

Title	Demonstrate knowledge of stabilisation of pavement layers for road works		
Level	4	Credits	5

Purpose	People credited with this unit standard are able to explain reasons for, and effects of, pavement layer stabilisation; and describe methods of pavement layer stabilisation.
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Classification	Infrastructure Works > Generic Road Works
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Available grade	Achieved
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Guidance information

- 1 The requirements within the following guidelines applying to civil construction operations must be complied with as appropriate to the context of assessment for this unit standards:
 TNZ M/15:2012 *Lime for use in Soil Stabilisation*,
 TNZ B/5:2008 *Specification for In-situ Stabilisation of Modified Pavement Layers*. A full listing of NZ Transport Agency's principal external manuals, manual amendments and technical documents is available at <https://www.nzta.govt.nz/resources/>.
- 2 Assessment against this unit standard may take place in a workplace and/or provider environment. Assessment parameters will depend on company and site-specific equipment, procedures, and practices. Practices must reflect industry best practice and comply with legislative requirements.
- 3 Definitions
Company requirements include the policy, procedures, and methodologies of the company. They include legislative and regulatory requirements applicable to the company or a specific site. Requirements are documented in the company's health and safety plans, traffic management plans, contract work programmes, quality assurance programmes, policies, and procedural documents.
Pavement includes layers from subgrade to finished surface.

Outcomes and performance criteria

Outcome 1

Explain reasons for, and effects of, pavement layer stabilisation.

Performance criteria

- 1.1 Reasons for using stabilising materials in terms of pavement layer improvement are explained.
- Range subgrade, sub-base, base course.
- 1.2 Reasons for choice of stabilising materials in terms of soil type are explained.
- Range moisture, plasticity, cementation.
- 1.3 Economic reasons for the stabilising of materials are explained.
- 1.4 Tests for the bearing capacity of soils and traffic load on pavements are explained.
- Range may include but is not limited to – unconfined compressive test, California Bearing Ratio (CBR), soaked CBR, Clegg hammer, Benkelman beam.
- 1.5 Stabilising of road pavements, the strengthening required for each layer, and the need for preconditioning are explained.
- 1.6 Climatic and temperature effects on stabilising materials are explained.

Outcome 2

Describe methods of pavement layer stabilisation.

Range three of – cement, lime, foam bitumen, bitumen emulsion, fabric, mesh.

Performance criteria

- 2.1 Equipment, materials, and process for method is described in accordance with company requirements.
- 2.2 Procedures for construction of joints are described in accordance with company requirements.

Replacement information	This unit standard replaced unit standard 17323.
Planned review date	31 December 2023

Status information and last date for assessment for superseded versions

Process	Version	Date	Last Date for Assessment
Registration	1	25 September 2006	31 December 2016
Review	2	19 February 2015	31 December 2021
Review	3	27 September 2018	N/A

Consent and Moderation Requirements (CMR) reference

0101

This CMR can be accessed at <http://www.nzqa.govt.nz/framework/search/index.do>.

Comments on this unit standard

Please contact Connexis Infrastructure ITO qualifications@connexis.org.nz if you wish to suggest changes to the content of this unit standard.