

CURRICULUM VITAE



Harry Chambers

GEOTECHNICAL AND PAVEMENT ENGINEER

Perth, Western Australia

Education BEng Civil (2A Hons), University of Western Australia, WA, Australia, 2011

Professional Registration Member, Institute of Engineers Australia

Professional Membership The Institution of Engineers Australia
Australian Geomechanics Society – Western Australia Chapter

Languages English



1. CURRENT POSITION

Harry Chambers is a geotechnical and pavement engineer who has been working for Galt for about 8 years. His experience lies in pavement investigation and design as well as geotechnical investigation. He has worked on several road, water supply and sewer projects, mining projects, wind turbines, and building and land development projects throughout the Perth metropolitan and various rural sites throughout Western Australia. He is also experienced in earthworks verification for various land development projects.

Project work has involved various design and analyses including road design, pile design, finite element and limit state equilibrium geotechnical software analyses, bearing capacity and settlement estimates, soil permeability assessments and retaining wall design.

2. EMPLOYMENT HISTORY

2.1. GALT GEOTECHNICS PTY LTD (PERTH): JULY 2011-PRESENT

GEOTECHNICAL ENGINEER

Geotechnical engineer in this firm of consulting Geotechnical Engineers based in Perth, Western Australia. Duties involve a variety of desktop studies, project coordination and logistical work, field investigation and inspection, analyses, office studies and reporting which may be summarised as follows:

- ✦ Proposals: Preparation of proposals for site investigations, earthworks verification and other geotechnical projects. Responsible for understanding client requirements, client liaison and desktop studies.

- ✦ Analysis and design: Review of geotechnical data, pavement design, shallow and deep foundation design, design of temporary and permanent retaining wall structures, slope stability analyses and soil permeability assessments. Experienced with a variety of computer software programmes.
- ✦ Site Investigations and Reporting: Execution of site investigations from the proposal phase right through to reporting, including frequent client liaison. Experienced at field-testing with a variety of geotechnical instruments, investigation and sampling techniques. Reporting including review of supplied information, interpretation of geotechnical data, factual reporting and development of geotechnical recommendations.
- ✦ Earthworks and Construction Support: Conducting site inspections for a variety of earthworks and construction projects. Includes contractor liaison, inspection and assessment of geotechnical issues, provision of on-site geotechnical recommendations and reporting of inspections and verification work.

2.2. GALT GEOTECHNICS PTY LTD (PERTH): DECEMBER 2010-JULY 2011

Undergraduate geotechnical engineer in this firm of consulting Geotechnical Engineers. Casual employment involving a variety of office work, analysis and fieldwork broadly similar to the work as a geotechnical engineer above.

3. MAJOR PROJECTS

3.1. PAVEMENTS

Pavement investigations and design of various mine roads in the Pilbara and Goldfields, access roads for heavy vehicles in the Wheatbelt.

Forensic investigation of pavement failures in the Perth CBD and surrounding areas and heavy vehicle access roads in regional towns.

3.2. WATER

YULE RIVER SCHEME UPGRADE – PORT HEDLAND, WESTERN AUSTRALIA

Geotechnical engineer involved in project logistics and arrangements, site investigations, analyses and reporting for a 27 km upgrade of the Yule River Supply Main and installation of a new 5 km collection main in the Yule River Borefield. Fieldwork involved frequent liaison with the client and personnel on sites affected by the work, supervision and logging of drilling and test pitting work, conducting a number of geotechnical field tests, scheduling and specifying of laboratory tests and processing of field data.

Conducted analyses and reporting which included assessments of excavation and pipe founding conditions, fill suitability, slope stability, various geotechnical soil parameters and conditions for trenchless road

crossings. Assessment of collapsible soil potential and soil corrosivity and aggressiveness was also conducted along the investigated alignments.

PS2/PS6 SEWER AND PS1 PUMP STATION UPGRADES, KARRATHA

Geotechnical engineer involved in project logistics, arrangements, and site investigations for replacement of an existing pump station and installation of a 14 km new and upgraded sewer within the Karratha town centre. Fieldwork involved frequent liaison with the client and personnel on sites affected by the work, supervision and logging of drilling and test pitting through a variety of soil and rock conditions, conducting a number of geotechnical field tests, scheduling and specifying of laboratory data and processing of field data.

ONSLow WATER SUPPLY UPGRADE SCHEME – ONSLOW, WESTERN AUSTRALIA

Geotechnical engineer involved in project logistics and arrangements, site investigations, analyses and reporting for installation of about 20 km of a new water supply main and construction of ground and elevated tanks in a new tank farm. Fieldwork involved client liaison, supervision and logging of drilling and test pitting work in a variety of soil conditions, conducting a number of geotechnical field tests, scheduling and specifying of laboratory tests and processing of field data.

Conducted analyses and reporting including assessment of excavation and pipe founding conditions, fill suitability and various soil parameters. Assessed ground improvement options for the tank site and analysed bearing capacities and settlements for the new water tanks.

3.3. MINING

MT IDA IRON ORE MINE – NEAR MENZIES, WESTERN AUSTRALIA

Geotechnical engineer for this project assessing excavation and foundation conditions for various linear infrastructure and the plant site of this proposed multi-billion dollar magnetite development. Fieldwork included arranging logistics of executing the investigation, supervising and logging the drilling and test pitting work in a variety of soil and rock conditions, scheduling and specifying laboratory tests and processing of field data. Conducted reporting of factual geotechnical information.

MOUNT WHALEBACK IRON ORE MINE – NEWMAN, WESTERN AUSTRALIA

Geotechnical engineer for this project involved in site investigations, preliminary design and analyses and reporting for the remediation of sedimentation ponds at the Mount Whaleback mine site. Fieldwork involved client liaison, supervision, and logging of drilling work.

Reporting and analyses included development of site preparation recommendations required for heavy working platforms, preliminary retaining wall design and discussion of sediment stabilisation techniques.

SOLAR SALT FIELD LOADOUT FACILITY – SHARK BAY, WESTERN AUSTRALIA

Geotechnical engineer involved in site investigation, preliminary design and analyses and reporting for the stacker rail upgrades for the loadout facility. Fieldwork involved supervision and drilling of boreholes alongside the existing stacker rail alignment.

Reporting and analyses involved evaluation of pile types, pile geotechnical capacities, estimation of pile toe levels, lateral and axial spring stiffness's and pile driveability.

MINING AREA C, HEAVY HAUL ROAD OVERPASS – NEWMAN, WESTERN AUSTRALIA

Geotechnical engineer involved in site investigation, analyses and reporting for a heavy haul road overpass at the Mining Area C mine. Fieldwork involved client liaison, supervision and logging of drilling and test pitting, scheduling and specifying of laboratory tests, and processing of field data.

Reporting and analyses involved bearing capacity and settlements estimates for the tunnel wall foundations and fill embankments, and assessment of potential fill materials from a number of proposed borrow sites.

3.4. BUILDINGS AND LAND DEVELOPMENT

GAS COMPLEX – KWINANA, WESTERN AUSTRALIA

Geotechnical engineer involved in project logistics and arrangements, site investigations, analyses and reporting for a new air separation plant in a gas complex in Kwinana. Fieldwork involved client liaison, supervision and logging of drilling, cone penetration testing and test pitting work, conducting a number of geotechnical field tests, scheduling and specifying of laboratory data and processing of field data.

Reporting and analyses involved bearing capacity and settlement estimates for raft, strip and spread footings for the proposed structures. Analyses included estimation of cyclic settlements for storage tanks and creep settlements due to grain crushing of calcareous sands.

WAREHOUSE DEVELOPMENT – GREENFIELDS, WESTERN AUSTRALIA

Geotechnical engineer involved in site investigations, analyses and reporting for a large-scale warehouse development. Fieldwork involved supervision and logging of drilling and test pitting work through deep layers of uncontrolled fill.

Reporting and analyses involved discussing a number of ground improvements options and calculating the associated bearing capacities and estimated settlements.

VARIOUS DISTRESSED STRUCTURES AND PAVEMENTS, WESTERN AUSTRALIA

Geotechnical engineer involved in a number of geotechnical assessments of distressed structures and pavements in Western Australia. Fieldwork has involved inspection of the distressed structures and conducting investigation using a variety of hand techniques and small machinery to assess the cause any potential geotechnical issues. Reporting typically involves a detailed discussion of any geotechnical issues that may have caused the distress and options for remediation.

VARIOUS LAND DEVELOPMENTS, WESTERN AUSTRALIA

Geotechnical engineer on numerous land developments throughout the Perth Metropolitan and various rural sites throughout Western Australia. Project work typically involves site investigation, design recommendations and earthworks verification for a large variety of residential, commercial and industrial subdivisions and small scale to low rise building developments.

Experienced in investigation, geotechnical assessment and earthworks support on sites containing deep profiles of loose soils and/or uncontrolled fill, soft clayey soils, shallow rock and shallow groundwater. Responsible for providing geotechnical recommendations regarding ground improvement, site preparation recommendations, re-use of *in situ* soils (including topsoil).

4. PUBLICATIONS

Chambers, H & Lehane, B. 2011 *"An Assessment of The Geotechnical Strength Reduction Factors Specified in the New Australian Piling Standard"*. Australian Geomechanics Journal Volume 46 No. December 2011.