

Dr David C Hopkins



- BE(Hons) PhD CPEng IntPE(NZ) FIPENZ FNZSEE
- Chartered Professional Engineer
- Director, David Hopkins Consulting Limited; (dhcl@extra.co.nz)
- Senior Technical Advisor, Department of Building and Housing;
- Director, World Seismic Safety Initiative
- Chairman Earthquake Engineering New Zealand
- Former Director, International Association for Earthquake Engineering

Dr David Hopkins has over 30 years international experience in structural and earthquake engineering in a multi-discipline context. He has a strong interest in earthquake risk mitigation, especially in developing countries and has developed a wide understanding of all aspects of earthquake “engineering” including technical, economic, social and insurance aspects. He has written numerous articles on earthquake engineering topics and has made significant contributions to the field. David has a wide network of contacts internationally as a result of his involvement as a director of the International Association for Earthquake Engineering and the World Seismic Safety Initiative.

Dr Hopkins has been responsible for many commercial, industrial and infrastructure development projects and his wide range of consulting experience includes technical, management and business development roles.

Following the Baguio earthquake in July 1990, David spent 18 months as Specialist Technical Consultant to the government of the Philippines on the World Bank and ADB funded reconstruction project. He advised six local consultants on technical aspects on the reconstruction of numerous public buildings, schools, hospitals, water supply facilities and bridges.

Since 2003 he has advised the New Zealand Department of Building and Housing, providing leadership and technical advice, particularly on earthquake-prone building legislation, structural engineering issues and building code development.

Over the last 15 years David has personally carried out assessments of earthquake damage losses to building and infrastructure assets for major New Zealand organizations. Assets include hospitals, port facilities, airports, rail networks, hydro-electric dams, water supply networks and industrial complexes.

In 2005 he was Resident Project Manager in Turkey for a World Bank funded feasibility study for retrofitting 369 residential apartment buildings in Istanbul. Work included building surveys, assessment of structural performance, preliminary retrofit designs, a detailed benefit-cost study and a social impact survey. David developed and implemented a methodology for the benefit-cost study which was specially designed to suit the Turkish and Istanbul context. This involved close examination of the vulnerability characteristics of typical Turkish apartment buildings, drawing on the results of structural analyses made during the assessment phase of the project.

From December 2009 David spent two months in Padang, West Sumatra advising authorities on the rehabilitation of damaged buildings following the earthquake of 30 September 2009.

David was the only technical member of the Canterbury Earthquake Recovery Commission, which was established to advise central government on recovery issues following the magnitude 7.1 Darfield earthquake on 4 September 2010. Following the devastating aftershock of 22 February 2011, this has been replaced by the Canterbury Earthquake Recovery Authority, CERA.

From 23 February, David was one of the leaders of the Critical Buildings team in Christchurch that determined stabilisation measures for major buildings that were damaged, including the Grand Chancellor and Copthorne Durham hotels. On behalf of the Department of Building and Housing, David is currently managing investigations into collapses of the CTV, PGC, Grand Chancellor and Forsyth Barr buildings in the 22 February earthquake.

David is a former Director of the International Association for Earthquake Engineering (2000 to 2008), received the Institution of Professional Engineers of New Zealand (IPENZ) Professional Commitment Award in 2000 and received the IPENZ Supreme Award for Technical Achievers in 2007. He is a past president of the New Zealand Society for Earthquake Engineering and has been on earthquake reconnaissance visits to Mexico, Philippines, California, Japan and Peru, being leader on two occasions.

Since 1997 David has led the Earthquake Engineering Technology Business Cluster, a business network to promote New Zealand expertise overseas.

He has many years experience as director of companies, including multi-discipline consultants, KRTA and Kingston Morrison, Robinson Seismic Limited (chairman), Mission Residential Care Limited and Mission Foods Limited.

Key achievements in earthquake engineering

- ❑ Reducing earthquake risk in existing buildings.
 - Key contributions to the development of approaches and assessment methods in the NZSEE Recommendations 1985, (Red Book). These Recommendations helped promote consistency and practical approaches to strengthening buildings for earthquake.
 - Major contributions to the development and promulgation of NZSEE Recommendations for the Assessment and Improvement of the Structural Performance of Buildings in Earthquake, 2006.
 - Key advisor on the implementation of the earthquake prone building legislation in the New Zealand Building Act 2004.
- ❑ Lifeline Earthquake Engineering
 - Wellington Lifelines in Earthquake Project. Director of this internationally recognised project that raised knowledge and awareness throughout New Zealand.
- ❑ Precast Concrete Structures Guidelines
 - Key role in developing recommendations for the design of structural precast concrete, which helped improve practice and gained international recognition.
- ❑ Design / advice on structural and earthquake engineering on major projects in New Zealand and overseas.
- ❑ Earthquake risk analysis / risk management / insurance
 - Development of practical benefit-cost analysis of retrofitting buildings, notably for New Zealand Department of Building and Housing and the Turkish Government.
 - Assessment of resources to rebuild Wellington following a major earthquake and promotion of implications to key decision makers.

- Development of Wellington Regional Council Combined Earthquake Hazard Maps.
 - Promotion of better use of engineering and scientific information by insurers
- Building Code Compliance Issues
 - Key roles in addressing concerns on structural engineering matters in New Zealand
 - Leadership in developing structural aspects in a review of the New Zealand Building Code
- Raising public awareness of seismic safety
 - Author of numerous presentations, papers, reports, newspaper and magazine articles.