NZ Society for Earthquake Engineering Incorporated

PRESENTS

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NEW ZEALAND GEOTECHNICAL SOCIETY INC

NZSEE Seminars 2016

The seismic assessment of existing buildings – core sections of the new Part C

The Seminar

The new document The Seismic Assessment of Existing Buildings (the Guidelines) provides a technical basis for engineers to carry out seismic assessments of existing buildings within New Zealand. The Guidelines support seismic assessments for a range of purposes, including whether or not a building is earthquake-prone in terms of the Building Act and for property risk identification more generally. Specifically, the guidelines provide the assessment component of the new earthquake prone building regulations and methodology.

These new guidelines are a full revision of NZSEE's 2006 "Assessment and Improvement of the Structural Performance of Buildings in Earthquakes". They provide for assessment of buildings by Initial Seismic Assessment (ISA), for a broad indication of the likely level of seismic performance of a building, and Detailed Seismic Assessment (DSA), for a more comprehensive assessment.

This seminar aims to provide attendees with an introduction to the updated DSA methods. The face to face seminar will cover C1 (General Issues), C2 (Assessment Procedures and Analysis Techniques), C3 (Earthquake Loading), C4 (Geotechnical Considerations) and C5 (Concrete Buildings). Content will be a mix of presentations from leading technical specialists, and working through a relevant worked example.

To maximise value of the seminar, three videos will give an introduction to and overview of Part A (Assessment Objectives and Principles), Geotechnical Matters, and SLaMA (the Simplified Lateral Mechanism Analysis). These videos will be released to seminar registrants and are required viewing before the seminars.

Subsequent material covering more specific detailed and technical matters is planned, along with further seminars that will address the remaining sections in Part C. A refresher for the ISA is also planned.

Objective of the Seminar

The seminar objectives are:

- To familiarise engineers with the new DSA process.
- To equip engineers with the latest tools to carry out detailed seismic assessment of typical medium rise concrete buildings and to enable more effective interaction between geotechnical and structural engineers on seismic assessments.
- To demonstrate the expected standard of reporting of results.

Benefits of Attending

Attendees will gain an understanding of the latest approach to seismic assessment of existing buildings in New Zealand, as well as preparation for carrying out assessments effectively and competently under the new legislative regime.

Who Should Attend

The seminar and preceding videos are essential for any structural or geotechnical engineers involved in the seismic assessment of existing buildings.

Investment details

$500 (GST excl) – ($575 GST incl)

Seminar fees include:

- Tea and coffee on arrival
- Morning tea, lunch and afternoon tea
- Hard copy of the worked example and presentation material
- Access to pre-reading videos (to be viewed prior to the seminars)

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Programme

8.00 to 8.30	Registration
8.30 to 8.45	Welcome and Overview

Session 1 - Overview of Assessment and Analysis

8.45 to 9.30	Overview of Assessment Key principles of assessment - qualitative and quantitative Planning an assessment Key DSA steps in overview Seismic Demand
9.30 to 10.15	Assessment and analysis
10.15 to 10.30	Questions
10.30 to 10.50	Morning tea/ coffee

Session 2 - Geotechnical and Concrete

10.50 to 11.30	Geotechnical considerations
11.30 to 11.45	Questions and discussion
11.45 to 12.30	Concrete buildings
12.30 to 12.45	Questions and discussion
12.45 to 1.30	Lunch

Session 3 - Worked Example

1.30 to 1.45	Introduction to worked example building and material
1.45 to 3.15	Stepping through the assessment process, including the key steps such as geotechnical appraisal and SLaMA
3.15 to 3.30	Questions and discussion
3.30 to 3.45	Afternoon tea/ coffee

Session 4 - Reporting Assessments Results

3.45 to 4.15	Using the Executive Summary Table
4.15 to 4.30	Recap on key points covered - across all sections
4.30 to 4.45	Final Questions
4.45 to 5.00	Wrap up, including accessing training resources and future training opportunities

Speakers Profiles

Rob Jury ▸ Rob is a Senior Technical Director – Structural Engineering in Beca's Wellington Office. He has been involved in the development of the New Zealand loadings standard (including earthquake) for new buildings and the development of guidance for the seismic assessment of existing buildings for over 25 years. He is currently editor of the revision of the engineering (seismic) assessment guidelines, and chairs the Project Technical Group comprising key industry contributors from the three technical societies. He has carried out, or reviewed, the seismic assessments of thousands of buildings throughout New Zealand using both the ISA and DSA procedures set out in the earlier "Red Book". Rob is a Fellow of IPENZ and NZSEE and a life member of SESOC.

Weng Yuen Kam ▸ Kam is a senior structural engineer at Beca, and has led, reviewed and completed a large number of seismic assessment and retrofit for buildings in major and rural town centres across New Zealand. Prior to joining Beca, he spent 9 months as a post-doctoral researcher at the University of Canterbury, researching and documenting the performance of concrete buildings in the 2010-2011 Canterbury Earthquakes Sequence. Kam obtained his doctorate from University of Canterbury in 2011 for his research on selective weakening seismic retrofit of non-ductile reinforced concrete structures. He was involved in the technical investigation of the CTV building. His research and professional consultancy experience has given him a unique blend of advanced analytical skills with pragmatic and outcome-focused approach to seismic assessment and retrofit. He is a current member of the NZSEE Management Committee.

Stuart Palmer ▸ is a Technical Director-Geotechnical Engineering with Tonkin & Taylor Ltd. He has more than 30 years' experience in foundation engineering with a specialist interest in earthquake engineering and soil structure interaction. Stuart is actively involved in the seismic assessment of existing buildings in collaboration with various structural engineers. This has given him an insight to the structural engineering approaches applied. Seismic assessment and strengthening projects Stuart has worked on include Lower Hutt, Wellington and Christchurch Town Halls plus numerous other public buildings and commercial multi storey buildings. He is a current member of the NZSEE management committee.

Nick Harwood ▸ Nick is a consulting geotechnical engineer and a Principal at Eliot Sinclair & Partners. During his tenure on the NZ Geotechnical Society's management committee he picked up the role as geotechnical team leader on the update of the Red Book. It's been a relatively complex journey aiming to marshal the best of NZ and international practice into a succinct guidance document focused on practitioners as the end-user. Nick has worked on many residential and commercial buildings in post-earthquake Christchurch, and has drawn on his experiences working closely with structural engineers and the often complex field of soil-foundation-structure interaction when developing the guidance.

Stefano Pampanin ▸ is Professor of Structural Design & Earthquake Engineering at the University of Canterbury, which he joined in 2002 and at La Sapienza University of Rome, Italy since 2015. He is a Past President of the New Zealand Society for Earthquake Engineering (2012-2014) and a Fellow of IPENZ. In the past 20 years he has dedicated a significant effort to the research, practical implementation and development of code/guidelines for innovative solutions for the seismic design of low-damage structural systems as well as for the seismic assessment and retrofit of existing RC structures.

Dates, Locations & Venues

DATE	CITY	VENUE
Thurs 17 Nov	Nelson	Rutherford Hotel, Trafalgar Square, Nelson
Tues 22 Nov	Wellington	James Cook Hotel Grand Chancellor, 147 The Terrace, Wellington
Wed 23 Nov	Wellington	James Cook Hotel Grand Chancellor, 147 The Terrace, Wellington
Fri 25 Nov	Taupo	Wairakei Resort, State Highway 1, Taupo
Mon 28 Nov	Dunedin	Dunedin Centre, 1 Harrop Street, Dunedin
Wed 30 Nov	Christchurch	Chateau on the Park, a DoubleTree by Hilton, 189 Deans Avenue, Riccarton
Thur 1 Dec	Christchurch	Chateau on the Park, a DoubleTree by Hilton, 189 Deans Avenue, Riccarton
Tues 6 Dec	Auckland	Ellerslie Event Centre, 80 Ascot Avenue (Ellerslie Racecourse), Remuera
Wed 7 Dec	North Shore	QBE Stadium, Stadium Drive, Albany, Auckland

Registration Form - Tax Invoice: GST Registration Number 45-364-682

Name(s):

Company:

Postal Address:

Postcode:

Phone: Mobile:

Email:

Please indicate which seminar and venue:

☐ **Nelson,** Thurs 17 Nov 2016 ☐ **Wellington,** Tues 22 Nov 2016 ☐ **Wellington,** Wed 23 Nov 2016

☐ **Taupo,** Fri 25 Nov 2016 ☐ **Dunedin,** Mon 28 Nov 2016 ☐ **Christchurch,** Wed 30 Nov 2016

☐ **Christchurch,** Thurs 1 Dec 2016 ☐ **Auckland,** Tues 6 Dec 2016 ☐ **North Shore,** Wed 7 Dec 2016

Payment details:

No. of registrants [ ] at $575.00 GST inclusive = $

Total= $ I have enclosed our cheque of $

Or prefer to pay by credit card: ☐ Visa ☐ MasterCard ☐ Amex

Card No: | | | | | | | | | | | | | | | |

Expiry Date: Cardholders Name:

Note: Full payment must be received prior to attendance at the workshop.

Please complete this form, take a copy for your records, and forward it to:
NZSEE Seminars, PO Box 12, Beachlands, Auckland. Email: info@bluepacificevents.com
Please make cheques or bank drafts payable to Blue Pacific Event Management Ltd.
For all enquiries phone: (09) 536 5410 or email info@bluepacificevents.com