

Title	Assemble, install, and maintain track structures		
Level	4	Credits	10

Purpose	People credited with this unit standard are able to: prepare to assemble and install track structures; assemble track structures; install track structures; and maintain track structures.
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Classification	Rail Transport > Rail Infrastructure
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Available grade	Achieved
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Guidance Information

- 1 Assessment against this unit standard is to be carried out within the context of an organisation operating under a current, valid Rail Licence issued in accordance with the provisions of the Railways Act 2005. The organisation's operating rules, codes, and instructions, referred to in this unit standard, are those the organisation has in place to meet the requirements of the Rail Licence.
- 2 Legislation relevant to this unit standard includes:
Health and Safety at Work Act 2015;
Railways Act 2005.
- 3 Definitions
Organisational procedures refer to documents that include – worksite rules, codes, and practices; equipment operating instructions; documented quality management systems; and health and safety requirements.
Track structures refers to all fabricated track work which is used for diverting traffic from one track to another or by means of which one track crosses another. For example: points and crossings, double slips, double turnouts, diamond crossings, scissor crossings, traps.
Work plan refers to instructions that may include work or service order, verbal instruction, formal work plan.
- 4 Assessment information
All activities and evidence must be in accordance with organisational procedures and work plan.

Outcomes and performance criteria

Outcome 1

Prepare to assemble and install track structures.

Performance criteria

- 1.1 Safety requirements are followed.
- Range personal protective equipment, tools and equipment, communication equipment.
- 1.2 Hazards are identified and control methods are implemented.
- 1.3 Rail permission systems are followed.
- Range may include but is not limited to – track protection, permit, track access.
- 1.4 Work plan for track structures assembly and installation is interpreted and followed.
- Range may include but is not limited to – removal of existing track structures, assembly requirements, installation method, work methods.
- 1.5 Tools and equipment are selected, and pre-operational check is completed.
- 1.6 Materials are checked.
- Range may include but is not limited to – sleepers, rail fastenings, rail, prefabricated rail components.

Outcome 2

Assemble track structures.

Performance criteria

- 2.1 Track structures are assembled.
- Range may include but is not limited to – sleepers, bedplate, fishplate, bolts, rail, fastenings, points lever.
- 2.2 Track structures assembly is checked.

Outcome 3

Install track structures.

Performance criteria

- 3.1 If required, existing structures are removed.
- 3.2 Assembled track structures are installed.

3.3 Track structures parameters are checked and if required, adjusted.

Range cant, top, alignment, gauge.

3.4 Non-compliances are repaired, adjusted or reported.

3.5 Documentation for installation is completed.

Outcome 4

Maintain track structures.

Performance criteria

4.1 Track structures are checked, and measurements are taken.

Range may include but is not limited to – gauge, point of switch, heel of switch, switch wear, frog wear, fastenings, sleepers, cant, top, alignment, fishplate, bedplate, operation of switch.

4.2 If required, track structures component parts are replaced or adjusted.

Range may include but is not limited to – cant, top, alignment, fastenings, sleepers, frog, check rails, switches, bolts, hand operated switch levers, fishplate, bedplate.

Planned review date	31 December 2026
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Status information and last date for assessment for superseded versions

Process	Version	Date	Last Date for Assessment
Registration	1	24 February 2022	N/A

Consent and Moderation Requirements (CMR) reference	0013
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This CMR can be accessed at <http://www.nzqa.govt.nz/framework/search/index.do>.

Comments on this unit standard

Please contact the Hanga-Aro-Rau Manufacturing, Engineering, and Logistics Workforce Development Council qualifications@hangaarorau.nz if you wish to suggest changes to the content of this unit standard.