

41159**Use digital technologies to improve construction operations**

Kaupae Level	4
Whiwhinga Credit	4
Whāinga Purpose	<p>This skill standard is for people intending to complete qualifications and credentials in construction trades.</p> <p>People with this skill standard have the skills to use digital technologies to improve construction operations for construction tasks.</p> <p>This skill standard aligns with the New Zealand Certificate in Carpentry with optional strand in Metal Roof Cladding Installation (Level 4) [Ref: 2738] and may also contribute to qualifications across the construction environment.</p>

Hua o te ako me Paearu aromatawai | Learning outcomes and assessment criteria

Hua o te ako Learning outcomes	Paearu aromatawai Assessment criteria
1. Use digital tools to monitor and improve construction operations.	a. Digital tools are used to track progress, quality, and productivity in accordance with project and organisational requirements.
	b. Data from digital sources is interpreted to identify opportunities for improved workflow and coordination.
2. Use digital technologies to manage risk to people, plant, and the environment.	a. Digital platforms are used to identify and manage health, safety, and environmental risks in line with industry standards.
	b. Digital reporting tools are used to record and communicate incidents, near misses, or hazards accurately and promptly.
	c. Information from digital monitoring systems is used to support preventative actions and continuous improvement in safety and environmental performance.
3. Apply quality management processes using digital tools.	a. Quality assurance data is collected, recorded, and verified using digital systems in line with project and organisational requirements.
	b. Digital documentation is used to support inspection, sign-off, and compliance processes.
	c. Digital information is maintained and archived to ensure traceability and continuous improvement.

Pārongo aromatawai me te taumata paearu | Assessment information and grade criteria*Assessment specifications:*

Candidates must be capable of consistently using digital tools to access and communicate routine information in a construction environment.

A construction environment is any environment where construction, modification, or maintenance of buildings, structures, or infrastructure assets takes place.

Construction information may include plans, specifications, and schedules.

Digital tools may include but are not limited to – smartphones, tablets, laptops, measurement or layout applications, cloud-based storage systems, project management software, Building Information Modelling (BIM) viewers, and digital forms or checklists.

Industry standards must reflect industry best practice, workplace procedures, and be within acceptable tolerances as defined in New Zealand codes, standards and regulations.

Ngā momo whiwhinga | *Grades available*

Achieved

Ihirangi waitohu | Indicative content

Monitoring and improving construction operations

- Building Information Modelling (BIM) platforms.
- Project management software.
- Scheduling and task management tools.
- Real-time tracking of project progress and productivity.
- Recording and analysing site data for efficiency improvements.
- Using digital dashboards to communicate performance indicators.
- Coordination and communication between trades and subcontractors.
- Reviewing and updating digital plans and specifications.
- Analysing digital data to reduce downtime, rework, and waste.
- Using version control to ensure current documentation is followed.

Managing risk to people, plant, and the environment

- Digital hazard and incident reporting tools.
- Mobile safety inspection apps.
- Digital toolbox meeting systems.
- QR code or NFC systems for equipment safety checks and maintenance.
- Digital tools for tracking waste management, material usage, and site emissions.
- Monitoring noise, dust, and water quality through sensors or digital logs.
- Using digital data to predict and prevent safety or environmental incidents.
- Digital sign-off for safety compliance.

Digital quality management

- Digital quality checklists and inspection forms.
- Photographic verification and digital signatures.
- Identifying trends or recurring issues from digital QA data.
- Linking digital records to compliance and certification requirements.
- Alignment with company quality management procedures.
- Secure digital storage, access, and retrieval of QA data.

Rauemi | Resources

Programme Guidance information available from info@cstisb.nz.

Pārongo Whakaū Kounga | Quality assurance information

Ngā rōpū whakatau-paerewa Standard Setting Body	Construction and Specialist Trades Industry Skills Board
Whakaritenga Rārangi Paetae Aromatawai DASS classification	Planning and Construction > Construction Trades > Core Construction
Ko te tohutoro ki ngā Whakaritenga i te Whakamanatanga me te Whakaōritenga CMR	0120

Hātepe Process	Putanga Version	Rā whakaputa Review Date	Rā whakamutunga mō te aromatawai Last date for assessment
Rēhitatanga Registration	1	26 February 2026	N/A
Kōrero whakakapinga Replacement information	N/A		
Rā arotake Planned review date	31 December 2030		

Please contact Construction and Specialist Trades Industry Skills Board at info@cstisb.nz to suggest changes to the content of this skill standard.