READYMIX NEWS

ISSUE 25 MARCH 2025

PERVIOUS CONCRETE TECHNICAL GUIDANCE UPDATED

concretenz
READYMIX

IN THIS ISSUE

MESSAGE FROM THE CHAIR

Welcome to 2025. This is my first column as the new Chair of the Readymix Group, and I must start by thanking outgoing Chair, Kerry Newton of Firth Industries, who did a fantastic job.

Before looking ahead at what this year has in store, a quick reflection on 2024 highlights the successful "re-set" of the Readymix Group - designed to create a more representative Committee structure and a streamlined regional meeting framework.

COMMITTEE (RE)STRUCTURE

The revamped Committee structure now has three tiers. Tier 1 includes up to ten positions for larger producers. Tier 2 provides two positions for independents, confirmed on a two-year cycle. Tier 3 offers up to four positions as 'development opportunities' that can be filled biennially by Tier 1 or Tier 2 members, though these positions do not have voting rights. See page 5.

REGIONAL MEETING FRAMEWORK

The Regional Meeting Framework also underwent a significant "reset" in 2024 to ensure it better serves the needs of our members.

In April, we held Joint Regional Forums across Auckland/Northland, Central North/Lower North Island, and two locations in the South Island. Open to all member company staff, these meetings attracted a high number of senior personnel and some future leaders.

Later in the year, we introduced Provincial Roadshows in Palmerston North, Whangārei, Tauranga/Mt Maunganui, Nelson, Christchurch, and Cromwell. These events targeted a broad audience from our membership.

CONFERENCE HIGHLIGHTS

The one-day Concrete NZ 2024 Conference in Christchurch was a fantastic opportunity for Readymix members, with many also attending the preceding *fib* Symposium. A huge thanks to sponsors, the majority of whom are our Associate Members.

2025 INITIATIVES AND BEYOND

Looking ahead to 2025, the Readymix Group has several key initiatives planned to support the industry's ongoing development.

We will look to build stronger relationships with transport associations, including Transporting NZ and National Road Carriers, to address logistics and supply chain challenges. Strengthening these partnerships will help ensure the transport needs of our members are well represented.

On the health and safety front, our annual Forum will continue, with a focus on improving safety in concrete pumping and traffic management, ensuring best practices are shared.

Standards remain a priority, with our Technical Committee prioritising necessary revisions. Keeping Standards up to date is essential for maintaining quality and compliance.

Additionally, we will reinforce ties with the aggregates industry, working alongside the

Cover image: Pervious concrete guidance updated. See page 5.

Aggregate and Quarry Association (AQA) to, for instance, monitor respirable silica regulations.

Finally, special projects during the first half of this year will focus on promoting *resilient concrete to local authorities*, ensuring an understanding of benefits to infrastructure projects. We will also continue to *defend the residential concrete slab-on-grade market*, highlighting durability, performance and low-carbon credentials.

REMEMBERING FRED THOMAS

Before I sign off, I'd like to acknowledge the passing of Fred Thomas, NZRMCA Honorary Life Member, in late 2024. Fred was a stalwart of our industry, driving pan-industry progress through collaboration. His contribution was immense, and he leaves behind a leadership legacy that endures.

Mike Botherway
Concrete NZ Readymix, Committee Chair

CONCRETE NZ ANNUAL REPORT: 2023/24 REVIEWED

Concrete NZ is pleased to announce that its 2023/24 Annual Report, tabled at the 2024 AGM held at Te Pae Christchurch Convention Centre in November, is available for download.

The report offers governance and management perspectives, highlights key accomplishments and contributions, acknowledges industry partners, and outlines insights into future plans.

The Readymix Group's valuable contribution to Concrete NZ's business-as-usual activities, as well as project undertakings, is highlighted in detail within the report. Visit the Concrete NZ website to download a copy – www.concretenz.org.nz

2025 CONCRETE NZ CONFERENCE: DATES SET FOR AUCKLAND EVENT

Readymix members should not miss the 2025 Concrete NZ Conference, set for 15-17 October at the Viaduct Events Centre in Auckland.

Save the dates to engage with industry experts, explore the latest innovations in concrete, and connect with key stakeholders across the construction sector.

The 2025 Conference introduces an updated format, shifting from the traditional three-day schedule to two full days on Thursday and Friday, allowing for a more focused and immersive experience. Attendees can also look forward to a vibrant exhibition space, providing a platform for suppliers and innovators to showcase cutting-edge products and services that support the concrete industry.

15–17 OCTOBER 2025
SAVE THE DATES

The Countdown Begins...

CONCRETE CONSTRUCTION AWARDS

5 JUNE 2025
CORDIS HOTEL
AUCKLAND

Sponsor and Entry Details Available

www.concreteawards.org.nz

NOMINATIONS OPEN FOR READYMIX SECTOR GROUP COMMITTEE - GET INVOLVED!

The Readymix Sector Group is seeking nominations for two Independent (Tier 2) Committee positions and two Development Committee positions, open to any producer member.

INDEPENDENT (TIER 2) COMMITTEE POSITIONS

The Readymix Group reserves two Committee seats for Tier 2 members—those supplying less than 50,000 cubic meters annually. These positions are currently held by Brian Godfrey (Kiwi Concrete) and Jon Hambling (Westbay Concrete), whose terms will conclude at the Annual Meeting in October.

About the Positions

- **Term Duration:** Two years
- **Meeting Commitment:** Four half-day meetings per year
- **Role:** Both Brian and Jon have been strong advocates for smaller ready mixed concrete firms, contributing significantly to discussions and decision-making within the Sector Group.

Nomination Process

We are now seeking two new representatives to fill these positions. If you're interested or know someone who would be a great fit:

- **Express Your Interest:** Contact me directly.
- **Submit a Nomination:** Send me a message to formally nominate a candidate.

This is a great opportunity to influence the direction of the Readymix Group and advocate for the needs of smaller firms. Your voice can make a real impact!

EXCITING DEVELOPMENT COMMITTEE POSITIONS

The Readymix Sector Group is also offering two additional Committee positions open to any member company. These are designed as development opportunities.

What's on Offer?

A fantastic chance for those looking to grow their industry leadership skills at the sector level.

What's the Commitment?

Just four half-day meetings per year—a great way to connect, collaborate, and contribute.

How to Get Involved?

Nominate a candidate today!
Email **angelique@concretenz.org.nz**

We strongly encourage all member companies to take advantage of this opportunity to nurture the next generation of industry leaders.

For more information or to discuss your interest, please feel free to contact me.

Mike Botherway
Committee Chair
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E **mike.botherway@higginsconcrete.co.nz**


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CONCRETE NZ UPDATES TECHNICAL NOTE ON PERVIOUS CONCRETE

Concrete NZ is pleased to announce the publication of the updated *Readymix Technical Note 9 – Pervious Concrete*, a resource designed to guide industry professionals on the use, benefits, and applications of this innovative material.

With urbanisation driving the rapid expansion of impermeable pavements, effective stormwater management has become increasingly critical. Traditional stormwater systems are often overwhelmed during heavy rainfall, resulting in contaminated runoff entering natural waterways. Pervious concrete offers a sustainable solution, reducing stormwater runoff and filtering pollutants before they reach streams, rivers, and other ecosystems.


CONCRETE NZ READYMIX TECHNICAL NOTE 9
PERVIOUS CONCRETE
concretenz
DECEMBER 2024
GENERAL
WHAT IS PERVIOUS CONCRETE?
WHY USE PERVIOUS CONCRETE?
WHERE CAN PERVIOUS CONCRETE BE USED?
PERVIOUS CONCRETE PROPERTIES

WHAT IS PERVIOUS CONCRETE?

Pervious concrete, sometimes referred to as porous or permeable concrete, is designed with a system of interconnected voids (2–8 mm in size) that allow water to pass through. By using coarse aggregate and minimal or no sand, this concrete achieves high water percolation rates. The result is a surface that looks different from conventional concrete, with an open texture that is critical for its function.

BENEFITS OF PERVIOUS CONCRETE

Based on the following reasons, pervious concrete is recognised globally as a best practice for stormwater management:

- Reduces stormwater runoff, minimising the need for traditional drainage systems.
- Filters pollutants, improving the quality of water entering natural waterways.
- Decreases the strain on stormwater infrastructure, potentially eliminating the need for retention ponds.

SUITABLE APPLICATIONS

Pervious concrete is best suited for light vehicular and pedestrian pavements, particularly in relatively flat areas with less than 6% slope. For steeper sites, terracing the basecourse is recommended to manage high-velocity water flow. Proper site preparation is essential to ensure the long-term performance of pervious concrete. Stabilising surrounding surfaces and protecting the pavement during construction are key measures to prevent clogging from sediment.

UNIQUE PROPERTIES

Pervious concrete differs significantly from conventional concrete. Its surface is more open and may experience minor raveling during its early service life. Key performance factors include porosity, compaction, and aggregate quality. While compressive strength is influenced by the water-to-cementitious materials ratio, the traditional strength relationships of conventional concrete do not apply.

The Technical Note offers detailed guidance on pervious concrete's specifications, applications, and maintenance to help members incorporate this sustainable material into their projects effectively.

To access *Readymix Technical Note 9 – Pervious Concrete*, visit the Concrete NZ website – **www.concretenz.org.nz**

HOLCIM

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Holcim (New Zealand) Ltd proudly serves as a world-class supplier of cement, aggregates, and ready-mix concrete throughout Aotearoa New Zealand. As part of the Holcim group, we combine global expertise with deep community roots, with our involvement in the New Zealand construction industry dating back to 1888. This long-standing presence reflects our commitment to delivering high-quality materials and tailored solutions to meet the unique needs of the New Zealand construction market.

SUSTAINABILITY AND INNOVATION

We're providing solutions for our customers across all regions to build better with less, thanks to our broad range of innovative, low-carbon, and circular solutions. Holcim is leading the way in sustainable construction with cutting-edge products like ECOPact low-carbon concrete, ECOPlanet low-carbon cement, and ENVIROCore cement replacements. These advancements demonstrate our commitment to driving innovation and minimising environmental impact, enabling our partners to create a more sustainable built environment.

Concrete
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Cement and Aggregates
0800 HOLCIM (0800 465 246)

www.holcim.co.nz

BUILDING PROGRESS FOR PEOPLE AND THE PLANET

Prof. Alessandro Palermo welcomes delegates.

INNOVATIVE ENGINEERING AND MATERIALS TAKE THE SPOTLIGHT AT DOUBLE-HEADER CONCRETE EVENT

From November 10 to 14, 2024, Christchurch became the global hub for structural concrete innovation, hosting the prestigious *fib* Symposium and the Concrete NZ 1-Day Conference at Te Pae Christchurch Convention Centre.

These events brought together leading minds in concrete research, design, and construction, celebrating advancements in the industry while addressing resilience and sustainability.

Prof. Rick Henry acknowledges presenters, delegates and sponsors.

fib SYMPOSIUM: A GLOBAL GATHERING OF CONCRETE EXPERTISE

The *fib* Symposium drew 640 delegates from 38 countries, showcasing an extensive technical programme that featured 330 presentations across oral, monitor, and poster formats, supported by 16 special sessions. Five keynote speakers and six invited experts led discussions on critical themes, from earthquake engineering to decarbonisation pathways for concrete.

In summary, the Symposium was an outstanding event, offering a platform for local professionals to engage with global leaders, exchange insights, and show case New Zealand's achievements on the international stage. Symposium co-chair Rick Henry brought the proceedings to a close, thanking the Organising Committee, speakers, delegates, sponsors, and exhibitors for their contributions to its success.

Moustafa Al-Ani, Chair of the conference organising committee.

CONCRETE NZ 1-DAY CONFERENCE: A FOCUSED FORUM

Following Organising Committee chair Moustafa Al-Ani's welcome, Hon Chris Penk, Minister for Building and Construction, opened the conference with a speech that acknowledged the concrete industry's contributions and future potential.

Key presentations included Ethan Page of WSP, whose *Sustainability in the Design and Construction of the CRL Te Waihorotiu Underground Station* paper set a high bar that was met by Dr. Fiona Crichton of Groov and Mike Botherway from Higgins Concrete who discussed strategies to foster resilient mental wellbeing.

The Lightning Talks session returned after a successful debut in 2023, with Tim Blackbourn of WSP being "live" voted by the audience as having prepared and presented the best talk with *Pioneers: A Brief History of Concrete in NZ*.


Hon. Chris Penk, Minister for Building and Construction.


Tim Blackbourn, WSP.


Dr. Fiona Crichton. Groov.

Ethan Page (WSP) received the 2024 Sandy Cormack Award for *Sustainability in the Design and Construction of the CRL Te Waihorotiu Underground Station.*

The paper highlighted innovative sustainability initiatives implemented during the design and construction of Auckland's City Rail Link (CRL), New Zealand's largest public transport infrastructure project. Lessons learned, and how they can inform future sustainable infrastructure efforts, were also examined.

Established in 1998 to honour H.W. (Sandy) Cormack, this award recognises papers advancing New Zealand's concrete industry. Judged on structure, clarity, presentation, and relevance, the award includes a $1,000 prize and celebrates excellence in concrete research presented at the annual Concrete NZ conference.

Ethan Page of WSP accepts the Sandy Cormack Award from Alistair Russell.

Sandy Cormack.

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CELEBRATING EXCELLENCE AT THE 2024 CONCRETE NZ AWARDS

On November 13, the annual Concrete NZ Conference Awards recognised individuals and teams for their contributions to technical innovation, customer service, sustainability, along with health, safety & wellbeing, and diversity & inclusion.

HONORARY LIFE MEMBERSHIP

Russell Bennetto of Busck Prestressed Concrete

Russell's contributions to the concrete industry span over two decades, marked by leadership, innovation, and unwavering dedication. He was deeply involved with Precast New Zealand since its inception in 1999, serving as President (2006–2008) and as a member of the CCANZ/Concrete NZ Board (2014–2020). A driving force behind the 2017 consolidation of legacy associations into Concrete NZ, Russell's efforts strengthened the industry's cohesion and strategic direction.

As leader of Busck Prestressed Concrete, an 80-year-old Whangarei-based precast concrete business, Russell expanded its operations to become New Zealand's largest multi-product manufacturer, supporting local employment, industry growth and regional pride.

Russell has championed health and safety, spearheaded innovations like strand lifting eye testing, and advocated for fair practices and trade training. His support extends to community charities and sports in Northland, underscoring his far-reaching impact as a respected industry and community leader.

CONCRETE INDUSTRY APPRENTICE OF THE YEAR

Naziah Quinn of HEB Construction

Bay of Plenty precast yard foreman Naziah Quinn was named the 2024 Concrete Industry Apprentice of the Year, recognized for his leadership, technical expertise, and passion for concrete. A team leader at HEB Construction, Naziah has nearly nine years of precast experience, and is currently completing his apprenticeship while working on the Tauranga Northern Link project.

Naziah's career began in 2007 as a steel fixer, where he developed a meticulous, problem-solving approach. His skills now span all stages of precast production, including mould setup, steel preparation, quality assurance, and finishing.

Known for his precision and dedication, Naziah consistently leads by example, maintaining a safe and efficient worksite.

Judges commended Naziah's leadership of a diverse team and his drive for excellence, reflecting the values celebrated by the BCITO and Concrete NZ award.

Russell Bennetto from Busck Prestressed Concrete, receives his Concrete NZ Honorary Life Membership for many decades of outstanding service to the concrete industry.

Naziah Quinn of HEB Construction in Te Puke was acknowledged as the 2024 Concrete Industry Apprentice of the Year by BCITO and Concrete NZ.

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Concrete was central to the vision and execution of the Ngā Ūranga ki Pito-One section of the capital's Te Ara Tupua shared pathway.

Project principals proudly accept the Extra Distance Award.

EXTRA DISTANCE AWARD

Higgins Concrete for Te Ara Tupua and Tupua Horo Nuku projects in Wellington

Higgins Concrete in Wellington, Otaki, and Porirua served as strategic supply partners for these closely aligned beacon projects in the capital city.

On the Te Horo Nuku (Eastern Bays) project, the team successfully navigated the daily challenge of coordinating logistics, mixing, and placement within a 2–3-hour tidal window, using a 50 MPa low-carbon, quick-setting mix to meet durability requirements of the seawall foundations.

On the other side of the harbour, the Te Ara Tupua project also required precise timing to deliver high-strength, durable concrete for demanding coastal applications, including the striking X-Bloc-plus units.

The judging panel commended Higgins Concrete for their exceptional supply efforts, highlighting the Ngā Ūranga seawalls. Overcoming challenging delivery requirements, Higgins Concrete coordinated barge shipments and dispatched multiple trucks as sea conditions allowed.

Their bespoke mix design and standby technician ensured set times were met within tight time-frames, exemplifying their dedication to going above and beyond.

Higgins Concrete was honored to receive the Technical Excellence Award, recognising their commitment to innovation and quality.

Te Ahu a Turanga: Showcasing precision engineering with Higgins Concrete's high-performance mix for the bridge superstructure.

TECHNICAL EXCELLENCE AWARD

Higgins Concrete for the Te Ahu a Turanga – Manawatū Tararua Highway

Higgins Concrete played a pivotal role in the Te Ahu a Turanga highway project, which connects the Manawatu and Tararua regions. The project features two 300-meter bridges, requiring distinct structural solutions: a cantilever concrete design and steel girders with a concrete slab.

Higgins Concrete supplied specialised mixes tailored to each bridge's needs, including a tremie mix for piles, a self-compacting mix for pile caps and piers, and a high early-strength mix for the superstructure. Their adaptability to revised specifications and pre-project mix trials ensured exceptional concrete performance under demanding conditions.

Judges praised Higgins Concrete for their technical excellence, innovation, and commitment to quality, highlighted by the development of a custom mobile testing lab. Their contributions ensured the success of this critical infrastructure project while meeting complex engineering requirements.

A **Technical Excellence Highly Commended Award** went to Bridgeman Concrete for adopting Verifi technology to enhance efficiency and reduce waste in ready mixed concrete production and delivery.

Stevenson Concrete's 'cultural shift' health and safety initiative was rewarded at the 2024 Concrete NZ Conference Awards.

Stevenson Concrete receive the Health, Safety and Wellbeing Award from Concrete NZ CEO Rob Gaimster.

HEALTH, SAFETY AND WELLBEING AWARD

Stevenson Concrete for the *Health & Safety Cultural Shift* Initiative

Stevenson Concrete took home this award having transformed workplace safety with its *Health & Safety Cultural Shift* initiative.

The company has reset practices, emphasising employee engagement and shared responsibility. Through proactive discussions and interactive training on topics like hazardous substance handling and sun exposure, the company has fostered a culture of continuous improvement.

Key initiatives include the Critical Risk Tool and high-visibility yellow PPE, which enhance risk management and workplace safety, and have significantly reduced injuries.

The judges commended Stevenson Concrete's efforts to make safety a shared commitment rather than solely a management responsibility. By empowering employees and prioritising proactive risk management, Stevenson Concrete has set a benchmark for a collaborative and safer work environment.

A **Health, Safety and Wellbeing Highly Commended Award** was presented to Higgins Concrete's for its *Groov Ambassador Programme,* which developed an existing initiative to ensure wider coverage and continued relevance.

Dominic Sutton and Kerry Newton of Firth Industries receive the 2024 Carbon Reduction Award.

Firth Industries supplied exemplar low-carbon concrete to the Fletcher Living LowCO beacon residential project at Waiata Shores near Takanini.

CARBON REDUCTION AWARD

Firth Industries for LowCO Homes at Waiata Shores

Firth Industries partnered with Fletcher Living on the LowCO Homes pilot project near Takanini to prioritise reducing embodied carbon in residential construction. This initiative includes a standalone home, and three terrace homes designed as a blueprint for sustainable housing.

Key innovations included Firth's EcoMix EC34, which achieved a 34% carbon reduction compared to the ISC baseline, later improved to 40% with EcoMix EC40 through continuous refinement.

Judges praised LowCO for its substantial carbon savings, cutting-edge innovations, and over-arching approach to sustainability. The project sets a benchmark for low-carbon housing, demonstrating a scalable model for addressing New Zealand's housing needs while meeting urgent climate goals.

A **Carbon Reduction Highly Commended Award** went to Hynds Pipe Systems, for sustainable stormwater solutions using low-carbon materials that had no impact on budget or current construction methods.

Celebrating diversity and inclusion: A proud Nauhria team member thriving in a supportive and empowering workplace.

Tony Nawisielski of Nauhria Group receives the Diversity and Inclusion Award.

DIVERSITY AND INCLUSION AWARD

Nauhria Group for the *Great & Safe New Zealand* Initiative

Nauhria Group prioritises diversity and inclusion, with 90% of its workforce comprising first-generation Kiwis from various cultural backgrounds. The company fosters a supportive environment through daily team meetings, employee recognition, and celebrations like Diwali, Chinese New Year, and Gurpurab, allowing employees to share their heritage.

Driven by the purpose of "Helping Build a Great and Safe New Zealand," Nauhria leverages its inclusive culture to inspire innovation and community spirit. Judges praised the company for its genuine commitment to diversity, inclusive leadership, and open communication. These initiatives have created a workplace where employees feel valued, empowered, and united in contributing to the company's success and that of the broader New Zealand community.

A **Diversity and Inclusion Highly Commended Award** acknowledged Holcim New Zealand for its leadership programs promoting diversity and mental wellbeing, such as *Girls In Infrastructure* and *Tikanga Capability Programmes* for leaders.

PLANT AUDIT SCHEME GOLD AWARDS CELEBRATE 10+ YEARS OF EXCELLENCE

Congratulations to Allied Concrete's Alexandra, Nelson, Wanaka, Washdyke (Timaru) and Penrose plants for either maintaining or securing Gold status in the 2024 Concrete NZ Plant Audit Scheme Excellence Awards.

Firth Industries' Aotea Quay plant and Terry's Concrete Te Horo plant also reached the top-step of the podium, accompanied by Atlas Concrete's Takapuna and Wiri plants.

Holcim NZ's Horotiu, Tauranga, Whakatane, Setters Line (Palmerston North) and Bombay plants also celebrated Gold.

The Scheme, which provides an independent audit of around 200 ready mixed concrete plants, now operates a Gold, Silver and Bronze acknowledgement system as a simpler, more transparent way to reward excellence.

To receive an annual Excellence certificate a plant must not have received any corrective actions nor have its testing requirements questioned under the Scheme.

Plants that have demonstrated 3+ years of continuous Excellence are recognised as Bronze, those with 5+ years as Silver, and those with 10+ years as Gold.

Allied Concrete's Ray Bonser and James Mackechnie take home Gold at the 2024 Concrete NZ Plant Audit Scheme Awards.

Shane Coutts and Sabina Sekerovic of Atlas Concrete receive their Gold Awards from Concrete NZ Honorary Life Member Rob Green.

Terry Whiteman of Terry's Concrete receives a Gold Award from Rob Green. This is Terry's 4th Gold Award – well done!

GOLD STATUS

- Holcim (New Zealand) - Horotiu - Zone 4
- Holcim (New Zealand) - Tauranga - Zone 4
- Holcim (New Zealand) - Whakatane - Zone 4
- Allied Concrete - Alexandra - Zone 1
- Allied Concrete - Nelson - Zone 1
- Allied Concrete - Wanaka - Zone 1
- Allied Concrete - Washdyke (Timaru) - Zone 1
- Holcim (New Zealand) - Christchurch North - Zone 1
- Firth Industries - Aotea Quay - Zone 2
- Holcim (New Zealand) - Setters Line, Palmerston North - Zone 2
- Terry's Concrete - Te Horo - Zone 2
- Allied Concrete - Penrose - Zone 3
- Atlas Concrete - Takapuna - Zone 3
- Atlas Concrete - Wiri - Zone 3
- Holcim (New Zealand) - Bombay - Zone 3

The Holcim NZ team receives six Gold Awards from Rob Green.

SILVER STATUS

- Holcim (New Zealand) - Matamata - Zone 4
- Holcim (New Zealand) - Taupo - Zone 4
- Holcim (New Zealand) - Whitianga - Zone 4
- Bowers Brothers Concrete - Hamilton - Zone 4
- Bowers Brothers Concrete - Matamata - Zone 4
- Bowers Brothers Concrete - Putaruru - Zone 4
- Allied Concrete - Ashburton - Zone 1
- Allied Concrete - Cromwell - Zone 1
- Allied Concrete - Renwick - Zone 1
- Allied Queenstown Concrete - Frankton, Queenstown - Zone 1
- Christchurch Ready Mix Concrete - Belfast No. 1 - Zone 1
- Christchurch Ready Mix Concrete - Belfast No. 2 - Zone 1
- Christchurch Ready Mix Concrete - Rolleston - Zone 1
- McGregor Concrete - Te Anau - Zone 1
- Holcim (New Zealand) - Ohau - Zone 2
- Holcim (New Zealand) - Upper Hutt - Zone 2
- PERTH Concrete - Wanganui - Zone 2
- Atlas Concrete - Kumeu - Zone 3
- Atlas Concrete - Panmure - Zone 3
- Atlas Concrete - Silverdale - Zone 3
- Atlas Concrete - Warkworth - Zone 3
- Counties Ready Mix - Drury No. 1 - Zone 3
- Formstress Precast - Waiuku - Zone 3
- Holcim (New Zealand) - Avondale - Zone 3

Alistair Bennett of Firth Industries receives a Gold Award from Rob Green.

BRONZE STATUS

- Bowers Brothers Concrete - Morrinsville - Zone 4
- Christchurch Ready Mix Concrete - Hornby - Zone 1
- Firth Industries - Christchurch (Hornby) - Zone 1
- Wrey's Bush Concrete Products - Otautau - Zone 1
- Byfords Readi-Mix - Taihape - Zone 2
- Firth Industries - Belmont - Zone 2
- Higgins Concrete - Porirua - Zone 2
- Higgins Concrete - Wellington - Zone 2
- Holcim (New Zealand) - Hawkes Bay - Zone 2
- Atlas Concrete - Maungaturoto - Zone 3
- Duracrete Products - Kauri - Zone 3
- Firth Industries - Mangawhai - Zone 3
- Firth Industries - Wellsford - Zone 3
- Firth Industries - Whangarei - Zone 3

Concrete NZ Chief Executive Rob Gaimster commends the recipients of the 2024 Gold, Silver, and Bronze status for their unwavering commitment to producing quality-assured ready-mixed concrete.

"The Plant Audit Scheme remains the benchmark for New Zealand's construction sector, enabling producers to demonstrate compliance with the rigorous requirements of *NZS 3104: Specification for Concrete Production*," says Rob.

"Achieving excellence consistently over 10 or more consecutive years is an outstanding accomplishment for all fifteen plants recognised this year.

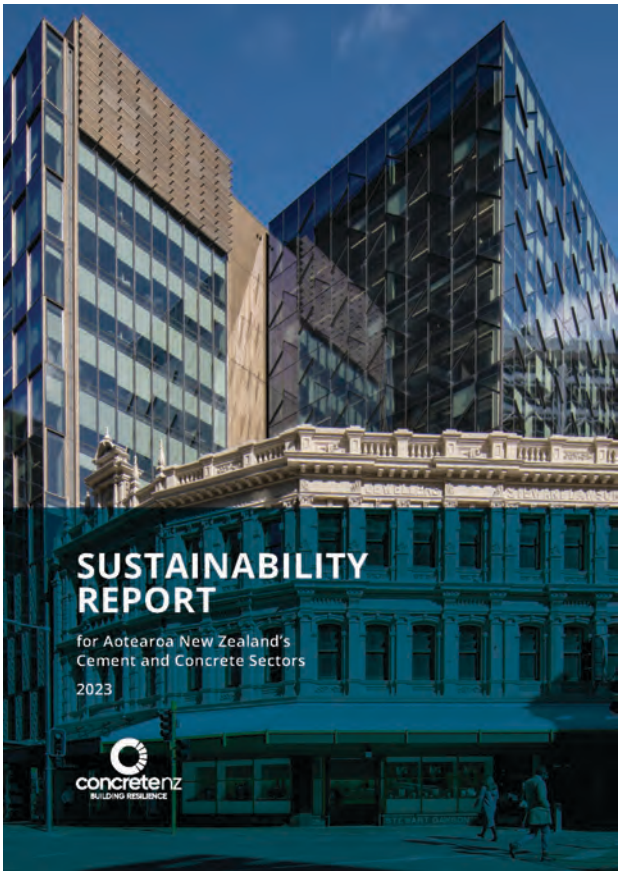
"It's particularly exciting to see Allied Concrete expand the number of plants attaining Gold status. Congratulations as well to Atlas Concrete, Firth Industries, and Terry's Concrete for maintaining their Gold status, and a warm welcome to Holcim NZ for joining this distinguished group.

"I'm optimistic that many of the Silver status plants will continue their journey of excellence and reach Gold status in 2025."

"As New Zealand looks to enhance resilience across all construction types, it is crucial that our industry continues to prioritise and demonstrate quality, and the Plant Audit Scheme provides the ideal mechanism to do so."

2ND SUSTAINABILITY REPORT FOR NEW ZEALAND'S CEMENT AND CONCRETE INDUSTRY SHOWS PROGRESS IN 2023

The New Zealand cement and concrete industry has released its second *Sustainability Report*, showcasing an ongoing commitment to reducing emissions and enhancing sustainability.



Building on the 2021-2022 baseline report, the 2023 report provides a comprehensive update on the sector's progress, highlights concrete's essential role in a sustainable future, and outlines industry strategies for achieving ambitious climate targets.

CONCRETE: MATERIAL FOR A RESILIENT FUTURE

Concrete is an indispensable material in construction, offering unparalleled benefits for creating resilient buildings and infrastructure. It supports the development of essential systems such as clean water supply, renewable energy and housing, while also contributing to the infrastructure needed to withstand natural hazards and the effects of climate change. The report reiterates the importance of concrete in enabling a low-carbon, climate-resilient future.

REDUCING EMISSIONS AND BUILDING ON PROGRESS

Despite an increase in concrete production from 2020 to 2023, the industry has achieved a 6% reduction in direct and electricity-related CO_2 emissions, marking progress toward its 2030 and 2050 emissions targets. Concrete NZ's *Roadmap to Net Zero Carbon Concrete by 2050*, launched in 2023, aligns with the Global Cement and Concrete Association's (GCCA) 2021 roadmap.

Key targets include:

- A 44% reduction in direct and electricity-related CO_2 emissions by 2030 compared to a 2020 baseline.
- Achieving net-zero carbon for cement production and concrete batching by 2050.

The roadmap identifies seven focus areas for decarbonisation: clinker production, cement and binders, concrete manufacturing, design and construction practices, electricity usage, carbon uptake, and carbon capture, utilisation, and storage (CCUS).

Concrete NZ is actively supporting these efforts, including the launch of a 2024 research initiative with the Ministry for Business, Innovation and Employment (MBIE) and BRANZ. This project seeks to develop frameworks to enable widespread decarbonisation across the supply chain.

EXPANDING THE SUSTAINABILITY DATASET

The 2023 report includes data from businesses representing 78% of the ready mixed concrete market by volume, a significant increase from the previous report. For the first time, reinforcement processors are also included in the dataset. This expansion reflects the growing interest and participation in sustainability reporting across the industry, providing a clearer picture of sector-wide progress.

KEY INDICATORS: ENERGY, EMISSIONS, AND CIRCULARITY

The report tracks multiple indicators of industry performance against the 2021-2022 baseline, showing steady improvements in several areas:

- Embodied Emissions: The embodied emissions of Portland cement, New Zealand's primary binder, are steadily decreasing as companies adopt low-carbon manufacturing technologies and materials.
- Energy Efficiency: Ongoing efforts to reduce energy consumption have contributed to the 6% emissions reduction noted above.
- Circular Economy: The industry is strengthening its commitment to circularity by promoting the use of recycled concrete and supplementary cementitious materials (SCMs), further reducing its carbon footprint.
- Health and Safety: Improvements in workplace health and safety and employee wellbeing demonstrate the industry's commitment to its people as well as the planet.

A TRACK RECORD OF ACCOUNTABILITY

By comparing 2023 data to 2021-2022, the report initiates a time series that will enable companies to track their progress and refine their sustainability strategies over time. The growing volume of data shared by industry members also underscores the collective determination to accelerate the transition to a low-carbon future.

A CALL TO ACTION FOR COLLABORATION

Achieving net-zero carbon emissions for the cement and concrete industry will require collaboration across the value chain. Concrete NZ is calling on stakeholders, including designers, engineers, contractors, regulators, and researchers, to support the industry's efforts by adopting innovative practices, contributing to decarbonisation research, and helping establish enabling conditions for progress.

LOOKING AHEAD

The 2023 *Sustainability Report* reaffirms the New Zealand cement and concrete industry's leadership in sustainability, its commitment to continuous improvement, and its crucial role in building a more resilient and low-carbon future. As the sector works toward its 2030 and 2050 targets, the progress documented in this report provides a solid foundation for continued innovation and collaboration.

Concrete NZ looks forward to building on this momentum, supporting its members in their sustainability journeys, and advancing its shared vision of a sustainable, resilient, and prosperous Aotearoa New Zealand.

Download the *2023 Sustainability Report* from the Concrete NZ website – **www.concretenz.org.nz**

Rob Gaimster (Concrete NZ Chief Executive), Paula Southgate (Hamilton Mayor) and Hon. Simeon Brow (Minister of Transport) launch the 2024 Case for Concrete Roads report.

CONCRETE ROADS MORE SUSTAINABLE: INFOMETRICS STATE THE COMPELLING CASE

Concrete roads are well suited for high intensity traffic and are more cost effective in the long run according to a new economic report.

The Case for Concrete Roads was launched in late 2024 by Transport Minister Simeon Brown. The report says concrete roads are on average 17% cheaper over whole-of-life, reduce embodied carbon in roading and significantly lessen the cost and frequency of road maintenance.

The report by consultancy Infometrics, commissioned by Concrete NZ, builds on reports from 2013, 2018 and 2020, to present a compelling case for the use of concrete in roading.

Infometrics Chief Forecaster Gareth Kiernan says: "The report looked at roading costs in New Zealand and considered extensive research overseas. The report shows that although concrete roads cost more to build, savings can amount to millions of dollars for central government and councils as maintenance costs are up to 62% lower. Lifetime carbon emissions for concrete roads may also be better than tarseal because concrete reabsorbs carbon dioxide."

Kiernan said lack of capability has been a major limitation for concrete roading in New Zealand. "The Government could play a role to overcome this hurdle, for example by funding a pilot project. Expanding the industry's capability to be able to build concrete roads, with their extra resilience, could also be increasingly important as heavier electric vehicles become more common."

Noting that approximately one in two highways in US are built using concrete, Concrete New Zealand chief executive Rob Gaimster says concrete roads should complement existing roading typologies.

The *Future Roads* conference in November 2024 served as the venue for the New Zealand roading industry to meet and acknowledge the potential for concrete roads in New Zealand.

"Concrete roads are best used in applications where there are high traffic densities and areas of high stresses from heavy vehicles. We can see a number of stretches of road where concrete would

save money and time, such as Auckland's Port Motorway, the Cambridge section of the Waikato Expressway to the intersection of SH1 and SH29 at Piarere and SH1, North of Levin."

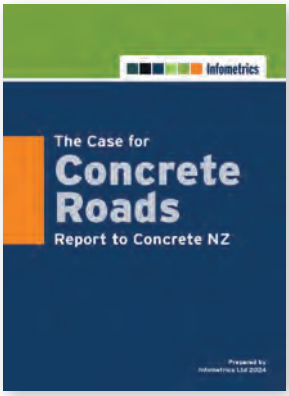
He says the report showed concrete roads could have a lower carbon footprint over whole-of-life than asphalt if carbon uptake is taken into account. Carbon uptake is a natural process by which exposed surfaces of hardened concrete absorb atmospheric CO_2 over time.[i]

Emissions associated with concrete roads can be even further reduced by using low carbon concrete. In addition, concrete can be recycled.

National Road Carriers Association CEO Justin Tighe-Umbers says: "Concrete roading for limited projects is a no-brainer in New Zealand. The whole-of-life economics present a compelling case for this durable, low-maintenance solution. It should be considered for the new Roads of National Significance and Roads of Regional Significance to provide a lower total cost of ownership.

"On top of that, concrete roads are rigid and therefore can reduce fuel consumption and, as our summers grow hotter, concrete roads don't melt. While concrete will not suit every roading purpose, it certainly deserves more consideration than has occurred to date in New Zealand."

Hamilton Mayor Paula Southgate says: "Hamilton is the fastest growing city in New Zealand, and we must look at new and innovative approaches to deliver the infrastructure we need. Innovation, quality work and better cost efficiency are important principles in all construction projects we do in Hamilton city.



"We recently trialled Roller Compacted Concrete (RCC) on Arthur Porter Drive, a busy industrial road with unique construction challenges. The early results are promising, and show us that concrete is a smart and sustainable choice for future projects, though of course each new project will need to be assessed individually."

The 2024 report summarises selected international comparisons of concrete and asphalt roading costs. The consensus is that concrete roads are almost always more cost-effective than asphalt roads over a life of 40 years. Cost variations in different countries arise due to differing labour and other input costs, the type of asphalt or concrete technology, the discount rate used when calculating costs over whole of life, and the differing life span of roads.

Infometrics drew on this data, and available New Zealand data, to run 20,000 computer simulations of roading construction and maintenance costs in New Zealand. The result is a 12% to 23% advantage in costs to concrete over asphalt for the central 90% of the distribution of results. The weighted mean is a 17% cost advantage to concrete.

Download *The Case for Concrete Roads (2024)* from the Concrete NZ website – **www.concretenz.org.nz**

The Future Roads conference 20-21 November served as the venue for the New Zealand roading industry to meet and acknowledge the potential for concrete roads in New Zealand.

i In its 6th Assessment Report published in 2021 and 2022, the Inter-governmental Panel on Climate Change (IPCC) formally recognised "recarbonation", or carbon uptake. AR6 writers concluded that carbon uptake can absorb more than 15% of the original CO_2 emissions from cement manufacture over time. That would change the above figures for concrete roads to 1.5 – 2.6 $ktCO_2$ /km.

Allied Concrete, with Change Fuel Technologies, is cutting emissions and setting industry standards.

REVOLUTIONISING CONCRETE TRANSPORTATION: ALLIED CONCRETE SEEK A SUSTAINABLE PATH FORWARD

In an ambitious stride toward sustainability, Allied Concrete, in partnership with Change Fuel Technologies, has introduced New Zealand's first dual-fuel hydrogen truck to the Auckland market. Both companies are proudly part of the HWR family of businesses, a Southland-based, family-owned enterprise founded by Bill Richardson.

This cutting-edge technology aligns with industry's *Roadmap to Net Zero Carbon by 2050* and marks a transformative leap in the concrete industry, setting a benchmark for eco-friendly transportation while maintaining operational efficiency and performance.

INNOVATIVE DUAL-FUEL TECHNOLOGY

The dual-fuel hydrogen system combines hydrogen technology with conventional diesel engines, offering a practical and efficient solution for reducing emissions. The retrofit system incorporates compressed hydrogen gas tanks on the side of the truck, with hydrogen injected during the intake stroke to create a uniform mixture with air. Diesel serves as the pilot fuel, igniting the hydrogen blend for efficient combustion.

This advanced system ensures consistent energy output and enables seamless switching between dual-fuel and pure diesel modes, delivering flexibility as well as delivering a host of benefits that we discuss in more detail below.

THE IMPACT ON CONCRETE DELIVERY EMISSIONS

The concrete industry in New Zealand produces approximately 4,000,000 m³ of concrete annually, requiring an estimated 22,000,000 litres of diesel for transportation.

Allied Concrete's dual-fuel hydrogen truck offers a groundbreaking solution, reduces diesel consumption by over 30%, as evidenced in pilot schemes run to-date.

Emission Reduction Highlight Potential for the Industry:

- Diesel Savings: 6,600,000 litres annually.
- CO_2 Emission Reduction: 17,688 tonnes per year, equivalent to planting 290,000 trees or removing 3,800 conventional cars from the road annually.

These outcomes highlight the significant potential of the dual-fuel hydrogen technology, owned and provided by Change Fuel Technologies, and utilised by Allied Concrete, to drive meaningful environmental change within the industry.

KEY FEATURES OF THE DUAL-FUEL SYSTEM

The dual-fuel hydrogen system brings a host of advantages, making it a practical and impactful solution for concrete transportation:

- **Retrofittable Design:** Enables use with existing diesel engines, extending the lifespan of current assets.
- **Operational Efficiency:** Maintains full load capacity, ensuring no compromise on delivery volume.
- **Range Confidence:** Avoids the range limitations associated with electric alternatives, supporting reliable operations.
- **Quick Refuelling:** Similar to diesel, reducing downtime.
- **Flexibility:** Seamless fuel mode switching adapts to operational requirements.
- **Safety Standards:** Adheres to stringent European hydrogen safety regulations.
- **Cost and Emissions Benefits:** Reduces AdBlue use, lowers nitrous oxide emissions, and supports carbon emissions reporting for enhanced sustainability monitoring.

CONTRIBUTING TO A SUSTAINABLE FUTURE

The deployment of dual-fuel hydrogen trucks underscores Allied Concrete's commitment to sustainability by reducing reliance on fossil fuels, lowering greenhouse gas emissions, and improving air quality.

The initiative also aligns with broader goals to support hydrogen infrastructure development, fostering a greener future for New Zealand.

ALIGNMENT WITH CONCRETE NZ'S VISION

Industry's *Roadmap to Net Zero Carbon by 2050* identifies transportation under Scope 3 emissions in its Environmental Product Declaration (EPD) analysis, as a significant contributor to the industry's carbon footprint. The dual-fuel hydrogen system directly addresses this challenge, pioneering a pathway toward sustainable transportation solutions.

By leveraging innovative technology in partnership with Change Fuel Technologies and other collaborators, Allied Concrete is not only reducing emissions but also setting a standard for the entire industry.

PROVIDING THE BASE

Wayne Scott, AQA Chief Executive

THE AGGREGATE & QUARRY ASSOCIATION OF NZ

Eight quarries are among the projects in the Government's list for the Fast-track Approvals Bill. AQA CEO Wayne Scott says as most of the 149 projects announced were housing, infrastructure, irrigation or energy projects – all requiring quarry materials – quarries had to be included in the list.

"Nothing can be built without us. We are like the bass player in a band; not flashy but fundamental to all that happens."

Wayne says given quarry materials are already in short supply across New Zealand, ensuring these were available for all the nationally and regionally-significant projects had to be provided for under the Bill.

"Given the scale of need in Auckland and its current reliance on imported aggregate, it's appropriate four of the eight quarry projects approved are in Auckland," says Wayne.

These are extensions to the Kings, Drury, Flat Top and Hunua quarries.

Canterbury gets two – KB Contracting's Miners Rd Northern Expansion and Southern Screenworks quarry for expansion and establishing a managed fill facility. Wellington's Belmont Quarry is included for a new overburden disposal, as is J Swap Contractors Katikati quarry expansion in Bay of Plenty.

Additionally, McCallum Brothers were included for a project to take sand from Bream Bay in Northland over a proposed 35-year term of consent.

"The fact quarry owners sought to be in the fast-track provisions reflects the challenges they face in getting an existing site approved for extension, let alone a new one consented.

There has been a lot of comment about the Coalition Government's fast-track process approach to environmental considerations.

The Aggregate & Quarry Association told the Select Committee considering the Bill that it wouldn't be supporting it if it came at the expense of the environment.

"We said we were not seeking any different outcomes than those currently achieved using sound practice within the RMA process. While this legislation is subject to considerable revision, it will remain the process under which regionally significant quarry consents will continue to be lodged," adds Wayne.

The Expert Panels will now consider these applications. The AQA submission said these need to be resourced to provide the strong economic and environmental analysis required under the Bill to ensure robust decision-making and sound environmental outcomes.

"Quarries fully expect to meet environmental, cultural and resource management requirements for new or renewed consents whether under fast-track approvals or the reformed RMA legislation," says Wayne.

"What we need are outcomes with more certainty and faster than current timeframes which often take many years to get a consent."

He says the Infrastructure Commission told our July conference that it's estimated our country could need to find $1000 billion ($1 trillion) to spend on infrastructure in coming decades.

"Ensuring better supply from nearby quarries is one way to reduce that cost because the big, price-driver is transport.

"The Fast-track Approvals Bill has struck the most positive note for our industry in a generation. We thank the Government for that change. We know quarries now have to show they are keeping the beat on good environmental outcomes while we supply the rock which allows everything else to be built," concludes Wayne.

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