

## 40172 Use computer aided design software to develop and produce joinery detailing manufacturing documentation and drawings

<b>Kaupae   Level</b>	5
<b>Whiwhinga   Credit</b>	30
<b>Whāinga   Purpose</b>	<p>This skill standard recognises the skills required to use computer aided design software to develop and produce joinery detailing manufacturing documentation and drawings.</p> <p>This skill standard aligns with the New Zealand Diploma in Joinery Detailing (Level 5) [Ref: 5113].</p>

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

<b>Hua o te ako   Learning outcomes</b>	<b>Paearu aromatawai   Assessment criteria</b>
1. Use computer aided design software to develop joinery detailing manufacturing documentation and drawings.	a. CAD software is programmed using information from evaluations, and technical information analysis.
	b. Pre-set detailing and estimating functions are selected and used to enter programme technical information into CAD software.
	c. Software library of materials, measurements, technical data, and construction theory and methods, are used to enter data into CAD software.
2. Produce joinery detailing manufacturing documentation and drawings.	a. Requirements for consistency and economies in manufacturing machinery and processes are included in manufacturing documentation.
	b. Design, manufacturing, and workplace requirements are included in manufacturing drawings.
	c. Key conventions, terminology, drawing types, scales, symbols, dimensions, and abbreviations are used in manufacturing drawings and documentation.
	d. Stakeholders are consulted to confirm the accuracy of manufacturing drawings and documentation.

## Pārongo aromatawai me te taumata paearu | Assessment information and grade criteria

### Assessment specifications:

Evidence presented for assessment against this skill standard must be from one joinery detailing project at a joinery manufacturing workplace, and reflect professional competence confirmed by a person with current expertise in joinery detailing.

Professional competence refers to the ability to work independently to meet the ethical and professional expectations of industry and clients on dynamic and varied projects operating in a commercial environment.

Documentation refers to bill of materials, Computer Numerical Control (CNC) files, cutting lists, plans (site/shop/design drawings, schedules), workplace processes and procedures, material and component list for on-site assembly, producer statement.

Stakeholders can include both internal and external, architect, designer, client, production team, builder, installer, joiner, joinery machine operators, sub-contractors, other joinery detailers, supervisor.

Workplace requirements refer to the documented procedures specific to a workplace which set out the standard and the required practices of that workplace. This may include job specifications, processes, procedures, practices, manufacturer recommendations, technical data sheets and material safety data sheets.

### Ngā momo whiwhinga | Grades available

Achieved.

### Ihirangi waitohu | Indicative content

#### Technical information and data

- The parameters of data input to satisfy the requirements of the CAD software.
- The requirements and processes used to locate and pre-set detailing and estimating functions used in computer aided design software.
- The features of, and ways to interpret the graphical interface of proprietary design software.
- Structure of the CAD software and how the parts work together.

#### Manufacturing documentation and drawings

- Material quantities, lengths, widths, thicknesses, additional notes for the efficient, consistent product, and economic manufacture of joinery work.
- The types, purpose, and features of documentation and drawings as an output of the proprietary design software.
- Economy of design and consideration of estimator budget requirements.
- Using the proprietary design software and providing detailed plans and documentation to relevant parties.

### Rauemi | Resources

Joinery Detailing Programme Guidance document available from [qualifications@waihangaararau.nz](mailto:qualifications@waihangaararau.nz).

### Pārongo Whakaū Kounga | Quality assurance information

Ngā rōpū whakatau-paerewa |  
Standard Setting Body

Waihanga Ara Rau Construction and  
Infrastructure Workforce Development  
Council

<b>Whakaritenga Rārangi Paetae Aromatawai  </b> DASS classification	Manufacturing > Joinery > Core Skills
<b>Ko te tohutoro ki ngā Whakaritenga i te Whakamanatanga me te Whakaōritenga  </b> CMR	0073

<b>Hātepe  </b> Process	<b>Putanga  </b> Version	<b>Rā whakaputa  </b> Review Date	<b>Rā whakamutunga mō te aromatawai  </b> Last date for assessment
<b>Rēhitatanga  </b> Registration	1	26 September 2024	N/A
<b>Kōrero whakakapinga  </b> Replacement information	N/A		
<b>Rā arotake  </b> Planned review date	31 December 2029		

Please contact Waihanga Ara Rau Construction and Infrastructure Workforce Development Council at [qualifications@waihangaararau.nz](mailto:qualifications@waihangaararau.nz) to suggest changes to the content of this skill standard.