



Australian Government

CPC CST2006A Identify and use stone products

Release 1

CPCCST2006A Identify and use stone products

Modification History

This version first released with CPC08 Construction, Plumbing and Services Training Package Version 9.

- Changes to descriptor, application, performance criteria (including additional performance criteria), required skills and knowledge, and critical aspects for assessment
- Range of other minor editorial changes

Not equivalent to CPCCST2002A Identify and use stone products

Unit Descriptor

This unit of competency specifies the outcomes required to identify and use suitable natural stone, and stone products manufactured to designed specifications, for both off-site and in situ installation. The unit may include working with others and in a team.

Application of the Unit

This unit of competency supports the work of stonemasons who select and prepare specific types of natural stone and stone products for different work tasks according to job specifications.

Licensing/Regulatory Information

Check with relevant state and territory licensing and regulatory authorities. State and territory jurisdictions may have different regulatory requirements for work carried out on heritage structures.

Pre-Requisites

CPCCOHS2001A	Apply OHS requirements, policies and procedures in the construction industry
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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 required performance needed to demonstrate achievement of the element. Where ***bold italicised*** text is used, further information is detailed in the required skills and knowledge and/or the range statement. Assessment of performance is to be consistent with the evidence guide.

Elements and Performance Criteria

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| 1 | Plan and prepare. | 1.1 | Work instructions are obtained using relevant <i>information</i> , confirmed and applied for <i>planning and preparation</i> purposes. |
| | | 1.2 | <i>Work health and safety (WHS) requirements</i> are followed according to safety plans and policies. |
| | | 1.3 | Signage and barricade requirements are identified and implemented. |
| | | 1.4 | <i>Tools and equipment</i> selected to carry out tasks are consistent with job requirements, checked for serviceability, and faults are rectified and reported before work begins. |
| | | 1.5 | Material quantity requirements are identified and calculated according to plans, specifications and <i>quality requirements</i> . |
| | | 1.6 | <i>Materials</i> appropriate to the work application are obtained, prepared, safely handled and located ready for use. |
| | | 1.7 | <i>Environmental requirements</i> are identified for the project according to environmental plans and <i>statutory and regulatory authority</i> requirements. |
| 2 | Use industry terms for the identification and use of stone | 2.1 | Common terms, instructions and information relating to use of stone are understood and used in the workplace. |
| | | 2.2 | Commonly used symbols and abbreviations are identified and applied. |

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| | products. | 2.3 | Key architectural styles and types of materials and products used in stonemasonry are identified. |
| 3 | Identify types, size, defects and function of stone products. | 3.1 | Sources of stone and manufacturing or quarrying techniques required for the production of natural and manufactured stone and stone products are identified. |
| | | 3.2 | Types of natural stone and architectural styles, sizes and functions of stone products are identified and matched to job specifications. |
| | | 3.3 | Key features and orientations of patterns in stone are identified. |
| | | 3.4 | Defects in stone products and the effect on their function are identified. |
| 4 | Identify and apply processes and procedures used in processing and manufacturing stone products. | 4.1 | Methods used in the <i>processing and manufacture</i> of stone products are identified and applied. |
| | | 4.2 | Common types and applications of plant and tools used for stone production are identified. |
| | | 4.3 | Different processes and procedures required for off-site and in situ stone production are identified and applied as part of construction process. |
| 5 | Correctly handle and saw stone products. | 5.1 | Characteristics of common types of stone are identified and appropriate handling techniques are applied. |
| | | 5.2 | Plant is operated and tools are used according to workplace requirements. |
| | | 5.3 | Processes and procedures required to produce specific stone products are identified and sequenced according to performance requirements of product. |
| | | 5.4 | Stone products are sawed according to job specifications and workplace requirements. |
| 6 | Clean up. | 6.1 | Work area is cleared to specifications. |
| | | 6.2 | Unused materials are stored and waste is disposed of |

according to workplace requirements.

- 6.3 Tools, plant and equipment are cleaned, maintained and stored.

Required Skills and Knowledge

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

Required skills

- communication skills to:
 - enable clear and direct communication
 - use questioning to identify and confirm requirements
 - share information
 - follow instructions
 - use and interpret non-verbal communication
 - use language and concepts appropriate to cultural differences
- innovation skills to select appropriate tools and equipment, respond to workplace challenges and put ideas into action
- numeracy skills to calculate material requirements
- problem-solving skills to recognise and take action to rectify minor faults and problems
- teamwork skills to work with others to action tasks

Required knowledge

- architectural styles used in stonemasonry work
- characteristics of different types of natural stone
- drawing conventions and construction terminology used in plans and specifications
- job safety analyses (JSA) and safe work method statements (SWMS)
- measurement techniques relating to stonemasonry work
- types and uses of accessories associated with stone construction
- types of stone and stone products
- workplace and equipment safety requirements

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.

Overview of assessment This unit of competency could be assessed in the workplace or a close simulation of the workplace environment, provided that simulated or project-based assessment techniques fully replicate construction workplace conditions, materials, activities, responsibilities and procedures.

Critical aspects for assessment and evidence required to demonstrate competency in this unit A person should demonstrate the selection and use of a minimum of three stone types from a range of igneous, metamorphic, sedimentary or reconstituted materials that are suitable for nominated purposes, providing evidence of the ability to:

- comply with WHS requirements applicable to workplace operations
- comply with organisational policies and procedures, including quality assurance requirements
- carry out correct procedures prior to and during handling processes
- select and use appropriate processes, tools and equipment to cut stone
- adopt and use correct procedures to handle and place materials
- communicate with others to ensure safe and effective work site operations.

Context of and specific resources for assessment Assessment of this unit:

- must be in the context of the work environment
- may be conducted in an off-site context, provided it is realistic and sufficiently rigorous to cover all aspects of workplace performance, including task skills, task management skills, contingency management skills and job role environment skills
- must meet relevant compliance requirements.

Resource implications for assessment may include:

- construction materials required to apply stone product
- hand and power tools appropriate to work processes
- plant and equipment appropriate to work processes
- suitable work area appropriate to application processes.

Method of assessment Assessment for this unit must verify the practical application of the required skills and knowledge, using one or more of the following methods:

- direct observation of tasks in real or simulated work

conditions

- questioning to confirm the ability to consistently identify and correctly interpret the essential underpinning knowledge required for practical application
- reviewing relevant authenticated documentation from third parties, such as existing supervisors, team leaders or specialist training staff.

Guidance information for assessment

This unit could be assessed on its own or in combination with other units relevant to the job function.

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.

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.

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.

Information may include:

- current Australian standards relating to handling, sawing and using stone products
- diagrams or sketches
- instructions issued by authorised organisational or external personnel
- memos
- regulatory and legislative requirements for handling stone products
- safe work procedures relating to handling stone products
- safety data sheets (SDS)
- signage
- verbal, written and graphical instructions, including manufacturer specifications and instructions where specified
- work bulletins
- work schedules, plans and specifications.
- assessing conditions and hazards

Planning and

preparation may include:

- determining work requirements and safety plans and policies
- identifying equipment defects
- inspecting work sites.

Work health and safety requirements must comply with state and territory legislation and regulations and project safety plan and may include:

- emergency procedures, including extinguishing fires, organisational first aid requirements, and evacuation procedures
- hazard control
- hazardous materials and substances
- personal protective equipment (PPE) prescribed under legislation, regulations and workplace policies and practices
- safe operating procedures, including operational risk assessment and treatments associated with:
 - concealed services (water, power and gas)
 - lighting
 - restricted access barriers
 - traffic control
 - work site visitors and the public
 - working at heights
 - working in confined spaces
 - working in proximity to others
- use of firefighting equipment
- use of tools and equipment
- working platforms and scaffolding
- workplace environmental requirements and safety.

Tools and equipment may include:

- angle grinders
- bolsters
- brushes and brooms
- chisels
- clamps
- hammers
- hoses
- level
- masonry saws
- measuring tapes and rules
- mortar boards
- pitching tools
- power leads
- scaffolding
- shovels
- small tools
- stone packers
- wheelbarrows.

- Quality requirements** may include:
- attention to specifications of work, including architectural style
 - control of handling procedures
 - quality of materials
 - relevant regulations, including:
 - Australian standards
 - internal organisational quality policy and standards
 - manufacturer specifications where specified
 - workplace operations and procedures
 - use and maintenance of equipment.
- Materials** may include:
- basalt
 - granite
 - marble
 - pre-cast concrete
 - sandstone.
- Environmental requirements** may include:
- clean-up management
 - dust and noise control
 - vibration management
 - waste management.
- Statutory and regulatory authority** includes:
- federal, state and local authorities administering applicable Acts, regulations and codes of practice.
- Processing and manufacture** may include:
- crushed to aggregate size
 - crushed to fine particle (dust) size
 - cut and polished to tile size
 - cut or finished to pavement section size
 - natural stone products cut to size.

Unit Sector(s)

Construction

Custom Content Section

Not applicable.