

CETANZ 2025 Panel Discussion

08 August 2025

Technical Co-ordination Group 5 (TCG-05)

- 1) MBIE is setting up a new way to manage standards update, guidelines and any identified needed supplementary documents. The group is called Geotechnical/ Foundation TCG (a.k.a TCG-05)
- 2) The scope discussed amongst the Geotechnical/ Foundation TCG does not necessarily have to be restricted to standards related, any gaps in the suite of supplementary documents that may be helpful in reaching Building Code Compliance can be discussed about.

TCG Name	Lead Technical Society	Supporting Technical Societies	Standards Guidelines or other docs	Associated Australian Committee
TCG-05	NZGS	NZSEE SESOC	NZS4431 NZS4402 (28 identified sub parts) NZS4404	BD-025 CE-009

- 3) As the initial trial project NZS4402 in its entirety (full 28 sub-part) have been suggested as the first issue/gap the group will start with

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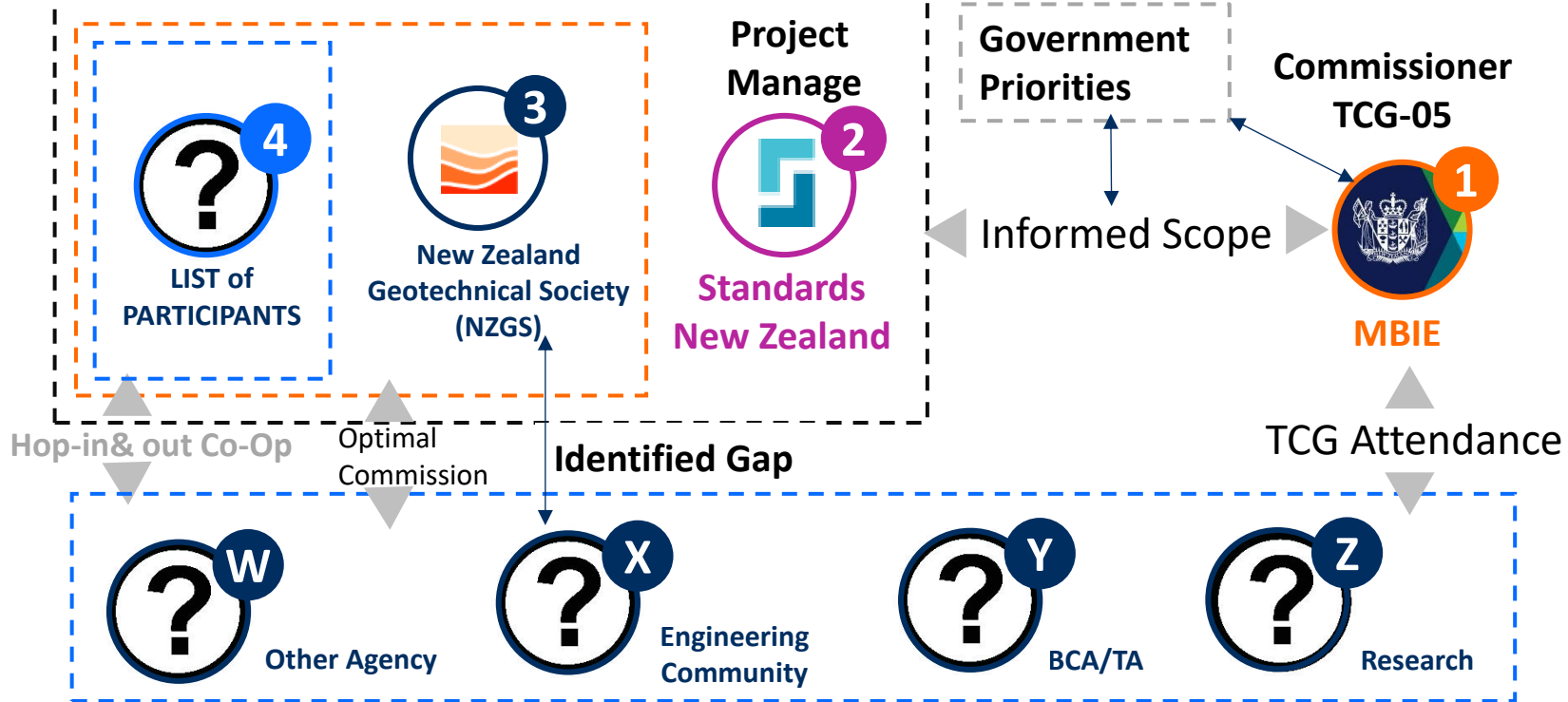
- 4) TCGs are responsible for setting the strategic direction for both their document portfolio and for the documents within the portfolios. This responsibility will normally include developing a prioritised work programme that seeks to improve how the portfolio is structured as well as the individual documents.
- 5) TCG-05 group have convened to develop an initial strategic direction for updating the NZS4402 but remains interested to gather insight from the audience of the CETANZ conference to better understand the broader industry perspective.

Standard	Title	Description	Citation by Building Code	Civil Testing Framework
NZS4431	Engineered fill construction for lightweight structures (2022) title	NZS 4431 provides the process for the geotechnical investigation, design, construction, quality assurance testing, and certification of engineered fill as foundation support for lightweight residential and commercial buildings and associated infrastructure. Evidence of adherence to this standard, alongside appropriate professional review and certification, can be used to demonstrate compliance with the relevant sections of the New Zealand Building Code for these projects.		
NZS4404	Land development and subdivision infrastructure	NZS 4404:2010 provides local authorities, developers, and their professional advisors with criteria for design and construction of land development and subdivision infrastructure. The Standard encourages sustainable development and modern design. It is applicable to greenfield and infill development, and brownfield		
NZS4402.1			Primary	4
NZS4402.2.1	Water Content		Secondary	3
NZS 4402.2.2:1986	Methods of testing soils for civil engineering purposes - Soil classification tests - Determination of the liquid limit	Covers the determination of the liquid limit of a soil which has not been dried below natural water content. The method may also be used on previously dried soils. To be read in conjunction with Part 1.	Primary	3
NZS4402.2.3	Plastic Limit		Secondary	3
NZS 4402.2.4:1986	Methods of testing soils for civil engineering purposes - Soil classification tests - Test 2.4 Determination of the plasticity index	Covers the determination of the plasticity index of a soil. To be read in conjunction with Part 1.	Primary	3
NZS4402.2.5	Liquid Limit - Cone Penetration		Secondary	3
NZS 4402.2.6:1986	Methods of testing soils for civil engineering purposes - Soil classification tests - Test 2.6 Determination of the linear shrinkage	Covers the determination of the linear shrinkage of a soil. The test may also be used on samples of soil in their natural state. To be read in conjunction with Part 1.	Secondary	3
NZS4402.2.7.1	Solid density - Vacuum		No Citation	3
NZS4402.2.7.2	Solid density - Pycnometer		Secondary	4
NZS 4402.2.8.1:1986	Methods of testing soils for civil engineering purposes - Soil classification tests - Test 2.8.1 Standard method by wet sieving	Covers the quantitative determination of the particle size distribution in a soil down to the fine s and size by wet sieving. To be read in conjunction with Part 1.	Primary	3
NZS 4402.2.8.2:1986	Methods of testing soils for civil engineering purposes - Soil classification tests - Test 2.8.2 Standard method by dry sieving	Covers the quantitative determination of the particle-size distribution in a soil down to the fine s and size by dry sieving. The method should not be used unless it has been shown that for the type of material under test it gives the same results as the method of analysis by wet sieving. In case of doubt, Test 2.8.1 should be used. To be read in conjunction with Part 1.	Primary	3
NZS 4402.2.8.3:1986	Methods of testing soils for civil engineering purposes - Soil classification tests - Test 2.8.3 Standard method for fine soils (pipette method)	Covers the quantitative determination of the particle-size distribution in a soil from the coarse sand size down. This test is not normally carried out if less than 10 percent of the material passes the 63 micron test sieve, as measured in Test 2.8.1. To be read in conjunction with Part 1.	Primary	3
NZS 4402.2.8.4:1986	Methods of testing soils for civil engineering purposes - Soil classification tests - Test 2.8.4 Standard method for fine soils (hydrometer method)	Covers the quantitative determination of the particle size distribution in a soil from the coarse sand size down. This test is not normally carried out if less than 10 percent of the material passes the 63 micron test sieve as measured in Test 2.8.1. To be read in conjunction with Part 1.	Primary	3
NZS 4402.3.3.1:1986	pH electrometric		Secondary	3
NZS 4402.3.3.2:1986	pH colorimetric		Secondary	6
NZS 4402.3.4:1986	Allophane test		Secondary	3
NZS 4402.4.1.1:1986	Methods of testing soils for civil engineering purposes - Part 4: Soil compaction tests - Determination of the dry density/water content relationship - Test 4.1.1 New Zealand standard compaction test	Covers the determination of the dry density when the soil passing a 19.0 mm test sieve is compacted in a specified manner, over a range of water contents, including that which gives the maximum dry density. To be read in conjunction with Part 1.	Primary	3
NZS4402.4.1.2	Heavy compaction		No Citation	3
NZS4402.4.1.3	Vibrating compaction		Secondary	3
NZS 4402.4.2.1:1988	Methods of testing soils for civil engineering purposes - Soil compaction tests - Determination of the minimum and maximum dry densities and relative density of a cohesionless soil - Test 4.2.1 Maximum dry density	Provides a standard technique for the laboratory determination of the minimum dry density of a cohesionless soil.	Primary	3
NZS 4402.4.2.2:1988	Methods of testing soils for civil engineering purposes - Soil compaction tests - Determination of the minimum and maximum dry densities and relative density of a cohesionless soil - Test 4.2.2 Maximum dry density	Provides a standard technique for the laboratory determination of the maximum dry density of a cohesionless soil by vibratory compaction of a fully saturated sample.	Primary	3
NZS 4402.4.2.3:1988	Methods of testing soils for civil engineering purposes - Soil compaction tests - Determination of the minimum and maximum dry densities and relative density of a cohesionless soil - Test 4.2.3 Relative density	Determines the relative density of a soil with respect to the loosest and densest states at which it can be placed by the laboratory techniques specified.	Primary	3
NZS 4402.5.1.1:1986	Methods of testing soils for civil engineering purposes - Soil density tests - Determination of the density of soil - Test 5.1.1 Sand replacement method for the determination of in situ density	Covers the determination in situ of the density of undisturbed or compacted soils. To be read in conjunction with Part 1.	Primary	4
NZS 4402.5.1.2:1986	Ballon Densometer		Secondary	4
NZS 4402.5.1.3:1986	Sampling tube		Secondary	3
NZS 4402.5.1.4:1986	Immersion in water		Secondary	3
NZS 4402.5.1.5:1986	Water displacement		Secondary	4
NZS 4402.6.1.1:1986	Lab CBR remoulded		Secondary	3
NZS 4402.6.1.2	Soils		Secondary	3
NZS 4402.6.1.3:1986	CBR		No Citation	3
NZS 4402.7.1:1988	One-dimensional consolidation		No Citation	3
NZGS	Hand shear Vane		No Citation	3
Currently used in NZ by	Consolidated triaxial			
Currently used in NZ by	Direct Shear			
Currently used in NZ by	Permeability Tests			
Should be used	Overline correction of compaction tests			
Currently used in NZ by	Shrink (swell)			
Currently used in NZ by	Pinhole dispersion			
Currently used in NZ by	Slake durability			
Currently used in NZ by	Benlieman Beam Test			5



Proposed Technical Co-ordination Group (TCG-05)

TCG-05 (Geotechnical/ Foundation Standards Portfolio)



Thank you.

Questions?

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