



Australian Government

Department of Education, Employment and Workplace Relations

CPPACC8008A Contribute to design of accessible built environment and infrastructure

Release: 1

CPPACC8008A Contribute to design of accessible built environment and infrastructure

Modification History

New unit

Unit Descriptor

This unit of competency specifies the outcomes required to provide creative consultation services and develop optimal access and use solutions for incorporation into the design and construction of a range of projects.

The work involves the ability to read and understand plans and specifications and to communicate with building owners or operators, building and planning regulators, project managers, engineers, architects, designers, builders and building surveyors and certifiers. The unit covers the application of ergonomics and the human geometry of people with disabilities to access provision, and the analysis of built environment and infrastructure issues with positive and negative impacts on access and use. It involves an in-depth understanding of the range of available design solutions and how they may be applied to the provision of access.

Application of the Unit

This unit of competency supports access consultants who offer design review services to clients and design teams undertaking building and construction, transport services, infrastructure and facilities, and urban space development projects.

It applies to:

- domestic, residential, commercial, retail, industrial and public buildings
- outdoor spaces
- transport infrastructure, conveyances, facilities and systems.

Licensing/Regulatory Information

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

Pre-Requisites

Not applicable.

Employability Skills Information

This unit contains employability skills.

Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.

Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.

Elements and Performance Criteria

1	Define and plan scope of own contribution to design project.	1.1	Nature of project, location and demographics of occupants or users are researched and noted.
		1.2	Service levels, fees and timelines for reviews of design documentation at different stages of development projects are confirmed with clients.
		1.3	Access and use compliance requirements and project's access and use design policy and brief are reviewed and confirmed with client, design team and other relevant stakeholders.
		1.4	Systems for the exchange, naming and storage of relevant project design documentation and for communication with the design team, client and relevant stakeholders are planned and implemented.
2	Review design documentation at required stages of design process.	2.1	Level of service for review of design documentation at different stages of design process is confirmed and applied.
		2.2	Design documentation is received, named and stored following agreed protocols, at different <i>stages of design process</i> according to service level agreement.
		2.3	Design documentation is examined in relation to access and use compliance requirements and the project's access and use design policy and brief, and anomalies in access and use provisions are detected.
		2.4	<i>Details of access and use design issues</i> are researched or deduced and noted.
		2.5	Report on access and use issues is prepared, distributed and discussed according to service level agreement, and

further actions are agreed with client.

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| 3 | Develop solutions to access and use design issues. | 3.1 | Best practice solutions relevant to reported access and use issues are sourced and analysed in relation to project's access and use design policy and brief. |
| | | 3.2 | Practical and effective <i>solutions to access and use issues</i> are explored and sketches made or explanations noted. |
| | | 3.3 | Solutions are presented and explained to client, design team and other relevant stakeholders, as required, to facilitate selection of best solution. |
| | | 3.4 | Selected solutions are developed and specifications detailed, including compliance references, exclusion report or management plan as required. |
| 4 | Consult and report on project finalisation. | 4.1 | <i>Access and use issues arising during the construction phase of projects</i> are analysed and solutions proposed to design team, client and relevant stakeholders. |
| | | 4.2 | Accepted access and use design modifications are recorded with exclusion report or management plan as required. |
| | | 4.3 | Access and use report is prepared for finalisation of project, detailing recommended and 'as built' access and use solutions with rationale for selected solutions and changes. |
| | | 4.4 | Information valuable to ongoing debate and development of access and use principles, standards and solutions is documented and disseminated to relevant professional communities. |

Required Skills and Knowledge

This section describes the skills and knowledge required for this unit.

Required skills

- language and literacy skills to:
 - exchange complex information with people from diverse backgrounds using relevant language and format
 - interpret complex legal and technical documents regarding accessibility, such as:
 - Australian and international standards
 - National Construction Code (NCC) deemed-to-satisfy requirements, performance requirements and alternative solutions
 - Disability (Access to Premises – Buildings) Standards, known as the Premises Standards (PS)
 - Disability Discrimination Act
 - research papers
- numeracy skills to:
 - perform and interpret design calculations
 - assess cost-effectiveness of solutions
- planning and organising skills to:
 - manage documentation
 - meet timelines for service provision
- problem-solving skills to select and adapt practical and cost-effective solutions to access and use issues
- technical skills to:
 - interpret design documentation, including visualising environments in three-dimensions (3-D), and conducting a cognitive ‘walk through’ of environments applying access and use principles
 - develop and describe solutions to access and use issues
- technology skills to:
 - exchange project documentation
 - prepare reports

Required knowledge

- access and use compliance requirements, including but not restricted to:
 - codes
 - guidelines

- legislation
- local authority policies
- protocols
- regulations
- standards
- accessibility requirements relating to equipment used by people with disabilities, such as:
 - assistance animals
 - audio frequency induction loops
 - braille and tactile signage
 - long white canes
 - TTY telephones
 - walking frames
 - wheelchairs
- best practices in access and use, including measures that exceed compliance requirements
- building and construction industry processes, roles and terminology
- construction and manufacturing design principles and processes, including:
 - access and use principles
 - adaptable design to accommodate changes over lifecycle of project
 - cost-effectiveness
 - sustainability
- gaps and trends in, interrelation of, and conflict between compliance requirements
- policy development, legislative and regulatory frameworks relating to access to and use of the built environment and infrastructure
- principles of access to and use of the built environment and infrastructure, including:
 - adaptable design
 - best practice solutions to access and use requirements
- principles of ergonomics and human geometry
- types of disabilities and combinations of disabilities and related range of functional limitations, including:
 - auditory
 - cognitive
 - mobility
 - muscle wasting and weakness
 - psychiatric
 - vision
- scope of functions of the human body, including:
 - auditory and visual processing
 - cognitive functions
 - mobility
 - psychiatric conditions

Evidence Guide

The evidence guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.

<p>Critical aspects for assessment and evidence required to demonstrate competency in this unit</p>	<p>A person who demonstrates competency in this unit must be able to provide evidence of the required skills and knowledge specified in this unit.</p> <p>In particular, the person should demonstrate the ability to:</p> <ul style="list-style-type: none"> • scope and plan consultancy service levels for contributing to the design of two different development projects: <ul style="list-style-type: none"> • one premises construction • one transport infrastructure, conveyances, facilities and systems • exchange and store design documentation following agreed protocols • review design documentation at agreed stages of each project and report on access design issues • propose practical and effective solutions to access issues and develop specifications for selected solutions.
<p>Context of and specific resources for assessment</p>	<p>Assessment of essential underpinning knowledge may be conducted in an off-site context and is to comply with regulatory and Australian standards' requirements.</p> <p>Resource implications for assessment include access to:</p> <ul style="list-style-type: none"> • design briefs, policies, drawings and other relevant documentation for two projects: <ul style="list-style-type: none"> • one premises construction development project • one transport infrastructure, conveyances, facilities and systems development project • relevant legislation, codes, standards and guidelines • relevant design and construction specialists • relevant premises, transport infrastructure, conveyances, facilities and systems development projects and work sites.
<p>Method of assessment</p>	<p>Assessment methods must:</p> <ul style="list-style-type: none"> • satisfy the endorsed Assessment Guidelines of the CPP07 Property Services Training Package • include direct observation of tasks in real or simulated work conditions, with questioning to confirm the ability to consistently identify and correctly interpret the essential

	<p>underpinning knowledge required for practical application</p> <ul style="list-style-type: none">• reinforce the integration of employability skills with workplace tasks and job roles• confirm that competency is verified and able to be transferred to other circumstances and environments.
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<p>Guidance information for assessment</p>	<p>This unit could be assessed on its own or in combination with other units relevant to the job function.</p> <p>Reasonable adjustments for people with disabilities must be made to assessment processes where required. This could include access to modified equipment and other physical resources, and the provision of appropriate assessment support.</p> <p>Assessment processes and techniques should, as far as is practical, take into account the language, literacy and numeracy capacity of the candidate in relation to the competency being assessed.</p>
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Range Statement

The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.

<p><i>Nature of project</i> may include:</p>	<ul style="list-style-type: none"> • client, such as: <ul style="list-style-type: none"> • community-based organisation • government department • individual • private company • extent and type of stakeholder involvement • location • timeframe • type and purpose of transport infrastructure and facilities or urban space development project.
<p><i>Design documentation</i> may include:</p>	<ul style="list-style-type: none"> • access and use policy and brief • concept design or schematic • design brief • design drawings and specifications • master plan.
<p><i>Development projects</i> may include:</p>	<ul style="list-style-type: none"> • urban space and transport infrastructure and facilities, including: <ul style="list-style-type: none"> • communication systems • parks, gardens and open spaces • public streetscapes • public transport stops, stations and vehicles • signage • tunnels

	<ul style="list-style-type: none">• wayfinding• building and construction of premises, including:<ul style="list-style-type: none">• aged care facilities• art galleries• car parks• cinemas• conference and function spaces• factories• hospitals and medical facilities• hotels• mine camps• museums• office buildings• petrol stations• places of worship• police stations• prisons• recreational public buildings• residential accommodation• schools• shopping malls• swimming pools• universities• warehouses.
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<p><i>Access and use compliance requirements</i> may include:</p>	<ul style="list-style-type: none"> • Australian and international standards • Disability Discrimination Act and regulations and amendments • Disability (Access to Premises – Buildings) Standards • Disability Standards for Accessible Public Transport (DSAPT) • Disability Standards for Education • NCC, including: <ul style="list-style-type: none"> • deemed-to-satisfy solutions • formulation of performance-based alternative solutions • state, territory and local authority legislation, regulations and planning requirements.
<p><i>Stages of design process</i> may include:</p>	<ul style="list-style-type: none"> • concept sketch • schematic • design development • working drawing • specifications • contract document.
<p><i>Details of access and use design issues</i> may include:</p>	<ul style="list-style-type: none"> • accurate and complete compliance specifications • disparity between design and compliance specifications • access and use requirements of occupier or user demographic that are not the subject of compliance specifications and are not addressed in the design documentation; and associated risks of exclusion • risks associated with non-compliance.
<p><i>Solutions to access and use issues</i> include:</p>	<ul style="list-style-type: none"> • meeting compliance requirements, including: <ul style="list-style-type: none"> • alternative solutions • deemed-to-satisfy solutions • exceeding compliance requirements • not meeting compliance requirements supported by an opinion of the success of a defence on the grounds of unjustifiable hardship • not meeting compliance requirements accompanied by a statement supporting application of full or partial exemption from the requirements of the NCC as applied by state or territory legislation.
<p><i>Access and use issues arising during the construction phase of projects</i> may include:</p>	<ul style="list-style-type: none"> • budgetary constraints • conflict with ‘as built’ structure and services • errors in interpretation and implementation of access and use design features • unavailability of specified equipment or materials.

Unit Sector(s)

Access consulting

Custom Content Section

Not applicable.