



Contact

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Qualifications & Affiliations

- RPEQ (Civil/Structural)
- CPEng (Civil/Structural)
- MIEAust
- NER
- CIA Committee Member
- BEng (Civil) (Hons)
- BSci (Physics)
- Confined Space Entry
- Working at Heights
- Safely Access a Rail Corridor

Skills

- Civil/Structural design
- Bridges
- Condition Assessment
- Project Management
- Contract Administration
- Construction Verification
- Independent Verification
- Owner's Engineer

References

Adam Pietrobon - 07 4727 8512
Team Leader Major Infrastructure
Townsville City Council

Craig Caton - 07 4421 8788
Principal Engineer
Dep. Transport and Main Roads

Pieter de Boer - 07 4729 6702
Principal Engineer
SMEC

Aaron Cassidy - 0427 749 870
Director
Bing Projects

Tim Hansen

RPEQ, CPEng, MIEAust, NER

Director – Hansen Engineering Group

Tim has over 11 years' experience as a consulting civil/structural engineer in the design and delivery of infrastructure, industrial, commercial, and residential projects. Tim has extensive experience working in and around North Queensland's tropical climate and conditions, as well as experience throughout wider Queensland, Australia, and Papua New Guinea. Throughout Townsville and North Queensland, Tim is known in the engineering community and to his clientele as a reliable, practical, and dependable engineer.

Tim's skillset includes civil and structural design, load rating and condition assessment, project management, contract administration, construction verification, independent verification/owner's engineer and more. Tim is a highly competent engineer with a deep understanding of earthworks, foundations, steel and concrete structures. Tim has successfully delivered projects ranging from small residential refurbishments to multi-million-dollar infrastructure upgrades.

Tim prides himself on his practical, considered, and wholistic advice.

Project Experience – Transport Infrastructure

Haughton River Floodplain Upgrade - \$515M

Construction Verification of the Bruce Highway upgrade including realignment and duplication of 13.5km of highway, 7 bridge structures (2 overpasses and 5 waterway crossings), several dozen culverts and ancillary structures. Challenges faced included early adoption of driven tubular steel piles with concrete pile shaft under the newly developed MRTS62 specification, a highly sensitive and complex flood plain, ground water inundation, soft soil settlement, and complex traffic control/management.

Reid Park Active Transport Bridge - \$10M

Project Management, Detailed Design and Construction Verification of a 60m single span steel truss pedestrian and cycle bridge over rail corridor. The project was delivered under an accelerated delivery program with collaborative partnership with stakeholders, owner, designer and contractor. Complexities of the project included limited domestic steel supply, soft and contaminated soils without ability to pre-load, program acceleration, clear span of the rail corridor, and an architecturally featured design.

Bowen Road Bridge Rehabilitation - \$10M

Detailed Design and Construction Verification of rehabilitation works to the 70-year-old bridge structure. Works included innovative tie-rod and collar pile cap strengthening, substantial concrete repairs to pile caps, piles and blade walls. The deck slab was stripped, inspected, repaired, and re-surfaced within 48 hrs to limit public impact.

Northern District Bridge and Culvert Upgrade Program - \$100M

Options Analysis, prioritisation, and Business Cases for over a dozen bridges and major culverts within the Northern District (Townsville and surrounds). Scope included condition assessment and load rating, reference designs, and preparation of business case documentation.



North Johnstone River Bridge Replacement - \$20M

Project Management, Options Analysis and Concept Design to replace the existing rail bridge structure. Challenges included permanent deep standing water in a flood prone river, and aging cast iron piers.

Mailman to Killeymoon Bruce Highway Upgrade - \$47M

Detailed Design for online widening and improvement of the Bruce Highway for 11km. Scope included the inspection, assessment, load rating, and design for widening of several dozen culvert structures.

Carl Katter Bridge - \$5M

Project Management and Detailed Design of single span bridge structure and approach works.

Mt Isa Rail Line Culvert Renewal - \$10M

Project Management and Detailed Design for replacement of several dozen box culverts under rail. Existing base slabs were re-used to avoid in-situ concrete works and collaboration with the owner's asset maintenance team ensured each structure could be replaced within a 12 hour line closure.

Cape River Bridge Replacement - \$20M

Detailed Design of 200m bridge structure and several major culverts. Challenges included remote location, deep scour in sandy materials, inconsistent ground profile and high flood velocities.

Mackay Northern Access Stage 2 - \$120M

Preliminary design for five bridge structures including two bridge widenings. Close proximity to other structures, services, and a narrow corridor provided unique challenges to overcome.

Townsville Northern Access Corridor Upgrade - \$100M

Business Case reference design for new 120m long bridge structure over seasonal river. Shallow rock and sandy conditions with high afflux sensitivity.

Shortland to Tarry Cycleway - \$10M

Detailed Design of new cycle bridge in wetlands with extremely soft soils. Access for construction equipment was limited resulting in light weight design and the harsh conditions required stainless steel piles. The bridge was architecturally featured to include heritage and environmental elements.

NDRRA Scheme - \$100M

Condition Assessment, Detailed Design, Project Management, and Construction Supervision of hundreds of sites damaged by seasonal flooding.

Lagoon, Lee, and Yard Creek Bridges - \$15M

Contract Administration for construction of two bridges and one major culvert. Scope included rectification and repairs, cathodic protection, protective coatings, new concrete structures, and environmentally sensitive waterways.

Gregory River Bridge - \$15M

Detailed Design of new three span bridge structure. Highly variable subsoil conditions within a flowing waterway.

Gregory Developmental Road 98C - \$42M

Detailed Design and Condition Assessment of several dozen culvert structures for road widening and pavement overlay. Use of pipe liners was adopted to avoid costly replacement in highly constrained locations.

Mt Stuart Creek Bridge - \$3M

Project Management, Detailed Design and Construction Verification for new pre-cast deck plank and steel girder bridge structure. Constructed in narrow corridor without sidetrack under accelerated program under D&C arrangement with only a 10 day closure.

State Highway Bridge Condition Audit - \$1M

Condition Assessment and load rating of several bridges on the Tasmanian state network. Structures were in various states of decay with numerous defects. Materials testing was carried out in conjunction with modelling to provide load rating.

Rollingstone Creek Bridge - \$3M

Project Management, Detailed Design and Construction Verification for new superstructure. Existing substructure was re-used to reduce project cost.

Northern Access Intersection Upgrade - \$20M

Condition Assessment and Load Rating of several culverts to historic and modern traffic. Recommendations for repair, replacement, and ongoing maintenance.

Dalrymple Road Upgrade - \$30M

Detailed Design, interdisciplinary coordination, and Construction Verification of 2km road upgrade and two new bridge structures totalling 220m in length.

Vantassel to Cluden Bruce Highway Upgrade - \$100M

Detailed Design of 14km of dual carriageway highway upgrade including two bridge structures and several culverts. Challenges included high stream velocities, construction over rail, and acid-sulphate soils.