

<b>Title</b>	<b>Demonstrate knowledge of steel construction site and worksite operations, procedures and processes</b>		
<b>Level</b>	<b>4</b>	<b>Credits</b>	<b>4</b>

<b>Purpose</b>	<p>This unit standard is for use in training of fabrication trades and covers workshop and jobsite operations, procedures, and processes related to the fabrication and assembly of steel structures.</p> <p>People credited with this unit standard are able to demonstrate knowledge of worksite and construction site safety procedures; demonstrate knowledge of workshop and workshop operations; demonstrate knowledge of worksite preparation for new steel constructions and alterations; and demonstrate knowledge of documentation and industry standards applicable to steel construction projects.</p>
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<b>Classification</b>	Mechanical Engineering > Engineering - Fabrication
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<b>Available grade</b>	Achieved
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## Guidance Information

- 1 References
  - Building Act 2004.
  - Building Regulations 1992.
  - Health and Safety at Work Act 2015.
  - New Zealand Building Code Handbook*. Wellington: Ministry of Building Innovation and Employment, 2014. Available at <https://www.building.govt.nz/>
- 2 Definitions
  - Accepted industry practice* – approved codes of practice and standardised procedures accepted by the wider mechanical engineering industry sectors as examples of best practice.
  - Codes of practice* – Approved Codes of Practice for the sector and the Compliance Documents for the *New Zealand Building Code*.
  - Construction site* – the location where the fabricated structural steel is installed.
  - Construction site procedures* – safety procedures, policies, and procedures for waste removal in force at a construction site.
  - Worksite* – the workshop or factory where the structural steel is fabricated.
  - Worksite procedures* – operational procedures put in place by the candidate's employer. These include site safety procedures, equipment operating procedures, job procedures, quality assurance, and procedures for the handling and disposal of materials and waste.

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## Outcomes and performance criteria

### Outcome 1

Demonstrate knowledge of worksite and construction site safety procedures.

#### Performance criteria

- 1.1 Safety procedures are explained in accordance with the Health and Safety at Work Act and worksite procedures.
- Range evacuation procedures; safety equipment use and location; storage of dangerous goods, flammable liquid, and dangerous gases; hazard identification and register; safe use of machines and tools; safe pathway for foot traffic; safety features; visitor/contractor safety; disposal of waste.
- 1.2 The role of the worksite safety officer is explained in accordance with worksite procedures.
- 1.3 Procedures and processes for the safety of personnel, contractors, visitors, and general public at construction site during establishment and construction are explained in accordance with Health and Safety at Work Act and construction site procedures.
- Range site safety plans, hazard identification, toolbox meetings, individual responsibilities, waste removal, risk management strategies, working at height.

### Outcome 2

Demonstrate knowledge of worksite and worksite operations.

#### Performance criteria

- 2.1 Using a plan view of the worksite, the sequence of operations from ordering through to the loading of fabricated items for delivery are outlined, and the functions of the different work areas explained.
- 2.2 Machines are identified and their purpose, capacity, and features explained in the context of the workshop.
- 2.3 The roles and functions of various occupations in the worksite are described.
- Range Chief Executive Officer, estimator, structural steel detailer, supervisor, CAD operator.

### Outcome 3

Demonstrate knowledge of construction site preparation for new steel constructions and alterations.

**Performance criteria**

3.1 Construction site preparation in readiness for steel construction is explained in accordance with accepted industry practice and construction site procedures.

Range pre-arrival, post arrival.

3.2 The significance and nature of interaction with the main contractor and other specialist trade contractors is explained with reference to the safety of people, project management, delivery of prefabricated items, and construction requirements.

**Outcome 4**

Demonstrate knowledge of documentation and industry standards applicable to steel construction projects.

**Performance criteria**

4.1 The purpose of the drawings used in steel construction industry is explained.

Range engineers' and architects' drawings, workshop drawings, erection drawings.

4.2 Codes of practice and industry standards related to structural steel construction are identified.

Range evidence of five codes of practice and four industry standards is required.

4.3 Purpose of various quality assurance documents is explained.

Range traceability bolts record, tightening record, on site welding record, inspection records, main contractors sign-off records, job specifications.

4.4 Purpose and content of a method statement for erection of structural steel on a construction site is outlined in accordance with accepted industry practice.

<b>Planned review date</b>	31 December 2022
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**Status information and last date for assessment for superseded versions**

Process	Version	Date	Last Date for Assessment
Registration	1	17 July 2009	31 December 2022
Review	2	17 August 2017	N/A

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

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### Comments on this unit standard

Please contact Competenz [qualifications@competenz.org.nz](mailto:qualifications@competenz.org.nz) if you wish to suggest changes to the content of this unit standard.