The Civil Trades Certification Practical Experience Guidelines

This document sets out the experience an Applicant for Civil Trades Certification (Trade Cert) is required to demonstrate in order to be eligible to apply for Trade Cert. This has been set by the Civil Trades Certification Board (Board) and is current as at January 2023.

1. Total Hours

An applicant for Trade Certification must demonstrate at least 8000 hours of experience in the civil infrastructure industry. This includes experience as a new starter all the way through to an experienced operator. The experience in the civil infrastructure industry includes: roads (construction and maintenance), earthworks, bridges, tunnels, utilities and pipe installations and other underground services, civil structures, treatment stations and other water infrastructure including irrigation.

2. General Experience Hours

Of the total 8000 hours, 6000 hours can be general experience. As long as the applicant can show they have worked in the civil infrastructure industry for 6000 hours then that is likely to satisfy the requirement.

3. Specialised Experience Hours

The remaining 2000 hours of an applicant's experience must be in the sector in which they seek Trade Certification and at the level of competency equivalent to a Level 4 competency.

A person who operates at Level 4 competency displays the following:

Knowledge	**Skills**	**Attitude**
Broad operational and theoretical knowledge in a field of work or study.	Select and apply solutions to familiar and sometimes unfamiliar problems. Select and apply a range of standard and non-standard processes relevant to the field of work or study.	Self-management of learning and performance under broad guidance Some responsibility for performance of others.

The Board requires that *"candidates demonstrate their 2000 hours of specialised Level 4 experience in all the graduate outcome areas with a minimum of 10% of their time in each graduate outcome area."*

The exception being Forestry Earthworks where the minimum specified hours range from 10% to 20% to reflect industry specific operational graduate outcome requirements.

The 2000 hours required experience, which is allocated across the graduate outcomes for each Civil Trades sector and specialisation, is set out in the following tables.

3.1 Specialised Experience Hours for a Civil Trade Certificate in Road Construction and Maintenance

The following tables set out the allocation of minimum experience required for each strand within the Road Construction and Maintenance sector. This applies for those who hold a (a) New Zealand Certificate in Civil Works (Level 4) or Civil Infrastructure Trades Road Construction and Maintenance with strands in Earthworks, Road Construction, Concrete (non-structural), and Road Maintenance. (b) New Zealand Certificate in Forestry Earthworks or Civil Infrastructure Trades Forestry Earthworks

Earthworks Strand

Graduate outcome area	Minimum hours
Implementing safety and quality assurance requirements	200
Interpreting civil works plans	200
Carrying out materials testing and compaction techniques	200
Protection, maintenance and management of drainage systems	200
Problem-solving and communication skills relevant to civil works operations	200
Earthworks methodology (may include bulk earthworks and subgrade works)	200
Retaining Wall Construction	200
Total hours must equal 2000	

Road Construction Strand

Graduate outcome area	Minimum hours
Implementing safety and quality assurance requirements	200
Interpreting civil works plans	200
Carrying out materials testing and compaction techniques	200
Protection, maintenance and management of drainage systems	200
Problem-solving and communication skills relevant to civil works operations	200
Construction of road pavement layers	200
Retaining Wall Construction	200
Installation of safety barriers	200
Total hours must equal 2000	

Concrete (non-structural) Strand

Graduate outcome area	Minimum hours
Implementing safety and quality assurance requirements	200
Interpreting civil works plans	200
Materials testing and compaction techniques	200
Protect, maintain and manage drainage systems	200
Problem-solving and communication skills relevant to civil works operations	200
Making and placing concrete	200
Constructing kerb and channel and vehicle crossings	200
Placing and finishing concrete	200
Total hours must equal 2000	

Road Maintenance Strand

Graduate outcome area	Minimum hours
Implementing safety and quality assurance requirements	200
Interpreting civil works plans	200
Materials testing and compaction techniques	200
Protect, maintain and manage drainage systems	200
Problem-solving and communication skills relevant to civil works operations	200
Cycle and emergency road maintenance	200
Pavement repairs	200
Maintain road furniture and barrier systems	200
Bridge repairs and maintenance	200
Total hours must equal 2000	

Forestry Earthworks

Graduate outcome area	Minimum hours
Interpret job prescription for earthworks site	300
Construct culverts and structures	300
Co-ordinate maintenance operations	150
Apply environmental requirements	400
Apply health and safety risk assessments	250
Develop health and safety culture	100
Communicate and co-ordinate a work plan	150
Implement communication on site	150
Facilitate quality outcomes	150
Total hours must equal 2000	

3.2 Specialised Experience Hours for a Civil Trade Certificate in Pipe Construction and Maintenance

The following tables set out the allocation of minimum experience required for each strand within the Pipeline Construction and Maintenance sector. This applies for those who hold either a:

(a) New Zealand Certificate in Pipe Installations (Level 4) or Civil Infrastructure Trades Pipeline Construction and Maintenance – Trenched

(b) New Zealand Certificate in Utilities Maintenance (Level 4) or Civil Infrastructure Trades Pipeline Construction and Maintenance with strands in Drinking Water, and Wastewater and Stormwater, and Trenchless Technologies

Trenched Strand

Graduate outcome area	Minimum hours
Communicating and maintaining safety requirements	200
Implementing environmental requirements	200
Interpretation of infrastructure plans, location of services and setting out in accordance with QA requirements	200
Pipe installation (including handling, fitting, structures, alignment)	200
Trench excavation and reinstatement	200
Total hours must equal 2000	

Drinking Water Strand

Graduate outcome area	Minimum hours
Communicating and maintaining safety requirements	200
Implementing environmental requirements	200
Interpretation of infrastructure plans, location of services and setting out in accordance with QA requirements	200
Maintenance and installation for pipes, fittings and structures in accordance with industry standards and specifications	200
Identifying and repairing water reticulation faults (including servicing, rehabilitation, cleaning)	200
Working with water reticulation pumping systems (including leak detection and backflow prevention)	200
Total hours must equal 2000	

Wastewater and Stormwater Strand

Graduate outcome area	Minimum hours
Communicating and maintaining safety requirements	200
Implementing environmental requirements	200
Interpretation of infrastructure plans, location of services and setting out in accordance with QA requirements	200
Maintenance and installation for pipes, fittings and structures in accordance with industry standards and specifications	200
Identifying and repairing water reticulation faults (including blockage clearance, chamber maintenance, prevention of pipe failure, overflow management and clean-up)	200
Working with pumping, wastewater and stormwater systems (including backflow prevention and flow measurement)	200
Rehabilitation, replacement and maintenance of wastewater systems and maintenance and reporting on condition of pump stations.	200
Total hours must equal 2000	

Trenchless Technology Strand

Graduate outcome area	Minimum hours
Communicating and maintaining safety requirements	200
Implementing environmental requirements	200
Interpretation of infrastructure plans, location of services and setting out in accordance with QA requirements	200
Pipe installation (including handling, fitting, structures, alignment)	200
Install underground utilities using trenchless installations technology	200
Total hours must equal 2000	

3.3 Specialised Experience Hours for a Civil Trade Certificate in Road Surfacing

The following tables set out the allocation of minimum experience required for each strand within the Road Surfacing sector. This applies for those who hold a NZ Certificate in Infrastructure Works Bitumen Surfacing Construction Level 4 or Civil Trades infrastructure Road Surfacing Construction.

Bituminous Mixes Strand

Graduate outcome area	Minimum hours
Hazard identification and management of safety and environmental impacts (including identification and notification of those affected by site works)	200
Carrying out surfacing operations using various kinds of surfacing in different contexts	200
Quality control (including documentation, dealing with nonconformances plant selection)	200
Construction of quality bituminous layers (including design, interpreting instructions, construction of bituminous mix layers)	200
Testing and recording samples	200
Total hours must equal 2000	

3.4 Specialised Experience Hours for a Civil Trade Certificate in Infrastructure Piling

The following table sets out the allocation of minimum hours required for the piling sector.

Graduate outcome area	Minimum hours
Integrate health and safety requirements into workplace practices for piling on infrastructure worksites.	200
Implement plans and drawings to complete piling on infrastructure worksites	2500
Monitor site conditions and communicate with stakeholders on site to meet compliance requirements for infrastructure piling	200
Install piles to meet job specifications and quality outcomes on infrastructure worksites	200
Total hours must equal 2000	

3.5 Specialised Experience Hours for a Civil Trade Certificate in Road Marking (testing)

The following table sets out the allocation of minimum hours required for the road marking sector. Certification can only be applied for if the testing strand has also been completed

Graduate outcome area	Minimum hours
Apply health, safety, and environmental management procedures to meet compliance requirements	200
Plan, coordinate and carry out roadmarking work tasks to meet contract specifications	200
Operate an applicator for new roadmarking work to meet contract specifications. -	200
Supervise a roadmarking team to complete daily work activities on a roadmarking site, to meet contract specifications.	200
Supervise a roadmarking team to complete daily work activities on a roadmarking site, to meet contract specifications.	200
Total hours must equal 2000	