

The Australian Institute of Quantity Surveyors
(ABN 97 008 485 809)



COMPETENCY STANDARDS

FOR

QUANTITY SURVEYORS

CONSTRUCTION ECONOMISTS

AND

COST ENGINEERS

AMENDMENTS

Record all amendments here

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COMPETENCY STANDARDS FOR QUANTITY SURVEYORS

INTRODUCTION

The Competency Standards for Quantity Surveyors October 1997 Revised October 2005 provides the basis for the development and evaluation of the level of competency of Quantity Surveyors for the Australian Institute of Quantity Surveyors worldwide.

The competencies described in this publication cover the broad range of expertise provided by the modern Quantity Surveyor and extends beyond some of the more traditional Quantity Surveying services.

Competency has been defined as the ability to perform the activities within an occupation to the standard expected for employment.

Certain competencies are essential and provide the core requirements of a competent Quantity Surveyor. These core requirements will change from time to time as the profession meets the demands for diversified new services. However, in order to clarify the current position, these Standards have been divided into *Core* (i.e. essential) units and *Specialist* (i.e. optional) units of competency.

Education bodies seeking accreditation for courses in Construction Economics and Quantity Surveying will be expected to provide an appropriate level of education that satisfies these core units of competency.

These Standards should also be read in conjunction with the National Competency Standards Policy and Guidelines published by the National Training Board of Australia.

The National Training Board Policy and Guidelines provide background information together with guidance on how to use the Standards.

The development of competency standards for the profession serves many purposes, but fundamentally provide the profession with the opportunity to:

- Define the competencies (core and specialist) required by the industry,
- Evaluate the training programs available to those wishing to enter the profession,
- Review the skills of practitioners and organisations, and identify their training needs.

They may also be used to identify skills which will be needed in the future, directions for professional development and registration requirements.

These Standards have been prepared under the auspices of The Australian Institute of Quantity Surveyors (AIQS), the regulatory body of the Quantity Surveying profession, whose mission is to:

LEAD	the development and promotion of the discipline of quantity surveying, construction economics and cost engineering;
INFORM	the community of the benefits of total construction cost management;
DEVELOP	and maintain standards of excellence and best practice in the profession;
PROMOTE	quantity surveying as indispensable to value-added services in the construction process;
ENCOURAGE	the efficient and sustainable use of all construction resources.

Membership of the Institute is restricted to those with appropriate educational or practical qualifications and who have demonstrated the required level of professional competence after a required work experience period. Corporate membership is open to Quantity Surveyors, Building or Construction Economists, Cost Engineers, Cost Estimators and Facility Cost Managers. Students and other related professionals are eligible for non-corporate membership.

Quantity Surveyors are key professionals in the construction industry and their clients include financiers, developers, government agencies, building proprietors, investors, insurance assessors, architects, and contractors. They can be involved in estimating, cost planning, cost management, procurement management, contract administration, feasibility studies and asset financial management and all activities related to making the financial operation of the property and construction industries as effective and efficient for the various stakeholders.

Quantity Surveyors perform the role of cost management throughout the life of a project from the concept stage through acquisition and operation and finally to disposal. The Quantity Surveyor in the role of cost manager is a competent and experienced person who will safeguard the client's interests and manage the process to minimise contractual claims and unexpected financial pressures on the budget.

The following competency standards describe the skills required by Quantity Surveyors in providing professional services to the property and construction industries and are broken down into units of competency.

Each unit of competency describes in broad terms a particular element of a Quantity Surveyor's function in terms of performance criteria, range indicators and evidence guides.

Performance criteria specify the outcomes to demonstrate acceptable performance achieved for each element of competency.

Range indicators frame the boundaries within which the performance criteria apply.

Evidence guides give an indication of tangible results that confirm satisfactory demonstration of competence.

Entry or Graduate level Quantity Surveyors first demonstrate acquisition of these competencies by successful completion of their tertiary degree course. This enables them to proceed to Probationer/Entry Graduate level where these competencies are improved and expanded through supervised "on the job" training and experience over a minimum of two years. Their competencies are then reassessed by the Institute through a review process and attendance at an Assessment of Professional Competence interview, which they must pass before proceeding to Associate/Member level.

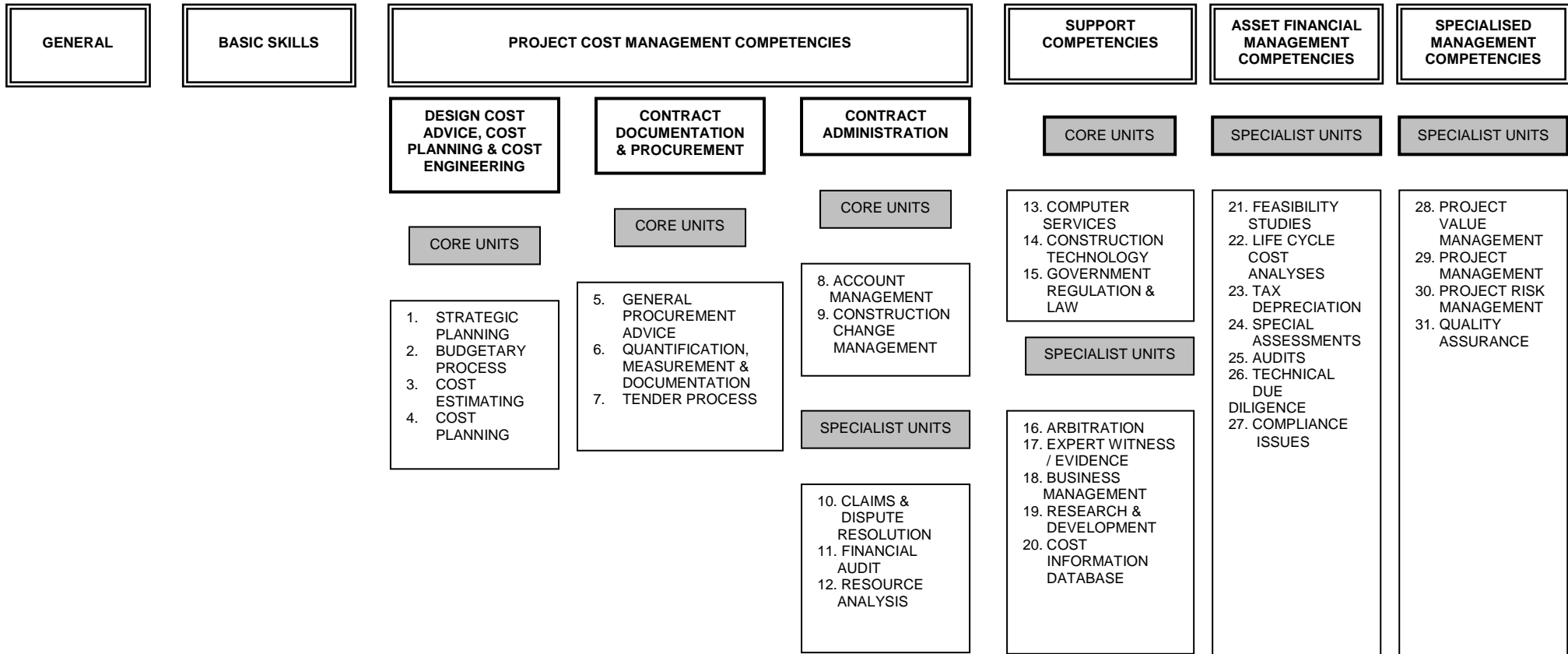
Associates and Fellows may acquire the additional competencies through further formal education (post graduate studies), continuing professional development or "in-house" training and work experience.

COMPETENCY STANDARDS FOR QUANTITY SURVEYORS OCTOBER 2005

GENERAL
 BASIC SKILLS
 PROJECT COST MANAGEMENT COMPETENCIES

- DESIGN COST MANAGEMENT, COST PLANNING & COST ENGINEERING
- CONTRACT DOCUMENTATION
- POST CONTRACT SERVICES

 SUPPORT SYSTEM COMPETENCIES
 ASSET FINANCIAL MANAGEMENT COMPETENCIES
 SPECIALISED MANAGEMENT COMPETENCIES



ACKNOWLEDGMENTS

The Australian Institute of Quantity Surveyors wishes to acknowledge the contribution of a special task force established by the Institute in 1995 under the direction of the Institute's President, Professor Dennis Lenard LFAIQS, which resulted in a draft set of standards in August 1995.

These standards were then further researched, developed and edited by Dr Alan Bowen-James, Senior Research Scientist with the Faculty of Design, Architecture and building, University of Technology, Sydney.

Final development and review was carried out by Martin Hinds a Life Fellow of the Institute.

The Institute in 2005 agreed to bring these standards into line with the PAQS standards. This review and subsequent revisions was carried out by Robert Little FAIQS, passed Vice President and passed Chairman of the OverSeas Committee.

CAVEAT

The many competencies described in this publication may be acquired by individual Quantity Surveyors over a lifetime of professional practice, education and training.

Most Quantity Surveyors should have attained the competencies listed as "core" or essential, either after graduation from their tertiary course and in their first five to ten years of on the job training in approved employment under approved supervision.

A number of other competencies are specialised and therefore optional and might only be acquired by Quantity Surveyors working in a specific area or on particular projects.

It is therefore unlikely that all these competencies will be found in any one Quantity Surveyor. However, in many Quantity Surveying practices the balance of these competencies is likely to be provided by pooling all the skills of the various staff.

The Australian Institute of Quantity Surveyors (AIQS) publishes a Members' Business Register which lists the services provided by members' practices. People seeking Quantity Surveying services should refer to that register and ascertain directly that the members concerned are able to provide the skills or competencies required for a particular task.

DEFINITIONS

Basic Skills	Skills which need to be acquired during tertiary education and are part of the Core Competencies.
Core Competencies	Required skills of a competent Quantity Surveyor.
Specialist Competencies	Skills gained in areas akin to Quantity Surveying, which may become primary business functions.

BASIC SKILLS

The basic characteristics of the skills that lead to a competent Quantity Surveyor are:

<p>Quantification/Measurement.</p>	<p>The ability to</p> <ul style="list-style-type: none"> • understand and apply the standard method of measurement relevant to the area of practice • understand and apply standard phraseology of building trades and elements • quantify, enumerate and measure.
<p>Communication Skills</p>	<p>The ability to:</p> <ul style="list-style-type: none"> • communicate effectively, orally, in writing and with visual aids • combine fact or ideas into a complex whole • prepare written information in a formal way which clearly conveys meaning.
<p>Personal and Interpersonal Skills</p>	<p>The ability to:</p> <ul style="list-style-type: none"> • demonstrate self confidence time management and self motivation and enthusiasm • understand the role and motivation of others and participate in professional and inter-professional teamwork • identify and assess problems and find innovative solutions • set and achieve personal objectives and targets • understand and, where appropriate, apply marketing and negotiating skills.
<p>Business and Management Skills</p>	<p>The ability to:</p> <ul style="list-style-type: none"> • recognise the need for cost-effective use of appropriate resources • understand the process of quality control and assurance, and understand appropriate certification • recognise consumer and client needs and the process for their satisfaction • understand accounting principles, including budgets and cash flows • understand the scale of fees and charges for professional services • be familiar with general economic principles.
<p>Professional Practice</p>	<p>The ability to:</p> <ul style="list-style-type: none"> • recognise the nature and significance of property development in all its forms • understand the role responsibilities and legal liabilities of Quantity Surveyors in matters of practice • understand and apply the ethics of professional practice • understand and apply legislation relevant to providing a professional service including registration of Quantity Surveyors and quantity Surveying practices • understand the role of Quantity Surveyor in a multi-disciplinary project team • understand the structure of the national Institute of Quantity Surveyors, its by-laws and rules of conduct.
<p>Computer and Information Technology</p>	<p>The ability to:</p>

	<ul style="list-style-type: none"> • understand and apply basic computer skills relevant to area of practice • understand the use and relevance of information technology.
Construction Technology	<p>Acquire knowledge of:</p> <ul style="list-style-type: none"> • Construction processes and technologies • Construction activities and sequencing of activities • Source and use of building materials including testing and assessing techniques • Design and installation of building services • Principles of building science in respect of heat, light and sound • Principles of building science in relation to structures including analysis, design and stability • Principles of construction including demolition methods, formwork design, erection techniques plant and equipment • Principles of site surveys • Interpretation of building plans, construction codes and regulations • Specification writing.
Construction Law and Regulation	<p>Acquire knowledge of:</p> <ul style="list-style-type: none"> • Laws and regulations relevant to the construction industry <p>Various forms of building and construction contracts.</p>

These basic skills form the platform from which a competent Quantity Surveyor can develop and are an integral part of the various units of competence.

These abilities and knowledge may be developed during tertiary education or by personal development. Some may be included as modules of Quantity Surveying courses.

PROJECT COST MANAGEMENT COMPETENCIES

AREAS OF CORE PROFESSIONAL COMPETENCIES

Range Indicators for all Competencies

Competencies in the various performance criteria will be demonstrated in the execution of typical work undertaken as a professional Quantity Surveyor. The work in question will call for the application of extensive knowledge appropriate to the discipline. Such knowledge will normally be acquired through a structured program of education to degree level incorporating training and work experience.

This activity would be based on a clear understanding of the processes involved and includes:

- construction and financial practices in the construction industry.
- life cycle implications where required
- appropriate recording and documentation of information including costings

Practitioners would demonstrate a thorough understanding of:

- factors affecting the industry
 - micro and macro economic factors
 - technological factors
 - the influence of inflation on construction costs
- principles of construction and the use of materials
- the legislative and regulatory requirements of the industry.

Additional range indicators for specific competencies are included where required.

Communication and computing skills would also be applied in conjunction with these competencies.

Discrimination between the application of this unit at the levels of Entry Graduate (Probationer), Associate (or Member) and Fellow is chiefly in terms of the level of autonomy or supervision of the work required and the degree of leadership exercised. The type of projects on which the practitioner has worked and the range of experience would also be taken into account.

Entry Graduate (Probationer)

The Entry Graduate (or Probationer) would demonstrate these competencies in work undertaken under the supervision of a more senior practitioner. The Entry Graduate would be able to work effectively and develop through experience and added responsibility the ability to work under general guidance on the accepted range of work carried out by a professional Quantity Surveyor.

Associate/Member

The Associate would demonstrate these competencies in the course of work associated with the application of appropriate knowledge to recognised tasks either self managed or senior practitioner supervised activities. The Associate would have had varied experience and worked on a range of projects.

Fellow

Competencies would be demonstrated in the course of undertaking tasks associated with the self managed application of appropriate knowledge to recognised tasks and leadership of others in the performance of the professional activities. The Fellow would be expected to have had considerable experience and demonstrated competency over a wide range of projects.

PROJECT COST MANAGEMENT COMPETENCIES

AREAS OF CORE PROFESSIONAL COMPETENCIES

Range Indicators for all Competencies (continued)

Evidence Guide

Evidence of successful achievement of these competencies would be effective and efficient management or implementation of the particular competency's process and the setting up and application of appropriate systems for monitoring of activities.

PROJECT COST MANAGEMENT COMPETENCIES

Project cost management involves various cost management and procurement procedures to ensure that the Client's budget is properly established and maintained.

DESIGN COST ADVICE, COST PLANNING AND COST ENGINEERING COMPETENCIES

Cost management of a project includes establishing the budget and then effectively monitoring and reporting against that budget on a regular basis, cost planning the evolving design, preparing appropriate contract documentation and advising on variations and claims during the progress of the project.

Additional Range Indicators

- strategies for gathering data and carrying out research on current construction costs and future predictions
- analysis of data relating to costing, budgeting and cashflows including financial implications of various options
- use of appropriate analysis and evaluation techniques in reporting to the Client
- application of principles of cost management and elemental cost analysis

COMPETENCY STANDARD UNIT 1 - STRATEGIC PLANNING (CORE UNIT)

ELEMENT	PERFORMANCE CRITERIA
1.1 Provide strategic advice on the costs and benefits of various courses of action on a construction project	1.1.1 Various techniques for value optimisation established and implemented 1.1.2 Advice on various courses of action provided
1.2 Conduct economic and financial analyses for the life of a construction project	1.2.1 Relevant financial and economic data collected 1.2.2 Financial and economic data analysed for life of project
1.3 Provide input into the development of the project brief	1.3.1 Relevant data collected 1.3.2 Input into project brief provided
1.4 Conduct compliance and management studies	1.4.1 Requirements of relevant government planning and environmental legislation and regulation researched 1.4.2 Strategy developed for compliance and management of the project in line with established requirements
1.5 Prepare cost benefit analyses	1.5.1 Data for cost benefit analyses accessed and evaluated 1.5.2 Cost benefit analyses prepared

PROJECT COST MANAGEMENT COMPETENCIES

DESIGN COST ADVICE, COST PLANNING AND COST ENGINEERING COMPETENCIES

COMPETENCY STANDARD UNIT 2 - BUDGETARY PROCESS (CORE UNIT)

ELEMENT	PERFORMANCE CRITERIA
2.1 Establish and maintain cost management and monitoring procedures	2.1.1 Control systems established 2.1.2 Cost administration procedures established 2.1.3 Cost reporting and forecasting systems established and maintained 2.1.4 Variation control systems established and maintained
2.2 Co-ordinate Client's cash flow	2.2.1 Required data collected 2.2.2 Appropriate procedures established for co-ordination of cash flow
2.3 Appraise Contractors cost reporting systems	2.3.1 Contractors cost reporting systems evaluated 2.3.2 Advice on required changes and adjustments given
2.4 Establish budget for project	2.4.1 Cost budgets for all contracts prepared and established 2.4.2 Work package scope established
2.5 Prepare cost reports	2.5.1 Format of cost reports established 2.5.2 Cost section of project progress report prepared based on appropriate data

PROJECT COST MANAGEMENT COMPETENCIES

DESIGN COST ADVICE, COST PLANNING AND COST ENGINEERING COMPETENCIES

COMPETENCY STANDARD UNIT 3 - COST ESTIMATING (CORE UNIT)

ELEMENT	PERFORMANCE CRITERIA
3.1 Prepare estimates	3.1.1 Scope of estimates researched and prepared 3.1.2 Detailed estimates prepared 3.1.3 Estimates for proposed changes and variations prepared 3.1.4 Cash flow prepared
3.2 Develop cost components	3.2.1 Cost factors researched and developed 3.2.2 Productivity factors developed 3.2.3 Unit rates developed
3.3 Assess and advise on the accuracy of cost estimates	3.3.1 Cost estimates reviewed and evaluated 3.3.2 Advice provided on accuracy of estimates
3.4 Prepare estimating procedures and conduct estimate reviews	3.4.1 Procedures for estimating researched and appropriate procedures prepared 3.4.2 Estimate reviews conducted according to sound principles and accepted professional practice

PROJECT COST MANAGEMENT COMPETENCIES

DESIGN COST ADVICE, COST PLANNING AND COST ENGINEERING COMPETENCIES

COMPETENCY STANDARD UNIT 4 - COST PLANNING (CORE UNIT)

ELEMENT	PERFORMANCE CRITERIA
4.1 Establish project cost objectives and parameters	<p>4.1.1 Project cost objectives clarified with Client, colleagues and other appropriate personnel</p> <p>4.1.2 Project cost parameters and constraints identified and verified</p> <p>4.1.3 Understanding of development processes involved in costing demonstrated</p>
4.2 Access data to produce estimate/indicative costs	<p>4.2.1 Appropriate data gathering structures and relevant schedules developed</p> <p>4.2.2 Data for cost estimates/indicative costs collected and evaluated</p> <p>4.2.3 Documentation inputs to estimates/indicative cost processes prepared</p>
4.3 Analyse time related cost data	4.3.1 Time related cost data analysed
4.4 Undertake project cost estimate	4.4.1 Project cost estimate completed using time-related cost data
4.5 Analyse and advise on various alternative design solutions	<p>4.5.1 Analyses of design construction details completed</p> <p>4.5.2 Design solutions evaluated</p> <p>4.5.3 Appropriate design solution developed, compared and selected</p>
4.6 Prepare project implementation and procurement plan	<p>4.6.1 Implementation and procurement plan clearly specified</p> <p>4.6.2 Stages of the project identified with defined outcomes</p>
4.7 Prepare cost plan	<p>4.7.1 Documentation input into cost plan prepared based on sound principles and accepted practice</p> <p>4.7.2 Cost plan developed based on information collected and understanding of life cycle costing and process models</p>
4.8 Undertake scope audit	4.8.1 Scope audit undertaken based on sound principles and accepted practice
4.9 Provide advice to Clients on estimate, cost alternatives and cost plan	<p>4.9.1 Involvement in on-going planning/review cycle maintained</p> <p>4.9.2 Advice on cost plan provided to Client based on analysis of data</p> <p>4.9.3 Time lines and deadlines met</p>

PROJECT COST MANAGEMENT COMPETENCIES

CONTRACT DOCUMENTATION AND PROCUREMENT

Contract Documentation and Procurement involves the various processes by which a construction contract is achieved including the use of the appropriate project delivery system and standard form of contract, the method of tendering and contractor selection, the provision of bills of quantities and the subsequent acceptance of a tender.

Additional Range Indicators

- Strategies for gathering data and carrying out research on project delivery systems, contractor selection and forms of contract.
- Analysis of data including financial implications of various options.
- Use of appropriate analysis and evaluation techniques in reporting to Client.
- Methods of construction and analysis of buildability.
- Appropriate recording and documentation of information including registration of interest, preparation of bills of quantities and work breakdown structures.
- Dispute resolution procedures.

COMPETENCY STANDARD UNIT 5 - GENERAL PROCUREMENT ADVICE (CORE UNIT)

ELEMENT	PERFORMANCE CRITERIA
5.1 Collect information required to specify procurement requirements	5.1.1 Clients objectives established and confirmed 5.1.2 Objectives of process specified 5.1.3 Market conditions evaluated and options reviewed
5.2 Evaluate project delivery systems	5.2.1 Project delivery systems reviewed 5.2.2 Forms of contract reviewed
5.3 Undertake constructability analyses	5.3.1 Forms of construction analysed 5.3.2 Forms of construction costed and optimised 5.3.3 Constructability recommendations made
5.4 Provide input into the development of the project brief	5.4.1 Relevant data collected 5.4.2 Input into project brief provided

PROJECT COST MANAGEMENT COMPETENCIES

CONTRACT DOCUMENTATION AND PROCUREMENT

COMPETENCY STANDARD UNIT 6 – QUANTIFICATION, MEASUREMENT AND DOCUMENTATION

ELEMENT	PERFORMANCE CRITERIA
6.1 Establish Client requirements and advise on alternative contract document types	6.1.1 Client objectives, risk acceptance and other factors assessed 6.1.2 Alternative contract document types explained to Client 6.1.3 Client agreement on selected contract document obtained
6.2 Recommend and agree method of measurement and input document requirements	6.2.1 Alternative method of measurement types explained to Client 6.2.2 Expected quality and timing of input documents assessed 6.2.3 Client agreement on method of measurement obtained 6.2.4 Input documents scheduled, time-tabled and prioritized
6.3 Develop management plan for resources and other requirements	6.3.1 Trade or other document breakdown determined 6.3.2 Appropriate resource levels quantified and allocated
6.4 Access and distribute input documents	6.4.1 Input documents validated and registered 6.4.2 Input documents distributed to Quantity Surveying team
6.5 Prepare Bill of Quantities	6.5.1 Measurement (software) system established and set up 6.5.2 Items described, measured, signposted and quantified 6.5.3 Items sorted in appropriate sequence 6.5.4 Preliminaries, trade or other sections and subsection headings added 6.5.5 “Rates to include” and other pricing and measurement preamble clauses added 6.5.6 Item reference added 6.5.7 Elemental or other analysis codes added

PROJECT COST MANAGEMENT COMPETENCIES

CONTRACT DOCUMENTATION AND PROCUREMENT

COMPETENCY STANDARD UNIT 6 – QUANTIFICATION, MEASUREMENT AND DOCUMENTATION (CONTINUED)

6.6 Measure and describe construction components	6.6.1 Standard terminology understood 6.6.2 Method of measurement understood and applied 6.6.3 Construction components measured and described
6.7 Undertake quantity and other checks	6.7.1 Input document discrepancies and/or omissions noted and queried during measurement 6.7.2 “To take” lists prepared during measurement 6.7.3 Final input documents checked for Bill completeness 6.7.4 Final output document checked for spelling, omissions, etc. 6.7.5 Cost significant items and quantities “bulk” checked
6.8 Prepare Addenda as required	6.8.1 Final Bill adjusted for corrections to input documents and errors and/or omissions

PROJECT COST MANAGEMENT COMPETENCIES

CONTRACT DOCUMENTATION AND PROCUREMENT

COMPETENCY STANDARD UNIT 7 – TENDERING PROCESS

<p>7.1 Manage tendering process</p>	<p>7.1.1 Tender and contract documents prepared</p> <p>7.1.2 Trends evaluated and analysed</p> <p>7.1.3 Contracts negotiated</p> <p>7.1.4 Changes evaluated and negotiated</p> <p>7.1.5 Results of tendering process communicated to Client</p>
<p>7.2 Prepare documentation inputs to the tender</p>	<p>7.2.1 Advice on appropriate tender documentation provided</p> <p>7.2.2 Bills of Quantities or work breakdown structures to aid tendering process prepared</p>
<p>7.3 Initiate tenderer selection process</p>	<p>7.3.1 Tenderer selection criteria determined</p> <p>7.3.2 Tenderer data accessed</p> <p>7.3.3 Documentation for registration of tenderer interest prepared and placed in appropriate publications</p>
<p>7.4 Advise on the selection of tenderers</p>	<p>7.4.1 Tenderers' proposals and credentials analysed against criteria</p> <p>7.4.2 Possible tenderers listed and validity confirmed</p> <p>7.4.3 Short list prepared</p> <p>7.4.4 Client advised</p>
<p>7.5 Evaluate and award of tenders</p>	<p>7.5.1 Data gathered using appropriate structures and procedures</p> <p>7.5.2 Project objectives and parameters established</p> <p>7.5.3 Tenders evaluated and negotiated</p> <p>7.5.4 Project implementation and procurement plan identified</p> <p>7.5.5 Apply the ethics of professional practice</p> <p>7.5.6 Analysis of financial and non-financial returns made</p>

PROJECT COST MANAGEMENT COMPETENCIES

CONTRACT ADMINISTRATION

Contract administration involves effective cost management of the project during the construction phase including preparation of cost management documents, management of cashflow including progress payments and rise and fall calculations, negotiation of claims and scope changes, dispute resolution and progressive reporting to the Client.

Additional Range Indicators

- Analysis of the financial implications of construction process, rise and fall calculations and outcomes of negotiations on variations and claims.
- Application of principles of contract administration
- Strategies for gathering data and carrying out research on current trends in contract administration
- Analysis of data relating to contract performance and cashflows
- A thorough understanding of dispute resolution procedures.

COMPETENCY STANDARD UNIT 8 - ACCOUNT MANAGEMENT (CORE UNIT)

ELEMENT	PERFORMANCE CRITERIA
8.1 Prepare construction cost management document	8.1.1 Cost management document prepared (priced bill of quantities or priced work breakdown structure) 8.1.2 Cost management document approved by contracting parties
8.2 Manage cash flow during construction	8.2.1 Parameters relating to cash flow established 8.2.2 Data accessed, processed and evaluated 8.2.3 Cash flow forecast progressively updated in light of current information 8.2.4 Outcomes communicated to Client and management team 8.2.5 Information transferred to project report
8.3 Recommend progress payments during construction phase	8.3.1 Procedures for handling progress payments developed and implemented 8.3.2 Reports from specialist consultants obtained and evaluated 8.3.3 Negotiations with contractors conducted and compliance with contract ensured 8.3.4 Value of work in progress certified and information transferred to project report

PROJECT COST MANAGEMENT COMPETENCIES

CONTRACT ADMINISTRATION

COMPETENCY STANDARD UNIT 8 - ACCOUNT MANAGEMENT (CORE UNIT) (CONTINUED)

<p>8.4 Clarify the extent of rise and fall costs and access data</p>	<p>8.4.1 Sound data gathering techniques employed</p> <p>8.4.2 All required data accessed</p> <p>8.4.3 All data analysed and evaluated using appropriate process and following accepted professional practice</p>
<p>8.5 Record outcomes of data gathering and analysis process</p>	<p>8.5.1 Information transferred to project report</p> <p>8.5.2 Status confirmed</p>
<p>8.6 Conduct negotiations on adjustment of rise and fall costs</p>	<p>8.6.1 Negotiation carried out based on sound preparation and accurate data</p> <p>8.6.2 Negotiation conducted in a professional manner to achieve acceptable outcomes</p>
<p>8.7 Prepare progressive financial reports during construction phase</p>	<p>8.7.1 Format for progressive financial reports developed</p> <p>8.7.2 Required financial information accessed and analysed</p> <p>8.7.3 Report compiled and results conveyed to relevant personnel and Client</p>
<p>8.8 Arrange settlement of accounts during construction phase</p>	<p>8.8.1 Relevant data collected, analysed and evaluated</p> <p>8.8.2 Report compiled and negotiation undertaken</p> <p>8.8.3. Information transferred to the project report</p> <p>8.8.4 Penalties/bonuses assessed</p> <p>8.8.5 Relevant personnel kept informed at all stages of process</p>
<p>8.9 Communicate with Client</p>	<p>8.9.1 Client kept informed at all stages</p> <p>8.9.2 Technically sound and factually accurate advice provided to Client</p> <p>8.9.3 Client briefed on process and outcomes</p> <p>8.9.4 Final outcome and rationale for outcome presented to Client</p>

PROJECT COST MANAGEMENT COMPETENCIES

CONTRACT ADMINISTRATION

COMPETENCY STANDARD UNIT 9 - CONSTRUCTION CHANGE MANAGEMENT (CORE UNIT)

ELEMENT	PERFORMANCE CRITERIA
9.1 Establish extent of proposed and actual scope changes	9.1.1 Proposed and actual scope change clarified 9.1.2 Parameters and objectives clarified; 9.1.3 Contract status confirmed
9.2 Collect all data relevant to scope changes	9.2.1 Data gathering structure and schedules established 9.2.2 Data evaluated following accepted professional principles and practice
9.3 Conduct negotiation on scope changes	9.3.1 Negotiation carried out based on adequate preparation and following sound principles 9.3.2 Negotiation conducted in a professional manner to achieve acceptable outcomes
9.4 Manage cost claims during construction	9.4.1 Procedures for handling cost claims developed and implemented 9.4.2 Status confirmed 9.4.3 Relevant data collected and evaluated 9.4.4 Negotiations on cost claims undertaken based on data collected
9.5 Communicate with Client	9.5.1 Client kept informed at all stages 9.5.2 Technically sound and factually accurate advice provided to Client 9.5.3 Client briefed on process and outcomes 9.5.4 Final outcome and rationale for outcome explained to Client

PROJECT COST MANAGEMENT COMPETENCIES

CONTRACT ADMINISTRATION

COMPETENCY STANDARD UNIT 10 - CLAIMS AND DISPUTE RESOLUTION (SPECIALIST UNIT)

ELEMENT	PERFORMANCE CRITERIA
10.1 Establish background and collect all data relevant to claim	10.1.1 Relevant data collected, analysed and evaluated 10.1.2 Status report compiled 10.1.3 Best/worst case scenario assessed
10.2 Conduct negotiation on claim settlement	10.2.1 Key issues for each party identified 10.2.2 Best/worst case scenarios for each party identified 10.2.3 Separate and combined meeting of parties conducted 10.2.4 Most beneficial result negotiated for Client
10.3 Prepare claim and resolution status report for Client	10.3.1 Client kept informed at all stages 10.3.2 Client briefed on best/worst case scenarios 10.3.3 Final results and rationale for outcome presented to Client

PROJECT COST MANAGEMENT COMPETENCIES

FINANCIAL AUDIT

Financial audit involves an independent assessment that risk is being effectively managed to the satisfaction of the Client or their financier.

The audit service provides a level of confidence for the Client/financier in terms of the containment of risk from both financial and management aspects.

Generally the fields encompassed within the financial audit are:

- design documentation control
- compliance issues incorporation
- project delivery control
- time control
- financial control

Additional Range Indicators

- strategies for gathering data and carrying out research on legal and financial issues
- analysis of data including risk implications
- use of appropriate analysis and evaluation techniques in reporting to Client

COMPETENCY STANDARD UNIT 11 - FINANCIAL AUDIT (SPECIALIST UNIT)

ELEMENT	PERFORMANCE CRITERIA
11.1 Establish project objectives and parameters	11.1.1 Project objectives clarified in discussion with Client or their financier 11.1.2 Project parameters and constraints identified and verified including: <ul style="list-style-type: none">• design documentation control• compliance issues incorporation• project delivery control• timing issues controlled• financial control established
11.2 Access available data and information	11.2.1 Availability of data established and requirements needed to meet the brief confirmed
11.3 Confirm interface with consultants, contractors and other relevant data providers	11.3.1. Formal arrangements for interface with others arranged

PROJECT COST MANAGEMENT COMPETENCIES

FINANCIAL AUDIT

COMPETENCY STANDARD UNIT 11 - FINANCIAL AUDIT (SPECIALIST UNIT) (CONTINUED)

11.4 Establish reporting details	11.4.1 Reporting format confirmed with the Client including level of supporting documentation
11.5 Implement financial audit	11.5.1 Initial financial audit completed in relation to design documentation, compliance issues and project delivery 11.5.2 Monthly financial audit carried out with all risk factors monitored

PROJECT COST MANAGEMENT COMPETENCIES

RESOURCE ANALYSIS

Resource analysis involves carrying out various studies in construction resource management including associated productivity estimates/forecasts and subsequent monitoring of performance.

Additional Range Indicators

- strategies for gathering data and carrying out research on resource factors
- analysis of data including financial implications
- use of appropriate analysis and evaluation techniques in reporting to Client

COMPETENCY STANDARD UNIT 12 - RESOURCE ANALYSIS (SPECIALIST UNIT)

ELEMENT	PERFORMANCE CRITERIA
12.1 Undertake resource management and productivity studies including appropriate estimates and forecasts	12.1.1 Resource requirements identified 12.1.2 Productivity estimates prepared
12.2 Develop appropriate performance monitoring procedures	12.2.1 Appropriate performance monitoring procedures developed 12.2.2 Responsibility schedules prepared and tasks assigned
12.3 Prepare resource and productivity usage reports	12.3.1 Resource usage reports prepared 12.3.2 Productivity reports prepared
12.4 Prepare material order lists	12.4.1 Material requirements identified 12.4.2 Material order lists prepared
12.5 Develop and implement appropriate procedure for data gathering	12.5.1 Procedures for data gathering developed 12.5.2 Data gathering implemented

SUPPORT COMPETENCIES

Support competencies involve numerous skills that are necessary to be acquired in order to effectively practice the various services of a Quantity Surveyor, including measuring techniques, design and construction methodologies, environmental issues identification, quasi legal matters, general business management, service back up in computer software and hardware, research and development and an effective cost database.

Additional Range Indicators

Competence in support competencies will be demonstrated in the execution of typical work undertaken as a professional Quantity Surveyor. The work in question will call for the application of extensive knowledge appropriate to the discipline. Such knowledge will normally be acquired through a structured program of education to degree level incorporating training and work experience.

This activity would be based on a clear understanding of the processes involved in the carrying out of associated competencies including:

- strategies for acquiring knowledge relating to regulations and legal requirements, research and data gathering
- analysis of associated data
- methods of measurement
- business management techniques
- use of appropriate analysis and evaluation techniques

COMPETENCY STANDARD UNIT 13 - COMPUTER SERVICES (CORE UNIT)

ELEMENT	PERFORMANCE CRITERIA
13.1 Use computers to input and access information relating to the full range of Quantity Surveying applications	13.1.1 General skills in the use and care of computing hardware and software demonstrated 13.1.2 Computers used to access, enter and process information 13.1.3 Data exchange between participants in construction activities promoted
13.2. Use standard application packages in the management and presentation of information relating to construction economics activities	13.2.1 Word processing programs used to produce professional quality reports 13.2.2 Electronic spreadsheets used to prepare schedules. 13.2.3 Statistical packages use to manage and process statistical data
13.3 Use computer packages for specific construction economics applications	13.3.1 Computer software for cost planning and cost management used to achieve the most beneficial and professional outcomes for the Client

SUPPORT COMPETENCIES

COMPETENCY STANDARD UNIT 14 - CONSTRUCTION TECHNOLOGY (CORE UNIT)

ELEMENT	PERFORMANCE CRITERIA
14.1 Acquire knowledge of construction processes, technologies and associated building materials	14.1.1 Knowledge of construction processes and technologies as applied to construction activities and sequencing of activities acquired 14.1.2 Knowledge of source and use of building materials applied in construction activities acquired include testing and assessing techniques 14.1.3 Knowledge of design and installation of building services acquired
14.2 Acquire knowledge of the principals of the science of construction	14.2.1 Knowledge of principles of building science demonstrated, in respect of heat, light and sound 14.2.2 Knowledge of principles of building science in relation to structures demonstrated including analysis, design and stability
14.3 Acquire knowledge of the principles of construction	14.3.1 Knowledge of principles of construction demonstrated including demolition methods, formwork design, erection techniques, plant and equipment and site surveys
14.4 Interpret building documentation	14.4.1 Building plans, specifications, construction codes and regulations interpreted

COMPETENCY STANDARD UNIT 15 - GOVERNMENT REGULATION AND LAW (CORE UNIT)

ELEMENT	PERFORMANCE CRITERIA
15.1 Acquire knowledge of appropriate Government legislation, standards and codes relating to a business practice	15.1.1 Knowledge of appropriate forms of business associations acquired 15.1.2 Knowledge of legislation relating to employment and professional liability acquired 15.1.3 Knowledge of law relating to occupational health and safety acquired 15.1.4 Knowledge of legislation for conserving the environment acquired 15.1.5 Relevant Australian Standards understood

SUPPORT COMPETENCIES

COMPETENCY STANDARD UNIT 15 - GOVERNMENT REGULATION AND LAW (CORE UNIT) (CONTINUED)

<p>15.2 Acquire knowledge of law relating to building practice</p>	<p>15.2.1 Knowledge of contract law relevant to construction industry acquired</p> <p>15.2.1 Knowledge of various forms of building contract acquired</p>
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COMPETENCY STANDARD UNIT 16 - ARBITRATION (SPECIALIST UNIT)

ELEMENT	PERFORMANCE CRITERIA
<p>16.1 Understand legal principles involved in arbitration proceedings</p>	<p>16.1.1 Knowledge of previous arbitration case histories demonstrated</p> <p>16.1.2 Successful previous arbitration history or participation under supervision in previous successful arbitration demonstrated</p>
<p>16.2 Manage the preliminary conference based on knowledge of arbitration process and legal principles</p>	<p>16.2.1 Agreement to refer the dispute to arbitration documented</p> <p>16.2.2 Nature of proceedings and running costs negotiated</p> <p>16.2.3 Legal representation of parties decided</p> <p>16.2.4 Procedures to streamline the hearing agreed</p> <p>16.2.5 Venue and date of the hearing determined</p>
<p>16.3 Prepare material for the hearing</p>	<p>16.3.1 Timetable for hearing of dispute prepared</p> <p>16.3.2 Points of claim and defence listed</p> <p>16.3.3 Details of claim and counter claim identified</p> <p>16.3.4 Documents pertaining to the dispute discovered and inspected</p>
<p>16.4 Conduct the hearing</p>	<p>16.4.1 Proceedings of the hearing conducted in accordance with legal principles and knowledge of the arbitration process</p> <p>16.4.2 Arguments of both parties heard and recorded in accordance with the rules of evidence</p> <p>16.4.3 Effective channels of communication with all parties maintained</p> <p>16.4.4 Technically correct and factually sound advice provided</p>
<p>16.5 Achieve agreement on processes for viewing</p>	<p>16.5.1 Agreement of parties to inspections negotiated</p> <p>16.5.2 Purpose and rules of viewing defined</p>

SUPPORT COMPETENCIES

COMPETENCY STANDARD UNIT 16 - ARBITRATION (SPECIALIST UNIT) (CONTINUED)

16.6 Prepare award	<p>16.6.1 Award written in accordance with accepted principles based on the stated case</p> <p>16.6.2 Comprehensive details of the argument and reasons for award included</p> <p>16.6.3 Time-scale for the award determined</p>
16.7 Determine costs	<p>16.7.1 Costs determined based on knowledge of contracting methods and business finance</p> <p>16.7.2 Acceptance of determination of costs by all parties achieved</p>

COMPETENCY STANDARD UNIT 17 - EXPERT WITNESS / EVIDENCE (SPECIALIST UNIT)

ELEMENT	PERFORMANCE CRITERIA
17.1 Demonstrate knowledge of business and commercial law	17.1.1 Professional activities based on knowledge and understanding of business and commercial law
17.2 Prepare to give evidence	<p>17.2.1 Basis of claim researched</p> <p>17.2.2 Documentation necessary to prepare evidence identified and obtained</p> <p>17.2.3 Information evaluated</p> <p>17.2.4 Evidence and supporting documentation prepared</p> <p>17.2.5 Possible weaknesses, discrepancies, ambiguities and errors identified</p> <p>17.2.6 Proof of evidence verified</p> <p>17.2.7 Clients advised on strength of case</p> <p>17.2.8 Curriculum vitae prepared for presentation to court</p>
17.3 Brief counsel and solicitors	<p>17.3.1 Basis of evidence and methodology explained</p> <p>17.3.2 Technical terms clarified</p> <p>17.3.3 Full understanding of implications and technical compilation of evidence verified</p> <p>17.3.4 Additional documentation provided where necessary</p>

SUPPORT COMPETENCIES

COMPETENCY STANDARD UNIT 17 - EXPERT WITNESS / EVIDENCE (SPECIALIST UNIT) (CONTINUED)

17.4 Give evidence	<p>17.4.1 Concise and clear presentation given, based on complete and thorough knowledge of the matter</p> <p>17.4.2 Time to prepare answers to questions which go beyond existing evidence requested if necessary</p> <p>17.4.3 Information provided only within the parameters of expertise</p>
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COMPETENCY STANDARD UNIT 18 - BUSINESS MANAGEMENT (SPECIALIST UNIT)

(a) COMMUNICATION

ELEMENT	PERFORMANCE CRITERIA
18a.1 Communicate effectively with colleagues, Clients, suppliers and contractors	<p>18a.1.1 Technical information clearly and accurately communicated</p> <p>18a.1.2 Appropriate means of communication selected for a variety of situations, instructions given and received accurately</p>
18a.2 Access, organise and analyse information to provide the basis for written reports and presentations	<p>18a.2.1 Research undertaken to access information of a technical and financial nature</p> <p>18a.2.2 Information for reports and presentations organised in a coherent and logical way for oral or written presentation</p> <p>18a.2.3 Information analysed for appropriateness and evaluated for quality and relevance</p>
18a.3 Give presentations to Clients, arbitration hearings and in litigation	<p>18a.3.1 Professional presentations given to Clients</p> <p>18a.3.2 Evidence presented in a professional manner in hearings and litigation</p> <p>18a.3.3 Technically sound and correct information presented</p>
18a.4 Write reports	<p>18a.4.1 Material logically organised for inclusion in a report</p> <p>18a.4.2 Reports written on technical material relating to the profession</p>

SUPPORT COMPETENCIES

COMPETENCY STANDARD UNIT 18 - BUSINESS MANAGEMENT (SPECIALIST UNIT)

(a) COMMUNICATION (CONTINUED)

<p>18a.5 Take part in formal and informal meetings</p>	<p>18a.5.1 Formal meeting procedure adhered to when appropriate</p> <p>18a.5.2 Opinions clearly and logically stated</p> <p>18a.5.3 Active listening undertaken to elicit others opinions (Clients, suppliers, contractors, others)</p> <p>18a.5.4 Contribution made to effective outcomes</p>
<p>18a.6 Negotiate with a range of people (Clients, suppliers, colleagues, and construction and property industry personnel generally)</p>	<p>18a.6.1 Purpose of negotiation clarified</p> <p>18a.6.2 Negotiation prepared for and relevant information collected</p> <p>18a.6.3 Active listening techniques used to clarify positions</p> <p>18a.6.4 Outcomes of negotiation summarised</p>

(b) INFORMATION MANAGEMENT

ELEMENT	PERFORMANCE CRITERIA
<p>18b.1 Establish and maintain information systems</p>	<p>18b.1.1 Data collected from empirical observations, other bodies, technical and scientific literature and existing buildings for storage and retrieval</p> <p>18b.1.2 Information used for business competitive advantage</p> <p>18b.1.3 Future requirements determined from knowledge of current and planned position</p> <p>18b.1.4 Software systems continually evaluated</p>

(c) ETHICS AND STANDARDS

ELEMENT	PERFORMANCE CRITERIA
<p>18c.1 Implement accepted professional ethics and principles</p>	<p>18c.1.1 Institute's Code of Ethics applied</p> <p>18c.1.2 Duties not performed outside or beyond the scope of qualifications or experience</p>

SUPPORT COMPETENCIES

COMPETENCY STANDARD UNIT 18 - BUSINESS MANAGEMENT (SPECIALIST UNIT)

(c) ETHICS AND STANDARDS (CONTINUED)

18c.2	Recognise trade practice issues	18c.2.1	Government policy requirements identified
		18c.2.2	Professional construction and property industry issues identified
18c.3	Assume professional responsibility for own actions	18c.3.1	Potential professional risks and liabilities recognised

(d) HUMAN RESOURCES

ELEMENT	PERFORMANCE CRITERIA
18d.1	Manage human resources effectively
	18d.1.1 Performance appraisal systems implemented
	18d.1.2 Principal of equal opportunity applied
	18d.1.3 Occupational health and safety standards recognised and applied
18d.2	Plan and implement training programs
	18d.2.1 Training needs of staff determined
	18d.2.2 Training manual produced and regularly updated
18d.3	Understand and apply principle of industrial law and industrial relations
	18d.3.1 Principle of law of employee / employer relationship understood and applied
	18d.3.2 Effective resolution of staff disputes carried out

(e) MARKETING

ELEMENT	PERFORMANCE CRITERIA
18e.1	Prepare market plan and implement effectively
	18e.1.1 Marketing needs assessed and marketing strategy reviewed
	18e.1.2 Marketing plan prepared in association with business plan
	18e.1.3 Future earning capacity established and cash flow budget determined

SUPPORT COMPETENCIES

COMPETENCY STANDARD UNIT 18 - BUSINESS MANAGEMENT (SPECIALIST UNIT)

(f) ACCOUNTING

ELEMENT	PERFORMANCE CRITERIA
18f.1 Understand principles of accounting including taxation	18f.1.1 Terminology used in accounting understood 18f.1.2 Procedures used to classify and process accounting transactions understood 18f.1.3 Accounting publications and reports assessed and absorbed 18f.1.4 Principles of job costing understood 18f.1.5 Accounting techniques understood sufficient to make both long and short term business decisions 18f.1.6 Taxation implications identified and understood
18f.2 Understand sources of finance	18f.2.1 Source of finance identified and understood

(g) OFFICE MANAGEMENT

ELEMENT	PERFORMANCE CRITERIA
18g.1 Manage self	18g.1.1 Stable performance maintained under pressure 18g.1.2 Difficult situations concluded positively 18g.1.3 Effectiveness maintained in varying environments 18g.1.4 Mental and physical fitness sustained at a level which enable work performance requirements to be met
18g.2 Negotiate, plan and organise personal work priorities	18g.2.1 Competing demands assessed and organised to achieve individual team and organisation priorities 18g.2.2 Events managed to accomplish individual, team and organisation's goals and objectives and project requirements 18g.2.3 Technology used to improve efficiency and effectiveness in managing work priorities and commitments

SUPPORT COMPETENCIES

COMPETENCY STANDARD UNIT 18 - BUSINESS MANAGEMENT (SPECIALIST UNIT)

(g) OFFICE MANAGEMENT (CONTINUED)

<p>18g.3 Develop and maintain personal competence</p>	<p>18g.3.1 Personal strengths and weaknesses assessed to determine personal development priorities</p> <p>18g.3.2 Feedback on performance used to identify and develop ways to improve knowledge and skills</p> <p>18g.3.3 Professional competence assessed against performance plans, job responsibilities and career options</p> <p>18g.3.4 Continuing professional development undertaken</p>
<p>18g.4 Access and share relevant information</p>	<p>18g.4.1 Sources of data identified and accessed to ensure that relevant information is available to work groups</p> <p>18g.4.2 Legislation, codes of practice and organisational policies and practices assessed to identify the provisions relevant to the workplace</p> <p>18g.4.3 Consultative processes used to upgrade and re-evaluate the work environment</p> <p>18g.4.4 Implications of an unsafe and unfair work environment understood</p>
<p>18g.5 Plan and introduce processes to implement workplace requirement</p>	<p>18g.5.1 Requirements and guidelines discussed with colleagues to establish procedures appropriate to the work group</p> <p>18g.5.2 Responsibilities of individuals and work groups in developing a safe and fair workplace agreed and understood</p> <p>18g.5.3 Support provided to colleagues to ensure that they understand and implement their rights and responsibilities</p> <p>18g.5.4 Rehabilitation options identified assessed and used to assist employees</p>
<p>18g.6 Understand employment law and statutory industrial issues</p>	<p>18g.6.1 Legislation, codes of practice and organisational policies and practices assessed to identify the provisions relevant to the workplace</p>
<p>18g.7 Promote continuous improvement</p>	<p>18g.7.1 Responsibilities of individuals and work groups in developing a safe and fair workplace understood</p>

SUPPORT COMPETENCIES

COMPETENCY STANDARD UNIT 18 - BUSINESS MANAGEMENT (SPECIALIST UNIT)

(g) OFFICE MANAGEMENT (CONTINUED)

<p>18g.8 Monitor and adjust performance</p>	<p>18g.8.1 Work performed in a safe and fair environment</p> <p>18g.8.2 Potential and actual problems identified and rectified promptly and decisively</p> <p>18g.8.3 Hazards managed so that their presence is minimised</p> <p>18g.8.4 Recommendations to achieve compliance with and improve standard procedures and practices submitted to designated persons /groups</p> <p>18g.8.5 Systems, records and reporting procedures maintained as required by legislation and by the organisation</p>
<p>18g.9 Investigate non conformance</p>	<p>18g.9.1 Accidents and incidents investigated and dealt with according to agreed procedures and processes</p> <p>18g.9.2 Coaching and mentoring support provided to ensure that colleagues develop competencies to prevent the recurrence of accidents and incidents</p> <p>18g.9.3 Procedures and practices reviewed to assess whether they need to be up-dated to ensure conformance to workplace requirements</p>

(h) PUBLIC RELATIONS

ELEMENT	PERFORMANCE CRITERIA
<p>18h.1 Convey and receive information and ideas</p>	<p>18h.1.1 Ideas presented and expressed in individual and group situations, using appropriate communication techniques</p> <p>18h.1.2 Communication demonstrated knowledge of, and sensitivity to, social and cultural diversity</p> <p>18h.1.3 Client requirements identified and negotiated to achieve agreed outcomes /outputs</p> <p>18h.1.4 Input sought and valued in developing and refining proposals and approaches</p>
<p>18h.2 Develop trust and confidence</p>	<p>18h.2.1 People treated with integrity, respect and empathy</p> <p>18h.2.2 High personal, ethical and organisational standards demonstrated and promoted</p> <p>18h.2.3 Dealings with others conducted with integrity</p> <p>18h.2.4 Trust and confidence of Clients gained and maintained through competent performance</p>

SUPPORT COMPETENCIES

COMPETENCY STANDARD UNIT 18 - BUSINESS MANAGEMENT (SPECIALIST UNIT)

(h) PUBLIC RELATIONS (CONTINUED)

18h.3 Project a professional image	18h.3.1 High personal, ethical and organisational standards demonstrated and promoted
18h.4 Build and maintain networks and relationships	18h.4.1 Networking used in internal and external environments to identify and build relationships 18h.4.2 Networking and other work relationships maintained and used to provide identifiable benefits for the team, organisation and Client
18h.5 Negotiate positive outcomes to rectify difficulties	18h.5.1 Problems identified and analysed, and action taken to rectify the situation with minimal disruption to performance 18h.5.2 Industrial relations issues handled within the organisations processes and procedures 18h.5.3 Conflict addressed and resolved constructively 18h.5.4 Difficult situations negotiated with integrity to achieve results which are acceptable to the participants and which meet organisation and legislative requirements

(i) EDUCATION AND TRAINING

ELEMENT	PERFORMANCE CRITERIA
18i.1 Assist in development of education and training programs	18i.1.1 Education and training needs determined 18i.1.2 Support and assistance given to the development of curriculum and support material for education programs 18i.1.3 Study, research, practice or other activities made to the development of education and training programs in specific areas of construction economics
18i.2 Participate in the development of practical experience programs	18i.2.1 Practical experience programs planned 18i.2.2 Assistance given in the organising of practical experience activities 18i.2.3 Practical experience programs evaluated

SUPPORT COMPETENCIES

COMPETENCY STANDARD UNIT 19 - RESEARCH AND DEVELOPMENT (SPECIALIST UNIT)

ELEMENT	PERFORMANCE CRITERIA
19.1 Participate in research	19.1.1 Requirements for research and development identified 19.1.2 Fundamental and applied research activities supported and facilitated 19.1.3 Application of innovative techniques and strategies supported and facilitated
19.2 Formulate concepts for development	19.2.1 Promising concepts examined and evaluated 19.2.2 Requirements for development identified 19.2.3 Funds for development sought by a variety of methods and from a variety of sources
19.3 Commercialise research outcomes	19.3.1 Economic evaluation of outcomes of research undertaken 19.3.2 Mechanisms for marketing of services developed

COMPETENCY STANDARD UNIT 20 - COST INFORMATION DATABASE (SPECIALIST UNIT)

ELEMENT	PERFORMANCE CRITERIA
20.1 Clarify requirements of a cost information data base	20.1.1 Relevant experts and literature consulted 20.1.2 Scope of information to be included in database specified and validated 20.1.3 Existing database technologies and methodologies evaluated 20.1.4 Strategy for information input and retrieval established
20.2 Access relevant information	20.2.1 Sources of relevant information identified 20.2.2 Information accessed and evaluated
20.3 Set up database	20.3.1 Database selected to satisfy cost information requirements 20.3.2 Database customised to satisfy cost information requirements, where relevant 20.3.3 Information formatted and entered into database

SUPPORT COMPETENCIES

COMPETENCY STANDARD UNIT 20 - COST INFORMATION DATABASE (SPECIALIST UNIT) (CONTINUED)

20.4 Maintain database	20.4.1 Currency of database monitored 20.4.2 Information up-dated as required 20.4.3 Policy for database maintenance developed and implemented
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ASSET FINANCIAL MANAGEMENT COMPETENCIES

Asset financial management involves independent advice on the cost of ownership of property particularly in the areas of feasibility, tax, audits, life cycle cost analysis and technical due diligence.

COMPETENCY STANDARD UNIT 21 - FEASIBILITY STUDIES (SPECIALIST UNIT)

Feasibility studies assess the viability of a project over its expected life and are a necessary prerequisite to any effective decision making process including obtaining finance.

Additional Range Indicators

- research and data gathering strategies related to the collection of predictive information
- analysis of data on property cycles
- the use of appropriate methodologies to analyse supply and demand statistics
- use of appropriate analysis and evaluation techniques including discounted cash flows and sensitivity analyses
- appropriate recording and documentation practice particularly in relation to compilation of data on completed projects

ELEMENT	PERFORMANCE CRITERIA
21.1 Access information required for feasibility study	21.1.1 Project objectives and parameters established based on communication with Client 21.1.2 Data required for study accessed 21.1.3 Documentation inputs prepared including compilation of database of completed projects 21.1.4 Relevant information entered into database
21.2 Undertake analysis for feasibility study	21.2.1 Data evaluated and analysed 21.2.2 Implementation and procurement plan identified 21.2.3 Project stages and outcomes of each stage defined 21.2.4 Financial and non financial returns analysed
21.3 Show understanding of property economic issues	21.3.1 Property market cycles analysed 21.3.2 Supply and demand statistics analysed 21.3.3 Inflation projections made and analysed 21.3.4 Interest rate projections made and analysed
21.4 Communicate outcomes of study to Client	21.4.1 Client given accurate information and advice leading to acceptable functional and financial outcomes

ASSET FINANCIAL MANAGEMENT COMPETENCIES

COMPETENCY STANDARD UNIT 22 - LIFE CYCLE COST ANALYSES (SPECIALIST UNIT)

Life Cycle Cost Analyses involves various considerations of the total cost of ownership over the whole life of a property asset.

Additional Range Indicators

- strategies for accessing data relating to life cycle and cost in use information and research
- analysis of data for preparation of life cycle costs
- use of appropriate analysis and evaluation techniques

ELEMENT	PERFORMANCE CRITERIA
22.1 Establish project objectives and parameters	22.1.1 Project objectives clarified in discussion with Client and other consultants 22.1.2 Project parameters and constraints identified and verified
22.1 Confirm data elements	22.2.1 Data elements affecting life cycle costs determined
22.2 Establish data projection information	22.2.1 Escalation and discounting factors established and financial projections confirmed
22.3 Establish time aspect over which analysis process is to be considered	22.3.1 Time aspect confirmed including importance or otherwise of short, medium and long term projections
22.4 Establish data sources and collection and confirmation process	22.4.1 Data sources and validity of data clarified
22.5 Confirm reporting format layout and presentation	22.5.1 Reporting requirements confirmed with the Client
22.6 Complete life cycle cost analysis	22.6.1 Life cycle cost analysis completed

ASSET FINANCIAL MANAGEMENT COMPETENCIES

COMPETENCY STANDARD UNIT 23 - TAX DEPRECIATION (SPECIALIST UNIT)

Tax Depreciation involves the calculation of appropriate tax depreciation write offs of all eligible items.

Additional Range Indicators

- research and data gathering strategies and structures as applied to information relating to tax depreciation including latest government tax rulings
- analysis of data and financial implications
- use of appropriate analysis and evaluation techniques in preparation of estimates of value of items and construction costs including appropriate fees, site charge, sales tax, import duties etc.
- the construction and financial practices of the industry.

ELEMENT	PERFORMANCE CRITERIA
23.1 Extract depreciable items and non-depreciable items	23.1.1 Depreciable items estimated or extracted from bill of quantities where available 23.1.2 Non depreciable items estimated or extracted from bill of quantities where available 23.1.3 Building write-off allowances calculated
23.2 Identify and estimate depreciable items and non-depreciable items in the case of depreciation for subsequent owners	23.2.1 Estimate of construction costs prepared including appropriate allowances for builder's overheads and preliminaries 23.2.2 Value for depreciable and non-depreciable items calculated 23.2.3 Building write-off allowances calculated
23.3 Develop schedule and prepare report	23.3.1 Preliminaries and consultants fees apportioned 23.3.2 Relevant dates ascertained 23.3.3 Client's requirements for inclusion of other costs in the schedule determined 23.3.4 Schedule and report prepared in accordance with accepted professional practice 23.3.5 Schedule and report submitted to Client and/or relevant parties

ASSET FINANCIAL MANAGEMENT COMPETENCIES

SPECIAL ASSESSMENTS

Quantity Surveyors are involved in a number of special assessments including calculation of taxes, stamp duties, rates and charges associated with property as well as replacement cost estimates for insurance purposes and tenancy reinstatement estimates.

- Sales Tax Assessments involve calculation of the appropriate tax on the sale value of goods manufactured in Australia including flow on of appropriate exemption benefits.
- Stamp Duty Assessments involve calculation of the appropriate State imposed duty on the transfer of interest in land.
- Land Tax Assessments involve calculation of the appropriate State imposed tax based upon the unimproved value of all land owned by taxpayers including lodgement of objections to the relevant State body.
- Capital Gains Tax Assessments involve calculation of the appropriate tax on capital gains on property assets acquired after September 1985.
- Local Authority Rate Assessments involve calculation of the appropriate rates on property assets as levied by appropriate local governments based upon valuations established by the Valuer General in accordance with the relevant State Act.
- Body Corporate Charge Assessments involve calculation of the appropriate charge common to all unit holders as defined by the Body Corporate under the relevant State Act.
- Replacement Cost Estimates involve calculation of the appropriate building cost for insurance or valuation purposes including any specific exclusions and allowances for time related impacts.
- Tenancy Reinstatement Assessments involve estimating the approximate cost of reinstatement of premises on cessation of a lease in accordance with the terms of the lease including clearly defining work outside the scope of the lease.

Additional Range Indicators

Competencies in various special assessments will be demonstrated in the execution of typical work undertaken as a professional Quantity Surveyor. The work in question will call for the application of extensive knowledge appropriate to the discipline. Such knowledge will normally be acquired through a structured program of education to degree level incorporating training and work experience.

This activity would be based on a clear understanding of the processes involved in the carrying out of specialised assessments including:

- strategies for accessing data relating to regulations and legal requirements, research and data gathering
- analysis of data for preparation of estimates for tax and insurance purposes
- use of appropriate analysis and evaluation techniques
- the financial, insurance and tax practices of the industry

ASSET FINANCIAL MANAGEMENT COMPETENCIES

COMPETENCY STANDARD UNIT 24 - SPECIAL ASSESSMENTS (SPECIALIST UNIT)

(a) SALES TAX ASSESSMENTS

ELEMENT	PERFORMANCE CRITERIA
24a.1 Confirm the service objectives and strategy	24a.1.1 Service objectives clarified in discussion with the Client and other appropriate personnel 24a.1.2 Sales tax exemption number from Tax Office confirmed 24a.1.3 Strategy to derive assessments identified and verified 24a.1.4 Contract documents considered as to whether they can include relevant documents which allow tenderers to include exemption benefits
24a.2 Confirm interface with contractor and sub-contractors	24a.2.1 Arrangements between Client and Contractors established and confirmed
24a.3 Establish reporting format	24a.3.1 Reporting format confirmed in line with Clients brief
24a.4 Complete sales tax assessment	24a.4.1 Sales tax assessment completed

(b) STAMP DUTY ASSESSMENTS

ELEMENT	PERFORMANCE CRITERIA
24b.1 Confirm the service objectives	24b.1.1 Service objectives determined with the Client and advisers
24b.2 Confirm purchases arrangements	24b.2.1 Land purchases, or land with improvements or existing company structure including property confirmed 24b.2.2 Potential to achieve stamp duty savings under the proposed purchase arrangement confirmed
24b.3 Establish reporting format	24b.3.1 Reporting format confirmed with the Client
24b.4 Complete stamp duty assessment	24b.4.1 Stamp duty assessment completed

ASSET FINANCIAL MANAGEMENT COMPETENCIES

SPECIAL ASSESSMENTS

COMPETENCY STANDARD UNIT 24 - SPECIAL ASSESSMENTS (SPECIALIST UNIT) (Continued)

(c) LAND TAX ASSESSMENTS

ELEMENT	PERFORMANCE CRITERIA
24c.1 Confirm the service objectives and strategy	24c.1.1 Service objectives determined with the Client and advisers 24c.1.2 Objection to the Authorities assessment lodged 24c.1.3 Comparison made with greenfield sites, and comparable properties or unique aspects that unfairly disadvantage the site in terms of the tax assessment identified 24c.1.4 Strategy to derive assessments identified and verified
24c.2 Confirm interface with other professional consultants	24c.2.1 Limitations of the service to be provided clearly defined including the interface with any conjunctional services to be provided by others
24c.3 Establish reporting details	24c.3.1 Reporting format confirmed in line with Clients brief
24c.4 Complete land tax assessment	24c.4.1 Land tax assessment completed

(d) CAPITAL GAINS TAX ASSESSMENTS

ELEMENT	PERFORMANCE CRITERIA
24d.1 Confirm the service objectives	24d.1.1 Service objectives determined with the Client and advisers
24d.2 Confirm the cost base of assets	24d.2.1 Cost base of assets confirmed based on purchase established at a given point in time, including all eligible purchasing costs such as stamp duty charges, legal costs, real estate costs and similar
24d.3 Confirm capital gains index	24d.3.1 Australian Bureau of Statistics indices to be adopted confirmed as forming the basis for their potential application to the assets to be assessed

ASSET FINANCIAL MANAGEMENT COMPETENCIES

SPECIAL ASSESSMENTS

COMPETENCY STANDARD UNIT 24 - SPECIAL ASSESSMENTS (SPECIALIST UNIT) (Continued)

(d) CAPITAL GAINS TAX ASSESSMENTS (CONTINUED)

24d.4	Confirm interface with other professional consultants	24d.4.1	Impact on the service provisions of any interface requirement confirmed with other professional consultants
24d.5	Establish reporting details	24d.5.1	Reporting format confirmed in line with Clients' brief
24d.6	Complete capital gains tax assessment	24d.6.1	Capital gains tax assessment completed

(e) LOCAL AUTHORITY RATES ASSESSMENTS

ELEMENT		PERFORMANCE CRITERIA	
24e.1	Confirm the service objectives and strategy	24e.1.1	Service objectives determined with the Client and advisers
		24e.1.2	Lodgement of objection to the Authorities rating assessment confirmed including the grounds for objection eg. NAV based on market rents of comparable properties does not align with Clients market research or NAV should be reduced by the sinking fund effect as determined based on the depreciation of plant and equipment for tax depreciation purposes
		24e.1.3	Strategy to derive assessments identified and verified
24e.2	Confirm interface with other professional consultants	24e.2.1	Limitations of the service to be provided clearly defined including interface with any conjunctional service to be provided by others
24e.3	Establish reporting details	24e.3.1	Reporting format confirmed in line with Clients' brief
24e.4	Complete local authority rates assessment	24e.4.1	Local authority rates assessment completed

ASSET FINANCIAL MANAGEMENT COMPETENCIES

SPECIAL ASSESSMENTS

COMPETENCY STANDARD UNIT 24 - SPECIAL ASSESSMENTS (SPECIALIST UNIT) (CONTINUED)

(f) BODY CORPORATE CHARGE ASSESSMENTS

ELEMENT	PERFORMANCE CRITERIA
24f.1 Confirm the service objectives	24f.1.1 Service objectives clarified with the Client
24f.2 Define common areas to be assessed	24f.2.1 Charges for operating and maintaining discreetly different common areas of the property defined, eg., exterior of buildings, external common areas, external services, carparking, entry foyer, lobby areas, plant rooms and similar
24f.3 Define common charges to be assessed	24f.3.1 Charges for operating and maintaining the common areas defined, eg., insurance, painting, cleaning, servicing, heating, cooling, lighting, sharing of installation costs and similar
24f.4 Establish reporting format	24f.4.1 Reporting format confirmed with the Client including level of detail required
24f.5 Complete body corporate charge assessment	24f.5.1 Body corporate charge assessment completed

(g) REPLACEMENT COST ESTIMATES

ELEMENT	PERFORMANCE CRITERIA
24g.1 Establish service objectives	24g.1.1 Service objectives clarified with the Client including any diversification from standard practice
24g.2 Confirm extent of service	24g.2.1 Extent of service confirmed including demolition of existing building, re-design documentation, re-construction including or excluding tenancy fit-outs. Note: Where buildings of historical significance are involved replacement with a contemporary equivalent may be proposed
24g.3 Confirm time frames	24g.3.1 Time frames relative to reporting confirmed with the Client
24g.4 Establish reporting format	24g.4.1 Reporting format confirmed with Client including level of required supporting documentation
24g.5 Complete replacement cost estimate	24g.5.1 Replacement cost estimate completed

ASSET FINANCIAL MANAGEMENT COMPETENCIES

SPECIAL ASSESSMENTS

COMPETENCY STANDARD UNIT 24 - SPECIAL ASSESSMENTS (SPECIALIST UNIT) (CONTINUED)

(h) TENANCY REINSTATEMENT ASSESSMENTS

ELEMENT	PERFORMANCE CRITERIA
24h.1 Establish service objectives and scope of work	24h.1.1 Service objectives clarified with the Client including any interface with other consultants or advisers and scope of work established
24h.2 Confirm lease terms and requirements	24h.2.1 Implications of lease terms confirmed in respect to tenancy reinstatement, eg., reinstate to same condition as start of lease with part wear and tear, or no arrangement in lease
24h.3 Confirm extent of brief including defining work by others	24h.3.1 Confirm scope of works to be carried out by tenant, ie., remove furniture, business equipment etc. 24h.3.2 Confirm extent of works to be assessed, eg., replace floor coverings, repaint walls, repaint ceilings, relocate light fittings, sprinkler heads, air diffusers, remove partitions, compactus units, reception desks or similar
24h.4 Confirm appropriate investigation requirements	24h.4.1 Investigative requirements established including availability of relevant documentation
24h.5 Establish reporting format	24h.5.1 Reporting format confirmed with the Client including level of supporting documentation
24h.6 Complete tenancy reinstatement assessment	24h.6.1 Tenancy reinstatement assessment completed

ASSET FINANCIAL MANAGEMENT COMPETENCIES

COMPETENCY STANDARD UNIT 25 – AUDITS (SPECIALIST UNIT)

Audits involve assessment of the current status of a number of assets including:

- providing a detailed condition statement on a property from which future management and financial directions may be determined, taking into account potential environmental and life cycle considerations
- identifying appropriate energy usage and maintenance characteristics of a property to assist future directions and strategies and minimise maintenance costs and energy usage.
- providing a defined listing of the component plant, equipment and general fabric that make up a property asset for use in various tax, maintenance management, stocktaking and general ownership decisions.

Additional Range Indicators

- strategies for accessing data relating to regulations and legal requirements, research and data gathering
- analysis of data for preparation of audits
- use of appropriate analysis and evaluation techniques
- financial, insurance and tax practices of the industry.

(a) PREMISES AUDIT

ELEMENT	PERFORMANCE CRITERIA
25a.1 Establish project objectives and parameters	25a.1.1 Project objectives clarified and discussed with Client and other consultants 25a.1.2 Project parameters and constraints identified and verified
25a.2 Confirm the basis and level of reporting	25a.2.1 Reporting level defined on either an overview or detailed basis and implications of the reports confirmed
25a.3 Co-ordinate the functions of the various consultants	25a.3.1 Functions of various consultants confirmed
25a.4 Confirm reporting format, layout presentation and level of detail required	25a.4.1 Reporting detail confirmed with the Client and consultant team.
25a.5 Complete premises audit	25a.5.1 Premises audit completed

ASSET FINANCIAL MANAGEMENT COMPETENCIES

COMPETENCY STANDARD UNIT 25 – AUDITS (SPECIALIST UNIT)

(b) ENERGY AND MAINTENANCE AUDIT

ELEMENT	PERFORMANCE CRITERIA
25b.1 Establish project objectives and parameters	25b.1.1 Service objectives determined with the Client 25b.1.2 Energy usage and characteristics considered and reviewed. 25b.1.3 Maintenance characteristics considered and reviewed
25b.2 Access available data and information	25b.2.1 Availability of data established including its relevance and requirements to meet the brief
25b.3 Confirm audit timing	25b.3.1 Initial audit program established including timing of subsequent audits eg. annually or other
25b.4 Establish reporting details	25b.4.1 Reporting format confirmed in line with Client's brief. Reports should confirm that property is being maintained in accordance with the adopted program. Reports should highlight potential for minimising future maintenance or energy costs

(c) ASSET REGISTERS

ELEMENT	PERFORMANCE CRITERIA
25c.1 Confirm the service objectives	25c.1.1 Service objectives determined with the Client 25c.1.2 Clients perspective use of the asset registers short term and long term confirmed 25c.1.3 Level of detail required confirmed, eg., quantities to be included, bar coding required
25c.2 Confirm interface with other professional consultants	25c.2.1 Interface with Client's business manager, accountants or legal advisers confirmed 25c.2.2 Compliance in reporting determined with requirements of other professional consultants
25c.3 Establish reporting details	25c.3.1 Reporting format with the Client confirmed
25c.4 Complete asset register report	25c.4.1 Asset register completed

ASSET FINANCIAL MANAGEMENT COMPETENCIES

COMPETENCY STANDARD UNIT 26 - TECHNICAL DUE DILIGENCE (SPECIALIST UNIT)

Technical Due Diligence involves reporting on the existing condition of a property highlighting any adverse factors from which future management and financial directions in relation to purchase or sale may be determined. Legal issues are normally the subject of a separate report carried out by professionals trained in law.

Generally the fields encompassed within the Technical Due Diligence Report are:

- **Financial Implications and Projections of Technical Reports**

- **Occupational Health & Safety**

Compliance Reports:

- Building Regulations
- Disability Discrimination Act

Environmental Reports:

- Asbestos and other Hazardous Building Materials
- Site Contamination

- **Condition Statement Reports**

- Building Structure
- Building Facade
- Building Services

- **Building Replacement Costs of Insurance Purposes**

- **Tax Depreciation Assessment**

- **Site and Area Assessment**

- Lettable Area Confirmation
- Site Identification Survey

- **Planning Issues**

Additional Range Indicators

Competencies in technical due diligence will be demonstrated in the execution of typical work undertaken as a professional Quantity Surveyor. The work in question will call for the application of extensive knowledge appropriate to the discipline. Such knowledge will normally be acquired through a structured program of education to degree level incorporating training and work experience.

This activity would be based on a clear understanding of the processes involved in the carrying out of technical due diligence including:

- strategies for accessing data relating to regulations and legal requirements, research and data gathering
- analysis of data for preparation of technical due diligence reports
- use of appropriate analysis and evaluation techniques
- the financial, insurance and tax practices of the industry.

ASSET FINANCIAL MANAGEMENT COMPETENCIES

COMPETENCY STANDARD UNIT 26 - TECHNICAL DUE DILIGENCE (SPECIALIST UNIT)

ELEMENT	PERFORMANCE CRITERIA
26.1 Establish project objectives and parameters and format of Report	26.1.1 Project objectives clarified in discussion with Client, colleagues and other appropriate personnel 26.1.2 Project parameters and constraints identified and verified
26.2 Access available data and information	26.2.1 Appropriate data gathering structures and relevant schedules developed
26.3 Activate consultant team	26.3.1 Consultant team instructed according to the Clients' requirements
26.4 Carry out appropriate investigation and prepare initial condition statement including any adverse factors	26.4.1 Clients' requirements reflected in brief
26.5 Provide advice to Clients which outlines potential cost of ownership after analysis of results	26.5.1 Advice provided to Client based on analysis of data to determine future direction in line with short, medium and long term management strategies 26.5.2 Advice given which is timely, appropriately evidenced and relevant 26.5.3 Time lines and deadlines met

ASSET FINANCIAL MANAGEMENT COMPETENCIES

COMPETENCY STANDARD UNIT 27 - COMPLIANCE ISSUES (SPECIALIST UNIT)

As part of overall asset financial management certain legislated compliance issues have to be addressed.

Additional Range Indicators

Competencies in compliance issues will be demonstrated in the execution of typical work undertaken as a professional Quantity Surveyor. The work in question will call for the application of extensive knowledge appropriate to the discipline. Such knowledge will normally be acquired through a structured program of education to degree level incorporating training and work experience.

This activity would be based on a clear understanding of the processes involved in current government compliance issues

- strategies for accessing data relating to regulations and legal requirements, research and data gathering
- analysis of appropriate data
- use of appropriate analysis and evaluation techniques

ELEMENT	PERFORMANCE CRITERIA
27.1 Ensure compliance of project with legislative requirements including environmental issues	27.1.1 Legislative requirements of government identified 27.1.2 Compliance with legislative requirements ensured
27.2 Ensure compliance of project with planning approval requirements	27.2.1 Planning approval requirements identified 27.2.2 Compliance with planning requirements ensured

SPECIALISED MANAGEMENT COMPETENCIES

PROJECT VALUE MANAGEMENT

Project value management involves the identification of best value design solutions having regard to the Clients' project objectives. Project value management includes life cycle cost analysis techniques as well as proactive participation in workgroup focus sessions.

Additional Range Indicators

- strategies for identification of project objectives in terms of cost, time and quality
- use of cost planning techniques to establish realistic capital costs and identification of project component costs
- participation in value management focus groups
- techniques that manage outcomes from focus groups

SPECIALISED MANAGEMENT COMPETENCIES

COMPETENCY STANDARD UNIT 28 - PROJECT VALUE MANAGEMENT (CORE UNIT)

ELEMENT	PERFORMANCE CRITERIA
28.1 Identify project objectives	28.1.1 Scope of works and life cycle clearly identified 28.1.2 Client cost, quality and time targets clearly identified 28.1.3 Risk allocation objectives clearly identified
28.2 Prepare cost plan and breakdown costs	28.2.1 Cost planning techniques used to establish total cost 28.2.2 Detailed costs broken down to assist value management 28.2.3 End costs for major components established
28.3 Carry out life cycle cost analysis of alternatives	28.3.1 Alternative solutions to project components identified 28.3.2 Life cycle costing of each alternative carried out 28.3.3 Techniques in expressing the costing and communicating results to Client and team members carried out
28.4 Instigate value management focus sessions	28.4.1 Proactive participation in value management focus sessions carried out 28.4.2 Proposed alternatives with appropriate costings carried out
28.5 Adopt value management session outcomes	28.5.1 Techniques in consolidating selected alternatives and expressing resultant adjustments to project cost, time and quality carried out 28.5.2 Design development and documentation for concurrence with adopted outcomes monitored

SPECIALISED MANAGEMENT COMPETENCIES

COMPETENCY STANDARD UNIT 29 - PROJECT MANAGEMENT (SPECIALIST UNIT)

Quantity Surveyors, as with many of the professionals in the construction industry, are capable of carrying out the role of Project Manager. However, project management is a separate profession and reference should be made to appropriate competency standards including the National Competency Standards for Project Management.

SPECIALISED MANAGEMENT COMPETENCIES

COMPETENCY STANDARD UNIT 30 - PROJECT RISK MANAGEMENT (SPECIALIST UNIT)

Project risk management involves a structured approach to the identification, analysis and treatment of events that might have an adverse impact on achieving a project's objectives.

Project risk management involves:

- analysis of a project's objectives and its relationship to the strategic objectives of the Client organisation
- determination of a structure by which project risks can be analysed
- identification of events (risks) that might adversely affect the project
- quantification of risks using appropriate methods to enable the prioritisation of those risks
- identification and implementation of strategies to effectively manage those risks
- ongoing monitoring of changing risk situations and reviewing the effectiveness of risk management strategies

Additional Range Indicators

- development of appropriate structures for a project risk management study
- strategies for accessing data relating to regulations and legal requirements, research and data gathering
- use of appropriate techniques for identification of project risks
- analysis of appropriate data
- use of appropriate risk analysis and evaluation techniques
- use of appropriate techniques for controlling and minimising project risks
- the financial, insurance and tax practices of the industry

ELEMENT	PERFORMANCE CRITERIA
30.1 Analyse project objectives and develop a structure in which to undertake a project risk management study	30.1.1 Project objectives identified and listed 30.1.2 Project risk management study structure developed
30.2 Use various techniques to identify project risks including brainstorming, interviews, checklists, etc.	30.2.1 Risk identification session facilitated using brainstorming techniques 30.2.2 Risk management identification checklist identified for a standard project
30.3 Use techniques to analyse and quantify project risks including quantitative and qualitative analysis of risk likelihood and consequences, sensitivity analysis, probability calculations and "monte-carlo" simulations.	30.3.1 Probability that a project's objectives (eg. budget) will be met determined using sensitivity analysis or "monte-carlo" simulations 30.3.2 Prioritised list of project risks developed using either qualitative or quantitative techniques to assess risk levels

SPECIALISED MANAGEMENT COMPETENCIES

COMPETENCY STANDARD UNIT 30 - PROJECT RISK MANAGEMENT (SPECIALIST UNIT) (CONTINUED)

<p>30.4 Identify suitable techniques to effectively manage project risks including likelihood reduction, impact mitigation, risk transfer and risk financing strategies</p>	<p>30.4.1 Risks that can be managed by the project team listed</p> <p>30.4.2 Risks that are suitable for transfer to the contractor listed</p> <p>30.4.3 Project insurance requirements identified</p> <p>30.4.4 Appropriate project time and cost contingencies recommended</p> <p>30.4.5 Structure of the ongoing management and monitoring of project risks recommended</p>
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SPECIALISED MANAGEMENT COMPETENCIES

COMPETENCY STANDARD UNIT 31 - QUALITY ASSURANCE (SPECIALIST UNIT)

Quality assurance involves the systematic approach to carrying out services by the Quantity Surveyor to ensure their outcomes meet the expectation of the Client. Quality assurance includes establishment of clear procedures, work instructions and quality records that quantitatively demonstrate correctness and compliance with the Client's and Quantity Surveyor's service objectives.

Additional Range Indicators

- establishment of a corporate quality policy and its structure and content that complies with Australian or International Standards
- establishment of procedures that clearly describe required processes, outcomes and verification requirements
- undertaking of internal audits of the application of these procedures
- continuous identification of improvements to procedures, outcomes and verification techniques that increase quality, efficiency and certainty
- provision of verification evidence to Clients
- to demonstrate the assurance of service quality

Practitioners would demonstrate a thorough understanding of:

- requirements of ISO 9000 series and AS 9000 series of standards
- quantity Surveyor's practices and procedures
- auditing techniques

ELEMENT	PERFORMANCE CRITERIA
31.1 Develop corporate quality policy	31.1.1 Corporate objectives in relation to quality of service and service outcomes established 31.1.2 Practice policies established 31.1.3 Service policies established
31.2 Develop procedures	31.2.1 Appropriate procedures for each relevant service established 31.2.2 Verification criteria formulated 31.2.3 Standard forms and control documentation developed
31.3 Undertake internal audits	31.3.1 Audit program established 31.3.2 Internal audit carried out 31.3.3 Correction of non-conformance ensured 31.3.4 Procedure inadequacies identified
31.4 Continuously improve	31.4.1 Changes required to procedures identified to reflect changing requirements 31.4.2 Changes to improve efficiency or better assure outcomes identified 31.4.3 Policy and procedure documentation regularly amended
31.5 Ensure application of quality assurance	31.5.1 Techniques of procedure outcomes to provide tangible evidence of compliance ensured 31.5.2 Techniques directed at areas of service that have high impact ensured 31.5.3 Techniques of achievement of quality in service outcomes communicated to Client