Modification history

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| Release | Comments |
| Release 1 | This version released with FWP Forest and Wood Products Training Package Version 4.0. |

| UNIT CODE | FWPTMM5XXX Assess timber product designs for feasibility |
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| Application | This unit of competency describes the skills and knowledge required to systematically analyse, assess and determine the feasibility of timber product designs for use into a commercially viable production.  The unit applies to individuals who work as timber designers and production managers in a timber manufacturing facility. They generally demonstrate autonomy, judgement and defined responsibility in known or changing contexts and within broad but established parameters.  No licensing, legislative, regulatory, or certification requirements apply to this unit at the time of publication. |
| Prerequisite Unit | Nil |
| Unit Sector | Timber Manufactured Products  Timber Merchandising |

| Elements | Performance Criteria |
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| Elements describe the essential outcomes. | Performance criteria describe the performance needed to demonstrate achievement of the element. |
| 1. Analyse design objectives | 1.1 Identify design purpose and investigate potential market for the product  1.2 Analyse intended production materials and processes |
| 2. Determine design assessment criteria | 2.1 Establish criteria for assessment of product material options  2.2 Establish criteria for assessment of product functionality  2.3 Establish criteria for assessment of production process options considering impact of these on production operations  2.4 Establish criteria for assessment of safety and potential liability issues  2.5 Establish criteria for assessment of costs and marketability  2.6 Determine weighting of scores for each criteria according to importance of issue |
| 3. Apply the assessment criteria | 3.1 Select potential and actual products competing in the market place for comparative purposes  3.2 Score and grade design against established criteria and record results  3.3 Score and grade competing products against established criteria and record results  3.4 Record overall assessment results |
| 4. Establish feasibility and options | 4.1 Analyse assessment results for the design and competing products  4.2 Reject designs which show poor assessment results and provide no potential for variation  4.3 Identify designs which show poor assessment results but provide potential options for variation and refer to appropriate personnel  4.4 Identify designs which satisfy criteria and indicate potential for success  4.5 Conditionally endorse feasible designs, record conditions and refer to appropriate personnel  4.6 Record assessment outcomes, maintain and process reports in line with workplace procedures |

| 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. | |
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| Skill | Description |
| Writing | * document qualitative and quantitative assessment criteria |
| Numeracy | * calculate the total score for the assessment through simple addition |
| Navigate the world of work | * source, collect and organise data to inform design assessment * efficiently and logically manage operational logistics for the assessment process |
| Interact with others | * use modes of communication suitable to purpose to confirm and clarify understanding |
| Get the work done | * use a computer, keyboard and software to prepare assessment documents and reports |

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| Unit Mapping Information | | | |
| Code and title current version | Code and title previous version | Comments | Equivalence status |
| FWPTMM5XXX Assess timber product designs for feasibility | FWPTMM5201 Assess product feasibility of designs | Updated range of products in performance evidence and foundation skills; clarified intent of unit; changed unit title and code for consistency with the updates and compliance | Equivalent unit |

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

| TITLE | Assessment requirements for FWPTMM5XXX Assess timber product designs for feasibility |
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| Performance Evidence | |
| An individual demonstrating competency must satisfy all of the elements, performance criteria and foundation skills of this unit. There must be evidence that the individual has:   * assessed and determined the feasibility of designs for one or more of the following product types: * pallets * crates * trellises * stairs * doors * windows * frames * beams * roof trusses * floor systems * wall frames * panelised and modular prefabricated timber building systems * developed a set of assessment criteria and weighted scoring system to include details of: * functionality * safety * environmental impacts of product use * environmental impacts of product production * cost effectiveness of production * marketability * competiveness with similar products on the market * completed a detailed and accurate report for each assessment providing the outcomes. | |

| Knowledge Evidence |
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| An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:   * product feasibility issues, including: * environmental impacts of product use and potential to minimize * functionality – ease of use and application together with its relevance for desired purpose * safety – potential to cause danger to someone or something and potential for litigation against the enterprise * environmental impacts of product production and associated cost to the business * cost effectiveness of production * marketability - potential for sale of the product * competiveness with similar products on the market * sources of information on competitors’ current products and price structure * features, at an in-depth level of understanding, of production processes: * options for materials * construction methods and sequence * types of tools and equipment used for construction * format, content and use of criteria for assessing feasibility of designs: * qualitative and quantitative assessment criteria * scoring systems * weighting of scores according to importance of issue * workplace procedures for: * determining design assessment criteria and completing assessments * communication reporting lines * recording and reporting assessment outcomes. |

| Assessment Conditions |
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| Assessment of skills must take place under the following conditions:   * physical conditions: * skills must be demonstrated in an environment that accurately represents workplace conditions * resources, equipment and materials: * computers, keyboards and software programs used to produce assessment documents and reports on assessment outcomes * workplace procedures for design assessment activities * comprehensive information about the design concept * templates for assessment documents and reports on assessment outcomes * relationships: * relevant personnel for the purposes of communicating information.   Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards. |

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