



Australian Government

AHCGRI401 Construct roof gardens

Release: 1

AHCGR1401 Construct roof gardens

Modification History

Release	Comments
Release 1	This version released with AHC Agriculture, Horticulture and Conservation and Land Management Training Package Version 6.0.

Application

This unit of competency describes the skills and knowledge required to construct designed roof gardens to comply with regulatory authorities' building regulations, standards and codes, and meet design plans and specifications.

The unit applies to individuals who build or install roof gardens on new or existing residential or commercial buildings in consultation with architects, engineers and other building and/or landscape and horticultural professionals.

This unit of competency is suitable for individuals dealing with predictable and unpredictable problems and deciding on solutions to a range of complex problems during the building or installation process through research, analysis and consultation.

Roof garden installation or construction must meet all regulatory requirements of national, state, territory and local government authorities and building regulations, standards and codes.

Licensing, legislative or certification requirements may apply to this unit in some jurisdictions depending on the location of the work and/or plant and equipment used. Users are advised to check with the relevant regulatory authorities.

Pre-requisite Unit

Nil

Unit Sector

Green Infrastructure (GRI)

Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Plan and prepare	1.1 Interpret roof garden design plans and specifications, check

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	permits and identify and resolve any discrepancies with designer and/or associated specialists if applicable 1.2 Complete job safety and environmental analysis (JSEA) or Safe Work Method Statement (SWMS), identify potential hazards and apply control measures 1.3 Determine job priorities, and sequence job tasks in consultation with others on site 1.4 Calculate material and component quantities and check material availability with suppliers 1.5 Schedule delivery and discuss site access and method of locating material onsite with appropriate persons 1.6 Select plant, equipment and tools, check for serviceability and rectify and report any faults, and confirm required operator certifications, if applicable 1.7 Select, correctly fit and use personal protective equipment (PPE) 1.8 Check delivered materials and components for conformity, and report any discrepancies or damage to appropriate person
2. Construct roof garden	2.1 Establish finished heights, levels and falls from datum 2.2 Confirm waterproofing installation to the specified area by specialist waterproofer using approved materials and methods has been inspected and certified 2.3 Set out and install drainage system, and check for leaks 2.4 Install soil profile, ensuring interface between profile layers is uniform and unbroken 2.5 Consolidate each soil profile layer to reflect the final contour 2.6 Set out and install irrigation system according to specifications 2.7 Plant vegetation according to designer and/or supplier establishment information 2.8 Anchor plants and/or roof garden components as required according to anchoring system design
3. Complete roof garden construction	3.1 Clear the work area by disposing of, reusing or recycling materials 3.2 Clean tools and equipment and check for serviceability and report damage or defects to appropriate person 3.3 Store tools and equipment according to workplace and

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	environmental requirements

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.

Skill	Description
Reading	Access and extract information from plans, specifications and regulatory information
Oral communication	- Use clear language and industry terminology to determine and confirm construction requirements with suppliers and designers - Give and receive instructions to work effectively with others and ensure safe work practices - Use correct industry terminology to report damaged or defective tools and equipment
Numeracy	Use measurements and formulas to calculate material quantities

Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
AHCGR1401 Construct roof gardens	Not applicable	The unit has been created to address an emerging skill or task required by industry	Newly created

Links

Companion Volumes, including Implementation Guides, are available at VETNet: - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCGR1401 Construct roof gardens

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Performance Evidence

An individual demonstrating competency must satisfy all of the elements and performance criteria in this unit.

There must be evidence that the individual has safely constructed one roof garden with a minimum area of 4 square metres.

In completing the above, there must be evidence that the individual has:

- sequenced the building and installation process to efficiently and effectively complete the project with minimum disruption to residents and/or the community
- complied with design plans and specifications, relevant building codes and standards, and regulatory requirements
- installed systems and components to manufacturers' specifications and without damage.

Knowledge Evidence

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:

- green infrastructure construction requirements for:
- maintaining integrity of waterproofing materials
- drainage systems
- irrigation systems
- storing and recycling water systems
- lighting and/or air flow systems
- anchoring plants and components
- site management and materials handling and storage
- components of roof garden construction
- risks associated with roof garden construction
- professional practice requirements in roof garden construction, including:
 - limitations and boundaries
 - roles and responsibilities of building professionals and authorities

- planting methods that comply with the growing requirements of individual plant species and cultivars
- initial establishment needs of plants used in roof gardens
- national, state, territory and local authority regulations, policies and procedures and permits relevant to roof garden construction
- national building regulations, standards and codes relevant to roof garden construction
- current and relevant work health and safety and environmental requirements relevant to roof garden construction
- plant, equipment, hand and power tools, and operator certification requirements for operation, for construction of roof garden.

Assessment Conditions

Assessment of the skills in this unit of competency must take place under the following conditions:

- physical conditions:
 - skills must be demonstrated in a green infrastructure workplace or an environment that accurately represents workplace conditions
- resources, equipment and materials:
 - plant, equipment and power tools relevant for roof garden construction
 - personal protective equipment
- specifications:
 - specific organisational policies, procedures and processes including work health and safety and environmental documentation relevant to roof garden construction
 - building regulations, standards and codes
- relationships:
 - client or team members, designer or associated specialists to confirm construction requirements.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, framework and/or standards.

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