

## Technical services we offer

- Expert witness and dispute resolution advice
- Clerk of Works / quality assurance on contracts
- General building problem analysis / forensics
- Property condition and programmed maintenance assessment
- Moisture ingress and damage reporting (including timber and concrete)
- Ground vibration data logging recording and analysis
- Penetrative dye testing –colored and clear UV reactive dyes
- Infrared thermal imaging
- Surface coating thickness testing & coating material analysis
- Construction conflict resolution
- Air sampling – microbiological, urea formaldehyde, Gastec
- Lab testing for moisture content in porous materials
- Borescope cavity inspection
- Temperature/humidity data logging
- Leak testing of joinery / masonry etc with simulated wind/rain loads
- Methamphetamine/lead/Chinese wallboard etc. testing
- Rebar locator concrete etc



Digital microdrill



Video borescope



Dielectric constant moisture meter

## Exclusively we offer

- Accurate in situ timber condition / strength assessment
- Non-destructive / minimally invasive inspections services

**INCODO Ltd is a niche buildings forensic surveying company that focuses on new and innovative services, methodologies and equipment in its field. We strive to be independent, thorough and able to deliver within tight timeframes. INCODO chooses not to operate as a Project Management\* company.**

\*Some staff are qualified as MINEDU 10YPP Project Managers – however the prime function as Ministry PM is asset assessment. Incodo's policy is to direct enquires for project management services to others

### Clients include:

- The Ministry of Business, Innovation and Employment (MBIE)
- District Health Boards
- Lawyers
- Corporates
- Councils
- Project Management Companies
- Other consultants such as Building Surveyors and architects that require specialized assistance.

We have assessed over 600 Leaky Home Claims for MBIE including many large multi-unit apartment complexes, and undertaken final and building issue assessments for public and private hospitals, schools etc.



Accelerometer/vibration recording



Site monitoring



In situ timber assessment

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## Service Details

- **Expert witness engagement**

INCODO Director, Paul Probett, is regularly engaged as an expert witness in behalf of MBIE, lawyers, body corporates etc.

- **Clerk of works / quality assurance**

Assurance that construction work is meeting code, avoiding potential issues before they arise, helping project keep to schedule while ensuring work is of a high quality are some of the benefits of this service.

- **General building problem analysis / forensics**

With decades of experience in the building industry, INCODO is adept at assessing and analyzing buildings with issues.

- **Property condition and programmed maintenance assessment**

Trained by the Ministry of Education, our team is experienced in property condition assessment and arranging program maintenance schedules and 10 year plans for maintenance.

- **Moisture ingress and damage reporting (including timber and concrete)**

Being involved with the WHRS scheme since 2003 we are able to clearly find leak causes, paths and damage with minimal invasion in a variety of materials and construction techniques.

- **Ground vibration data logging analysis**

Demolition, foundation pile driving, heavy traffic or machinery can cause in-ground vibrations that can cause damage to neighboring buildings and other structures (e.g. retaining walls, roads etc.) and INCODO offers electronic live or daily updated data analysis of vibration data-logging accelerometers so as to mitigate or remove any potential for damage.

- **Penetrative dye testing**

This service can be very effective at finding the tracks taken by troublesome leaks.

- **Infrared thermal imaging**

Can be an effective means of scanning large wall surfaces for thermal anomalies that are commonly associated with leaks. Also can be used to identify overloading electrical features, missing or inadequate insulation, worn mechanical components, voids in “solid filled” concrete block masonry etc.

- **Surface coating thickness testing & coating material analysis**

Analysis of coating materials and makeup to see if coatings meet minimum thickness specifications and / or if enough coats have been applied.

- **Construction conflict resolution**

With staff being certified by the Arbitrators & Mediators Institute, Adjudicators Association, LEADR and the Law Society – we are well skilled in facilitating conflict resolution. These skills often help us to help different parties work together for an outcome that is mutually beneficial.

- **Air sampling – microbiological, urea formaldehyde, Gastec**

We have a variety of air sampling equipment that is able to test for toxic or dangerous air borne particles or gasses.

- **Lab testing for moisture content values in materials**

Just one of the many services offered by our in house lab equipment.

- **Borescope cavity inspection**

Inspection of tight spaces and cavities with photograph and video recording options available. An often welcome, minimally invasive means of investigation as opposed to destructive investigation.

- **Temperature/humidity data logging**

This stand-alone electronic monitoring system can be an effective means for assessing ventilation of rooms, cavities, and other spaces that may be affected by condensation, dew point or leak issues. Equipment includes programmable surface temp data loggers.

- **Leak testing of joinery and masonry with simulated wind/rain loads**

Joints in joinery miters and the sealing systems used often cause moisture ingress predicaments. Testing with Rilem tubes simulating given formulae for given wind/rain loads can be an effective means of testing the effectiveness of joinery.

- **Methamphetamine/lead/etc. testing**

Paper strip testing can give quick and conclusive yes/no results as to the presence of toxic materials within living spaces.

- **Rebar scanning through concrete**

Assessment of rebar depth, size, and orientation so as to determine compliance with Building Code or to provide information to assist earthquake resistance assessment of existing structures.

## Exclusive services

- **Accurate in situ timber condition / strength assessment**

This state of the art methodology is a world first in the accurate assessment of timber that is in use. Assessments can be made to see if decay has affected timber components in a structure and even how strong the timber is and if it meets code. This service has been used by DHB's, councils, MBIE and others to assess how much timber needs to be replaced. It minimizes the amount of timber replaced, and excels at finding hidden decay behind cladding or between timber components. If interested, feel free to ask us for a brochure explaining the features of this innovative and exciting methodology or view the paper at <http://www.incodo.co.nz/ita-home.html>.

- **Non-destructive / minimally invasive inspections services**

Incodo appreciates that owners frequently want assessments without disrupting building usage, undertaken in an unobtrusive and with little or no visible sign of inspections having been carried out. We have developed a number of techniques and methodologies based on experience gained inspecting operational hospitals. We can tailor a method of inspection that suits the personal needs and wants of any client.

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*We also offer a free phone help service to callers whether clients or others*



### For more information please contact

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