Australian Government

Department of Education, Employment and Workplace Relations

CPCCBL3017A Carry out tuck pointing to brickwork

Release: 1

CPCCBL3017A Carry out tuck pointing to brickwork

Modification History

Not Applicable

Unit Descriptor

Unit descriptor This unit of competency specifies the outcomes required to apply tuck pointing to brickwork to different types and styles of buildings. It includes planning, preparation, set out and application of tuck pointing.

Application of the Unit

Application of the unit This unit of competency supports achievement of skills in applying a decorative finish to masonry brickwork by tuck pointing. Tuck pointing has particular application in heritage and restoration work, which includes working with others and as a member of a team.

Licensing/Regulatory Information

Not Applicable

Pre-Requisites

Prerequisite units CPCCOHS2001A Apply OHS requirements, policies and procedures in the construction industry

Employability Skills Information

Employability skills 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

ELEMENT	PERFORMANCE CRITERIA
1. Prepare for work.	1.1. Work instructions, including plans, specifications, quality requirements and operational details are obtained using suitable ***information*** sources, confirmed and applied for ***restoration of brickwork structures***.
	1.2. ***Safety*** (***OHS***) requirements are followed in accordance with safety plans and policies.
	1.3. Signage and barricade requirements are identified and implemented.
	1.4. Plant, ***tools and equipment*** selected to carry out tasks are consistent with job requirements, checked for serviceability, and any faults are rectified or reported prior to commencement.
	1.5. Material quantity requirements are calculated in accordance with plans, specifications and ***quality requirements***.
	1.6. ***Materials*** appropriate to the work application are identified, obtained, prepared, safely handled and located ready for use.
	1.7. ***Environmental requirements*** are identified for the project in accordance with environmental plans and ***statutory and regulatory authority*** obligations, and are applied.
2. Prepare work location.	2.1. Materials and existing brickwork, including ***type of bonds***, are checked for consideration of colour wash, and composition of mortar stopping mix and mixing putty for beading.
	2.2. Work platform is erected in accordance with regulatory authorities' requirements.
	2.3. Work area and surrounds are isolated by use of barricades and signage or fall protection in accordance with regulatory and job requirements.
	2.4. Loose or broken bricks are removed and reinstalled individually and mortar is removed from joints in brickwork by raking out mortar to specified depth.
	2.5. Surface of work area is cleaned and prepared for application.
	2.6. Surface of work area is colour washed consistent with brick colour.
	2.7. Position of bed and cross joints is determined, measured and struck with chalk line.

ELEMENT	PERFORMANCE CRITERIA
	2.8. ***Mortar*** is prepared to determined composition, colour and mix for stopping application to brickwork.
	2.9. Mortar stopping mix is applied to ensure joints are full and brickwork is re-pointed to meet job requirements.
	2.10. Jointer tool is used to form an indent key to receive putty point.
3. Apply putty point material to bed joints.	3.1. Materials are identified, selected and prepared to determined composition and consistency used for pointing or beading putty in accordance with job requirements.
	3.2. Pointing putty is applied with the use of jointer tool to fill indent and form joints.
	3.3. Surplus pointing putty present on horizontal and vertical joints is removed with the aid of a Frenchman tool to form finite shape and edges to tuck pointing.
	3.4. Tuck pointed work area is completed, allowed to dry and any imperfections gently removed and lightly brushed clean.
4. Clean up.	4.1. Work area is cleared and materials disposed of, reused or recycled in accordance with legislation, regulations, codes of practice and job specification.
	4.2. Plant, tools and equipment are cleaned, checked, maintained and stored in accordance with manufacturer recommendations and standard work practices.

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

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

Required skills

Required skills for this unit are:

- communication skills to:
  - determine requirements
  - enable clear and direct communication, using questioning to identify and confirm requirements, share information, listen and understand

REQUIRED SKILLS AND KNOWLEDGE

- follow instructions
- read and interpret:
  - documentation from a variety of sources
  - drawings and specifications
- report faults
- use language and concepts appropriate to cultural differences
- use and interpret non-verbal communication, such as hand signals
- numeracy skills to apply measurements and make calculations
- organisational skills, including the ability to plan and set out work
- teamwork skills to work with others to action tasks and relate to people from a range of cultural and ethnic backgrounds and with varying physical and mental abilities
- technological skills to:
  - use a range of mobile technology, such as two-way radio and mobile phones
  - voice and hand signals to access and understand site-specific instructions.

Required knowledge

Required knowledge for this unit is:

- brick expansion, growth and control joints
- characteristics and applications of materials for tuck pointing of brickwork
- construction terminology
- finishing of brick joints
- heritage brickwork materials and bonding techniques
- job safety analysis (JSA) and safe work method statements
- material safety data sheets (MSDS)
- materials storage and environmentally friendly waste management
- plans, specifications and drawings
- quality requirements for tuck pointing to brickwork
- techniques for tuck pointing of brickwork
- types, characteristics, uses and limitations of plant, tools and equipment
- workplace and equipment safety requirements.

Evidence Guide

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 who demonstrates competency in this unit must be able to provide evidence of the ability to:

- locate, interpret and apply relevant information, standards and specifications
- comply with site safety plan and OHS legislation, regulations and codes of practice applicable to workplace operations
- comply with organisational policies and procedures, including quality requirements
- safely and effectively use tools, plant and equipment
- communicate and work effectively and safely with others
- as a minimum, tuck point a new or existing area of brickwork of at least 1 square metre, ensuring:
  - correct identification of requirement and finishing of the task
  - correct selection and use of appropriate processes, tools and equipment
  - completing all work to specification.

Context of and specific resources for assessment

This competency is to be assessed using standard and authorised work practices, safety requirements and environmental constraints.

Assessment of essential underpinning knowledge will usually be conducted in an off-site context.

Assessment is to comply with relevant regulatory or Australian standards' requirements.

EVIDENCE GUIDE

Resource implications for assessment include:

- an induction procedure and requirement
- realistic tasks or simulated tasks covering the mandatory task requirements
- relevant specifications and work instructions
- tools and equipment appropriate to applying safe work practices
- support materials appropriate to activity
- workplace instructions relating to safe work practices and addressing hazards and emergencies
- material safety data sheets
- research resources, including industry related systems information.

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.

Method of assessment

Assessment methods must:

- satisfy the endorsed Assessment Guidelines of the Construction, Plumbing and 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 underpinning knowledge required for practical application
- 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.

Validity and sufficiency of evidence requires that:

- competency will need to be demonstrated over a period of time reflecting the scope of the role and the practical requirements of the workplace
- where the assessment is part of a structured learning experience the evidence collected must relate to a number of performances

EVIDENCE GUIDE

assessed at different points in time and separated by further learning and practice, with a decision on competency only taken at the point when the assessor has complete confidence in the person's demonstrated ability and applied knowledge
- all assessment that is part of a structured learning experience must include a combination of direct, indirect and supplementary evidence.

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.

Supplementary evidence of competency may be obtained from relevant authenticated documentation from third parties, such as existing supervisors, team leaders or specialist training staff.

Range Statement

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 includes:

- diagrams or sketches
- instructions issued by authorised organisational or external personnel
- manufacturer specifications and instructions where specified
- memos
- MSDS
- organisation work specifications and requirements
- plans and specifications
- regulatory and legislative requirements

RANGE STATEMENT

	pertaining to carrying out tuck pointing to brickwork • relevant Australian standards • safe work procedures related to carrying out tuck pointing to brickwork • signage • verbal or written and graphical instructions • work bulletins • work schedules.
Restoration of brickwork structures varies according to factors that include:	• types and composition of mortar • types of bonding • types of bricks (length and width, height, types of clay, colour and surface finish).

Safety (***OHS***) is to be in accordance with legislation, regulations, codes of practice, organisational safety policies and procedures, and project safety plan and may include:	• emergency procedures, including emergency shutdown and stopping, extinguishing fires, organisational first aid requirements and evacuation
	• handling of materials
	• hazard control
	• hazardous materials and substances
	• safe operating procedures, including the conduct of operational risk assessment and treatments associated with:
	  • earth leakage boxes
	  • lighting
	  • power cables, including overhead service trays, cables and conduits
	  • restricted access barriers
	  • surrounding structures
	  • traffic control
	  • trip hazards
	  • underground services, including water, gas, electricity and communications
	  • work site visitors and the public
	  • working at heights
	  • working in confined spaces
	  • working in proximity to others
	  • working with dangerous materials
	• organisational first aid
	• personal protective clothing and equipment prescribed under legislation, regulations and

RANGE STATEMENT

	workplace policies and practices • use of firefighting equipment • use of tools and equipment • workplace environment and safety.

Tools and equipment:	• includes:
	  • brushes
	  • buckets
	  • float
	  • hooked end tool (Frenchman)
	  • gauging equipment
	  • hammers (brickies, club and scutch)
	  • hawks
	  • jointer tools
	  • line blocks
	  • line pins
	  • measuring tapes and rules
	  • plugging chisels
	  • margin or raking tools
	  • pointing trowels
	  • profiles
	  • scaffolds
	  • sieve
	  • spirit levels
	  • sponges
	  • squares
	  • straight bevelled edges
	  • straight edges
	  • string lines
	• may include:
	  • concrete mixers
	  • small petrol or diesel engines, compressors or mixers
	  • wheelbarrows.

Quality requirements include relevant regulations, including:	• Australian standards • internal company quality policy and standards • manufacturer specifications, where specified • workplace operations and procedures.
Materials include:	• colouring agents and pigments

RANGE STATEMENT

	• mortar • slaked rock lime.
Environmental requirements include:	• clean-up protection • noise and dust • vibration • waste management.
Statutory and regulatory authorities include:	• federal, state and local authorities administering applicable Acts, regulations and codes of practice.
Type of bonds include:	• colonial • Dutch • English • English cross • Flemish • header • stretcher.
Mortar will vary in accordance with:	• its compatibility with the composition of each type of brick • particular adhesive ability, stability and durability.

Unit Sector(s)

Unit sector Construction

Co-requisite units

Co-requisite units Nil

Functional area

Functional area