



Name:

Ross Kristinof

Contact details:

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Areas of expertise:

Geotechnical engineering, geomechanics, site investigation, pile design, retaining walls, constructability, earthworks, embankments, settlement assessments, slope stability, geotechnics for maritime works, project management, design management

Qualifications:

- Master of Science (Distinction) and Diploma of Imperial College [Soil Mechanics], Imperial College, London 2011
- Bachelor of Engineering (Honours) [Civil Engineering] Monash University, Melbourne, 2006
- Bachelor of Science [Mathematics, Earth Sciences], Monash University, Melbourne, 2006
- Chartered Professional Engineer (CPEng) & National Engineers Register, Engineers Australia
- Registered Professional Engineer, Queensland (RPEQ)

Career Summary:

Ross is a chartered geotechnical engineer with undergraduate qualifications in civil engineering, applied mathematics and earth sciences, and post-graduate qualifications in soil mechanics.

Ross has completed site investigations, geotechnical interpretive reporting and design for infrastructure clients across Australia and New Zealand, and has worked as a site engineer, project manager, designer, discipline lead and proof engineer. Ross has been involved in construction supervision and support on a number of project sites, and enjoys working in integrated project teams to solve complex engineering problems with smart, pragmatic solutions.

In addition, Ross has a keen interest in business development, and has been a team leader, client manager and has led a number of internal programs and staff development initiatives.

Employment History:

June 2017- Present

Foundation Specialists group
Senior Geotechnical Engineer

November 2005 – June 2017

Jacobs
Undergraduate progressing to Associate Geotechnical Engineer



Project History:

Ports & Maritime

- Amrun (South of Embley), Rio Tinto, QLD. Geotechnical assessment and review of pile and jacket options for a wharf and jetty structure, including ground conditions, axial and lateral pile capacity.
- West Pilbara Iron Ore Project, tender phase services, Besix, WA. Geotechnical Interpretation and ground model, review of geotechnical design and stability of 3km causeway and breakwater, driven pile design, anchor design, driveability and constructability advice for installation of piles in rock ranging from 0.5MPa to 50MPa UCS strength.
- Berth A & B Upgrade, BHP Billiton, WA. Dynamic testing of existing jetty piles to reassess long-term setup and capacity of nearby 40 year old wharf structure, to allow for larger design loads.
- Preston Point Wharf Upgrade, Transfield, WA. Peer review of geotechnical investigation, design of jetty, anchor piles and combi-pile retaining wall. Advise on pile installation and drivability.
- Port Capacity Project – Maritime Package, McConnell Dowell, Vic. Geotechnical lead for tender through to detailed design of \$900mil upgrade of port facilities at Port of Melbourne. Role included design and implementation of further site investigation, interpretation of ground model and geotechnical parameter assessment, pile design, advice on static axial and lateral load testing and discipline management. Project geology included soft Coode Island Silt and Port Melbourne Sand, and variable strength Fisherman’s Bend Silt. Ongoing construction phase support.
- Interim Tug Moorings, BHPB Iron Ore, Port Hedland, WA. Design of cyclone mooring piles for tug fleet
- Project Poseidon – Marine geotechnical investigation, Port Hedland, WA. Project Manager and lead geotechnical engineer for over-water investigation at Hunt Point, Port Hedland, comprising site investigation, logging and laboratory testing in water depths to 15m.
- Confidential Project, WA. Advice on ground model, geotechnical interpretation and review of marine piling options including pile driveability and capacity estimates for \$350mil CAPEX harbour development.
- Cape Hardy development, Iron Road Holdings, SA. Advice on parameter selection, scope of geotechnical investigation and interpretation and analysis of existing geotechnical data, including boreholes and geophysics for 2km jetty structure.
- Marine Supply Base, Territoria Civil (Formally MacMahon), NT. Design of earthfill bund constructed partially underwater to contain dredge spoil, advice on dredge batter slopes and installation of steel tubular driven piles.
- Port of Melbourne, Channel Deepening Project, PoMC, Vic – Project Manager for the analysis of potential scour due to rock-falls associated with dredging and blasting at Port Philip Bay Heads, four years post dredging.
- Abbott Point Coal Terminal Upgrade, Adani, QLD. Peer review and design verification for geotechnical works associated with a 2.7km jetty and two new shipping berths. Works included review of axial capacity for compression and tension piles, review of design reports, and advice on interpretation of static load tests.
- Buckland Project, IOH, WA. Scoping of geotechnical site investigation for a new jetty structure, tender review and advice, independent assessment of pile driveability.
- Confidential Project, WA. High level peer review of construction methodology and geotechnical data in relation to a harbour development.
- LHD Anchor Piles, BAE Systems, Victoria. Design of anchor piles for mooring of LHD Ships at Williamstown, Victoria.
- Port Hedland Outer Harbour, BHP Billiton Iron Ore, Port Hedland, WA – Site selection, specification and supervision of tensile static load testing for offshore piling in water depths to 30m.
- Port Hedland Outer Harbour BHP Billiton Iron Ore, Port Hedland, WA – SPS and DPS Phase geotechnical assessment of capacity and driveability of piles for proposed wharf and jetty structures, including site selection, specification and supervision of tensile static load testing for offshore piling in water depths to 30m, geotechnical advice on suitability of Gravity Based Structure, design of associated enabling works including mooring dolphins and piles for Contractor Load Out Facility



- Project Quantum, BHP Billiton Iron Ore, Port Hedland, WA – Offshore geotechnical investigation, project management, data analysis, factual and interpretive reporting in water depths to 40m.
- Port of Melbourne, Channel Deepening Project, PoMC, Vic – Analysis of potential scour due to rock-falls associated with dredging and blasting at Port Philip Bay Heads.
- Port of Melbourne, Channel Deepening Project, PoMC, Vic – Analysis of trial containment bund including very soft soils and application of advanced laboratory testing results, ongoing monitoring of bund settlement.
- Rapid Bay Jetty EIA, Department of Natural Resources – South Australia. Review of geotechnical conditions for a proposed industrial jetty.

Transport Infrastructure

- Ipswich Motorway - Rocklea to Darra section, detailed design, BHA, Queensland. Geotechnical design engineer for upgrade works along 3km section of motorway. Includes design of retaining walls and bridge footings.
- East Pakenham Stabling Yard for High Capacity Metro Trains, Downer, Melbourne. Geotechnical lead for civil design of new stabling yard. Works included geotechnical assessment and interpretative reporting, detailed design of bridge foundations, rail formation, pavement assessments, bulk earthworks classification and material reuse strategies, settlement assessments.
- Southern Corridor Improvement Program, Proof Engineering, CPB, Auckland. Lead geotechnical peer reviewer/proof engineer for all aspects of the 10km widening of the SH1 motorway, south of Auckland. Involved review of piles, seismic design, earthworks and retaining walls. Signoff of all PS2 documentation for geotechnical aspects of the project
- Waikato Expressway – Hamilton Section, NZTA, NZ. Tender design of 18km expressway including 18 bridges, cuts to 9m and fills to 10m in height. Responsibilities included site characterisation, liquefaction assessment, design of ground improvements, design of retaining structures and piles foundations for several bridges.
- Wellington Traction Overhead Service Renewal – Stage 3, KiwiRail, NZ. Oversight of geotechnical site investigation, interpretative reporting, design of footings for overhead structures founded in variable alluvial sands, clays and peats.
- Citylink-Tullamarine Freeway Widening, Stage 2 Tender Design, Fulton Hogan. Geotechnical lead for tender phase. Working with Fulton Hogan, provided geotechnical interpretation, design advice for bored piles for bridge widenings, tender design of Reinforced soil embankments and soil nail walls.
- Koo Wee Rup Bypass, detailed design, Lend Lease, Vic. Detailed design of driven piles to support bridge. Review of settlement monitoring and preload performance.
- Koo Wee Rup Bypass, Challenge review of tender design, Abigroup, Vic. Peer review of geotechnical components of tender design provided to Abigroup by other consultants. Included review of settlement estimates, ground improvement and surcharge options, slope stability and pile design.
- Hanover Street Bridge Restoration, Metro Trains, Victoria. Geotechnical advice for site investigation and remediation measures for the stabilisation of bridge abutments and foundations against rotational movement.
- Bayswater Grade Separation - Reference Design, Vicroads, Victoria. Review of geotechnical conditions and piled retaining wall design for reference design purposes at Springvale Road, Springvale.
- Goyder River Bridge, NT. Tender design for bored, driven/anchored and potted pile options for proposed Goyder River Bridge Crossing in Northern Territory.
- Murchison Highway Road Widening, DIER, Tasmania. Peer review of geotechnical reports, design of gabion retaining walls to remediate slumped fill batters.
- Springvale Road Grade Separation - Reference Design, Vicroads, Victoria. Review of geotechnical conditions and piled retaining wall design for reference design purposes at Springvale Road, Springvale.
- Grampians Flood Recovery Works, Vicroads, Victoria. Geotechnical Site Investigation, design and construction supervision for remediation of a series of landslips along Silverband Road in The Grampians, Western Victoria. Project included design of road embankments and gabion walls to 4m in height.
- Dingley Arterial Road, Vicroads - Tender geotechnical design of driven piled footings and recommendations for further ground investigation for two bridges in south-east Melbourne.
- Furner Avenue Pedestrian Bridge, ARTC - Preliminary geotechnical design of bored pile footings for a footbridge across a freight rail line in Geelong, Victoria.



- Gateway Upgrade South, QML – Independent Verification of geotechnical design packages for motorway upgrade between Mount-Gravatt Capalaba Road and Miles-Plating Road, Brisbane.
- Yeerongpilly Footbridge, TransLink, Brisbane – Coordination and supervision of geotechnical site investigation, geotechnical interpretive reporting, preliminary geotechnical design of piled foundations for footbridge over Fairfield Road.
- Bruce Highway Upgrade Preliminary Design, TMR, QLD – Geotechnical interpretation and preliminary design for two sections of the Bruce Hwy, near Gin Gin, Central QLD, including parameter selection, design CBR advice, design and stability assessment of embankments to 18m in height, stability assessment of rock cuttings to 26m in height
- Eastern Busway Stage Buranda to Main Avenue – Design Phase, TransLink, Brisbane – Coordination and supervision of geotechnical site investigation, geotechnical interpretive reporting, geotechnical design for cut and cover road tunnel.

Water Infrastructure

- Colac Water Supply Upgrade, Barwon Water, Victoria. Geotechnical reviewer for detailed design of new balancing storage, pump station, and regional landslide risk assessment. RFI and construction phase services, including advising and assisting contractor with management of soil conditioning for use as fill.
- Legana Sewage Treatment Plant– geotechnical investigation for bored sewer tunnels, TasWater, Tasmania. Project Manager and geotechnical lead for investigation and reporting at site near Launceston. Involved drilling of boreholes, to assess ground conditions, qualitative landslide risk assessment, and high level cost estimate for pipe jacking.
- Maffra Weir Diversion Channel, Southern Rural Water, Victoria. Detailed design of new flow diversion channel at existing weir on Macalister River. Role included geotechnical assessment of ground properties, parameters for design, and constructability.
- Smithton SPS – Geotechnical Investigations and site assessments, TasWater, Tasmania. Geotechnical investigations and design advice for wet pump wells at two locations in northwest Tasmania.
- Hattah North SDL – K10 Regulator, GMW, Victoria. Detailed design of 4m high regulator structure on Chalka Creek in Murray-Kulkyne National Park. Role included ground investigation and interpretation, filter design, seepage assessment. Borrow area assessment.
- Sunraysia Modernisation Project, Comdain, Victoria. Geotechnical assessment and design services, including assessment of native soil modulus for GRP pipes to 2m in diameter, constructability advice, review of thrust block design and settlement estimates in very soft soils and loose sands.
- Toorourong Reservoir Upgrade, Melbourne Water - Assessment of potential consolidation and creep settlements arising from the proposed raising of Toorourong dam, in North-east Melbourne.
- North-Pine Water Treatment Plant – Geotechnical site investigation, interpretation and reporting
- Future Flow, Goulburn-Murray Water, Shepparton and surrounding districts, Vic – Site Investigation, borrow area selection, construction monitoring of earthworks compaction, ad hoc geotechnical advice to design and construction teams.
- Longwarry Sewerage Treatment Plant Upgrade, Southeast Water, Vic – Site Investigation and reporting
- Western Treatment Plant Wet Weather Upgrade, Melbourne Water, Vic – Site Investigation, slope stability analysis, reporting.
- Derrimut Intercepting Sewer, City West Water, Vic – Site investigation and factual reporting.
- Northern Sewerage Project, Stage 1, Melbourne Water, Vic – Site investigation and baseline monitoring. bridge monitoring, ground movement monitoring and assistant project management.

Civil Infrastructure & Buildings

- Suspension Bridge - Tully Army Base, Australian Army, QLD. Specification of site investigation, and design of driven piles and bored anchor piles for a new suspension pedestrian bridge across Jarra Creek. Supervision of geophysics and construction phase services through difficult to access terrain.
- The Crossing – Building B, Carter Group, Christchurch, NZ. Advice on driveability, capacity, PDA testing and remediation of damaged piles for a multi-level carpark structure.
- University of Otago, Dunedin, NZ. Review of geotechnical design of bored piles and shallow foundations for new building works. Advice on constructability of piles adjacent to vibration sensitive laboratories.



- DAFF-PEQF Quarantine facility, Department of Finance, Victoria. Geotechnical advice for bulk earthworks and excavation, stabilisation of expansive clay soils, design of high level footings for light industrial buildings on a green field site north of Melbourne. Footing design required measures to achieve “Class M” quality slabs for Class H1 conditions.
- MCC Relocation, Lorimer Street, Port of Melbourne Corporation, Victoria. Advice on design toe depths for CFA and driven piles potentially subject to negative skin friction.

Construction Supervision & Support

- Marine Supply Base, Territoria Civil (Formally MacMahon), NT. Construction supervision of earthfill bund constructed partially underwater to contain dredge spoil. Included response to RFIs and assessment of material properties.
- Regional Rail Link – Footscray to Deer Park, Department of Transport, Victoria. Geotechnical site supervision of bored pile construction, proof rolls and soil nail installation.
- Eastern Busway Buranda to Main Avenue – Construction Phase, TransLink, Brisbane – Construction supervision of bored piles, embankments and rock cuttings, and provision of ad hoc geotechnical advice during construction.
- Future Flow, Goulburn-Murray Water, Shepparton and surrounding districts, Vic – Site Investigation, borrow area selection, construction monitoring of earthworks compaction, ad hoc geotechnical advice to design and construction teams.
- Malcolm Creek E14 Bridge geotechnical advice during construction, Stockland, Vic – Site Inspection of 20No. bored piles during construction.
- Gateway Upgrade Project, QML – Geotechnical Engineer on independent verification team, Site supervision for construction of bored piles, settlement monitoring and instrumentation.

Presentations and Publications:

- Reed, R.J., Kristinof, R.E., Carter A.T. (2016) Adapting a driven pile design to meet the challenges encountered during construction, Proceedings of the 11th ANZ Young Geotechnical Professionals Conference (11YGPC), Queenstown, NZ.
- Kristinof, R.E. (2016) Interpreting Geotechnical measurements and observations – does one size fit all? Proceedings of the 11th ANZ Young Geotechnical Professionals Conference (11YGPC), Queenstown, NZ.
- Kristinof, R.E. Marketos, G. (2016) Geotechnical Characteristics of a high porosity deep sea clay sample retrieved from with a giant scour and its implications for local geological history. Quarterly Journal of Engineering Geology and Hydrogeology, Vol 49, pp. 154-169
- Kristinof, R.E. (2014) State of Practice of CPT testing in 2014. Proceedings of the 10th ANZ Young Geotechnical Engineering Conference (10YGPC), Noosa.
- Suto, K, Kristinof, R.E. (2014) An MASW Survey to Assess Flood Damaged Road – A Case History, Proceedings of the Symposium on the Application of Geophysics for Engineering and Environmental Problems (SAGEEP), Boston.
- Kristinof, R.E. (2013) Static Load Tests at an offshore site in Western Australia, Conference Proceedings of Coasts & Ports 2013 Conference, Sydney.
- Kristinof, R.E (2011) Geotechnical Characteristics of a deep-sea turbidite deposit, MSc Thesis, Imperial College, London.