



IN THIS ISSUE:

FROM THE PRESIDENT

**MANAGEMENT COMMITTEE
2026-27**

PCEE 2027

**YOUNG PROFESSIONALS
COMMITTEE**

**MEMBERSHIP SUPPORT
FOR CHANGING
CIRCUMSTANCES**

NZSEE EVENTS

**JOINT TECHNICAL
SOCIETIES DIVERSITY,
EQUITY AND INCLUSION
STATEMENT**

**BULLETIN VOL.59 NO.2
(2026)**

LFE UPDATE

AWEC SYMPOSIUM

EPB REVIEW UPDATE

**NHC LOSS MODELLING
STRATEGY**

**NHC NATIONAL
LIQUEFACTION MODEL**

**NIGEL PRIESTLEY ORAL
HISTORY**

**OBITUARY – HOWARD
CHAPMAN**

From the President . . .

Welcome to the June 2026 Newsletter, the fourth one for 2026. We endeavour to keep you informed on developments on the Society's front as well as in the earthquake engineering sector.

This is my first newsletter, and I am both pleased and humbled to be reaching out to you in my capacity as President of the Society. There is a significant amount to cover in this edition, so thank you in advance for your time.



I would like to begin by acknowledging our Past President, Brabha, for his exceptional work over the past two years, and for his continued support in his role as Immediate Past President. I would also like to thank our departing Management Committee members — Annie, Umair, and Greg. Your contributions have been highly valued, and you will be greatly missed. In addition, my sincere thanks go to Amy and Rajesh for their tireless efforts and ongoing support as Executive Officer and Bulletin Editor, respectively.

At the same time, I would like to acknowledge our continuing Committee members for their dedication over the past year, and to warmly welcome three new members to the Management Committee: Ke Jiang (University of Canterbury), Alex Shegay (University of Auckland), and Tony Holden (Aurecon).

Turning now to Society news.

NZSEE will be hosting the Pacific Conference on Earthquake Engineering in Christchurch from 16–18 February 2027. This will be an excellent opportunity to connect with peers from across the Pacific and internationally. Abstract submissions open early July, and I strongly encourage all members to consider submitting. For practitioners, we have introduced a paper category that recognises the constraints of professional practice, providing flexibility around length. If you have something to share, please do consider submitting an abstract. I also encourage you to circulate the conference invitation among your colleagues and international networks. In parallel, several international conferences will be held in Europe and the United States in the coming months (details are provided in the left-hand tab).

We are also launching a new Young Professionals Committee to promote more interaction and focused support for our youngest members at the beginning of their careers. If you are a student or a young professional member and would like to participate, please reach out to us.

The Management Committee has also agreed to provide membership support for individuals with temporary financial or personal circumstances that may affect their professional engagement. If this may apply to you, I encourage you to review the information provided below and contact Amy in confidence.





UPCOMING EVENTS

NZSEE WEBINAR: NZSEE 2026 BEST PRACTICE PAPER WINNER: SEISMIC STRENGTHENING OF THE THREE-STOREY URM CAPSC BUILDING

Online

1 July 2026

<https://www.nzsee.org.nz/event/nzsee-webinar-nzsee-2026-best-practice-paper-winner-seismic-strengthening-of-the-three-storey-urm-capsc-building/>

AWEC SYMPOSIUM

Auckland, New Zealand

2 July 2026

<https://diversityagenda.org/awec/>

13TH NATIONAL CONFERENCE ON EARTHQUAKE ENGINEERING

Portland Oregon

13-17 July 2026

<https://13ncee.eeri.org/>

18TH EUROPEAN CONFERENCE ON EARTHQUAKE ENGINEERING

Berlin, Germany

14-18 September 2026

<https://ecee2026.eu/>

PCEE 2027

Christchurch, New Zealand

16-18 February 2027

<https://confer.eventsair.com/pcee-2027/>

Continuing with the news, I am pleased to announce that, in collaboration with SESOC, NZGS, and BETS, the Management Committee has endorsed a Joint Statement on Diversity, Equity, and Inclusion (DEI), available via the link below. This marks an important milestone for the Society, reflecting progress made in recent years and setting a foundation for continued development in this area. My thanks go to Annie Wolfkamp, Catalina Miranda, and Charlotte Toma; along with the societies' chairs, for their leadership and contributions to make this happen.

The Advancing Women in Engineering and Construction (AWEC) symposium will be held this week in Auckland, with NZSEE as a sponsor. If you are able to attend, I would strongly encourage participation. The previous symposium was held four years ago, and it provides a valuable forum to reflect, learn, and consider how we can improve both individually and organisationally in advancing women representation in the industry.

In terms of webinars, we recently hosted Michelle's presentation, "Why is Seismic Design in New Zealand so hard?", which has clearly resonated with many of you. Feedback is still being collected, so if you have not yet viewed the webinar or completed the survey, please refer to the links below. The insights gathered will inform a number of follow-up actions for the Society. Next week, we will host the Best Practice Paper presentation from our recent technical conference. Sean Gardiner (Egis) will present his strengthening scheme for the three-storey URM CAPSc building at the University of Otago. Further seminar presentations from other award recipients will follow in due course.

The latest edition of the Bulletin is now available online, summarising the findings from the joint Royal Society Te Apārangi and NZSEE Learning from Earthquakes (LFE) missions to Taiwan following the April 2024 Hualien earthquake. Thank you to all contributors for their efforts, and in particular to Ben Exton for his technical note comparing the emergency responses to the Canterbury earthquakes and the 2024 Noto Peninsula earthquake. I would like to take this opportunity to encourage members to submit technical notes. If you are unsure whether your topic is suitable, please feel free to contact me or Rajesh directly to discuss.

Recent weeks have seen several significant earthquakes in the Philippines, Indonesia, Japan, and Venezuela. Our thoughts are with those affected by these events. NZSEE's LFE team has been actively monitoring these situations, and you should have received a recent communication regarding virtual reconnaissance for the Venezuela M7.2 and 7.5 earthquakes. We are currently seeking volunteers to assist with information collection while decisions on potential physical deployment are considered. If you are interested, please complete the form provided.

Locally, we are closely monitoring the developments on Building (Earthquake-prone Buildings) Amendment Bill. A new Select Committee Report has been issued on 9th June, making recommendations for the Bill. This will be a highly important topic over the next year for the Society, and the Management Committee has established a special group to support the anticipated workload and technical input required.

The Natural Hazards Commission (NHC) has also shared its updated Loss Modelling Strategy, outlining planned investment and coordination efforts to improve the understanding of natural





UPCOMING EVENTS

NZSEE WEBINAR: NZSEE 2026 BEST PRACTICE PAPER WINNER: SEISMIC STRENGTHENING OF THE THREE-STORY URM CAPSC BUILDING

Online

1 July 2026

<https://www.nzsee.org.nz/event/nzsee-webinar-nzsee-2026-best-practice-paper-winner-seismic-strengthening-of-the-three-storey-urm-capsc-building/>

AWEC SYMPOSIUM

Auckland, New Zealand

2 July 2026

<https://diversityagenda.org/awec/>

13TH NATIONAL CONFERENCE ON EARTHQUAKE ENGINEERING

Portland Oregon

13-17 July 2026

<https://13ncee.eeri.org/>

18TH EUROPEAN CONFERENCE ON EARTHQUAKE ENGINEERING

Berlin, Germany

14-18 September 2026

<https://ecee2026.eu/>

PCEE 2027

Christchurch, New Zealand

16-18 February 2027

<https://confer.eventsair.com/pcee-2027/>

hazard risk in New Zealand. This is a valuable document, and I encourage interested members to review it and engage directly with the Commission where appropriate. They have also shared their National Liquefaction Model (NLM) showing liquefaction risk across the country. It is intended for council, planners, researchers and insurers.

Thanks to Richard Sharpe's initiative, we are re-sharing with the membership Nigel Priestley's Oral History, available currently online. Given Nigel's significant contribution to the field, we are considering producing a printed edition and would like to measure interest. If you would value a hard copy, please complete the form provided so we can assess demand.

Brabha has shared with us an obituary for Howard Chapman, who passed away in March. Howard was a Life Member of the Society and made a lasting contribution to the profession. Our thoughts are with his family, friends and colleagues.

Before closing, I would like to invite you to submit feedback: what we are doing well, where we can improve, and what you would like to see more. You can do this by sending an email to president@nzsee.org.nz or anonymously via the link below [Anonymous feedback](#)

Finally, I would like to note that the damage observed in recent earthquakes in the Philippines and Venezuela reflects the critical importance of earthquake engineering for our communities, and the important role that robust legislation and enforcement play in achieving resilience. I hope the images of these events resonate across New Zealand at this time of change, serving as a reminder that resilience is built continuously, every day and every hour, through the smallest of our collective actions.

Ngā mihi,

Julian



NZSEE Management Committee 2026 – 2027

We are delighted to welcome the new Management Committee members and recognise the departing members (Annie Wolfkamp, Gregory MacRae and Umair Siddiqui) for their outstanding contributions to the Society.

This year Ke, Alex and Tony joined the Management Committee which held its first quarterly meeting in late May with a combined Strategy Day. The committee is currently working on existing initiatives and starting new ones for the upcoming year. We will keep you informed!

Find out more and view the committee's profiles on the [website](#). The new Management Committee is made up of:



**Julian
Benito**



**Dion
Marriott**



**Nikoo
Hazaveh**



**Sanjay
Bora**



**Didier
Pettinga**



**Catalina
Miranda**



**Ke
Jiang**



**Tony
Holden**



**Alex
Shegay**



**Pathmanathan
Brabhakaran**



**Rajesh
Dhakal**



**Amy
Samueltu**

Pacific Conference on Earthquake Engineering 2027

nzsee
NEW ZEALAND SOCIETY FOR
EARTHQUAKE ENGINEERING

**PACIFIC CONFERENCE ON
EARTHQUAKE ENGINEERING**

**PCEE
2027**

16 – 18 February 2027
Christchurch
New Zealand

NZSEE is pleased to announce that the Pacific Conference on Earthquake Engineering 2027 will be held at **Te Pae Christchurch, New Zealand, from 16–18 February 2027.**

First convened in Wellington in 1975 as the South Pacific Regional Conference on Earthquake Engineering, PCEE has grown over five decades into one of the Pacific region's premier forums for earthquake engineering. Past host cities include Wairakei, Auckland, Melbourne, Christchurch,



Singapore, Sydney, and Vancouver and we are proud to welcome the conference back to New Zealand in 2027.

PCEE 2027 will bring together researchers and practitioners from across disciplines to share advances in the science, engineering, policy, and practice of earthquake resilience, exploring how our profession can respond to evolving seismic risk, climate and sustainability challenges, advances in technology, and the needs of communities and the built environment.

We would be grateful if you could share this announcement with your colleagues, networks, and anyone who may be interested in participating. The conference is open to researchers and professionals across all relevant disciplines, and we are keen to see strong international representation.

Abstract submissions open early July, with a deadline of 15 August 2026. Further details, including abstract topics and submission guidelines, are available on the conference [website](#).

We hope to see you in Christchurch in February 2027.

NZSEE Young Professionals Committee — Now Forming!

NZSEE is excited to announce the formation of a Young Professionals Committee, a dedicated space for emerging professionals in the earthquake engineering and related fields to connect, collaborate, and grow together.

Whether you're early in your career or simply passionate about getting more involved in the profession, this is a fantastic opportunity to build meaningful networks with like-minded people across the industry, contribute to the future direction of NZSEE, and help shape a community that supports the next generation of earthquake engineering professionals in Aotearoa New Zealand.

If you are a student or young professional member and you're interested in being part of the founding committee, we'd love to hear from you. Please reach out to Executive Officer Amy Samuelu at exec@nzsee.org.nz to express your interest.

Membership Support for Changing Circumstances

NZSEE recognises that members may at times experience periods of leave or significant life changes; for example: parental leave, financial hardship, or other extraordinary circumstances that make it difficult to maintain membership.

To support members during these times, the Management Committee can consider applications for complimentary membership. If you wish to apply, please email our Executive Officer, Amy Samuelu, at exec@nzsee.org.nz with a brief outline of your situation and any supporting documents.

NZSEE Events

Upcoming Webinar – NZSEE 2026 Best Practice Paper winner: Seismic strengthening of the three-storey URM CApSc building

Speaker: Sean Gardiner, Egis

When: Wednesday, 1 July 2026

Time: 12:00pm



Where: Online

The three-storey, bluestone and Oamaru Stone Consumer and Applied Science (CApSc) building (formerly the Home Science Block) at the University of Otago, originally constructed in 1918, was identified as earthquake-prone. The structure is a Category 1 listed heritage building, forming part of the University's Gothic complex. In 2019, the University committed to a comprehensive seismic strengthening and refurbishment programme designed to be sympathetic to the original heritage fabric. This paper describes the identified seismic vulnerabilities of the unreinforced masonry structure and details the strengthening solutions considered and ultimately adopted. Key lessons learned throughout the assessment and construction process, balancing modern engineering requirements with heritage preservation principles, are presented. The project ensures the building's continued functionality and long-term enjoyment.

Find out more and register [here](#).

Past Webinar – Why is Seismic Design in New Zealand so hard?

Presented by *Michelle Grant*,

If you missed the webinar, you can view the recording online [here](#). We sincerely thank Michelle for such an impactful presentation and for speaking up on this topic.

Following the webinar, we opened a survey to members and non-members to comment. We have received a total of 308 responses so far, most of them with very good comments and insights that improved the issues raised by Michelle. If you haven't yet participated in the survey, you can submit your answers here following this link: [Why is Seismic Design in New Zealand so hard? - Survey](#)

Results so far:

- 74% of respondents strongly support prescriptive and clearer design standards;
- 59% of respondents rated guidance as unclear or very unclear;
- 97% of respondents agreed that prescriptive elements would improve clarity and reduce errors.
- Most open-text responses included the need for more step-by-step design examples, and increased practitioner involvement in standards development.

At the NZSEE Management Committee, we are currently organising a joint statement and follow-up actions with SESOC and NZGS. Will keep you updated on these developments as they unfold.

Joint Technical Societies Diversity, Equity and Inclusion Statement

NZSEE is proud to join the technical societies in recognising that diversity, equity and inclusion (DEI) are critical to the growth, innovation, and success of the engineering profession. We strive to excel for our members and in our contributions to society. These aims require that we create a culture of inclusion in which all members feel valued and can contribute to our capability as societies.

Engineering remains a sector that lacks diversity. It is upon all of us—leaders, members, and partners – to foster a more inclusive and diverse industry. Change comes from the top. As technical societies, we have an important role to play in leading this transformation.

View the Joint Technical Societies Diversity, Equity and Inclusion Statement on the [NZSEE website](#).



NZSEE Bulletin Vol. 59 No.2 (2026)

We have recently published the second Bulletin of NZSEE for 2026, the articles are listed below.

- [The 2024 Hualien, Taiwan earthquake: NZSEE learning from earthquakes reconnaissance report](#)

Bo-Yao Lee, Julian Rincon, Doug Mason, Julian Benito, Alice Chang-Richards, Ke Jiang, Patrick Cummuskey, Joe Byrne, Jason Chiou, Lucas Hogan, Jonathan Monical, Alex Shegay, Tomomi Suzuki

84-101



- [Functional recovery of buildings for seismic resilience of communities: Lessons from the 2024 Hualien, Taiwan earthquake](#)

Alice Chang-Richards, Ke Jiang, Julian Rincon, Alex Shegay, Julian Benito, Bo-Yao Lee

102-117



- [Integrated geospatial information platforms for emergency management decision-support: Taiwan's experiences](#)

Bo-Yao Lee, Wen-Ray Su, Feng-Tyan Lin, Tzu-Hao Peng

118-135



- [Performance evaluation and cost assessment of weak-story retrofits in RC buildings surveyed after the 2024 Hualien Earthquake](#)

Jonathan Monical, Alex Shegay, Tomomi Suzuki, Jason T.C. Chiou, Hasan H. Aydođdu, Lucas S. Hogan, Zhuoran Yi, Julian Benito, Julian Rincon

136-154



Technical Notes

- [Comparison between the emergency responses to the 2010-11 Canterbury earthquakes and the 2024 Noto Peninsula earthquake](#)

Ben Exton

155-159



[View all Bulletin issues.](#)



nzsee
NEW ZEALAND SOCIETY FOR
EARTHQUAKE ENGINEERING



**Natural Hazards
Commission**
Toka Tū Ake

The Bulletin is published by the [New Zealand Society for Earthquake Engineering](#) (NZSEE) and financially supported by the [Natural Hazards Commission](#) Toka Tū Ake.

LfE Update

There have been several earthquake events of significance over the past month since the last newsletter. We are deeply touched by the impacts these earthquakes have had, and we are monitoring their evolution. These are:

- M7.8 – Mindanao, Philippines — 8 June 2026
- M7.2 & M7.5 – Venezuela (Yaracuy region) — 24 June 2026
- M6.9 – Honshu, Japan (offshore) — 24 June 2026
- M6.7 – Sulawesi, Indonesia — 16 June 2026

M7.2 & M7.5 – Venezuela

Following Thursday's double earthquake striking Venezuela, the LfE committee has decided to start our first VERT (Virtual Earthquake Reconnaissance Team) deployment to gather information and insights. We are currently seeking out for volunteers to join the effort. If you believe you can contribute, please fill the form below:

[LFE VERT Volunteer Registration](#)

M7.8 – Mindanao, Philippines.

Following the magnitude 7.8 earthquake that struck offshore Sarangani province, Mindanao, on 8 June 2026, the NZSEE Learning from Earthquakes (LFE) committee has been closely monitoring the situation. The event triggered significant damage across General Santos and surrounding provinces, ongoing aftershocks, and a major response.

After discussion, the LFE committee has decided not to deploy a physical reconnaissance mission to the Philippines at this time. This reflects the current state of access in the affected areas, and the potential learning from a mission. We have been in contact with colleagues in the Philippines and have expressed interest in supporting the response and recovery. We will keep observing the situation and will let members know if there are any developments.



In the meantime, EERI has prepared the following report summarising the impacts so far:

Last updated: 06-16-2026

Learning From Earthquakes Virtual Earthquake Reconnaissance Team (VERT):

Phase 1 Response to M7.8 Mindanao, Philippines Earthquake, June 8th, 2026

By: Dustin Cook, Maria Jose Echeverria, Mia Lochhead, Sean McGowan, Maggie Ortiz-Millan, Jay Patton, Hailey-Rae Rose, Keni Scholte, Halli Sezen, Mae Tanner, Kristin Ulmer, Olivia VanBuskirk, Rick Wilson

For questions contact EERI Staff: Maggie Ortiz-Millan (maggie@eeri.org) or Olivia VanBuskirk (olivia@eeri.org)



Please Note: This report is based on publicly available data within 48 hours of the event. The assessment provided in the report is performed by the judgment of the authors with limited access to ground-truthing.

[2026.06.08-Philippines-EQ-Phase-1-VERT-Report-1](#)

[PDF Document · 4.9 MB](#)



Advancing Women in Engineering and Construction Symposium

When: Thursday, 2 July 2026

Where: University of Auckland, 20 Symonds Street, Auckland

AWE C (Advancing Women in Engineering and Construction) initiative is at its core is committed to championing equity for women in their professional careers and is primarily aimed at supporting the development and retention of women in the engineering sector and associated parts of the building & construction industry.

The symposium titled “A collective voice for change” was designed to provide something different – a chance for women to connect through shared experiences, but also provide a platform to drive change as a collective. The current structure within engineering promotes success for few – we need systemic change so that everyone can find their pathway to success and career fulfilment.

<https://diversityagenda.org/awec/>



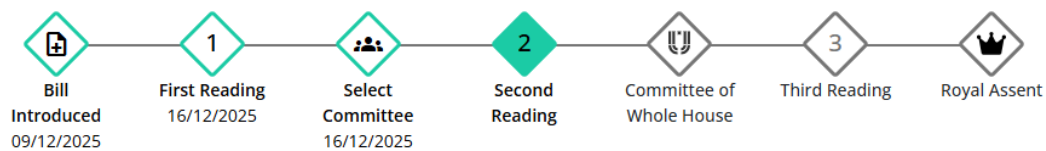
Update on the EPB Reform

The Select Committee considering the Building (Earthquake-prone Buildings) Amendment Bill has issued its final report, including recommendations to the Transport and Infrastructure Committee ([Link here](#)).

Among a range of editorial and technical amendments, several points are worth noting. These include aligning Otago timeframes with those currently applied to low seismic risk zones, narrowing and clarifying the definition of an “urban centre”, providing for possible extensions for heritage buildings, and simplifying requirements around EPB notices and their display.

The Bill is currently at the stage outlined here:

Progress of the Bill



<https://bills.parliament.nz/v/Bill/350162e5-1747-474b-30bb-08de385625f0?Tab=sub&lang=en>

At present, the Government is aiming to enact the Bill by late 2026, with implementation anticipated around mid-2027. However, the political landscape continues to evolve, and further changes remain possible, noting that some differences in position between parties are evident in the Select Committee report.

The Management Committee continues to monitor developments closely and to reflect on the considerations raised both in NZSEE’s submission to Parliament and in the joint submission with Engineering New Zealand. A dedicated working group has been established to support ongoing engagement, including future submissions, training, and technical guidance once the legislative framework and associated methodologies are finalised. This is expected to be a collaborative effort involving technical societies and government agencies.

We anticipate a demanding programme of work ahead for this group. If you are interested in contributing, please contact us at exec@nzsee.org.nz.

Natural Hazards Commission Loss Modelling Strategy - now available!

The Natural Hazards Commission Toka Tū Ake (NHC) Loss Modelling Strategy is now available [here](#).

Natural hazards loss modelling is the process of estimating the impacts caused by natural hazard events. It provides data, insights and knowledge to support decisions.

The Loss Modelling Strategy outlines NHC’s vision that loss modelling insights inform critical decisions on the management and financing of New Zealand’s natural hazard risk.

NHC aims to achieve this through the following objectives:

- NHC will **invest** in the data, science, and models that support our loss modelling needs.
- NHC will **develop** and maintain our loss modelling platform and supporting technologies.
- NHC has the **expertise**, and partners with others, to create and run models, and translate outputs into trusted information, insights, and advice.



- NHC **collaborates** and connects across NHC and the wider system to promote the use of loss modelling in decisions.

NHC is investing to increase the range of natural hazards we model loss for. NHC plans to grow from modelling earthquake shaking building losses to all natural hazards that NHC provides insurance for. NHC is also investing to model more complex, multi-hazard events, such as landslides after earthquakes.

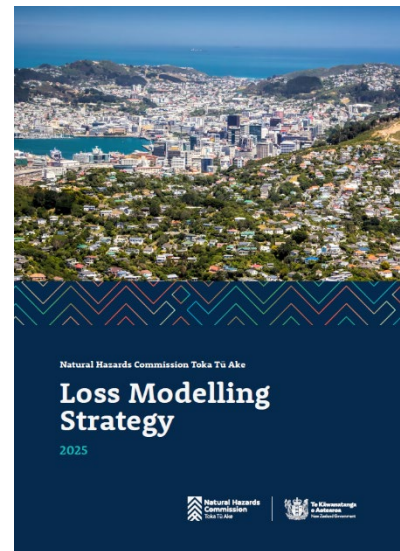
NHC is sharing this strategy to signal planned loss modelling investments and promote coordinated science to advance a New Zealand view of natural hazard risk.

The Loss Modelling Strategy is relevant for:

- Researchers and science partners
- Government agencies (central, regional and local)
- Loss modellers
- Reinsurers and financial stakeholders

You can contact the NHC Loss Modelling team at:

lossmodelling@naturalhazards.govt.nz



National Liquefaction Model (NLM) - now available!

The Natural Hazards Commission Toka Tū Ake (NHC) National Liquefaction model is now available [here](#).

The NLM is the first publicly available national scale liquefaction model, filling the gap between uneven liquefaction modelling across New Zealand. The model shows patterns of liquefaction risk across regions. You can use it to:

- compare liquefaction susceptibility across regions using a consistent national approach
- support research and risk modelling
- inform long-term planning and resilience work (alongside other information, like local hazard data).

The model is primarily for people who work in natural hazard risk reduction – like council planners, researchers, and insurers.

Nigel Priestley Oral History

In 2021 NZSEE together with the Earthquake Engineering Research Institute (EERI) published the 30th volume of Connections: The EERI Oral History edition highlights Professor Nigel Priestley's life as a pioneering structural and earthquake engineer. The interviews for this volume were conducted in the final year of his life, by NZSEE life member Richard Sharpe, and Nigel's daughter Rebecca Priestley, a historian of science with the Centre for Science in Society at Victoria University of Wellington. The EERI Oral History series is available free of charge in PDF format [here](#). We would also like to make it available for purchase in a printed version. If you are interested in purchasing a copy please complete the [form here](#) or contact Executive Officer, Amy Samuelu, exec@nzsee.org.nz. Price will be determined once final numbers are confirmed.



Obituary

Howard Edward Chapman (1937–2026)

NZSEE Life Member, Fellow Engineering New Zealand

The New Zealand Society for Earthquake Engineering records with great sadness the passing of **Howard Edward Chapman**, NZSEE Life Member, distinguished bridge engineer, mentor, and one of the pioneers of modern seismic bridge engineering in New Zealand.

Howard passed away peacefully on 4 March 2026 at the age of 88, leaving a legacy that has profoundly influenced the seismic resilience of New Zealand's bridge infrastructure and the practice of earthquake engineering over more than five decades.

Howard graduated from the **University of Birmingham, United Kingdom**, in 1957 with a **Bachelor of Science (Honours) in Civil Engineering**. Following graduation, he joined the **British Antarctic Survey**, participating in an Antarctic expedition that demonstrated both his adventurous spirit and his ability to apply engineering in some of the world's most demanding environments.



In 1968, Howard emigrated to New Zealand and joined the **Ministry of Works**, embarking on what would become an outstanding career in bridge engineering. Over subsequent decades, through the Ministry of Works and Development, Works Consultancy Services, Opus International Consultants, and later as a consultant to the New Zealand Transport Agency, Howard became one of New Zealand's foremost bridge earthquake engineers. His work shaped the seismic design, assessment and strengthening of bridges throughout the country and established engineering principles that continue to underpin New Zealand bridge engineering practice today.

Howard was a principal contributor to the NZSEE **Bridge Study Group**, whose landmark 1980 publication *Seismic Design of Bridges* fundamentally changed bridge design practice in New Zealand. His contributions to seismic loading, ductility, capacity design and detailing helped establish a rational design philosophy that became the foundation of the NZ Transport Agency Bridge Manual and influenced bridge engineering internationally.

His influence also extended well beyond New Zealand. Howard represented New Zealand in technical exchanges in the United States and Japan, developing strong professional relationships with organisations including **Caltrans** and Japan's **Public Works Research Institute**, as well as other leading international agencies. Through these collaborations he helped ensure that New Zealand remained closely aligned with international advances in seismic bridge engineering.

He was an active participant in NZSEE earthquake reconnaissance missions following the **1993 Ormond (Gisborne) earthquake** and the **1994 Northridge earthquake in Los Angeles**, bringing back valuable lessons that directly informed New Zealand engineering practice and bridge assessment methodologies.

Howard also made major contributions to the seismic assessment and retrofit of existing bridges. His work on vulnerability assessment, strengthening strategies, linkage restraint systems and capacity-based retrofit provided practical solutions that have significantly improved the resilience of New Zealand's state highway network. Even after retirement, he remained actively involved as a consultant, peer reviewer and advisor, generously sharing his expertise with younger engineers.



Howard firmly believed that earthquake engineering must evolve through learning from earthquakes and translating research into practice. He exemplified the integration of engineering science and practical design, always focused on improving safety, resilience and constructability.

In recognition of his outstanding contribution to earthquake engineering, Howard was awarded **Life Membership of the New Zealand Society for Earthquake Engineering**, one of the Society's highest honours. He was also a **joint recipient of the prestigious Otto Glogau Award** in 1984 for the seminal NZSEE Bulletin paper on *Seismic Design of Bridges*, recognising the enduring significance of this work to earthquake engineering practice.

Howard was widely respected not only for his technical excellence, but also for his humility, integrity and generosity. He combined deep analytical capability with a practical engineering mindset and remained always approachable, thoughtful and supportive of colleagues.

He is survived by his wife Lynn, children Daile and Mike, their families, and his grandchildren. The Society extends its sincere condolences to his family and friends.

A Personal reflection

I had the privilege of working alongside Howard for approximately twenty-five years at Works Consultancy Services, Opus International Consultants, and later while he continued to contribute as a consultant to the New Zealand Transport Agency. During that time, I came to know not only an exceptional bridge engineer, but also an outstanding mentor and colleague.

As a geotechnical engineer, I worked closely with him on the seismic design, assessment and retrofit of numerous bridges, as well as the development of the Bridge Manual. Many of the principles now regarded as standard practice were shaped through his thoughtful and practical approach.

Howard had a rare ability to bridge engineering theory and practice. He combined deep insight into seismic behaviour with a consistent focus on practical, robust solutions, and approached every challenge with quiet confidence and intellectual rigour.

His greatest legacy lies not only in the bridges he helped deliver, but in the many engineers he mentored. He was generous with his time and knowledge, always explaining not just what to do, but why, and encouraging others to think critically and strive for excellence.

I count myself among those whose professional development was profoundly shaped by his guidance. Despite his achievements, Howard remained humble, approachable, and unfailingly supportive. His integrity, humility, and kindness were as defining as his technical brilliance.

Howard Chapman leaves a lasting legacy in New Zealand earthquake engineering, both through the infrastructure he helped shape and the people he influenced.

~ P Brabhakaran ~

