



Australian Government

FWPCOT4209 Design timber structures

Release: 1

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Modification History

Release	Comments
Release 1	This version released with FWP Forest and Wood Products Training Package Version 6.0.

Application

This unit of competency describes the skills and knowledge required to interpret plans, select options and detail design of timber structures including roof truss, wall frame and floor components for solid brick, brick veneer and timber frame domestic houses and free-standing or attached timber structures such as pergolas.

The unit applies to designers, customer service/sales assistants (retail or wholesale), customer service officers, sales and merchandising team leaders, sales and merchandising team leaders (timber products) and timber advisors who use specialised knowledge to complete routine and non-routine tasks, and use their own judgement to deal with predictable and sometimes unpredictable problems.

No licensing, legislative or certification requirements apply to this unit at the time of publication.

Pre-requisite Unit

Nil

Unit Sector

Common Technical (COT)

Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Interpret construction plans	1.1 Determine type of structure, building use and site location from construction plans and specifications 1.2 Interpret and assess construction plans, drawing views and specifications to identify loading information, dimensions and design

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	<p>details</p> <p>1.3 Obtain additional information and data from appropriate building codes, standards and regulations</p> <p>1.4 Identify design or construction limitations or relaxation requirements</p>
2. Develop and select timber structure layout options	<p>2.1 Design a functional timber truss, frame and floor structure, and draw a pictorial image based on design requirements</p> <p>2.2 Transfer fixed design details to component layout drawings</p> <p>2.3 Nominate engineered or pre-assembled components in line with budgetary constraints</p> <p>2.4 Define design sizes and spacing details in line with industry codes and standards</p> <p>2.5 Select layouts and spacing of individual structural members progressively to meet design requirements</p> <p>2.6 Fix component sizes to clarify and firm design options</p>
3. Detail timber structure component design	<p>3.1 Calculate, scale or extract physical dimensions for components from applicable code tables</p> <p>3.2 Interpret effective lengths and spans for individual components from layout, and select cross-sections in line with applicable codes</p> <p>3.3 Select material options for suitability, availability and cost effectiveness, and use consistently throughout design</p> <p>3.4 Provide alternative materials and sizes for components within scope of design and production requirements</p> <p>3.5 Design component placement and spacing to meet construction plans and specifications</p> <p>3.6 Provide design specifications for engineered or pre-assembled components in line with manufacturer recommendations</p> <p>3.7 Present detailed and accurate production information, dimensions and notes within drawing views</p> <p>3.8 Complete and maintain design records and documentation in line with workplace procedures</p>
4. Provide design and production advice	<p>4.1 Advise production and installation personnel on design, production, assembly and installation requirements</p> <p>4.2 Produce clear and detailed documents to support interpretation of</p>

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	drawings and assist with production and/or installation

Foundation Skills

This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.

Skill	Description
Oral communication	<ul style="list-style-type: none">• Provide clear, unambiguous information about designs and assembly requirements
Numeracy	<ul style="list-style-type: none">• Interpret numerical data from code tables involving height, length, angles, shape and load

Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FWPCOT4209 Design timber structures	FWPCOT4202 Design timber structures	Application clarified Elements renamed Performance Criteria, Foundation Skills and Assessment Requirements updated	Equivalent

Links

Companion Volumes, including Implementation Guides, are available at VETNet: -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=0d96fe23-5747-4c01-9d6f-3509ff8d3d47>