

# CAPABILITY STATEMENT

Haigh Workman is a multi-disciplined civil and structural engineering firm based in Kerikeri, with diverse experience dating back to 1981. We have a strong team of qualified engineers with a comprehensive range of skills. We offer specialist expertise providing quality engineering solutions for our clients needs.

We work closely in all facets of property development, providing expertise from conception to completion. We have completed over 8000 projects since 1994 offering extensive experience in the field.

We aim to be partner and trusted guides to our clients. This allows us to concentrate on the best outcomes and to work as a team designing innovative solutions for complex requirements that are part of any development.

CIVIL - Land Development, Geotechnical, Stormwater, Wastewater, Earthworks, Roading, & Traffic

At Haigh Workman we help you navigate engineering projects from site selection and feasibility studies through the resource consent process; followed by engineering design, geotechnical, flood assessments, traffic studies, to construction contracts and ongoing project management.

STRUCTURAL - Design for Buildings - Residential, Commercial and Industrial, Bridges, Marine, Construction Monitoring, Earthquake risk assessment, 3D modelling, Retaining walls and Pre-purchase advice.

We work collaboratively on design, analysis and inspection of structures for a variety of uses; industrial, commercial, residential or infrastructure. From initial concept, through to final sign off, we ensure all legal requirements are met and resulting structures are safe and practical.

ENVIRONMENTAL - HAIL Reports, Contaminated Land, Erosion & Sediment Control, Flooding and Overland Flow, On-site Wastewater treatment and disposal, Stormwater Management solutions.

Haigh Workman take a cutting edge but environmental approach, by incorporating expertise and sustainable innovative methods to reduce the impact of people and developments on the environment. Offering assessments, design solutions, site investigations and remedial action plans.





# **CIVIL ENGINEERING**

# CIVIL - Land Development, Geotechnical, Stormwater, Wastewater, Earthworks, Roading & Traffic

At Haigh Workman we can help you to navigate the often complex engineering projects, from site selection and feasibility studies through the resource consent process; followed by engineering design, geotechnical, flood assessments, traffic studies, to construction contracts and ongoing project management. We aim to deliver successful outcomes through understanding our clients objectives offering robust, innovative and cost effective solutions.

Haigh Workman has undertaken many residential, rural and commercial/industrial subdivisions and land development involving new public roads and associated utility infrastructure in Northland.

#### Recent Residential Subdivisions

Orchard Estate
Terminus Heritage Retirement Villas
Kerikeri Heights
Oakridge
Rangitane River Park Stage II

# Industrial/Commercial development

Opua Marina
BOI Vintage Railway
Mitre 10 - Waipapa
Briscoes - Kerikeri
FNDC Cycle Trail
Waipapa Business Centre
Kerikeri Airport
Makana Factory - Kerikeri
Copthorne Hokianga

### Civil Engineering Services we offer include:

- · Land Development
- · Subdivision design
- · Roading design
- · Traffic Studies
- Earthworks and Erosion
- Reticulated & On-site sewerage design
- · Stormwater management and design
- Water Supply for domestic use & fire fighting







# **CONTAMINATED LAND**

## **HAIL Reports**

If you own land and want to subdivide or change the use of that land, you need to know about the National Environment Standard for Assessing and Managing Contaminants in Soil to Protect Human Health.

An Environmental Standard came into force on 1 January 2012. This Standard means that if your land is, or has been used for a hazardous activity or industry, and you want to subdivide or change the use of the land; disturb the soil, remove or replace a fuel storage system, you will need to comply with the Standard.

It is important these standards are followed as local authorities within New Zealand are obliged to apply them when considering applications for land permits and consents. This may require the undertaking of a HAIL (Hazardous Activities & Industries List) investigation of the land contamination resulting from hazardous substance use, storage or disposal. The HAIL is intended to identify most situations in New Zealand where hazardous substances could cause, and in many cases have caused land contamination.

The services we offer include the reporting stages as directed by Ministry for the Environments Contaminated Land guidelines, ensuring that councils and local authorities receive the information they require to address the relevant issues for your site.

#### Services include:

- Preliminary Site Investigation Report
- Detailed Site Investigation Report
- · Site Remedial Action Plans
- Site Validation Reports
- Ongoing Monitoring & Management Plans



Our Environmental Engineers will co-ordinate with the relevant local authorities to address and implement a site specific assessment to support the permit or consent, and to provide a cost-effective solution to assist your development.





# **ENVIRONMENTAL ENGINEERING**

We take a cutting edge approach by incorporating experience and sustainable innovative methods to reduce the impact of people and developments on the environment. We design site specific investigations for your individual project, offering the very best design solutions for you and the environment.

### **Contaminated Land - HAIL REPORTS**

We provide all levels of investigation and reporting for assessing, managing, monitoring and remediating contaminated land, taking into account National Environmental Standards and Local Authority regulations.

#### **Erosion & Sediment Control**

Our Environmental Engineers are able to undertake earthworks design including erosion and sediment control, assessing requirements of the local Council standards. The entire team works closely together to provide a complete management plan for your site.

# Flooding & Overland Flow

With many catchments susceptible to flooding in Northland, it is very important to be fully informed of potential risks and hazards. These issues have a bearing on site and building design, placement of structures and the successful implementation of your project. Our engineers have extensive experience in reviewing historical information and data to determine any effects of overland flow to your property. We can comprehensively report on flood extents, floor levels for structures and provide solutions to maximise usage of land. Our team also undertake feasibilty studies for flood mitigation work for the Northland Regional Council, which includes flood risk assessments, channel widening, spillways, and stopbanks.

### On-site Wastewater Treatment & Disposal

Utilising our expert knowledge we can create specific designs for the dispersal of wastewater according to regulatory constraints and the nature of wastewater. Keeping up to date with technological advances, new products and tightening environment rules, we can offer sustainable and cost effective solutions.

# **Stormwater Management Solutions**

We undertake stormwater engineering work that includes; urban stormwater management and installation, subdivision reticulation, residential assessments, and detention ponds. To control runoff during heavy rainfall events to minimise nuisance, protecting life, property and the environment requires assessment and design.





# **GEOTECHNICAL ENGINEERING**

### Geotechnical

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 of experience with the variable local geology and in identifying where these risks occur. We provide geotechnical advice and cost effective solutions for potential difficulties on your site.

We routinely use slope stability assessment software to assess the natural stability and the effect of proposed modifications to land 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 assessments.

## Some Geotechical Projects we have been involved in are:

Bay of Islands Airport - Kerikeri Duke of Marlborough Hotel - Russell G J Gardner Homes

## Geotechnical Services we offer include:

- Pre-purchase advice & predevelopment assessments
- Foundation design
- Retaining wall design
- Slope stability modelling & stablisation design
- Slip Repairs
- Construction Monitoring







# **COASTAL & MARINE**

## Coastal and Marine Engineering services we provide include:

- · Coastal Hazard Assessments
- · Coastal Protection Works
- · Jetties, Board Walks and Boat Ramps
- Marina Structures, Pontoons and Piles

#### **Coastal Hazards**

We regularly work on coastal hazard assessments for development projects around our shoreline including assessment of erosion and inundation risk. For sites struggling with erosion we have engineered various sea defence structures, starting from engineering investigation and design, assistance with consent through to managing contracts for completion of the physical works.

### **Jetties Board Walks and Boat Ramps**

Haigh Workman has completed engineering investigation, structure design and detailed drawings for many private jetties throughout Northland. Our sought after coastal setting sees us working with clients wanting to develop more simplistic structures through to high quality exotic hardwood structures.

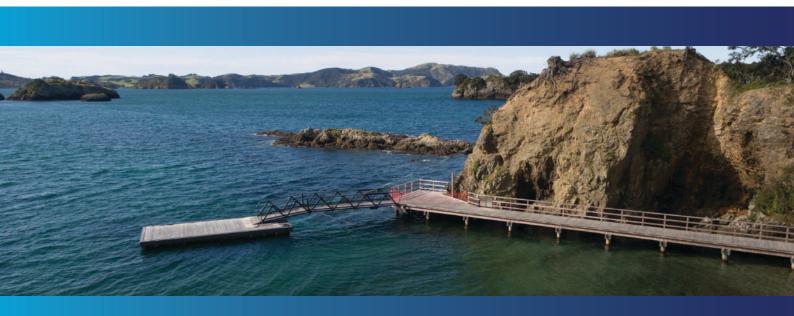
### Marina Structures

Haigh Workman are proud to be involved in the New Zealand Marina Industry and this specialisation has seen us design marina structures, pontoons and piles around various parts of New Zealand and the Pacific Islands.











# **STRUCTURAL ENGINEERING**

At Haigh workman our team of experienced Structural Engineers and CAD designers work collaboratively on the design analysis and detailing of structures for a range of developments. Projects benefit from our comprehensive understanding of the functional requirements and cost effective designs to produce consistently high quality structures.

The team can be involved from initial concept, through to the final sign off. Thus ensuring all calculations, drawings and council requirements for the Building Act are met.

Many structural projects have other engineering elements. Our structural team work with our geotechnical, civil and environmental engineers to provide the best possible advice for your project.

## Haigh Workman has undertaken many structural projects including:

Burnsco Building - Opua
Oakridge Community Centre
Makana Chocolate Factory/Cafe

Briscoes Kerikeri Duke of Marlborough Hotel Te Ahu Centre - Kaitaia

## Structural Engineering Services we offer include:

- Pre-purchase advice
- Structural design
- Building Earthquake risk assessment
- 3D Structural Modelling
- Design of retaining walls and foundations
- · Bridge assessment and design
- · Wharves and jetties
- Strengthening existing buildings



Duke of Marlborough Hotel



Te Ahu Centre

