

## ABOUT US

*Haigh Workman Ltd is a multi-disciplined civil & structural engineering firm based in Kerikeri, successfully serving the local community with experience dating back to 1981. Today we have a strong team of 10 tertiary qualified engineers with a comprehensive range of engineering skills.*

We live in a unique physical environment with many challenges and we have the skills to provide for community and customer needs.

We work closely with Northland and Auckland developers, surveyors, planning consultants, architects, draughtsman, designers and with many construction contractors in the region. We also work closely with key staff at District and Regional Councils, Top Energy, Department of Conservation and the Heritage New Zealand.

We undertake investigation, design and construction monitoring work in all facets of civil engineering including structural, geotechnical, roading, stormwater, wastewater & water supply.

Most of all we pride ourselves as being approachable and practicable engineers working within the local community to find the most cost effective and practical solutions for our Clients.

# CIVIL ENGINEERING

## SUBDIVISIONS, NEW ROADING & LAND DEVELOPMENT

Since 1981, the company and its predecessors have undertaken many residential, rural and commercial/industrial subdivisions and land development involving new public roads and associated utility infrastructure (water, sewer, stormwater, power, phone) in the Bay of Islands and elsewhere in the north, including

- Recent Kerikeri Residential: Orchard Estate, Vision Senior Living (now Metlifecare), Ranui Avenue, The Ridge, Pickmere Lane, Heron Hill, Oakridge, Blue Marlin Drive, Kingfisher Drive, Palm Drive
- Industrial/commercial developments: Orongo Bay Special Purpose Zone, Waipapa Business Centre, Far North Land (Kaitaia), General Gates Avenue, Placemakers (Kerikeri), Kerifresh Processing Plant
- Road extensions or upgrades: Valencia Lane, Maraenui Road, Shepherds Road

## Traffic Engineering Studies & Public Road Upgrades

A number of Traffic Engineering studies have been undertaken by our office for new projects on State Highways and District Strategic Roads for existing or new intersections and major entrances. Recent road upgrading work has been undertaken for Far North District and Whangarei District Councils including for; Whangarei Heads Road, Shoemaker Road, Stone Store terminus and parking upgrade, Pungaere Road.

### Civil Engineering services we offer include:

- Subdivision design
- Roading design
- Traffic studies
- Sewer, Stormwater & Water Supply
- Earthworks and Erosion & Sediment Control
- Car parks, footpath upgrades, parks and reserves





## STRUCTURAL ENGINEERING

Haigh Workman has experienced Structural Engineers to provide design and cost effective solutions for residential, commercial and industrial buildings involving steel, reinforced concrete, masonry or timber. We routinely work on a wide range of projects from small dwellings to large and complex commercial and residential buildings.

Since the 2010 earthquakes we have been assisting EQC in Christchurch, while in Northland we undertake initial seismic assessments followed by full structural seismic strengthening as required.

We were delighted to have been chosen to be the lead Engineering consultant on the \$15M Te Ahu Community Centre in Kaitaia, undertaking

3D structural modelling, detailed design and construction monitoring.

### **Structural Engineering services we offer include:**

- Structural design of residential, commercial & industrial buildings
- Building earthquake risk assessment
- 3D structural modelling
- Design of retaining walls
- Bridge assessment and design
- Marine structures, including marinas
- Strengthening of existing buildings
- Construction monitoring



## GEOTECHNICAL ENGINEERING

Many parts of the Far North have been subject to a turbulent geological history and consequently can be subject to weakness, slow deep creep and/or sudden slippage - particularly where those soils are exposed to water logging and erosion. Collectively, our Engineers have many years experience with the variable local geology and in identifying where these risks occur. We provide geotechnical advice and cost-effective solutions for difficulties on your site.

Following major storm events in March & July 2007 and January 2011, Haigh Workman was involved in many slip assessments and repairs near houses and road sides, working within Earthquake Commission guidelines. We routinely use slope stability assessment software to assess natural stability, the effect of proposed

modifications to land and to develop stabilisation solutions. We regularly review new technologies to keep up-to-date with the growing range of solutions available. We are pleased to have been able to put our geotechnical skills to good use for the Earthquake Commission in Christchurch carrying out geotechnical investigations and land damage assessment.

### **Geotechnical Engineering services we offer include:**

- Pre-purchase and predevelopment assessments
- Foundation design
- Retaining wall design
- Slope stability modelling and stabilisation design
- Slip repairs
- Construction Monitoring



# ENVIRONMENTAL ENGINEERING

## ON-SITE WASTEWATER SYSTEMS

On-site wastewater treatment and effluent disposal requires specific design to suit the nature of the waste, the site and regulatory constraints. Further to our experiences with wastewater disposal in Northland's soils and environmental sensitivities since 1981, we keep up to date with technology advances, new products and tightening environmental rules, to provide sustainable cost-effective solutions.

We have assessed well in excess of a thousand residential sites, schools, motels and marae. We have also helped establish wastewater management systems for industrial processing plants, including recently from some of the best things in life - oysters, honey and chocolate!

## STORMWATER MANAGEMENT

The purpose of stormwater management is to control runoff during heavy rainfall events to minimise nuisance and protect life, property and the receiving environment. This involves catchment assessment and design for;

- Containing primary flow in pipes and channels,
- Identifying & protecting flow paths for secondary flow, and
- Stormwater quality management

Haigh Workman has undertaken stormwater engineering work at most levels, including;

- Urban stormwater management studies for several Far North settlements
- Many subdivision stormwater reticulation and detention installations
- Many routine residential assessments, regularly involving detention systems
- Erosion & Sediment Control for construction sites
- Detention ponds with settlement forebays and filter planting for quality improvement at commercial and industrial premises.



## FLOOD PROTECTION

The Far North has many catchments susceptible to flooding. We have recently assisted Northland Regional Council with feasibility studies for flood mitigation around Kaitaia, Kaeo and Kerikeri. Those projects have included;

- Flood risk assessments
- Channel widening
- Spillways, and
- Stop banks

## FARM DAIRY EFFLUENT

We can assist farmers with anything from a half-hour chat about FDE problems and options, through to a comprehensive design, cost scheduling and operation management plans.

We are happy to work with farmers' preferred equipment suppliers and installers.

- Farm Dairy Effluent (FDE) design options
- Effluent ponds
- Site assessment
- Consents
- System design
- Construction monitoring

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Practical **solutions** for your engineering projects

# RESIDENTIAL ENGINEERING

Residential scale work is our bread and butter and we pride ourselves on working closely in our local community on local building projects. If you're looking to purchase or develop a property; we can provide advice on ground stability, foundation conditions, wastewater systems and stormwater management, through to complete structural design and detailing of the proposed dwelling.

## Residential Engineering services we offer include:

- Pre-purchase advice
- Geotechnical investigation
- Foundation design
- Retaining wall design
- Structural design of all building elements
- On-site wastewater systems (TP58)
- Stormwater management (TP10)
- Erosion & Sediment Control for earthwork sites (TP90)
- Obtaining building and resource consents for relocated buildings, replacement wastewater systems and land use consents for breaches of Council rules



## THE TEAM

### OUR DIRECTORS



**John McLaren** BE (Civil), MIPENZ, CPEng (Civil).

John McLaren joined the company in 2006 and has over 25 years' experience as a Civil Engineer. He manages our roading projects, traffic engineering studies, flood control projects and public infrastructure projects. Email: [john@haighworkman.co.nz](mailto:john@haighworkman.co.nz)



**John Papesch** BE (Civil), NZCE, GIPENZ

John Papesch has worked in the Bay of Islands since 2003 and has 15 years' experience as a Civil Engineer. He manages our marine engineering, wastewater and stormwater work. Email: [johnp@haighworkman.co.nz](mailto:johnp@haighworkman.co.nz)



**Phil Workman** BSc, BE (Civil), MIPENZ

Phil has been in Kerikeri since 2003 and has over 30 years' experience as a Structural Engineer. He manages all our structural design and construction supervision work for residential, commercial and industrial buildings, including geotechnical assessment and foundation design. Email: [phil@haighworkman.co.nz](mailto:phil@haighworkman.co.nz)

### TEAM MEMBERS

**Annie Pilapil** BSCE, MEng (Geo) – Design Draftsperson

**Bill Haigh** BE (Civil), CP Eng, MBA (Tech), MIPENZ – Senior Civil Engineer

**Craig Greenfield** Dip Eng (Civil), GIPENZ, NZGS – Civil Engineer (Geotechnical/Structural)

**Debra Shand** – Office Manager

**Liselotte Bendtsen Hamer** BSc (Eng), GIPENZ – Structural Engineer

**Richard Pittard** BE (Civil) – Senior Structural Engineer

**Paula Andrew** – Reception & Administration

**Rory Howell** BE (Nat Res), GIPENZ – Environmental Engineer

**Tom Adcock** BEng (Civil), GIPENZ – Senior Civil Engineer