



Name:

Dr. Benjamin Collingwood

Contact details:

Foundation Specialists Group
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Areas of expertise:

Foundation engineering, geotechnical engineering, geomechanics, construction, foundation evaluation, deep foundations, pile design, foundation construction methodology, pile damage, excavations, basements, retaining walls, bridge foundations, bored piles, drilled shafts, pile sockets, driven piles, steel piles, CFA piles, screw piles, secant walls, sheet piling, piled retaining walls, diaphragm walls, soil mixing, cut-off wall, drilling fluids, bentonite slurry, polymer slurry, pile testing, static load testing, dynamic pile testing, construction management, cost planning and assessment.

Career overview:

Dr Ben Collingwood is Managing Director of Australia's leading specialist consulting firm in design and construction of deep foundations, Foundation Specialists Group Pty Ltd (FSG).

Ben commenced his career in 1995 with a leading infrastructure contractor and geotechnical consultant, before spending 11 years with national piling contractor, Wagstaff Piling Pty Ltd. During this time he was responsible for tendering, design, project engineering and project & construction management for over 350 commercial foundation construction contracts, including some of the largest and most challenging piling projects in Australia. He has a detailed understanding of a broad range of deep foundation systems including bored piling, CFA piling, driven precast, steel and timber piling, sheet piling, piled retention systems, diaphragm walls, cut-off walls and ground improvement. Ben's unique blend of technical knowledge, construction management experience and commercial understanding make him ideally placed to assist clients in all aspects of foundation engineering practice.

Since establishing FSG with colleague Dr Julian Seidel in 2010, Ben has been involved in a broad range of major projects, both nationally and internationally. His business philosophy is built around providing consulting services of the highest technical standard, with a clear emphasis on value engineering and practicality.

Qualifications:

- Bachelor of Civil Engineering (Hons), 1995, Monash University, Melbourne, Australia
- Doctor of Philosophy in Geomechanics, 2000, Monash University, Melbourne, Australia.
Thesis: The Effects of Construction Practices on the Performance of Rock Socketed Bored Piles

Employment History:

July 2010 - current

Managing Director, Foundation Specialists Group

Consulting in all aspects of foundation engineering projects throughout Australia and internationally, spanning a broad range of industries, including infrastructure, building, energy, mining, marine, offshore and environmental sectors, for clients including principal contractors, piling subcontractors, structural and geotechnical consultants, private and government owners, insurers and legal firms.

1999-2010

Design Engineer/Project Manager (1999-2003), Construction Manager (2004-2010), Wagstaff Piling Pty Ltd

Project engineering, design and tendering, and project and construction management for a variety of foundation construction projects, involving precast and steel driven piles, bored piles, continuous flight auger piles, sheet piles,



secant/contiguous/soldier retaining piles, diaphragm walls; encompassing engineering design, tendering, estimating, marketing and contract negotiation, preparation of marketing documentation, contract preparation and review, preparation and delivery of technical and marketing presentations.

1996 – 1999

Postgraduate Research Scholar - Monash University, Clayton

Ph.D Project: The effects of construction practices on the capacity of rock socketed piles undertaken at the Department of Civil Engineering, Monash University, under the supervision of Dr Julian Seidel and Assoc. Prof. Chris Haberfield.

1995 – 1996

Geotechnical Engineer - Golder Associates (Melbourne)

Planning, execution and reporting of geotechnical site investigation works and geo-environmental site assessments, including site operations, geotechnical logging, sampling, testing, modelling, and formulation of technical recommendations. Supervision and certification of pile foundation and pad footings during construction.

1994-1995

Engineer - Transfield Tunnelling

Project engineering for a number of large scale tunnelling projects and tender submissions

Selected Major Projects:

Foundation Specialists Group (2010 to Current):

- **Cape Lambert Port B, Phase B Marine Works** – Rio Tinto – Design and Verification Services for Wharf Piling
- **Adelaide Superway Elevated Roadway** – Urban Superway Joint Venture – Preliminary and Detailed Design of CFA Foundation Scheme for Elevated Roadway, Ground Improvement Design, Sheet Piling Design, Construction phase advice
- **Kempsey Bypass** – Design and Construct Bridges – Abigroup – Constructability Advice and Verification Services
- **Port of Brisbane Wharfs 10 & 11** – Port of Brisbane – Verification Services for marine piling
- **Hay Point Stage 3 Expansion** – McConnell Dowell Geosea JV – Constructability Advice, Temporary works design and verification services for marine piling
- **Port Botany, Bulk Liquids Berth 2** – John Holland/Smithbridge – Design and Verification Services for marine piling
- **Gladstone LNG and Queensland Curtis LNG Marine Works** – John Holland - Constructability Advice and Verification Services for marine piling
- **Australian Pacific LNG Marine Works** – Waterway Constructions - Constructability Advice and Verification Services for marine piling
- **Australian Pacific LNG Marine Works** – McConnell Dowell – Design of 1.5 km Sheet Pile retaining wall
- **Wiggins Island Coal Export Terminal (WICET)** - - Constructability Advice and Verification Services for marine piling
- **Mackay Ring Rd – AECOM** – Principal foundation designer for 13 road bridges.
- **Buckley St Grade Separation** – Principal foundation and retention designer for road under rail grade separation.
- **Ipswich Motorway - Rocklea to Darra** – Stage 1 – Principal designer/Internal reviewer for foundation design for motorway upgrade including 12 new bridges.

Wagstaff Piling (1999-2010):

- **M1 Upgrade, West Gate Freeway Section** (2008-2009), Thiess Baulderstone JV – Precast and bored Piling
- **Stevensons Rd Landfill, Cranbourne**, Golder Projects – Bentonite Cement Cut-off Wall
- **Eastlink Tollway – Ringwood**, Thiess-John Holland Joint Venture - Knox, Dandenong and Frankston Sections (2006-2007) – Bored & Precast Piling
- **Baju Apartments, Henley Square**, Hickory Developments – Diaphragm Wall & Ground Anchors
- **M80 Upgrade, Tulla-Sydney Alliance** – Precast Piling
- **Southern Cross (Spencer St) Station Redevelopment** (2004-2005) - Leighton Contractors – Bored, precast, sheet piling, steel piling, micro-piles.
- **MCG Northern Stand Redevelopment** (2002-2004) - Grocon Constructors Pty Ltd. – Bored piling
- **Deer Park Bypass, Leighton Contractors** – Precast and Bored Piling
- **Adelaide Desalination Plant, Adelaide Aqua** – Large Diameter Riser Shafts
- **Sugarloaf Pipeline, Intake Structure**, Sugarloaf Pipeline Alliance – Sheet Piling
- **Dynon Port Rail Link**, Leighton Contractors – Precast Piling
- **ANZ Head Office Development**, Docklands, Bovis Lend Lease – Precast Piling & Sheet Piling
- **120 Bay St, Port Melbourne**, Delta Pty Ltd – Diaphragm Wall



- **Victoria Harbour Development**, Docklands, Bovis Lendlease – Precast Piling
- **Regional Fast Rail Project**, Ballarat Section, Thiess Pty Ltd – Bored and Precast Piling
- **Bayshore Apartments**, Port Melbourne, Delta Pty Ltd – Contiguous CFA Piled Retention/Foundations
- **Crown Casino, Second Hotel Tower**, Crown Projects – Bored and Precast Piling
- **Collins St Extension Project**, Thiess Pty Ltd – Precast & Bored Piling
- **Geelong Rd Upgrade - Lara, Little River, Maltby and Laverton Sections** (John Holland, Leighton Contractors) – Bored and Precast Piling
- **Hallam Bypass Project (Cut & Fill, John Holland)** – Bored and Precast Piling
- **Sale Swing Bridge Project**, Thiess Pty Ltd – Precast Piling
- **Centurion Apartments, Southbank**, Walter Constructions – Bored and Precast Piling

Golder Associates (1995-1996):

- **Melbourne City Link Project** - Southern By-pass, Yarra Crossing, Grant St Cut and Cover
- **Melbourne City Link** – Western Link

Professional Activities and Affiliations:

2003 – 2004 Chairman of Australian Geomechanics Society, Victoria Chapter & Member of Engineers Australia, Board of Engineering, Victoria

1998-2000 Australian Geomechanics Society, Victorian Chapter - Committee Member.

1995-current Member of the Australian Geomechanics Society

1997-98 Chairman of Organising Committee for the Third ANZ Young Geotechnical Professionals Conference Melbourne, 18-21st February, 1998.

Academic Awards

1996-1999 Monash University Departmental Scholarship for postgraduate studies.

1994 Foundation Engineering Prize, Department of Civil Engineering, Monash University.

Selected Technical Publications

B Collingwood, JP Seidel, CM Haberfield (1999). Laser Based Roughness Measurement for Design and Verification of Rock Socketed Piles. Eighth A-NZ Conference on Geomechanics, Hobart, Tasmania, February 1999.

B Collingwood (2000). The Effects of Construction Practices on the Performance of Rock Socketed Bored Piles. Ph.D Dissertation. Department of Civil Engineering, Monash University Clayton.

JP Seidel, B Collingwood (2001). A New Factor for Predicting Shaft Resistance of Rock Socketed Piles. Canadian Geotechnical Journal. February, 2001.

B Collingwood (2003). Geotechnical Investigations for Piling Projects – The False Economy of a Cheap Site Investigation. Australian Geomechanics. Volume 38, No. 1, March 2003.

B Collingwood (2006). Precast Driven Piles in the Melbourne Region – A Brief Overview of Current Practice. Australian Geomechanics. December 2006.

CM Haberfield and B Collingwood (2006). Recent Advances in Practical Design of Rock Socketed Piles in Victoria. Australian Geomechanics. December 2006.

CM Haberfield and B Collingwood (2006). Rock Socketed Pile Design And Construction – A Better Way? Proceedings of the Institution of Civil Engineers - Geotechnical Engineering, Vol. 159, no3, pp. 207-217

B Collingwood and J Slatter (2017). Construction Methods and Quality Outcomes for Bored Cast-In-Situ Piles - A Review of Current Practice. DFI-PFSF Piled Foundations & Ground Improvement Technology for the Modern Building and Infrastructure Sector. Deep Foundations Institute, Article #2579; publication #1032 (IC-2017), Melbourne.

Referees:

Upon request.