



Australian Government

Department of Education, Employment and Workplace Relations

CPCBC5002A Monitor costing systems on medium rise building and construction projects

Release: 1

CPCBC5002A Monitor costing systems on medium rise building and construction projects

Modification History

Not Applicable

Unit Descriptor

Unit descriptor

This unit of competency specifies the outcomes required to monitor building or construction costing systems. The processes and practices involved in supervising and monitoring costing systems result in the ongoing maintenance of cost control and the production of expenditure schedules and other arrangements, which ensure contracts or projects remain on budget. In order to achieve the outcomes for this unit, knowledge of relevant legislation, codes and standards, industry estimating and costing systems, and financial principles is required.

Application of the Unit

Application of the unit

This unit of competency supports the needs of builders, senior managers in building and construction firms, and other construction industry personnel responsible for monitoring building or construction costing systems for medium rise building and construction projects.

Licensing/Regulatory Information

Not Applicable

Pre-Requisites

Prerequisite units Nil

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. Supervise the identification and classification of project costs.	<p>1.1. Staff members are supervised in their <i>identification of building or construction costs</i> and accurate estimates are made from project schedules.</p> <p>1.2. Definitive cost estimates are accurately translated into the correct cost centres appropriate to contract requirements.</p> <p>1.3. Cost centres are correctly identified and incorporated into a planned project cost network.</p> <p>1.4. Risk assessment is undertaken and estimated cost is compared with estimated risk.</p> <p>1.5. Planning ensures compliance with relevant codes of practice, standards and legislative requirements.</p>
2. Manage the preparation of a schedule of project expenditure.	<p>2.1. Draft <i>schedules of project expenditure</i> are prepared with critical points identified.</p> <p>2.2. Expenditure schedules are prepared using organisational processes, and hard copies are produced.</p> <p>2.3. Critical financial phases of the project are identified and cash flows are matched to expenditure.</p>
3. Prepare curves showing projected cash flow and payments.	<p>3.1. Interim payment claims and rise and fall calculations are prepared for the contractor and subcontractors.</p> <p>3.2. Projected S curve is prepared to show cash flow and resource control.</p> <p>3.3. <i>Projected cash flow and payments</i> using time risk and cost risk are prepared and compared.</p> <p>3.4. Cash flows using early start and late finish for pessimistic or optimistic outcomes are compared.</p> <p>3.5. Pessimistic overdraft requirements are calculated.</p>
4. Maintain continuous checks on expenditure and evaluate outcomes.	<p>4.1. Cash flow and creditor payments are monitored daily.</p> <p>4.2. Budget cost of the network is compared to actual costs in the tender calculations.</p> <p>4.3. Rise and fall clause calculations are undertaken and financial controller is advised of variations.</p> <p>4.4. Reasons for any cost variations are analysed and identified.</p> <p>4.5. Remedial action is taken and recorded as necessary to retain contract financial compliance.</p>
5. Prepare final cost report.	<p>5.1. Actual costs are compared with estimates at the completion of the job and a report is compiled detailing future actions.</p> <p>5.2. Organisational rates are adjusted as required, based on the <i>final cost report</i> and current movements in</p>

ELEMENT

PERFORMANCE CRITERIA

prices and rates.

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:

- account keeping skills to identify cost centres and monitor cash flows
- analysis and interpretation skills to undertake financial risk assessments
- communication skills to:
 - enable clear and direct communication, using questioning to identify and confirm requirements, share information, listen and understand
 - read and interpret documentation from a variety of sources
 - supervise staff members
 - use and interpret non-verbal communication
 - use language and concepts appropriate to cultural differences
 - written skills to prepare draft schedules of project expenditure and final cost reports
- management skills, including the ability to supervise staff
- numeracy skills to perform complex financial calculations
- preparation of schedules of expenditure and expenditure projections.

Required knowledge

Required knowledge for this unit is:

- advanced estimating and costing systems used in the building and construction industry
- expenditure evaluation methods
- financial principles and cash flows
- project financial processes and timelines
- relevant licensing arrangements
- relevant standards, codes of practice and legislation for medium rise construction projects
- variations in rates occurring through rise and fall clauses and their effects.

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 by the effective monitoring of a building or construction costing system.

This unit of competency can 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:

- monitor and supervise staff who develop and consolidate costing data for Class 2 to 9 Type A building and construction projects
- compare the extent and effectiveness of actual versus estimated costs and the production of schedules of expenditure
- produce efficient and punctual financial data in the form required by the organisation
- plan and continuously revise the schedules of payments and cash flows to match contract performance and efficiency.

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.

Resource implications for assessment include:

- documentation that would support building or construction costing systems for a building or construction office
- relevant codes, standards and regulations
- office equipment, including calculators, photocopiers and telephone systems

EVIDENCE GUIDE

- computers with appropriate software to view 2-D CAD drawings, run costing programs and print copies
- a technical reference library with current publications on measurement, design, building construction and manufacturers' product literature
- a suitable work area appropriate to the monitoring process
- copies of appropriate awards and workplace agreements.

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 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

EVIDENCE GUIDE

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.

Identification of building or construction costs includes:

- human resource costs, including direct employees' and subcontractors' rates
- materials, such as sand, aggregate, bitumen, concrete, bricks, roofing and reinforcing
- overhead costs, including administration support, power, lighting, accommodation and rent
- plant and equipment purchase or lease and operating costs
- relevant codes, standards and legislation
- site services, such as temporary power, lighting and water
- specialist services, such as surveying, architectural, testing and legal
- temporary accommodation and shelter,

RANGE STATEMENT

Schedules of project expenditure include:

- including sheds, site offices and toilets.
- consumables, such as fuel and lubricants, electric power and water
- costs of pre-cast and on-site production of concrete components
- labour costs against estimated costs
- labour hours consumed against estimates
- materials
- supplies, such as timber and building materials.

Projected cash flow and payments include:

- progress payments in for work completed
- progress payments out for work undertaken
- progress payments for supplies and materials
- penalties
- wages and salaries
- insurances, including workers' compensation premiums.

Final cost report includes:

- cost-benefit analyses of overtime payments
- detailed summaries of actual costs against estimates
- details of cost over-runs and savings on labour and contracting out
- details of savings or under-expenditure on materials or supplies
- equipment performance information and efficiencies.

Unit Sector(s)

Unit sector Construction

Co-requisite units

Co-requisite units Nil

Functional area

Functional area