

Level 4 NVQ Diploma in Construction and Building Services Management and Supervision (Sustainability) (QCF)

Specification

Edexcel NVQ/competence-based qualifications (QCF)

First registration March 2013

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Qualification title covered by this specification

This specification provides the information you need to offer the Edexcel Level 4 NVQ Diploma in Construction and Building Services Management and Supervision (Sustainability) (QCF):

Qualification title	Qualification Number (QN)	Accreditation start date
Edexcel Level 4 NVQ Diploma in Construction and Building Services Management and Supervision (Sustainability) (QCF)	600/8243/4	01/03/2013

This qualification has been accredited within the Qualifications and Credit Framework (QCF) and is eligible for public funding as determined by the Department for Education (DfE) under Section 96 of the Learning and Skills Act 2000.

The qualification title listed above features in the funding lists published annually by the DfE and the regularly updated website. It will also appear on the Learning Aim Reference Application (LARA), where relevant.

You should use the QCF Qualification Number (QN), when you wish to seek public funding for your learners. Each unit within a qualification will also have a unique QCF reference number, which is listed in this specification.

The QCF qualification title and unit reference numbers will appear on the learners' final certification document. Learners need to be made aware of this when they are recruited by the centre and registered with Edexcel.

Key features of the Edexcel Level 4 NVQ Diploma in Construction and Building Services Management and Supervision (Sustainability) (QCF)

This qualification:

- is nationally recognised
- is based on the Construction Site Management National Occupational Standards (NOS). The NOS, assessment requirements/strategy and qualification structure are owned by ConstructionSkills.

The Edexcel Level 4 NVQ Diploma in Construction and Building Services Management and Supervision (Sustainability) (QCF) has been approved as a component for the Level 4 Higher Apprenticeship in Sustainable Built Environment.

What is the purpose of this qualification?

This qualification is appropriate for employees in the construction and built environment sector, working across a broad range of areas. It is designed to assess occupational competence in the workplace where learners are required to demonstrate skills and knowledge to a level required in the construction industry.

The new Level 4 Higher Apprenticeship in Sustainable Built Environment is dynamic and allows all delivery partners to clearly evidence modern methods of design, construction and maintenance of the built environment in action.

Who is this qualification for?

This qualification is for all learners aged 18 and above who are capable of reaching the required standard.

Edexcel's policy is that the qualification should:

- be free from any barriers that restrict access and progression
- ensure equality of opportunity for all wishing to access the qualification(s)
- be offered to learners who have been recruited with integrity by the centre.

Employees working in the construction and built environment sector at supervisory or management level will be able to demonstrate their skills and knowledge in the workplace through this qualification.

What are the benefits of this qualification to the learner and employer?

This qualification allows learners to demonstrate competence against National Occupational Standards (NOS), based on the needs of the construction industry as defined by ConstructionSkills, the Sector Skills Council. The qualification contributes to the development of skilled labour in the sector. The Higher Level Apprenticeships give learners opportunities to earn while they learn, with learning taking place at college and in the workplace. Being a member of a team, or learning to use initiative in real-life situations, will be part of the personal and professional development associated with the programme.

What are the potential job roles for those working towards this qualification?

- Site Supervisor
- Site Manager
- Construction Team Leader
- Assistant Project Manager
- Assistant Engineer
- Building Services Engineer working on sites/projects.

What progression opportunities are available to learners who achieve this qualification?

The qualification enables learners to demonstrate competence in construction and building services management and supervision (sustainability) at a level required by the construction and built environment industry. Learners can progress to other construction and built environment competence and knowledge qualifications and to other occupational areas such as team leading and management.

Learners can progress to related qualifications at Level 5, including the Edexcel Level 5 NVQ Diploma in Construction Management (Sustainability) (QCF), the Edexcel BTEC Level 5 HND Diploma in Construction and the Built Environment and the Edexcel BTEC Level 5 HND Diploma in Construction and the Built Environment (Building Services Engineering).

Learners can also progress to degree programmes. For example, on successful completion of the HNC component of the Level 4 Higher Apprenticeship in Sustainable Built Environment, learners can progress to direct entry, full-time year 2 stage 2 or part-time year 3 of a relevant honours degree programme in Construction or Property at the University of Greenwich. This, in turn, will lead to professional membership of the Chartered Institute of Builders (CIOB).

Further information is available in *Annexe A*.

What is the qualification structure for the Edexcel Level 4 NVQ Diploma in Construction and Building Services Management and Supervision (Sustainability) (QCF)?

Individual units can be found in the *Units* section.

The learner will need to meet the requirements outlined in the table below before Edexcel can award the qualification.

Minimum number of credits that must be achieved	110
Number of mandatory credits that must be achieved	44
Number of optional credits that must be achieved	66
Minimum number of credits at, or above, Level 4 that must be achieved	76

A minimum of 110 credits is required overall for completion of this qualification, which must include a minimum of 76 credits at, or above, Level 4. The mandatory core units for this qualification are made up of 36 credits at Level 4 and 8 credits at Level 3.

Learners must select one of two pathways: **Construction and Built Environment** or **Building Services Engineering**.

Learners selecting the **Construction and Built Environment** pathway must complete a minimum of 26 credits from this pathway (Units 5-9). The remaining credits may come from this pathway and/or from the generic optional units (Units 13-20).

Learners selecting the **Building Services Engineering** pathway must complete a minimum of 27 credits from this pathway (Units 10-12). The remaining credits may come from this pathway and/or from the generic optional units (Units 13-20).

Unit	Unit reference number	Mandatory units Learners must complete all units for a total of 44 credits	Level	Credit	Guided learning hours
1	M/504/6698	Monitoring Quality Standards in Construction and the Built Environment	4	14	40
2	T/504/6699	Monitoring Environmental Factors and Sustainability in Construction and the Built Environment	4	10	30
3	D/504/6700	Managing the Progress of Projects in Construction and the Built Environment	4	12	35
4	H/600/7486	Maintaining Systems for Health, Safety, Welfare and Environmental Protection in the Workplace	3	8	30
Unit	Unit reference number	Construction and Built Environment pathway Learners must complete at least 26 credits from this pathway	Level	Credit	Guided learning hours
5	J/504/6710	Planning and Organising Construction Activities in the Workplace	4	11	35
6	R/504/6712	Planning Maintenance or Remedial Activities in the Built Environment	4	17	45
7	Y/600/7498	Allocating and Monitoring the Use of Plant, Equipment or Machinery in the Workplace	3	9	30
8	D/600/7552	Allocating Work and Checking People's Performance in the Workplace	5	9	20
9	M/503/2915	Developing and Maintaining Good Occupational Working Relationships in the Workplace	5	8	27

Unit	Unit reference number	Building Services Engineering pathway Learners must complete at least 27 credits from this pathway	Level	Credit	Guided learning hours
10	M/601/1394	Building Management Systems for Building Services Engineering	4	15	60
11	D/504/1111	Designing Sustainable Building Services Engineering Systems	5	12	30
12	F/601/1366	Energy Utilisation and Efficiency for Building Services Engineering	5	15	60
Unit	Unit reference number	Optional units Learners may take their remaining credits from this group or from a combination of this group and their pathway group	Level	Credit	Guided learning hours
13	Y/504/6713	Supervising Learning Opportunities in the Built Environment	4	7	20
14	Y/601/0059	Monitor and Evaluate Energy Performance	4	2	10
15	T/601/0053	Comply with Legal and Non-regulatory Environmental Compliance	4	8	40
16	J/600/7531	Contributing to the Control of Work Quantities and Costs in the Workplace	3	9	30
17	D/600/7518	Maintaining Supplies of Materials to Meet Project Requirements in the Workplace	3	8	20
18	F/600/7558	Providing and Monitoring Construction-related Customer Service in the Workplace	5	8	30
19	L/601/0057	Prepare to Conduct an Environmental Audit	5	5	25
20	H/504/1109	Managing Tests in Construction and the Built Environment	5	14	48

How is the qualification graded and assessed?

The overall grade for the qualification is a 'pass'. To achieve a pass for the full qualification, a learner must achieve all the required units within the specified qualification structure.

To pass a unit a learner must:

- achieve **all** the specified learning outcomes
- satisfy **all** the assessment criteria by providing sufficient and valid evidence for each criterion
- show that the evidence is their own.

The qualifications are designed to be assessed:

- in the workplace or
- in conditions resembling the workplace, as specified in the assessment requirements/strategy for the sector.

Assessment requirements/strategy

The assessment requirements/strategy for these qualifications have/has been included in *Annexe D*. They have been developed by ConstructionSkills in partnership with employers, training providers, awarding organisations and the regulatory authorities. The assessment strategy includes details on:

- the requirements for assessment in the workplace and the circumstances where simulation is permitted
- the criteria for defining a realistic working environment, where it is permitted
- the roles and occupational competence of assessors, expert witnesses, internal verifiers and standards verifiers
- quality control of assessment
- evidence requirements.

Learners may provide evidence of occupational competence from:

- **current practice** where evidence is generated from a current job role
- a **programme of development** where evidence comes from assessment opportunities built into a learning/training programme whether at or away from the workplace
- the **Recognition of Prior Learning (RPL)** where a learner can demonstrate that they can meet the assessment criteria within a unit through knowledge, understanding or skills they already possess without undertaking a course of development. They must submit sufficient, reliable and valid evidence for assessment, internal and standards verification purposes. RPL is acceptable for accrediting a unit, several units or a whole qualification
- a **combination** of these.

It is important that the evidence provided to satisfy the unit and learning outcomes' assessment criteria is:

Valid	relevant to the standards for which competence is claimed
Authentic	produced by the learner
Current	sufficiently recent to create confidence that the same skill, understanding or knowledge persist at the time of the claim
Reliable	indicates that the learner can consistently perform at this level
Sufficient	fully meets the requirements of the standards.

Types of evidence (to be read in conjunction with the assessment strategy in *Annexe D*)

To successfully achieve a unit the learner must gather evidence which shows that they have met the required standard specified by the assessment criteria. Evidence can take a variety of different forms including the examples below. Centres should refer to the assessment strategy for information about which of the following are permissible.

- direct observation of the learner's performance by their assessor (O)
- outcomes from oral or written questioning (Q&A)
- products of the learner's work (P)
- personal statements and/or reflective accounts (RA)
- outcomes from simulation, where permitted by the assessment strategy (S)
- professional discussion (PD)
- assignment, project/case studies (A)
- authentic statements/witness testimony (WT)
- expert witness testimony (EPW)
- evidence of Recognition of Prior Learning (RPL).

The abbreviations may be used for cross-referencing purposes.

Learners can use one piece of evidence to prove their knowledge, skills and understanding across different assessment criteria and/or across different units. It is, therefore, not necessary for learners to have each assessment criterion assessed separately. Learners should be encouraged to cross-reference their evidence to the relevant assessment criteria.

Evidence must be made available to the assessor, internal verifier and Edexcel standards verifier. A range of recording documents is available on the Edexcel website: www.edexcel.com. Alternatively, centres may develop their own.

Centre recognition and approval

Centre recognition

Centres that have not previously offered Edexcel accredited qualifications need to apply for and be granted centre recognition and approval as part of the process for approval to offer individual qualifications. New centres must complete both a centre recognition and approval application and a qualification approval application.

Existing centres will be given 'automatic approval' for a new qualification if they are already approved for a qualification that is being replaced by the new qualification and the conditions for automatic approval are met. Centres already holding Edexcel approval and which have a history of good external quality assurance outcomes are able to gain qualification approval for a different level or different sector via Edexcel online.

Approvals agreement

All centres are required to enter into an approvals agreement which is a formal commitment by the head or principal of a centre to meet all the requirements of the specification and any linked codes or regulations. Edexcel will act to protect the integrity of the awarding of qualifications, if centres do not comply with the agreement. This could result in the suspension of certification or withdrawal of approval.

Quality assurance

Detailed information on Edexcel's quality assurance processes is given in *Annexe B*.

What resources are required?

Each qualification is designed to support learners working in the construction and building services sector. Physical resources need to support both the delivery of the qualifications and the assessment of the learning outcomes and must be of industry standard. Full account must be taken by a centre and staff involved in the delivery of a qualification of health and safety requirements.

Where provision is made by the Sector Skills Council or Standards Setting Body for assessment to be undertaken in a Realistic Working Environment (RWE), the RWE must provide conditions the same as the normal day-to-day working environment, with a similar range of demands, pressures and requirements for cost-effective working.

Centres must meet any specific resource requirements outlined in *Annexe D: Assessment requirements/strategy*. Staff assessing learners must meet the requirements within the overarching assessment strategy for the sector.

Unit format

Each unit in this specification contains the following sections.

Unit title:					The unit title is accredited on the QCF and this form of words will appear on the learner's Notification of Performance (NOP).
Unit reference number:					This is the unit owner's reference number for the specified unit.
QCF level:					All units and qualifications within the QCF have a level assigned to them, which represents the level of achievement. There are nine levels of achievement, from Entry level to level 8. The level of the unit has been informed by the QCF level descriptors and, where appropriate, the NOS and/or other sector/professional.
Credit value:					All units have a credit value. The minimum credit value is one, and credits can only be awarded in whole numbers. Learners will be awarded credits when they achieve the unit.
Guided learning hours:					A notional measure of the substance of a qualification. It includes an estimate of the time that might be allocated to direct teaching or instruction, together with other structured learning time, such as directed assignments, assessments on the job or supported individual study and practice. It excludes learner-initiated private study.
Unit summary:					This provides a summary of the purpose of the unit.
Assessment requirements/evidence requirements:					The assessment/evidence requirements are determined by the SSC. Learners must provide evidence for each of the requirements stated in this section.
Assessment methodology:					This provides a summary of the assessment methodology to be used for the unit.
Learning outcomes:	Assessment criteria:	Evidence type:	Portfolio reference:	Date:	
			The learner should use this box to indicate where the evidence can be obtained eg portfolio page number.	The learner should give the date when the evidence has been provided.	
Learning outcomes state exactly what a learner should know, understand or be able to do as a result of completing a unit.		The assessment criteria of a unit specify the standard a learner is expected to meet to demonstrate that a learning outcome, or a set of learning outcomes, has been achieved.		Learners must reference the type of evidence they have and where it is available for quality assurance purposes. The learner can enter the relevant key and a reference. Alternatively, the learner and/or centre can devise their own referencing system.	

Units

Unit 1: Monitoring Quality Standards in Construction and the Built Environment

Unit reference number: M/504/6698

QCF level: 4

Credit value: 14

Guided learning hours: 40

Unit summary

The aim of this unit is for the learner to demonstrate a range of skills, knowledge and understanding to achieve acceptable quality standards within a sustainable built environment. Opportunities to assess competence in controlling project progress against agreed quality standards are often determined by a third party. The perceived quality regime is part of the contract with all the intended contractual responsibilities and obligations. Hence, there is a need to consider technical, managerial, contractual and sustainable factors so that the environment is safeguarded.

Assessment requirements/evidence requirements

Learners will collect work based evidence data and complete a portfolio which must be mapped against the assessment criteria within this unit. Learners will need to develop methodologies in recording and evidencing against the assessment criteria, using page numbers and annotating the portfolio with relevant criteria. The work based assessor should be used to witness and sign evidence for the learner.

Scope of knowledge and understanding

The assessment evidence (knowledge and understanding) should relate to the occupational area being assessed.

People responsible:

- The client
- Contractors
- Consultants
- Sub-contractors
- Suppliers
- Workforce

Quality standards:

- Current legislation
- Project specifications
- British standards
- International standards
- Codes of practice
- Organisation standards
- Trade advisory guidance and best practice
- Benchmarking

Systems:

- Visual inspection
- Comparison with design requirements
- Comparison with standard documentation
- Checking manufacturer's documentation
- Checking delivery notes
- Sampling and mock ups
- Testing
- Site inspection reports
- Contractor reports
- Site meetings

Work:

- Materials and components, and their use
- Methods of construction

See *Annexe D* for Assessment Strategy.

Assessment methodology

This unit is assessed in the workplace. Learners can enter the types of evidence they are presenting for assessment and the submission date against each assessment criterion. Alternatively, centre documentation should be used to record this information.

This unit must be assessed in a work environment and in accordance with:

- the Additional Requirements for Qualifications using the title NVQ in QCF
- the ConstructionSkills' Consolidated Assessment Strategy for Construction and the Built Environment – Craft, Supervisory, Technical, Managerial and Professional Units and Qualifications with NVQ in the Qualification and Credit Framework (QCF) title and SVQs.

Assessors for this unit must have verifiable, current industry experience and a sufficient depth of occupational expertise and knowledge of controlling project progress against agreed quality standards to be effective and reliable when confirming a learner's competence.

Workplace evidence of skills cannot be simulated.

Learning outcomes and assessment criteria

Learning outcomes		Assessment criteria	Evidence type	Portfolio reference	Date
1	Understand how to monitor quality standards	1.1 Evaluate systems for checking quality standards against the contract specification 1.2 Explain a site based inspection system for quality control against given project requirements 1.3 Explain a site administrative procedure for recording quality control data given the contract particulars			
2	Be able to design quality standards processes	2.1 Establish an administrative procedure for a site quality control regime based on a specified project 2.2 Devise an audit quality plan to record quality data for a finished product 2.3 Devise an audit quality plan to record quality data for a semi-finished site component 2.4 Produce a site quality plan given the project documents			
3	Be able to assess work quality standards from contract information	3.1 Analyse quality standards for a specific material from a contract bill of quantities 3.2 Analyse quality standards for a particular site operation from contract documents 3.3 Produce the site instructions used to control quality standards based on design details 3.4 Evaluate quality standards for a specific site operation against an environmental policy			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
4 Be able to monitor site operation against quality standards for compliance	4.1 Carry out a quality inspection on a product delivery given industry standard delivery documentation 4.2 Carry out a quality audit for a construction activity using the site quality plan 4.3 Evaluate the results of a site quality inspection report against the quality specification			
5 Be able to devise solutions to non-compliant site activities	5.1 Recommend remedial action to rectify a non-compliant product given the inspection report and project quality standards 5.2 Assess the environmental impact caused by a non-compliant construction activity recommending how improvements could be implemented 5.3 Assess the disruption to the project timetable caused by a defective delivery of a material, recommending how improvements could be implemented			

Learner name: _____

Date: _____

Learner signature: _____

Date: _____

Assessor signature: _____

Date: _____

Internal verifier signature: _____

Date: _____

(if sampled)

Unit 2: Monitoring Environmental Factors and Sustainability in Construction and the Built Environment

Unit reference number: T/504/6699

QCF level: 4

Credit value: 10

Guided learning hours: 30

Unit summary

Learners will contribute to the success of environmental sustainability within construction and built environment projects. To carry out this function, learners will understand environmental and sustainability concepts and principles. Based on these theoretical frameworks they will demonstrate the ability to establish protocols to manage and control projects within sustainable parameters.

Assessment requirements/evidence requirements

Learners will collect work based evidence data and complete a portfolio which must be mapped against the assessment criteria within this unit. Learners will need to develop methodologies in recording and evidencing against the assessment criteria, using page numbers and annotating the portfolio with relevant criteria. The work based assessor should be used to witness and sign evidence for the learner.

Scope of knowledge and understanding

The assessment evidence should relate to the occupational area being assessed.

Environmental factors:

- Appearance
- Ecological
- Nature conservation
- Historical conservation
- Noise
- Emissions, air, land and water
- Sustainability, economic and social
- Traffic management
- Waste management and recycling

People responsible:

- The client, customer or their representative
- Contractors
- Consultants
- Sub-contractors
- Suppliers
- Workforce
- Internal management

Project data:

- Conditions of contract
- Bills of quantities or methods of measurement
- Specifications
- Drawings
- Health, safety and environmental plans
- Programmes
- Organisational requirements
- Instructions and variations

Sustainable work methods:

- Reuse and recycled waste
- Recycled or sustainable materials
- Contact with site neighbours
- Health and safety
- Protection of the natural environment, biodiversity and heritage
- New legislation, technologies and skills
- Pollution control
- Material acquisition, use and storage

Sustainability requirements:

- Build to last
- Integration with surroundings
- Traffic management
- Meeting users needs
- Meeting community needs
- Insulation
- Efficient building services systems
- Efficient use of resources
- Efficient use of materials

- Waste recycling
- Use of recycled materials
- Acquiring materials from local sources
- Encouraging biodiversity
- Use of sustainable energy, thermal, solar, wind and wave,
- Managing water demand
- Protection of archaeological and historically valuable resources

See *Annexe D* for Assessment Strategy.

Assessment methodology

This unit is assessed in the workplace. Learners can enter the types of evidence they are presenting for assessment and the evidence can be dated and initialled against each assessment criterion. Alternatively, centre devised documentation should be used to record this information.

This unit must be assessed in a work environment and in accordance with:

- the Additional Requirements for Qualifications using the title NVQ in QCF
- the ConstructionSkills' Consolidated Assessment Strategy for Construction and the Built Environment – Craft, Supervisory, Technical, Managerial and Professional Units and Qualifications with NVQ in the Qualification and Credit Framework (QCF) title and SVQs.

Assessors for this unit must use a combination of the following assessment methods:

- Observation of normal work activities within the workplace that clearly confirms the required skills
- questioning the learner on knowledge criteria that clearly confirms the required understanding
- review other forms of evidence that can clearly confirm industry required skills, knowledge and understanding.

Assessors for this unit must have verifiable, current industry experience and a sufficient depth of occupational expertise and knowledge of controlling project progress against agreed quality standards to be effective and reliable when confirming a learner's competence.

Workplace evidence of skills cannot be simulated.

Learning outcomes and assessment criteria

Learning outcomes		Assessment criteria	Evidence type	Portfolio reference	Date
1	Understand environmental sustainability concepts	1.1 Explain the environmental factors that affect a sustainability project 1.2 Explain how different types of project data can be used to establish methods of work that will support sustainability 1.3 Assess environmental management responsibilities from a given sustainable project history 1.4 Explain the environmental management structure used on a given project brief 1.5 Evaluate sustainable working methods used on a given project			
2	Be able to promote a culture of environmental awareness for sustainability in the workforce	2.1 Explain the importance of creating a culture of environmental awareness for sustainability in the workforce 2.2 Devise a publicity scheme to promote environmental awareness for sustainability within the workforce, for a construction project 2.3 Create a work method that generates environmental concepts for a specific work occupation 2.4 Devise headline measures to promote workforce acceptance for a project sustainable policy			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
3 Understand requirements for monitoring sustainable work methods	3.1 Assess the environmental management requirements of a given monitoring activity 3.2 Determine the labour resource requirement for monitoring sustainable work methods in an environmental project			
4 Understand the environmental factors that affect construction and built environment projects	4.1 Identify the environmental factors that affect a project and assess their impact 4.2 Recommend appropriate actions to be taken in line with the assessment			
5 Be able to monitor project work against sustainability requirements	5.1 Describe tools and techniques used to monitor project work against sustainability requirements 5.2 Create a plan to monitor project work against sustainability requirements 5.3 Carry out the monitoring of construction activities in line with the monitoring plan 5.4 Record the monitoring results in a suitable format in line with company policy 5.5 Evaluate the results and make recommendations for future good practice			

Learner name: _____

Date: _____

Learner signature: _____

Date: _____

Assessor signature: _____

Date: _____

Internal verifier signature: _____

Date: _____

(if sampled)

Unit 3: Managing the Progress of Projects in Construction and the Built Environment

Unit reference number: D/504/6700

QCF level: 4

Credit value: 12

Guided learning hours: 35

Unit summary

The learners will contribute to the controlling of project progress against an agreed project programme within construction and the built environment. To carry out this function learners will understand monitoring systems and protocols. Based on theory, learners will demonstrate the ability to manage project progress and agree appropriate corrective actions.

Assessment requirements/evidence requirements

Learners will collect work based evidence data and complete a portfolio which must be mapped against the assessment criteria within this unit. Learners will need to develop methodologies in recording and evidencing against the assessment criteria, using page numbers and annotating the portfolio with relevant criteria. The work based assessor should be used to witness and sign evidence for the learner.

Scope of knowledge and understanding

The assessment evidence (knowledge and understanding) should relate to the occupational area being assessed.

Corrective actions:

- Restore progress in accordance with agreed programme
- Agree new completion dates
- Initiate contract claim
- Secure additional resources
- Altering planned work

Deviations:

- Resources shortages
- Design problems
- Design constraints

- Industrial disputes
- Lack of essential construction information
- Construction errors
- Inclement weather
- Physical site constraints

Programme(s):

- Bar charts
- Network analysis
- Critical path
- Line balance
- Action lists
- Method statements
- Project expenditure forecasts

Quantify:

- Method study
- Work study
- Production analysis

Relevant people:

- The client, customer or their representative
- Contractors
- Consultants
- Suppliers

Resources:

- People
- Plant equipment or machinery
- Materials and components
- Finance
- Time
- Specialist services
- Public utility services
- Information

Systems to monitor and record project progress:

- Visual inspection
- Resources records
- Site inspection reports
- Contractor's reports

- Certified payments
- Written graphical and electronic records of actual work against programmed work
- Site meetings
- Organisational procedures
- Management reports
- Benchmarks
- Comparison with project requirements

See *Annexe D* for Assessment Strategy.

Assessment methodology

This unit is assessed in the workplace. Learners can enter the types of evidence they are presenting for assessment and the evidence can be dated and initialled against each assessment criterion. Alternatively, centre devised documentation should be used to record this information.

This unit must be assessed in a work environment and in accordance with:

- the Additional Requirements for Qualifications using the title NVQ in QCF
- the ConstructionSkills' Consolidated Assessment Strategy for Construction and the Built Environment – Craft, Supervisory, Technical, Managerial and Professional Units and Qualifications with NVQ in the Qualification and Credit Framework (QCF) title and SVQs.

Assessors for this unit must use a combination of the following assessment methods:

- observation of normal work activities within the workplace that clearly confirms the required skills
- questioning the learner on knowledge criteria that clearly confirms the required understanding
- review other forms of evidence that can clearly confirm industry required skills, knowledge and understanding.

Assessors for this unit must have verifiable, current industry experience and a sufficient depth of occupational expertise and knowledge of controlling project progress against agreed quality standards to be effective and reliable when confirming a learner's competence.

Workplace evidence of skills cannot be simulated.

Learning outcomes and assessment criteria

Learning outcomes		Assessment criteria	Evidence type	Portfolio reference	Date
1	Understand how to develop systems to monitor project progress	1.1 Explain the development of systems to monitor progress for a given project against an agreed programme 1.2 Explain how the monitoring results are recorded 1.3 Evaluate a monitoring system in line with organisational requirements			
2	Be able to collect information on working progress for projects	2.1 Explain methods of gathering progress information on a construction project 2.2 Collate information on work progress on a given project brief in line with organisational requirements 2.3 Produce a list of the relevant people to be informed about work progress in line with the project 2.4 Present a summary of findings on work progress in suitable formats for the listed relevant people			
3	Understand how deviations from agreed programmes affect project progress	3.1 Explain the factors that can create deviations in planned progress on a project 3.2 Analyse given inspection results to identify current or predicted deviations that could disrupt the agreed programme 3.3 Evaluate the circumstances of the identified deviations			

Learning outcomes		Assessment criteria	Evidence type	Portfolio reference	Date
4	Be able to manage deviations from planned progress	4.1 Quantify deviations from planned progress that have occurred or which could disrupt the programme 4.2 Recommend options for corrective actions 4.3 Gain approval from supervisors for corrective action recommendations			
5	Be able to manage project progress data	5.1 Record project progress and progress change information in a suitable format 5.2 Document identified or predicted deviations in line with organisational requirements 5.3 Gather and format feedback information to recommend improvements 5.4 Record details of recommended corrective actions in line with organisational requirements			

Learner name: _____

Date: _____

Learner signature: _____

Date: _____

Assessor signature: _____

Date: _____

Internal verifier signature: _____

Date: _____

(if sampled)

Unit 4: Maintaining Systems for Health, Safety, Welfare and Environmental Protection in the Workplace

Unit reference number: H/600/7486

QCF level: 3

Credit value: 8

Guided learning hours: 30

Unit summary

The aim of this unit is to illustrate the skills, knowledge and understanding required to confirm competence in maintaining systems for health, safety, welfare and environmental protection in the workplace within the relevant sector of industry.

Assessment methodology

This unit must be assessed in a work environment and in accordance with:

- the Additional Requirements for Qualifications using the title NVQ in QCF
- the ConstructionSkills' Consolidated Assessment Strategy for Construction and the Built Environment – Craft, Supervisory, Technical, Managerial and Professional Units and Qualifications with NVQ in the Qualification and Credit Framework (QCF) title and SVQs.

Assessors for this unit must use a combination of the following assessment methods:

- observation of normal work activities within the workplace that clearly confirms the required skills
- questioning the learner on knowledge criteria that clearly confirms the required understanding
- review other forms of evidence that can clearly confirm industry required skills, knowledge and understanding.

Assessors for this unit must have verifiable, current industry experience and a sufficient depth of occupational expertise and knowledge of maintaining systems for health, safety, welfare and environmental protection to be effective and reliable when confirming a learner's competence.

Workplace evidence of skills cannot be.

Learning outcomes and assessment criteria

Learning outcomes		Assessment criteria	Evidence type	Portfolio reference	Date
1	Encourage a culture of health, safety, welfare and environmental awareness	<p>1.1 Develop initiatives which encourage a health, safety, welfare culture and consideration for the environment</p> <p>1.2 Explain the various methods that can encourage a culture of health, safety, welfare and consideration for the environment</p>			
2	Identify and recommend opportunities for improving health, safety and welfare for people on site or for specific operations	<p>2.1 Make recommendations following reviews that could improve health, safety or welfare on site or for specific operations</p> <p>2.2 Explain how to identify opportunities that will improve health, safety and welfare for people on site or for specific operations</p> <p>2.3 Describe the various methods to recommend improvements to health, safety and welfare systems</p>			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
3 Ensure the workforce and visitors to the site or specific operations are inducted and check the competence of those they are responsible for	3.1 Implement a system of checks to ensure that the workforce and visitors are inducted 3.2 Explain the various methods of ensuring that the workforce and visitors to the site or specific operational area are inducted and give reasons why this is important 3.3 Carry out checks to ensure that workers they are responsible for are competent for the relative tasks 3.4 Explain the various methods of ensuring that workers they are responsible for are competent for the relative tasks and give reasons why this is important			
4 Maintain accurate and appropriate statutory notices and hazard warnings	4.1 Ensure relevant statutory notices and hazard warnings and clear, legible and concise 4.2 Describe ways of maintaining statutory notices and hazard warnings			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
<p>5 Ensure the serviceability of health, safety, welfare and environmental protection equipment and resources in order to comply with current legislation</p>	<p>5.1 Carry out maintenance checks on at least five of the following health, safety, welfare and environmental protection equipment and resources:</p> <ul style="list-style-type: none"> - protective equipment - protective clothing - first aid facilities and arrangements - welfare facilities - storage and security of materials and equipment - accident and incident reporting systems - fire fighting equipment - provision of health, safety and welfare <p>5.2 Explain the various methods of conducting and recording maintenance checks on health, safety, welfare and environmental protection equipment and resources that meet the project, organisational and statutory requirements</p>			
<p>6 Implement systems which meet organisational and statutory requirements for the identification of hazards and reduction of risks; reporting accidents and emergencies and preventing recurrence</p>	<p>6.1 Develop and action a system that identifies hazards and reduces risk</p> <p>6.2 Explain the various methods of implementing systems that meet organisational and statutory requirements and which identifies hazards and reduces risks</p> <p>6.3 Develop and action a system that reports accidents and emergencies and is able to prevent recurrence</p>			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
	<p>6.4 Explain the various methods of implementing systems that meets organisational and statutory requirements for reporting accidents and emergencies, and operates to prevent recurrence</p> <p>6.5 Give reasons for implementing an effective system to identify hazards, reduce risks and report accidents</p>			
<p>7 Check health, safety, welfare and environmental protection systems regularly in accordance with organisational and statutory requirements</p>	<p>7.1 Conduct regular checks to ensure compliance with the following organisational and statutory requirements:</p> <ul style="list-style-type: none"> - construction specific health, safety, welfare and environmental legislation - recognised industry codes of practice - organisational procedures <p>7.2 Explain the methods of checking health, safety, welfare and environmental protection systems</p> <p>7.3 Explain the methods of ensuring that health, safety, welfare and environmental protection complies with organisational and statutory requirements</p>			
<p>8 Identify and report any special site or operational conditions which do not comply with organisational and statutory requirements</p>	<p>8.1 Review and evaluate sites or operations to identify special conditions and report conditions which do not comply with current legislation</p> <p>8.2 Explain the methods of identifying and reporting special site conditions that do not meet organisational and statutory requirements</p>			

Learner name: _____

Date: _____

Learner signature: _____

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Assessor signature: _____

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Internal verifier signature: _____

Date: _____

(if sampled)

Unit 5: Planning and Organising Construction Activities in the Workplace

Unit reference number: J/504/6710

QCF level: 4

Credit value: 11

Guided learning hours: 35

Unit summary

The learners will plan activities within construction and built environment projects. To carry out this function learners will understand how to schedule works in accordance with a specified project whilst ensuring all relevant resources are in place and appropriate persons notified.

Assessment requirements/evidence requirements

Learners will collect work based evidence data and complete a portfolio which must be mapped against the assessment criteria within this unit. Learners will need to develop methodologies in recording and evidencing against the assessment criteria, using page numbers and annotating the portfolio with relevant criteria. The work based assessor should be used to witness and sign evidence for the learner.

Scope of knowledge and understanding

The assessment evidence (knowledge and understanding) should relate to the occupational area being assessed.

Attendance:

- Facilities
- Welfare facilities
- Work specifications
- Security and fencing
- Utilities
- Traffic management
- Access and egress
- Offloading and loading
- Dimensional control
- Storage
- Health and safety

Information:

- Survey reports
- Design
- Contractual
- Statutory consents
- Contractor's pre-planning information
- Health safety and environmental plan
- Method statements
- Programmes
- People's competence

People:

- Client, customer or their representative
- Contractors
- Sub-contractors
- Third parties
- Public services
- Emergency services
- Suppliers
- People working on site
- Statutory authorities
- Near neighbours
- Residents

Programmes:

- Bar charts
- Network analysis
- Critical path
- Action lists
- Method statements

Project requirements:

- Time
- Quality
- Cost
- Health and safety
- Regulations
- Sustainability
- Defects of liability period

Project Resources:

- People
- Plant, equipment or machinery
- Materials and components
- Sub-contractors
- Information

Project needs:

- Sequencing
- Elimination of waste
- Regulations
- Heritage status
- Occupiers
- Environmental considerations
- Vehicular access
- Health and safety
- Hazards
- Trespass
- Nearby neighbours
- Public access
- Site conditions
- Statutory regulations and limitations
- Codes of Practice

See *Annexe D*: for Assessment Strategy.

Assessment methodology

This unit is assessed in the workplace. Learners can enter the types of evidence they are presenting for assessment and the evidence can be dated and initialled against each assessment criterion. Alternatively, centre devised documentation should be used to record this information.

This unit must be assessed in a work environment and in accordance with:

- the Additional Requirements for Qualifications using the title NVQ in QCF
- the ConstructionSkills' Consolidated Assessment Strategy for Construction and the Built Environment – Craft, Supervisory, Technical, Managerial and Professional Units and Qualifications with NVQ in the Qualification and Credit Framework (QCF) title and SVQs.

Assessors for this unit must use a combination of the following assessment methods:

- observation of normal work activities within the workplace that clearly confirms the required skills
- questioning the learner on knowledge criteria that clearly confirms the required understanding
- review other forms of evidence that can clearly confirm industry required skills, knowledge and understanding.

Assessors for this unit must have verifiable, current industry experience and a sufficient depth of occupational expertise and knowledge of controlling project progress against agreed quality standards to be effective and reliable when confirming a learner's competence.

Workplace evidence of skills cannot be simulated.

Learning outcomes and assessment criteria

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
1 Understand information requirements that are necessary before work starts on a construction project	1.1 Describe the information that should be obtained before work starts on a construction project 1.2 Explain ways that the information required can be identified, obtained and recorded			
2 Be able to create work schedules	2.1 Describe ways and techniques of notifying people affected by the work schedules 2.2 Prepare work schedules in line with project requirements 2.3 Provide people affected by project works with the work schedules 2.4 Explain the importance of providing written notification of work schedules to the people affected			
3 Be able to communicate programmes and methods with the relevant workforce	3.1 Evaluate organisational techniques of communicating programmes and methods in the workforce 3.2 Communicate programme and method information with a working team undertaking specified project work			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
4 Be able to organise attendance for sub-contractors	4.1 Explain the factors that affect typical project requirements 4.2 Explain the importance of organising sub-contractors attendance by contract or agreement, in accordance with project needs 4.3 Plan attendance requirements that meet project and contractual agreements 4.4 Organise attendance for subcontractors in accordance with project and contractual agreements			
5 Be able to organise construction project resources	5.1 Evaluate organisational planning methods for the use of construction project resources 5.2 Explain techniques for organising the site in order to meet project standards and timescales 5.3 Compile sufficient resources for relevant construction projects in line with project needs 5.4 Organise site operations in line with workplace standards			

Learner name: _____

Date: _____

Learner signature: _____

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Assessor signature: _____

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(if sampled)

Unit 6: Planning Maintenance or Remedial Activities in the Built Environment

Unit reference number: R/504/6712

QCF level: 4

Credit value: 17

Guided learning hours: 45

Unit summary

Learners will contribute to the planning of maintenance or remedial activities in retrofit projects. To carry out this function learners will understand the influencing factors and the guidance material that affect maintenance or remedial procedure. Based on these they will be able to assess the right resources and record data and plan retrofit activities projects with efficiency.

Assessment requirements/evidence requirements

Learners will collect work based evidence data and complete a portfolio which must be mapped against the assessment criteria within this unit. Learners will need to develop methodologies in recording and evidencing against the assessment criteria, using page numbers and annotating the portfolio with relevant criteria. The work based assessor should be used to witness and sign evidence for the learner.

Scope of knowledge and understanding

The assessment evidence (knowledge and understanding) should relate to the occupational area being assessed.

Actions and data:

- Inspections
- Faults or problems
- Corrective actions
- Costs
- Resources
- Complaints
- Delays

Changing circumstances:

- Susceptibility to damage
- Safety requirements
- Need to inhibit, and respond to deterioration
- Weather conditions
- Ground or site conditions
- Environmental conditions
- Use or change of use
- Current legislation
- Resources
- Security threats
- Client, customer or their representative

Guidance materials:

- Plans, drawings or diagrams
- Owner's manuals
- Log books
- Maintenance schedules and manuals
- Practice guides and specifications
- Current legislation and official guidance
- Historical data
- Existing records

Influencing factors:

- Organisational requirements
- Project requirements
- Current legislation
- Resource allocation
- Working requirements
- Environmental considerations
- Near neighbours
- Weather conditions
- Ground or site conditions
- Sustainability
- Client, customer or their representative

Maintenance or remedial tasks:

- Scheduled
- Unscheduled
- Preventative
- Corrective
- Emergency

Maintenance or remedial activities:

- Planned maintenance or remedial work
- Tended works
- Responsive works
- Preventative maintenance or remedial work
- Cost estimated work
- Seasonal maintenance
- Traffic maintenance (signing, lighting and guarding)
- Emergency works
- Contingency plans

Property, systems or services:

- Highways
- Traffic controls
- Structures
- External structure
- Internal structure
- Historical or preservation interests
- Internal fabric
- External fabric
- Utilities and services
- Landscaping

Resources:

- People
- Plant, equipment or machinery
- Materials and components
- Sub-contractors
- Information
- Work area and facilities

- Waste management
- Utility providers

See *Annexe D* for Assessment Strategy.

Assessment methodology

This unit is assessed in the workplace. Learners can enter the types of evidence they are presenting for assessment and the submission date against each assessment criterion. Alternatively, centre documentation should be used to record this information.

This unit must be assessed in a work environment and in accordance with:

- the Additional Requirements for Qualifications using the title NVQ in QCF
- the ConstructionSkills' Consolidated Assessment Strategy for Construction and the Built Environment – Craft, Supervisory, Technical, Managerial and Professional Units and Qualifications with NVQ in the Qualification and Credit Framework (QCF) title and SVQs.
- Assessors for this unit must have verifiable, current industry experience and a sufficient depth of occupational expertise and knowledge of controlling project progress against agreed quality standards to be effective and reliable when confirming a learner's competence.

Workplace evidence of skills cannot be simulated.

Learning outcomes and assessment criteria

Learning outcomes		Assessment criteria	Evidence type	Portfolio reference	Date
1	Understand influencing factors and guidance material about properties, systems or services	1.1 Evaluate influencing factors to determine maintenance or remedial activities on a given project 1.2 Analyse guidance materials to determine maintenance or remedial activities on a given project			
2	Understand how to prioritise maintenance or remedial activities of property, systems or services	2.1 Explain how the organisation manages changing circumstances in maintenance or remedial activities 2.2 Justify amendments to priorities for maintenance or remedial activities taking into account given changing circumstances			
3	Be able to record maintenance or remedial actions and data	3.1 Create maintenance or remedial activity records on given construction tasks and data in line with organisational policy 3.2 Demonstrate that maintenance, remedial and data records are up to date			
4	Be able to calculate required resources for maintenance or remedial activities	4.1 Assess the quantity and quality of resources for maintenance or remedial activities 4.2 Determine named resources in order to plan and schedule maintenance or remedial activities on a given project brief			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
5 Be able to prepare plans of scheduled maintenance or remedial activities	5.1 Evaluate organisational methods and techniques for preparing plans and schedules for maintenance or remedial activities, recommending possible improvements 5.2 Prepare a plan of scheduled maintenance or remedial activities in line with organisational methods and techniques			

Learner name: _____

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Learner signature: _____

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Assessor signature: _____

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Internal verifier signature: _____

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(if sampled)

Unit 7: Allocating and Monitoring the Use of Plant, Equipment or Machinery in the Workplace

Unit reference number: Y/600/7498

QCF level: 3

Credit value: 9

Guided learning hours: 30

Unit summary

The aim of this unit is to illustrate the skills, knowledge and understanding required to confirm competence in allocating and monitoring the use of plant, equipment or machinery in the workplace within the relevant sector of industry.

Assessment methodology

This unit must be assessed in a work environment and in accordance with:

- the Additional Requirements for Qualifications using the title NVQ in QCF
- the ConstructionSkills' Consolidated Assessment Strategy for Construction and the Built Environment – Craft, Supervisory, Technical, Managerial and Professional Units and Qualifications with NVQ in the Qualification and Credit Framework (QCF) title and SVQs.

Assessors for this unit must use a combination of the following assessment methods:

- observation of normal work activities within the workplace that clearly confirms the required skills
- questioning the learner on knowledge criteria that clearly confirms the required understanding
- review other forms of evidence that can clearly confirm industry required skills, knowledge and understanding.

Assessors for this unit must have verifiable, current industry experience and a sufficient depth of occupational expertise and knowledge of allocating and monitoring the use of plant, equipment or machinery to be effective and reliable when confirming a learner's competence.

Workplace evidence of skills cannot be simulated.

Learning outcomes and assessment criteria

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
<p>1 Produce clear requests for plant, equipment or machinery which meets the needs of projects or operations</p>	<p>1.1 Request at least four of the following types of plant, equipment or machinery as specified by plans or programme requirements:</p> <ul style="list-style-type: none"> - static - mobile - accessories - consumables - health and safety equipment - specialised hand tools - standard plant, equipment or machinery - non-standard plant, equipment or machinery <p>1.2 Describe the types, formats and methods of producing requests for plant, equipment or machinery that will meet the needs of projects</p>			
<p>2 Ensure and record that plant, equipment or machinery meets operational and statutory requirements prior to use in the workplace and allocate to suitable operations</p>	<p>2.1 Carry out checks and confirm that relevant plant, equipment or machinery meets operational and statutory requirements</p> <p>2.2 Record, following organisational procedures, that plant, equipment or machinery meets operational and statutory requirements</p> <p>2.3 Identify the requirements for relevant operations and assign appropriate plant, equipment or machinery for use</p>			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
	<p>2.4 Explain the ways and methods of ensuring that plant, equipment or machinery meets operational and statutory requirements prior to use</p> <p>2.5 Explain the factors that determine the allocation of plant, equipment or machinery for suitable operations</p> <p>2.6 Describe the different ways and formats for recording checks on the suitability of plant, equipment or machinery</p>			
<p>3 Identify hazards and assess risks arising from the use of plant, equipment or machinery and implement measures that protect people and the environment</p>	<p>3.1 Implement actions that protect the public, workforce, visitors and the environment using at least three of the following measures:</p> <ul style="list-style-type: none"> - methods of work - risk assessment - safe use and storage of tools - safe use and storage of materials - traffic controlling (including air and waterborne craft) - emergency plans. <p>3.2 Explain different ways of identifying hazards and assessing risks from plant, equipment or machinery operations</p> <p>3.3 Describe methods of implementing measures that protect all people and the environment affected by on-site plant, equipment or machinery operations</p>			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
	3.4 Outline who may be affected by plant, equipment or machinery operations relevant to typical projects			
4 Keep records of the use of plant, equipment or machinery	4.1 Complete and maintain records of plant, equipment or machinery use, which follow organisational requirements 4.2 Describe the types and ways of keeping records of plant, equipment or machinery operations 4.3 Give reasons for the need to keep records on plant, equipment or machinery use			
5 Recommend alternative types of plant or equipment to decision makers where existing plant, machinery or equipment is deemed unsuitable for allocated operations	5.1 Examine and analyse plant, equipment or machinery use and identify alternative types that will be suitable for the intended work 5.2 Provide suggestions to decision makers/responsible people for alternative types of plant, equipment or machinery 5.3 Explain the factors that determine when plant, equipment or machinery is unsuitable for intended operations and how to identify unsuitability 5.4 Describe methods and processes that can identify alternative plant, equipment or machinery for specific operations 5.5 Describe the ways of recommending alternative plant, equipment or machinery to decision makers/people responsible			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
6 Issue instructions for the use of plant, equipment or machinery to operators and others directly involved	<p>6.1 Provide guidance to plant, equipment or machinery operators, and those directly involved with the operation, that follow statutory and manufacturer's requirements</p> <p>6.2 Explain the formats, methods and timescales of issuing instructions and guidance to plant, equipment or machinery operators, and other directly involved.</p>			
7 Check and confirm that operators of plant, equipment or machinery are trained, certificated and authorised for the relevant type, and monitor for safe working	<p>7.1 Establish that operators of plant, equipment or machinery are able and authorised for the relevant types and operations</p> <p>7.2 Check relevant plant operation activities to ensure they meet statutory and manufacturer's requirements</p> <p>7.3 Explain the methods and organisational procedures of checking and confirming abilities and authorisation of plant, equipment or machinery operators</p> <p>7.4 Give reasons why plant, equipment or machinery operations should be monitored and describe effective methods on how this can be done</p>			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
<p>8 Ensure the appropriate storage, servicing and maintenance of plant, equipment or machinery meets operational and statutory requirements</p>	<p>8.1 Arrange the storage, servicing and maintenance of plant, equipment or machinery</p> <p>8.2 Carry out checks to ensure the storage, serviceability and maintenance of plant, equipment or machinery meet at least three of the following operational or statutory requirements:</p> <ul style="list-style-type: none"> - health, safety and welfare of the workforce and others - operational efficiency - security of resources - obligations to third parties - regulatory authorities - contractual commitments <p>8.3 Explains different ways of ensuring, and why it is important, that plant, equipment or machinery is stored, serviced and maintained in accordance with operational and statutory requirements</p>			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
9 Inform decision makers/people responsible when plant, equipment or machinery is no longer required	9.1 Establish that relevant plant, equipment or machinery has completed the intended work and is no longer required 9.2 Notify decision makers/people responsible in writing that plant, equipment or machinery work has been completed 9.3 Describe the methods and techniques for informing decision makers/people responsible when plant, equipment or machinery is no longer required 9.4 Explain why decision makers/people responsible need to be informed that plant, equipment or machinery is no longer required			

Learner name: _____

Date: _____

Learner signature: _____

Date: _____

Assessor signature: _____

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Internal verifier signature: _____

Date: _____

(if sampled)

Unit 8: Allocating Work and Checking People's Performance in the Workplace

Unit reference number: D/600/7552

QCF level: 5

Credit value: 9

Guided learning hours: 20

Unit summary

The aim of this unit is to illustrate the skills, knowledge and understanding required to confirm competence in allocating work and checking people's performance in the workplace within the relevant sector of industry.

Assessment methodology

This unit must be assessed in a work environment and in accordance with:

- the Additional Requirements for Qualifications using the title NVQ in QCF
- the ConstructionSkills' Consolidated Assessment Strategy for Construction and the Built Environment – Craft, Supervisory, Technical, Managerial and Professional Units and Qualifications with NVQ in the Qualification and Credit Framework (QCF) title and SVQs.

Assessors for this unit must use a combination of the following assessment methods:

- observation of normal work activities within the workplace that clearly confirms the required skills
- questioning the learner on knowledge criteria that clearly confirms the required understanding
- review other forms of evidence that can clearly confirm industry required skills, knowledge and understanding.

Assessors for this unit must have verifiable, current industry experience and a sufficient depth of occupational expertise and knowledge of allocating work and checking people's performance to be effective and reliable when confirming a learner's competence.

Workplace evidence of skills cannot be simulated.

Learning outcomes and assessment criteria

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
<p>1 Confirm the programme or operations and schedules, identify priorities and critical activities, and plan how the work will be undertaken</p>	<p>1.1 Identify and evaluate the priorities and critical activities in programmes or operations and schedules, and devise a plan on how the work will be undertaken</p> <p>1.2 Explain how to identify priorities and critical activities</p> <p>1.3 Explain methods of confirming programmes or operations and schedules</p> <p>1.4 Describe how the planning of work can be undertaken</p>			
<p>2 Allocate work to team members, taking into account their current circumstances, and brief them on the quality standards or level expected</p>	<p>2.1 Evaluate and assign work to team members and carry out briefings taking into account their:</p> <ul style="list-style-type: none"> - skills - knowledge - experience - workload <p>2.2 Describe how to allocate work fairly to team members whilst taking into account their current circumstances</p> <p>2.3 Explain the methods and techniques on briefing team members about quality of standards or levels expected</p>			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
3 Monitor the progress and quality of the work and provide prompt and constructive feedback	3.1 Carry out checks on the progress and quality of work being undertaken against programmes or operations and schedules 3.2 Carry out checks on the quality of work being undertaken against quality standards 3.3 Explain methods of checking the progress of work against programmes or operations, schedules and the work against quality standards 3.4 Provide feedback to team members on the progress of work and standards of quality			
4 Motivate team members to complete the work they have been allocated and provide, where requested and possible, any additional support and/or resources	4.1 Review and supply additional support and/or resources where requested by team members 4.2 Explain the different ways of motivating team members to complete the allocated work 4.3 Explain ways of providing additional support to team members and ways of getting feedback on additional support from team members			
5 Identify unacceptable or poor performance, discuss the cause(s) and agree ways of improving performance with team members	5.1 Evaluate poor or unacceptable performance for given work activities 5.2 Implement methods that can improve performance of team members Describe the various methods of identifying poor or unacceptable performance 5.3 Explain ways of discussing the causes of poor performance with team members and how to get agreement on ways of improving performance			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
6 Recognise successful completion of significant pieces of work or work activities by team/team members, and advise responsible people	6.1 Demonstrate ways of recognising success and praising team members on successful completion of work 6.2 Advise responsible people on successful completion of work 6.3 Describe ways of recognising completion of significant pieces of work or work activities 6.4 Explain effective methods of advising responsible people of the team/team member's successes			

Learner name: _____

Date: _____

Learner signature: _____

Date: _____

Assessor signature: _____

Date: _____

Internal verifier signature: _____

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(if sampled)

Learning outcomes and assessment criteria

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
<p>1 Develop, maintain and encourage working relationships to promote good will and trust</p>	<p>1.1 Give appropriate advice and information to relevant people about the occupational work activities and/or associated occupations involved</p> <p>1.2 Apply the principles of equality and diversity by considering the needs of individuals when working and communicating with others</p> <p>1.3 Explain the methods and techniques used and personal attributes required to encourage and maintain working relationships that promote goodwill and trust with relevant people</p> <p>1.4 Explain the principles of equality and diversity and how to apply them when working and communicating with others</p>			
<p>2 Inform relevant people about work activities in an appropriate level of detail, with the appropriate level of urgency</p>	<p>2.1 Communicate on the following work activity information to relevant people following organisational procedures:</p> <ul style="list-style-type: none"> - appropriate timescales - health and safety requirements - co-ordination of work procedures <p>2.2 Explain the different methods and techniques used to inform relevant people about work activities</p> <p>2.3 Explain the effects of not informing relevant people with the expected level of urgency</p>			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
	<p>2.4 Explain the different types of work activity related information and to what level of detail the following people would expect to receive:</p> <ul style="list-style-type: none"> - colleagues - employers - customers - contractors - suppliers of products and services - other people affected by the work/project 			
<p>3 Offer advice and help to relevant people about work activities and encourage questions/ requests for clarification and comments</p>	<p>3.1 Give appropriate advice and information to relevant people about the different methods of carrying out occupational work activities to achieve the required outcome</p> <p>3.2 Explain the techniques of encouraging questions and/or requests for clarification and comments</p> <p>3.3 Explain the different ways of offering advice and help to different people about work activities, in relation to:</p> <ul style="list-style-type: none"> - progress - results - achievements - occupational problems - occupational opportunities - health and safety requirements - co-ordinated work. 			

Learning outcomes		Assessment criteria	Evidence type	Portfolio reference	Date
4	Clarify proposals with relevant people and discuss alternative suggestions	4.1 Engage regular discussions with relevant people about the occupational work activity and/or other occupations involved 4.2 Explain the methods of clarifying alternative proposals with relevant people 4.3 Explain the methods of suggesting alternative proposals			
5	Resolve differences of opinion in ways that minimise offence and maintain goodwill, trust and respect	5.1 Examine and agree the work activities that satisfy all people involved and will meet the required outcome of the proposed method of work 5.2 Explain the methods and techniques used to resolve differences of opinion in ways which minimise offence and maintain goodwill, trust and respect			

Learner name: _____

Date: _____

Learner signature: _____

Date: _____

Assessor signature: _____

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Internal verifier signature: _____

Date: _____

(if sampled)

Unit 10: Building Management Systems for Building Services Engineering

Unit reference number: M/601/1394

QCF level: 4

Credit value: 15

Guided learning hours: 60

Unit summary

This unit enables learners to develop an understanding of building management systems (BMS) in relation to management and control requirements of buildings and develop skills to specify and install effective BMS.

Assessment methodology

This unit must be assessed in the workplace or in conditions resembling the workplace, where permitted and as specified in the assessment requirements/strategy for the sector. Learners can enter the types of evidence they are presenting for assessment and the submission date against each assessment criterion. Alternatively, centre documentation should be used to record this information.

Learning outcomes and assessment criteria

Learning outcomes		Assessment criteria	Evidence type	Portfolio reference	Date
1	Understand the management and control requirements of buildings	1.1 Describe the functions of buildings that can be managed using BMS 1.2 Evaluate the functions performed by BMS installations and components 1.3 Justify the decision to use a BMS installation within a given building			
2	Understand the control functions of BMS hardware	2.1 Explain the control functions performed by BMS hardware 2.2 Evaluate the operation of fixed hardware components associated with BMS installations 2.3 Justify the techniques used to install BMS fixed hardware and wiring			
3	Be able to design BMS installations	3.1 Apply control logic to design BMS installations 3.2 Produce control points count schedules, controls installation, schematic drawings and logic drawings 3.3 Produce BMS component and equipment lists, schedules and specifications for given installations 3.4 Carry out BMS software procedures to achieve required control strategies 3.5 Produce commissioning schedules for BMS installations			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
4 Be able to use BMS reports and data to optimise the performance of BMS installations	4.1 Analyse BMS installations to obtain performance reports 4.2 Analyse BMS settings to modify and adjust BMS installations 4.3 Produce planned preventative maintenance strategies using BMS reports and data 4.4 Produce energy management optimisation strategies using BMS reports and data			

Learner name: _____

Date: _____

Learner signature: _____

Date: _____

Assessor signature: _____

Date: _____

Internal verifier signature: _____

Date: _____

(if sampled)

Learning outcomes and assessment criteria

Learning outcomes		Assessment criteria	Evidence type	Portfolio reference	Date
1	Understand sustainable building services engineering systems	<p>1.1 Evaluate client needs, objectives, business case and possible constraints for a client design brief</p> <p>1.2 Evaluate the feasibility of utilising sustainable BSE systems appropriate to the design brief</p>			
2	Be able to design sustainable building services engineering systems	<p>2.1 Prepare a feasibility study and assessment of BSE system options from a design brief</p> <p>2.2 Determine the design parameters for the system in line with the feasibility study</p> <p>2.3 Plan the concept design including outline proposals for sustainable building services engineering system, outline specification and preliminary cost details in line with the design brief</p> <p>2.4 Develop the concept design for a sustainable building services engineering system, update outline specifications and cost details</p> <p>2.5 Perform accurate design calculations to size mechanical and/or electrical BSE plant and equipment, using both software packages and manual techniques, in accordance with the concept design</p> <p>2.6 Create the technical design, incorporating BSE plant, materials and equipment for the project</p>			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
	<p>2.7 Select and justify appropriate mechanical and/or electrical BSE plant, materials and equipment for the project in accordance with the technical design</p> <p>2.8 Explain how current legislative requirements, good practice and construction safety have been incorporated into the design, including 'duties on designers' from CDM regulations</p> <p>2.9 Evaluate the degree of sustainability included in the design system</p> <p>2.10 Contribute to design team meetings</p>			
<p>3 Be able to produce sustainable building services engineering specifications</p>	<p>3.1 Create specifications in accordance with the system design to meet current legislation standards and ideally exceed legal requirements in terms of energy efficiency and/or water use</p> <p>3.2 Create specification documentation in sufficient detail to enable a tender or tenders to be obtained</p> <p>3.3 Evaluate the stages from feasibility study to the production of the specification identifying strengths and any areas for improvement</p>			

Learner name: _____

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Learner signature: _____

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Assessor signature: _____

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(if sampled)

Unit 12: Energy Utilisation and Efficiency for Building Services Engineering

Unit reference number: F/601/1366

QCF level: 5

Credit value: 15

Guided learning hours: 60

Unit summary

This unit enables learners to understand how energy utilisation in buildings impacts on the environment, and develop the skills needed to audit energy requirements and improve the energy efficiency of buildings.

Assessment methodology

This unit must be assessed in the workplace or in conditions resembling the workplace, where permitted and as specified in the assessment requirements/strategy for the sector. Learners can enter the types of evidence they are presenting for assessment and the submission date against each assessment criterion. Alternatively, centre documentation should be used to record this information.

Learning outcomes and assessment criteria

Learning outcomes		Assessment criteria	Evidence type	Portfolio reference	Date
1	Understand the environmental impact of energy utilisation in buildings	1.1 Explain how energy is generated and distributed 1.2 Explain how emissions from the combustion of fossil fuels impact on the global environment 1.3 Justify the importance of energy efficiency and environmental conservation			
2	Understand the sustainability of alternative energy sources and water supplies for buildings	2.1 Discuss sustainability issues applicable to the provision of energy and water supplies 2.2 Compare alternative methods of supplying energy to buildings in terms of efficacy and cost 2.3 Compare alternative methods of supplying water to buildings in terms of efficacy and cost			
3	Be able to appraise the energy efficiency of building services installations	3.1 Compare methods of reducing energy requirements 3.2 Carry out energy efficiency appraisals using energy performance indicators			
4	Be able to undertake energy audits for buildings and building services installations	4.1 Justify the benefits of undertaking energy audits 4.2 Carry out energy audits 4.3 Present the findings of energy audits			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
5 Understand heat recovery and energy minimisation methods	5.1 Compare heat recovery methods and energy minimisation techniques 5.2 Assess the impact of plant size in terms of energy efficiency 5.3 Evaluate standard heat recovery plant and equipment in terms of performance in use 5.4 Discuss how building management systems reduce energy utilisation and improve system performance			

Learner name: _____

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Date: _____

(if sampled)

Unit 13: Supervising Learning Opportunities in the Built Environment

Unit reference number: Y/504/6713

QCF level: 4

Credit value: 7

Guided learning hours: 20

Unit summary

Learners will facilitate learning opportunities for staff working within the construction and built environment sector. To carry out this function learners will understand the concept of appraisals and identification of learning and development needs. Based on this theory, learners will demonstrate the ability to identify learning needs and outcomes and facilitate learning opportunities.

Assessment requirements/evidence requirements

Learners will collect work based evidence data and complete a portfolio which must be mapped against the assessment criteria within this unit. Learners will need to develop methodologies in recording and evidencing against the assessment criteria, using page numbers and annotating the portfolio with relevant criteria. The work based assessor should be used to witness and sign evidence for the learner.

Scope of knowledge and understanding

The assessment evidence (knowledge and understanding) should relate to the occupational area being assessed.

Development needs:

- Current skills and knowledge
- Learning activities undertaken
- Learning objectives to be achieved
- Resource requirements for development
- Timescales

Feedback:

- Formal appraisal
- Interim appraisal
- Verbal report
- Written report
- Reference
- Report

Learning activities:

- Formal
- Informal
- Coached
- Mentored
- Vocationally qualifying
- Continuous professional development
- Professional membership

See *Annexe D* for Assessment Strategy.

Assessment methodology

This unit is assessed in the workplace. Learners can enter the types of evidence they are presenting for assessment and the evidence can be dated and initialled against each assessment criterion. Alternatively, centre devised documentation should be used to record this information

This unit must be assessed in a work environment and in accordance with:

- the Additional Requirements for Qualifications using the title NVQ in QCF
- the ConstructionSkills' Consolidated Assessment Strategy for Construction and the Built Environment – Craft, Supervisory, Technical, Managerial and Professional Units and Qualifications with NVQ in the Qualification and Credit Framework (QCF) title and SVQs.

Assessors for this unit must use a combination of the following assessment methods:

- observation of normal work activities within the workplace that clearly meets the required skills
- questioning the learner on knowledge criteria that clearly meets the required understanding
- review other forms of evidence that can clearly meet industry required skills, knowledge and understanding.

Assessors for this unit must have verifiable, current industry experience and a sufficient depth of occupational expertise and knowledge of controlling project progress against agreed quality standards to be effective and reliable when confirming a learner's competence.

Workplace evidence of skills cannot be simulated.

Learning outcomes and assessment criteria

Learning outcomes		Assessment criteria	Evidence type	Portfolio reference	Date
1	Understand how to maximise team and individual performance	1.1 Analyse individual and collective work performances of team members on work activities 1.2 Explain how performance analysis is used to identify development needs 1.3 Explain organisational procedures and methods used to give fair, regular and useful feedback on team and individual performance 1.4 Evaluate organisational techniques used to promote benefits of learning to individuals and teams			
2	Be able to manage learning and development plans to facilitate the ongoing development of the working team	2.1 Communicate with individual team members to determine their learning and development requirements for required work activities 2.2 Agree team and individual learning and development needs in line with organisational goals and work activities 2.3 Create individual and team development plans in line with agreed development needs 2.4 Revise and update development plans with individuals at regular intervals 2.5 Encourage individuals and teams to learn and update their skills and knowledge			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
3 Be able to provide feedback to teams and individuals on performance	3.1 Appraise learning activities undertaken by individuals and teams against development plans 3.2 Provide constructive feedback in a way which shows respect for individuals and the need for confidentiality 3.3 Provide constructive feedback using a manner most likely to maintain and improve performance 3.4 Provide clear and objective feedback based on performance against previously agreed outcomes 3.5 Update the team development plan, and team members' individual development plans in line with feedback			

Learner name: _____

Date: _____

Learner signature: _____

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Assessor signature: _____

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Internal verifier signature: _____

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(if sampled)

Unit 14: Monitor and Evaluate Energy Performance

Unit reference number: Y/601/0059

QCF level: 4

Credit value: 2

Guided learning hours: 10

Unit summary

This unit will enable learners to monitor and record energy performance in an organisation. Learners will also analyse information on energy usage, making recommendations for improvement.

Assessment methodology

This unit must be assessed in the workplace or in conditions resembling the workplace, where permitted and as specified in the assessment requirements/strategy for the sector. Learners can enter the types of evidence they are presenting for assessment and the submission date against each assessment criterion. Alternatively, centre documentation should be used to record this information.

Learning outcomes and assessment criteria

Learning outcomes		Assessment criteria	Evidence type	Portfolio reference	Date
1	Understand how to monitor energy performance	<p>1.1 Explain how to obtain energy usage information from a range of suppliers</p> <p>1.2 Explain how to provide and submit regular information on energy performance</p> <p>1.3 Explain the different types of energy sources and the environmental impact of each</p> <p>1.4 Explain how to use findings to identify areas for potential improvement and the benefits of improvement</p>			
2	Be able to monitor and record energy usage within an organisation	<p>2.1 Identify organisation processes which use energy in order to define the scope of the evaluation</p> <p>2.2 Produce a procedure to monitor energy usage and performance, in line with good practice and any existing monitoring methods</p> <p>2.3 Confirm that all resources are in place in order to implement monitoring methods</p> <p>2.4 Implement monitoring procedure in line with good practice and any existing monitoring methods</p> <p>2.5 Record suitable information for energy evaluation</p>			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
3 Be able to analyse information collected on energy usage within an organisation	3.1 Analyse energy performance using monitoring information, involving interested parties, against current good practice and company requirements 3.2 Record and document the results of the evaluation 3.3 Communicate and seek feedback on the results of the evaluation 3.4 Identify and agree areas where improvement to energy performance can be made			

Learner name: _____

Date: _____

Learner signature: _____

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(if sampled)

Unit 15: Comply with Legal and Non-regulatory Environmental Compliance

Unit reference number: T/601/0053

QCF level: 4

Credit value: 8

Guided learning hours: 40

Unit summary

This unit enables learners to understand the legal and non-regulatory requirements on organisations with regard to the environment. Learners will evaluate an organisation's current compliance with these requirements and will monitor and review ongoing compliance, reporting information to interested parties.

Assessment methodology

This unit must be assessed in the workplace or in conditions resembling the workplace, where permitted and as specified in the assessment requirements/strategy for the sector. Learners can enter the types of evidence they are presenting for assessment and the submission date against each assessment criterion. Alternatively, centre documentation should be used to record this information.

Learning outcomes and assessment criteria

Learning outcomes		Assessment criteria	Evidence type	Portfolio reference	Date
1	Understand the legal and non-regulatory requirements for an organisation	1.1 Determine the requirements of legal and non-regulatory environmental requirements and how they impact on the organisation 1.2 Evaluate the potential consequences of non compliance with the legal and non-regulatory requirements 1.3 Explain the reasons for evaluating compliance with legal and non-regulatory requirements 1.4 Describe different methods of measuring compliance 1.5 Detail the key environmental regulators and enforcement bodies 1.6 Explain the reasons for maintaining an awareness of environmental legal and non-regulatory environmental requirements 1.7 Explain the purpose and use of control mechanisms			
2	Be able to evaluate current compliance with legal and other non-regulatory environmental requirements related to the organisation	2.1 Review current environmental practice of the organisation 2.2 Compare practice against the legal and non-regulatory requirements related to the organisation 2.3 Determine compliance with the legal and non-regulatory requirements of the organisation 2.4 Implement controls to comply with the legal and non-regulatory requirements			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
3 Be able to monitor and review ongoing compliance with legal and non-regulatory environmental requirements related to the organisation	3.1 Implement methods to ensure an ongoing review process of the legal and non-regulatory requirements 3.2 Monitor controls to comply with the legal and other non-regulatory requirements 3.3 Report information to interested parties on the ongoing compliance			

Learner name: _____

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(if sampled)

Unit 16: Contributing to the Control of Work Quantities and Costs in the Workplace

Unit reference number: J/600/7531

QCF level: 3

Credit value: 9

Guided learning hours: 30

Unit summary

The aim of this unit is to illustrate the skills, knowledge and understanding required to confirm competence in contributing to the control of work quantities and costs in the workplace within the relevant sector of industry.

Assessment methodology

This unit must be assessed in a work environment and in accordance with:

- the Additional Requirements for Qualifications using the title NVQ in QCF
- the ConstructionSkills' Consolidated Assessment Strategy for Construction and the Built Environment – Craft, Supervisory, Technical, Managerial and Professional Units and Qualifications with NVQ in the Qualification and Credit Framework (QCF) title and SVQs.

Assessors for this unit must use a combination of the following assessment methods:

- observation of normal work activities within the workplace that clearly confirms the required skills
- questioning the learner on knowledge criteria that clearly confirms the required understanding
- review other forms of evidence that can clearly confirm industry required skills, knowledge and understanding.

Assessors for this unit must have verifiable, current industry experience and a sufficient depth of occupational expertise and knowledge of contributing to the control of work quantities and costs to be effective and reliable when confirming a learner's competence.

Workplace evidence of skills cannot be simulated.

Learning outcomes and assessment criteria

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
<p>1 Implement appropriate works quantities and cost control systems able to provide early warnings of problems</p>	<p>1.1 Apply one of the following works quantities and cost control systems on specified work activities:</p> <ul style="list-style-type: none"> - contractual procedures and meetings - operational procedures and meetings - electronic recording <p>1.2 Describe various ways for implementing works quantities and cost control systems</p> <p>1.3 Explain how to use organisational systems that can provide early warning of problems</p>			
<p>2 Regularly collect and record quantities and cost data, and pass on in time to people who need to use that data</p>	<p>2.1 Document quantities and costs for specified work activities relating to at least three of the following areas:</p> <ul style="list-style-type: none"> - materials - plant - people - sub-contractors - day works - programmes and schedules <p>2.2 Communicate quantities and cost data to relevant people and following organisational procedures</p>			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
	<p>2.3 Explain methods for collecting and recording quantities and cost data</p> <p>2.4 Describe methods and techniques for passing on quantities and cost data, to those needing to use the data, so it can be used in time</p> <p>2.5 Give reasons why quantities and cost data needs to be collected and recorded</p>			
<p>3 Identify opportunities for cost savings and recommend findings to people responsible</p>	<p>3.1 Investigate and analyse potential cost savings on given work activities relating to at least two of the following:</p> <ul style="list-style-type: none"> - waste reduction - applications of new technologies and materials - energy and utility management - recyclable and recoverable materials - alternative sources and types of materials - variations in quality - standardisation - revenue generation <p>3.2 Communicate and suggest cost savings to the relevant people responsible</p> <p>3.3 Explain ways of identifying opportunities for cost savings</p> <p>3.4 Explain the methods and techniques for recommending cost saving opportunities to the people responsible</p>			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
4 Investigate variations and agree and implement appropriate corrective actions with the people responsible	4.1 Examine relevant work activities to identify variations in quantities and costs 4.2 Put into place the following corrective measures, where variations have been found, following approval from the people responsible: <ul style="list-style-type: none"> - restoration of progress in accordance with agreed programmes - agreements on new completion dates - initiations on contract claims - securing of additional resources - alteration of planned works 4.3 Describe different ways of investigating variations in works quantities and costs 4.4 Explain methods and techniques for agreeing and implementing appropriate corrective actions with the people responsible			

Learner name: _____

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(if sampled)

Unit 17: Maintaining Supplies of Materials to Meet Project Requirements in the Workplace

Unit reference number: D/600/7518

QCF level: 3

Credit value: 8

Guided learning hours: 20

Unit summary

The aim of this unit is to illustrate the skills, knowledge and understanding required to confirm competence in maintaining supplies of materials to meet project requirements in the workplace within the relevant sector of industry.

Assessment methodology

This unit must be assessed in a work environment and in accordance with:

- the Additional Requirements for Qualifications using the title NVQ in QCF
- the ConstructionSkills' Consolidated Assessment Strategy for Construction and the Built Environment – Craft, Supervisory, Technical, Managerial and Professional Units and Qualifications with NVQ in the Qualification and Credit Framework (QCF) title and SVQs.

Assessors for this unit must use a combination of the following assessment methods:

- observation of normal work activities within the workplace that clearly confirms the required skills
- questioning the learner on knowledge criteria that clearly confirms the required understanding
- review other forms of evidence that can clearly confirm industry required skills, knowledge and understanding.

Assessors for this unit must have verifiable, current industry experience and a sufficient depth of occupational expertise and knowledge of maintaining supplies of materials to meet project requirements to be effective and reliable when confirming a learner's competence.

Workplace evidence of skills cannot be simulated.

Learning outcomes and assessment criteria

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
<p>1 Supervise the storage and use of materials and components so that material handling and movement is efficient and wastage minimised</p>	<p>1.1 Implement systems that allow the safe and efficient storage and usage of the following materials and components:</p> <ul style="list-style-type: none"> - raw materials - manufactured materials - components - prefabricated systems <p>1.2 Ensure that materials and components are handled and moved safely and efficiently, and that wastage is minimised</p> <p>1.3 Explain possible methods and procedures for supervising storage area and facilities for material supplies to be effective for the project</p> <p>1.4 Describe how to minimise material and component handling, movement and wastage</p>			
<p>2 Calculate and keep accurate records of deliveries and stock position and pass the information on to decision makers</p>	<p>2.1 Maintain stock control records with calculations and pass onto decision makers using either manual or electronic means</p> <p>2.2 Describe different methods and techniques for calculating and keeping accurate records of deliveries and stock position</p> <p>2.3 Give reasons why accurate records of deliveries, calculations and stock position should be made, and the implications if this is not done</p>			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
<p>3 Identify and record problems with supply, discuss the information with material suppliers and pass on to decision makers</p>	<p>3.1 Establish and document at least four of the following problems with supply:</p> <ul style="list-style-type: none"> - price - quantity - quality - availability - schedule of delivery - life expectancy - storage and handling facilities - environmental issues - sustainability - health, safety and welfare issues - transportation - deterioration or damage - loss and theft - payment terms - cash flow - contract variations <p>3.2 Describe different possible ways of identifying problems with supplies</p> <p>3.3 Explain methods and techniques of discussing material supply problems with suppliers</p>			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
	3.4 Describe ways of passing on information about supply problems to decision makers			
4 Check stock records regularly and calculate what replacement stock will be needed	4.1 Examine stock record and calculations used to identify stock replacement 4.2 Explain and give examples of how to calculate stock turnover for a project 4.3 Describe how to check organisational stock records in order to calculate replacement stock			
5 Identify opportunities for improving the use of stock and stock turnover and recommend improvements to decision makers	5.1 Make recommendations to decision makers that could improve the use of stock and stock turnover 5.2 Explain possible ways and means of identifying opportunities for improving the use of stock and stock turnover 5.3 Describe methods and techniques to recommend improvements to decision makers			

Learner name: _____

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(if sampled)

Unit 18: Providing and Monitoring Construction-related Customer Service in the Workplace

Unit reference number: F/600/7558

QCF level: 5

Credit value: 8

Guided learning hours: 30

Unit summary

The aim of this unit is to illustrate the skills, knowledge and understanding required to confirm competence in providing and monitoring construction-related customer service in the workplace within the relevant sector of industry.

Assessment methodology

This unit must be assessed in a work environment and in accordance with:

- the Additional Requirements for Qualifications using the title NVQ in QCF
- the ConstructionSkills' Consolidated Assessment Strategy for Construction and the Built Environment – Craft, Supervisory, Technical, Managerial and Professional Units and Qualifications with NVQ in the Qualification and Credit Framework (QCF) title and SVQs.

Assessors for this unit must use a combination of the following assessment methods:

- observation of normal work activities within the workplace that clearly confirms the required skills
- questioning the learner on knowledge criteria that clearly confirms the required understanding
- review other forms of evidence that can clearly confirm industry required skills, knowledge and understanding.

Assessors for this unit must have verifiable, current industry experience and a sufficient depth of occupational expertise and knowledge of providing and monitoring construction-related customer service to be effective and reliable when confirming a learner's competence.

Workplace evidence of skills cannot be simulated.

Learning outcomes and assessment criteria

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
<p>1 Identify and use current legislation and official guidance to implement systems or procedures that will deliver and improve customer service</p>	<p>1.1 Apply at least four of the following to customer service systems or procedures:</p> <ul style="list-style-type: none"> - current legislation - official guidance - organisational procedures - specifications - drawing - instructions and variations - feedback processes <p>1.2 Seek ways of improving customer service whilst implementing customer service systems and procedures</p> <p>1.3 Describe ways that current legislation and official guidance relevant to customer service can be identified</p> <p>1.4 Explain how identified information can be used for implementing customer service systems or procedures</p> <p>1.5 Explain methods that can effectively deliver and improve customer service</p>			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
<p>2 Prepare to deal with customers in order to give consistent and reliable service</p>	<p>2.1 Examine current customer procedures and systems to identify if they provide consistent customer service</p> <p>2.2 Implement and use systems or procedures that will provide reliable and consistent service that promotes customer's confidence</p> <p>2.3 Explain methods that can provide consistent levels of customer service</p> <p>2.4 Explain how systems or procedures can be used effectively to provide a reliable level of customer service</p>			
<p>3 Work with others to resolve customer problems, communicate with customers and check that they are satisfied with the actions taken</p>	<p>3.1 Identify and find solutions to construction-based customer problems</p> <p>3.2 Communicate with customers whilst resolving problems using at least two of the following mediums:</p> <ul style="list-style-type: none"> - electronic - verbal - written - via a second person - feedback documents - group meetings 			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
	<p>3.3 Undertake at least two of the following actions that will ensure that customers are satisfied that problems are or will be solved:</p> <ul style="list-style-type: none"> - corrective - referral - investigative - reactive - proactive <p>3.4 Explain how best to work with others which can resolve customer service problems</p> <p>3.5 Describe different methods and techniques of communicating and dealing with customers</p> <p>3.6 Explain what checks can be undertaken to ensure that customers are satisfied with actions taken</p>			
<p>4 Solve problems within existing systems or procedures that may affect customers before the customer becomes aware of them</p>	<p>4.1 Investigate and/or collate information on current customer procedures and systems to identify potential or repeat customer service problems</p> <p>4.2 Apply rectification measures to procedures and systems to eliminate or reduce identified potential customer problems</p> <p>4.3 Describe ways that problems can be identified within existing systems or procedures that may affect customers</p> <p>4.4 Explain how and why problems in systems or procedures should be solved before customers become aware of them</p>			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
5 Confirm that the service given meets the customer's needs and expectations	5.1 Identify the level of service expected by construction-related customers 5.2 Communicate with customers to check that service given has met their needs and expectations 5.3 Explain ways of checking that customers are satisfied with the given level of service			
6 Inform the people responsible about changes to customer service systems or procedures that will reduce the chance of problems being repeated	6.1 Identify repeat problems in customer service, and amend customer service systems or procedures to minimise chances of problems being repeated 6.2 Communicate with at least two of the following people responsible to inform them that systems or procedures have been amended: - the client, the customer or their representative - contractors - consultants - sub-contractors - suppliers - workforce - internal management 6.3 Explain the measures that could be taken to identify repeat problems with customer service			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
	6.4 Explain methods that allow changes to customer service systems or procedures which can reduce the chance of problems being repeated 6.5 Describe how to effectively inform people responsible about amendments to systems or procedures			
7	Share information with people responsible to maintain and improve standards of service delivery 7.1 Inform and/or pass collated information that will maintain and improve standards of service delivery 7.2 Describe ways that standards of service delivery can be maintained and improved 7.3 Explain how information with people responsible could be effectively shared in order to maintain and improve standards of service delivery			

Learner name: _____

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(if sampled)

Unit 19: Prepare to Conduct an Environmental Audit

Unit reference number:	L/601/0057
QCF level:	5
Credit value:	5
Guided learning hours:	25

Unit summary

This unit enables learners to plan and conduct an environmental audit, recording and reporting on the findings and giving recommendations based on the conclusions of the audit.

Assessment methodology

This unit must be assessed in the workplace or in conditions resembling the workplace, where permitted and as specified in the assessment requirements/strategy for the sector. Learners can enter the types of evidence they are presenting for assessment and the submission date against each assessment criterion. Alternatively, centre documentation should be used to record this information.

Learning outcomes and assessment criteria

Learning outcomes		Assessment criteria	Evidence type	Portfolio reference	Date
1	Understand how to conduct an environmental audit	1.1 Evaluate audit techniques that could be used 1.2 Explain the principles of good auditor practice			
2	Be able to plan to conduct an environmental audit	2.1 Determine the objectives of the environmental audit 2.2 Establish timescales, resources, responsibilities and audit techniques to be used in the audit 2.3 Select valid and reliable sources of data and information for use during the audit 2.4 Identify stakeholders to be involved with and impacted on by the audit and communicate audit objectives to these individuals			
3	Be able to conduct an environmental audit	3.1 Conduct an environmental audit in accordance with agreed audit objectives 3.2 Collect objective audit evidence from stakeholders 3.3 Communicate with stakeholders during audit 3.4 Record audit findings and draw conclusions			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
4 Be able to report the findings of the environmental audit	4.1 Develop recommendations from the conclusions of the audit 4.2 Communicate outcomes, including any areas of good practice, identified from the environmental audit report 4.3 Agree actions arising from the environmental audit report			

Learner name: _____

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(if sampled)

Unit 20: Managing Tests in Construction and the Built Environment

Unit reference number: H/504/1109

QCF level: 5

Credit value: 14

Guided learning hours: 48

Unit summary

The aim of this unit is to illustrate the skills, knowledge and understanding required to confirm competence in managing tests and presenting the results in construction and the built environment.

Assessment methodology

This unit is assessed in the workplace. Learners can enter the types of evidence they are presenting for assessment and the evidence can be dated and initialled against each assessment criterion. Alternatively, centre devised documentation should be used to record this information.

Learning outcomes and assessment criteria

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
1 Be able to manage tests in Construction and the Built Environment	1.1 Evaluate existing project information and specify testing relevant to a development project 1.2 Obtain permission to carry out tests from appropriate authorities 1.3 Programme the tests to meet the objectives of the project 1.4 Implement quality assurance and health and safety standards relevant to the tests 1.5 Manage the planning and scheduling of tests in accordance with objectives and purpose 1.6 Manage and monitor the tests in accordance with planning and scheduling programme 1.7 Evaluate test methods and justify any modifications to maintain compliance with test requirements			
2 Be able to record the results from tests	2.1 Record test results in line with organisational requirements 2.2 Compile supporting test data in an agreed format 2.3 Store test results and data, indexing clearly for future reference in an agreed format			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
3 Be able to process test data in Construction and the Built Environment	3.1 Process test data in the context of the project requirements 3.2 Explain organisational procedures for dealing with unexpected issues related to the testing 3.3 Provide test reports and conclusions with reference to the objectives of the project			

Learner name: _____

Date: _____

Learner signature: _____

Date: _____

Assessor signature: _____

Date: _____

Internal verifier signature: _____

Date: _____

(if sampled)

Further information

Our customer service numbers are:

BTEC and NVQ	0844 576 0045
GCSE	0844 576 0027
The Diploma	0844 576 0028
DiDA	0844 372 2186
Administration and systems	0844 463 2535

Calls may be recorded for training and quality purposes.

Useful publications

Related information and publications include:

- *Edexcel NVQs, SVQs and Competence-based Qualifications Delivery Requirements and Quality Assurance Guidance* published annually
- *Centre Handbook for Edexcel QCF NVQs and Competence-based Qualifications* published annually
- functional skills publications – specifications, tutor support materials and question papers
- *Regulatory Arrangements for the Qualification and Credit Framework* (published by Ofqual, August 2008)
- the current Edexcel publications catalogue and update catalogue.

Edexcel publications concerning the Quality Assurance System and the internal and standards verification of vocationally related programmes can be found on the Edexcel website.

NB: Some of our publications are priced. There is also a charge for postage and packing. Please check the cost when you order.

How to obtain National Occupational Standards

To obtain the National Occupational Standards go to www.ukstandards.co.uk

Professional development and training

Edexcel supports UK and international customers with training related to NVQ and BTEC qualifications. This support is available through a choice of training options offered in our published training directory or through customised training at your centre.

The support we offer focuses on a range of issues including:

- planning for the delivery of a new programme
- planning for assessment and grading
- developing effective assignments
- building your team and teamwork skills
- developing student-centred learning and teaching approaches
- building functional skills into your programme
- building effective and efficient quality assurance systems.

The national programme of training we offer can be viewed on our website (www.edexcel.com/training). You can request customised training through the website or by contacting one of our advisers in the Training from Edexcel team via Customer Services to discuss your training needs.

The training we provide:

- is active
- is designed to be supportive and thought provoking
- builds on best practice
- may be suitable for those seeking evidence for their continuing professional development.

Annexe A: Progression pathways

The Edexcel qualification framework for the construction sector

Level	General qualifications	Diplomas	BTEC vocationally-related qualifications	BTEC specialist qualification/professional	NVQ/competence
8					
7					
6					Please go to www.edexcel.com
5			Edexcel BTEC Level 5 HND Diploma in Construction		Please go to www.edexcel.com
4			Edexcel BTEC Level 4 HNC Diploma in Construction		Please go to www.edexcel.com
3		Edexcel Level 3 Diploma in Construction and the Built Environment	Edexcel BTEC Level 3 Certificate, Subsidiary Diploma, Diploma and Extended Diploma in Construction and the Built Environment	Edexcel BTEC Level 3 Award, Extended Certificate and Diploma in Construction and the Built Environment	Please go to www.edexcel.com

Level	General qualifications		Diplomas	BTEC vocationally-related qualifications	BTEC specialist qualification/professional	NVQ/competence
2			Edexcel Level 2 Diploma in Construction and the Built Environment	Edexcel BTEC Level 2 Certificate, Extended Certificate and Diploma in Construction	Edexcel BTEC Level 2 Award, Certificate and Extended Certificate in Construction and the Built Environment (Craft) and Construction and the Built Environment (Technician)	Please go to www.edexcel.com
1			Edexcel Level 1 Diploma in Construction and the Built Environment	Edexcel BTEC Level 1 Award, Certificate, Diploma in Construction (QCF)	Edexcel BTEC Level 1 Award, Certificate, Extended Certificate in Construction and the Built Environment	Please go to www.edexcel.com
Entry				Edexcel Entry Level BTEC Award in Construction (Entry 3) (QCF)		

Annexe B: Quality assurance

Key principles of quality assurance

- A centre delivering Edexcel qualifications must be an Edexcel recognised and approved centre and must have approval for the individual qualifications that it is offering.
- The centre agrees, as part of gaining recognition and centre approval, to abide by specific terms and conditions relating to the effective delivery and quality assurance of assessment. The centre must abide by these conditions throughout the period of delivery.
- Edexcel makes available to centres a range of materials and opportunities to exemplify the processes required for effective assessment and to provide examples of effective standards. Approved centres must use the guidance on assessment to ensure that staff who are delivering Edexcel accredited qualifications are applying consistent standards.
- An approved centre must follow agreed protocols for: standardisation of assessors; planning, monitoring and recording of assessment processes; internal verification and recording of internal verification processes and dealing with special circumstances, appeals and malpractice.

Quality assurance processes

The approach to quality assured assessment is made through a partnership between a recognised and approved centre and Edexcel. Edexcel is committed to ensuring that it follows best practice and employs appropriate technology to support quality assurance processes where practicable. The specific arrangements for working with centres will vary. Edexcel seeks to ensure that the quality-assurance processes it uses do not inflict undue bureaucratic processes on centres, and works to support them in providing robust internal quality-assurance processes.

The learning outcomes and assessment criteria in each unit within this specification set out the standard to be achieved by each learner in order to gain each unit and through satisfying the rules of combination the whole qualification. Edexcel operates a quality-assurance process, designed to ensure that these standards are maintained by all assessors and verifiers.

For the purposes of quality assurance, all individual qualifications and units are considered as a whole. Centres offering these qualifications must be committed to ensuring the quality of the units and qualifications they offer, through effective standardisation of assessors and internal verification of assessor decisions. Centre quality assurance and assessment processes are monitored by Edexcel.

The Edexcel quality-assurance processes will involve:

- gaining centre recognition and approval – if a centre is not currently approved to offer Edexcel qualifications - and qualification approval through satisfying the Edexcel approved centre criteria
- two visits annually by occupationally competent and qualified Edexcel Standards Verifiers for sampling of internal verification and assessor decisions for the occupational sector. The minimum frequency of Standards Verifiers' visits to centres is usually two per year (a total of two days per year). The exact frequency and duration of Standards Verifier visits must reflect a centre's performance, taking account of the number:
 - of assessment sites
 - and throughput of candidates
 - and turnover of assessors
 - and turnover of internal verifiers.
- the provision of support, advice and guidance towards the achievement of National Occupational Standards.

Centres are required to declare their commitment to ensuring quality and to providing appropriate opportunities for learners that lead to valid and accurate assessment outcomes.

Annexe C: Centre certification and registration

Edexcel Standards Verifiers will provide support, advice and guidance to centres to achieve Direct Claims Status (DCS). Edexcel will maintain the integrity of Edexcel QCF NVQs, SVQs and competence qualifications through ensuring that the awarding of these qualifications is secure. Where there are quality issues identified in the delivery of programmes, Edexcel will exercise the right to:

- direct centres to take action
- limit or suspend certification
- suspend registration.

The approach of Edexcel in such circumstances is to work with the centre to overcome the problems identified. If additional training is required, Edexcel will aim to secure the appropriate expertise to provide this.

What are the access arrangements and special considerations for the qualifications in this specification?

Centres are required to recruit learners to Edexcel qualifications with integrity.

Appropriate steps should be taken to assess each applicant's potential and a professional judgement should be made about their ability to successfully complete the programme of study and achieve the qualification. This assessment will need to take account of the support available to the learner within the centre during their programme of study and any specific support that might be necessary to allow the learner to access the assessment for the qualification. Centres should consult Edexcel's policy on learners with particular requirements.

Edexcel's policy on access arrangements and special considerations for Edexcel qualifications aims to enhance access to the qualifications for learners with disabilities and other difficulties (as defined by the 2010 Equality Act and the amendments to the Act) without compromising the assessment of skills, knowledge, understanding or competence. Please refer to *Access Arrangements and Special Considerations for BTEC and Edexcel NVQ Qualifications* for further details. www.edexcel.com.

Annexe D: Assessment requirements/strategy



Consolidated Assessment Strategy for Construction and the Built Environment - Craft, Supervisory, Technical, Managerial and Professional Units and Qualifications with NVQ in the Qualification and Credit Framework (QCF) title and SVQs.

Introduction

This assessment strategy provides principles and guidance to awarding organisations so the assessment of units and qualifications with NVQ in the Qualifications and Credit Framework (QCF) title and SVQs is valid, effective and consistent and has credibility across the Construction and Built Environment sector. This is a consolidated ConstructionSkills Assessment Strategy covering construction and the built environment – craft, supervisory, technical, managerial and professional NVQ and SVQ units and qualifications. This assessment strategy is one of the strands of the ConstructionSkills' Construction Qualification Strategy.

These principles are in addition to the requirements that awarding organisations must meet for the delivery of NVQ and SVQ units and qualifications as required by the qualification regulators' documentation.

This consolidated assessment strategy provides the overarching principles as systems may vary from one awarding organisation to another. Awarding organisations must consistently put these principles into practice.

Annex A provides guidance to help awarding organisations incorporate relevant parts of these principle requirements in their documentation.

Annex B provides a list of sub annexes relevant to specific NVQ or SVQ qualifications and units; these sub annexes contain additional information for awarding organisations where National Working Groups or Awarding Body Fora have identified the need for specific clarification. Clarification may be about the terminology of the content of the unit (ref. section 2.1), or specific occupational expertise requirements for assessors and verifiers (ref. section 4).

Awarding organisations must make this Strategy and the relevant annexes available to assessors, verifiers and candidates.

Principles

1 External quality control of assessment

- 1.1 Awarding organisations must use risk management for external quality control of assessment. They must evaluate all external verification reports and other data relating to assessment centres. Awarding organisations must address any risks relating to quality control, considering the sector assessment strategy requirements for:
 - workplace evidence
 - the use of simulation
 - the occupational competence of assessors and verifiers.
- 1.2 The monitoring and standardisation of assessment decisions must be achieved by robust and strong internal and external verification systems meeting the requirements of the qualification regulators' documentation.
- 1.3 Awarding organisations must be members of the sector's Built Environment Awarding Body Forum, which includes the qualification regulators. They will be expected to provide feedback on National Occupational Standards (NOS), NVQ or SVQ units and qualifications, including aspects informing incremental change.
- 1.4 The Forum will, in respect of this strategy:
 - build on the good relationships with awarding organisations
 - provide opportunities to identify and address particular issues of external quality control
 - contribute to improving quality and consistency
 - support awarding organisations to monitor assessment centres' performance to identify areas and levels of risk
 - provide information and statistics about take up and completion, as well as trends and developments that can be used by ConstructionSkills and awarding organisations to identify any problem areas and agree remedial action
 - discuss matters concerning quality assurance, as well as providing the opportunity to identify issues arising from implementation of NOS and related vocational qualifications
 - inform the continuous improvement of NOS and awards derived from them
 - identify and share best practices to build a whole industry approach to pursue excellence in education and work-based learning and assessment process to achieve competence.

- 1.5 Awarding organisations and their partners, assessment centres, verifiers and assessors must maintain robust and transparent operational arrangements. They must preserve independence in assessment, certification and quality assurance processes. Awarding organisations must ensure clear separation of their NVQ/SVQ assessment responsibilities from their industry, training, membership, certification, accreditation and commercial interests and resolve any conflicts of interest.
- 1.6 Where e-assessment is used, it must meet the requirements of the qualification regulators' documentation.

2 Aspects to be assessed through performance in the workplace

- 2.1 Direct evidence produced through normal performance in the workplace is the primary source for meeting the requirements. This includes naturally occurring documentary evidence (hard copy and electronic), direct observation of activities and witness testimony as relevant. ConstructionSkills' National Working Groups will specify any exceptions to this position (see section 3).
- 2.2 Workplace evidence must be supported by the required evidence of knowledge and understanding. This evidence may be identified by:
 - questioning the candidate
 - recognised industry education and training programme assessment or professional interview assessment that has been matched to NOS requirements
 - performance evidence.
- 2.3 A holistic approach towards the collection of evidence should be encouraged. The focus should be on assessing activities generated by the whole work experience rather than focusing on specific tasks. This would show how evidence requirements could be met across the qualification to make the most efficient use of evidence. Annex A suggests standard evidence notes for awarding organisations.

3 How simulated working conditions may be used to assess competence

- 3.1 Simulations (designed situations for producing artificially generated evidence) may only be used where candidates are prevented from gathering direct evidence normally from the workplace because:
 - there are hazards
 - it is difficult to distinguish individual performance in team situations
 - circumstances occur infrequently or long term results are involved
 - confidentiality is important
 - there are organisational constraints.

- 3.2 Any instances where simulation is considered to be acceptable as an alternative (to direct workplace evidence) as a means of generating evidence, will be determined by the relevant ConstructionSkills National Working Group and stated in the unit. Annex A suggests standard evidence notes for awarding organisations.
- 3.3 The ConstructionSkills National Working Group will determine and specify in the required realistic working environment and context to be adopted. This could include appropriate:
- tools, equipment and instruments
 - materials
 - types of contingencies
 - standards and quality specifications
 - real timescales
 - quantities of work
 - physical conditions
 - relationships with people
 - types of interaction
 - communication methods and media
 - information and data.
- 3.4 Where simulated evidence is stated as acceptable in the unit, the circumstances and requirements for the simulation needs to be confirmed by discussions between the candidate and the assessor, which are then agreed by the internal and external verifiers.
- 3.5 Where other Standard Setting Bodies' units are imported into a ConstructionSkills suite, the evidence requirements of the originating body will be adopted and specified.

4 Occupational expertise requirements for assessors and verifiers

- 4.1 Awarding organisations must ensure that assessors:
- 4.1.1 have sufficient, verifiable, relevant current industry experience, knowledge and understanding of the occupational working area at or above the level being assessed. This must be of sufficient depth to be effective and reliable when judging candidates' competence. Assessors' experience, knowledge and understanding could be verified by a combination of:
- curriculum vitae and employer endorsement
 - references
 - possession of a relevant NVQ/SVQ, or vocationally related qualification
 - corporate membership of a relevant professional institution
 - interview

The verification process must be recorded and available for audit

- 4.1.2 have sufficient occupational expertise so they have up to date experience, knowledge and understanding of the particular aspects of work they are assessing. This could be verified by records of continuing professional development achievements
- 4.1.3 only assess in their acknowledged area of occupational competence
- 4.1.4 have a sound, in-depth knowledge of, and uphold the integrity of, the sector's NOS and this Assessment Strategy (this document)
- 4.1.5 are prepared to participate in training activities for their continued professional development
- 4.1.6 hold, or are working towards, a qualification as listed within Assessing and Assuring Quality of Assessment, either in the Qualifications and Credit Framework (QCF), or the Scottish Credit and Qualifications Framework (SCQF):

- Level 3 Award in Assessing Competence in the Work Environment
- Level 3 Certificate in Assessing Vocational Achievement
- SVQ (SCQF level) Assessing Competence in the Work Environment
- SVQ (SCQF level) Assessing Vocational Achievement

or hold one of the following

- A1 Assess candidates using a range of methods
- D32/33 Assess candidate performance, using differing sources of evidence

Holders of A1 and D32/33 must assess to the reviewed National Occupational Standards (NOS) for Learning and Development.

In Scotland, approval for exemptions must be obtained from the Scottish Qualifications Authority.

4.2 Awarding organisations must ensure that internal verifiers:

4.2.1 have sufficient, verifiable, relevant up to date experience, knowledge and understanding of the occupational working area at or above the level being verified. This must be of sufficient depth to be effective and reliable when verifying judgements about assessors' assessment processes and decisions. Internal verifiers' experience, knowledge and understanding could be verified by a combination of:

- curriculum vitae and employer endorsement
- references
- possession of a relevant NVQ/SVQ, or vocationally related qualification
- corporate membership of a relevant professional institution
- interview

The verification process must be recorded and available for audit.

- 4.2.2 have expertise so they have up to date experience, knowledge and understanding of the particular aspects of work they are verifying. This could be verified by records of continuing professional development achievements
- 4.2.3 have a sound, in-depth knowledge of, and uphold the integrity of, the NOS and this Assessment Strategy (this document)
- 4.2.4 are prepared to participate in training activities for their continued professional development
- 4.2.5 hold, or are working towards, a qualification as listed in Assessing and Assuring Quality of Assessment, either in the Qualifications and Credit Framework (QCF), or the Scottish Credit and Qualifications Framework (SCQF):

- Level 4 Award in the Internal Quality Assurance of the Assessment Process and Practice
- Level 4 Certificate in Leading the Internal Quality Assurance of Assessment Process and Practice
- SVQ(SCQF level) in the Internal Quality Assurance of the Assessment Process and Practice
- SVQ (SCQF level) in Leading the Internal Quality Assurance of Assessment Process and Practice

or hold one of the following

- VI Conduct internal quality assurance of the assessment process
- D34 Internal verify the assessment process

Holders of V1/D34 must quality assure to the reviewed National Occupational Standards (NOS) for Learning and Development.

It is strongly recommended that within the role of Internal Quality Assurance one of the following qualifications is held.

- Level 3 Award in Assessing Competence in the Work Environment
- Level 3 Certificate in Assessing Vocational Achievement
- SVQ (SCQF level) Assessing Competence in the Work Environment
- SVQ (SCQF level) Assessing Vocational Achievement

or one of the following

- A1 Assess candidates using a range of methods
- D32/33 Assess candidate performance, using differing sources of evidence

4.3 Awarding organisations must ensure that external verifiers:

- 4.3.1 have sufficient, verifiable, relevant experience, knowledge and broad understanding of the occupational working area at or above the level being verified. This must be of sufficient depth to be effective and reliable when verifying judgements about internal verification and assessment processes and decisions. External verifiers' experience, knowledge and understanding could be verified by a combination of:

- curriculum vitae and employer endorsement
- references
- possession of a relevant NVQ/SVQ, or vocationally related qualification
- corporate membership of a relevant professional institution
- interview

The verification process must be recorded and available for audit

- 4.3.2 have sufficient expertise so they have an up to date experience, knowledge and understanding of the particular aspects of work they are verifying. This could be verified by records of continuing professional development achievements
- 4.3.3 have a sound, in-depth knowledge of, and uphold the integrity of, the NOS and this Assessment Strategy (this document)
- 4.3.4 are prepared to participate in training activities for their continued professional development
- 4.3.5 hold, or are working towards, a qualification as listed in Assessing and Assuring Quality of Assessment, either in the Qualifications and Credit Framework (QCF), or the Scottish Credit and Qualifications Framework (SCQF):
- Level 4 Award in the External Quality Assurance of the Assessment Process and Practice
 - Level 4 Certificate in Leading the External Quality Assurance of Assessment
 - SVQ (SCQF level) in the External Quality Assurance of the Assessment Process and Practice
 - SVQ (SCQF) in Leading the External Quality Assurance of Assessment

or hold one of the following

- V2 Conduct external quality assurance of the assessment process
- D35 Externally verify the assessment process

Holders of V2/D35 must quality assure to the reviewed National Occupational Standards (NOS) for Learning and Development.

It is strongly recommended that within the role of External Quality Assurance one of the following qualifications is held at Level 4 and Level 3.

- Level 4 Award in the Internal Quality Assurance of the Assessment Process and Practice
- Level 4 Certificate in Leading the Internal Quality Assurance of Assessment Process and Practice
- SVQ(SCQF level) in the Internal Quality Assurance of the Assessment Process and Practice

- SVQ (SCQF level) in Leading the Internal Quality Assurance of Assessment Process and Practice
- VI Conduct internal quality assurance of the assessment process
- D34 Internal verify the assessment process
- Level 3 Award in Assessing Competence in the Work Environment
- Level 3 Certificate in Assessing Vocational Achievement
- SVQ (SCQF level) Assessing Competence in the Work Environment
- SVQ (SCQF level) Assessing Vocational Achievement

or one of the following

- A1 Assess candidates using a range of methods
- D32/33 Assess candidate performance, using differing sources of evidence

4.4 Selection and appointment of assessors and verifiers

All applicants should be advised that they may be interviewed. Applicants' CVs should be profiled against the activities and range of the NVQ/SVQ(s) they will assess/verify to check that the applicant has the relevant current experience, knowledge and understanding of the occupational working area:

- at, or above, the level they will be assessing
- of sufficient depth to credibly verify judgements and assessments
- to uphold the integrity of the NOS and this Consolidated Assessment Strategy.

All assessors should have experience as well as, not in lieu of, qualifications.

Where there seem to be gaps in a potentially suitable applicant's experience and knowledge, the applicant should be interviewed. Successful applicants' CVs, profiling, reasons for not needing to interview and interview records should be available for audit.



CITB-ConstructionSkills, CIC and CITB Northern Ireland are working as ConstructionSkills, the Sector Skills Council for Construction. (CITB-ConstructionSkills registered charity number 264289)

Annexe A

ConstructionSkills' standard evidence notes for awarding organisations

These guidance notes have been produced to ensure consistency interpreting the principles set out in sections 2 and 3 of the ConstructionSkills Assessment Strategy. The notes should help awarding organisations incorporate relevant parts of the assessment strategy principles' requirements in their documentation for construction and built environment – craft, supervisory, technical, managerial and professional NVQ/SVQs. The following general standard notes are strongly recommended for adoption by awarding organisations in their assessment specification:

Standard note 1:

"Taken as a whole, the evidence must show that the candidate consistently meets all the following performance criteria across the scope/range."

Standard note 2:

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

Standard note 3:

"Knowledge evidence may be established from questioning the candidate, or from industry recognised industry education and training programme assessment, or professional interview assessment, that has been matched to the requirements of the National Occupational Standards. Such assessments should also have their own independent external assessment, moderation or verification. A candidate's knowledge and understanding can also be demonstrated through presented performance evidence."

Standard note 4:

Either:

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

OR

"Simulations are considered to be an acceptable alternative for producing evidence for the following item(s) which is/are considered to be rare/infrequent, but key/critical to demonstrating competence. The following realistic working environment and context must be adopted for the simulation: appropriate: tools, equipment and instruments; materials; types of contingencies; standards and quality specifications; real timescales; quantities of work; physical conditions; relationship with people; type of interaction; communication methods and media; information and data."*

*[*include as appropriate]*

Annex B

The following is a list of the additional information Annexes for awarding organisations where National Working Groups or Awarding Body Forums have identified the need for specific clarification for the units and qualifications with NVQ in the QCF title and SVQs.

NVQs/SVQs	Annex
Controlling Lifting Operations	B1
Plant Operations	B2

Annex B1

Additional Information to the Consolidated Assessment Strategy from the National Working Group for Controlling Lifting Operations

Part A: Clarification and guidance notes

This additional information has been produced to ensure consistency in interpreting the occupational expertise requirements for assessors as described in paragraph 4.1 of the ConstructionSkills' Consolidated Assessment Strategy. This should help awarding organisations incorporate relevant parts of the assessment strategy principles' requirements in their documentation for the Controlling Lifting Operations units and qualifications with NVQ in the QCF title and SVQs.

Additional requirements for assessors of planning and supervising lifting operations

Assessors must be competent and have an up-to-date working knowledge of the occupation and sector. Assessors must have had active involvement in lifting operations and on each endorsement for which they wish to assess. The awarding body must ensure that all assessors are competent on each endorsement for which they intend to assess.

Supplementary guidance

In order to meet contractual and regulative requirements, many sectors of industry require lift planners and supervisors to possess certification from recognised industry approved bodies. The awarding body should ideally encourage all assessors to hold appropriate registration cards or certificates to support industry initiatives for a qualified workforce.

Where lifting experience was gained within the armed forces, applicants for assessor status should ideally gain external work experience within industry, or be able to demonstrate knowledge of relevant industry working practices outside the armed forces.

Part B: Clarification on standards (NOS) content terminology

Various sectors of industry, supported by the Health and Safety Executive, requested national occupational standards for the safety critical occupations of lift planner and lift supervisor. Standards from the suite of National Occupational Standards for Construction Site Supervision and Construction Site Management were identified by the National Working Group (NWG) as conveniently defining the job roles of planner and supervisor.

Certain standards (NOS), however, use terminology particular to, or make reference to, the construction sector, limiting the scope of the standards. Clarification of NOS terminology has been produced (Annex B1, page ii), by the NWG, for awarding organisations, which provides interpretation and meaning of selected words that are used in lifting operations within other industrial sectors. Provision of this clarification further avoids a proliferation of new standards.

Awarding organisations need to ensure that candidates, employers, assessment centres, assessors and those involved in the verification process for this qualification are informed of the clarification of NOS terminology for planning and supervising lifting operations.

Clarification of NOS terminology for controlling lifting operations

'construction operations'	Includes lifting operations within other sectors of industry.
'decision-makers'	This refers to the client, customer or their representative, senior/contracts manager, project team, consultants or in VR 705 the lift planner.
'ensure notice has been given to all the people who will be affected...'	This means as dictated by the lift plan.
'lines', 'levels', 'angles'	This includes load levels, ground levels, lines for placing loads and lifting accessory angles
'near neighbours'	This can include other structures and a workforce in a different part of the project.
'organise and control the site'	The lifting activity and the immediate surrounding area
'position, align and/or level the work'	This refers to items being moved and placed and the equipment used to attach and move the loads.
'produce clear requests for plant, equipment or machinery'	This means those specified by the lift plan.
'place and maintain notices'	This means ensuring that the correct notices (for the lifting activity) are in place prior to the commencement of the lifting activity, and checked throughout the duration of the activity.
'plan how the work will be undertaken'	This means as dictated by the lift plan.

'programmes and schedules'	This refers to either components part of, or the complete lift plan.
'project'	A lifting operation that is taking place within an overall contract, project or work activity.
'project plan'	This refers to either components part of, or the complete lift plan.
'site'	A lifting operation that is taking place within an overall contract, project or work activity.
'site plan'	This refers to either components part of, or the complete lift plan.
'vehicular access'	This can comprise of all forms of transport, including waterborne and airborne craft.

Annexe B2

Additional Information to the Consolidated Assessment Strategy from the Awarding Body Forum for Plant Operations

Clarification and guidance notes

This additional information has been produced to ensure consistency in interpreting the occupational expertise requirements for assessors as described in paragraph 4.1 of the ConstructionSkills' Consolidated Assessment Strategy. This should help awarding organisations incorporate relevant parts of the assessment strategy principles' requirements in their documentation for Plant Operations units and qualifications with NVQ in the QCF title and SVQs.

Additional requirements for assessors of plant operations

Assessors must be competent and have an up-to-date working knowledge of the occupation and sector. Assessors must have had active involvement in plant operations and on each endorsement for which they wish to assess. The awarding organisation must ensure that all assessors are competent on each endorsement for which they intend to assess in accordance with requirements of the qualification regulators' guidance for England, Northern Ireland, Scotland and Wales.

Supplementary guidance

In order to meet contractual and regulative requirements, many sectors of industry require operators of plant and equipment to possess certification from recognised industry approved bodies. The awarding organisation should ideally encourage all assessors to hold appropriate registration cards or certificates to support industry initiatives for a qualified workforce.

Where plant operating experience was gained within the armed forces, applicants for assessor status should ideally gain external work experience within industry, or be able to demonstrate knowledge of relevant industry working practices outside the armed forces.

Annexe E: Additional requirement for qualifications that use the term 'NVQ' in a QCF qualification title

For details please go to www.ofqual.gov.uk to access the document '*Operating rules for using the term 'NVQ' in a QCF qualification title*'.

Annexe F: Personal, Learning and Thinking Skills (PLTS) mappings

PLTS	Units																			
	1 L4	2 L4	3 L4	4 L3	5 L4	6 L4	7 L3	8 L5	9 L5	10 L4	11 L5	12 L5	13 L4	14 L4	15 L4	16 L3	17 L3	18 L5	19 L5	20 L5
Independent Enquirers																				
1 identify questions to answer and problems to resolve	•	•	•			•	•	•		•	•			•	•		•	•		•
2 plan and carry out research, appreciating the consequences of decisions	•	•	•		•	•	•	•		•	•	•				•		•	•	
3 explore issues, events or problems from different perspectives	•	•	•	•	•			•					•							
4 analyse and evaluate information, judging its relevance and value	•	•	•		•	•	•	•	•				•		•	•	•	•		•
5 consider the influence of circumstances, beliefs and feelings on decisions and events	•	•	•	•	•	•	•	•	•				•			•			•	
6 support conclusions, using reasoned arguments and evidence						•	•	•					•			•		•	•	•
Creative Thinkers																				
1 generate ideas and explore possibilities	•	•	•	•	•	•	•	•	•	•	•	•	•	•		•	•	•	•	•
2 ask questions to extend their thinking	•	•	•	•	•	•				•	•	•	•	•	•				•	•
3 connect their own and others' ideas and experiences in inventive ways	•	•	•		•	•		•		•	•	•	•	•	•			•	•	
4 question their own and others' assumptions	•		•		•	•	•	•		•	•	•	•		•			•	•	
5 try out alternatives or new solutions and follow ideas through	•		•		•	•	•	•	•	•	•		•	•			•	•	•	•
6 adapt ideas as circumstances change	•		•	•	•	•				•	•		•	•				•	•	
Reflective Learners																				
1 assess themselves and others, identifying opportunities and achievements	•		•	•				•	•				•			•	•	•		
2 set goals with success criteria for their development and work	•	•	•	•	•	•		•		•	•		•	•				•	•	•
3 review progress, acting on the outcomes	•		•	•	•	•		•	•			•	•	•	•	•	•	•		
4 invite feedback and deal positively with praise, setbacks and criticism			•		•			•	•				•			•		•	•	
5 evaluate experiences and learning to inform future progress			•		•	•	•	•	•	•		•	•	•	•	•		•	•	•
6 communicate their learning in relevant ways for different audiences		•		•	•		•	•	•				•			•	•	•	•	

Team Workers																			
1 collaborate with others to work towards common goals	•	•	•	•	•	•		•	•	•			•	•	•	•		•	
2 reach agreements, managing discussions to achieve results		•			•	•			•	•				•	•	•	•		
3 adapt behaviour to suit different roles and situations, including leadership roles		•			•	•	•		•	•				•				•	
4 show fairness and consideration to others	•				•			•	•	•				•				•	
5 take responsibility, showing confidence in themselves and their contribution	•		•	•				•	•	•		•	•				•	•	•
6 provide constructive support and feedback to others	•				•			•	•	•				•				•	
Self-Managers																			
1 seek out challenges or new responsibilities and show flexibility when priorities change	•	•	•	•	•	•	•	•	•	•		•	•		•	•	•		•
2 work towards goals, showing initiative, commitment and perseverance	•	•	•	•	•				•	•	•			•	•				•
3 organise time and resources, prioritising actions	•	•	•	•	•	•	•	•	•	•	•			•	•				•
4 anticipate, take and manage risks	•		•	•			•	•			•							•	•
5 deal with competing pressures, including personal and work-related demands	•		•	•							•							•	
6 respond positively to change, seeking advice and support when needed		•	•					•	•		•							•	•
7 manage their emotions, and build and maintain relationships				•	•			•	•	•				•				•	•
Effective Participators																			
1 discuss issues of concern, seeking resolution where needed	•	•	•	•	•	•	•	•	•		•	•	•		•			•	•
2 present a persuasive case for action				•	•				•	•	•	•		•	•				
3 propose practical ways forward, breaking these down into manageable steps	•		•	•	•	•			•	•	•		•	•	•				•
4 identify improvements that would benefit others as well as themselves	•		•	•	•			•	•	•	•		•	•			•	•	•
5 try to influence others, negotiating and balancing diverse views to reach workable solutions	•	•		•	•			•	•	•			•	•			•	•	•
6 act as an advocate for views and beliefs that may differ from their own		•							•	•			•	•				•	

Annexe G: NOS mappings

Unit number	Unit reference number	Unit title	Derived from the National Occupational Standards
1	M/504/6698	Monitoring Quality Standards in Construction and the Built Environment	COSVR735
2	T/504/6699	Monitoring Environmental Factors and Sustainability in Construction and the Built Environment	COSVR727
3	D/504/6700	Managing the Progress of Projects in Construction and the Built Environment	COSVR737
4	H/600/7486	Maintaining Systems for Health, Safety, Welfare and Environmental Protection in the Workplace	COSVR700
5	J/504/6710	Planning and Organising Construction Activities in the Workplace	COSVR730
6	R/504/6712	Planning Maintenance or Remedial Activities in the Built Environment	COSVR741
7	Y/600/7498	Allocating and Monitoring the Use of Plant, Equipment or Machinery in the Workplace	COSVR705
8	D/600/7552	Allocating Work and Checking People's Performance in the Workplace	COSVR713
9	M/503/2915	Developing and Maintaining Good Occupational Working Relationships in the Workplace	COSVR210
10	M/601/1394	Building Management Systems for Building Services Engineering	SUMSSTE9

Unit number	Unit reference number	Unit title	Derived from the National Occupational Standards
11	D/504/1111	Designing Sustainable Building Services Engineering Systems	SUMEVTS10
12	F/601/1366	Energy Utilisation and Efficiency for Building Services Engineering	SUMSSTE9
13	Y/504/6713	Supervising Learning Opportunities in the Built Environment	COSVR714
14	Y/601/0059	Monitor and Evaluate Energy Performance	O29NEM9
15	T/601/0053	Comply with Legal and Non-regulatory Environmental Compliance	LANNEM4
16	J/600/7531	Contributing to the Control of Work Quantities and Costs in the Workplace	COSVR710
17	D/600/7518	Maintaining Supplies of Materials to Meet Project Requirements in the Workplace	COSVR706
18	F/600/7558	Providing and Monitoring Construction-related Customer Service in the Workplace	COSVR719
19	L/601/0057	Prepare to Conduct an Environmental Audit	LANNEM7
20	H/504/1109	Managing Tests in Construction and the Built Environment	CCO12

