

# Construction Contracting Operations Level 3 CCOL3 (SQA Unit Code-F50Y 04)

**The Unit:**

**CCOL3/O08 Prepare tenders**

## **The Standards that are part of this Unit**

CCOL3/O08.1 Evaluate estimate, bid and tender enquiry documentation

CCOL3/O08.2 Measure quantities

CCOL3/O08.3 Assess the resource requirements and costs within a tender

## **The Unit Commentary**

This Optional Unit is about the evaluation of tender enquiries, identifying and making necessary measurements and producing estimates by costing resources.

OO8.1 Evaluate estimate, bid and tender enquiry documentation

You will need to check and summarise tender details and identify points of concerns. You will need to make recommendations about tenders and maintain records.

OO8.2 Measure quantities

You will need to assemble, collate and review information and measure quantities and prepare descriptions. You will need to identify inaccurate information and deal with it appropriately.

OO8.3 Assess the resource requirements and costs within a tender

You will need to develop working documents, calculate resource requirements, estimate costs, allowing for external factors, and produce an overall estimate. You will need to explain the costings and produce payment schedules.

**O08.1 Evaluate estimate, bid and tender enquiry documentation**

*Performance Criteria - this involves...*

- (a) checking and summarising the **tender** details and **tender requirements** and confirming them with **decision makers**
- (b) identifying any **points of concern** in the **tender** and referring them to **decision makers** for them to clarify and resolve
- (c) evaluating the **tender documents** against the **agreed criteria** and making recommendations to decision makers
- (d) investigating the **tender documents** within budgets and tender time limits
- (e) making recommendations about **tender requirements** and potential alternatives, within the limits of the **tender** information which is available, and which provide an objective basis for making a decision on whether to make a bid
- (f) maintaining records about **tender** enquiries in confidence and only passing them on to people who have the authority to receive them

*The Range...*

- [1] Tender - type:**
  - contractor;
  - sub/works/trade contractor;
  - supply;
  - consultancy
- [2] Tender requirements:**
  - construction;
  - installation and maintenance work;
  - supply of goods and materials;
  - consultancy services
- [3] Decision makers:**
  - clients and their agents;
  - colleagues;
  - line managers;
  - specialists - internal or external to organisation
- [4] Points of concern:**
  - discrepancies within enquiry information;
  - tender procedure requirements;
  - quantitative requirements;
  - qualitative requirements;
  - contractual issues
- [5] Tender documents - type:**
  - invitation to tender;
  - form of tender;
  - returns procedure;
  - survey reports;
  - specifications;
  - drawings;
  - schedules;
  - bills of quantities;
  - health and safety plans;
  - scope of services;
  - terms and conditions;
  - schedule of rates
- [6] Agreed criteria:**
  - financial;
  - viability of tendering information;
  - current workload;
  - type of work;
  - competence of people;
  - timescale;
  - social policies;
  - environmental impact;
  - location;
  - potential completion

## O08 Prepare tenders

### O08.1 Evaluate estimate, bid and tender enquiry documentation

#### *The Evidence - performance and process*

*Taken as a whole, the evidence must show that the candidate consistently meets all the performance criteria, across the ranges for the Element.*

*References in brackets after items in the Evidence specification refer to the corresponding performance criteria, eg. (a), and range, eg. [1], to which they apply.*

*There must be workplace evidence against each performance criterion. Where the workplace evidence does not cover a whole range, knowledge evidence must be provided to cover the remaining items of range for each relevant performance criterion.*

#### **Product Evidence:**

*The candidate must produce documentary evidence from the workplace covering the following items that are considered to be common and key/critical to demonstrate competence.*

- (1) Evaluation(s) of tender documents which include tender details and requirements, points of concern and making recommendations (all) [all]

*Simulations are not considered to be acceptable for producing evidence for this Element.*

#### **Process Evidence:**

*None applicable*

#### *Evidence: knowledge and understanding*

*Established from questioning the candidate or from industry recognised education and training course assessment, which is matched to the Element. A candidate's knowledge and understanding can also be demonstrated through presented performance evidence.*

- (1) How do you maintain records about **tender** enquiries in confidence and only passing them on to people who have the authority to receive them? (application) (f) [1]
- (2) How do you check and summarise the **tender** details and **tender requirements** and confirm them with **decision makers**? (application) (a) [1,2,3]
- (3) What do you identify as any **points of concern** in the **tender**? (understanding) (b) [1,3,4]
- (4) How do you refer any **points of concern** in the **tender** to **decision makers** for them to clarify and resolve? (application) (b) [1,3,4]
- (6) How and why do you investigate the **tender documents** within budgets and tender time limits? (analysis) (d) [5]
- (7) How and why do you make recommendations to **decision makers**? (synthesis) (c) [3]
- (8) How and why do you evaluate the **tender documents**? (evaluation) (c) [5,6]
- (9) How and why do you make recommendations about **tender requirements** and potential alternatives(synthesis) (e) [2]

**O08.2 Measure quantities**

*Performance Criteria - this involves...*

- (a) assembling and collating **information** and identifying which categories of work require **measurement**
- (b) reviewing **information** to decide **how to measure dimensions and quantities methodically** and in a way which conforms to relevant conventions, standard methods and standard phraseology
- (c) identifying any **information** which is incomplete and inconsistent and obtaining accurate amendments
- (d) deciding what action to take where **measurement** is inappropriate or impossible, and using standard methods and other appropriate conventions
- (e) **measuring** the quantities and preparing descriptions accurately, collating and sequencing them correctly and presenting them in a way which meets their **intended purpose**
- (f) checking the accuracy of **information** received and produced

*The Range...*

- [1] Information:**
  - drawings;
  - schedules;
  - specifications;
  - information about the contract and allocation of risks and responsibilities;
  - quotations;
  - records of queries raised and answers;
  - standard methods of measurement;
  - technical literature
- [2] Measurement - relates to:**
  - trade;
  - elemental;
  - operational;
  - approximate;
  - schedules of rates
- [3] How to measure dimensions and quantities methodically:**
  - manual;
  - electronic
- [4] Intended purpose:**
  - procurement;
  - contract;
  - production

## O08 Prepare tenders

### O08.2 Measure quantities

#### *The Evidence - performance and process*

*Taken as a whole, the evidence must show that the candidate consistently meets all the performance criteria, across the ranges for the Element.*

*References in brackets after items in the Evidence specification refer to the corresponding performance criteria, eg. (a), and range, eg. [1], to which they apply.*

*There must be workplace evidence against each performance criterion. Where the workplace evidence does not cover a whole range, knowledge evidence must be provided to cover the remaining items of range for each relevant performance criterion.*

#### **Product Evidence:**

*The candidate must produce documentary evidence from the workplace covering the following items that are considered to be common and key/critical to demonstrate competence.*

- (1) Measured quantities and descriptions which include identified categories of work, conformance to relevant conventions, standard methods and phraseology, accuracy of information, checks (all) [all]

*Simulations are considered to be acceptable for producing evidence for the following item(s) are considered to be rare, but key/critical to demonstrating competence. The following conditions of realism should be present:*

*Simulations are considered to be acceptable for producing Evidence or the following item(s) which are considered to be rare but key/critical to demonstrating competence. The following conditions of realism should be present:*

- Tools, equipment & instruments
- Standards & quality specifications
- Communication methods & media
- Information & data

#### **Process Evidence:**

*None applicable*

#### *Evidence: knowledge and understanding*

*Established from questioning the candidate or from industry recognised education and training course assessment, which is matched to the Element. A candidate's knowledge and understanding can also be demonstrated through presented performance evidence.*

- (1) How do you assemble and collate **information**? (application) (a) [1]
- (2) How do you identify any **information** which is incomplete or inconsistent and obtain accurate amendments? (application) (c) [1]
- (3) What do you identify as categories of work requiring **measurement**? (understanding) (a) [2]
- (4) How and why do you use standard methods and other appropriate conventions to take action where **measurement** is inappropriate or impossible? (evaluation) (d) [2]
- (5) How and why do you review **information** to decide **how to measure dimensions and quantities**? (evaluation) (b) [3]
- (6) How and why do you decide what action to take where **measurement** is inappropriate or impossible? (evaluation) (d) [2]
- (7) How do you check the accuracy of **information** received and produced? (application) (f) [3]

**O08.3 Assess the resource requirements and costs within a tender**

*Performance Criteria - this involves...*

- (a) developing a proposed method statement and draft programme which meet the **tender requirements**
- (b) calculating accurately, from **available sources**, what **resources** will be needed, investigating whether the **resources** will be available and presenting the information so that the requirements can be costed and planned
- (c) **estimating resource** costs by **calculating** an accurate **cost** for each item which is required
- (d) modifying the cost to take into account any **external factors** which may affect the cost projections
- (e) collating and producing the overall estimate of costs and checking that it is complete, accurate and in a form which is suitable for a judgment to be made
- (f) explaining and clarifying the projected costs to support the calculations
- (g) contributing to payment schedules which will meet known cash flow requirements

*The Range...*

- [1] Tender requirements:**
  - construction;
  - installation and maintenance work;
  - supply of goods and materials;
  - consultancy services
- [2] Available sources:**
  - client brief;
  - tender enquiry documentation;
  - site measurements;
  - survey reports;
  - scaled drawings;
  - schedules;
  - method statements;
  - programmes
- [3] Resources - type:**
  - people (in-house, external);
  - plant and equipment;
  - materials;
  - finance;
  - time;
  - supply options
- [4] Estimating:**
  - cost based on a quotation;
  - unit cost built up from basic data;
  - internal and historical cost data;
  - published cost data
- [5] Calculating cost:**
  - manual;
  - electronic
- [6] External factors:**
  - variations over time;
  - geographic location;
  - statutory and contractual requirements;
  - special working conditions and methods;
  - special resourcing conditions

### O08.3 Assess the resource requirements and costs within a tender

#### *The Evidence - performance and process*

*Taken as a whole, the evidence must show that the candidate consistently meets all the performance criteria, across the ranges for the Element.*

*References in brackets after items in the Evidence specification refer to the corresponding performance criteria, eg. (a), and range, eg. [1], to which they apply.*

*There must be workplace evidence against each performance criterion. Where the workplace evidence does not cover a whole range, knowledge evidence must be provided to cover the remaining items of range for each relevant performance criterion.*

#### **Product Evidence:**

*The candidate must produce documentary evidence from the workplace covering the following items that are considered to be common and key/critical to demonstrate competence:*

- (1) Method statement(s) and draft programme(s) (a) [1]
- (2) Estimate(s) of costs (b,c,d,e,f) [2,3,4,5,6]
- (3) Payment schedules (g) [3]

*Simulations are not considered to be acceptable for producing evidence for this Element.*

#### **Process Evidence:**

*None applicable*

#### *Evidence: knowledge and understanding*

*Established from questioning the candidate or from industry recognised education and training course assessment, which is matched to the Element. A candidate's knowledge and understanding can also be demonstrated through presented performance evidence.*

- (1) How and why do you develop a proposed method statement and draft programme which meet the **tender requirements**? (synthesis) (a) [1]
- (2) How do you calculate what **resources** will be needed from **available sources**? (application) (b) [2,3]
- (3) How do you present information about **resource** availability so that the requirements can be costed and planned? (application) (b) [3]
- (4) How and why do you investigate whether the **resources** needed will be available? (analysis) (b) [3]
- (5) How do you check that the overall **estimate** of costs is complete, accurate and in a form which is suitable for a judgement to be made? (application) (e) [4,5]
- (6) How do you explain and clarify the projected costs to support the calculations? (application) (f) [4,5]
- (7) How and why do you contribute to payment schedules which will meet known cash flow requirements? (synthesis) (g) [3]
- (8) How and why do you estimate **resource** costs by **calculating** an accurate cost for each item? (analysis) (c) [3,4,5]
- (9) How and why do you collate and produce the overall estimate of costs? (analysis) (e) [4,5]
- (10) How do you modify the cost to take into account any **external factors** which may affect the cost projections? (application) (d) [6]