Draft 0.1

This is our work-in-progress update to CPCCBC5004A Supervise and apply quality standards to the selection of building and construction materials: https://training.gov.au/Training/Details/CPCCBC5004A.

We are working with industry experts to ensure the updated unit:

- meets current and anticipated industry needs
- complies with current Standards for Training Packages
- is written in clear understandable English.

Information on our training package review and development process is available here: http://www.artibus.com.au/project-stage.

Summary of changes from current endorsed unit

Re-templated to meet Standards for Training Packages 2012.

Sequenced Elements and Performance Criteria.

Specified what and how performance is demonstrated in Performance Evidence.

Captured critical Range Statement items and included industry relevant knowledge in Knowledge Evidence.

Stated mandatory conditions and specific requirements for assessment.

CPCCBC5004
Supervise and apply quality standards to the selection of building and construction materials

Application

This unit of competency specifies the skills and knowledge required to apply quality standards to the selection of building and construction materials. It includes the selection of building materials that meet contract specifications and service requirements for the project.

This unit of competency applies to builders, related construction industry professionals and senior managers within building and construction firms responsible for selecting, acquiring and storing compliant building materials on-site for construction of up to and including medium rise projects.

This unit applies to those who are self-directed and have substantial depth of knowledge and skills to make independent judgements.

Prerequisite Unit

Nil.

Unit Sector

Construction.

Elements and Performance Criteria

1.Determine the properties of building materials.	1.1	Access, read and interpret construction specifications and material standards.
	1.2	Identify suitability of materials commonly used in the region for a given building system.
	1.3	Determine properties of materials, their standards of quality and their compatibility and non-compatibility with different materials.
	1.4	Identify environmental impacts of different materials.
	1.5	Determine impact of allowable tolerances on the conversion of naturally occurring materials.
	1.6	Identify and check tolerances for installing and assembling materials regarding the nature of the work being performed and the requirements of Australian standards.
2. Select suitable building materials for application.	2.1	Select building materials regarding structural requirements and suitability for the building system specified in the contract.
	2.2	Select materials for their safety, required fire resistance rating, serviceability and cost effectiveness.
	2.3	Consider short and long-term degradation of materials in relation to the proposed life cycle of the building.

	2.4	Select alternative materials if specified materials are unavailable or unsuitable.
	2.5	Arrange for expert advice as necessary to confirm or refute materials options.
3. Supervise the acceptance, safe handling and storage of materials on site.	3.1	Identify and communicate organisational procedures for the acceptance, safe handling, storage and protection of materials on site.
	3.2	Instruct workers of the process to refuse acceptance of substandard or non-compliant materials.
	3.3	Determine limitations and effects of transportation on materials and components and take action in the case of potentially damaging circumstances.
	3.4	Handle materials correctly and safely on site using appropriate equipment and safe work practices.
	3.5	Store materials in accordance with manufacturer specifications and in compliance with the relevant standards.
	3.6	Implement systems for inspecting all materials delivered on site for naturally occurring and/or manufactured defects before installation.
	3.7	Ensure personnel are aware of actions to be taken in the case of defects caused by incorrect installation, application or placement.
	3.8	Preserve timber and protect ferrous and non-ferrous metals used in the construction process using established methods.
4. Supervise suitability and fit for purpose testing of materials.	4.1	Carry out testing of materials, including soil, filling, compacting, surfacing, concreting and welding, to specifications and analyse results on-site before and during installation.
	4.2	Identify samples of materials taken during placement or installation accurately and send for laboratory testing.
	4.3	Visually check materials for suitability before building, and send materials off-site for testing if required.
	4.4	Implement processes to ensure defective materials are identified and remedial action is recorded.
5. Establish, record and report findings.	5.1	Establish and maintain records of tests and testing procedures completed by the organisation in accordance with its quality management obligations.
	5.2	Evaluate test results and reports periodically to maintain integrity of organisational quality standards.
	5.3	Notify non-conformant on-site materials tests immediately to the appropriate company officer for further action.

Foundation Skills

As well as the foundation skills explicit in the performance criteria of this unit, candidates require:

- technology skills to:
  - use digital tools and devices to communicate and collaborate effectively with others
  - use equipment and programs to access, extract information and develop relevant documentation

Unit Mapping Information

Supersedes and equivalent to CPCCBC5004A Supervise and apply quality standards to the selection of building and construction materials.

Links

Companion Volume Implementation Guide: to be added.

Assessment Requirements for CPCCBC5004 Supervise and apply quality standards to the selection of building and construction materials

Performance Evidence

To demonstrate competency, a candidate must meet the performance criteria of this unit by applying quality standards to the selection of specified construction materials and supervising on-site processes for receiving materials.

In doing this, the candidate must:

- identify building and construction materials specified in the project building specifications or contract documentation
- confirm delivered material and products are checked against delivery order and comply with project specifications
- conduct materials testing:
    - arranging external quality testing or inspections and receive results
    - arranging on-site quality and fit for purpose testing
    - take remedial action for non-conforming test results
- provide advice and information to regulatory authorities as required by the organisation.

Knowledge Evidence

To be competent in this unit, a candidate must demonstrate knowledge of:

- determining and evaluating materials and products from project plans, specifications, codes and standards
- building and construction materials and technologies and alternative materials and products
- characteristic, application and limitations of building material, products and components
- environmental effects on various building and construction materials
- construction supply processes
- processes for the selection of building materials:
    - identifying materials from specifications and drawings
    - identifying specifications and standards described in contract documents
    - selecting and ordering materials that meet those requirements
- maintaining records:
    - completing appropriate organisational records
    - distributing copies in accordance with organisational policy
    - following up reports that indicate departures from quality or manufacturing requirements
    - obtaining appropriate records and reports for review and analysis
- workplace safety:
    - hierarchy of control

    - hazardous manual handling tasks
    - safe use of mechanical lifting equipment
    - licensing and competency requirements to safely operate lifting equipment

Assessment Conditions

Assessors must meet the requirements for assessors contained in the Standards for Registered Training Organisations.

Assessment of performance must be undertaken in the workplace or in a simulated workplace environment.

Candidates must be provided with:

- relevant and current project plans, specifications, codes, standards and regulations
- manufacturer's product and equipment specifications and information
- organisational quality assurance processes and procedures
- sufficient equipment and materials to facilitate supervise and apply of quality standards for the selection of building materials.

Links

Companion Volume Implementation Guide: to be added.