

Unit of Competency CPCCCA3009

Construct advanced roofs

Application

This unit of competency specifies the skills and knowledge required to plan, prepare, set out and construct pitched roofs on irregular plan building shapes, meeting all relevant requirements of the National Construction Code (NCC), Australian Standards, work health and safety (WHS), and Commonwealth and state or territory legislation.

The unit includes gable, hip, hip and valley, or combinations of these in roofs that are applied to different types and styles of buildings. The roofs may have skewed, splayed or octagonal ends, may contain two separate roof pitches in the one structure, and have varying eave widths.

Completion of the general construction induction training program specified by the model Code of Practice for Construction Work is required for any person who is to carry out construction work. Achievement of CPCCWHS1001 *Prepare to work safely in the construction industry* meets this requirement.

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

Prerequisite Units

CPCCWHS2001 Apply WHS requirements, policies and procedures in the construction industry.

CPCCCA3007 Construct pitched roofs

Elements and Performance Criteria

1. Plan and prepare.	<ul style="list-style-type: none">1.1 Read and interpret work instructions and plan sequence of work.1.2 Plan all work to comply with laws and regulations, the National Construction Code (NCC), Australian Standards, work health and safety (WHS) and environmental requirements, manufacturers' specifications, workplace requirements, drawings and specifications.1.3 Select tools and equipment, check for serviceability and report any faults.1.4 Select and use personal protective equipment (PPE) for each part of the task.1.5 Inspect work site, locate services, assess hazards and apply risk controls, including required signage and barricades.1.6 Select materials required for task, calculate quantities, handle safely and prepare and position ready for use.
2. Set out, prepare and erect roof members.	<ul style="list-style-type: none">2.1 Set out and check position of members on top of plates.2.2 Determine bevels for all roof members.2.3 Set out pattern rafter and cut to length allowing for overhang.2.4 Mark main ridge boards and cut to length.2.5 Cut common rafters to length.2.6 Erect common rafters in sequence.2.7 Calculate length of hip and valley rafters.2.8 Cut and fix hip and valley rafters.2.9 Cut and fix creeper rafters allowing for overhang.
3. Install roof support.	<ul style="list-style-type: none">3.1 Determine lengths for under purlins.3.2 Cut and install under purlins.

	3.3	Measure, cut and install struts to under purlins, hips, valleys and ridges.
	3.4	Install collar ties and tie-downs to span tables in <i>AS 1684 Residential timber-framed construction</i> .
	3.5	Fit trimmers to gable ends to take gable end rafter and barge board.
	3.6	Cut and fix valley boards.
4. Clean up.	4.1	Clean up, meeting all legislative and workplace requirements for safety, waste disposal and materials handling.
	4.2	Check, maintain and store tools and equipment and report any faults.

Foundation skills

Foundation skills essential to performance are explicit in the performance criteria of this unit of competency.

Unit Mapping Information

Supersedes and is equivalent to CPCCCA3009B Construct advanced roofs.

Links

Companion Volume Implementation Guide:

<https://vetnet.education.gov.au/Pages/TrainingDocs.aspx?q=7e15fa6a-68b8-4097-b099-030a5569b1ad>

Assessment Requirements for CPCCCA3009 Construct advanced roofs

Performance Evidence

To demonstrate competency, a candidate must meet the performance criteria of this unit by constructing a roof, or a series of roofs, totalling a minimum of 30 square metres. These must include:

- a splayed end incorporating a hip end
- a splayed end incorporating a gable end
- incorporation of an octagonal end
- an intersection with another roof of a different pitch
- varying eave widths along the roof's length.

Knowledge Evidence

To be competent in this unit, a candidate must demonstrate knowledge of:

- compliance requirements of the National Construction Code and Australian Standards, including AS:1684 Residential timber-framed construction, relevant to constructing advanced roofs
- workplace quality policies and standards relevant to constructing advanced roofs
- safety requirements for constructing advanced roofs
- types of tools and equipment required for constructing advanced roofs
- processes for determining the following for pattern rafters:
 - o vertical height above birdsmouth
 - o length of rafters for pitch of roof
 - o pitch and plumb cut for rafters
- ridge boards:
 - o abutment joints scarfed or butt jointed
 - o those marked for rafter positions from wall plates
- plans, specifications and drawings for constructing advanced roofs
- processes for the calculation of material requirements for constructing advanced roofs
- roof calculations for lengths, quantities and pitch for constructing advanced roofs
- roof geometry
- roof set-out
- roof types and design.

Assessment Conditions

Assessors must meet the requirements for assessors contained in the Standards for Registered Training Organisations.

This unit must be assessed in the workplace or a close simulation using realistic workplace conditions and standards, materials, activities, responsibilities, procedures, safety requirements and environmental considerations.

Links

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