



<b>Country of Citizenship:</b>	Australia
<b>Educational Qualifications:</b>	Bachelor of Engineering (Civil), First Class Honours, University of New South Wales (2000)
<b>Professional Associations:</b>	Graduate member Institute of Engineers, Australia Member of Australian Geomechanics Society Committee, Sydney
<b>Languages:</b>	English, Italian

David Piccolo is an Associate at Pells Sullivan Meynink Pty Ltd. He graduated from the University of New South Wales in 2000 obtaining first class honours. David worked at Douglas Partners Sydney office during the first half of 2001. He joined Pells Sullivan Meynink Pty Ltd in June 2001. He is in the process of completing his Master in Geotechnical Engineering at UNSW.

David has worked on a wide variety of geotechnical projects including the detailed consideration of many aspects of earthworks and their control.

#### **FIELDS OF SPECIAL COMPETENCE:**

- Site investigations and foundation inspections for high-rise residential, industrial, commercial buildings in the Sydney region.
- Foundation options including piles, rafts, piled rafts, ground treatment and shallow footings.
- During construction inspection of foundation options.
- Slope stability assessment and analysis.
- Finite element numerical analysis.
- Water quality monitoring.
- Management of geotechnical issues associated with large scale earthworks and deep fills.
- Investigation and analysis of landslides.
- Seepage analysis using finite element and finite difference methods.
- 3D numerical analysis.
- Risk assessment of slopes and landslides.

#### **EXPERIENCE:**

##### **January 2008 – Present**

Associate- Pells Sullivan Meynink Pty Ltd

##### **October 2005 – December 2007**

Senior Geotechnical Engineer - Pells Sullivan Meynink Pty Ltd

##### **June 2001 – September 2005**

Geotechnical Engineer - Pells Sullivan Meynink Pty Ltd

##### **March 2001 – June 2001**

Geotechnical Engineer - Douglas Partners Pty Ltd

David has worked on a number of major projects, including:

- Parramatta Rail Link, Sydney
- Burnley Tunnel, Melbourne
- Kelian Equatorial Mining, Indonesia
- Cronulla to Sutherland Rail Line Duplication, Sydney.
- Cross City Tunnel, Sydney
- Enfield Brick Pit, Sydney
- Boral Moorebank Estate Redevelopment, Sydney
- Boral Southern Employment Lands Greystanes, Sydney
- Donaldson Coal, Hunter Valley
- Pilbara Iron Mining sites including Marandoo and Tom Price, Pilbara Western Australia
- Earnest Henry Mining, Cloncurry, Queensland
- Erskine Park Walkers Industrial Development, Sydney
- Downer 275 kV Transmission Line – Blackwall to Belmont, Brisbane
- Brisbane North South Tunnel, Brisbane
- Eastwood Brick Pit, Sydney
- Darwin East Arm Port – Wharf, Darwin
- Mavis Street, Revesby, Sydney
- Emu Plains Industrial Subdivision, Sydney
- Bulky Goods Charmhaven Development, Sydney
- Ancient Landslide, Castle Hill
- Meriton Apartments ACI Site Waterloo, Sydney.
- Brockman Syncline 4 Infrastructure, Pilbara, Western Australia
- Griffin Coal Infrastructure and Haul Roads Investigation and Advice, Collie

## **GEOTECHNICAL ADVICE FOR LARGE SCALE INFRASTRUCTURE EXPERIENCE**

With regards to experience relating to providing geotechnical advice for infrastructure projects David Piccolo has worked on a number of projects. Some of these projects (together with a short description) are listed below:

### **Parramatta Rail Link, Sydney**

David Piccolo worked on the Parramatta Rail Link project comprising. Work included installation and monitoring of instrumentation including piezometers, inclinometers and extensometers. David Piccolo had particular involvement in the during construction monitoring of sheet pile coffer dam at the Lane Cove River passing.

### **Downer 275 kV Transmission Line – Blackwall to Belmont, Brisbane**

David Piccolo was closely involved in the analysis, design and construction supervision of 40 large pile foundations for the high voltage transmission line poles in the Brisbane southern suburbs.

### **Darwin East Arm Port – Wharf, Darwin**

Preparation of report regarding placement and compaction of granular fill as part of dispute regarding suitability of fill.

### **Burnley Tunnel, Melbourne**

David Piccolo was closely involved with the forensic investigation of the tunnel lining. This work included collating all available information, including survey, construction records, ground probing radar and providing detailed advice to major infrastructure owner.

### **Brockman Syncline 4, Pilbara, Western Australia**

David Piccolo was closely involved in providing geotechnical foundation advice for the various items of the proposed production plant at a new major mining operation. The work comprised providing advice for the preliminary, feasibility and final design advice and included planning the field investigation, reviewing and collating results, providing parameters for design and undertaking two and three dimensional numerical analysis of the plant items.

### **Cronulla Rail Line Duplication**

David Piccolo was closely involved with providing geotechnical advice for the tender stage design of bridges, underpasses, stations, pedestrian bridges, overhead wire structure rail cuttings, retaining walls and rail embankments for approximately 8 km of rail duplication in the southern suburbs of Sydney.

## **LARGE SCALE EARTHWORKS EXPERIENCE**

With regards to experience relating to earthworks David Piccolo has worked on a number of projects. Some of these projects (together with a short description) are listed below:

### **Enfield Brick Pit**

David Piccolo was closely associated with Enfield Brick Pit filling for the duration of the filling operations in the period between dewatering of pit in early March 2002 to completion of filling in September 2005. The project comprised filling of a clay and shale quarry in the inner western suburbs of Sydney for future residential or light industrial development. The fill depths range up to 35m.

### **Boral Moorebank Estate Redevelopment, Sydney**

Since May 2004 David Piccolo has worked on the Boral Moorebank Estate redevelopment project in Sydney. The project comprises the remediation of the old Boral quarries for final use as residential development. Fill depths up to 25 m.

### **Boral Southern Employment Lands Greystanes, Sydney**

David Piccolo worked on behalf of the owner of the site and was involved in managing geotechnical issues associated with the large scale earthworks undertaken at this site. The project comprises the remediation of the quarry for use as residential development.

### **Donaldson Coal, Hunter Valley**

Assistance in preparation of a feasibility level assessment of the issues and potential of future landuse of the backfilled open pit mine areas for the owner. Fill depths up to 50 m.

### **Erskine Park Walkers Industrial Development, Sydney**

Working on behalf of the developer to develop appropriate fill specification and control testing regime for the industrial development. .

### **Eastwood Brick Pit, Sydney**

Assistance in reviewing of Eastwood Brick Pit earthworks design by an other Geotechnical Consultant.

### **Mavis Street, Revesby, Sydney**

Preparation of fill specification for placement of contaminated fill in controlled lined cell.

### **Emu Plains Industrial Subdivision, Sydney**

Preparation of fill specification for placement of site won material as part of industrial subdivision development.

### **Bribie Island Coles Extension, Queensland**

Filling on soft ground, investigation of existing fill, planning and supervision of impact rolling, assessment of effectiveness of Impact Roller using CPT, DCP testing and surveying.

Tasks undertaken by David Piccolo as part of the above projects include:

- Planning and management of large and medium scale earthworks.
- Liaison with owners, contractors, developers, government agencies and Geotechnical Testing Authorities (GTA) with regards to earthworks.
- Analysis and design of the deep fill, including numerical modelling for the prediction of settlement and discussion of final land use.
- Extensive literature review of settlement behaviour of deep fills.
- Preparation of specification and drawings detailing the subgrade preparation, fill material requirements, fill placement requirements, testing requirements, survey requirements and monitoring requirements for placement of both VENM and remediation materials.
- Audit of filling operations including frequent site visits during earthworks.
- Audit of control testing as undertaken by GTA.
- Reporting of audits of earthworks.
- Planning and installation of settlement monitoring.
- Preparation of tender documentation for Contractors undertaking the filling.
- Preparation of tender documentation for GTA controlling the filling operations.
- Assessment of limits and benefits of existing specification.
- Assessment of implementation of specifications.
- Advice regarding site classification and footing design on fills as per AS2870 "Residential slabs and footings".
- Advice regarding salinity assessment of fill.
- Advice regarding disposal of contaminated fill.

- Stability analysis of cut and fill batters.
- Planning and review of deleterious material testing.
- Planning of crushing requirements.
- Development of work method specifications.
- Advice regarding filling on soft ground.
- Advice regarding replacement of unsuitable material.
- Planning and supervision of compaction trials and test rolling.
- Supervision of Impact Rolling.
- Undertaking Plate Load Testing on the fill as placed.
- Advice regarding to AS3798-1996 "Guidelines on earthworks for commercial and residential development".
- Advice regarding to some RTA testing protocols etc.
- Advice regarding AS1289 "Methods of testing soils for engineering purposes"
- Advice regarding foundation options.