

built environment collective
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manage | design | construct

Multi-Storey

Capability Statement

.....
3rd Edition

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“ We challenge mediocrity & strive towards client relationships & project team associations where a collective approach is championed in recognition of enhanced outcomes. ”

John Tuxworth
Managing Director
BE Collective

CONTENTS

Our Company	- 01
Our People	- 01
Our Multi-Storey Capabilities	- 02
Our Multi-Storey Expertise	- 04
Multi-Storey Project Profiles	- 05
BEC Values & Visions	- 15



Project: **Montevetro**
Architect: **Richard Rogers Partnership**
Significance: **Structural**



Our Company

Built Environment Collective is an award winning Australian-based project management, design & contracting business, offering enhanced Client outcomes via integrated solutions & a holistic approach to design & construction.

Founded on the 20-year international experience of Managing Director, John Tuxworth, the company provides a unique value-adding contribution across a range of market sectors and project types.

Our People

BE Collective is comprised of diligent, passionate professionals, who utilise their expertise to facilitate optimal Client outcomes.

We maintain a rigorous approach to Continuing Professional Development (CPD). In addition of the commitment required by the relevant institutes and councils, CPD targets are mandated as part of each staff member's employment contract.

The Managing Director, John Tuxworth, contributes across all service offerings. John's tertiary education started at QUT's school of Civil Engineering. Following this John spent several years abroad working for Maunsell (Aecom) in Indonesia, Waterman Partnership in London, and Michael Punch and Partners in Dublin.

John's interest in becoming a multi-discipline building professional saw him undertake architectural studies at the University of Westminster in London, and he has also undertaken MBA studies through Latrobe University. John is also one of the few structural/civil specialists to be accredited as a Green Star Professional.

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Our Capabilities

Our Team of experienced professionals use advanced engineering software to produce designs and documentation that are highly functional, fit-for-purpose, and which provide enhanced assistance to contractors.

We design buildings, structures, and operational works to a Client's detailed specifications and eliminate unnecessary costs, whilst still achieving compliance with Australian and international building codes. A strong focus on collaboration with other design team members and the contracting team benefits our Clients by integrating a larger pool of ideas and experience.

Our designs respond positively to the local environment with a focus on reduced maintenance and operating costs. We offer a multi-disciplined experience to assist with the reduction of materials and utilities requirements, and the maximisation of natural light and ventilation.

In addition, we offer experience with environmentally sustainable systems such as energy efficient and automated lighting, solar heating and rainwater harvesting for reticulation to amenities and swales. Our innovative approach to buildability is based on construction techniques which lend themselves to safety and efficiency.

We work hard to ensure that Client objectives and outcomes are clearly defined from the outset. Our hands-on approach to project management assists to drive each project towards delivery, with an emphasis on quality, cost and program.

Project: **Evolution Tower**
Architect: **Pinzon**
Contribution: **Structural & Hydraulic Services**



Our Expertise

We have significant experience in the design and documentation of residential developments both in Australia and abroad, in addition to the companies core disciplines of structural, civil, hydraulic, ESD and project management.

- > Project Management
- > Structural Design
- > Civil Infrastructure
- > Building Services
- > ESD (Ecologically Sustainable Development)

- > Multi-storey
- > Low-rise Multi-residential
- > Detached Dwellings

Multi-Storey

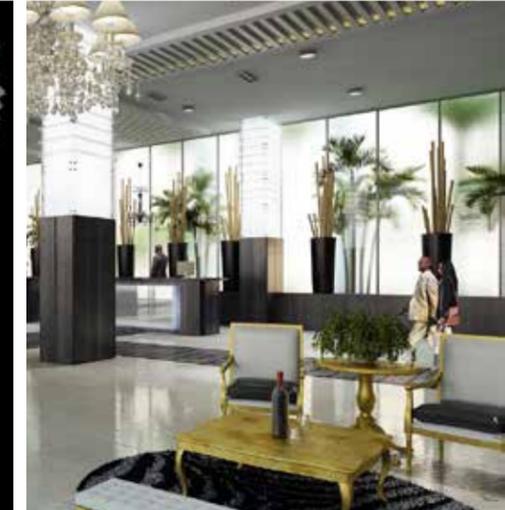
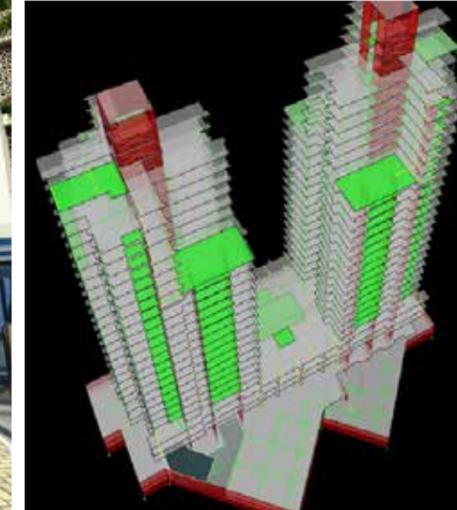
- > Residential towers in Brisbane, Angola, and Libya
- > Kelvin Grove Urban Village sustainability guidelines

Low-rise Multi-Residential

- > Townhouse and apartment developments
- > Civil Infrastructure
- > Site Based Stormwater Management Planning
- > Road widening

Detached Dwellings

- > Luxury homes
- > Architect's own homes
- > High-end alterations & additions



01

PROJECT: Belamar Towers, Angola
ARCHITECT: Pinzon
SIGNIFICANCE: Structures | Building Services

An exciting high rise in a developing country. This project epitomises the BE Collective team's ability to complete a multi-discipline, cross-continent, cross-language product.

Our team provided structural and hydraulic engineering services for these two 25-storey apartment towers located in Talatona, an emerging suburb 15km south from the capital, Luanda. The development comprises 468 apartments per tower, approximately 600 parking spaces, communal areas throughout several podium levels, including two swimming pools, a spa, and spa salons.

Floors were designed as unbonded post-tensioned flat plates, achieving longer spans with less weight, smaller columns and increased NLA. The post-tensioning strand layout was coordinated with integral horizontal services runs within the depth of the slab - in order to satisfy the client's requirement for reduced floor to floor heights.

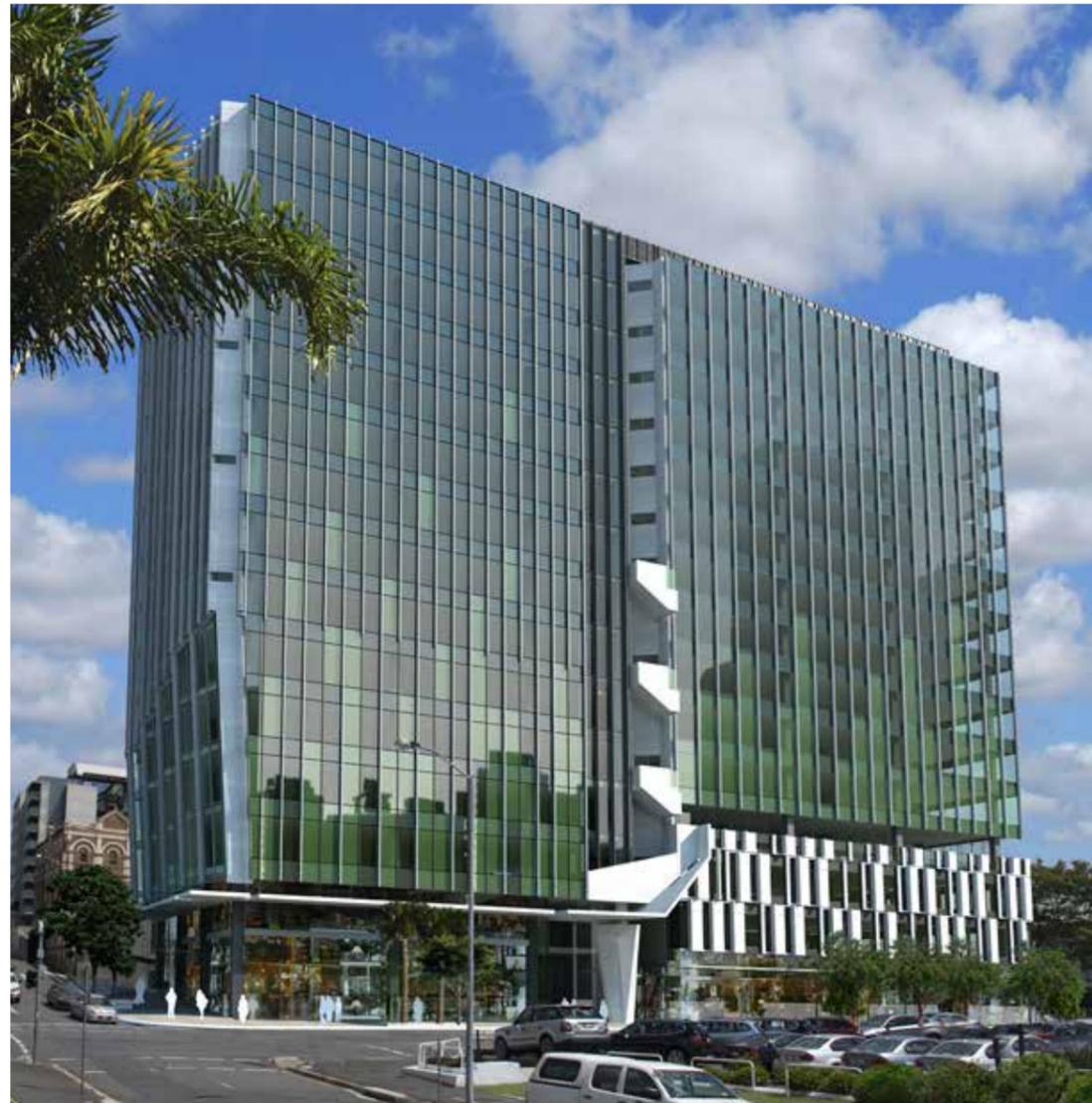
02

PROJECT: Wickham Street Commercial
ARCHITECT: The Buchan Group
SIGNIFICANCE: ESD

This project is presently at DA stage. The prominent position on Wickham St provides a north-west / south-east orientation and a 15-storey commercial building of the order of approximately 24,000m² GFA commercial development has been proposed. The Client recognises the premium return on investment provided by Green Star rated buildings and has set GS and NABERS Star targets.

BE Collective were appointed as ESD Consultants in 2011 for planning, documentation and construction phases of the project.

Our ESD capabilities are founded upon Managing Director, John Tuxworth's experience, starting with the Greenwich Millennium Village (GMV) Project in 1998 working with renowned architect, Ralph Erskine. The GMV Project was undertaken with reference to BREEAM- arguably the world's foremost environmental assessment method and rating system.



03

PROJECT: Paga Hill
ARCHITECT: Glen Peterson Architect
SIGNIFICANCE: Structural | Civil Services

Paga Hill is a suburb of Port Moresby, the capital of Papua New Guinea. BE Collective were appointed in January 2012 to provide full structural and civil consultancy for this residential project, including construction phase services out of our PNG office. The project consists of 8 boutique style apartments with commanding views out to the Coral Sea.

Challenges in realising a development on this site included:

- > steep slopes and high retaining walls
- > accommodating tributary loads from a significant up hill development just meters away from basement excavations
- > earthquake forces
- > the distance of sewerage and stormwater legal point of discharge away from the site
- > logistics and construction materials supply chain
- > labour efficiencies

04

PROJECT: Ellise Apartments, West End
ARCHITECT: VCP Developments
SIGNIFICANCE: Structural | Civil | Building Services | ESD

The Elise Apartments development in West End is a beautiful 7-storey apartment complex with 42 architecturally inspired apartments, swimming pool and 2 basement levels.

BE Collective was commissioned to provide civil infrastructure services including a comprehensive stormwater management plan, engineering services analysis and conceptual structural consultancy for Development Approval.

Stormwater was cleverly diverted and put through a Treatment Train to ensure regulatory water quality compliance. Scenario and peak flow calculations took into account site characteristics, topography and drainage.

Other considerations included potable water, sewerage, road and earthworks and telecommunications capacities and requirements.



05

PROJECT: Hercules Street
ARCHITECT: CCN
SIGNIFICANCE: ESD

BE Collective were commissioned to provide ESD services for this multi-storey development in Hamilton. The project included 144 units over 14 levels with a rooftop terrace and basement parking. Fundamental to the approach of the new development were the following targets:

- > Reduced environmental impact: minimised energy use and resource conservation.
- > Economic savings: reduced operational and maintenance costs.
- > Better and healthier living environments.

BE Collective have been involved in the project from the beginning, to implement design features which will reduce its environmental impact. The innovative ESD technologies/features include climate-sensitive building design, energy and water efficient fixtures and fittings as well as rainwater harvesting and recycling. This inclusion of these features will result in Superior Design Outcomes that will benefit occupants whilst minimising the impact to the broader environment.

This project has benefitted from Managing Director, John Tuxworth's extensive 20 year sustainability experience.

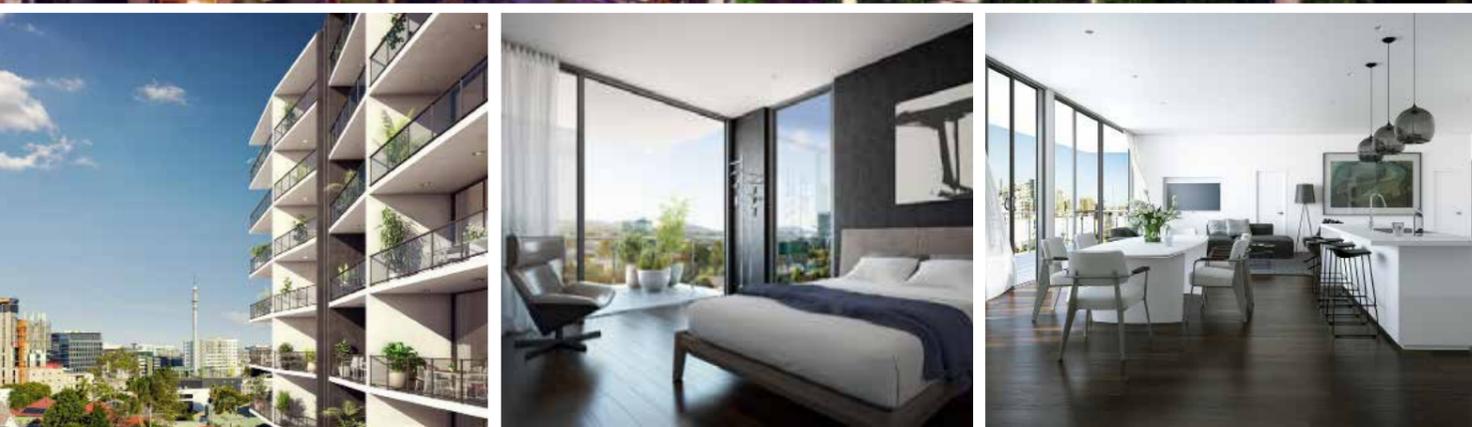
06

PROJECT: Verde
ARCHITECT: VCP Developments
SIGNIFICANCE: Structural | Civil | Building Services | Traffic

Verde, the 12 storey, 82 apartment development in South Brisbane will feature the largest green walls in Brisbane and has been described by Channel 7 news as 'one of the hottest designs in architecture'.

BE Collective are providing structural, civil, plumbing & drainage, traffic & ESD engineering consultancy services including:

- > The full 12-storeys of the building cantilever more than 3 metres at the rear to facilitate parking via full height wall struts.
- > Our traffic engineering design facilitates dedicated parking for 9 motorcycles and over 100 bicycles, in support of sustainable design.
- > The landscaping inclusive of the green walls will require some 12,000 L of irrigation water per day. This will be supplied by a Class B grey water treatment system, also designed by BE Collective.



07

PROJECT: Airvos Views Apartments, PNG
CLIENT: Coffey International (on behalf of AusAID)
SIGNIFICANCE: Structural | Forensic | WH+S

BE Collective were commissioned in June 2013 to undertake a structural verification review of Airvos Views apartments.

The scope of the commissioned services included a review of structural documentation, site meetings/inspection, and design checking of key structural elements including retaining walls.

Given PNG is recognised as a seismic area the walls retaining the site were of particular concern to the client. The walls are up to 10m high and looked particularly slender (and tall) during construction.

The design engineer had performed his commission very well and BE Collective were able to verify that the walls, acting as propped cantilevers were considered adequate with respect to PNG standards.

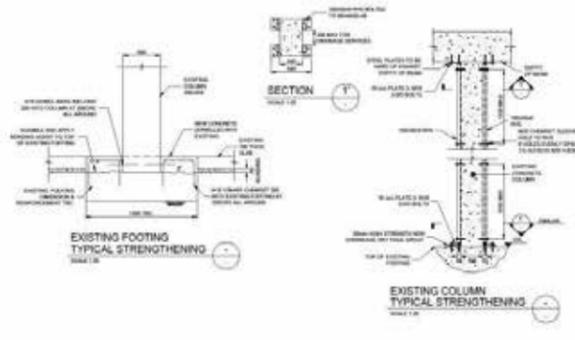
08

PROJECT: Gambaros Restaurant and MG Hotel
ARCHITECT: HPC Urban
SIGNIFICANCE: Structural | Civil

BE Collective were commissioned to provide structural and civil design for this significant project in the heart of the Caxton St entertainment precinct. The project comprised additions to the existing restaurant in Phase 1, with Phase 2 including a new five-storey hotel with two new floors above the restaurant.

The alterations and additions to building elements of several different vintages and varying construction quality necessitated multiple design and documentation iterations and a significant site presence throughout construction.

BE Collective was also commissioned separately to provide engineering support for contractor elements associated with temporary and construction works.



09

PROJECT: Scarborough Street
ARCHITECT: Kahrtel
SIGNIFICANCE: Structural | Building Services | Civil

BE Collective was recently commissioned to provide multi-discipline design services for a unique and innovative multi storey development in Southport. BE Collective have already provided preliminary structural services, stormwater management services and civil documentation services and will be responsible for the structural, civil and hydraulic engineering aspects of the project once development approval has been attained.

Focused on making the most of a small space, the Scarborough Street Multi-Res manages a car stacker, ground floor café and 6 storeys plus a rooftop terrace onto a site of only 410m².

The project has made big waves in the industry – The Gold Coast City Architect recently referred to it as the most innovative site solution that he had seen in his time, predicting that the project would “become a precedent for Gold Coast and the wider region on how to best utilise small lot developments”.

Drawing inspiration from polite high density structures in Japan, Architect Joel Adsett from Kahrtel and his team aim to safeguard Australian cities from overcrowding by learning from areas already adapting.

10

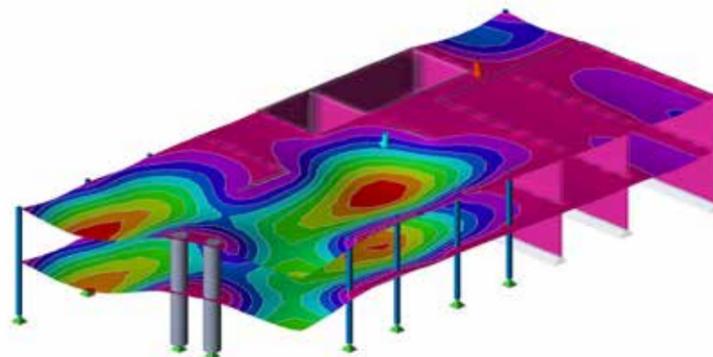
PROJECT: Wellington Road
ARCHITECT: Bureau Proberts
SIGNIFICANCE: Civil, Structural, Documentation

BE Collective have provided engineering and stormwater code compliance services aswell as preliminary structural services for an impressive new East Brisbane development.

Featuring eight storeys plus a basement and a sleek angled feature column, the complex boasts a central location with a prime river view.

In order to assure comfort and convenience for its residents and to maximise the use of space, a car stacker is planned for the basement level which can accomodate eleven cars over a space that would normally fit 4.

The top three floors open up to form an expansive penthouse with numerous guest rooms, a spa, pool, gym area and large balcony.



Our Values

We challenge mediocrity & strive towards Client relationships & project team associations where a collective approach is championed in recognition of enhanced outcomes.

We are acutely aware of the adverse impact that current development paradigms have on the Triple Bottom Line sustainability.

We believe in professionals adopting a multi-disciplinary perspective in delivering projects.

Our Vision

To be the first choice of Clients who value quality, & to be recognised as adding-value [as opposed being just another commodity service] - by providing creative solutions based on diversified skill and experience.

To lead positive triple-bottom-line change in the construction industry.

To found our business success on a passionate approach towards Continual Professional Development targets in excess of the commitment required by the relevant institutes and councils.



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Sydney | Brisbane | Toowoomba
Townsville | Port Moresby