

Qualification Description

This is a general qualification for a person engaged in the rail infrastructure environment who performs tasks involving a broad range of skilled applications in a wide variety of contexts. It may involve application of some discretion and judgement in selecting equipment, services or contingency measures. It may also include responsibility for coordinating the work of others.

Job roles

Job roles and titles vary across different sectors. Possible job titles relevant to this qualification include:

Rail Infrastructure – Track Maintenance

Senior track maintainer

Ganger

Rail Infrastructure – Track Construction

Senior track installer

Ganger

Rail Infrastructure – Track Welding

Track welder

Rail Infrastructure – Track Examination

Track examiner

Other specialist fields include turnout construction, track examination, rail testing, timber/composite turnout construction and concrete/steel turnout construction. For further information,

www.training.gov.au

Entry Requirements

The entry requirement for this qualification is TLI27171 Certificate II in Rail Infrastructure or relevant industry experience gained by working in the rail infrastructure environment.

Network Entry Requirements

A Category 1 Rail Medical Assessment is required for this qualification in most cases.

Packaging Rules

A total of 11 units of competency comprising:

- 5 core units and all units within one of the specialist elective unit groups plus a minimum of 2 general elective units and a maximum of 4 general elective units from the general elective units listed below (depending on the specialist elective group or job role selected).
- Up to 2 of the general elective units may be selected from any relevant nationally endorsed Training Package. The general elective units must contribute to the vocational outcomes of the qualification.

Core units

TLIE2007	Use communications systems
TLIE2029	Conduct workplace information briefings
TLIF3003	Implement and monitor work health and safety procedures
TLIJ0003	Apply quality systems

Specialist elective units

All units from one specialist elective groups

Group A: Track Maintenance and Construction

RIICCM201E	Carry out measurements and calculations
RIICCM203E	Read and interpret plans and job specifications
TLIB3094	Check and repair track geometry
TLIS3026	Implement track maintenance and construction

Group C: Track Welding

RIICCM201E	Carry out measurements and calculations
RIICCM203E	Read and interpret plans and job specifications
TLIW0004	Grind rails
TLIW0006	Heat and cut materials using oxy-LPG equipment for the rail industry
TLIW3015	Weld rail using aluminothermic welding process

Group D: Track Examination

RIICCM201E	Carry out measurements and calculations
TLIB3099	Examine track infrastructure
TLIB3100	Visually inspect track infrastructure

General elective units (including any of the above specialist units)

TLIB2091	Measure and record track geometry
TLIB2092	Operate minor mechanical equipment
TLIB3095	Check and repair points and crossings
TLIC2058	Travel medium or heavy self-propelled on-track equipment
TLIC3045	Operate road/rail vehicle
TLIE0002	Process workplace documentation
TLIF0008	Apply safety critical communications in the rail environment
TLIF2006	Apply accident-emergency procedures
TLIF3058	Apply safeworking rules and regulations to rail functions

Core Units

TLIE2007 Use communications systems

This unit involves the skills and knowledge required to use communications systems in accordance with relevant regulations and workplace procedures.

It includes identifying system features, operating a communications system effectively, using appropriate communications system protocols, maintaining equipment and completing documentation.

It involves applying established communication principles and practices, and using local technical, colloquial language and vocabulary in day-to-day communication.

Work is performed under some supervision, generally within a team environment.

TLIE2029 Conduct workplace information briefings

This unit involves the skills and knowledge required to conduct workplace information briefings in accordance with organisational requirements.

It includes preparing and delivering workplace briefings, and completing routine workplace documents as part of routine work.

Work is performed under some supervision generally in a team environment. This unit applies to formal types of briefings such as pre-work briefs, pre-start briefs, toolbox talks, worksite protection briefs and safe work method statement (SWMS) safety briefings.

TLIF3003 Implement and monitor work health and safety procedures

This unit involves the skills and knowledge required to implement and monitor work health and safety (WHS)/occupational health and safety (OHS) procedures in compliance with relevant WHS/OHS regulations. It includes accessing information about WHS/OHS workplace policies and procedures, and implementing and monitoring procedures for identifying and assessing hazards and controlling risks. It also includes planning and supervising housekeeping arrangements, and implementing and monitoring procedures for dealing with hazardous events.

Work is performed under some supervision generally within a team environment.

TLIJ0003 Apply quality systems

This unit involves the skills and knowledge required to apply quality systems.

It includes working within a quality system; using quality systems, tools and techniques; and contributing to quality system continuous improvement processes.

Work is performed under some supervision, generally within a team environment.

Specialist elective units

Group A: Track Maintenance and Construction

RIICCM201E Carry out measurements and calculations

This unit describes the skills and knowledge required to carry out measurements and calculations in the resources and infrastructure industries. It includes using measurements and calculations to estimate quantities for various work activities.

It applies to those working in operational roles. They generally work under supervision to undertake a prescribed range of functions involving known routines and procedures and take responsibility for the quality of own work outcomes.

RIICCM203E Read and interpret plans and job specifications

This unit describes the skills and knowledge required to read and interpret plans and job specifications in civil construction, including recognising amendments and commonly used symbols and abbreviations. It involves locating and identifying key features on site plans and reading and interpreting job plan specifications.

It applies to those working in operational roles. They generally work under supervision to undertake a prescribed range of functions involving known routines and procedures and take some responsibility for the quality of work outcomes.

TLIB3094 Check and repair track geometry

This unit involves the skills and knowledge required to check and repair track geometry, in accordance with safeworking and regulatory requirements, workplace procedures and rail network geometry specifications. It includes determining the job requirements, restoring track geometry, checking track compliance after work and completing required documentation.

People achieving competence in this unit will need to fulfil the applicable state/territory legislated rail safety requirements and to comply with relevant codes of practice and/or guidelines.

Work is performed under minimal supervision, generally in a team environment. It involves the application of routine operational principles and procedures when checking and repairing track geometry, as part of workplace activities across a variety of operational contexts within the Australian rail system.

TLIS3026 Implement track maintenance and construction

This unit involves the skills and knowledge required to implement track maintenance and construction activities in accordance with approved standards, safeworking and regulatory requirements, and workplace procedures.

It includes planning work, implementing construction or maintenance activities, dealing with maintenance and construction problems, and completing required documentation.

People achieving competence in this unit will need to fulfil the applicable state/territory legislated rail safety requirements and to comply with relevant codes of practice and/or guidelines.

Work is performed generally in a team environment. It involves the application of routine operational principles and procedures when implementing track maintenance and/or construction, as part of workplace activities across a variety of operational contexts within the Australian rail system.

Group C: Track Welding

RIICCM201E Carry out measurements and calculations

This unit describes the skills and knowledge required to carry out measurements and calculations in the resources and infrastructure industries. It includes using measurements and calculations to estimate quantities for various work activities.

It applies to those working in operational roles. They generally work under supervision to undertake a prescribed range of functions involving known routines and procedures and take responsibility for the quality of own work outcomes.

RIICCM203E Read and interpret plans and job specifications

This unit describes the skills and knowledge required to read and interpret plans and job specifications in civil construction, including recognising amendments and commonly used symbols and abbreviations. It involves locating and identifying key features on site plans and reading and interpreting job plan specifications.

It applies to those working in operational roles. They generally work under supervision to undertake a prescribed range of functions involving known routines and procedures and take some responsibility for the quality of work outcomes.

TLIW0004 Grind rails

This unit involves the skills and knowledge required to grind rail and welds in accordance with rail network standards, safeworking and regulatory requirements, and workplace procedures.

It includes determining job requirements, grinding weld and/or weld repair, grinding rail to repair surface defects, and completing all required documentation. This unit relates to the grinding of new welds and weld repairs, wheel burns, rail batter and overflow in plain track.

People achieving competence in this unit will need to fulfil the applicable state/territory legislated rail safety requirements and to comply with relevant codes of practice and/or guidelines.

Work is performed under some supervision, generally within a team environment. It involves the application of routine operational principles and procedures when grinding rail and welds, as part of workplace activities across a variety of operational contexts within the Australian rail system.

TLIW0006 Heat and cut materials using oxy-LPG equipment for the rail industry

This unit involves the skills and knowledge required to heat and cut materials for the rail industry using oxy-LPG equipment.

It includes planning and preparing for work, setting up and testing the equipment, heating and cutting materials, shutting down equipment and completing clean-up activities.

People achieving competence in this unit will need to fulfil applicable state/territory legislated work health and safety (WHS)/occupational health and safety (OHS) requirements and rail safety requirements, and to comply with relevant codes of practice and/or guidelines.

Work involves heating and cutting steel and includes cutting up waste for salvage; cutting steel, rails and bolts; and cutting holes in plate (with the exception of structural steel members). Heating activities include steel and bolts (excluding structural steel members).

TLIW3015 Weld rail using aluminothermic welding process

This unit involves the skills and knowledge required to weld rail using the aluminothermic welding process in accordance with safeworking and regulatory requirements, and workplace procedures.

It includes preparing and planning the welding method, preparing the rail for aluminothermic welding, carrying out the welding process, checking weld conformance and completing required documentation.

People achieving competence in this unit will need to fulfil the applicable state/territory legislated rail safety and to comply with relevant codes of practice and/or guidelines.

Work is performed under some supervision, generally within a team environment. It involves the application of routine operational principles and procedures when welding rail using the aluminothermic welding technique, as part of workplace activities across a variety of operational contexts within the Australian rail system.

Operators of mechanised equipment must have undertaken training and, where appropriate, hold the relevant licence, permit or certificate and be recognised as competent for the class of machinery being used.

Group D: Track Examination

RIICCM201E Carry out measurements and calculations

This unit describes the skills and knowledge required to carry out measurements and calculations in the resources and infrastructure industries. It includes using measurements and calculations to estimate quantities for various work activities.

It applies to those working in operational roles. They generally work under supervision to undertake a prescribed range of functions involving known routines and procedures and take responsibility for the quality of own work outcomes.

TLIB3099 Examine track infrastructure

This unit involves the skills and knowledge required to examine track and right of way infrastructure in accordance with safeworking and regulatory requirements, and workplace procedures.

It includes preparing for examination, examining track and right of way, analysing examination results, and reporting findings.

People achieving competence in this unit will need to fulfil the applicable state/territory legislated rail safety requirements and to comply with relevant codes of practice and/or guidelines.

Work is performed under minimal supervision, generally within a team environment. It involves the application of routine operational principles and procedures when examining track infrastructure, as part of workplace activities across a variety of operational contexts within the Australian rail system.

TLIB3100 Visually inspect track infrastructure

This unit involves the skills and knowledge required to visually inspect track infrastructure in accordance with safeworking and regulatory requirements, and workplace procedures.

It includes patrolling the track and right of way infrastructure and recording and documenting identified defects in accordance with workplace requirements.

People achieving competence in this unit will need to fulfil the applicable state/territory legislated rail safety requirements and to comply with relevant codes of practice and/or guidelines.

Work is performed under minimal supervision, generally within a team environment. It involves the application of routine operational principles and procedures when visually inspecting railway track infrastructure, as part of workplace activities across a variety of operational contexts within the Australian rail system.

General elective units (including any of the above specialist units)

TLIB2091 Measure and record track geometry

This unit involves the skills and knowledge required to measure and record track geometry in accordance with safeworking and regulatory requirements, and workplace procedures.

It includes measuring and recording track geometry, and reporting results.

People achieving competence in this unit will need to fulfil the applicable state/territory legislated rail safety requirements and to comply with relevant codes of practice and/or guidelines.

Work is performed under minimal supervision, generally within a team environment. It involves the application of routine operational principles and procedures when measuring and recording track geometry, across a variety of operational contexts within the Australian rail system.

TLIB2092 Operate minor mechanical equipment

This unit involves the skills and knowledge required to operate and maintain minor mechanical equipment in accordance with safeworking and regulatory requirements, and workplace procedures.

It includes carrying out pre-operation checks on equipment, operating mechanical equipment, conducting routine maintenance, and securing and storing equipment.

People achieving competence in this unit will need to fulfil the applicable state/territory legislated rail safety requirements and to comply with relevant codes of practice and/or guidelines.

Work is performed under some supervision, generally within a team environment. It involves the application of routine procedures when operating and maintaining minor mechanical equipment across a variety of operational contexts.

TLIB3095 Check and repair points and crossings

This unit involves the skills and knowledge required to check and repair points and crossings in accordance with rail industry standards, safeworking and regulatory requirements, and workplace procedures.

It includes determining job requirements, maintaining components and tolerances, installing components, conducting post-installation checks and completing required documentation.

People achieving competence in this unit will need to fulfil the applicable state/territory legislated rail safety requirements and to comply with relevant codes of practice and/or guidelines.

Work is performed under some supervision, generally within a team environment. It involves the application of routine operational principles and procedures when checking and repairing points and crossings, as part of workplace activities across a variety of operational contexts within the Australian rail system.

Operators of mechanised equipment must have undertaken training and, where appropriate, hold the relevant licence, permit or certificate and be recognised as competent for the class of machinery being used.

TLIC2058 Travel medium or heavy self-propelled on-track equipment

This unit involves the skills and knowledge required to travel a medium or heavy self-propelled on-track vehicle on a rail network in accordance with the rail network owner policies and procedures.

It includes performing pre-operating checks, obtaining appropriate authority to travel, stabling medium or heavy self-propelled on-track vehicle, performing post-operational procedures and completing documentation.

This unit involves the application of Rail Infrastructure Manager operational procedures to travel a medium or heavy self-propelled on-track vehicle, as part of workplace activities across a variety of operational contexts.

Medium or heavy self-propelled on-track vehicles may include:

- ballast cleaner
- ballast regulator
- dynamic stabiliser
- inserter/remover (TR10)
- rail crane
- rail grinder
- spot tamper
- tamper
- track layer
- track recorder.

People achieving competence in this unit will need to fulfil the applicable state/territory legislated rail safety requirements and to comply with relevant codes of practice and/or guidelines to operate each individual piece of equipment.

TLIC3045 Operate road/rail vehicle

This unit involves the skills and knowledge required to operate road/rail vehicles on-track in accordance with safeworking and regulatory requirements, and workplace procedures.

It includes performing pre-operational and post-operational checks, on-tracking and off-tracking vehicles, operating equipment, and completing required documentation. It encompasses the operation of all road/rail on-track vehicles.

It involves the application of routine operational principles and procedures when operating road/rail vehicles as part of workplace activities across a variety of operational contexts.

A road vehicle fitted with retractable rail guidance wheels (also known as a hi-rail vehicle) and may also involve:

- excavators
- four-wheel drives
- light–medium rigid vehicles
- pettibone
- tractors
- weed sprayer.

People achieving competence in this unit will need to fulfil the applicable state/territory legislated rail safety and safeworking requirements and to comply with relevant codes of practice and/or guidelines.

TLIE0002 Process workplace documentation

This unit involves the skills and knowledge required to process workplace documentation and gather data in accordance with workplace requirements. Processing documentation/data is carried out as an integral part of work operations in the context of the workplace concerned.

It includes planning and completing documentation and data gathering to fulfil an identified purpose, including legislative obligations.

Work may be performed in a team or autonomous working situations.

TLIF0008 Apply safety critical communications in the rail environment

This unit involves the skills and knowledge required to apply effective safety critical communications and is also considered best practice for general communications in the rail environment.

It includes communicating, providing timely and accurate rail operational information and responding to unplanned situations or events appropriately.

This unit is intended for rail safety workers who are required to identify and respond to operational information as part of their job role. They may be working within a rail operational or infrastructure environment.

Safety critical communications is any communication that, if not delivered or not delivered accurately or promptly, could result in death, serious injury or incur significant damage to property, infrastructure or the environment.

TLIF2006 Apply accident-emergency procedures

This unit involves the skills and knowledge required to apply accident-emergency procedures in accordance with work health safety (WHS)/occupational health and safety (OHS) codes of practice, regulations and workplace requirements.

It includes responding to an incident, controlling and assisting at an accident or emergency site, finalising accident-emergency processes and completing records.

Work is performed under limited supervision.

TLIF3058 Apply safeworking rules and regulations to rail functions

This unit involves the skills and knowledge required to apply applicable safeworking rules and regulations to rail functions carried out on rail networks.

It includes correctly using communications protocols; interpreting and responding to radio, hand signal and light commands; interpreting and following relevant safeworking rules and protocols; and taking appropriate action in safety incidents, unsafe situations or emergencies.

People achieving competence in this unit will need to fulfil the applicable state/territory legislated rail safety requirements and to comply with relevant codes of practice and/or guidelines.

Work is performed under established safeworking system rules, protocols and procedures.

Traineeship Fees and Charges

Publicly Funded



Qualification		Publicly funded VET in Western Australia	
		Non-Concession	Concession
TLI37122	Certificate III in Rail Infrastructure	\$890.50	\$450.50
	Resource fees		

The student tuition fees are indicative only and are subject to change given individual circumstances at enrolment. Additional fees may apply such as Student service and resource fees

Link to view [Western Australia's VET fees and charges policy](#)

Employer Fee for Service

Please contact training@railtrain.com.au or call 089470 4999 to discuss your training needs and scheduling requirement.