



Australian Government

CPCCB4004 Identify and produce estimated costs for building and construction projects

Release: 2

CPCBC4004 Identify and produce estimated costs for building and construction projects

Modification History

Release 2 Updated reference to general construction induction training program.

Release 1 This version first released with CPC Construction, Plumbing and Services Training Package Release 5.0.

Supersedes and is equivalent to CPCBC4004A Identify and produce estimated costs for building and construction projects. Updated to meet the Standards for Training Packages 2012.

Application

This unit of competency specifies the skills and knowledge required to establish estimated costs associated with the acquisition of materials and labour for building and construction projects. It includes factoring in relevant overhead costs and margins.

This unit of competency applies to estimators, builders, managers and trade contractors within the construction industry responsible for producing estimated costs on various residential and commercial construction projects within their scope of work as a trade contractor or builder.

This unit of competency is suitable for those using specialised knowledge to complete routine and non-routine tasks and using their own judgement to deal with predictable and sometimes unpredictable problems.

Completion of the general construction induction training program specified by the model Code of Practice for Construction Work is required for any person who is to carry out construction work. Achievement of *CPCWHS1001 Prepare to work safely in the construction industry* meets this requirement.

Licensing, regulatory or registration requirements apply to this unit of competency in some jurisdictions. Relevant state and territory regulatory authorities should be consulted to confirm these requirements.

Pre-requisite Unit

Nil.

Unit Sector

Building and Construction

Elements and Performance Criteria

Elements describe the essential outcomes.

Performance criteria describe what needs to be done to demonstrate achievement of the element.

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| 1 Establish project requirements. | 1.1 Read and interpret construction drawings and specifications in conjunction with relevant building and construction regulations, codes and standards. |
| | 1.2 Identify building site features, type of building and method of construction, and specified building materials. |
| | 1.3 Establish site facilities, and communication and temporary boundary fencing requirements. |
| | 1.4 Identify waste removal requirements and apply waste management site fees. |
| | 1.5 Identify additional project-specific statutory, approvals or compliance costs. |
| 2 Calculate materials and labour costs. | 2.1 Produce a materials and consumables quantity list and obtain a price from supplier. |
| | 2.2 Identify and estimate off-site production costs, including delivery. |
| | 2.3 Identify numbers of contractors, sub-contractors and employees appropriate for the project and work rates. |
| | 2.4 Estimate labour hours and calculate labour costs, including on-costs and worker insurance costs. |
| 3 Identify type and cost of physical resources. | 3.1 Identify physical resources required for the project. |
| | 3.2 Determine limitations, conditions, operational costs and timeframes for hire of physical resources. |
| | 3.3 Obtain supplier prices, including transport of physical resources. |
| | 3.4 Identify, itemise and cost plant, equipment and machinery. |

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| 4 | Produce estimated project costs. | 4.1 | Review and compile materials, consumables and off-site production costs and delivery charges. |
| | | 4.2 | Compile labour costs inclusive of rates and entitlements. |
| | | 4.3 | Compile costs of physical resources. |
| | | 4.4 | Apply organisational overhead recovery and margins. |
| | | 4.5 | Produce estimated project costs for inclusion in a tender or bill. |
| | | 4.6 | Manage and mitigate risks associated with estimating project costs. |

Foundation Skills

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

Unit Mapping Information

Supersedes and is equivalent to CPCCBBC4004A Identify and produce estimated costs for building and construction projects.

Links

Companion volumes to this training package are available at the VETNet website - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=7e15fa6a-68b8-4097-b099-030a5569b1ad>

Assessment Requirements for CPCBC4004 Identify and produce estimated costs for building and construction projects

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Performance Evidence

To demonstrate competency, a candidate must meet the performance criteria of this unit by estimating the cost of one residential or commercial building and construction project.

In doing this, the candidate must:

- estimate project costing from construction drawings, specifications and written information
- list physical resources appropriate for the construction of the project
- produce project cost using an appropriate software program.

Knowledge Evidence

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

- government building and construction regulations
- building and construction standards and codes
- the National Construction Code (NCC)
- organisational policies and procedures
- organisational scope, processes and requirements for using employee and subcontractor labour
- Environmental Protection Authority (EPA) regulations
- construction drawings and specifications
- relevant physical resources and requirements for their operations:
 - earth moving and excavation equipment
 - hoists and lifting equipment
 - mobile cranes
 - compressors
 - generators

- pumps
- calculating unit costs:
 - construction cost per square metre
 - laying of foundation per metre
 - laying of slabs per square metre
 - masonry walls per square metre
 - laying of steel tray roofing per square metre
 - installation of pipes per metre
 - installation of sanitary ware per unit
 - tiling per square metre
 - painting per square metre
- a range of digitally-based technology and applications to estimate quantities, calculate costs and maintain records
- workplace procedures, workplace safety and environmental requirements.

Assessment Conditions

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

Assessment can be undertaken in the workplace or in a simulated workplace environment.

A simulated environment is one that realistically replicates workplace conditions, materials and equipment, interactions with others and workplace irregularities, and which meets industry standards for safety and environmental practices.

Candidates must have access to:

- current construction drawings and specifications
- building and construction standards and codes
- government building and construction regulations
- organisational policies and procedures and other quality documentation required to undertake the performance criteria and assessment requirements
- calculating technology, online applications and software to produce building and construction costs.

Links

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