



Australian Government

AHCPER403 Design an urban permaculture system

Release: 1

AHCPER403 Design an urban permaculture system

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to design an urban system. It requires the ability to negotiate with clients to develop a permaculture design brief, undertake site analysis, develop design concepts and produce final design documentation.

All work is carried out to comply with workplace procedures.

This unit applies to individuals who analyse information and exercise judgement to complete a range of advanced skilled activities and demonstrate deep knowledge in a specific technical area. They have accountability for the work of others and analyse, design and communicate solutions to a range of complex problems.

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

Pre-requisite Unit

Nil.

Unit Sector

Permaculture (PER)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Develop a design brief for an urban permaculture system	1.1 Initiate or respond to contact with the client when appropriate 1.2 Consult with the client to establish purpose, needs and requirements of design 1.3 Develop a design brief for an urban permaculture system in consultation with the client 1.4 Negotiate cost structures and timelines with the client

Element	Performance criteria
2. Undertake design analysis	2.1 Obtain existing maps, geospatial data and aerial photographs of property 2.2 Survey area included in Zones 1 and (if present) 2 to provide information not on existing maps using suitable survey tools and equipment 2.3 Prepare a site plan 2.4 Record site assessment on the site plan 2.5 Undertake bioregional analysis of the site 2.6 Undertake research of potential permaculture design elements 2.7 Choose appropriate permaculture design elements 2.8 Revise brief with client using completed research and analysis
3. Prepare a design concept	3.1 Determine an appropriate permaculture system concept 3.2 Prepare conceptual design drawings to illustrate conceptual themes and patterns informing the location and layout of proposed design elements 3.3 Compile a bill of quantities 3.4 Prepare a list of plant and animal species and varieties suitable for the chosen concept 3.5 Prepare a preliminary budget for conceptual design 3.6 Present the concept plan in a consistent graphic style 3.7 Consult the client and agree on options and approaches for design development 3.8 Review and revise concepts, elements and the design brief after taking feedback from client
4. Produce final design	4.1 Design an urban permaculture system based on the design brief, research, analysis, chosen elements and concepts 4.2 Produce detailed urban permaculture design documents 4.3 Present design plans, drawings and documents to the client 4.4 Take feedback from the client and revise or modify design as required

Foundation Skills

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

Range of Conditions

Unit Mapping Information

New unit - equivalent to QLD124DES03B.

Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCPR403 Design an urban permaculture system

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Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- draw permaculture and landscape plans
- identify urban permaculture design solutions
- analyse zones and sectors of site
- develop design concepts
- develop detail and construction drawings
- develop planting schedules, budget and bill of quantities
- develop a final design
- present a design to a client

Knowledge Evidence

The candidate must demonstrate knowledge of:

- elements of urban permaculture design
 - Zones 1 and 2, as the furthest areas represented on the plan (otherwise it is a rural design)
 - needs supplied by other zones, even if they are supplied off site
 - sector analysis
 - bioregional analysis
 - design which may utilise existing architects' drawings or local maps and plans
- principles of permaculture
- strategies in urban permaculture design
- edible landscapes and aesthetics in design
- public landscapes and community garden design
- design brief

- statement of scope of design
- statement of client needs and requirements
- list of project elements
- list of assessable tasks
- options for dealing with client needs and requirements
- design analysis and research techniques
- plan interpretation and map reading
- site analysis
 - onsite measurement of site boundaries
 - mapping of boundaries to scale to a plan drawing
 - mapping of contour lines to a scale plan drawing
 - measurement and location of existing infrastructure and features on site
 - mapping of existing infrastructure and features to a scale plan drawing
 - measuring and plotting location of services (power, water, sewer, gas)
 - measuring and plotting location of meters or access points
- site surveying methods and tools
 - surveying instruments for taking vertical measurements on site
 - surveying instruments for measuring angles on site
 - surveying instruments for measuring distance and horizontal measurements on site
- design concepts
 - preliminary conceptual sketches
 - bubble diagrams
 - preliminary plans, sections and elevation design drawings
 - use of design drawing and drafting conventions
- presentable and legible design drawings for client use, such as:
 - domestic systems for urban and suburban properties
 - rooftop, balcony and courtyard gardens
 - public landscapes such as streets, parks, car parks, commercial premises, industrial estates and community centres
 - school gardens and learnsapes
 - community gardens and city farms
 - Community Supported Agriculture systems, urban market gardens and peri-urban small holdings
 - urban forestry
- conventional design symbols and those to convey permaculture elements
- design drafting and drawing conventions
- plant and animal selection
- final design
 - rendered plan, elevation and section drawings to scale
 - use of design drawing and drafting conventions

- use of consistent graphic style
- supporting legends and keys of elements
- supporting materials lists, tables, bills of quantity, timelines, installation plans and management plans
- construction detail drawing
- methods of design
 - zone and sector planning
 - slope planning
 - patterns in space and time

Assessment Conditions

Assessors must satisfy current standards for RTOs. Assessors must also hold a nationally accredited Certificate IV or Diploma of Permaculture. Completion of a Permaculture Design Course (PDC) or non-accredited Permaculture Diploma is not sufficient at this level.

Links

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