



Australian Government

FWPTMM4205 Prepare and advise on a broad range of timber roof truss details using computers

Release: 1

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Modification History

Release	Comment
1	Replaces equivalent unit FPITMM4205A Prepare and advise on a broad range of timber roof truss details using computers, which was first released with FPI11 Forest and Forest Products Training Package Version 2.2. This is the first release of this unit in the new standards format.

Application

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Pre-requisite Unit

Nil

Unit Sector

Timber Manufactured Products

Elements and Performance Criteria

<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the range of conditions.</i>
1. Interpret plans or designs and create layouts	1.1 Identify and verify design inputs. 1.2 Check computer software for currency and use to prepare roof truss layouts and production documentation. 1.3 Resolve design requirements outside software limitations.

2. Review and test design options	2.1 Review and test roof truss layouts for optimal suitability for stakeholders. 2.2 Use effective processes to optimise roof truss layout and ensure stakeholder objectives are met.
3. Provide advice on design, production and installation issues	3.1 Prepare and document production and installation advice. 3.2 Communicate documented advice to all stakeholders, prior to and following installation.
4. Manage roof truss outputs	4.1 Certify roof truss design layouts in line with regulatory and organisational requirements and communicate to relevant stakeholders. 4.2 Store and maintain drawings and documentation in line with organisational procedures.

Foundation Skills

This section describes those core and employment skills that are essential to performance and are not explicit in the performance criteria.

- interpret numerical data from designs and plan specifications involving height, length , angles, shape, pitch and load
- input accurate numerical data into software systems.
- interpret detailed and unfamiliar designs, plans and technical specifications.
- input accurate written text into software systems
- produce accurate and detailed documents to support interpretation of drawings and assist with production and installation.
- plan and organise own work in logical sequence and manage own timing and productivity to complete drawings and documents within deadlines.
- recognise software design limitations and resolve.
- work as part of an internal and external design and construction team to produce compliant drawings and production documents.
- use a computer, keyboard and custom software to complete roof truss drawings, production and installation documents.

Range of Conditions

Not Applicable

Unit Mapping Information

FPITMM4205A Prepare and advise on a broad range of timber roof truss details using computers

Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=0d96fe23-5747-4c01-9d6f-3509ff8d3d47>

Assessment Requirements for FWPTMM4205 Prepare and advise on a broad range of timber roof truss details using computers

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Performance Evidence

A person demonstrating competency in this unit must satisfy all of the elements, performance criteria and foundation skills of this unit. If a specific volume or frequency is not stated below, then evidence must be provided that the following requirements have been performed on at least one occasion:

- follow organizational policies and procedures relevant to preparing and advising on a broad range of timber roof truss details using computers
- prepare and advise on a broad range of timber roof truss details using computers
- prepare roof truss layouts and production documentation for roof truss types across the following list:
 - “A” type truss
 - truncated standard
 - raking truss
 - girder truss
 - truncated girder
 - jack girder
 - rafter truss
 - gable truss
 - saddle truss
 - bowstring truss
 - vaulted truss
 - truncated saddle

-

Knowledge Evidence

A person competent in this unit must be able to demonstrate knowledge of:

- content and application of applicable regulations for certifying roof truss design layouts
- limits of personal ability and authority for non-conforming design including
 - Building Codes of Australia
 - Australian Standards
 - organisational quality standards
- common industry standard sizes, profiles and spacing dimensions
- shapes of common roof types:
 - bell
 - bowstring
 - dual pitch
 - gabled
 - hipped
 - mansard
 - skillion
- interaction between roof truss types
- design inputs including:
 - identified standards
 - pitching lines and load bearing points
- and design factors including:
 - roof material loads
 - wind zone and applied loads
 - commercial or residential output
 - additional roof loading
 - post disaster structures
 - roof shape
 - roof lines
- for the drawing software:
 - available drawing types
 - design limitations
 - system functions and capabilities
 - methods to input and amend design factors and other data
 - methods to store and retrieve drawings
- organisational procedures specific to producing drawings and documents and advising on roof truss details:
 - communication reporting lines for internal and external stakeholders

- certifying roof truss layouts
- filing computerised drawings and documentation
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Assessment Conditions

The following resources must be made available:

- computers, keyboards and industry current software programs used to produce drawings and documentation for roof truss layouts
- applicable regulations for certifying roof truss design layouts
- industry and organisational codes and standards for roof trusses
- designs, plans and technical specifications for roof trusses
- templates for developing production and installation advice
- template certification documents
- relevant personnel for the purposes of communicating information
- organisational procedures for producing drawings and documents and advising on roof truss details

Competency is to be assessed in the workplace or a simulated environment that accurately reflects performance in a real workplace setting.

Assessor requirements

Assessors must:

- hold the appropriate assessor competency standards as outlined in regulations; and
- be able to demonstrate vocational competencies at least to the level being assessed; and
- be able to demonstrate how they are continuing to develop their VET knowledge and skills as well as maintaining their industry currency and assessor competence.

Links

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