
SECTOR BROCHURE

Education

NextSense Centre for Innovation — Macquarie Park, NSW, Australia.



BG
&E
Part of **SYSTRA**

BG&E is an international civil and structural engineering consultancy recognised for delivering **innovative, award-winning designs** that prioritise practicality and constructability.

With a team of more than 800 people across 16 offices — spanning Australia, New Zealand, South East Asia, the United Kingdom, and the Middle East — we deliver the highest standard of service across our disciplines.

Clients consistently return to us for our responsiveness and proven ability to provide tailored solutions on complex and challenging projects. This is reflected through industry recognition, client commendations, and numerous awards.

In 2025, BG&E joined forces with SYSTRA, a global leader in public transport and mobility engineering. This partnership expands our technical capability, strengthens our international networks, and support long-term growth across major infrastructure markets and the complex buildings sector.



Education



*Fortitude Valley State Secondary College —
Brisbane, QLD, Australia.*

At BG&E, our expertise in the education sector extends beyond the buildings themselves. We recognise the critical role education facilities play in shaping communities — enhancing learning experiences, fostering social connections, driving local development, and strengthening economies.

With over 50 years of experience delivering education facilities, we provide end-to-end design services across the project lifecycle. From greenfield developments to brownfield projects — including new builds, adaptive reuse, and the maintenance of existing assets — our expertise ensures outcomes that meet the evolving needs of the education sector.

We deliver comprehensive structural and civil engineering solutions with a focus on technical expertise and a client-first approach. Leveraging our knowledge of construction, project management and asset maintenance — we excel in all stages of the project life cycle, from initial planning and design to construction and ongoing support.

As the education sector continues to rapidly transform, we remain at the forefront of innovation, embracing new methodologies, materials, and trends. Our work reflects evolving demands, including the adoption of:

- Increased awareness and adoption of standardised planning and technical performance documentation, to support quality and consistency with ongoing building developments.
- Modular construction for efficiency and scalability.
- Environmentally Sustainable Design (ESD) and adaptive reuse.
- Verticality in education building design in response to increased city densification.
- Timber design, managing the often-challenging jump from design to construction phase.

We work closely with clients to customise designs that align with each institution's vision, creating environments that benefit not only the client but also teachers, students, and the broader community.

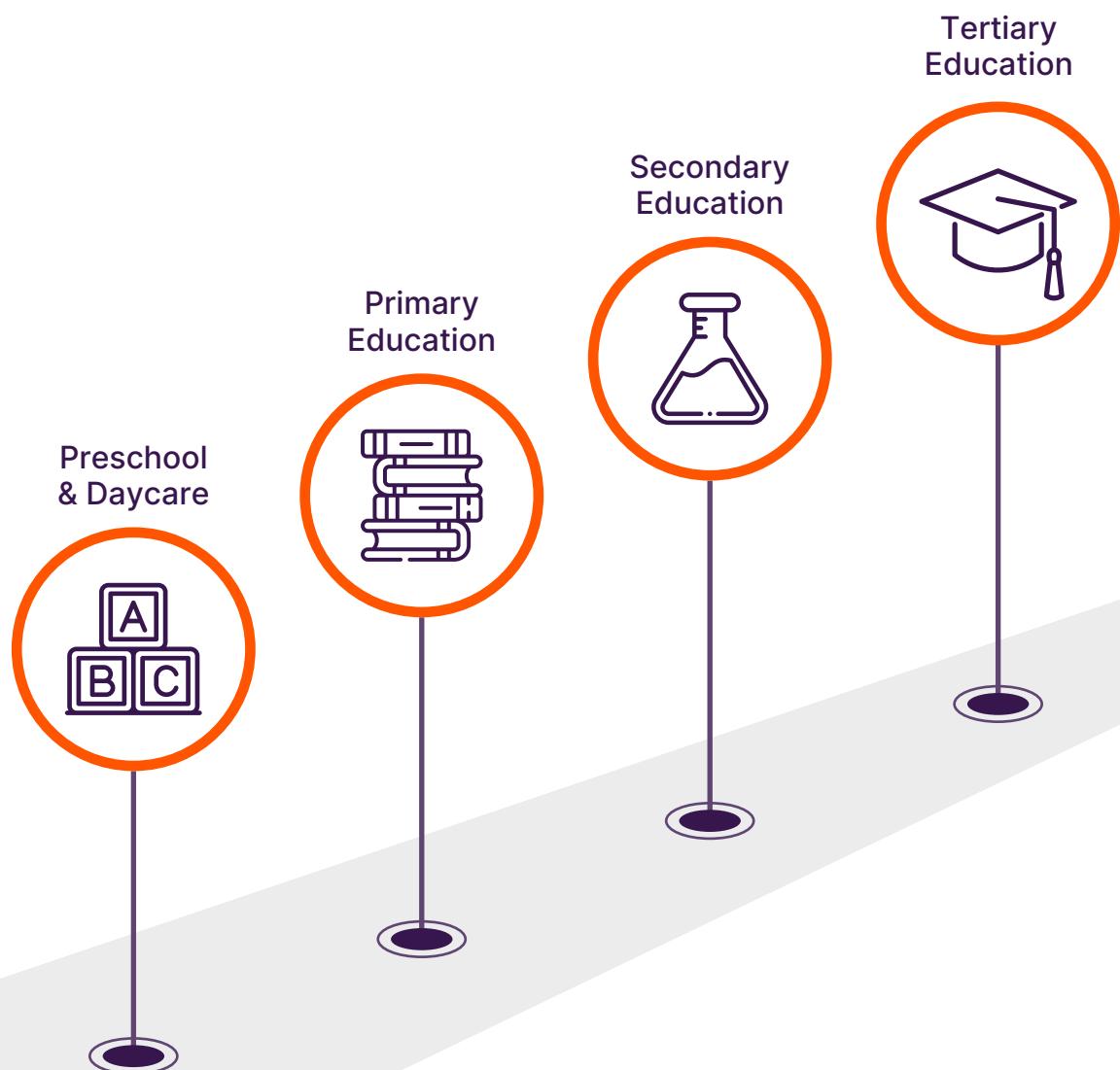
By delivering future-ready solutions, we ensure education facilities remain durable, adaptable, and sustainable, meeting the demands of today while preparing for the needs of tomorrow.

*Piara Waters Senior High School —
Perth, WA, Australia.*



Projects Across All Stages

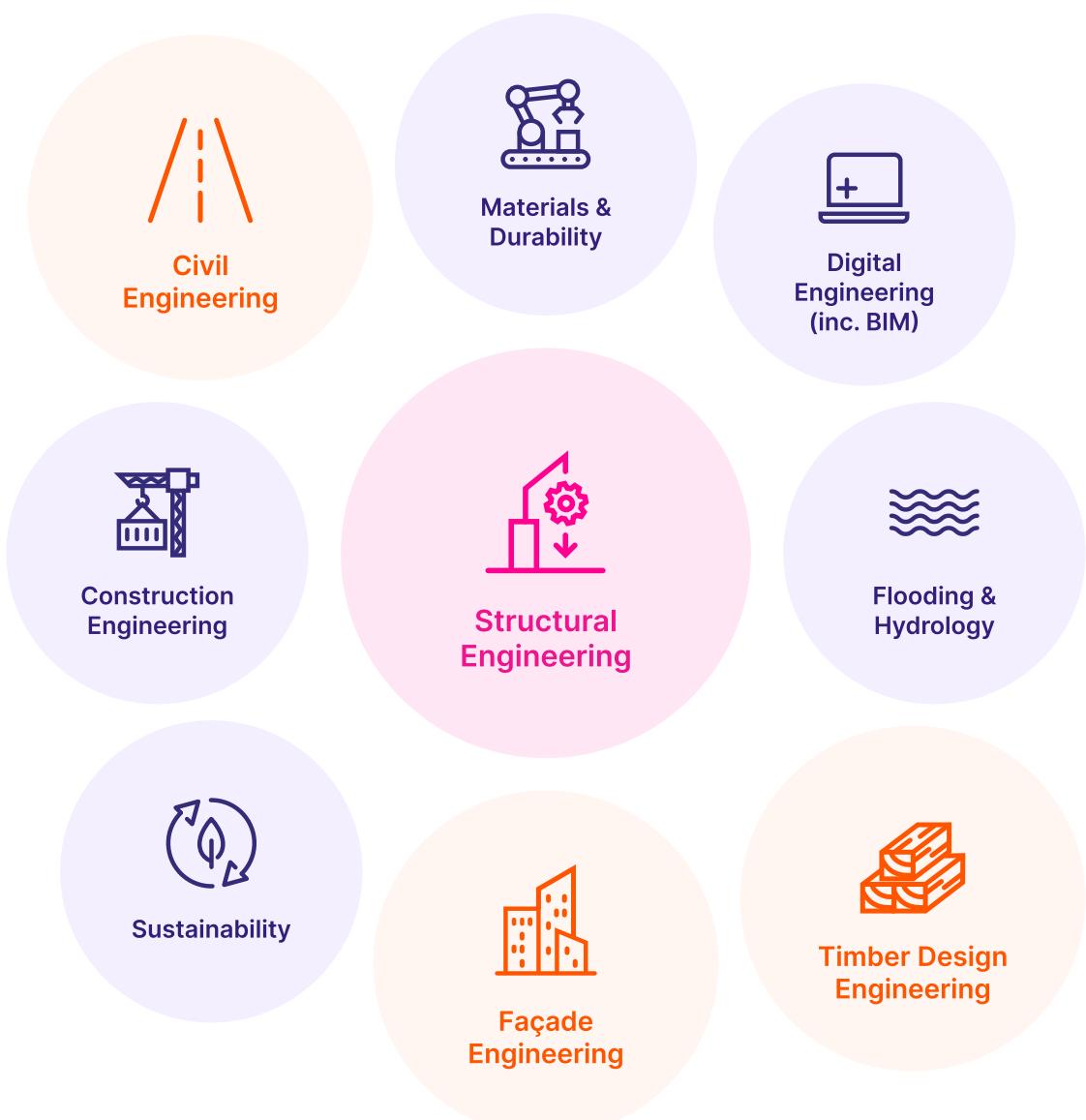
We design for every stage of education, tailoring our approach to each project's unique needs — shaped by purpose, resources, client direction, and environment — while always prioritising constructability, durability, and future adaptability.



■ SEAMLESS INTEGRATION

Driving Innovation Across Disciplines

What sets BG&E apart is the cohesive collaboration of our in-house technical disciplines — which enables us to thoroughly understand existing structures and deliver optimal designs in terms of buildability and the final product.





*Australian National Academy of Music,
South Melbourne Town Hall —
Melbourne, VIC, Australia.*

Procurement & Contract Management

At BG&E, we have extensive experience with a variety of procurement models — both client-side and for contractors. This ensures we have the capability to operate in diverse and often nuanced environments.

Our team has over 50 years of experience and extensive expertise in both public and private education projects across a range of procurement models.

Common delivery models include:

- Design & Construct
- Alliance
- Integrated Project Team
- Joint Venture
- Construct Only
- Early Contractor Involvement
- Delivery Partner
- Managing Contractor
- Incentivised Target Cost
- Private Public Partnership
- Pre-Qualified Panel

We also bring significant client-side experience, having been directly engaged by privately owned facilities, education boards, local governments, asset owners and other stakeholders to deliver planning and design services.

Our thorough understanding of contractor risk enables us to advise on regulatory and compliance requirements to safeguard operations, effectively manage project risk and deliver positive and innovative outcomes.

Key Design Considerations



ADAPTIVE REUSE

Repurposing existing structures to reduce the duration of construction, conserve resources, conserve heritage buildings, and minimise carbon emissions.



EARLY WORKS PACKAGES

Education sector projects often require an Early Works Package to expedite the project timeline, requiring fast passed and staged design to enable fast construction.



MAINTENANCE MITIGATION

Extending the lifespan of new facilities and reducing operational costs through selection of low-maintenance materials and systems.



MODULAR CONSTRUCTION

Prefabricated solutions to accelerate delivery, improve cost efficacy and allow for scalable infrastructure.



DURABILITY THROUGH DESIGN

Designing for long term resilience to minimise repair needs and ensure a facility that can withstand heavy use.



RISK MITIGATION

Identifying and addressing potential hazards early to ensure a safe and uninterrupted learning environment.



STRUCTURAL ASSESSMENT & ASSET MANAGEMENT

Evaluation of existing structures to optimise safety and functionality, while preserving the value of historic legacy assets.



FLEXIBILITY & FUTURE PROOFING

Incorporating adaptable layouts to accommodate facility expansion and evolving pedagogies and technology.



ESD (ENVIRONMENTALLY SUSTAINABLE DESIGN)

Sustainable design practices including options assessments and decision-making frameworks to lower operational costs, reduce environmental impact and create healthier environments.

Our Experience

We have over 50 years' experience in the delivery of innovative and constructable solutions for the Education sector. Our teams have helped clients to design and deliver education facilities in Australia, New Zealand, South East Asia and the United Kingdom.

LOCATION	PROJECT NAME	FACILITY TYPE	ENGINEERING SERVICES	PROJECT TYPE
NZ	Northland, NZ	Northland College	Tertiary	Structural Engineering
	Northland, NZ	Wellsford Primary School Hall	Primary	Structural Engineering
	Northland, NZ	Daragaville High School	Secondary	Structural Engineering
	Auckland, NZ	UC Digital Screen	Tertiary	Façade Engineering
	Auckland, NZ	St Kentigern Wingate Block	Secondary	Façade Engineering
	Auckland, NZ	University of Canterbury — Jack Mann Re-roof	Tertiary	Façade Engineering
	Auckland, NZ	Riverhead School	Primary	Façade Engineering
	Auckland, NZ	Rutherford School	Primary	Façade Engineering
	Auckland, NZ	Lynfield College	Secondary	Façade Engineering
	Auckland, NZ	ACG Sunderland	Secondary	Façade Engineering
VIC	Auckland, NZ	ACG Parnell	Primary	Façade Engineering
	Melbourne, VIC	Australian National Academy of Music @ South Melbourne Town Hall	Tertiary	Civil Engineering Structural Engineering
	Melbourne, VIC	Ruyton Girls School Performing Arts	Secondary	Civil Engineering Façade Engineering Structural Engineering
	Melbourne, VIC	The University of Melbourne, Student Precinct	Tertiary	Façade Engineering
	Melbourne, VIC	Caulfield Grammar School	Secondary	Façade Engineering
	Melbourne, VIC	The University of Melbourne, Australian Institute of Infectious Disease	Tertiary	Structural Engineering
	Melbourne, VIC	RMIT Master Plan to 2045, Melbourne City, Bundoora & Brunswick Campuses	Tertiary	Advisory Services Structural Engineering
	Melbourne, VIC	Monash University Multi-campus Teaching Space Upgrade Program	Tertiary	Structural Engineering
				Adaptive Reuse & Refurbishment

VIC	Melbourne, VIC	VSBA New Schools 2025 Program Technical Review and Advisory Services	Primary Secondary	Advisory Services Civil Engineering Structural Engineering	New Build
	Melbourne, VIC	Xavier College — Rigg Wing	Secondary	Civil Engineering Structural Engineering	New Build
WA	Perth, WA	Curtin University B316 Sciences Building	Tertiary	Structural Engineering	New Build
	Perth, WA	Bob Hawke College, Stage 1	Secondary	Civil Engineering Structural Engineering	New Build
	Perth, WA	Piara Waters Senior High School, Stages 1 and 2	Secondary	Civil Engineering Structural Engineering	New Build
	Perth, WA	Carine Senior High School Redevelopment	Secondary	Civil Engineering Structural Engineering	New Build Adaptive Reuse & Refurbishment
	Perth, WA	Alkimos College, Stage 2	Secondary	Civil Engineering Structural Engineering	Adaptive Reuse & Refurbishment
	Perth, WA	Roleystone Community College	Secondary	Civil Engineering Structural Engineering Timber Design	New Build Adaptive Reuse & Refurbishment
	Perth, WA	Brabham East Primary School	Primary	Civil Engineering Structural Engineering	New Build
	Perth, WA	Rossmoyne Senior High School	Secondary	Civil Engineering Structural Engineering	Adaptive Reuse & Refurbishment
	Perth, WA	Curtin University, UWA, Department of Finance	Secondary Tertiary	Structural Engineering	Asset Management
	Scarborough, WA	Scarborough Primary School	Primary	Civil Engineering Structural Engineering	Adaptive Reuse & Refurbishment
NSW	Upper North Shore, NSW	Pymble Ladies College	Secondary	Civil Engineering Façade Design Structural Peer Review	New Build
	Sydney, NSW	University of Western Sydney, Performing Arts Centre	Tertiary Cultural Centre	Structural Engineering	Adaptive Reuse & Refurbishment
	Sydney, NSW	Randwick High School	Secondary	Civil Engineering Structural Engineering	Adaptive Reuse & Refurbishment
	Wollondilly Shire, NSW	Wilton Junction Public School	Primary	Civil Engineering Structural Engineering	New Build
	Sydney, NSW	NextSense Centre of Innovation	Early Learning Centre Primary Secondary	Civil Engineering Structural Engineering	New Build
	Parramatta, NSW	Arthur Phillip High School	Secondary	Structural Engineering	New Build
	Newcastle, NSW	Hunter School of Performing Arts	Secondary	Civil Engineering Structural Engineering	Adaptive Reuse & Refurbishment
	Hunter Region, NSW	Medowie Christian School	Secondary	Civil Engineering Structural Engineering	New Build
	Hunter Region, NSW	St Nicholas Early Education Lochinvar	Early Learning Centre	Civil Engineering Structural Engineering	New Build
	Newcastle, NSW	Nihon University Campus	Tertiary	Construction Engineering	Refurbishment & Extension
	Hunter Region, NSW	TAFE Kurri Kurri Campus	Tertiary	Civil Engineering Structural Engineering	Refurbishment & Extension
	Northern Rivers Region, NSW	Murwillumbah High School	Secondary	Civil Engineering Structural Engineering	Refurbishment & Extension
	Zetland, NSW	Green Square Community Facility & School	Mixed Use	Advisory Services Materials Construction Engineering	New Build

QLD	Brisbane, QLD	QASMT	Secondary	Civil Engineering Structural Engineering	New Build
	Brisbane, QLD	West End State School	Primary	Civil Engineering Structural Engineering	New Build
	Brisbane, QLD	Cleveland State High School	Secondary	Structural Engineering	New Build
	Brisbane, QLD	Fortitude Valley State Secondary College	Secondary	Construction Engineering	New Build
	Sunshine Coast, QLD	Baringa State Secondary College	Secondary	Civil Engineering Structural Engineering	New Build
	Park Ridge, QLD	Corymbia State School	Primary	Structural Engineering	New Build
	Ipswich, QLD	Ripley Central State School	Primary	Structural Engineering	New Build
	Ipswich, QLD	Ripley Valley Secondary College	Secondary	Civil Engineering Structural Engineering	New Build
	Ipswich, QLD	Augustine Heights State School	Primary	Civil Engineering Structural Engineering	New Build
	Ipswich, QLD	Rosewood State High School	Secondary	Civil Engineering Structural Engineering	New Build
	Ipswich, QLD	Walloon State School	Primary	Civil Engineering Structural Engineering	New Build
	Beenleigh, QLD	Beenleigh State High School	Secondary	Civil Engineering Structural Engineering	New Build
	Gold Coast, QLD	Griffith University Health Sciences Building	Tertiary	Structural Engineering	Adaptive Reuse & Refurbishment
	Buranda, QLD	Buranda State School	Primary	Civil Engineering Structural Engineering	New Build
SEA	Singapore, Singapore	SJI International Preschool	Early Learning Centre	Civil Engineering Structural Engineering	Adaptive Reuse & Refurbishment

*Bob Hawke College —
Perth, WA, Australia.*



At BG&E, we are united by a common purpose — we believe that truly great engineering takes curiosity, bravery and trust, and is the key to creating extraordinary built environments.

Our team of more than 800 highly skilled people, in offices across Australia, New Zealand, Singapore, the United Kingdom and Middle East, design and deliver engineering solutions for clients in the Property, Transport, Ports and Marine, Water, Defence, Energy and Resources sectors.