new Mental Health Unit for Queensland Health. This consisted of over 40 patient rooms, consultant rooms, nurse stations and courtyards, providing some challenging design issues and time frames. Engineer: Majdi Hawari.

RSL Care, Milford Grange Aged Care Facility



Engineers within our team worked on this new large aged care facility, providing electrical design to independent living units, multiple recreation buildings and a central aged care facility. Aged care is an area our engineers have extensive experience. Engineer: Majdi Hawari.

Cricket Australia- Centre of Excellence at Albion



The main training centre for Cricket Australia. It included the latest technology in training such as camera system to monitor player's motions, sport instruments, and advanced lighting solution. The Centre consisted of Four Storey building with large indoor training area, indoor swimming pool, running tracks, gymnasium, offices, lectures, consultants, and theatre rooms. Engineers : Majdi Hawari.

FK Gardner & Sons Headquarter in Toowoomba



The site comprised of multiple buildings including the head office building, warehouses, workshops, recreations areas, carpark, and large maintenance yard. The total site area was 30,000m². The services for the development allowed for future expansion with minimal upgrade to existing service. Engineer: Majdi Hawari.

CONTACT INFORMATION

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