



Australian Government

FWPTMM3204 Interpret designs to prepare timber roof truss drawings and documents using computers

Release: 1

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Modification History

Release	Comment
1	Replaces equivalent unit FPITMM3204A Interpret designs to prepare timber roof truss drawings and documents 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

This unit of competency describes the outcomes required to interpret designs and plans to produce roof truss drawings and production documents using computers in a timber production or design setting.

The unit applies to Production Manager, Designer, Timber Manufactured Products Technician.

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

Pre-requisite Unit

Nil

Unit Sector

Timber Manufactured Products

Timber Merchandising

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>
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1. Interpret plans and designs	1.1 Gather information about designs and plans, design factors and specifications. 1.2 Access and interpret industry and organisational codes and standards to ensure production of compliant drawings and production documents. 1.3 Identify stakeholders and consult where clarification is needed.
2. Create roof truss layouts	2.1 Design roof trusses to ensure compliance with identified standards. 2.2 Check computer software for currency. 2.3 Input design factors and data to software. 2.4 Identify pitching lines and load bearing points. 2.5 Input roof shapes and create roof truss layout. 2.6 Refer design requirements outside software limitations to appropriate personnel for resolution.
3. Review roof truss layouts	3.1 Identify available materials and other production efficiencies and amend designs. 3.2 Review designs to ensure identified standards are maintained. 3.3 Follow organisational procedures to refer design variations to relevant stakeholders where design varies from identified standards.
4. Create outputs	4.1 Prepare drawings and documentation in line with identified standards. 4.2 Store drawings and documentation and communicate to relevant stakeholders.

Foundation Skills

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

Numeracy skills to:	- interpret numerical data from designs and plan specifications involving height, length, angles, shape, pitch and load - identify and interpret numerical requirements within industry and organisational codes and standards - input accurate numerical data into software systems - recognise and interpret computer outputs of non-conforming measurements.
Oral communication skills to:	ask questions and actively listen to clarify contents of designs, plans and technical specifications

	clearly articulate reasons for variations from industry and organisational codes and standards.
Reading skills to:	- interpret: - WHS procedures, industry and organisational codes and standards - designs, plans and technical specifications.
Writing skills to:	- input accurate written text into software systems - produce accurate and detailed documents to support interpretation of drawings and assist with production.
Planning and organising skills to:	plan and organise own work in logical sequence and manage own timing and productivity to complete drawings and documents within deadlines.
Problem-solving skills to:	recognise software design limitations and non-conforming designs and refer to others for resolution.
Teamwork skills to:	work as part of an internal and external design and construction team to produce compliant drawings and production documents.
Technology skills to:	use a computer, keyboard and software to complete roof truss drawings and production documents.

Range of Conditions

Not Applicable

Unit Mapping Information

FPITMM3204A Interpret designs to prepare timber roof truss drawings and documents 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 FWPTMM3204 Interpret designs to prepare timber roof truss drawings and documents 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 organisational policies and procedures relevant to interpreting plans and designs to prepare roof truss drawings and production documents using computers
- prepare roof truss drawings and production documents suitable for manufacture of roof trusses

Knowledge Evidence

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

- content and application of industry and organisational codes and standards for timber roof trusses including
 - Building Code of Australia
 - Australian Standards
 - organizational quality standards
- limits of ability and authority with respect to non-conforming design
- roof trusses including:
 - A Type truss
 - Truncated standard truss

- Girder truss
- Truncated girder
- Jack truss
- Rafter truss
- Gable truss
- Saddle truss
- Raking truss
- common industry standard sizes, profiles and spacing dimensions
- shapes of common roof types:
 - bell
 - bowstring
 - dual pitch
 - gabled
 - hipped
 - mansard
 - skillion
- 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 policies and procedures specific to producing drawings and documents using computers:
 - workplace health and safety
 - communication reporting lines for internal and external stakeholders
 - filing computerised drawings and documentation

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
- industry and organisational codes and standards for roof trusses
- designs, plans and technical specifications for roof trusses
- relevant personnel for the purposes of communicating information
- documents, spreadsheets and commonly used proforma documents
- organisational policies and procedures for producing drawings and documents using computers

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.
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