

## Welcome

Welcome to the first Bonacci Newsletter for 2008. The Directors and staff look forward to continuing our association with you this year... we plan on 'engineering' a booming 2008!

The last few months have heralded some major events. We capped off a busy 2007 by winning the prestigious 'Sir William Hudson Award for Engineering Excellence 2007' in conjunction with the City of Melbourne and Lincolne Scott. The award, the ultimate prize awarded by the Institute

of Engineers, recognised the City of Melbourne's Council House 2 (CH2) green design building (refer page 2).

This year was off to an exciting start with the launch of our new division, Bonacci Water, headed by Dr. Peter Coombes. The division focuses on providing leading-edge strategic advice, innovative water design and sustainability solutions to all levels of government and business (refer page 3).

In this edition of Horizons, we highlight some of the key projects we have undertaken and acknowledge our recent staff promotions.

We hope you enjoy this newsletter and look forward to your feedback.

For updates on our projects, please visit: [www.bonaccigroup.com](http://www.bonaccigroup.com)

## Bonacci Geelong... 'design for growth'



Both Bonacci Group and Bonacci Water businesses are expanding in Geelong. To help meet the infrastructure needs of this fast growing population, we are involved in several key projects.

### Armstrong Creek Urban Growth Area

The majority of Geelong's growth will be catered for in the Armstrong Creek growth area, a mixed-use area to be designed for upwards of 22,000 dwellings and a population of 50,000. The development — the biggest ever for Geelong, expected to get underway in 2010 — will also cover employment precincts, mixed-use corridors and park lands.

Bonacci Water has prepared a comprehensive report for a major residential development, which breaks new ground on water management. The

report — *Responsible Water Use at the Armstrong Creek Development (Analysis of Integrated Water, Stormwater and Wastewater Options)* — was prepared for the City of Greater Geelong, which required an innovative approach to infrastructure provision, to support its precinct-based planning philosophy for the development.

Bonacci Water Director, Dr Peter Coombes, says "the report covers the provision of additional local water sources and demand management designed to improve the security of regional water supplies whilst protecting local environments." He also states "these types of strategies will deliver increased flexibility to regional water planning, by allowing reduced water demands and sewerage discharges, whilst minimising greenhouse gas emissions."

To read this report, please visit our website [www.bonacciwater.com](http://www.bonacciwater.com) and click on the link.

### Fyansford Quarry

With the imminent closure of the CSR Readymix quarry at Fyansford, Moltoni Corporation, a Perth based company, has engaged our Geelong office to provide engineering services necessary to transform the site into an environmentally sensitive boutique development, comprising some 600 residential lots plus medium density housing and commercial areas. The site is bounded by the new Geelong ring road (currently under construction) and the Moorabool River.

Initial design and investigation works are underway to support a submission to the independent planning panel, which has been set up to consider rezoning of the land to residential.

Owen Richards, Associate and Manager of our Geelong office, developed a three dimensional earthworks model of the proposed development, including a unique amphitheatre style which highlights the visually striking rock quarry escarpments. The 3D earthworks modeling has allowed clear identification of differing ground conditions across the site and will be invaluable in controlling and tracking the large quantities of fill required to remodel the site.

Through Bonacci Water, we are developing an integrated strategy for the provision of water, waste water and stormwater infrastructure to the site, utilising local climate and demographic data. We are exploring the feasibility of a local waste water treatment plant, and third pipe re-use, to avoid a major upgrade to the existing sewer system.

Geoff Foster, Director, is optimistic about Geelong's continued growth and the opportunities that exist for the expanding teams of both companies. For more information about our Geelong projects, please contact:

**Geoff Foster**  
T 03 9418 4000  
E [gfooster@bonaccigroup.com](mailto:gfooster@bonaccigroup.com)

## 'Bonacci Group wins awards'

### 2007 Sir William Hudson Award



The **Sir William Hudson Award for Engineering Excellence** was awarded to the City of Melbourne, Bonacci Group and Lincolne Scott, for the design and

construction of the environmentally sustainable building, known as Council House 2 (CH2), which houses the new offices for the Melbourne City Council. This award is the pinnacle of Engineering achievement and the highest Australia-wide award bestowed by Engineers Australia, annually.

Engineers Australia advocate that "The Engineering Excellence Awards represent the pinnacle of engineering excellence — the embodiment of innovation, creativity and tenacity. The projects and individuals showcased are truly astounding and diverse. Their efforts have a lasting impact on our community.

Each year, the National Excellence Awards judging panel considers the nominating winners of Division and Society Awards for an Australian Engineering Excellence Award. As Award winners in their own right, finalists represent the very best of engineering with the national judging panel seeking to identify those unique finalists that demonstrate outstanding excellence, innovation and best practice."

The CH2 project, and engineering team, was also the winner of the **Engineering Excellence Award for Environment and Sustainability**, at the Victorian Engineering Excellence Awards.



#### Bonacci Group's CH2 team

- **Stephen Payne**  
Project Director (Structural)
- **Nat Bonacci**  
Joint Project Director (Structural)
- **Roger Sykes**  
Project Structural Engineer
- **Geoff Foster**  
Project Director (Civil)
- **Mario Caputo**  
Project Draftsperson

### Ecologically Sustainable Design



CH2 has been given a design stage rating of 6-stars; the highest possible rating, setting it ahead of all other Australian buildings and amongst the best worldwide, according to the Green Building Council of Australia (GBCA), Greenstar Rating Tool. The Council is now seeking a similar "As Built" rating.

The knowledge and understanding about the design of Ecologically Sustainable Design (ESD) buildings is growing and changing rapidly. Due to their many integrated systems, they require a collaborative approach by all consultant disciplines. Having provided full structural and civil engineering services on the \$51 million CH2 project, and through our involvement with a number of other ESD developments, Bonacci Group understands the commitment required and can contribute current, leading-edge expertise to produce an effective ESD building, incorporating:

- Innovative design features
- Specification of materials incorporating reduced embodied energy and increased recycled/waste content (e.g. cement replacement and recycled aggregates in concrete mixes, recycled content in steel, sustainable timber sourcing)
- Simple, repetitive, easy to build structures that minimise construction time and waste, contributing to energy and resource savings

### Council House 2 (CH2) Building

The CH2 building, home to Melbourne City Council's administration office, is a 10-storey building, of 10,000 square metres, located on Little Collins Street, at the Tivoli car park site, near the corner of Swanston Street, in Melbourne.

#### The Delivery Process

The objective of the development was to realise "a landmark ecologically sustainable building that will provide a healthy, stimulating workplace that will support organisation excellence and cultural change".



To achieve this, the conventional wisdom of building design was disassembled and scrutinised in a two week workshop involving the client, the full project consultants team, artists, the CSIRO and the Sustainable Energy Authority of Victoria.

The process of designing CH2 was a highly collaborative approach that recognised the need for interactive, creative expertise at every level of the design's development.

The workshop not only served as a vehicle for exchanging ideas and developing systems that interacted between disciplines, it formed the basis for developing a tight knit team of professionals committed to a shared vision.



L-R Terry Charlton – CEO, Snowy Hydro, Alan Roshan – Lincolne Scott, Shane Power – City of Melbourne, Nat Bonacci – Bonacci Group, Rolfe Hartley – President Engineers Australia

## Innovative Design and Engineering

From a Bonacci Group perspective, these awards represent the level of commitment and dedication adopted by those involved with CH2. The team-oriented nature of the project encouraged team members to come up with creative solutions and promoted the ability people have to rise to a challenge.

In highlighting these achievements, we acknowledge all those involved, for what and how much was achieved by people and organisations working together, through a high level of understanding and appreciation for a project, particularly one such as CH2, which, from the outset, had the potential to set the benchmark for future 'green' developments.

## Bonacci Water is launched

In 2008, we are pleased to mark the formal launch of Bonacci Water and to officially welcome Dr. Peter Coombes as the director heading up our new division. Peter is one of Australia's leading authorities on water management and associated sustainability issues. Peter and his team are already at work delivering projects that tackle water supply, stormwater management and water quality issues. Factors such as increasing urbanisation, rapid economic growth, a variable climate and the potential for climate change are placing pressure on water supplies across the country. Bonacci Water used strategic systems analysis to identify objectives and find sustainable solutions.

### Some of our new projects include:

- Hopetoun Planning Study for the W.A. Government
- Responsible Water Use Plan for Armstrong Creek, for the City of Greater Geelong (refer page 1)
- Stormwater Management Plan and Flood Study for Armstrong Creek
- Integrated Water Cycle Management at the Fyansford Quarry Site

### Did you know... Bonacci Water offers the following Services:

- Water and wastewater master-planning
- Strategic infrastructure planning
- Design and analysis of systems based Water Sensitive Urban Design and Integrated Water Cycle Management solutions
- Rainwater tank analysis and design
- Design and analysis of sewage treatment and re-use systems

- Water industry economic analysis and Asset Management
- Flood studies / catchment management
- Hydraulics / hydrology
- Applied research and software development
- Urban stormwater management
- Workshops and training
- Microbiological analysis

For more information about our business and projects, please contact:

**Dr. Peter Coombes**  
T 03 9418 4000

[www.bonacciwater.com](http://www.bonacciwater.com)

## Trivia

Here's a fascinating bit of trivia for you...

It takes 5,680 litres of water to process one barrel of beer.

Now that's a lot of water!!!

## Bonacci Group growth...



**SAM CARUSO Associate Director**  
Melbourne (Structural)

Sam has over 10 years structural engineering experience in Australia. He is currently involved with the Mercy Hospital Site Redevelopment in East Melbourne, St. Buller Hotel at Mt. Buller and other Alpine projects, including Helihouse and Sterling House at Mt. Buller.

Previously, Sam was part of the award winning CH2 consulting team. He also worked on the Queen Victoria Redevelopment, ANU Centre for World Politics in Canberra and The University of New South Wales Faculty of Law Building.



**EROS CAVALLIN Associate Director**  
Melbourne (Civil)

Eros has over 20 years of civil design and engineering experience in Australia. Eros' current projects include the twin Rockbank Service Stations on the Western Highway, 54 Kingloch Parade — Housing Redevelopment in Wantirna, and the Mercy Hospital Site Redevelopment in East Melbourne. He is also part of the consulting team for the Kingston Caulfield Health project.

Eros is responsible for all Bonacci Group's civil siteworks design. He has set high office standards for documentation quality and has developed many AutoCAD drafting enhancements.



**KIRI HETARIKI Associate**  
Sydney (Structural)

Kiri has 8 years structural engineering experience, both in Australia and overseas, including Taiwan, England, Qatar, Bahrain and Dubai. She is currently the principal structural engineer for the Stocklands Shopping Centre in Merrylands (in construction) and the Formule 1 Hotel at Sydney Olympic Park (in construction). Previously, Kiri lead the structural design team for the new Bathurst Base Hospital.



**OWEN RICHARDS Associate**  
Geelong (Civil)

Owen is a civil/environmental engineer with over 10 years experience in his field. Owen is currently working on delivering one of Bonacci Group's largest Civil Works contract, Fyansford Quarry. He is also involved with two special FORD You Yangs Proving Ground projects and consulting on the Armstrong Creek Flood Management Study for Bonacci Water.



**CHRIS ANSON Associate**  
Melbourne (Civil)

Chris is a civil engineer with 7 years experience. His current projects include infrastructure and WSUD works for residential developments in Docklands New Quay West precinct, The Groves in Plenty Valley, Defence infrastructure and WSUD works for Amberley Air Force Base and a retirement village in Caboolture, Queensland. Chris also acts as the OH&S Manager for Bonacci Group.



**KEVIN SAWYER Associate**  
Sydney (Structural)

Kevin has 35 years experience as a structural draftsman. He brings a wealth of both local and international experience to each project. His current projects include East Quarter Stage 1 in Hurstville, NSW, Pegasus on the Gold Coast and various primary and secondary school projects within NSW. Kevin has led the development and control of our in-house CAD system, procedures and standards and continues to incorporate improvements based on feedback from Senior CAD members.

**We thank all the above key personnel for their hard work and congratulate them on their achievements.**

## Some recent new projects

### Bonacci Group awarded a two site project for Neurosciences Buildings.

Bonacci Group is providing structural and civil design services for the prestigious Australian Centre for Neuroscience and Mental Health Research project. The project consists of two new high profile, interactive and contemporary buildings. Six organisations are to be located over the two sites (Parkville and Austin). For more information about this project, please contact:

**Stephen Payne** (Director)  
T 03 9418 4000  
E spayne@bonaccigroup.com

### Bonacci Group, Sydney, awarded residential building project on the Gold Coast...In this case it IS all about being tall and thin!

Bonacci Group, Sydney, is currently working on XXV Breaker on the Gold Coast. The building is being developed by Macquarie Bank and is 25 storeys high, but only 9m wide and 30m long! The project began construction in April this year. For more information about this project, please contact:

**Ryan Campbell** (Associate Director, Syd)  
T 02 8247 8400  
E rcampbell@syd.bonaccigroup.com

### Bonacci Group wins a Trunk Pipeline Project in NSW... new pipelines in the pipeline!

Bonacci Group Infrastructure has been commissioned by Wyong Shire Council to investigate and develop concept design and detailed design of approximately 14,000m of trunk sewer lines and two pump stations for two major townships in Warnervale and Wyong Employment Zone. For more information about the Wyong Sewerage Trunk Mains project, please contact:

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XXV Breaker, Gold Coast