Australian Government

FWPTMM5202 Develop, trial and evaluate prototypes

Release: 2

FWPTMM5202 Develop, trial and evaluate prototypes

Modification History

Release	Comments
Release 2	This version released with FWP Forest and Wood Products Training Package Version 3.0.
Release 1	This version released with FWP Forest and Wood Products Training Package Version 2.0.

Application

This unit of competency describes the outcomes required to develop, from design concepts, detailed prototype construction plans, specifications and work orders for use during trial construction phase. It also covers the outcomes required to coordinate the construction of prototypes and to complete evaluation and reporting requirements. Work is completed in a forest products factory setting.

The unit applies to Designer (Manufacturing and Engineered Wood Products), Production Manager (Timber Truss & Frame), Designer (Timber Truss & Frame)

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

Element *Elements describe the essential outcomes.*	Performance Criteria *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.*
1. Develop prototype	1.1 Access and interpret design concepts or specifications.

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specifications	1.2 Prepare and document detailed prototype construction plans, specifications and work order for use during trial construction phase. 1.3 Specify prototype purpose and outline requirements from design concepts or customer requirements. 1.4 Complete a detailed analysis of options for materials and construction in line with organisational procedures and environmental protection practices. 1.5 Specify construction materials, requirements and methods based on option selected.
2. Plan and prepare prototype for construction	2.1 Source materials and hardware and other resources in line with site procedures and budgetary limits. 2.2 Assess and select suitable resources in line with options for materials detailed in prototype construction plan and specifications. 2.3 Source and select appropriate tools and equipment and check for operational effectiveness in line with manufacturer's recommendations. 2.4 Plan and document stages of the construction process. 2.5 Source, construct or prepare set-up jigs required for construction.
3. Produce the prototype	3.1 Monitor construction process to ensure construction plan is followed. 3.2 Ensure problems, issues, modifications and improvements are documented. 3.3 Analyse information in reports completed by construction personnel on prototype construction processes, problems, effectiveness of purpose and efficiency of construction methods. 3.4 Identify modifications or improvements to design and construction plan arising from construction of the prototype. 3.5 Evaluate results of construction process and make recommendations for future construction.
4. Trial and evaluate the prototype	4.1 Develop and document specific trial objectives and processes. 4.2 Inform personnel involved in the trial and evaluation of their responsibilities and functions. 4.3 Work with construction personnel to prepare and certify trial equipment, tools and materials prior to use. 4.4 Complete prototype trials in consultation with construction personnel. 4.5 Evaluate trial results, determine and document recommendations for future production.

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	4.6 Maintain accurate records of trial and evaluation 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.	
Learning skills to:	• experiment with prototypes and evaluate trial outcomes to inform new production possibilities.
Numeracy skills to:	• calculate detailed dimension specifications for prototypes and clearly represent in construction plans.
Oral communication skills to:	• provide clear and unambiguous production instructions to others • consult with and seek feedback from other personnel involved in trials.
Reading skills to:	• interpret detailed and unfamiliar design concepts and reports on construction processes and problems.
Writing skills to:	• produce unambiguous construction plans, specifications and work orders in a style and format easily understood by construction team • clearly and accurately report on evaluations of trial results • clearly represent rationale for recommended changes to future production requirements.
Planning and organising skills to:	• efficiently and logically manage operational logistics for production trials.
Problem-solving skills to:	• analyse construction problems, consider various solutions and determine recommended changes.
Teamwork skills to:	• take a lead role in managing a team of construction personnel.
Technology skills to:	• use a computer, keyboard and software to prepare construction plans, specifications, work orders and trial reports.

Unit Mapping Information

Code and title current version	**Code and title previous version**	**Comments**	**Equivalence status**
FWPTMM5202 Develop, trial and	FWPTMM5202 Develop, trial and	Minor typographical errors corrected.	Equivalent unit

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Code and title current version	Code and title previous version	Comments	Equivalence status
evaluate prototypes Release 2	evaluate prototypes Release 1		

Links

Companion Volume implementation guides are found in VETNet - https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=0d96fe23-5747-4c01-9d6f-3509ff8d3d47

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