# THE CHARTERED INSTITUTE OF BUILDING AWARDING BODY

**Syllabus** 

LEVEL 4 CERTIFICATE IN CONSTRUCTION SITE MANAGEMENT

LEVEL 4 DIPLOMA IN CONSTRUCTION SITE MANAGEMENT

LEVEL 4 GRADUATE CONVERSION CERTIFICATE





## **CIOB** Awarding Organisation

## Level 4 Certificate in Construction Site Management (600/0529/4 Ofqual) (COO/0368/7 Qual Wales)

## and

## Level 4 Diploma in Construction Site Management (600/0530/0)

and

## Level 4 Graduate Conversion Certificate

Syllabus (RQF)

1<sup>st</sup> September 2015

## CONTENTS

1.	PROGRA	AMME STRUCTURE AND RULES OF COMBINATION	Pg. No.
	1.1 1.2 1.3	Rationale Progression to other Qualifications Qualification Rules of Combination	2 2 2
	1.4	Unit Exemptions	3
	1.5	Entry Requirements	3
	1.6	Unit and Assessment Grades	4
	1.7	CIOB Site Management Awards	4
	1.8	Assessment	4
	1.9 1.10	Indicative Marking Descriptors Calculating Overall Qualification Grade	5 6
	1.10	Indicative Reading List	8
	1.12	Knowledge and Skills Matrix	11
	1.12		
2.	INDEX C	FUNITS	
	Unit 1	Project Planning for Construction	12
	Unit 2	Project Control and Monitoring for Construction	13
	Unit 3	Managing the Quality of Construction Works	14
	Unit 4	Managing Health, Safety, Welfare and Risk in Construction Works	15
	Unit 5	Managing Dimensional Control in Construction Works	16
	Unit 6	Developing and Managing Self and Construction Works Personnel	17
	Unit 7	Managing Sustainable Construction	18
	Unit 8	Contractual and Legal Responsibilities within a Construction Environment	19
	Unit 9	Estimating and Measuring Work within a Construction Environment	20
	Unit 10	Managing Sub-Contractors within a Construction Environment	21
	Unit 11	Managing Mechanical and Electrical Services within a Construction Environment	22
	Unit 12	Managing the Technology of Modern and Traditional Construction Works	23

## 1. QUALIFICATION STRUCTURE AND RULES OF COMBINATION

## 1.1 Rationale

### **CIOB Level 4 Certificate in Construction Site Management**

The CIOB level 4 Certificate in Construction Site Management is designed for supervisors and assistant site managers working in the construction sector who are progressing into a construction site manager role. This qualification develops the learner's knowledge and skills to plan and programme projects, liaise with stakeholders and oversee small to medium construction projects safely and efficiently.

#### **CIOB Level 4 Diploma in Construction Site Management**

The CIOB Level 4 Diploma in Construction Site Management is designed for construction site managers working in the construction sector who are progressing into managing larger and more complex construction projects. The qualification develops the learner's knowledge and skills to plan and programme projects, liaise with stakeholders and oversee large or complex construction projects safely and efficiently.

#### **CIOB Level 4 Graduate Conversion Certificate**

The CIOB Graduate Conversion Certificate supports and develops those working in the industry who hold a degree in a subject unconnected to construction. This qualification develops the learner's knowledge and practical skills to plan and programme projects, liaise with stakeholders and oversee large or complex construction projects safely and efficiently. This bespoke qualification provides a route to chartered membership

#### 1.2 Progression to other qualifications

This qualification provides the underpinning knowledge and understanding for the Level 6 NVQ Diploma in Construction Site Management. Higher education providers may consider these qualifications for exemption from certain modules within their Higher National Certificate and degree programmes. Learners can also progress to full chartered membership of the CIOB through the Chartered Membership Programme.

#### 1.3 Qualification Rules of Combination

The Site Management qualification comprises of two qualifications; the Level 4 Certificate in Construction Site Management and the Level 4 Diploma in Construction Site Management.

To achieve the Certificate, learners are required to undertake:

- Unit 4 Managing Health, Safety, Welfare and Risk in Construction Works and
- any other three units from the qualification.

Total Qualification Time: 120 unit guided learning hours plus 120 unit personal study hours.

To achieve the Diploma, learners are required to undertake:

- Unit 4 Managing Health, Safety, Welfare and Risk in Construction Works and
- all the remaining eleven units.

Total Qualification Time: 360 unit guided learning hours plus 360 unit personal study hours.

The Graduate Conversion Certificate is a 6 unit qualification comprising 5 mandatory units (including Health and Safety) and 1 optional unit.

Suggested Recommended Units:

- Unit 1 Project Planning for Construction
- Unit 3 Managing the Quality of Construction Works
- Unit 4 Managing Health, Safety, Welfare and Risk in Construction Works (mandatory)
- Unit 8 Contractual and Legal Responsibilities within a Construction Environment
- Unit 12 Managing the Technology of Modern and Traditional Construction Works
- Plus one optional unit to suit their job role from the list of further Level 4 Site Management units

Total Qualification Time: 180 unit guided learning hours plus 180 unit personal study hours.

All units may also be studied individually for Unit Certification. Units need not be undertaken in any specific order

#### 1.4 Unit Exemptions

The following qualification offers exemption from Unit 4 – Managing Health, Safety, Welfare and Risk in Construction Works:

• CITB Site Safety Plus Certificate (Site Management Safety Training Scheme)

This certification must be valid for the duration of the CIOB Construction Site Management course. A copy of the CITB Site Safety Plus certificate should be attached to the CIOB Registration Form. In cases where the expiration date occurs during the CIOB qualification, the renewed CITB Site Safety Plus certificate must be presented with the CIOB Certificate Claims Form at the end of the qualification.

Other exemptions may be granted for related level 4 qualifications. All requests for exemptions must be sent to the CIOB awarding organisation, addressed to the Head of Education, via <u>awardingorg@ciob.org.uk</u>

Requests for exemptions should be accompanied by a transcript of the modules studied and relevant module descriptors. These will be reviewed by the CIOB's Chief External Verifier.

Exemptions will be granted for full units only, with no exemption granted for part of a unit. Qualifications used to support an exemption application must be valid and have been achieved within the past five years.

Exemptions will be granted for a maximum of one third of the qualification, (one unit from the four required for the Certificate and four units from the twelve required for the Diploma).

Applicants have the right to appeal an exemption decision via the independent CIOB Grievance and Appeals Panel. Requests should be addressed to the Head of Education, via <u>awardingorg@ciob.org.uk</u>.

#### 1.5 Entry Requirements

UCAS tariff Score 80-120 (current) / 32-48 (2017 onwards) and relevant experience or Level 3 S/NVQ, or equivalent, in a related subject or CIOB Level 3 Award in Supervising Construction Works to Existing Buildings and Structures or CIOB Level 3 Award in Supervising the Construction of New Buildings and Structures or CIOB Level 3 Diploma in Site Supervisory Studies or Three years' relevant construction experience

The Graduate Conversion Certificate requires the learner to hold a degree in a non-construction subject and to be working in a management role in the construction industry

#### 1.6 Unit and Assessment Grades

The tutor will award a grade to the achievement of each unit (fail, pass, merit and distinction). Unit grades apply to overall performance in units including assignments, practical exercises and course work.

Indicative marking descriptors for differentiating between levels of achievement when marking assignments are provided below (Section 1.8).

The overall grade for a CIOB qualification is calculated using a points system. Each unit grade attracts points as follows:

Fail	0 points
Pass	1 point
Merit	2 points
Distinction	3 points
Unit Exemption	1 point

#### 1.7 Assessment

The assessment process is set by the Awarding Organisation (CIOB), defining the requirements learners are expected to meet to demonstrate that a learning outcome has been achieved. All learning outcomes must be achieved in order to gain attainment of credit for that unit. Tutor-led assessment should be carried out throughout the course through centre-devised and externally-set assignments.

Internally-set assignment briefs must be approved by the Awarding Organisation (CIOB) prior to issue to learners.

All completed assessments are marked internally, internally verified and subject to external verification.

The assessment criteria are based on 3 areas:

- 1. **Task achievement** This is a measure of how well the learner answers the task question/questions and the identification of the important aspects of the task.
- 2. **Technical Content** This is a measure of how well the learner identifies, describes and evaluates the technical aspects of the task.
- 3. **Presentation** This is a measure of how well the learner presents the assignment and includes the quality of the structure and paragraphing, the quality and relevance of visual or graphical content and the referencing used for quoted sources.

## 1.9 Level 4 Certificate and Diploma in Construction Site Management Indicative Marking Descriptors

\*Please note that the bands below describe indicative characteristics only. An overall holistic approach is required when assessing a learners' work and assigning a grade.

Grade	Task Achievement The Relevance of the Response	Inclusion of Relevant Technical Knowledge in Content	Presentation/Coherence
Distinction			
70% +	The work demonstrates a comprehensive understanding of the task. All relevant information is included. The main issues are effectively identified and analysed. There is evaluation and some analysis of solutions to issues relevant to the task. The response shows control of content within the word count.	The work demonstrates a strong understanding of a wide range of technical issues relevant to the task. There is analysis of the advantages/disadvantages of possible choices, risks and potential outcomes.	The work is appropriately structured and the argument is developed coherently. There is a recognised form of source referencing which supports the points in the task. Paragraphing and titling are used effectively to assist the reader. The use of visual/graphical information is clear and effective in assisting the reader. The graphical information is relevant to the task and is accurate.
Merit			
60-69%	The work demonstrates a clear understanding of the main issues relevant to the task. The issues are explained effectively and potential solutions identified. There is some attempt to analyse the merits of the solutions to the task. The task is broadly achieved within the word count, if relevant to assignment.	The work demonstrates an understanding of the key technical issues of the task. There is clear description of relevant technical aspects with some attempt to evaluate the merits of these as appropriate to the task.	Demonstrates an awareness of presentation and an attempt to present the information with clarity and coherence. There is referencing of sources and use of paragraphing and titling to assist the reader. There is use of clear graphical information to support the assignment which has broad relevance to the task. There may be some limited inaccuracies/omissions in these.
Pass			
40-59%	The work demonstrates an understanding of the task. The main points are identified and the task is achieved. There is no attempt to evaluate or analyse the solutions. There may be some inaccuracies, omissions and irrelevant content. There may be lack of control in relation to the word count.	The work demonstrates an understanding of the main technical issues which are identified. This may be limited to description with little evidence of evaluation. There may be some omissions and inaccuracies in the detail. There may be some irrelevant details.	There is an attempt to structure the information. There is evidence of paragraphing and titling which is not always appropriate. Some basic graphical information may be included which is of some assistance to the reader. There may be some omissions or inaccuracies. The work is generally coherent but there may be occasional lapses in coherence and structure.
Fail			
0-39%	The work shows a poor understanding of the task. Frequent inaccuracies. Failure to identify important aspects of the task. Much of the information is irrelevant to the task. There may be evidence of copy and paste from external sources. The response may be limited to lists of words with no attempt to explain the relevance/merits of these to the task. The assignment falls short of the word count.	The work demonstrates a lack of understanding of the technical aspects. There are omissions of important technical information. Errors are evident in the technical content. There is no attempt to explain the relevance of the technical content to the task.	Lacks structure and may be limited to lists of points which are not developed. Disorganised in structure causing difficulty for the reader to understand the points. The response is Illegible or incoherent in places. No referencing of external sources. The graphical illustrations are of poor quality or absent. They may be irrelevant. There may be errors and a lack of clarity causing difficulty for the reader to understand.

## 1.10 Calculating Overall Qualification Grade

To calculate the overall qualification grade, the individual unit grades should be added together and compared to the table below:

#### 1.10.1 CIOB Level 4 Certificate in Construction Site Management

Learners must pass 4 units of the qualification, which may include a maximum of 1 exempted unit.

These must include Unit 4 – Management of Health, Safety, Welfare and Risk in Construction Works.

Total Points for all 4 Units	Overall Grade	
12		
11	Distinction	
10		
9		
8	Merit	
7		
6		
5	Pass	
4		
3 or fewer	Fail	
Learners must achieve at least a pass in (or hold exemption		
from) all 4 units to be awarded the Certificate.		

#### 1.10.2 CIOB Level 4 Diploma in Construction Site Management – 8 unit top-up from Certificate

Learners must pass 8 units of the qualification, which may include a maximum of 2 exempted units.

Units for the Diploma must be different to those undertaken as part of the Certificate.

Total Points for all 8 Units	Overall Grade	
24		
23		
22	Distinction	
21		
20		
19		
18		
17	Merit	
16	Merit	
15		
14		
13		
12		
11	Pass	
10	1 035	
9		
8		
7 or fewer	Fail	
Learners must achieve at least a pass in (or hold exemption from) all		
8 units to be awarded the Diploma.		

### 1.10.3 CIOB Level 4 Diploma in Construction Site Management – entire qualification

Learners must pass all 12 units of the qualification, which may include a maximum of 3 exempted units.

Units for the Diploma must include Unit 4 – Management of Health, Safety, Welfare and Risk in Construction Works.

Total Points for all 12 Units	Overall Grade	
36		
35		
34		
33	Distinction	
32	Distiliction	
31		
30		
29		
28	-	
27	-	
26	-	
25		
24	Merit	
23	-	
22		
21		
20		
10		
19		
18	-	
17	-	
16	Pass	
15		
14		
13		
12		
44	<b>F</b> -11	
11 or fewer	Fail	
Learners must achieve at least a pass in (or hold exemption		
from) all 12 units to be awarded the Diplo	oma.	

## 1.11 Indicative Reading List

### **Unit 1 - Project Planning for Construction**

Baldwin, A. and Bordoli, D. (2014) A Handbook for Project Planning and Scheduling; Chichester: Wiley Blackwell

Cooke, B and Williams, P. (2009) Construction Planning, Programming and Control, 3rd edn.; Oxford: Blackwell

Forster G. (2014) Building - Organisations and Procedures, 2nd edn.; Abingdon: Routledge

Morton, R (2007) Construction UK: Introduction to the Industry, 2nd edn.; Oxford: Blackwell

## Unit 2 - Project Control and Monitoring for Construction

Lock, D. (2004) Project Management in Construction; Aldershot: Gower

Griffith, A. (2003) Construction Management: Principles and Practice; London: Palgrave Macmillan

Levy, S.M. (2011) Project Management in Construction, 6th edn.; Maidenhead: McGraw-Hill Walker, A. (2015) Project Management in Construction, 6th edn.; Chichester: Wiley Blackwell

## Unit 3 - Managing the Quality of Construction Works

Harris, F. and McCaffer, R. (2013) *Modern Construction Management*, 7<sup>th</sup> edn. Oxford: Blackwell Sherratt, F. (2015) Introduction to Construction Management London: Routledge

## Unit 4 - Managing Health, Safety, Welfare and Risk Control in Construction Works

Hughes, P. and Ferrett E. (2011) Introduction to Health and Safety in Construction, 5th edn.; Abingdon: Taylor & Francis

Hughes, P. (2015) Introduction to Health and Safety in Construction, 5th edn.; Abingdon: Taylor and Francis

McAleenan, C. and Oloke, D. Institution of Civil Engineers (2015), ICE Manual of Health and Safety in Construction, London: Thomas Telford

Barber, John (2002); Health and Safety in Construction: Guidance for Construction Professionals; London: Thomas Telford

Kavanagh, B. and Slattery, D. (2014) Surveying with Construction Applications, 8th edn.; Pearson: Harlow

## **Unit 5 - Managing Dimensional Control in Construction Works**

Irvine, W. and MacLennan, F. (2006) Surveying for Construction, 5th edn.; Oxford: McGraw Hill

Schofield, W. and Breach, M, (2006) Engineering Surveying, 6th edn.; Oxford, Butterworth-Heinemann

## Unit 6 - Developing and Managing Self and Construction Works Personnel

Loosemore, M. and Dainty, A. (2012) Human Resource Management in Construction, 2nd edn,; Abingdon: Routledge

Calvert, R, Bailey, G. and Coles, D, (1995) Introduction to Building Management, 6th edn,; Oxford: Butterworth-Heinemann

Fellows, R., Langford, D., Newcombe, R. and Urry, S. (2001) Construction Management in Practice; Oxford: Blackwell Science

#### **Unit 7 – Managing Sustainable Construction**

DVD ROM (2008) A Guide to Sustainability in the Construction Industry; Kings Lynn: Construction Skills

Burton, S. (2012) Handbook of Sustainable Refurbishment - Housing; Abingdon: Routledge

BRE (2002) MaSC Managing Sustainable Construction: Accelerated Learning; CRC Press

#### Unit 8 - Contractual and Legal Responsibilities within a Construction Environment

Ashworth, A. (2012) Contractual Procedures in the Construction Industry, 6th edn.; Harlow: Pearson Education

Hughes, W., Champion, R. and Murdoch, J. (2015) Construction Contracts : Law and Management, 5th edn.; Abingdon: Routledge

#### Unit 9 - Estimating and Measuring Work within a Construction Environment

Hackett, Mark; Robinson, Ian; Statham, Gary (2007) Aqua Group Guide to Procurement, Tendering & Contract Administration; Oxford: John Wiley & Sons

Brook, Martin (2008) Estimating and Tendering for Construction Work, 4th edn., Oxford, Elsevier Butterworth-Heinemann

CIOB (2009) Code of Estimating Practice, 7th edn.; Oxford: John Wiley & Sons

Ashworth, A. (2015) Cost Studies of Buildings, 6th edn.; London: Routledge

Hackett, M. (2015) The Aqua Group Guide to Procurement, Tendering and Contract Administration, 2nd edn.; Oxford: Wiley-Blackwell

#### Unit 10 - Managing Sub-Contractors within a Construction Environment

CIOB (2014): Code of Practice for Project Management for Construction and Development, 5th edn.; Oxford: Wiley-Blackwell

Ranns, R. and Ranns, E. (2005) Practical Construction Management; Abingdon: Taylor and Francis

#### Unit 11 - Managing Mechanical and Electrical Services within a Construction Environment

Burberry, P. (1997); Environment and Services: 8th edn. Longman

Greeno, R. and Hall, F. (2015) Building Services Handbook 8<sup>th</sup> edn. Oxford: Butterworth-Heinemann

## Unit 12 - Managing the Technology of Modern and Traditional Construction Works

Chudley, R. and Greeno, R. (2014). Building Construction 10th edn.; Oxford: Butterworth-Heinemann

Chudley, R. (2012) Advanced Construction Technology. 5th edn. Harlow: Pearson

## 1.12 Knowledge & Skills Matrix

Specialist Knowledge & Skills				Transferable Skills				
Unit	Title	Subject Knowledge & Understanding	Specialist Skills	Application of IT Skills	Presentation Skills	Communication Skills	People Management Skills	Project Management Skills
1	Project Planning for Construction	✓	✓	✓	✓	✓		✓
2	Project Control and Monitoring for Construction	~	✓	~		~	~	✓
3	Managing the Quality of Construction Works	~	✓	~		~	~	~
4	Managing Health, Safety, Welfare and Risk in Construction Works	~	✓	~		~	~	
5	Managing Dimensional Control in Construction Works	~	✓	~				
6	Developing And Managing Self and Construction Works Personnel	~				~	~	~
7	Managing Sustainable Construction	~	✓	~	~	~		~
8	Contractual and Legal Responsibilities within a Construction Environment	~	✓	~		~	~	✓
9	Estimating and Measuring Work within a Construction Environment	~	✓	~		~		~
10	Managing Sub-Contractors within a Construction Environment	~	✓			~	~	✓
11	Managing Mechanical and Electrical Services within a Construction Environment	✓	✓	✓		✓	✓	✓
12	Managing the Technology of Modern and Traditional Construction Works	✓	✓	~				✓

CIOB L4 Cert/Dip ConstSiteMngmntRQF:1Sept15/V040117

## Unit 1 – Project Planning for Construction

Unit Title	Project Planning for Construction		
Unit Reference Number	K/507/5777		
Level	4		
Credit Value	6		
Unit Guided Learning Hours	30		
Unit Personal Study Hours	30		
Learning Outcomes The learner will:	Assessment Criteria The Learner can:		
<ol> <li>Understand the types of documents that are used for project planning</li> </ol>	<ul><li>1.1 Evaluate the types of documents used for project planning to ascertain their importance to the planning work</li><li>1.2 Explain the processes for dealing with inaccurate and missing information</li></ul>		
2. Be able to produce a method statement for the works	2.1 Produce a method statement with reference to drawings, specifications and other documents relating to proposed construction		
3. Be able to produce a coherent and complete programme for the works	3.1 Produce a programme for the works		
4. Understand how site inspection findings influence the execution of construction works	4.1 Explain how site inspection findings affect the feasibility of the proposed plans		
5. Be able to determine resource requirements for construction works	5.1. Assess the quantities and qualities of materials needed for the work		
	5.2. Assess the plant and equipment needed for the work		
	5.3. Assess the labour needed for the work, including sub- contractors		

#### **Unit Information:**

This unit is designed for existing or potential construction site managers, giving them the knowledge and skills required in order to be able to plan construction projects effectively.

This knowledge is gained through a mix of classroom learning, directed study time and experiential learning from the workplace.

This unit is assessed by a CIOB set assignment. CIOB approval must be sought if altered by the centre.

- CIOB Level 4 Certificate in Construction Site Management
- CIOB Level 4 Diploma in Construction Site Management
- CIOB Level 4 Graduate Conversion Certificate

## **Unit 2 - Project Control and Monitoring for Construction**

Unit Title	Project Control and Monitoring for Construction		
Unit Reference Number	J/507/5799		
Level	4		
Credit Value	6		
Unit Guided Learning Hours	30		
Unit Personal Study Hours	30		
Learning Outcomes The learner will:	Assessment Criteria The Learner can:		
<ol> <li>Understand the procurement of construction materials and plant for the execution of the works</li> </ol>	<ul> <li>1.1 Explain the organisational procurement process for construction materials and plant</li> <li>1.2 Describe procurement requirements for public sector projects</li> </ul>		
<ol> <li>Be able to monitor the progress of construction works</li> </ol>	<ul><li>1.3 Explain the relationship between effective procurement and cost control</li><li>2.1 Explain factors that impact on the progress of the site works</li></ul>		
2. De able to monitor the progress of construction works	<ul><li>2.1 Explain factors that impact on the progress of the site works</li><li>2.2 Evaluate methods for monitoring the progress of the construction phase</li></ul>		
	2.3 Assess progress of the construction works against the master programme for a given project		
	2.4 Explain the importance of maintaining an accurate and up-to- date site management diary		
	2.5 Examine the use of digital tools for managing the progress of construction works		
3. Be able to manage the environmental impact of construction works	3.1 Explain how the impact of construction works on the natural environment can be minimised by the construction manager		
	3.2 Describe how sustainability initiatives impact on site works		
	3.3 Carry out an environmental assessment for the construction phase using industry standard tools		
4. Be able to manage expenditure against budget	4.1 Describe the procedures needed to monitor costs during the progress of project work.		
	4.2 Calculate actual construction spend against the original budget forecast for a given project		
	4.3 Evaluate methods of recovering project overspend for a given project		

#### **Unit Information:**

This unit is designed for existing or potential construction site managers, giving them the knowledge and skills required in order to be able to monitor and control construction projects effectively.

This knowledge is gained through a mix of classroom learning, directed study time and experiential learning from the workplace. This unit may be assessed using the example provided by CIOB or centres may design their own. Any assignment designed by the centre must be approved by CIOB prior to distribution to students. Please send assignments for approval to awardingorg@ciob.org.uk This unit may be taken as a single unit or form part of the: ٠

- CIOB Level 4 Certificate in Construction Site Management
- CIOB Level 4 Diploma in Construction Site Management •
- CIOB Level 4 Graduate Conversion Certificate •

## Unit 3 - Managing the Quality of Construction Works

Unit Title	Managing the Quality of Construction Works		
Unit Reference Number	A/507/6125		
Level	4		
Credit Value	6		
Unit Guided Learning Hours	30		
Unit Personal Study Hours	30		
Learning Outcomes The learner will:	Assessment Criteria The Learner can:		
<ol> <li>Understand the quality systems, procedures and standards for construction works.</li> </ol>	<ul> <li>1.1 Define the elements of quality systems for site works following good practice guidelines</li> <li>1.2 Explain the difference between a quality control process and a quality assurance system for a given project</li> </ul>		
2. Understand the management of the systems to monitor and control the quality of work.	<ul><li>2.1 Produce a quality plan for given works</li><li>2.2 Describe possible solutions to common defects to ensure quality of work</li></ul>		
3. Understand how the use of recycled and recovered materials impacts on quality control	<ul> <li>3.1 Explain the implications for quality control of using recycled and recovered materials for a given project</li> <li>3.2 Assess the significance of sustainability factors that affect the quality of the project for a given project</li> </ul>		
Unit Information:			

This unit is designed for existing or potential construction site managers, giving them the knowledge required in order to be able to manage the quality of construction projects effectively.

This knowledge is gained through a mix of classroom learning, directed study time and experiential learning from the workplace.

This unit is assessed by a CIOB set assignment. CIOB approval must be sought if altered by the centre.

- CIOB Level 4 Certificate in Construction Site Management
- CIOB Level 4 Diploma in Construction Site Management
- CIOB Level 4 Graduate Conversion Certificate

#### Unit 4 - Managing Health, Safety, Welfare and Risk in Construction Works

Unit Title	Managing Health, Safety, Welfare and Risk in Construction Works		
Unit Reference Number	F/507/6126		
Level	4		
Credit Value	6		
Unit Guided Learning Hours	30		
Unit Personal Study Hours	30		
Learning Outcomes The learner will:	Assessment Criteria The Learner can:		
<ol> <li>Understand the application of current Construction Design and Management (CDM) regulations, or equivalent, in working with clients and other professionals</li> </ol>	<ul> <li>1.1 Explain the obligations of all parties involved in works under current legislation.</li> <li>1.2 Explain how clients and other professionals can be assisted to meet their obligations.</li> <li>1.3 Explain how on-site organisational and communication systems ensure compliance with Health, Safety and Welfare legislation.</li> </ul>		
<ol> <li>Understand how Health, Safety and Welfare legislation influences working practices in the construction industry</li> </ol>	<ul> <li>2.1 Assess the resources required to deliver a construction project in compliance with current legislation</li> <li>2.2 Explain the statutory obligations for employees' welfare when undertaking construction works</li> <li>2.3 Write a risk assessment for a given project.</li> </ul>		
3. Understand how Health, Safety and Welfare are managed on construction projects	<ul> <li>3.1. Evaluate planned working methods to comply with Health, Safety and Welfare best practice for a given project.</li> <li>3.2. Produce a management plan for the Health, Safety and Welfare for a given project.</li> <li>3.3. Explain the processes to deal with breaches of Health, Safety and Welfare requirements.</li> </ul>		
Unit Information:			

This unit is designed for existing or potential construction site managers, giving them the knowledge and skills required in order to be able to manage the health, safety, welfare and risk control of construction projects effectively.

This knowledge is gained through a mix of classroom learning, directed study time and experiential learning from the workplace.

This unit is assessed by a CIOB set assignment. CIOB approval must be sought if altered by the centre.

- CIOB Level 4 Certificate in Construction Site Management • •
- CIOB Level 4 Diploma in Construction Site Management
- CIOB Level 4 Graduate Conversion Certificate

## **Unit 5 - Managing Dimensional Control in Construction Works**

Unit Title	Managing Dimensional Control in Construction Works		
Unit Reference Number	K/507/6119		
Level	4		
Credit Value	6		
Unit Guided Learning Hours	30		
Unit Personal Study Hours	30		
Learning Outcomes The learner will:	Assessment Criteria The Learner can:		
<ol> <li>Be able to prepare for setting out and levelling operations on construction works.</li> </ol>	<ul> <li>1.1 Describe the information required for setting-out and levelling procedures to agreed industry tolerances</li> <li>1.2 Explain the safety measures for carrying out automical apparentiant on site</li> </ul>		
	surveying operations on site 1.3 Carry out checks to surveying equipment in accordance with manufacturers' instructions.		
2. Be able to carry out levelling and setting out on construction works	<ul> <li>2.1 Establish datum points on site from information given on drawings and schedules.</li> <li>2.2 Set out building works from given datum points.</li> <li>2.3 Set out sight rails and travellers for excavations.</li> </ul>		
	<ul><li>2.4 Carry out a horizontal (dimensional) survey on a given site</li><li>2.5 Carry out a levelling survey on a given site</li></ul>		
3. Be able to produce computer aided drawings for construction works	3.1. Produce a horizontal (dimensional) survey drawing using appropriate drawing software		

#### Unit Information:

This unit is designed for existing or potential construction site managers, giving them the knowledge and skills required in order to be able to manage and carry out dimensional control on construction projects effectively.

This knowledge is gained through a mix of classroom learning, directed study time and experiential learning from the workplace.

This unit is assessed by a CIOB set assignment. CIOB approval must be sought if altered by the centre.

- CIOB Level 4 Certificate in Construction Site Management
- CIOB Level 4 Diploma in Construction Site Management
- CIOB Level 4 Graduate Conversion Certificate

## Unit 6 - Developing and Managing Self and Construction Works Personnel

Unit Title	Developing and Managing Self and Construction Works Personnel
Unit Reference Number	T/507/6124
Level	4 6 30
Credit Value	
Unit Guided Learning Hours	
Unit Personal Study Hours	30
Learning Outcomes The learner will:	Assessment Criteria The Learner can:
<ol> <li>Understand concepts of human resource management in the construction industry</li> </ol>	<ul> <li>t 1.1 Explain the site manager's role in the organisation.</li> <li>1.2 Explain theories of motivation for individuals and teams</li> <li>1.3 Compare contemporary methods for managing teams</li> <li>1.4 Evaluate methods of managing conflict within the team</li> </ul>
2. Understand the impact of employment legislation that falls within the responsibility of the construction manager	<ul><li>2.1 Define employee rights and responsibilities of site personnel</li><li>2.2 Explain the impact of employment legislation on managing a construction site</li></ul>
3. Understand the construction manager's responsibilitie in managing the performance of self and construction works personnel	<ul> <li>s 3.1 Evaluate methods for measuring performance of individuals and teams</li> <li>3.2 Compare ethical frameworks for raising professional standards in the construction industry</li> <li>3.3 Explain the importance of continuous professional development for the site manager and site personnel</li> <li>3.4 Explain an organisation's procedures for managing performance including capability and disciplinary</li> </ul>
4. Understand how communications can affect performance on construction works	<ul> <li>4.1 Evaluate communication methods for improving project outcomes</li> <li>4.2 Explain the impact of poor communications on construction projects</li> </ul>

#### Unit Information:

This unit is designed for existing or potential construction site managers, giving them the knowledge required in order to be able to manage self and works personnel on construction projects effectively.

This knowledge is gained through a mix of classroom learning, directed study time and experiential learning from the workplace. This unit may be assessed using the example provided by CIOB or centres may design their own. Any assignment designed by the centre must be approved by CIOB prior to distribution to students. Please send assignments for approval to <u>awardingorg@ciob.org.uk</u>

This unit may be taken as a single unit or form part of the:

- CIOB Level 4 Certificate in Construction Site Management
- CIOB Level 4 Diploma in Construction Site Management
- CIOB Level 4 Graduate Conversion Certificate

#### Unit 7 - Managing Sustainable Construction

Unit Title	Managing Sustainable Construction
Unit Reference Number	H/507/5860
Level	4
Credit Value	6
Unit Guided Learning Hours	30
Unit Personal Study Hours	30
Learning Outcomes The learner will:	Assessment Criteria The Learner can:
<ol> <li>Understand the impact of environmental legislation and standards on construction works</li> </ol>	1.1 Explain how environmental legislation affects construction works
	1.2 Evaluate the methods for examining function against cost, making reference to industry reports and initiatives.
	1.3 Evaluate the use of environmental assessment standards on construction works
2. Understand how the selection and use of materials and products can contribute to sustainable construction	2.1 Evaluate the use of sustainable materials and products for a given construction project
	2.2 Evaluate the lifecycle costs of materials and products for a given project
	2.3 Produce a sustainable procurement strategy for a given construction works
	2.4 Explain how the process of installing building services may affect the energy performance of the completed project
	2.5 Explain to the end user how to sustain the optimum performance of a construction project
<ol> <li>Understand how to manage the installation of low carbon technologies for construction projects, following industry best practice</li> </ol>	3.1 Explain the operation of low carbon technology installations following manufacturer's instructions
	3.2 Explain the responsibilities of the site manager for planning and scheduling the installation of low carbon technologies
	3.3 Explain the factors to be considered when retrofitting low carbon technologies to existing construction projects
4. Be able to manage construction waste, including water, following industry best practice	4.1 Produce a waste management plan, including water, for a given project, following industry best practice
	4.2 Evaluate progress against the waste management plan targets throughout the construction phase of a given project

#### **Unit Information:**

This unit is designed for existing or potential construction site managers, giving them the knowledge required in order to be able to manage sustainable construction effectively.

This knowledge is gained through a mix of classroom learning, directed study time and experiential learning from the workplace. This unit may be assessed using the example provided by CIOB or centres may design their own. Any assignment designed by the centre must be approved by CIOB prior to distribution to students. Please send assignments for approval to <u>awardingorg@ciob.org.uk</u>

This unit may be taken as a single unit or form part of the:

- CIOB Level 4 Certificate in Construction Site Management
- CIOB Level 4 Diploma in Construction Site Management
- CIOB Level 4 Graduate Conversion Certificate

## Unit 8 - Contractual and Legal Responsibilities within a Construction Environment

Unit Title	Contractual and Legal Responsibilities within a Construction Environment
Unit reference number	R/507/5904
Level	4
Credit Value	6
Unit Guided Learning Hours	30
Unit Personal Study Hours	30
Learning Outcomes The learner will:	Assessment Criteria The Learner can:
1. Understand the impact of legislation on construction works	1.1 Describe the responsibilities of the site manager for ensuring the health, safety and welfare of the people involved with and affected by construction activities
	1.2 Explain the influence of planning regulations on construction activities
	1.3 Explain the requirements of building regulations for construction works
	1.4 Describe how the legal rights of external parties may impact on construction works.
<ol> <li>Understand how to manage compliance of the works under a construction contract</li> </ol>	2.1 Explain the legal principles underlying construction contracts
construction contract	2.2 Describe the use of different types of contracts to specific types of construction projects
	2.3 Identify the contractual responsibilities of individual parties, including the site manager, contributing to a construction project
	2.4 Describe how the construction manager would monitor the construction works to ensure compliance with legal and contractual obligations
<ol> <li>Be able to manage contractual claims for construction projects</li> </ol>	3.1 Describe risk factors which may lead to the formulation of a contractual or extra-contractual claim
	3.2 Evaluate the site procedures for the management of contractual claims
	3.3 Evaluate methods for dispute resolution
Unit Information:	
This unit is designed for existing or potential construction site managers, giving them the knowledge required in order to be able to manage contractual and legal responsibilities on construction projects effectively.	
This knowledge is gained through a mix of classroom learning, directed study time and experiential learning from the workplace.	
This unit may be assessed using the example provided by CIOB or centres may design their own. Any assignment designed by the centre must be approved by CIOB prior to distribution to students. Please send assignments for approval to awardingorg@ciob.org.uk	
<ul> <li>This unit may be taken as a single unit or form part of the:</li> <li>CIOB Level 4 Certificate in Construction Site Management</li> <li>CIOB Level 4 Diploma in Construction Site Management</li> </ul>	

CIOB Level 4 Graduate Conversion Certificate

## Unit 9 - Estimating and Measuring Work within a Construction Environment

Unit Title	Estimating and Measuring Work within a Construction Environment
Unit Reference Number	J/507/5916
Level	4
Credit Value	6
Unit Guided Learning Hours	30
Unit Personal Study Hours	30
Learning Outcomes The learner will:	Assessment Criteria The Learner can:
<ol> <li>Understand the estimation processes for a construction tender</li> </ol>	<ul> <li>1.1 Explain the purpose of key contract documents in producing an estimate for a construction tender</li> <li>1.2 Explain the use of the standard method of measurement used for the tendering process</li> <li>1.3 Produce an estimate for a given construction project in a standard industry format</li> </ul>
2. Understand how to produce a valuation for construction works	<ul><li>2.1 Describe the valuation process for construction works</li><li>2.2 Prepare an interim valuation for a given construction project</li></ul>

#### Unit Information:

This unit is designed for existing or potential construction site managers, giving them the knowledge and skills required in order to be able to carry out estimating and measuring work on construction projects effectively.

This knowledge is gained through a mix of classroom learning, directed study time and experiential learning from the workplace.

This unit may be assessed using the example provided by CIOB or centres may design their own. Any assignment designed by the centre must be approved by CIOB prior to distribution to students. Please send assignments for approval to <u>awardingorg@ciob.org.uk</u>

- CIOB Level 4 Certificate in Construction Site Management
- CIOB Level 4 Diploma in Construction Site Management
- CIOB Level 4 Graduate Conversion Certificate

## Unit 10 - Managing Sub-Contractors within a Construction Environment

Unit Title	Managing Sub-Contractors within a Construction Environment
Unit Reference Number	D/507/6070
Level	4
Credit Value	6
Unit Guided Learning Hours	30
Unit Personal Study Hours	30
Learning Outcomes The learner will:	Assessment Criteria The Learner can:
<ol> <li>Understand the site managers role in the selection of sub- contractors following industry best practice</li> </ol>	<ul> <li>1.1 Explain the contractual arrangements of different sub- contractor types</li> <li>1.2 Describe different sub-contractor contracts available to the construction industry</li> <li>1.3 Explain the procedures for the appointment of sub-contractors</li> </ul>
2. Be able to plan the work of sub-contractors in accordance with industry standards	<ul> <li>2.1 Produce a sub-contractors programme of works for a given project</li> <li>2.2 Prepare a site plan for sub-contractor deliveries for a given project</li> </ul>
3. Understand how to manage sub-contractors on site	<ul> <li>3.1 Assess the progress of sub-contractors, through monitoring, against the target programme for a given project.</li> <li>3.2 Appraise risks associated with the use of sub-contractors including health and safety compliance</li> <li>3.3 Investigate digital tools for managing sub-contractors including Building Information Modelling (BIM) and incentive schemes following organisational procedures</li> <li>3.4 Evaluate possible actions for a sub-contractor not meeting the management plan</li> </ul>
Unit Information:	

This unit is designed for existing or potential construction site managers, giving them the knowledge and skills required in order to be able to manage sub-contractors on construction projects effectively.

This knowledge is gained through a mix of classroom learning, directed study time and experiential learning from the workplace.

This unit may be assessed using the example provided by CIOB or centres may design their own. Any assignment designed by the centre must be approved by CIOB prior to distribution to students. Please send assignments for approval to <u>awardingorg@ciob.org.uk</u>

- CIOB Level 4 Certificate in Construction Site Management
- CIOB Level 4 Diploma in Construction Site Management
- CIOB Level 4 Graduate Conversion Certificate

# Unit 11 - Managing Mechanical and Electrical Services within a Construction Environment

Managing Mechanical and Electrical Services within a Construction Environment
K/507/6072
4
6
30
30
Assessment Criteria The Learner can:
<ol> <li>Explain the role of the site manager in the planning of the mechanical and electrical services installations</li> <li>Examine the role of Building Information Modelling (BIM) in the coordination of mechanical and electrical services installations</li> <li>Produce a site plan to incorporate the temporary mechanical and electrical services for the construction works</li> <li>Produce a programme of works for the mechanical and electrical services installations</li> <li>Assess the buildability of mechanical and electrical services drawings and specifications</li> </ol>
<ul> <li>2.1 Explain the role of the site manager in mechanical and electrical services installations including the commissioning and handover phases</li> <li>2.2 Explain how health and safety risks are managed during the installation of mechanical and electrical services</li> <li>2.3 Explain the impact of changes in the design and specification on the mechanical and electrical services installations for a given construction project</li> </ul>

This unit is designed for existing or potential construction site managers, giving them the knowledge and skills required in order to be able to manage the installation of mechanical and electrical services on construction projects effectively.

This knowledge is gained through a mix of classroom learning, directed study time and experiential learning from the workplace.

This unit may be assessed using the example provided by CIOB or centres may design their own. Any assignment designed by the centre must be approved by CIOB prior to distribution to students. Please send assignments for approval to <a href="mailto:awardingorg@ciob.org.uk">awardingorg@ciob.org.uk</a>

- CIOB Level 4 Certificate in Construction Site Management
- CIOB Level 4 Diploma in Construction Site Management
- CIOB Level 4 Graduate Conversion Certificate

## Unit 12 - Managing the Technology of Modern and Traditional Construction Works

Unit Title	9	Managing the Technology of Modern and Traditional Construction Works
Unit Ref	erence Number	H/507/6118
Level		4
Credit V	alue	6
Unit Gui	ded Learning Hours	30
Unit Per	sonal Study Hours	30
Learning The lear	g Outcomes ner will:	Assessment Criteria The Learner can:
	1. Understand the performance of modern and traditional construction works	1.1 Describe performance requirements of different types of structures
	1.2 Evaluate options for the construction of primary and secondary elements for a given project	
<ol> <li>Understand the performance characteristics of construction materials and components for modern and traditional construction works</li> </ol>	2.1 Evaluate the performance of construction materials for a given project	
liaditi		2.2 Evaluate the installation and use of low carbon technologies for a given project
		2.3 Evaluate the implications of defective materials including any remedial action
<ol> <li>Understand the integration of off-site fabrication in to a construction project</li> </ol>	3.1 Evaluate off-site fabrication in improving the buildability of a given project	
	3.2 Contrast the management of on-site construction with off- site fabrication	
<ol> <li>Be able to manage the conservation of traditional buildings</li> </ol>	4.1 Describe the legal framework for the protection of traditional Structures	
	4.2 Describe the construction characteristics of traditional structures	
	4.3 Evaluate methods for the repair and maintenance of a given traditional structure	
Unit Infor	mation:	

This unit is designed for existing or potential construction site managers, giving them the knowledge required in order to be able to manage the technology of modern and traditional construction projects effectively.

This knowledge is gained through a mix of classroom learning, directed study time and experiential learning from the workplace.

This unit may be assessed using the example provided by CIOB or centres may design their own. Any assignment designed by the centre must be approved by CIOB prior to distribution to students. Please send assignments for approval to <a href="mailto:awardingorg@ciob.org.uk">awardingorg@ciob.org.uk</a>

- CIOB Level 4 Certificate in Construction Site Management
- CIOB Level 4 Diploma in Construction Site Management
- CIOB Level 4 Graduate Conversion Certificate

Document review date 30th September 2019