

Pearson Edexcel Level 2 NVQ Diploma in Applied Waterproof Membrane (Construction) (QCF)

Specification

First registration June 2013

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Qualification title covered by this specification

This specification provides the information you need to offer the Pearson Edexcel Level 2 NVQ Diploma in Applied Waterproof Membranes (Construction) (QCF):

Qualification title	Qualification Number (QN)	Accreditation start date
Pearson Edexcel Level 2 NVQ Diploma in Applied Waterproof Membranes (Construction) (QCF)	600/9085/6	10/05/2013

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. The title will also appear on the Learning Aim Reference Application (LARA), where relevant.

You should use the QN when you seek public funding for your learners. Each unit in a qualification will also have a QCF unit reference number, which is stated in each unit.

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

This title replaces the following qualifications from 1 June 2013:

Qualification title	Qualification Accreditation Number (QN)	Accreditation start date
Edexcel Level 2 NVQ Diploma in Applied Waterproof Membranes (Construction) (QCF)	600/4027/0	01/01/2012

Key features of the Pearson Edexcel Level 2 NVQ Diploma in Applied Waterproof Membranes (Construction) (QCF)

This qualification is:

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

The Pearson Edexcel Level 2 NVQ Diploma in Applied Waterproof Membranes (Construction) (QCF) has been approved as a component for the Intermediate Apprenticeship in Construction Specialist.

What is the purpose of this qualification?

This qualification is appropriate for employees in the construction and the 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.

Who is this qualification for?

This qualification is for learners aged 16 and above who are capable of reaching the required standards.

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
- be offered to learners who have been recruited with integrity by the centre.

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

This qualification allows learners to demonstrate competence against National Occupational Standards which are based on the needs of the construction and the built environment sector as defined by ConstructionSkills, the Sector Skills Council. As such it contributes to the development of skilled labour in the sector. The qualification may contribute towards the competence element of an Apprenticeship.

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

- Construction operative
- Roofer

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

This qualification allows learners to demonstrate competence in applied waterproof membranes at a level required by the construction and the built environment sector. Learners can progress across the level and size of the construction and the built environment competence and knowledge qualifications and into other occupational areas such as team leading and management.

Further information is available in *Annexe A*.

What is the qualification structure for the Pearson Edexcel Level 2 NVQ Diploma in Applied Waterproof Membranes (Construction) (QCF)?

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

This qualification accreditation number provides pathways to the following qualifications.

Pathway 1 – Pearson Edexcel Level 2 NVQ Diploma in Applied Waterproof Membranes (Built Up Bituminous Roofing) – Learners must complete all units in Group A and Group B1 for a total of 61 credits.

Pathway 2 – Pearson Edexcel Level 2 NVQ Diploma in Applied Waterproof Membranes (Single Ply Roofing) – Learners must complete all units in Group A and Group C1 for a total of 58 credits.

Pathway 3 – Pearson Edexcel Level 2 NVQ Diploma in Applied Waterproof Membranes (Liquid Waterproofing Systems) – Learners must complete all units in Group A and Group D1 for a total of 55 credits.

Pathway 4 – Pearson Edexcel Level 2 NVQ Diploma in Applied Waterproof Membranes (Green Roofs) – Learners must complete all units in Group A and Group E1 for a total of 37 credits.

Learners may choose to complete additional credit from the additional units in Group AD; however these credits will not count towards the minimum credit required for the qualification.

Qualification Structure

Pearson Edexcel Level 2 NVQ Diploma in Applied Waterproof Membranes (Construction) (QCF)					
A – Mandatory units for <u>all</u> pathways (credit value 10)					
Unit No.	Unit reference number	A – Mandatory units	Credit	Level	GLH
1	A/503/1170	Conforming to General Health, Safety and Welfare in the Workplace	2	1	7
2	J/503/1169	Conforming to Productive Working Practices in the Workplace	3	2	10
3	F/503/1171	Moving, Handling and Storing resources in the Workplace	5	2	17

B1 – Mandatory units – Built Up Bituminous Roofing (credit value 51)					
Unit No.	Unit reference number	B1 – Mandatory units	Credit	Level	GLH
4	D/600/7602	Preparing Decking for Built Up Bituminous Roofing in the Workplace	15	2	50
5	J/503/9918	Applying Built Up Bituminous Roofing in the Workplace	20	2	67
6	A/600/7607	Repairing and Maintaining Built Up Bituminous Roofing in the Workplace	16	2	53

C1 – Mandatory units – Single Ply Roofing (credit value 48)					
Unit No.	Unit reference number	C1 – Mandatory units	Credit	Level	GLH
7	J/600/7609	Preparing Background Surfaces for Single Ply Roofing in the Workplace	15	2	50
8	F/600/7611	Applying Single Ply Roofing in the Workplace	17	2	57
9	J/600/7612	Repairing and Maintaining Single Ply Roofing in the Workplace	16	2	53

D1 – Mandatory units – Liquid Waterproofing Systems (credit value 45)					
Unit No.	Unit reference number	D1 – Mandatory units	Credit	Level	GLH
10	R/600/7614	Preparing Background Surfaces for Liquid Waterproofing Systems in the Workplace	13	2	43
11	H/600/7617	Applying Liquid Waterproofing Systems in the Workplace	17	2	57
12	M/600/7619	Repairing and Maintaining Liquid Waterproofing Systems in the Workplace	15	2	50

E1 – Mandatory units – Green Roofs (credit value 27)					
Unit No.	Unit reference number	E1– Mandatory units	Credit	Level	GLH
13	H/503/0207	Installing Support Systems for Green Roofs in the Workplace	12	2	40
14	H/502/0499	Set and Mark out Landscape Sites to Establish Grassed and Planted Areas	3	3	19
15	L/502/0500	Evaluate Ground and Environmental Conditions to Establish Grassed and Planted Areas	3	3	19
16	D/502/0503	Prepare sites for Soft Landscaped Establishment	3	3	19
17	D/502/0856	Establish Planted Areas	3	3	19
18	H/502/0857	Establish Grass Swards	3	3	19

AD – Additional units)					
Unit No.	Unit reference number	AD – Additional units	Credit	Level	GLH
19	Y/600/6593	Installing Decking for Flat Roof Coverings in the Workplace	13	2	43
20	K/503/2959	Installing Solar Collectors to Roofs in the Workplace	6	2	20

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 strategy

The assessment strategy for these qualifications 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 our website www.edexcel.com. Alternatively, centres can develop their own recording documents.

Centre recognition and approval

Centre recognition

Centres that have not previously offered Pearson 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 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. If centres do not comply with the agreement, Edexcel will act to protect the integrity of the awarding of qualifications. 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 the built environment sector. Physical resources need to support the delivery of the qualifications and the assessment of the learning outcomes and they must be of industry standard. The centre and staff involved in the delivery of a qualification must take Health and Safety requirements into account.

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 the same conditions 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 given 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 code:					This is the unit owner's reference number for the specified unit.
Unit reference number:					This code is a unique reference number for the 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: Conforming to General Health, Safety and Welfare in the Workplace

Unit reference number: A/503/1170

QCF level: 1

Credit value: 2

Guided learning hours: 7

Unit summary

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

Assessment requirements/evidence requirements

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

- the Additional Requirements for Qualifications using the title NVQ in the QCF
- the ConstructionSkills' Consolidated Assessment Strategy for Construction and the Built Environment.

Assessors for this unit must have verifiable, current industry experience and a sufficient depth of relevant occupational expertise and knowledge, and must use a combination of assessment methods as defined in the Consolidated Assessment Strategy.

Workplace evidence of skills cannot be simulated.

Assessment methodology

Evidence of achievement of this unit should be drawn from the workplace, except where ConstructionSkills makes provision for evidence to be produced through simulation, as specified in the ConstructionSkills overarching assessment strategy.

An assessment record must be created that identifies the assessment criteria that have been met and cross-references these to the evidence provided. The assessment record should include details of the type of evidence and the date of assessment.

The unit specification or suitable centre documentation could be used to form an assessment record.

Learning outcomes and assessment criteria

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
<p>1 Comply with all workplace health, safety and welfare legislation requirements</p>	<p>1.1 Comply with information from workplace inductions and any health, safety and welfare briefings attended relevant to the occupational area</p> <p>1.2 Use health and safety control equipment safely to carry out the activity in accordance with legislation and organisational requirements</p> <p>1.3 Comply with statutory requirements, safety notices and warning notices displayed within the workplace and/or on equipment</p> <p>1.4 State why and when health and safety control equipment, identified by the principles of protection, should be used relating to types, purpose and limitations of each type, the work situation, occupational use and the general work environment, in relation to:</p> <ul style="list-style-type: none"> – collective protective measures – personal protective equipment (PPE) – respiratory protective equipment (RPE) – local exhaust ventilation (LEV) 			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
	<p>1.5 State how the health and safety control equipment relevant to the work should be used in accordance with the given instructions</p> <p>1.6 State which types of health, safety and welfare legislation, notices and warning signs are relevant to the occupational area and associated equipment</p> <p>1.7 State why health, safety and welfare legislation, notices and warning signs are relevant to the occupational area</p> <p>1.8 State how to comply with control measures that have been identified by risk assessments and safe systems of work</p>			
<p>2 Recognise hazards associated with the workplace that have not been previously controlled and report them in accordance with organisational procedures</p>	<p>2.1 Report any hazards created by changing circumstances within the workplace in accordance with organisational procedures</p> <p>2.2 List typical hazards associated with the work environment and occupational area in relation to resources, substances, asbestos, equipment, obstructions, storage, services and work activities</p> <p>2.3 List the current Health and Safety Executive top ten safety risks</p> <p>2.4 List the current Health and Safety Executive top five health risks</p> <p>2.5 State how changing circumstances within the workplace could cause hazards</p> <p>2.6 State the methods used for reporting changed circumstances, hazards and incidents in the workplace</p>			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
3 Comply with organisational policies and procedures to contribute to health, safety and welfare	3.1 Interpret and comply with given instructions to maintain safe systems of work and quality working practices 3.2 Contribute to discussions by offering/providing feedback relating to health, safety and welfare 3.3 Contribute to the maintenance of workplace welfare facilities in accordance with workplace welfare procedures 3.4 Safely store health and safety control equipment in accordance with given instructions 3.5 Dispose of waste and/or consumable items in accordance with legislation 3.6 State the organisational policies and procedures for health, safety and welfare, in relation to: <ul style="list-style-type: none"> – dealing with accidents and emergencies associated with the work and environment – methods of receiving or sourcing information – reporting – stopping work – evacuation – fire risks and safe exit procedures – consultation and feedback 3.7 State the appropriate types of fire extinguishers relevant to the work 3.8 State how and when the different types of fire extinguishers are used in accordance with legislation and official guidance			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
<p>4 Work responsibly to contribute to workplace health, safety and welfare whilst carrying out work in the relevant occupational area</p>	<p>4.1 Demonstrate behaviour which shows personal responsibility for general workplace health, safety and welfare</p> <p>4.2 State how personal behaviour demonstrates responsibility for general workplace health, safety and welfare, in relation to:</p> <ul style="list-style-type: none"> – recognising when to stop work in the face of serious and imminent danger to self and/or others – contributing to discussions and providing feedback – reporting changed circumstances and incidents in the workplace – complying with the environmental requirements of the workplace <p>4.3 Give examples of how the behaviour and actions of individuals could affect others within the workplace</p>			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
5 Comply with and support all organisational security arrangements and approved procedures	5.1 Provide appropriate support for security arrangements in accordance with approved procedures: <ul style="list-style-type: none"> - during the working day - on completion of the day's work - for unauthorised personnel (other operatives and the general public) - for theft 5.2 State how security arrangements are implemented in relation to the workplace, the general public, site personnel and resources			

Learner name: _____

Date: _____

Learner signature: _____

Date: _____

Assessor signature: _____

Date: _____

Internal verifier signature: _____

Date: _____

(if sampled)

Unit 2: Conforming to Productive Working Practices in the Workplace

Unit reference number: J/503/1169

QCF level: 2

Credit value: 3

Guided learning hours: 10

Unit summary

The aim of this unit is to illustrate the skills, knowledge and understanding required to confirm competence in productive working practices in the workplace within the relevant sector of industry.

Assessment requirements/evidence requirements

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

- the Additional Requirements for Qualifications using the title NVQ in the QCF
- the ConstructionSkills' Consolidated Assessment Strategy for Construction and the Built Environment.

Assessors for this unit must have verifiable, current industry experience and a sufficient depth of relevant occupational expertise and knowledge, and must use a combination of assessment methods as defined in the Consolidated Assessment Strategy.

Workplace evidence of skills cannot be simulated.

Assessment methodology

Evidence of achievement of this unit should be drawn from the workplace, except where ConstructionSkills makes provision for evidence to be produced through simulation, as specified in the ConstructionSkills overarching assessment strategy.

An assessment record must be created that identifies the assessment criteria that have been met and cross-references these to the evidence provided. The assessment record should include details of the type of evidence and the date of assessment.

The unit specification or suitable centre documentation could be used to form an assessment record.

Learning outcomes and assessment criteria

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
1 Communicate with others to establish productive work practices	1.1 Communicate in an appropriate manner with line management, colleagues and/or customers to ensure that work is carried out productively 1.2 Describe the different methods of communicating with line management, colleagues and customers 1.3 Describe how to use different methods of communication to ensure that the work carried out is productive			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
2 Follow organisational procedures to plan the sequence of work	2.1 Interpret relevant information from organisational procedures in order to plan the sequence of work 2.2 Plan the sequence of work, using appropriate resources, in accordance with organisational procedures to ensure work is completed productively 2.3 Describe how organisational procedures are applied to ensure work is planned and carried out productively, in relation to: <ul style="list-style-type: none"> – using resources for own and other’s work requirements – allocating appropriate work to employees – organising the work sequence – reducing carbon emissions 2.4 Describe how to contribute to zero/low carbon work outcomes within the built environment			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
3 Maintain relevant records in accordance with the organisational procedures	3.1 Complete relevant documentation according to the occupation as required by the organisation 3.2 Describe how to complete and maintain documentation in accordance with organisational procedures, in relation to: <ul style="list-style-type: none"> – job cards – worksheets – material/resource lists – time sheets 3.3 Explain the reasons for ensuring documentation is completed clearly and within given timescales			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
<p>4 Maintain good working relationships when conforming to productive working practices</p>	<p>4.1 Carry out work productively, to the agreed specification, in conjunction with line management, colleagues, customers and/or other relevant people involved in the work to maintain good working relationships</p> <p>4.2 Apply the principles of equality and diversity and respect the needs of individuals when communicating and working with others</p> <p>4.3 Describe how to maintain good working relationships, in relation to:</p> <ul style="list-style-type: none"> – individuals – customer and operative – operative and line management – own and other occupations <p>4.4 Describe why it is important to work effectively with line management, colleagues and customers</p> <p>4.5 Describe how working relationships could have an effect on productive working</p> <p>4.6 Describe how to apply principles of equality and diversity when communicating and working with others</p>			

Learner name: _____

Date: _____

Learner signature: _____

Date: _____

Assessor signature: _____

Date: _____

Internal verifier signature: _____

Date: _____

(if sampled)

Unit 3: Moving, Handling and Storing resources in the Workplace

Unit reference number: F/503/1171

QCF level: 2

Credit value: 5

Guided learning hours: 17

Unit summary

The aim of this unit is to illustrate the skills, knowledge and understanding required to confirm competence in moving, handling and storing resources in the workplace within the relevant sector of industry.

Assessment requirements/evidence requirements

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

- the Additional Requirements for Qualifications using the title NVQ in the QCF
- the ConstructionSkills Consolidated Assessment Strategy for Construction and the Built Environment.

Assessors for this unit must have verifiable, current industry experience and a sufficient depth of relevant occupational expertise and knowledge, and must use a combination of assessment methods as defined in the Consolidated Assessment Strategy.

Workplace evidence of skills cannot be simulated.

Assessment methodology

Evidence of achievement of this unit should be drawn from the workplace, except where ConstructionSkills makes provision for evidence to be produced through simulation, as specified in the ConstructionSkills overarching assessment strategy.

An assessment record must be created that identifies the assessment criteria that have been met and cross-references these to the evidence provided. The assessment record should include details of the type of evidence and the date of assessment.

The unit specification or suitable centre documentation could be used to form an assessment record.

Learning outcomes and assessment criteria

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
1 Comply with given information when moving, handling and/or storing resources	1.1 Interpret the given information relating to moving, handling and/or storing resources, relevant to the given occupation 1.2 Interpret the given information relating to the use and storage of lifting aids and equipment 1.3 Describe the different types of technical, product and regulatory information, their source and how they are interpreted 1.4 State the organisational procedures developed to report and rectify inappropriate information and unsuitable resources and how they are implemented 1.5 Describe how to obtain information relating to using and storing lifting aids and equipment			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
2 Know how to comply with relevant legislation and official guidance when moving, handling and/or storing resources	2.1 Describe their responsibilities under current legislation and official guidance whilst working: <ul style="list-style-type: none"> – in the workplace, in confined spaces, below ground level, at height, with tools and equipment, with materials and substances, with movement/storage of materials and by manual handling and mechanical lifting 2.2 Describe the organisational security procedures for tools, equipment and personal belongings in relation to site, workplace, company and operative 2.3 Explain what the accident reporting procedures are and who is responsible for making the reports 2.4 State the appropriate types of fire extinguishers relevant to the work 2.5 Describe how and when the different types of fire extinguishers, relevant to the given occupation, are used in accordance with legislation and official guidance			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
<p>3 Maintain safe working practices when moving, handling and/or storing resources</p>	<p>3.1 Use health and safety control equipment safely to carry out the activity in accordance with legislation and organisational requirements when moving, handling and/or storing resources</p> <p>3.2 Use lifting aids safely as appropriate to the work.</p> <p>3.3 Protect the environment in accordance with safe working practices as appropriate to the work</p> <p>3.4 Explain why and when health and safety control equipment, identified by the principles of protection, should be used, relating to moving, handling and/or storing resources, and the types, purpose and limitations of each type, the work situation, occupational use and the general work environment, in relation to:</p> <ul style="list-style-type: none"> – collective protective measures – personal protective equipment (PPE) – respiratory protective equipment (RPE) – local exhaust ventilation (LEV) <p>3.5 Describe how the health and safety control equipment relevant to the work should be used in accordance with the given instructions</p> <p>3.6 State how emergencies should be responded to in accordance with organisational authorisation and personal skills when involved with fires, spillages, injuries and other task-related hazards</p>			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
<p>4 Select the required quantity and quality of resources for the methods of work to move, handle and/or store occupational resources</p>	<p>4.1 Select the relevant resources to be moved, handled and/or stored, associated with own work</p> <p>4.2 Describe the characteristics, quality, uses, sustainability, limitations and defects associated with the occupational resources in relation to:</p> <ul style="list-style-type: none"> – lifting and handling aids – container(s) – fixing, holding and securing systems <p>4.3 Describe how the resources should be handled and how any problems associated with the resources are reported</p> <p>4.4 Explain why the organisational procedures have been developed and how they are used for the selection of required resources</p> <p>4.5 Describe any potential hazards associated with the resources and methods of work</p>			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
<p>5 Prevent the risk of damage to occupational resources and surrounding environment when moving, handling and/or storing resources</p>	<p>5.1 Protect occupational resources and their surrounding area from damage in accordance with safe working practices and organisational procedures</p> <p>5.2 Dispose of waste and packaging in accordance with legislation</p> <p>5.3 Maintain a clean work space when moving, handling or storing resources</p> <p>5.4 Describe how to protect work from damage and the purpose of protection in relation to general workplace activities, other occupations and adverse weather conditions</p> <p>5.5 Explain why the disposal of waste should be carried out safely in accordance with environmental responsibilities, organisational procedures, manufacturers' information, statutory regulations and official guidance</p>			
<p>6 Complete the work within the allocated time when moving, handling and/or storing resources</p>	<p>6.1 Demonstrate completion of the work within the allocated time</p> <p>6.2 State the purpose of the work programme and explain why deadlines should be kept in relation to:</p> <ul style="list-style-type: none"> - progress charts, timetables and estimated times - organisational procedures for reporting circumstances which will affect the work programme 			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
<p>7 Comply with the given occupational resource information to move, handle and/or store resources to the required guidance</p>	<p>7.1 Demonstrate the following work skills when moving, handling and/or storing occupational resources:</p> <ul style="list-style-type: none"> – moving, positioning, storing, securing and/or using lifting aids and kinetic lifting techniques <p>7.2 Move, handle and/or store occupational resources to meet product information and organisational requirements relating to three of the following:</p> <ul style="list-style-type: none"> – sheet material – loose material – bagged or wrapped material – fragile material – tools and equipment – components – liquids <p>7.3 Describe how to apply safe work practices, follow procedures, report problems and establish the authority needed to rectify them when moving, handling and/or storing occupational resources</p> <p>7.4 Describe the needs of other occupations when moving, handling and/or storing resources</p>			

Learner name: _____

Date: _____

Learner signature: _____

Date: _____

Assessor signature: _____

Date: _____

Internal verifier signature: _____

Date: _____

(if sampled)

Unit 4: Preparing Decking for Built Up Bituminous Roofing in the Workplace

Unit reference number: D/600/7602

QCF level: 2

Credit value: 15

Guided learning hours: 50

Unit summary

The aim of this unit is to illustrate the skills, knowledge and understanding required to confirm competence in preparing decking for built up bituminous roofing in the workplace within the relevant sector of industry.

Assessment requirements/evidence requirements

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

- the Additional Requirements for Qualifications using the title NVQ in the 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 preparing decking for built up bituminous roofing to be effective and reliable when confirming a learner's competence.

Workplace evidence of skills cannot be simulated except for assessment criterion 3.4.

Assessment methodology

Evidence of achievement of this unit should be drawn from the workplace, except where ConstructionSkills makes provision for evidence to be produced through simulation, as specified in the ConstructionSkills overarching assessment strategy.

An assessment record must be created that identifies the assessment criteria that have been met and cross-references these to the evidence provided. The assessment record should include details of the type of evidence and the date of assessment.

The unit specification or suitable centre documentation could be used to form an assessment record.

Learning outcomes and assessment criteria

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
<p>1 Interpret the given information relating to the work and resources when preparing decking for built up bituminous roofing</p>	<p>1.1 Interpret and extract information from drawings, specifications, schedules, manufacturers' information and oral/written instructions</p> <p>1.2 Comply with information and/or instructions derived from risk assessments and method statement</p> <p>1.3 State the organisational procedures developed to report and rectify inappropriate information and unsuitable resources and how they are implemented</p> <p>1.4 Describe different types of information, their source and how they are interpreted in relation to:</p> <ul style="list-style-type: none"> – drawings, specifications, schedules, manufacturers' information and oral/written procedures for dealing with damaged and incorrect materials and/or resources 			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
2 Know how to comply with relevant legislation and official guidance when preparing decking for built up bituminous roofing	2.1 Describe their responsibilities under current legislation and official guidance whilst working: <ul style="list-style-type: none"> – in the workplace, at height, with tools and equipment, with materials and substances, with movement/storage of materials and by manual handling and mechanical lifting 2.2 Describe the organisational security procedures for tools, equipment and personal belongings in relation to site, workplace, company and operative 2.3 State what the accident reporting procedures are and who is responsible for making reports 2.4 State the types of fire extinguishers available when preparing decking for built up bituminous roofing and describe how and when they are used			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
<p>3 Maintain safe working practices when preparing decking for built up bituminous roofing</p>	<p>3.1 Use personal protective equipment (PPE) and access equipment safely to carry out the activity in accordance with legislation and organisational requirements when preparing decking for built up bituminous roofing</p> <p>3.2 Explain why and when personal protective equipment (PPE) should be used, relating to preparing decking for built up bituminous roofing, and the types, purpose and limitations of each type</p> <p>3.3 State how emergencies should be responded to in accordance with organisational authorisation and personal skills when involved with fires, spillages, injuries and other task-related hazards</p> <p>3.4 Demonstrate the safe use of a fire extinguisher relevant to a typical fire associated with preparing decking for built up bituminous roofing as relevant to the operations</p>			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
<p>4 Select the required quantity and quality of resources for the methods of work to prepare decking for built up bituminous roofing</p>	<p>4.1 Describe the characteristics, quality, uses, limitations and defects associated with the resources in relation to:</p> <ul style="list-style-type: none"> – insulation, primers, joint tapes, screed materials, vapour control layers – hand tools and equipment <p>4.2 Select resources associated with own work in relation to materials, components, fixings, tools and equipment</p> <p>4.3 State how the resources should be used correctly, how problems associated with the resources are reported and how the organisational procedures are used</p> <p>4.4 Outline potential hazards associated with the resources and method of work</p> <p>4.5 Describe how to apply simple multiplication, subtraction, addition and division to occupational tasks when preparing decking for built up bituminous roofing</p>			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
5 Minimise the risk of damage to the work and surrounding area when preparing decking for built up bituminous roofing	5.1 Protect the work and its surrounding area from damage 5.2 Minimise damage and maintain a clean work space 5.3 Describe how to protect work from damage and the purpose of protection in relation to general workplace activities, other occupations and adverse weather conditions 5.4 Dispose of waste in accordance with legislation. 5.5 State why the disposal of waste should be carried out in relation to the work			
6 Complete the work within the allocated time when preparing decking for built up bituminous roofing	6.1 Demonstrate completion of the work within the allocated time 6.2 State the purpose of the work programme and explain why deadlines should be kept in relation to: <ul style="list-style-type: none"> – types of work schedules/diaries, progress charts, timetables and estimated times – organisational procedures for reporting circumstances which will affect the work programme 			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
<p>7 Comply with the given contract information to prepare decking for built up bituminous roofing to the required specification</p>	<p>7.1 Demonstrate the following work skills when preparing decking for built up bituminous roofing:</p> <ul style="list-style-type: none"> - measuring, cutting, marking out, fitting, positioning and securing <p>7.2 Prepare roof decks to contractor's working instructions:</p> <ul style="list-style-type: none"> - insulation boards - primers - joint tapes - clean, dry and repair decks as appropriate <p>7.3 Describe how to apply safe work practices, follow procedures, report problems and establish the authority needed to rectify them, to:</p> <ul style="list-style-type: none"> - clean and dry roofs - perform remedial work to existing decks - install insulation materials - install vapour control layers - install joint tapes - apply primers - use hand tools and equipment - work at height from buildings - use access equipment <p>7.4 Safely use and store hand tools and ancillary equipment</p>			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
	7.5 State the needs of other occupations and how to communicate within a team when preparing decking for built up bituminous roofing 7.6 Describe how to maintain the tools and equipment used when preparing decking for built up bituminous roofing			

Learner name: _____

Date: _____

Learner signature: _____

Date: _____

Assessor signature: _____

Date: _____

Internal verifier signature: _____

Date: _____

(if sampled)

Unit 5: Applying Built Up Bituminous Roofing in the Workplace

Unit reference number: J/503/9918

QCF level: 2

Credit value: 20

Guided learning hours: 67

Unit summary

The aim of this unit is to illustrate the skills, knowledge and understanding required to confirm competence in applying built up bituminous roofing in the workplace within the relevant sector of industry.

Assessment requirements/evidence requirements

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

- the Additional Requirements for Qualifications using the title NVQ in the QCF
- the ConstructionSkills Consolidated Assessment Strategy for Construction and the Built Environment.

Assessors for this unit must have verifiable, current industry experience and a sufficient depth of relevant occupational expertise and knowledge, and must use a combination of assessment methods as defined in the Consolidated Assessment Strategy.

Workplace evidence of skills cannot be simulated except for assessment criteria 3.4.

Assessment methodology

Evidence of achievement of this unit should be drawn from the workplace, except where ConstructionSkills makes provision for evidence to be produced through simulation, as specified in the ConstructionSkills overarching assessment strategy.

An assessment record must be created that identifies the assessment criteria that have been met and cross-references these to the evidence provided. The assessment record should include details of the type of evidence and the date of assessment.

The unit specification or suitable centre documentation could be used to form an assessment record.

Learning outcomes and assessment criteria

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
<p>1 Interpret the given information relating to the work and resources when applying built up bituminous roofing</p>	<p>1.1 Interpret and extract relevant information from drawings, specifications, schedules, manufacturers' information and oral/written instructions</p> <p>1.2 Comply with information and/or instructions derived from risk assessments and method statements</p> <p>1.3 Describe the organisational procedures developed to report and rectify inappropriate information and unsuitable resources and how they are implemented</p> <p>1.4 Describe different types of information, their source and how they are interpreted in relation to:</p> <ul style="list-style-type: none"> – drawings, specifications, schedules, manufacturers' information and oral/written procedures for dealing with damaged and incorrect materials and/or resources 			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
2 Know how to comply with relevant legislation and official guidance when applying built up bituminous roofing	2.1 Describe their responsibilities regarding potential accidents and health hazards: <ul style="list-style-type: none"> – in the workplace, at height, with tools and equipment, with materials and substances, with movement/storage of materials and by manual handling and mechanical lifting 2.2 Describe the organisational security procedures for tools, equipment and personal belongings in relation to site, workplace, company and operative 2.3 Explain what the accident reporting procedures are and who is responsible for making reports 2.4 Describe the types of fire extinguishers available when applying built up bituminous roofing and describe how and when they are used			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
<p>3 Maintain safe and healthy working practices when applying built up bituminous roofing</p>	<p>3.1 Use personal protective equipment (PPE) and access equipment safely to carry out the activity in accordance with current legislation and organisational requirements when applying built up bituminous roofing</p> <p>3.2 Explain why and when personal protective equipment (PPE) should be used, relating to applying built up bituminous roofing, and the types, purpose and limitations of each type</p> <p>3.3 Describe how emergencies should be responded to in accordance with organisational authorisation and personal skills when involved with fires, spillages, injuries and other task-related hazards</p> <p>3.4 Demonstrate the safe use of a fire extinguisher relevant to a typical fire associated with applying built up bituminous roofing as relevant to the operations</p>			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
<p>4 Select the required quantity and quality of resources for the methods of work to apply built up bituminous roofing</p>	<p>4.1 Select resources associated with own work in relation to materials, components, fixings, tools and equipment</p> <p>4.2 Describe the characteristics, quality, uses, sustainability, limitations and defects associated with the resources in relation to:</p> <ul style="list-style-type: none"> – bitumen, torch-on felts, pedestrian surfacing, solar protection, vapour control layers, outlets, gutters, vents, base and cap sheets, flashings, edge trims, associated fixings and fittings – hand tools and equipment <p>4.3 Describe how the resources should be used correctly and how problems associated with the resources are reported</p> <p>4.4 Explain why the organisational procedures have been developed and how they are used for the selection of required resources</p> <p>4.5 Describe any potential hazards associated with the resources and method of work</p> <p>4.6 Describe how to apply simple multiplication, subtraction, addition and division to occupational tasks when applying built up bituminous roofing</p>			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
5 Minimise the risk of damage to the work and surrounding area when applying built up bituminous roofing	5.1 Protect the work and its surrounding area from damage in accordance with safe working practices and organisational procedures 5.2 Minimise damage and maintain a clean work space. 5.3 Dispose of waste in accordance with current legislation 5.4 Describe how to protect work from damage and the purpose of protection in relation to general workplace activities, other occupations and adverse weather conditions 5.5 Explain why the disposal of waste should be carried out safely in accordance with environmental responsibilities, organisational procedures and manufacturers' information			
6 Complete the work within the allocated time when applying built up bituminous roofing	6.1 Demonstrate completion of the work within the allocated time 6.2 Describe the purpose of the work programme and explain why deadlines should be kept in relation to: <ul style="list-style-type: none"> – types of work schedules/diaries, progress charts, timetables and estimated times – organisational procedures for reporting circumstances which will affect the work programme 			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
<p>7 Comply with the given contract information to apply built up bituminous roofing to the required specification.</p>	<p>7.1 Demonstrate the following work skills when applying built up bituminous roofing:</p> <ul style="list-style-type: none"> – measuring, cutting, marking out, fitting, positioning and securing <p>7.2 Apply pour and roll and/or torch-on bituminous roofing to given working instructions for the following:</p> <ul style="list-style-type: none"> – vapour control layers – base layers and cap sheets – solar protection – edges and upstands – pipes and vents – pedestrian surfaces <p>7.3 Safely use hand tools and ancillary equipment.</p> <p>7.4 Safely store the tools and equipment used when applying built up bituminous roofing</p>			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
	<p>7.5 Describe how to apply safe and healthy work practices, follow procedures, report problems and establish the authority needed to rectify them, to:</p> <ul style="list-style-type: none"> – apply pour and roll applications – apply torch-on applications – install/replace insulation materials – use bitumen boilers and torches – install kerbs, edges, drips, outlets, upstands, trims, pipes, openings, gutters, stop ends and flashing details – use hand tools and equipment – work at height from buildings – use access equipment <p>7.6 Describe the needs of other occupations and how to effectively communicate within a team when applying built up bituminous roofing</p> <p>7.7 Describe how to maintain the tools and equipment used when applying built up bituminous roofing</p>			

Learner name: _____

Date: _____

Learner signature: _____

Date: _____

Assessor signature: _____

Date: _____

Internal verifier signature: _____

Date: _____

(if sampled)

Unit 6: **Repairing and Maintaining Built Up Bituminous Roofing in the Workplace**

Unit reference number: A/600/7607

QCF level: 2

Credit value: 16

Guided learning hours: 53

Unit summary

The aim of this unit is to illustrate the skills, knowledge and understanding required to confirm competence in repairing and maintaining built up bituminous roofing in the workplace within the relevant sector of industry.

Assessment requirements/evidence requirements

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

- the Additional Requirements for Qualifications using the title NVQ in the 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 repairing and maintaining built up bituminous roofing to be effective and reliable when confirming a learner's competence.

Workplace evidence of skills cannot be simulated except for assessment criterion 3.4.

Assessment methodology

Evidence of achievement of this unit should be drawn from the workplace, except where ConstructionSkills makes provision for evidence to be produced through simulation, as specified in the ConstructionSkills overarching assessment strategy.

An assessment record must be created that identifies the assessment criteria that have been met and cross-references these to the evidence provided. The assessment record should include details of the type of evidence and the date of assessment.

The unit specification or suitable centre documentation could be used to form an assessment record.

Learning outcomes and assessment criteria

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
<p>1 Interpret the given information relating to the work and resources when repairing and maintaining built up bituminous roofing</p>	<p>1.1 Interpret and extract information from drawings, specifications, schedules, manufacturers' information and oral/written instructions</p> <p>1.2 Comply with information and/or instructions derived from risk assessments and method statement</p> <p>1.3 State the organisational procedures developed to report and rectify inappropriate information and unsuitable resources and how they are implemented</p> <p>1.4 Describe different types of information, their source and how they are interpreted in relation to:</p> <ul style="list-style-type: none"> – drawings, specifications, schedules, manufacturers' information and oral/written procedures for dealing with damaged and incorrect materials and/or resources 			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
2 Know how to comply with relevant legislation and official guidance when repairing and maintaining built up bituminous roofing	2.1 Describe their responsibilities under current legislation and official guidance whilst working: <ul style="list-style-type: none"> – in the workplace, at height, with tools and equipment, with materials and substances, with movement/storage of materials and by manual handling and mechanical lifting 2.2 Describe the organisational security procedures for tools, equipment and personal belongings in relation to site, workplace, company and operative 2.3 State what the accident reporting procedures are and who is responsible for making reports 2.4 State the types of fire extinguishers available when repairing and maintaining built up bituminous roofing and describe how and when they are used			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
<p>3 Maintain safe working practices when repairing and maintaining built up bituminous roofing</p>	<p>3.1 Use personal protective equipment (PPE) and access equipment safely to carry out the activity in accordance with legislation and organisational requirements when repairing and maintaining built up bituminous roofing</p> <p>3.2 Explain why and when personal protective equipment (PPE) should be used, relating to repairing and maintaining built up bituminous roofing, and the types, purpose and limitations of each type</p> <p>3.3 State how emergencies should be responded to in accordance with organisational authorisation and personal skills when involved with fires, spillages, injuries and other task-related hazards</p> <p>3.4 Demonstrate the safe use of a fire extinguisher relevant to a typical fire associated with repairing and maintaining built up bituminous roofing as relevant to the operations</p>			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
<p>4 Select the required quantity and quality of resources for the methods of work to repair and maintain built up bituminous roofing</p>	<p>4.1 Describe the characteristics, quality, uses, limitations and defects associated with the resources in relation to:</p> <ul style="list-style-type: none"> – bitumen, torch-on felts, pedestrian surfacing, solar protection, vapour control layers, outlets, gutters, vents, base and cap sheets, flashings, edge trims, associated fixings and fittings – hand tools and equipment <p>4.2 Select resources associated with own work in relation to materials, components, fixings, tools and equipment</p> <p>4.3 State how the resources should be used correctly, how problems associated with the resources are reported and how the organisational procedures are used</p> <p>4.4 Outline potential hazards associated with the resources and method of work</p> <p>4.5 Describe how to apply simple multiplication, subtraction, addition and division to occupational tasks when repairing and maintaining built up bituminous roofing</p>			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
5 Minimise the risk of damage to the work and surrounding area when repairing and maintaining built up bituminous roofing	5.1 Protect the work and its surrounding area from damage 5.2 Minimise damage and maintain a clean work space 5.3 Describe how to protect work from damage and the purpose of protection in relation to general workplace activities, other occupations and adverse weather conditions 5.4 Dispose of waste in accordance with legislation. 5.5 State why the disposal of waste should be carried out in relation to the work			
6 Complete the work within the allocated time when repairing and maintaining built up bituminous roofing	6.1 Demonstrate completion of the work within the allocated time. 6.2 State the purpose of the work programme and explain why deadlines should be kept in relation to: <ul style="list-style-type: none"> – types of work schedules/diaries, progress charts, timetables and estimated times – organisational procedures for reporting circumstances which will affect the work programme 			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
<p>7 Comply with the given contract information to repair and maintain built up bituminous roofing to the required specification</p>	<p>7.1 Demonstrate the following work skills when repairing and maintaining built up bituminous roofing:</p> <ul style="list-style-type: none"> - identifying, evaluating, removing, measuring, marking out, cutting, fitting, applying, positioning and securing <p>7.2 Repair and maintain, to contractor's working instructions, built up bituminous roofing and associated materials and components with:</p> <ul style="list-style-type: none"> - cracks and blisters - cap sheets/surface materials - leaks - damaged insulation/decking - debris and blockages - upstands 			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
	<p>7.3 Describe how to apply safe work practices, follow procedures, report problems and establish the authority needed to rectify them, to:</p> <ul style="list-style-type: none"> – identify and evaluate defects – carry out appropriate repairs and maintenance – apply pour and roll applications – apply torch-on applications – use bitumen boilers and torches – install kerbs, edges, drips, outlets, upstands, trims, pipes, openings, gutters, stop ends and flashing details – use hand tools and equipment – work at height from buildings – use access equipment. <p>7.4 Safely use and store hand tools and ancillary equipment</p> <p>7.5 State the needs of other occupations and how to communicate within a team when repairing and maintaining built up bituminous roofing</p> <p>7.6 Describe how to maintain the tools and equipment used when repairing and maintaining built up bituminous roofing</p>			

Learner name: _____

Date: _____

Learner signature: _____

Date: _____

Assessor signature: _____

Date: _____

Internal verifier signature: _____

Date: _____

(if sampled)

Unit 7: Preparing Background Surfaces for Single Ply Roofing in the Workplace

Unit reference number: J/600/7609

QCF level: 2

Credit value: 15

Guided learning hours: 50

Unit summary

The aim of this unit is to illustrate the skills, knowledge and understanding required to confirm competence in preparing background surfaces for single ply roofing in the workplace within the relevant sector of industry.

Assessment requirements/evidence requirements

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

- the Additional Requirements for Qualifications using the title NVQ in the 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 preparing background surfaces for single ply roofing to be effective and reliable when confirming a learner's competence.

Workplace evidence of skills cannot be simulated except for assessment criterion 3.4.

Assessment methodology

Evidence of achievement of this unit should be drawn from the workplace, except where ConstructionSkills makes provision for evidence to be produced through simulation, as specified in the ConstructionSkills overarching assessment strategy.

An assessment record must be created that identifies the assessment criteria that have been met and cross-references these to the evidence provided. The assessment record should include details of the type of evidence and the date of assessment.

The unit specification or suitable centre documentation could be used to form an assessment record.

Learning outcomes and assessment criteria

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
<p>1 Interpret the given information relating to the work and resources when preparing background surfaces for single ply roofing</p>	<p>1.1 Interpret and extract information from drawings, specifications, schedules, manufacturers' information and oral/written instructions</p> <p>1.2 Comply with information and/or instructions derived from risk assessments and method statement</p> <p>1.3 State the organisational procedures developed to report and rectify inappropriate information and unsuitable resources and how they are implemented</p> <p>1.4 Describe different types of information, their source and how they are interpreted in relation to:</p> <ul style="list-style-type: none"> – drawings, specifications, schedules, manufacturers' information and oral/written procedures for dealing with damaged and incorrect materials and/or resources 			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
2 Know how to comply with relevant legislation and official guidance when preparing background surfaces for single ply roofing.	2.1 Describe their responsibilities under current legislation and official guidance whilst working: <ul style="list-style-type: none"> – in the workplace, at height, with tools and equipment, with materials and substances, with movement/storage of materials and by manual handling and mechanical lifting. 2.2 Describe the organisational security procedures for tools, equipment and personal belongings in relation to site, workplace, company and operative. 2.3 State what the accident reporting procedures are and who is responsible for making reports. 2.4 State the types of fire extinguishers available when preparing background surfaces for single ply roofing and describe how and when they are used.			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
<p>3 Maintain safe working practices when preparing background surfaces for single ply roofing</p>	<p>3.1 Use personal protective equipment (PPE) and access equipment safely to carry out the activity in accordance with legislation and organisational requirements when preparing background surfaces for single ply roofing</p> <p>3.2 Explain why and when personal protective equipment (PPE) should be used, relating to preparing background surfaces for single ply roofing, and the types, purpose and limitations of each type</p> <p>3.3 State how emergencies should be responded to in accordance with organisational authorisation and personal skills when involved with fires, spillages, injuries and other task-related hazards</p> <p>3.4 Demonstrate the safe use of a fire extinguisher relevant to a typical fire associated with preparing background surfaces for single ply roofing as relevant to the operations</p>			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
<p>4 Select the required quantity and quality of resources for the methods of work to prepare background surfaces for single ply roofing</p>	<p>4.1 Describe the characteristics, quality, uses, limitations and defects associated with the resources in relation to:</p> <ul style="list-style-type: none"> – insulation, cushion layers, separating layers, screed materials, bituminous materials – hand tools and equipment <p>4.2 Select resources associated with own work in relation to materials, components, fixings, tools and equipment</p> <p>4.3 State how the resources should be used correctly, how problems associated with the resources are reported and how the organisational procedures are used</p> <p>4.4 Outline potential hazards associated with the resources and method of work</p> <p>4.5 Describe how to apply simple multiplication, subtraction, addition and division to occupational tasks when preparing background surfaces for single ply roofing</p>			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
5 Minimise the risk of damage to the work and surrounding area when preparing background surfaces for single ply roofing	5.1 Protect the work and its surrounding area from damage 5.2 Minimise damage and maintain a clean work space 5.3 Describe how to protect work from damage and the purpose of protection in relation to general workplace activities, other occupations and adverse weather conditions 5.4 Dispose of waste in accordance with legislation 5.5 State why the disposal of waste should be carried out in relation to the work			
6 Complete the work within the allocated time when preparing background surfaces for single ply roofing	6.1 Demonstrate completion of the work within the allocated time 6.2 State the purpose of the work programme and explain why deadlines should be kept in relation to: <ul style="list-style-type: none"> – types of work schedules/diaries, progress charts, timetables and estimated times – organisational procedures for reporting circumstances which will affect the work programme 			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
<p>7 Comply with the given contract information to prepare background surfaces for single ply roofing to the required specification</p>	<p>7.1 Demonstrate the following work skills when preparing background surfaces for single ply roofing:</p> <ul style="list-style-type: none"> – measuring, cutting, marking out, fitting, positioning and securing <p>7.2 Prepare background surfaces to contractor’s working instructions for:</p> <ul style="list-style-type: none"> – rough surfaces – incompatible materials – surfaces requiring insulation – backgrounds requiring cleaning, brushing and general remedial work <p>7.3 Describe how to apply safe work practices, follow procedures, report problems and establish the authority needed to rectify them, to:</p> <ul style="list-style-type: none"> – clean, brush and carry out general remedial work to roofing backgrounds – install insulation materials – install cushion layers – install separating layers – use hand tools and equipment – work at height from buildings – use access equipment 			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
	7.4 Safely use and store hand tools and ancillary equipment 7.5 State the needs of other occupations and how to communicate within a team when preparing background surfaces for single ply roofing 7.6 Describe how to maintain the tools and equipment used when preparing background surfaces for single ply roofing			

Learner name: _____

Date: _____

Learner signature: _____

Date: _____

Assessor signature: _____

Date: _____

Internal verifier signature: _____

Date: _____

(if sampled)

Unit 8: Applying Single Ply Roofing in the Workplace

Unit reference number: F/600/7611

QCF level: 2

Credit value: 17

Guided learning hours: 57

Unit summary

The aim of this unit is to illustrate the skills, knowledge and understanding required to confirm competence in applying single ply roofing in the workplace within the relevant sector of industry.

Assessment requirements/evidence requirements

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

- the Additional Requirements for Qualifications using the title NVQ in the 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 applying single ply roofing to be effective and reliable when confirming a learner's competence.

Workplace evidence of skills cannot be simulated except for assessment criterion 3.4.

This unit must be assessed against two of the following endorsements:

- adhered systems
- ballasted systems
- mechanically fixed systems.

Assessment methodology

Evidence of achievement of this unit should be drawn from the workplace, except where ConstructionSkills makes provision for evidence to be produced through simulation, as specified in the ConstructionSkills overarching assessment strategy.

An assessment record must be created that identifies the assessment criteria that have been met and cross-references these to the evidence provided. The assessment record should include details of the type of evidence and the date of assessment.

The unit specification or suitable centre documentation could be used to form an assessment record.

Learning outcomes and assessment criteria

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
<p>1 Interpret the given information relating to the work and resources when applying single ply roofing</p>	<p>1.1 Interpret and extract information from drawings, specifications, schedules, manufacturers' information and oral/written instructions</p> <p>1.2 Comply with information and/or instructions derived from risk assessments and method statement</p> <p>1.3 State the organisational procedures developed to report and rectify inappropriate information and unsuitable resources and how they are implemented</p> <p>1.4 Describe different types of information, their source and how they are interpreted in relation to:</p> <ul style="list-style-type: none"> – drawings, specifications, schedules, manufacturers' information and oral/written procedures for dealing with damaged and incorrect materials and/or resources 			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
2 Know how to comply with relevant legislation and official guidance when applying single ply roofing	2.1 Describe their responsibilities under current legislation and official guidance whilst working: <ul style="list-style-type: none"> – in the workplace, at height, with tools and equipment, with materials and substances, with movement/storage of materials and by manual handling and mechanical lifting 2.2 Describe the organisational security procedures for tools, equipment and personal belongings in relation to site, workplace, company and operative 2.3 State what the accident reporting procedures are and who is responsible for making reports 2.4 State the types of fire extinguishers available when applying single ply roofing and describe how and when they are used			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
3 Maintain safe working practices when applying single ply roofing	3.1 Use personal protective equipment (PPE) and access equipment safely to carry out the activity in accordance with legislation and organisational requirements when applying single ply roofing 3.2 Explain why and when personal protective equipment (PPE) should be used, relating to applying single ply roofing, and the types, purpose and limitations of each type 3.3 State how emergencies should be responded to in accordance with organisational authorisation and personal skills when involved with fires, spillages, injuries and other task-related hazards 3.4 Demonstrate the safe use of a fire extinguisher relevant to a typical fire associated with applying single ply roofing as relevant to the operations			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
<p>4 Select the required quantity and quality of resources for the methods of work to apply single ply roofing</p>	<p>4.1 Describe the characteristics, quality, uses, limitations and defects associated with the resources in relation to:</p> <ul style="list-style-type: none"> – mechanical fixings, adhesives, solvents, flashings, waterproofing layers, filter and drainage layers, ballast, related materials, fittings and components – hand tools and equipment <p>4.2 Select resources associated with own work in relation to materials, components, fixings, tools and equipment</p> <p>4.3 State how the resources should be used correctly, how problems associated with the resources are reported and how the organisational procedures are used</p> <p>4.4 Outline potential hazards associated with the resources and method of work</p> <p>4.5 Describe how to apply simple multiplication, subtraction, addition and division to occupational tasks when applying single ply roofing</p>			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
5 Minimise the risk of damage to the work and surrounding area when applying single ply roofing	5.1 Protect the work and its surrounding area from damage 5.2 Minimise damage and maintain a clean work space 5.3 Describe how to protect work from damage and the purpose of protection in relation to general workplace activities, other occupations and adverse weather conditions 5.4 Dispose of waste in accordance with legislation 5.5 State why the disposal of waste should be carried out in relation to the work			
6 Complete the work within the allocated time when applying single ply roofing	6.1 Demonstrate completion of the work within the allocated time 6.2 State the purpose of the work programme and explain why deadlines should be kept in relation to: <ul style="list-style-type: none"> – types of work schedules/diaries, progress charts, timetables and estimated times – organisational procedures for reporting circumstances which will affect the work programme 			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
<p>7 Comply with the given contract information to apply single ply roofing to the required specification</p>	<p>7.1 Demonstrate the following work skills when applying single ply roofing:</p> <ul style="list-style-type: none"> – measuring, cutting, marking out, fitting, positioning and securing <p>7.2 Apply single ply roofing and ancillary items to contractor's working instructions for any two from the following:</p> <ul style="list-style-type: none"> – adhered systems – mechanically fixed systems – ballasted systems <p>7.3 Describe how to apply safe work practices, follow procedures, report problems and establish the authority needed to rectify them, to:</p> <ul style="list-style-type: none"> – adhere systems – mechanically fix systems – ballast systems – hot air and solvent weld (incorporating perimeters, outlets, overflows, pipes, structural penetrations, corners, joints, junctions, gutters, rooflights, hips, valleys and vertical surfaces) – use hand tools and equipment – work at height from buildings – use access equipment 			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
	7.4 Safely use and store hand tools and ancillary equipment 7.5 State the needs of other occupations and how to communicate within a team when applying single ply roofing 7.6 Describe how to maintain the tools and equipment used when applying single ply roofing			

Learner name: _____

Date: _____

Learner signature: _____

Date: _____

Assessor signature: _____

Date: _____

Internal verifier signature: _____

Date: _____

(if sampled)

Unit 9: Repairing and Maintaining Single Ply Roofing in the Workplace

Unit reference number: J/600/7612

QCF level: 2

Credit value: 16

Guided learning hours: 53

Unit summary

The aim of this unit is to illustrate the skills, knowledge and understanding required to confirm competence in repairing and maintaining single ply roofing in the workplace within the relevant sector of industry.

Assessment requirements/evidence requirements

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

- the Additional Requirements for Qualifications using the title NVQ in the 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 repairing and maintaining single ply roofing to be effective and reliable when confirming a learner's competence.

Workplace evidence of skills cannot be simulated except for assessment criterion 3.4.

Assessment methodology

Evidence of achievement of this unit should be drawn from the workplace, except where ConstructionSkills makes provision for evidence to be produced through simulation, as specified in the ConstructionSkills overarching assessment strategy.

An assessment record must be created that identifies the assessment criteria that have been met and cross-references these to the evidence provided. The assessment record should include details of the type of evidence and the date of assessment.

The unit specification or suitable centre documentation could be used to form an assessment record.

Learning outcomes and assessment criteria

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
<p>1 Interpret the given information relating to the work and resources when repairing and maintaining single ply roofing</p>	<p>1.1 Comply with information and/or instructions derived from risk assessments and method statement</p> <p>1.2 Comply with information and/or instructions derived from risk assessments and method statement</p> <p>1.3 State the organisational procedures developed to report and rectify inappropriate information and unsuitable resources and how they are implemented</p> <p>1.4 Describe different types of information, their source and how they are interpreted in relation to:</p> <ul style="list-style-type: none"> – drawings, specifications, schedules, manufacturers' information and oral/written procedures for dealing with damaged and incorrect materials and/or resources 			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
2 Know how to comply with relevant legislation and official guidance when repairing and maintaining single ply roofing	2.1 Describe their responsibilities under current legislation and official guidance whilst working: <ul style="list-style-type: none"> – in the workplace, at height, with tools and equipment, with materials and substances, with movement/storage of materials and by manual handling and mechanical lifting 2.2 Describe the organisational security procedures for tools, equipment and personal belongings in relation to site, workplace, company and operative 2.3 State what the accident reporting procedures are and who is responsible for making reports 2.4 State the types of fire extinguishers available when repairing and maintaining single ply roofing and describe how and when they are used			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
<p>3 Maintain safe working practices when repairing and maintaining single ply roofing</p>	<p>3.1 Use personal protective equipment (PPE) and access equipment safely to carry out the activity in accordance with legislation and organisational requirements when repairing and maintaining single ply roofing</p> <p>3.2 Explain why and when personal protective equipment (PPE) should be used, relating to repairing and maintaining single ply roofing, and the types, purpose and limitations of each type</p> <p>3.3 State how emergencies should be responded to in accordance with organisational authorisation and personal skills when involved with fires, spillages, injuries and other task-related hazards</p> <p>3.4 Demonstrate the safe use of a fire extinguisher relevant to a typical fire associated with repairing and maintaining single ply roofing as relevant to the operations</p>			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
<p>4 Select the required quantity and quality of resources for the methods of work to repair and maintain single ply roofing</p>	<p>4.1 Describe the characteristics, quality, uses, limitations and defects associated with the resources in relation to:</p> <ul style="list-style-type: none"> – mechanical fixings, adhesives, solvents, flashings, waterproofing layers, filter and drainage layers, ballast, related materials, fittings and components – hand tools and equipment <p>4.2 Select resources associated with own work in relation to materials, components, fixings, tools and equipment</p> <p>4.3 State how the resources should be used correctly, how problems associated with the resources are reported and how the organisational procedures are used</p> <p>4.4 Outline potential hazards associated with the resources and method of work</p> <p>4.5 Describe how to apply simple multiplication, subtraction, addition and division to occupational tasks when repairing and maintaining single ply roofing</p>			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
5 Minimise the risk of damage to the work and surrounding area when repairing and maintaining single ply roofing	5.1 Protect the work and its surrounding area from damage 5.2 Minimise damage and maintain a clean work space 5.3 Describe how to protect work from damage and the purpose of protection in relation to general workplace activities, other occupations and adverse weather conditions 5.4 Dispose of waste in accordance with legislation 5.5 State why the disposal of waste should be carried out in relation to the work			
6 Complete the work within the allocated time when repairing and maintaining single ply roofing	6.1 Demonstrate completion of the work within the allocated time 6.2 State the purpose of the work programme and explain why deadlines should be kept in relation to: <ul style="list-style-type: none"> – types of work schedules/diaries, progress charts, timetables and estimated times – organisational procedures for reporting circumstances which will affect the work programme 			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
<p>7 Comply with the given contract information to repair and maintain single ply roofing to the required specification</p>	<p>7.1 Demonstrate the following work skills when repairing and maintaining single ply roofing:</p> <ul style="list-style-type: none"> - identifying, evaluating, removing, measuring, marking out, cutting, fitting, applying, positioning and securing <p>7.2 Repair and maintain to contractor's working instructions single ply roofing with:</p> <ul style="list-style-type: none"> - punctures and tears - leaks - damaged associated materials and components - debris and blockages <p>7.3 Describe how to apply safe work practices, follow procedures, report problems and establish the authority needed to rectify them, to:</p> <ul style="list-style-type: none"> - identify and evaluate defects - carry out appropriate repairs and maintenance to adhered systems, mechanically fixed systems and ballasted systems - use hand tools and equipment - work at height from buildings - use access equipment <p>7.4 Safely use and store hand tools and ancillary equipment</p>			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
	7.5 State the needs of other occupations and how to communicate within a team when repairing and maintaining single ply roofing 7.6 Describe how to maintain the tools and equipment used when repairing and maintaining single ply roofing			

Learner name: _____

Date: _____

Learner signature: _____

Date: _____

Assessor signature: _____

Date: _____

Internal verifier signature: _____

Date: _____

(if sampled)

Unit 10: Preparing Background Surfaces for Liquid Waterproofing Systems in the Workplace

Unit reference number: R/600/7614

QCF level: 2

Credit value: 13

Guided learning hours: 43

Unit summary

The aim of this unit is to illustrate the skills, knowledge and understanding required to confirm competence in preparing background surfaces for liquid waterproofing systems in the workplace within the relevant sector of industry.

Assessment requirements/evidence requirements

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

- the Additional Requirements for Qualifications using the title NVQ in the 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 preparing background surfaces for liquid waterproofing systems to be effective and reliable when confirming a learner's competence.

Workplace evidence of skills cannot be simulated except for assessment criterion 3.4.

Assessment methodology

Evidence of achievement of this unit should be drawn from the workplace, except where ConstructionSkills makes provision for evidence to be

produced through simulation, as specified in the ConstructionSkills overarching assessment strategy.

An assessment record must be created that identifies the assessment criteria that have been met and cross-references these to the evidence provided. The assessment record should include details of the type of evidence and the date of assessment.

The unit specification or suitable centre documentation could be used to form an assessment record.

Learning outcomes and assessment criteria

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
<p>1 Interpret the given information relating to the work and resources when preparing background surfaces for liquid waterproofing systems</p>	<p>1.1 Interpret and extract information from drawings, specifications, schedules, manufacturers' information and oral/written instructions</p> <p>1.2 Comply with information and/or instructions derived from risk assessments and method statement</p> <p>1.3 State the organisational procedures developed to report and rectify inappropriate information and unsuitable resources and how they are implemented</p> <p>1.4 Describe different types of information, their source and how they are interpreted in relation to:</p> <ul style="list-style-type: none"> – drawings, specifications, schedules, manufacturers' information and oral/written procedures for dealing with damaged and incorrect materials and/or resources 			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
2 Know how to comply with relevant legislation and official guidance when preparing background surfaces for liquid waterproofing systems	2.1 Describe their responsibilities under current legislation and official guidance whilst working: <ul style="list-style-type: none"> – in the workplace, at height, with tools and equipment, with materials and substances, with movement/ storage of materials and by manual handling and mechanical lifting 2.2 Describe the organisational security procedures for tools, equipment and personal belongings in relation to site, workplace, company and operative 2.3 State what the accident reporting procedures are and who is responsible for making reports 2.4 State the types of fire extinguishers available when preparing background surfaces for liquid waterproofing systems and describe how and when they are used			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
<p>3 Maintain safe working practices when preparing background surfaces for liquid waterproofing systems</p>	<p>3.1 Use personal protective equipment (PPE) and access equipment safely to carry out the activity in accordance with legislation and organisational requirements when preparing background surfaces for liquid waterproofing systems</p> <p>3.2 Explain why and when personal protective equipment (PPE) should be used, relating to preparing background surfaces for liquid waterproofing systems, and the types, purpose and limitations of each type</p> <p>3.3 State how emergencies should be responded to in accordance with organisational authorisation and personal skills when involved with fires, spillages, injuries and other task-related hazards</p> <p>3.4 Demonstrate the safe use of a fire extinguisher relevant to a typical fire associated with preparing background surfaces for liquid waterproofing systems as relevant to the operations</p>			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
<p>4 Select the required quantity and quality of resources for the methods of work to prepare background surfaces for liquid waterproofing systems</p>	<p>4.1 Describe the characteristics, quality, uses, limitations and defects associated with the resources in relation to:</p> <ul style="list-style-type: none"> – isolating layers – preparation coats – hand tools and equipment <p>4.2 Select resources associated with own work in relation to materials, components, fixings, tools and equipment</p> <p>4.3 State how the resources should be used correctly, how problems associated with the resources are reported and how the organisational procedures are used</p> <p>4.4 Outline potential hazards associated with the resources and method of work</p> <p>4.5 Describe how to apply simple multiplication, subtraction, addition and division to occupational tasks when preparing background surfaces for liquid waterproofing systems</p>			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
5 Minimise the risk of damage to the work and surrounding area when preparing background surfaces for liquid waterproofing systems	5.1 Protect the work and its surrounding area from damage 5.2 Minimise damage and maintain a clean work space 5.3 Describe how to protect work from damage and the purpose of protection in relation to general workplace activities, other occupations and adverse weather conditions 5.4 Dispose of waste in accordance with legislation 5.5 State why the disposal of waste should be carried out in relation to the work			
6 Complete the work within the allocated time when preparing background surfaces for liquid waterproofing systems	6.1 Demonstrate completion of the work within the allocated time 6.2 State the purpose of the work programme and explain why deadlines should be kept in relation to: <ul style="list-style-type: none"> – types of work schedules/diaries, progress charts, timetables and estimated times – organisational procedures for reporting circumstances which will affect the work programme 			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
<p>7 Comply with the given contract information to prepare background surfaces for liquid waterproofing systems to the required specification</p>	<p>7.1 Demonstrate the following work skills when preparing background surfaces for liquid waterproofing systems:</p> <ul style="list-style-type: none"> – measuring, cutting, marking out, fitting, positioning and securing <p>7.2 Prepare backgrounds to contractor’s working instructions for surfaces:</p> <ul style="list-style-type: none"> – suitable for direct application – unsuitable for direct application – requiring washing, cleaning, brushing and general remedial work <p>7.3 Describe how to apply safe work practices, follow procedures, report problems and establish the authority needed to rectify them, to:</p> <ul style="list-style-type: none"> – wash, clean, brush and carry out general remedial work to roofing backgrounds – install isolating layers – install preparation coats – use hand tools and equipment – work at height from buildings – use access equipment <p>7.4 Safely use and store hand tools and ancillary equipment</p>			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
	7.5 State the needs of other occupations and how to communicate within a team when preparing background surfaces for liquid waterproofing systems 7.6 Describe how to maintain the tools and equipment used when preparing background surfaces for liquid waterproofing systems			

Learner name: _____

Date: _____

Learner signature: _____

Date: _____

Assessor signature: _____

Date: _____

Internal verifier signature: _____

Date: _____

(if sampled)

Unit 11: Applying Liquid Waterproofing Systems in the Workplace

Unit reference number: H/600/7617

QCF level: 2

Credit value: 17

Guided learning hours: 57

Unit summary

The aim of this unit is to illustrate the skills, knowledge and understanding required to confirm competence in applying liquid waterproofing systems in the workplace within the relevant sector of industry.

Assessment requirements/evidence requirements

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

- the Additional Requirements for Qualifications using the title NVQ in the 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 applying liquid waterproofing systems to be effective and reliable when confirming a learner's competence.

Workplace evidence of skills cannot be simulated except for assessment criterion 3.4.

Assessment methodology

Evidence of achievement of this unit should be drawn from the workplace, except where ConstructionSkills makes provision for evidence to be produced through simulation, as specified in the ConstructionSkills overarching assessment strategy.

An assessment record must be created that identifies the assessment criteria that have been met and cross-references these to the evidence provided. The assessment record should include details of the type of evidence and the date of assessment.

The unit specification or suitable centre documentation could be used to form an assessment record.

Learning outcomes and assessment criteria

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
<p>1 Interpret the given information relating to the work and resources when applying liquid waterproofing systems</p>	<p>1.1 Interpret and extract information from drawings, specifications, schedules, manufacturers' information and oral/written instructions</p> <p>1.2 Comply with information and/or instructions derived from risk assessments and method statement</p> <p>1.3 State the organisational procedures developed to report and rectify inappropriate information and unsuitable resources and how they are implemented</p> <p>1.4 Describe different types of information, their source and how they are interpreted in relation to:</p> <ul style="list-style-type: none"> – drawings, specifications, schedules, manufacturers' information and oral/written procedures for dealing with damaged and incorrect materials and/or resources 			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
2 Know how to comply with relevant legislation and official guidance when applying liquid waterproofing systems	2.1 Describe their responsibilities under current legislation and official guidance whilst working: <ul style="list-style-type: none"> – in the workplace, at height, with tools and equipment, with materials and substances, with movement/storage of materials and by manual handling and mechanical lifting 2.2 Describe the organisational security procedures for tools, equipment and personal belongings in relation to site, workplace, company and operative 2.3 State what the accident reporting procedures are and who is responsible for making reports 2.4 State the types of fire extinguishers available when applying liquid waterproofing systems and describe how and when they are used			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
3 Maintain safe working practices when applying liquid waterproofing systems	3.1 Use personal protective equipment (PPE) and access equipment safely to carry out the activity in accordance with legislation and organisational requirements when applying liquid waterproofing systems 3.2 Explain why and when personal protective equipment (PPE) should be used, relating to applying liquid waterproofing systems, and the types, purpose and limitations of each type 3.3 State how emergencies should be responded to in accordance with organisational authorisation and personal skills when involved with fires, spillages, injuries and other task-related hazards 3.4 Demonstrate the safe use of a fire extinguisher relevant to a typical fire associated with applying liquid waterproofing systems as relevant to the operations			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
<p>4 Select the required quantity and quality of resources for the methods of work to apply liquid waterproofing systems</p>	<p>4.1 Describe the characteristics, quality, uses, limitations and defects associated with the resources in relation to:</p> <ul style="list-style-type: none"> – preparation coats, base coats, reinforcements, top coats, pipes, vents, flashings, trims, movement joints, associated materials, fittings and components, insulation – hand tools and equipment <p>4.2 Select resources associated with own work in relation to materials, components, fixings, tools and equipment</p> <p>4.3 State how the resources should be used correctly, how problems associated with the resources are reported and how the organisational procedures are used</p> <p>4.4 Outline potential hazards associated with the resources and method of work</p> <p>4.5 Describe how to apply simple multiplication, subtraction, addition and division to occupational tasks when applying liquid waterproofing systems</p>			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
5 Minimise the risk of damage to the work and surrounding area when applying liquid waterproofing systems	5.1 Protect the work and its surrounding area from damage 5.2 Minimise damage and maintain a clean work space 5.3 Describe how to protect work from damage and the purpose of protection in relation to general workplace activities, other occupations and adverse weather conditions 5.4 Dispose of waste in accordance with legislation 5.5 State why the disposal of waste should be carried out in relation to the work			
6 Complete the work within the allocated time when applying liquid waterproofing systems	6.1 Demonstrate completion of the work within the allocated time 6.2 State the purpose of the work programme and explain why deadlines should be kept in relation to: <ul style="list-style-type: none"> – types of work schedules/diaries, progress charts, timetables and estimated times – organisational procedures for reporting circumstances which will affect the work programme 			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
<p>7 Comply with the given contract information to apply liquid waterproofing systems to the required specification</p>	<p>7.1 Demonstrate the following work skills when applying liquid waterproofing systems:</p> <ul style="list-style-type: none"> - applying, measuring, cutting, positioning and securing <p>7.2 Apply liquid waterproofing systems to contractor's working instructions for:</p> <ul style="list-style-type: none"> - base coats - reinforcements - top coats - gutters, outlets and penetrations - perimeters and junctions - ancillary items <p>7.3 Describe how to apply safe work practices, follow procedures, report problems and establish the authority needed to rectify them, to:</p> <ul style="list-style-type: none"> - apply base coats - install reinforcements - install insulation - apply top coats - install perimeters, outlets, pipes, structural penetrations, corners, joints, junctions, gutters and rooflights - use hand tools and equipment - work at height from buildings - use access equipment 			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
	7.4 Safely use and store hand tools and ancillary equipment 7.5 State the needs of other occupations and how to communicate within a team when applying liquid waterproofing systems 7.6 Describe how to maintain the tools and equipment used when applying liquid waterproofing systems			

Learner name: _____

Date: _____

Learner signature: _____

Date: _____

Assessor signature: _____

Date: _____

Internal verifier signature: _____

Date: _____

(if sampled)

Unit 12: Repairing and Maintaining Liquid Waterproofing Systems in the Workplace

Unit reference number: M/600/7619

QCF level: 2

Credit value: 15

Guided learning hours: 50

Unit summary

The aim of this unit is to illustrate the skills, knowledge and understanding required to confirm competence in repairing and maintaining liquid waterproofing systems in the workplace within the relevant sector of industry.

Assessment requirements/evidence requirements

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

- the Additional Requirements for Qualifications using the title NVQ in the 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 repairing and maintaining liquid waterproofing systems to be effective and reliable when confirming a learner's competence.

Workplace evidence of skills cannot be simulated except for assessment criterion 3.4.

Assessment methodology

Evidence of achievement of this unit should be drawn from the workplace, except where ConstructionSkills makes provision for evidence to be

produced through simulation, as specified in the ConstructionSkills overarching assessment strategy.

An assessment record must be created that identifies the assessment criteria that have been met and cross-references these to the evidence provided. The assessment record should include details of the type of evidence and the date of assessment.

The unit specification or suitable centre documentation could be used to form an assessment record.

Learning outcomes and assessment criteria

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
<p>1 Interpret the given information relating to the work and resources when repairing and maintaining liquid waterproofing systems</p>	<p>1.1 Interpret and extract information from drawings, specifications, schedules, manufacturers' information and oral/written instructions</p> <p>1.2 Comply with information and/or instructions derived from risk assessments and method statement</p> <p>1.3 State the organisational procedures developed to report and rectify inappropriate information and unsuitable resources and how they are implemented</p> <p>1.4 Describe different types of information, their source and how they are interpreted in relation to:</p> <ul style="list-style-type: none"> – drawings, specifications, schedules, manufacturers' information and oral/written procedures for dealing with damaged and incorrect materials and/or resources 			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
2 Know how to comply with relevant legislation and official guidance when repairing and maintaining liquid waterproofing systems	2.1 Describe their responsibilities under current legislation and official guidance whilst working: <ul style="list-style-type: none"> – in the workplace, at height, with tools and equipment, with materials and substances, with movement/storage of materials and by manual handling and mechanical lifting 2.2 Describe the organisational security procedures for tools, equipment and personal belongings in relation to site, workplace, company and operative 2.3 State what the accident reporting procedures are and who is responsible for making reports 2.4 State the types of fire extinguishers available when repairing and maintaining liquid waterproofing systems and describe how and when they are used			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
<p>3 Maintain safe working practices when repairing and maintaining liquid waterproofing systems</p>	<p>3.1 Use personal protective equipment (PPE) and access equipment safely to carry out the activity in accordance with legislation and organisational requirements when repairing and maintaining liquid waterproofing systems</p> <p>3.2 Explain why and when personal protective equipment (PPE) should be used, relating to repairing and maintaining liquid waterproofing systems, and the types, purpose and limitations of each type</p> <p>3.3 State how emergencies should be responded to in accordance with organisational authorisation and personal skills when involved with fires, spillages, injuries and other task-related hazards</p> <p>3.4 Demonstrate the safe use of a fire extinguisher relevant to a typical fire associated with repairing and maintaining liquid waterproofing systems as relevant to the operations</p>			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
<p>4 Select the required quantity and quality of resources for the methods of work to repair and maintain liquid waterproofing systems</p>	<p>4.1 Describe the characteristics, quality, uses, limitations and defects associated with the resources in relation to:</p> <ul style="list-style-type: none"> – preparation coats, base coats, reinforcements, top coats, pipes, vents, flashings, trims, movement joints, associated materials, fittings and components, insulation – hand tools and equipment <p>4.2 Select resources associated with own work in relation to materials, components, fixings, tools and equipment</p> <p>4.3 State how the resources should be used correctly, how problems associated with the resources are reported and how the organisational procedures are used</p> <p>4.4 Outline potential hazards associated with the resources and method of work</p> <p>4.5 Describe how to apply simple multiplication, subtraction, addition and division to occupational tasks when repairing and maintaining liquid waterproofing systems</p>			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
5 Minimise the risk of damage to the work and surrounding area when repairing and maintaining liquid waterproofing systems	5.1 Protect the work and its surrounding area from damage 5.2 Minimise damage and maintain a clean work space. 5.3 Describe how to protect work from damage and the purpose of protection in relation to general workplace activities, other occupations and adverse weather conditions 5.4 Dispose of waste in accordance with legislation 5.5 State why the disposal of waste should be carried out in relation to the work			
6 Complete the work within the allocated time when repairing and maintaining liquid waterproofing systems.	6.1 Demonstrate completion of the work within the allocated time 6.2 State the purpose of the work programme and explain why deadlines should be kept in relation to: <ul style="list-style-type: none"> – types of work schedules/diaries, progress charts, timetables and estimated times – organisational procedures for reporting circumstances which will affect the work programme 			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
<p>7 Comply with the given contract information to repair and maintain liquid waterproofing systems to the required specification</p>	<p>7.1 Demonstrate the following work skills when repairing and maintaining liquid waterproofing systems:</p> <ul style="list-style-type: none"> – identifying, evaluating, removing, measuring, marking out, cutting, fitting, applying, positioning and securing <p>7.2 Repair and maintain, to contractor’s working instructions. liquid waterproofing systems with:</p> <ul style="list-style-type: none"> – cracks and blisters – leaks – damage to associated materials and components – debris and blockages <p>7.3 Describe how to apply safe work practices, follow procedures, report problems and establish the authority needed to rectify them, to:</p> <ul style="list-style-type: none"> – identify and evaluate defects – carry out appropriate repairs and maintenance by applying base coats, reinforcements, insulation and top coats – use hand tools and equipment – work at height from buildings – use access equipment <p>7.4 Safely use and store hand tools and ancillary equipment</p>			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
	7.5 State the needs of other occupations and how to communicate within a team when repairing and maintaining liquid waterproofing systems 7.6 Describe how to maintain the tools and equipment used when repairing and maintaining liquid waterproofing system			

Learner name: _____

Date: _____

Learner signature: _____

Date: _____

Assessor signature: _____

Date: _____

Internal verifier signature: _____

Date: _____

(if sampled)

Unit 13: Installing Support Systems for Green Roofs in the Workplace

Unit reference number: H/503/0207

QCF level: 2

Credit value: 12

Guided learning hours: 40

Unit summary

The aim of this unit is to illustrate the skills, knowledge and understanding required to confirm competence in installing support systems for green roofs in the workplace within the relevant sector of industry.

Assessment requirements/evidence requirements

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

- the Additional Requirements for Qualifications using the title NVQ in the QCF
- the ConstructionSkills Consolidated Assessment Strategy for Construction and the Built Environment.

Assessors for this unit must have verifiable, current industry experience and a sufficient depth of relevant occupational expertise and knowledge, and must use a combination of assessment methods as defined in the Consolidated Assessment Strategy.

Workplace evidence of skills cannot be simulated.

Assessment methodology

Evidence of achievement of this unit should be drawn from the workplace, except where ConstructionSkills makes provision for evidence to be produced through simulation, as specified in the ConstructionSkills overarching assessment strategy.

An assessment record must be created that identifies the assessment criteria that have been met and cross-references these to the evidence provided. The assessment record should include details of the type of evidence and the date of assessment.

The unit specification or suitable centre documentation could be used to form an assessment record.

Learning outcomes and assessment criteria

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
<p>1 Interpret the given information relating to the work and resources when installing support systems for green roofs</p>	<p>1.1 Interpret and extract relevant information from drawings, specifications, schedules method statements, risk assessments and manufacturers' information.</p> <p>1.2 Comply with information and/or instructions derived from risk assessments and method statements.</p> <p>1.3 State the organisational procedures developed to report and rectify inappropriate information and unsuitable resources and how they are implemented.</p> <p>1.4 Describe different types of information, their source and how they are interpreted in relation to:</p> <ul style="list-style-type: none"> – drawings, specifications, schedules, method statements, risk assessments, manufacturers' information and regulations, and official guidance associated with green roofs 			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
2 Know how to comply with relevant legislation and official guidance when installing support systems for green roofs	2.1 Describe their responsibilities under current legislation and official guidance whilst working: <ul style="list-style-type: none"> – in the workplace, below ground level, at height, in confined spaces, with tools and equipment, with materials and substances, with movement/storage of materials and by manual handling and mechanical lifting 2.2 Describe the organisational security procedures for tools, equipment and personal belongings in relation to site, workplace, company and operative 2.3 Explain what the accident reporting procedures are and who is responsible for making reports 2.4 State the types of fire extinguishers available when installing support systems for green roofs and describe how and when they are used			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
3 Maintain safe working practices when installing support systems for green roofs	3.1 Use personal protective equipment (PPE) and access equipment safely to carry out the activity in accordance with legislation and organisational requirements when installing support systems for green roofs 3.2 Explain why, when and how personal protective equipment (PPE) should be used, relating to installing support systems for green roofs, and the types, purpose and limitations of each type 3.3 State how emergencies should be responded to in accordance with organisational authorisation and personal skills when involved with fires, spillages, injuries and other task-related hazards			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
<p>4 Select the required quantity and quality of resources for the methods of work to install support systems for green roofs</p>	<p>4.1 Select resources associated with own work in relation to materials, components, fixings, tools and equipment</p> <p>4.2 Describe the characteristics, quality, uses, sustainability, limitations and defects associated with the resources in relation to:</p> <ul style="list-style-type: none"> – drains, resistance layers, filters, irrigation systems, protection layers, substrate – hand and/or powered tools and equipment <p>4.3 Describe how the resources should be used correctly and how problems associated with the resources are reported</p> <p>4.4 Explain why the organisational procedures have been developed and how they are used for the selection of required resources</p> <p>4.5 Describe any potential hazards associated with the resources and method of work</p> <p>4.6 Describe how to calculate quantity, length, area and wastage associated with the method/procedure to install support systems for green roofs</p>			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
5 Minimise the risk of damage to the work and surrounding area when installing support systems for green roofs.	5.1 Protect the work and its surrounding area from damage in accordance with safe working practices and organisational procedures 5.2 Minimise damage and maintain a clean work space. 5.3 Dispose of waste in accordance with legislation 5.4 Describe how to protect work from damage and the purpose of protection in relation to general workplace activities, other occupations and adverse weather conditions 5.5 Explain why the disposal of waste should be carried out safely in accordance with environmental responsibilities, organisational procedures, manufacturers' information, statutory regulations and official guidance			
6 Complete the work within the allocated time when installing support systems for green roofs	6.1 Demonstrate completion of the work within the allocated time 6.2 State the purpose of the work programme and explain why deadlines should be kept in relation to: <ul style="list-style-type: none"> – types of progress charts, timetables and estimated times – organisational procedures for reporting circumstances which will affect the work programme 			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
<p>7 Comply with the given contract information to install support systems for green roofs to the required specification</p>	<p>7.1 Demonstrate the following work skills when installing support systems for green roofs:</p> <ul style="list-style-type: none"> – measuring, marking out, laying, fitting, joining, sealing, finishing, positioning and securing <p>7.2 Prepare and install support systems for green roofs to the given working instructions for four of the following components:</p> <ul style="list-style-type: none"> – root/rhizome resistant layer – protection layer – irrigation system – drainage system – filter layer – substrate <p>7.3 Safely use and handle materials, hand tools, portable power tools and ancillary equipment</p> <p>7.4 Safely store the materials, tools and equipment used when installing support systems for green roofs</p>			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
	<p>7.5 Describe how to apply safe work practices, follow procedures, report problems and establish the authority needed to rectify them, to:</p> <ul style="list-style-type: none"> – ensure the integrity of roof structure – protect underlying roof membrane(s) – ensure appropriate layering of the green roof support system; root/rhizome resistant layers, protection layers, irrigation systems, drainage systems, filter layers and substrate – install measures to prevent slippage – identify and relate ecological benefits – identify the differences between intensive and extensive green roofs – maintain green roofs – use hand tools, power tools and equipment – work at height – use access equipment <p>7.6 Describe the needs of other occupations and how to effectively communicate within a team when installing support systems for green roofs</p> <p>7.7 Describe how to maintain the tools and equipment used when installing support systems for green roofs</p>			

Learner name: _____

Date: _____

Learner signature: _____

Date: _____

Assessor signature: _____

Date: _____

Internal verifier signature: _____

Date: _____

(if sampled)

Unit 14: Set and Mark out Landscape Sites to Establish Grassed and Planted Areas

Unit reference number: H/502/0499

QCF level: 3

Credit value: 3

Guided learning hours: 19

Unit summary

The aim of this unit is to illustrate the skills, knowledge and understanding required to confirm competence in setting and marking out landscape sites to establish grassed and planted areas in the workplace within the relevant sector of industry.

Assessment requirements/evidence requirements

Simulation will not be acceptable where the unit is included in qualifications which verify competent performance. Please refer to Lantra's Assessment Strategy for further guidance.

Assessment methodology

Evidence of achievement of this unit should be drawn from the workplace, except where Lantra makes provision for evidence to be produced through simulation, as specified in the Lantra overarching assessment strategy.

An assessment record must be created that identifies the assessment criteria that have been met and cross-references these to the evidence provided. The assessment record should include details of the type of evidence and the date of assessment.

The unit specification or suitable centre documentation could be used to form an assessment record.

Learning outcomes and assessment criteria

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
<p>1 Understand how to set and mark out sites ready for operations</p>	<p>1.1 Explain how to interpret landscape plans 1.2 Describe the methods and equipment for setting out in horizontal and vertical planes 1.3 Explain the mathematical and geometric principles used in setting out 1.4 Review the types of marking materials and factors affecting their selection 1.5 Explain how site markings can facilitate next stages of operations 1.6 Explain the likely problems how to manage these 1.7 Describe the methods of detecting underground services</p>			
<p>2 Be able to set and mark out sites ready for operations</p>	<p>2.1 Confirm objectives and tolerances for the site 2.2 Achieve objectives to required tolerances 2.3 Apply the mathematical and geometric principles used in setting out 2.4 Use site markings to facilitate the next stage of operations 2.5 Deal with any problems efficiently, effectively and safely should any occur 2.6 Maintain effective working relations with all relevant people throughout</p>			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
3 Understand the reasons for maintaining equipment	3.1 Explain the importance of maintaining equipment for use 3.2 Describe the methods of maintaining the range of equipment used			
4 Be able to maintain and use relevant equipment	4.1 Ensure equipment is prepared, used and maintained in a safe and effective condition			
5 Understand relevant health and safety legislation and environmental good practice	5.1 Summarise current health and safety legislation, codes of practice and organisational requirements 5.2 Describe possible environmental damage and how to respond appropriately 5.3 Explain the correct and appropriate methods for disposing of organic and inorganic waste 5.4 Explain the records required for management and legislative purposes and the importance of maintaining them			
6 Be able to promote health and safety and environmental good practice	6.1 Work in a way which promotes health and safety, is consistent with relevant legislation, codes of practice and any additional requirements 6.2 Ensure work is carried out in a manner which minimises environmental damage 6.3 Manage and dispose of waste in accordance with legislative requirements and codes of practice			

Learner name: _____

Date: _____

Learner signature: _____

Date: _____

Assessor signature: _____

Date: _____

Internal verifier signature: _____

Date: _____

(if sampled)

Unit 15: Evaluate Ground and Environmental Conditions to Establish Grassed and Planted Areas

Unit reference number: L/502/0500

QCF level: 3

Credit value: 3

Guided learning hours: 19

Unit summary

The aim of this unit is to illustrate the skills, knowledge and understanding required to confirm competence in evaluating ground and environmental conditions to establish grassed and planted areas in the workplace within the relevant sector of industry.

Assessment requirements/evidence requirements

Simulation will not be acceptable where the unit is included in qualifications which verify competent performance. Please refer to Lantra's Assessment Strategy for further guidance.

Assessment methodology

Evidence of achievement of this unit should be drawn from the workplace, except where Lantra makes provision for evidence to be produced through simulation, as specified in the Lantra overarching assessment strategy.

An assessment record must be created that identifies the assessment criteria that have been met and cross-references these to the evidence provided. The assessment record should include details of the type of evidence and the date of assessment.

The unit specification or suitable centre documentation could be used to form an assessment record.

Learning outcomes and assessment criteria

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
<p>1 Understand how to evaluate ground and environmental conditions</p>	<p>1.1 Explain the principles and methods of measurement of ground and environmental conditions</p> <p>1.2 Evaluate the methods of measurement and where they may be appropriate</p> <p>1.3 Describe what varying ground and environmental conditions may occur, their effect on plant establishment and growth and how to handle these effectively for the following:</p> <ul style="list-style-type: none"> – substrate structure – substrate texture and conditions – drainage characteristics – pH – pest, disease and weed problems – nutrient deficiencies – ground and air pollutants – microclimate <p>1.4 Review the sources of information and analysis relating to ground and environmental assessment</p>			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
2 Be able to evaluate ground and environmental conditions	2.1 Ensure the purpose and scope of the evaluation is consistent with the proposed use for site 2.2 Use evaluation methods that are consistent with the agreed purpose and scope 2.3 Evaluate the ground and environmental conditions accurately 2.4 Ensure the site is left in a tidy and safe condition following operations 2.5 Deal with problems efficiently, effectively and safely should any occur 2.6 Maintain effective working relations with all relevant people			
3 Understand relevant health and safety legislation and environmental good practice	3.1 Summarise current health and safety legislation, codes of practice and organisational requirements 3.2 Describe the possible environmental damage that could occur and how to respond appropriately 3.3 Explain the records required for management and legislative purposes and the importance of maintaining them			
4 Be able to promote health and safety and environmental good practice	4.1 Work in a way which promotes health and safety, is consistent with relevant legislation, codes of practice and any additional requirements 4.2 Ensure work is carried out in a manner which minimises environmental damage			

Learner name: _____

Date: _____

Learner signature: _____

Date: _____

Assessor signature: _____

Date: _____

Internal verifier signature: _____

Date: _____

(if sampled)

Unit 16: Prepare sites for Soft Landscaped Establishment

Unit reference number: D/502/0503

QCF level: 3

Credit value: 3

Guided learning hours: 19

Unit summary

The aim of this unit is to illustrate the skills, knowledge and understanding required to confirm competence in preparing sites for soft landscaped establishment within the relevant sector of industry.

Assessment requirements/evidence requirements

Simulation will not be acceptable where the unit is included in qualifications which verify competent performance. Please refer to Lantra's Assessment Strategy for further guidance.

Assessment methodology

Evidence of achievement of this unit should be drawn from the workplace, except where Lantra makes provision for evidence to be produced through simulation, as specified in Lantra's overarching assessment strategy.

An assessment record must be created that identifies the assessment criteria that have been met and cross-references these to the evidence provided. The assessment record should include details of the type of evidence and the date of assessment.

The unit specification or suitable centre documentation could be used to form an assessment record.

Learning outcomes and assessment criteria

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
<p>1 Understand how to prepare sites for soft landscape establishment</p>	<p>1.1 Describe the principles and methods of site preparation to meet the required conditions for the following landscapes:</p> <ul style="list-style-type: none"> – areas for soft landscape construction – areas for planting – areas for restoration <p>1.2 Explain which methods are most appropriate to achieve required conditions</p> <p>1.3 Describe how to check the site is ready for planting/sowing</p> <p>1.4 Explain potential problems which may occur and how to deal with these effectively</p>			
<p>2 Be able to prepare sites for soft landscape establishment</p>	<p>2.1 Prepare the site to meet specifications and function</p> <p>2.2 Maintain the site in a suitable condition for planting/sowing as planned</p> <p>2.3 Monitor site main services continually throughout operations</p> <p>2.4 Deal with problems efficiently, effectively and safely should any occur</p> <p>2.5 Maintain effective working relations with all relevant people</p>			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
3 Understand the reasons for maintaining equipment	3.1 Explain the importance of maintaining equipment for use 3.2 Describe the methods of maintaining the range of equipment used			
4 Be able to maintain and use relevant equipment	4.1 Ensure equipment is prepared, used and maintained in a safe and effective condition			
5 Understand relevant health and safety legislation and environmental good practice	5.1 Summarise current health and safety legislation, codes of practice and organisational requirements 5.2 Describe the possible environmental damage that could occur and how to respond appropriately 5.3 Explain the correct and appropriate methods for disposing of organic and inorganic waste 5.4 Explain the records required for management and legislative purposes and the importance of maintaining them			
6 Be able to promote health and safety and environmental good practice	6.1 Work in a way which promotes health and safety, is consistent with relevant legislation, codes of practice and any additional requirements 6.2 Ensure work is carried out in a manner which minimises environmental damage and waste			

Learner name: _____

Date: _____

Learner signature: _____

Date: _____

Assessor signature: _____

Date: _____

Internal verifier signature: _____

Date: _____

(if sampled)

Unit 17: Establish Planted Areas

Unit reference number: D/502/0856

QCF level: 3

Credit value: 3

Guided learning hours: 19

Unit summary

The aim of this unit is to illustrate the skills, knowledge and understanding required to confirm competence in establishing planted areas within the relevant sector of industry.

Assessment requirements/evidence requirements

Simulation will not be acceptable where the unit is included in qualifications which verify competent performance. Please refer to Lantra's Assessment Strategy for further guidance.

Assessment methodology

Evidence of achievement of this unit should be drawn from the workplace, except where Lantra makes provision for evidence to be produced through simulation, as specified in Lantra's overarching assessment strategy.

An assessment record must be created that identifies the assessment criteria that have been met and cross-references these to the evidence provided. The assessment record should include details of the type of evidence and the date of assessment.

The unit specification or suitable centre documentation could be used to form an assessment record.

Learning outcomes and assessment criteria

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
1 Understand how to establish planted areas	1.1 Explain the factors affecting the timing and method of planting 1.2 Describe methods of support and protection and how to apply them 1.3 Explain the initial maintenance requirements for newly established planted areas covering: <ul style="list-style-type: none"> – Trees – Shrubs – Container grown – Root grown 1.4 Explain potential problems which may occur and how to deal with these effectively			
2 Be able to identify a range of plants	2.1 Describe how to identify the plants to be established 2.2 Identify a minimum of 80 different plants to be established by common and botanical names			
3 Understand the principles of selecting plants	3.1 Explain the principles of selecting and combining plants for different applications			
4 Understand the methods of assessing plant health	4.1 Review the methods of assessing plant health 4.2 Explain the damage which may occur when handling and during the establishment of plants and how to minimise this			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
5 Be able to establish planted areas	5.1 Identify and mark out planting sites accurately 5.2 Check the specification and health of plants before planting, and reject unacceptable specimens 5.3 Ensure the quality of plants is maintained throughout handling and planting 5.4 Establish at least 3 different types of plants from: <ul style="list-style-type: none"> - Trees - Shrubs - Container grown - Root grown 5.5 Provide support and protection to the plants if required 5.6 Ensure the site is left in a tidy and safe condition following operations 5.7 Maintain effective working relations with all relevant people			
6 Understand the reasons for maintaining equipment	6.1 Explain the importance of maintaining equipment 6.2 Describe the methods of maintaining the range of equipment used			
7 Be able to maintain and use relevant equipment	7.1 Ensure equipment is prepared, used and maintained in a safe and effective condition			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
8 Understand relevant health and safety legislation and environmental good practice	8.1 Summarise current health and safety legislation, codes of practice and organisational requirements 8.2 Describe the possible environmental damage that could occur and how to respond appropriately 8.3 Explain the correct and appropriate methods for disposing of organic and inorganic waste 8.4 Explain the records required for management and legislative purposes and the importance of maintaining them			
9 Be able to promote health and safety and environmental good practice	9.1 Work in a way which promotes health and safety, is consistent with relevant legislation, codes of practice and any additional requirements 9.2 Ensure work is carried out in a manner which minimises environmental damage 9.3 Manage and dispose of waste in accordance with legislative requirements and codes of practice			

Learner name: _____

Date: _____

Learner signature: _____

Date: _____

Assessor signature: _____

Date: _____

Internal verifier signature: _____

Date: _____

(if sampled)

Unit 18: Establish Grass Swards

Unit reference number: H/502/0857

QCF level: 3

Credit value: 3

Guided learning hours: 19

Unit summary

The aim of this unit is to illustrate the skills, knowledge and understanding required to confirm competence in establishing grass swards within the relevant sector of industry.

Assessment requirements/evidence requirements

Simulation will not be acceptable where the unit is included in qualifications which verify competent performance. Please refer to Lantra's Assessment Strategy for further guidance.

Assessment methodology

Evidence of achievement of this unit should be drawn from the workplace, except where Lantra makes provision for evidence to be produced through simulation, as specified in the Lantra's overarching assessment strategy.

An assessment record must be created that identifies the assessment criteria that have been met and cross-references these to the evidence provided. The assessment record should include details of the type of evidence and the date of assessment.

The unit specification or suitable centre documentation could be used to form an assessment record.

Learning outcomes and assessment criteria

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
1 Understand how to establish grass swards	1.1 Explain the factors affecting the timing and methods of establishment 1.2 Describe the methods of protection and their application 1.3 Explain the initial maintenance requirements for newly established swards 1.4 Explain what potential problems may affect operations and how to handle these effectively			
2 Be able to identify types of grasses	2.1 Identify a minimum of 6 types of grasses by common and botanical names when establishing grass swards			
3 Understand the principles of selecting grasses	3.1 Explain the principles of selecting and combining grass species for different applications 3.2 Explain the principles of selecting turf and seeding mats for different applications			
4 Understand how to assess turf health	4.1 Describe how to assess the health of turf 4.2 Explain the different types of damage that can occur and how to prevent them			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
5 Be able to establish grass swards	5.1 Mark out sites accurately before beginning operations 5.2 Select turf or seed as appropriate for intended purpose 5.3 Check the specification and health of plant material on receipt and reject unacceptable material 5.4 Use handling and establishment methods which maximise the quality of the sward 5.5 Provide protection which is appropriate and effective 5.6 Ensure the site is left in a tidy and safe condition following operations 5.7 Maintain effective working relations with all relevant persons			
6 Understand how to maintain equipment	6.1 Explain the importance of maintaining equipment for use 6.2 Describe the methods of maintaining the range of equipment used			
7 Be able to maintain and use relevant equipment	7.1 Ensure equipment is prepared, used and maintained in a safe and effective condition			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
8 Understand relevant health and safety legislation and environmental good practice	8.1 Summarise current health and safety legislation, codes of practice and organisational requirements 8.2 Describe the possible environmental damage that could occur and how to respond appropriately 8.3 Explain the correct and appropriate methods for disposing of organic and inorganic waste 8.4 Explain the records required for management and legislative purposes and the importance of maintaining them			
9 Be able to promote health and safety and environmental good practice	9.1 Work in a way which promotes health and safety, is consistent with relevant legislation, codes of practice and any additional requirements 9.2 Ensure work is carried out in a manner which minimises environmental damage 9.3 Manage and dispose of waste in accordance with legislative requirements and codes of practice			

Learner name: _____

Date: _____

Learner signature: _____

Date: _____

Assessor signature: _____

Date: _____

Internal verifier signature: _____

Date: _____

(if sampled)

Unit 19: Installing Decking for Flat Roof Coverings in the Workplace

Unit reference number: Y/600/6593

QCF level: 2

Credit value: 13

Guided learning hours: 43

Unit summary

The aim of this unit is to illustrate the skills, knowledge and understanding required to confirm competence in installing decking for flat roof coverings in the workplace within the relevant sector of industry.

Assessment requirements/evidence requirements

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

- the Additional Requirements for Qualifications using the title NVQ in the 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 installing decking for flat roof coverings to be effective and reliable when confirming a learner's competence.

Workplace evidence of skills cannot be simulated.

This unit must be assessed against one of the following endorsements:

- boarded decks
- single skin decks.

Assessment methodology

Evidence of achievement of this unit should be drawn from the workplace, except where ConstructionSkills makes provision for evidence to be

produced through simulation, as specified in the ConstructionSkills overarching assessment strategy.

An assessment record must be created that identifies the assessment criteria that have been met and cross-references these to the evidence provided. The assessment record should include details of the type of evidence and the date of assessment.

The unit specification or suitable centre documentation could be used to form an assessment record.

Learning outcomes and assessment criteria

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
<p>1 Interpret the given information relating to the work and resources when installing decking for flat roof coverings</p>	<p>1.1 Interpret and extract information from drawings, specifications, schedules, manufacturers' information and oral/written instructions</p> <p>1.2 Comply with information and/or instructions derived from risk assessments and method statement</p> <p>1.3 State the organisational procedures developed to report and rectify inappropriate information and unsuitable resources and how they are implemented</p> <p>1.4 Describe different types of information, their source and how they are interpreted in relation to:</p> <ul style="list-style-type: none"> – drawings, specifications, schedules, manufacturers' information, regulations governing buildings and oral/written procedures for dealing with damaged and incorrect materials and/or resources 			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
2 Know how to comply with relevant legislation and official guidance when installing decking for flat roof coverings	2.1 Describe the organisational security procedures for tools, equipment and personal belongings in relation to site, workplace, company and operative 2.2 Describe the organisational security procedures for tools, equipment and personal belongings in relation to site, workplace, company and operative 2.3 State what the accident reporting procedures are and who is responsible for making reports			
3 Maintain safe working practices when installing decking for flat roof coverings	3.1 Use personal protective equipment (PPE) and access equipment safely to carry out the activity in accordance with legislation and organisational requirements when installing decking for flat roof coverings 3.2 Explain why and when personal protective equipment (PPE) should be used, relating to installing decking for flat roof coverings, and the types, purpose and limitations of each type 3.3 State how emergencies should be responded to in accordance with organisational authorisation and personal skills when involved with fires, spillages, injuries and other task-related hazards			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
<p>4 Select the required quantity and quality of resources for the methods of work to install decking for flat roof coverings</p>	<p>4.1 Describe the characteristics, quality, uses, limitations and defects associated with the resources in relation to:</p> <ul style="list-style-type: none"> – particle boards, plywood, timber, single-skin metal sheeting, fixings and associated components – hand and/or powered tools and equipment <p>4.2 Select resources associated with own work in relation to materials, components, fixings, tools and equipment</p> <p>4.3 State how the resources should be used correctly, how problems associated with the resources are reported and how the organisational procedures are used</p> <p>4.4 Outline potential hazards associated with the resources and method of work</p> <p>4.5 Describe how to calculate quantity, length, area and wastage associated with the method/procedure to install decking for flat roof coverings</p>			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
5 Minimise the risk of damage to the work and surrounding area when installing decking for flat roof coverings	5.1 Protect the work and its surrounding area from damage 5.2 Minimise damage and maintain a clean work space 5.3 Describe how to protect work from damage and the purpose of protection in relation to general workplace activities, other occupations and adverse weather conditions 5.4 Dispose of waste in accordance with legislation 5.5 State why the disposal of waste should be carried out in relation to the work			
6 Complete the work within the allocated time when installing decking for flat roof coverings	6.1 Demonstrate completion of the work within the allocated time. 6.2 State the purpose of the work programme and explain why deadlines should be kept in relation to: <ul style="list-style-type: none"> – types of work schedules/diaries, progress charts, timetables and estimated times – organisational procedures for reporting circumstances which will affect the work programme 			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
<p>7 Comply with the given contract information to install decking for flat roof coverings to the required specification</p>	<p>7.1 Demonstrate the following work skills when installing decking for flat roof coverings:</p> <ul style="list-style-type: none"> - measuring, cutting, marking out, fitting, positioning and securing <p>7.2 Install boarded and/or single-skin metal roofing decks to contractor's working instructions and form:</p> <ul style="list-style-type: none"> - perimeters - openings - falls - outlets - penetrations <p>7.3 Describe how to apply safe work practices, follow procedures, report problems and establish the authority needed to rectify them, to:</p> <ul style="list-style-type: none"> - install decking material - create falls - form outlets - form perimeter details - negotiate penetrations - form openings - ensure deck is secure and fit for purpose - use hand tools, power tools and equipment - work at height - use access equipment 			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
	7.4 Safely use and store hand tools, portable power tools and ancillary equipment 7.5 State the needs of other occupations and how to communicate within a team when installing decking for flat roof coverings 7.6 Describe how to maintain the tools and equipment used when installing decking for flat roof coverings			

Learner name: _____

Date: _____

Learner signature: _____

Date: _____

Assessor signature: _____

Date: _____

Internal verifier signature: _____

Date: _____

(if sampled)

Unit 20: Installing Solar Collectors to Roofs in the Workplace

Unit reference number: K/503/2959

QCF level: 2

Credit value: 6

Guided learning hours: 20

Unit summary

The aim of this unit is to illustrate the skills, knowledge and understanding required to confirm competence in installing solar collectors to roofs in the workplace within the relevant sector of industry.

Assessment requirements/evidence requirements

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

- the Additional Requirements for Qualifications using the title NVQ in the QCF
- the ConstructionSkills Consolidated Assessment Strategy for Construction and the Built Environment.

Assessors for this unit must have verifiable, current industry experience and a sufficient depth of relevant occupational expertise and knowledge, and must use a combination of assessment methods as defined in the Consolidated Assessment Strategy.

Workplace evidence of skills cannot be simulated.

This unit must be assessed against one of the following endorsements:

- photo voltaic
- solar thermal

Assessment methodology

Evidence of achievement of this unit should be drawn from the workplace, except where ConstructionSkills makes provision for evidence to be produced through simulation, as specified in the ConstructionSkills overarching assessment strategy.

An assessment record must be created that identifies the assessment criteria that have been met and cross-references these to the evidence provided. The assessment record should include details of the type of evidence and the date of assessment.

The unit specification or suitable centre documentation could be used to form an assessment record.

Learning outcomes and assessment criteria

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
<p>1 Interpret the given information relating to the work and resources when installing solar collectors to roofs</p>	<p>1.1 Interpret and extract relevant information from drawings, specifications, schedules, method statements, risk assessments and manufacturers' information</p> <p>1.2 Comply with information and/or instructions derived from risk assessments and method statements</p> <p>1.3 State the organisational procedures developed to report and rectify inappropriate information and unsuitable resources and how they are implemented</p> <p>1.4 Describe different types of information, their source and how they are interpreted in relation to:</p> <ul style="list-style-type: none"> – drawings, specifications, schedules, method statements, risk assessments, manufacturers' information and regulations governing buildings 			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
<p>2 Know how to comply with relevant legislation and official guidance when installing solar collectors to roofs.</p>	<p>2.1 Describe their responsibilities under current legislation and official guidance whilst working:</p> <ul style="list-style-type: none"> – in the workplace, below ground level, in confined spaces, at height, with tools and equipment, with materials and substances, with movement/storage of materials and by manual handling and mechanical lifting <p>2.2 Describe the organisational security procedures for tools, equipment and personal belongings in relation to site, workplace, company and operative</p> <p>2.3 Explain what the accident reporting procedures are and who is responsible for making reports</p>			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
<p>3 Maintain safe working practices when installing solar collectors to roofs</p>	<p>3.1 Use health and safety control equipment and access equipment safely to carry out the activity in accordance with legislation and organisational requirements when installing solar collectors to roofs</p> <p>3.2 Explain why and when health and safety control equipment, identified by the principles of protection, should be used, relating to installing solar collectors to roofs, and the types, purpose and limitations of each type, the work situation and general work environment, in relation to:</p> <ul style="list-style-type: none"> – collective protective measures – personal protective equipment (PPE) – respiratory protective equipment (RPE) – local exhaust ventilation (LEV) <p>3.3 Describe how the relevant health and safety control equipment should be used in accordance with the given instructions</p> <p>3.4 State how emergencies should be responded to in accordance with organisational authorisation and personal skills when involved with fires, spillages, injuries and other task-related hazards</p>			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
<p>4 Select the required quantity and quality of resources for the methods of work to install solar collectors to roofs</p>	<p>4.1 Select resources associated with own work in relation to materials, components, fixings, tools and equipment</p> <p>4.2 Describe the characteristics, quality, uses, sustainability, limitations and defects associated with the resources in relation to:</p> <ul style="list-style-type: none"> – solar collector installation kits – hand and/or powered tools and equipment <p>4.3 Describe how the resources should be used correctly and how problems associated with the resources are reported</p> <p>4.4 Explain why the organisational procedures have been developed and how they are used for the selection of required resources.</p> <p>4.5 Describe any potential hazards associated with the resources and method of work</p> <p>4.6 Describe how to calculate quantity, length, area and wastage associated with the method/procedure to install solar collectors to roofs</p>			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
5 Minimise the risk of damage to the work and surrounding area when installing solar collectors to roofs	5.1 Protect the work and its surrounding area from damage in accordance with safe working practices and organisational procedures 5.2 Minimise damage and maintain a clean work space 5.3 Dispose of waste in accordance with legislation 5.4 Describe how to protect work from damage and the purpose of protection in relation to general workplace activities, other occupations and adverse weather conditions 5.5 Explain why the disposal of waste should be carried out safely in accordance with environmental responsibilities, organisational procedures, manufacturers' information, statutory regulations and official guidance			
6 Complete the work within the allocated time when installing solar collectors to roofs	6.1 Demonstrate completion of the work within the allocated time 6.2 State the purpose of the work programme and explain why deadlines should be kept in relation to: <ul style="list-style-type: none"> – types of progress charts, timetables and estimated times – organisational procedures for reporting circumstances which will affect the work programme 			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
<p>7 Comply with the given contract information to installing solar collectors to roofs to the required specification</p>	<p>7.1 Demonstrate the following work skills when installing solar collectors to roofs:</p> <ul style="list-style-type: none"> – removing, measuring, marking out, cutting, fitting, fixing, positioning, securing and replacing <p>7.2 Prepare for and install solar collectors to roof to given working instructions for one of the following:</p> <ul style="list-style-type: none"> – integrated photo voltaic – mounted photo voltaic – integrated solar thermal – mounted solar thermal <p>7.3 Reinstall roof coverings to given working instructions</p> <p>7.4 Safely use and handle materials</p> <p>7.5 Safely use hand tools, portable power tools and ancillary equipment</p> <p>7.6 Safely store the materials, tools and equipment used when installing solar collectors to roofs</p>			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
	<p>7.7 Describe how to apply safe work practices, follow procedures, report problems and establish the authority needed to rectify them, to:</p> <ul style="list-style-type: none"> – assess the installation area – check the direction the roof is facing – remove or leave out waterproofing elements – mark out for installation using given templates or dimension – prepare and weatherproof penetrations – fix additional supports – secure fixtures, fittings and collector. <p>7.8 Describe how to apply safe work practices, follow procedures, report problems and establish the authority needed to rectify them, to:</p> <ul style="list-style-type: none"> – reinstate roof coverings including flashings – install solar panels during construction and as retrofit to existing buildings – use hand tools, power tools and equipments – work at height – use access equipment <p>7.9 Describe the needs of other occupations and how to effectively communicate within a team when installing solar collectors to roofs.</p> <p>7.10 Describe how to maintain the tools and equipment used when installing solar collectors to roofs</p>			

Learner name: _____

Learner signature: _____

Assessor signature: _____

Internal verifier signature: _____

(if sampled)

Date: _____

Date: _____

Date: _____

Date: _____

Further information

For further information please contact Customer Services on 0844 463 2535. Calls may be recorded for quality and training 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 our website, www.edexcel.com.

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 for the qualification in this specification, please visit 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 our Customer Services team 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 Pearson Edexcel qualification framework for the construction and the built environment sector

Level	General qualifications	BTEC vocationally-related qualifications	BTEC specialist qualification/professional	NVQ/competence
8				
7				
6				There are too many qualifications to fit in this space. Please refer to www.edexcel.com
5		Pearson BTEC Level 5 HND Diploma in Construction and the Built Environment (QCF)		There are too many qualifications to fit in this space. Please refer to www.edexcel.com
4		Pearson BTEC Level 4 HNC Diploma in Construction and the Built Environment (QCF)		There are too many qualifications to fit in this space. Please refer to www.edexcel.com

Level	General qualifications		BTEC vocationally-related qualifications	BTEC specialist qualification/professional	NVQ/competence
3			Pearson BTEC Level 3 Certificate , Subsidiary Diploma, Extended Diploma in Construction and the Built Environment (QCF)	Pearson BTEC Level 3 Award in Construction and the Built Environment (Specialist: Construction) (QCF)	There are too many qualifications to fit in this space. Please refer to www.edexcel.com
2			Pearson BTEC Level 2 Certificate, Extended Certificate in Construction (QCF)	Edexcel BTEC Level 2 Award, Certificate and Extended Certificate in Construction and the Built Environment (Specialist: Construction) (QCF)	Please refer to www.edexcel.com
1					
Entry					

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 uses 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 bureaucracy on centres, and works to support them in providing robust internal quality-assurance processes.

The learning outcomes and assessment criteria in each unit 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.

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
- visits to centres, conducted by occupationally competent and qualified Edexcel Standards Verifiers for sampling of internal verification and assessment processes, 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: Registration and certification

Registration

Details of the process for registration of learners for the qualification in this specification are provided in the *Edexcel Information Manual*, published annually.

Centres must register learners promptly on their chosen qualification and by the registration deadlines given in the *Edexcel Information Manual*.

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 Equality Act 2010) without compromising the assessment of skills, knowledge, understanding or competence. For details, please refer to *Access Arrangements and Special Considerations for BTEC and Edexcel NVO Qualifications*, available on our website: www.edexcel.com.

Certification

Details of the process for reporting learners' success to Edexcel and for claiming certification are given in the *Edexcel Information Manual*, published annually.

Certificates are issued weekly according to the schedule of dates published in the *Edexcel Information Manual*.

Results should be reported only if the centre has clearance to certificate through reports from Standards Verifiers. Subject to this, results must be reported immediately following programme completion so that certificates can be issued as soon as possible.

Edexcel Standards Verifiers will provide support, advice and guidance to centres to achieve Direct Claim 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.

Edexcel's approach 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.

Annexe D: Assessment strategy

The ConstructionSkills and Lantra Assessment Strategies will be available on the Edexcel website on the Construction NVQ/Competence page.

