



GQA Level 2 NVQ Diploma in Substructure Operation Occupations Underpinning Operations – Excavated Underpinning

Qualification Reference Number 610/3323/6

Personal Competence Summary

Name			Company/Centre		
Job Title			GQA Registration Number		
Mandatory Units					
Unit Number	Unit Title	Level	Credit Value	Assessor Signature	Date
A/503/1170	Conforming to general health, safety and welfare in the workplace	1	2		
J/503/1169	Conforming to productive working practices in the workplace	2	3		
F/503/1171	Moving, handling and storing resources in the workplace	2	5		
H/650/8769	Setting out and marking positions for underpinning sequence in the workplace	3	13		
Unit Number	Unit Title	Level	Credit Value	Assessor Signature	Date
Group A – Optional Units x1					
Group B – Optional Units x4					

RELIABLE EVIDENCE: The forms of evidence available include (mark as appropriate)

Observation in the workplace ☐
 Records of prior experience ☐
 Testimonial(s) ☐
 Work records ☐

Assessment of knowledge ☐
 Witness statement(s) ☐
 Photographic evidence ☐
 External testing ☐

Passport Style
 Candidate Photo
 (Mandatory)

COMPETENCE COMPLETION SIGNATURES

By signing here, the Candidate and Assessor confirm that evidence presented is authentic and that the assessments took place in accordance with the relevant assessment strategy. Details of the assessments and evidence must be recorded in the assessment decision record/summaries at the end of each unit.

	Name	Signature	Date
Candidate			
Lead Assessor			
Internal Verifier			
EQA			

Introduction to the Qualification

Who is this Qualification for?

This qualification is aimed at those who wish to work or continue to work in substructure work occupations within the construction industry. It is designed to build and grow individuals' competence in the workplace.

It is not expected that all individuals in this sector carry out the same activities: the qualification is structured to endure that there is a high degree of flexibility in the qualification. The standard covers the most important aspects of the job. This qualification is at Level 2 and should be taken by those who are fully trained to deal with routine assignments. Candidates should require minimum supervision in undertaking the job.

What is required from candidates?

Candidates should achieve all the mandatory units listed below, plus five optional units.

Candidates should prove that they can achieve all the statements listed from each element. Guidance on the evidence that will be acceptable is contained in the introduction to each unit.

Unit Number	Unit Title	Level	Credit Value
Mandatory Units			
A/503/1170	Conforming to general health, safety and welfare in the workplace	1	2
J/503/1169	Conforming to productive working practices in the workplace	2	3
F/503/1171	Moving, handling and storing resources in the workplace	2	5
H/650/8769	Setting out and marking positions for underpinning sequence in the workplace	3	13
Optional Units Group A (ONE Unit)			
L/650/8770	Excavating for underpinning in the workplace	2	17
M/650/8771	Excavating and providing temporary support to pits and trenches in the workplace (Unit Endorsements: One of the following endorsements required: Timber, Trench sheet, Frames, Support systems)	2	14
Optional Units Group B (FOUR Units)			
R/650/8772	Erecting and striking underpinning formwork in the workplace (Unit endorsements: One of the following endorsements required (i.e., own area of work): Excavated underpinning, Basement Construction – Excavated Underpinning)	2	9
T/650/8773	Installing reinforcement steel for underpinning in the workplace	2	9
Y/650/8774	Installing dry packing in the workplace	2	17

A/650/8775	Repairing sub-structure after underpinning in the workplace (Unit Endorsements: Two of the following endorsements required: Brickwork, Blockwork, Concrete, Timber, Facings, Linings, Waterproofing systems)	2	22
M/650/0291	Placing and compacting concrete in the workplace (Unit Endorsements: Three of the following endorsements required: Chute, Elephants trunk, Skip, Pump, Mono-rail, Manual)	2	11
D/650/8776	Installing, constructing, maintaining, dismantling and removing temporary works in the workplace (Unit endorsements: Four of the following endorsements required: Protective screens, hoardings and covers - Access and egress routes - Supports - Supporting structures - Removal equipment - Diverting equipment - Site facilities - Stabilisation)	2	15

Assessment Guidance

Evidence should show that the candidate can cover the scope of performance outlined for each relevant unit consistently over an appropriate period.

Types of evidence:

Evidence of performance and knowledge is required. Evidence of performance should be demonstrated by activities and outcomes, and should be generated in the workplace only, unless indicated under potential sources of evidence (see below). Evidence of knowledge can be demonstrated through performance or by responding to questions.

Potential sources of evidence:

The main source of evidence for each unit will be observation of performance. This can be supplemented by the following types of physical or documentary evidence:

- Accident book
- Correspondence/discussion with customer
- Customer feedback
- Damage and defect reports
- Delivery records
- Equipment used
- Inspection reports
- Notes and memos
- Audio/photographic/video
- Safety records
- Telephone logs
- Installation activity
- Witness testimony
- Simulation of accident or emergency
- Organisational reporting systems

Please Note that photocopied or downloaded documents such as manufacturers or industry guidance, H&S policies, Risk Assessments etc., are not normally acceptable evidence for GQA qualifications unless accompanied by a record of a professional discussion or assessor statement confirming candidate knowledge of the subject. If you are in any doubt about the validity of evidence, please contact your GQA EQA.

GQA Qualification Implementation Requirements covering Centre Approval, Candidate Assessment and ongoing Quality Assurance

This document indicates the requirements of approved centres delivering GQA qualifications and/or units of credit. This document complements the appropriate SSC Assessment Strategy linked to this qualification.

1. Equality of Opportunity

Equality of access to fair and valid assessment is necessary for all candidates undergoing assessment. This may mean making reasonable adjustments to normal assessment methods for candidates with particular or special assessment requirements. Candidates work patterns should not become a barrier to assessment, the organisation of which may have to be flexible. In the same way, reasonable adjustment arrangements may be necessary for candidates with a disability. For example, a candidate who is unable, through disability, to produce oral or written evidence, may be allowed to use the method they normally use as a substitute for the required form of communication. Reasonable adjustments need to be approved by GQA.

2. Recognised/Approved Assessment Centres

2.1 Individual centres must be approved by GQA to offer specific qualifications and / or units of credit. A centre may be a single organisation or a partnership of two or more organisations. It may operate at a single location or have satellites. For further details see the GQA booklet "Guide to Centre Approval." The Centre Approval process is carried out by a GQA approved EQA. Each Centre must maintain a centre file. It is important to be clear what the steps in the assessment process are:

- plan evidence collection and opportunities for assessment
- collect evidence
- judge evidence
- determine whether sufficient evidence has been presented
- make an assessment decision and give feedback to the candidate

NB Any deviation from the norm must be approved by a GQA EQA

2.2 Assessors and Verifiers

All Assessors of candidate performance must be competent, to make qualitative judgements, both in the skills they are assessing and in the assessment of candidates and hold the appropriate Assessor national award. Assessor occupational knowledge related to the qualifications being assessed is essential and must be illustrated to GQA prior to approval.

Internal Verifiers are responsible for the quality assurance of the assessment process within a centre. They should have a relevant occupational background, be competent in internal verification and hold the Internal Verifier national award. It is recommended that Internal Verifiers work towards national recognition of assessor competence.

EQAs are responsible for ensuring accurate and consistent standards of assessment across centres, qualifications, units of credit and over time. They should have a relevant occupational background, be competent in External Quality Assurance and hold the EQA national award

GQA will approve and licence all individuals involved in the assessment and verification of its approved qualifications and / or units of credit. Individuals who are working towards the Assessor or Internal Verifier national awards can only be provisionally licensed. The judgement of provisional licence holders will need to be agreed/authorised by a fully qualified and GQA licensed individual who cannot carry out a dual role in relation to a specific candidate.

All GQA Assessors and Verifiers must undertake a minimum of two significant CPD activities in both occupational areas and assessment and verification. Reflective CPD records must be maintained and made available to GQA EQAs for review.

2.3 Centre Approval, Monitoring Reviews and Quality Assurance

The centre recognition/approval process is the start of a significant part of the awarding body's quality assurance system. The Approval process will begin with an EQA review of centre procedures to ascertain the potential centre's ability to deliver GQA qualifications and / or units of credit. Centres will be expected to meet the relevant regulatory authority criteria for delivery of qualifications prior to initial approval; continued compliance with the criteria will be monitored through regular EQA visits. It is recommended that centre reviews are conducted at minimum every six months by a GQA EQA.

New or multi-site centres may be required to undertake quarterly or more frequent EV reviews to ensure that different locations can be seen to satisfy the national requirements.

GQA will ensure that unacceptable barriers relating to the assessment and internal verification of candidates in small companies do not deny recognition of competence to competent young workers. In such circumstances, GQA will demonstrate that its quality assurance procedures remain sufficient and rigorous to ensure that the competence outcomes have standing and credibility in the occupational area.

Enhanced quality procedures to ensure consistency of assessment and verification will be necessary and will include:

- a high level of sampling of assessment decisions N.B. In some instances, the EQA may visit each assessment location and qualification / unit of credit candidate (e.g., single candidates dispersed throughout different small companies on government funded programmes)
- an in-depth scrutiny of assessment plans, materials and records
- specific centre guidance aimed at the successful implementation of qualifications and / or units of credit in SMEs via approved centre partnerships. This can include guidance on the quantity and quality of valid, authentic, and transferable evidence expected to be attributed to individual candidates
- ensuring centres are following the requirements prescribed in any appropriate assessment strategies and applicable codes of practice
- the identification and publication of good practice in centres

As part of the Quality Assurance process Proskills require an Enhanced External Quality Assurance process. This will be in the form of one significant underpinning knowledge question answered by the candidate for each unit of the qualification. The questions will be decided by GQA, and guideline answers must be submitted for approval and once approved kept in the Centre File to allow independent assessment

3. Qualification/Unit of Credit Candidates

All candidates must register with a GQA recognised/approved centre. The centre must maintain appropriate candidate personal details for external audit purposes etc.

The centre will provide candidates with advice and guidance on how to prepare for assessment and allocate an Assessor who will assess candidate ability to meet the requirements of the relevant qualifications / unit of credit.

It is the candidate's responsibility to demonstrate competence and to do this they must:

- prove they can consistently meet all the qualification and / or unit of credit criteria
- provide evidence from work, that they can perform competently in all the contexts specified in the qualification / unit of credit requirements
- prove that they have the knowledge and understanding required to perform competently, even where they have not provided evidence from the workplace

It is therefore critical that quality evidence is provided in a format to allow the Assessor to decide and for the Internal Verifier to audit/verify his/her decision.

4. Evidence

A qualification and / or credit is awarded when a person has achieved the necessary outcomes of the qualification and / or unit of credit.

The specific combination of units necessary to achieve a qualification is detailed in the qualification structure. Certificates of Unit Credit can be awarded when candidates achieve anyone, or more, units from the qualification. The evidence the candidate brings forward is primarily evidence of performance of what he/she can do, not just what he/she knows. The assessment criteria / qualification requirements are described within the qualification and / or unit of credit itself and can incorporate practical skills and knowledge.

The assessor's role is to judge each relevant item of evidence. Each must be judged against the qualification and / or unit of credit requirements. It is not sensible to collect evidence against individual criteria. Nor is it effective. If items of evidence were collected for each of the criteria, the candidate may have to produce many items of evidence, well above the number required. GQA recommend holistic assessment.

When judging each item of evidence, the assessor is deciding whether the evidence:

- is authentic – i.e., produced by the candidate
- meets the criteria
- relates as appropriate to a context defined within the qualification and / or unit of credit
- confirms that the candidate has the required underpinning knowledge

When the assessor decides about the candidate's competence, he or she examines all the evidence available to determine:

- if the evidence covers all the evidence of achievement
- whether the evidence indicates consistency in competent performance
- whether there is enough evidence on which to base an inference of competence

The answer can only be:

- yes (the candidate is competent)
- no (the candidate is not yet competent)
- there is insufficient evidence to decide

Consistency means that the individual is likely to achieve the standard in their work role, in the different activities defined

5. Performance Evidence

Performance evidence can be what the individual produces, or the way the individual achieves the standard.

One is called product evidence and the other process evidence.

Product evidence is tangible – you can look at it and feel it. Products can be inspected, and the candidate can be asked questions about them.

To make a fair and objective assessment, the assessor must be able to answer the question: Is there sufficient evidence that the candidate can consistently meet the requirements of the qualification and / or unit of credit? Process evidence describes the way the candidate has achieved an outcome – how they went about it. This may be, for example, the way the quality of products is checked, or the way customer complaints are handled. This usually means observing the candidate in action.

Performance evidence may cover several outcomes. It makes sense to plan evidence collection so that what the candidate does, in the normal course of their job, can be related to different outcomes and units. The activities that clearly link to the qualification and / or unit of credit requirements are the things to concentrate on when planning evidence collection and assessment and when monitoring the candidate's progress. Look for opportunities in the candidate's job when evidence can be collected against several units at the same time.

Performance evidence can be:

- Naturally occurring – evidence produced in the normal course of work. Evidence of this sort is usually of high quality and reliable. It is also cost effective to collect naturally occurring evidence
- Taken from previous achievements – the candidate may be able to bring forward evidence from previous work experience to show that they are still competent to the standard
- Evidence of prior achievement can be used when it can be shown to support a judgment that the candidate can still achieve the standard. So, the assessor must be satisfied that the evidence of prior achievement is sufficiently reliable to justify saying that the candidate is currently competent
- Simulated – from circumstances specially designed to enable the candidate's performance to be assessed. Simulation is not acceptable

The exceptions this are:

- Dealing with emergencies
- Dealing with accidents
- Certain pre-approved real time simulators
- Limited other procedures that cannot be practically performed in the workplace, and for which sufficient evidence can be collected through other means

NB: It is not always possible or feasible to collect naturally occurring evidence. It is likely that some simulation may be needed, when it may take too long to wait for the evidence to arise e.g., it may be an aspect of performance which occurs infrequently. An example of this may be evidence of how to deal with emergencies i.e., it makes sense to look for evidence from sources other than naturally occurring ones, rather than for, say, waiting for the building to burn down. Centres must obtain GQA EV approval prior to the use of simulation.

Knowledge evidence

Being able to achieve a standard requires the ability to put knowledge to work. The qualification and / or unit of credit indicates the knowledge each person should use if they are to perform competently.

It should not be necessary to test all of the candidate's knowledge separately; however, any exception to this would be detailed in the relevant Assessment Strategy. Performance evidence could show that the candidate knows what he or she is doing. When this is not the case, or if the assessor is not convinced from the performance evidence, it may be necessary to check the individual's knowledge separately.

Oral or written assessments must clearly provide a suitable means of checking the breadth and depth of an individual's knowledge. Assessors will need to judge the best mix of knowledge evidence according to individual circumstances. Knowledge evidence is useful when deciding the quality of performance evidence but must not be used in isolation to judge competence or as an alternative to performance evidence. Care must be taken that candidate evidence is auditable and verifiable.

NB: These Qualification implementation guidelines are generic across the full range of GQA qualifications. Further guidance on acceptable evidence on each qualification will be found in the Introduction to the Qualification section of the candidate booklet.

Candidate Declaration

Candidate Name.....

Centre/Company Name.....

Assessor(s) Name(s).....

I acknowledge receipt of this copy of GQA qualification booklet. The unit structure provides information on which units must be achieved to be awarded the qualification. The individual units detail the necessary requirements etc. that I must achieve.

I understand that I will have an important role in preparing for and planning assessments and with guidance from the Assessor.

I will collect and record relevant evidence.

I have been informed of the appeals system, should I want to appeal against any part of the assessment process.

I understand the assessments will be carried out regarding the company's/centre's Equal Opportunities Policy.

Candidate signature.....

Date.....

Conforming to general health, safety and welfare in the workplace							
GQA Ref	641	Regulatory Ref	A/503/1170	Level	1	Credit Value	2
Aims The aim of this unit is to ensure that the Candidate has the skills and knowledge required to work safely in the Construction Industry, in accordance with organisation guidance, legislation and statutory requirements. Candidates must understand safety and warning notices, potential hazards, risk assessments, health risks and the recording and reporting of all Health and Safety related matters. Knowledge of protective and Health and Safety control equipment, accident and emergency procedures including evacuation and types of fire extinguishers are also required. This knowledge must cover the safety of the public as well as site personnel and resources. All work carried out must also comply with legislation that covers the disposal of waste or consumable items.							
Assessment Guidance Assessors for this unit must have verifiable, current industry experience and a sufficient depth of relevant occupational expertise and knowledge. All criteria must be assessed, and evidence must be auditable.							
Learning outcome; The learner will:	Assessment criteria: The learner can:	Evidence Ref No.					
		1	2	3			
1. Comply with all workplace health, safety and welfare legislation requirements	1.1 Comply with information from workplace inductions and any health, safety and welfare briefings attended relevant to the occupational area						
	1.2 Comply with information from workplace inductions and any health, safety and welfare briefings attended relevant to the occupational area						
	1.3 Comply with statutory requirements, safety notices and warning notices displayed within the workplace and/or on equipment						
	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: - collective protective measures - personal protective equipment (PPE) - respiratory protective equipment (RPE) - local exhaust ventilation (LEV)						
	1.5 State how the health and safety control equipment relevant to the work should be used in accordance with the given instructions						

	1.6 State which types of health, safety and welfare legislation, notices and warning signs are relevant to the occupational area and associated equipment			
	1.7 State why health, safety and welfare legislation, notices and warning signs are relevant to the occupational area			
	1.8 State how to comply with control measures that have been identified by risk assessments and safe systems of work			
2. Recognise hazards associated with the workplace that have not been previously controlled and report them in accordance with organisational procedures	2.1 Report any hazards created by changing circumstances within the workplace in accordance with organisational procedures			
	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			
	2.3 List the current Health and Safety Executive top ten safety risks			
	2.4 List the current Health and Safety Executive top five health risks			
	2.5 State how changing circumstances within the workplace could cause hazards			
	2.6 State the methods used for reporting changed circumstances, hazards and incidents in the workplace			
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: - 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			
4. Work responsibly to contribute to workplace health, safety and welfare whilst carrying out work in the relevant occupational area	4.1 Demonstrate behaviour which shows personal responsibility for general workplace health, safety and welfare			
	4.2 State how personal behaviour demonstrates responsibility for general workplace health, safety and welfare, in relation to: - 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			
	4.3 Give examples of how the behaviour and actions of individuals could affect others within the workplace			
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: - during the working day - on completion of the day's work - for unauthorised personnel (other operatives and the public) - for theft			
	5.2 State how security arrangements are implemented in relation to the workplace, the public, site personnel and resources			

Assessor Comments/Feedback

Conforming to productive working practices in the workplace							
GQA Ref	642	Regulatory Ref	J/503/1169	Level	2	Credit Value	3
Unit Aims The aim of this unit is to ensure that the candidate has the skills and knowledge required to communicate with colleagues, management and customers to plan, implement and record information in the Construction working environment. This includes the use and completion of documentation in line with Organisational guidelines, meeting deadlines and specifications while maintaining effective working relationships. Candidates will also have to understand the importance of working relationships have on productive working and how to ensure equality and diversity principles are applied when working and communicating with others. Candidates must also understand how work activities can make a positive contribution to the environment, including knowledge of low and zero carbon requirements.							
Assessment Guidance Assessors for this unit must have verifiable, current industry experience and a sufficient depth of relevant occupational expertise and knowledge. All criteria must be assessed, and evidence must be auditable.							
Learner Outcomes - The learner will:	Assessment Criteria - The learner can:		Evidence Ref Number				
			1	2	3		
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						
	1.3 Describe how to use different methods of communication to ensure that the work carried out is productive						
2. Follow organisational procedures to plan the sequence of work.	2.1 Interpret relevant information from organisational procedures 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						
	2.3 Describe how organisational procedures are applied to ensure work is planned and carried out productively, in relation to: • 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			
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: • job cards • worksheets • material/resource lists • time sheets.			
	3.3 Explain the reasons for ensuring documentation is completed clearly and within given timescales.			
4. Maintain good working relationships when conforming to productive working practices.	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			
	4.2 Apply the principles of equality and diversity and respect the needs of individuals when communicating and working with others			
	4.3 Describe how to maintain good working relationships, in relation to: • individuals • customer and operative • operative and line management • own and other occupations			
	4.4 Describe why it is important to work effectively with line management, colleagues and customers			
	4.5 Describe how working relationships could influence productive working			
	4.6 Describe how to apply principles of equality and diversity when communicating and working with others			
<u>Assessor Comments/Feedback</u>				

Moving, Handling and Storing Resources in the Workplace							
GQA Ref	643	Regulatory Ref	F/503/1171	Level	2	Credit Value	5
Unit Aims The aim of this unit is to ensure that candidates have the skills and knowledge required to move, handle and store construction related materials, e.g., sheet material, loose material, bagged or wrapped material, fragile material, tools and equipment, components or liquids in accordance with safe working practices, legislation and organisational guidance on safety and security. Candidates must have knowledge of safe use of lifting and handling aids, containers and fixing, holding and securing systems and how to dispose of waste and packaging in accordance with legislation. All work must be carried out in accordance with safe working practices, minimising the risk of damage to the materials and surrounding area. Candidates must understand their responsibilities and the hazards associated with this type of work including how the needs of other occupations must be considered when moving resources, the accident and emergency procedures, and the different types and purposes of fire extinguishers. Finally, candidates must understand the types of problems that can occur when carrying out this type of work and the organisational procedures for dealing with them							
Assessment Guidance Assessors for this unit must have verifiable, current industry experience and a sufficient depth of relevant occupational expertise and knowledge. All criteria must be assessed, and evidence must be auditable							
Learner Outcomes - The learner will:		Assessment Criteria - The learner can:		Evidence Ref Number			
				1	2	3	
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 Describe the different types of technical, product and regulatory information, their source and how they are interpreted					
		1.5 Describe how to obtain information relating to using and storing lifting aids and equipment					
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: 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			
3. Describe how and when the different types of fire extinguishers, relevant to the given occupation, are used in accordance with legislation and official guidance	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			
	3.2 Use lifting aids safely as appropriate to the work			
	3.3 Protect the environment in accordance with safe working practices as appropriate to the work			
	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: • collective protective measures • personal protective equipment (PPE) • respiratory protective equipment (RPE) • local exhaust ventilation (LEV)			
	3.5 Describe how the health and safety control equipment relevant to the work should be used in accordance with the given instructions			
	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			
4 Select the required quantity and quality of resources for the methods of work to move, handle and/or store occupational resources	4.1 Select the relevant resources to be moved, handled and/or stored, associated with own work			
	4.2 Describe the characteristics, quality, uses, sustainability, limitations and defects associated with the occupational resources in relation to: • lifting and handling aids • container(s)			

	fixing, holding and securing systems			
	4.3 Describe how the resources should be handled and how any problems associated with the resources are reported			
	4.4 Explain why the organisational procedures have been developed and how they are used for the selection of required resources			
	4.5 Describe any potential hazards associated with the resources and methods of work			
5 Prevent the risk of damage to occupational resources and surrounding environment when moving, handling and/or storing resources.	5.1 Protect occupational resources and their surrounding area from damage in accordance with safe working practices and organisational procedures			
	5.2 Dispose of waste and packaging in accordance with legislation			
	5.3 Maintain a clean workspace when moving, handling or storing resources			
	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 moving, handling and/or storing resources	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: - progress charts, timetables and estimated times - organisational procedures for reporting circumstances which will affect the work programme			
7 Comply with the given occupational resource information to move, handle and/or store resources to the required guidance	7.1 Demonstrate the following work skills when moving, handling and/or storing occupational resources: Moving, positioning, storing, securing and/or using lifting aids and kinetic lifting techniques			

	7.2 .2 Move, handle and/or store occupational resources to meet product information and organisational requirements relating to three of the following: • Sheet material • Loose material • Bagged or wrapped material • Fragile material • Tools and equipment • Components • Liquids			
	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			
	7.4 Describe the needs of other occupations when moving, handling and/or storing resources			
<u>Assessor Comments/Feedback</u>				

Setting out and marking positions for underpinning sequence in the workplace							
GQA Ref	167v2	Regulatory Ref	H/650/8769	Level	3	Credit Value	13
Unit Aims The aim of this unit is to ensure candidates have the knowledge and skills to set out for the underpinning sequence and transfer lines, plumbs and levels to given working instructions apply safe and healthy work practices, follow procedures, report problems and establish the authority needed to rectify them. This can include being able to identify installation quality requirements, conform to agreed specification, confirm base line datum and design requirements, ensure the calibration of measuring and levelling equipment, apply setting out and sequencing data from drawings and method statements, set out from base line datum for underpinning sequences, mark installation points, lines, levels, plumb, depths (vertical and horizontal) and angles, check site markings against quality requirements, recognise and determine when additional specialist skills and knowledge are required and report accordingly, determine specific requirements for structures of special interest, traditional build (pre-1919) and historical, significance, use hand tools, portable power tools and equipment, use setting out equipment and materials, work at height and use access equipment.							
Assessment Guidance This unit must be assessed in a work environment and in accordance with the Construction Skills ‘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.							
Learner Outcomes - The learner will:		Assessment Criteria - The learner can:		Evidence Ref Number			
				1	2	3	
1 Interpret the given information relating to the work and resources when setting out and marking positions for underpinning sequence		1.1 Interpret and extract relevant information from drawings, sequencing, specifications, schedules, method statements, risk assessments and manufacturers' information					
		1.2 Comply with information and/or instructions derived from risk assessments and method statements					
		1.3 Describe the organisational procedures developed to report and rectify inappropriate information and unsuitable resources and how they are implemented					
		1.4 Describe different types of information, their source and how they are interpreted in relation to: drawings, sequencing, specifications, schedules method statements, risk assessments, manufacturers' information, current regulations governing buildings and official guidance associated with					
2 Know how to comply with relevant legislation and official guidance when		2.1 Describe their responsibilities regarding potential accidents, health hazards and the environment, whilst working:					

setting out and marking positions for underpinning sequence	in the workplace, below ground level, in confined spaces, at height, with tools and equipment, with materials and substances, with movement and 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			
3 Maintain safe and healthy working practices when setting out and marking positions for underpinning sequence	3.1 Use health and safety control equipment safely and comply with the methods of work to carry out the activity in accordance with current legislation and organisational requirements when setting out and marking positions for underpinning sequence			
	3.2 Demonstrate compliance with given information and relevant legislation when setting out and marking positions for underpinning sequence in relation to the following: - safe use of access equipment - safe use, storage and handling of materials, tools and equipment - specific risks to health			
	3.3 Explain why and when health and safety control equipment, identified by the principles of prevention, should be used, relating to setting out and marking positions for underpinning sequence and the types, purpose and limitations of each type, the work situation and general work environment, in relation to: - collective protective measures - personal protective equipment (PPE) - respiratory protective equipment (RPE) - local exhaust ventilation (LEV)			
	3.4 Describe how the relevant health and safety control equipment should be used in accordance with the given working instructions			
	3.5 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 activities			

4 Select the required quantity and quality of resources for the methods of work to set out and mark positions for underpinning sequence	4.1 Select resources associated with own work in relation to materials, components, fixings, tools, equipment and setting out equipment			
	4.2 Describe the characteristics, quality, uses, sustainability, limitations and defects associated with the resources in relation to: - timber and fixings - marking equipment (pegs, pins, lines, markers, paints) - hand tools portable power tools and equipment - setting out equipment (levels, global positioning systems, laser equipment and plumb lines).			
	4.3 Describe how the resources should be used correctly and how problems associated with the resources are reported			
	4.4 Explain why the organisational procedures have been developed and how they are used for the selection of required resources			
	4.5 Describe any potential hazards associated with the resources and methods of work			
	4.6 Describe the methods of calculation associated with the method and procedure to set out and mark positions for underpinning sequence			
5 Minimise the risk of damage to the work and surrounding area when setting out and marking positions for underpinning sequence	5.1 Protect the work and its surrounding area from damage in accordance with safe working practices and organisational procedures			
	5.2 Maintain a clean workspace			
	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, manufacturers' information, statutory regulations and official guidance			
6 Complete the work within the allocated time when setting out and	6.1 Demonstrate completion of the work within the allocated time			

marking positions for underpinning sequence	6.2 Describe the purpose of the work programme and explain why deadlines should be kept in relation to: • types of progress charts, timetables and estimated times • organisational procedures for reporting circumstances which will affect the work programme			
7 Comply with the given contract information to set out and mark positions for underpinning sequence to the required specification	7.1 Demonstrate the following work skills when setting out and marking positions for underpinning sequence: • measuring, marking out, levelling, plumb, positioning and securing			
	7.2 Use and maintain hand tools, portable power tools and ancillary equipment			
	7.3 Set out for the underpinning sequence and transfer lines, plumbs and levels to given working instructions			
	7.4 Describe how to apply safe and healthy work practices, follow procedures, report problems and establish the authority needed to rectify them, to: • identify installation quality requirements • conform to agreed specification • confirm base line datum and design requirements • ensure the calibration of measuring and levelling equipment • apply setting out and sequencing data from drawings and method statements • set out from base line datum for underpinning sequences • mark installation points, lines, levels, plumb, depths (vertical and horizontal) and angles • check site markings against quality requirements • recognise and determine when additional specialist skills and knowledge are required and report accordingly • determine specific requirements for structures of special interest, traditional build (pre-1919) and historical significance • use hand tools, portable power tools and equipment			

	• use setting out equipment and materials • work at height • use access equipment			
	7.5 Describe the needs of other occupations and how to effectively communicate within a team when setting out and marking positions for underpinning sequence			
	7.6 Describe how to maintain the tools and equipment used when setting out and marking positions for underpinning sequence			
<u>Assessor Comments/Feedback</u>				

Excavating for underpinning in the workplace							
GQA Ref	168v2	Regulatory Ref	L/650/8770	Level	2	Credit Value	17
Unit Aims The aim of this unit is to ensure candidates can apply safe and healthy work practices including following procedures, report problems and establish the authority needed to rectify them to excavate pits and trenches for underpinning to contractor's working instructions . They will also be able to identify installation quality requirements, conform to agreed specification, recognise the sequence of excavation, excavate pits and trenches to line and level, meet design and quality requirements including angles and depth. They will also be able to demonstrate how to excavate in sequence, recognise changes in ground conditions and soil types, support excavations, temporary earth work support and edge protection, locate, mark and protect services, remove water, store and remove spoil and excavated materials. In addition to this they will be able to demonstrate they are able to install, operate and work with conveyor belt systems, work with, around and near plant and machinery, direct and guide the operations of plant and machinery, load excavated materials onto transportation, recognise and determine when additional specialist skills and knowledge are required and report accordingly, determine specific requirements for structures of special interest, traditional build (pre-1919) and historical significance, use hand tools, portable power tools and equipment, work at height and use access equipment.							
Assessment Guidance This unit must be assessed in a work environment and in accordance with the Construction Skills '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							
Learner Outcomes - The learner will:		Assessment Criteria - The learner can:		Evidence Ref Number			
				1	2	3	
1 Interpret the given information relating to the work and resources when excavating for underpinning		1.1 Interpret and extract relevant information from drawings, specifications, schedules, sequencing, method statements, risk assessments and manufacturers' information					
		1.2 Comply with information and/or instructions derived from risk assessments and method statements					
		1.3 Describe the organisational procedures developed to report and rectify inappropriate information and unsuitable resources and how they are implemented					
		1.4 Describe different types of information, their source and how they are interpreted in relation to: - drawings, specifications, schedules - method statements, risk assessments,					

	manufacturers' information, current regulations governing buildings and official guidance associated with underpinning			
2 Know how to comply with relevant legislation and official guidance when excavating for underpinning	2.1 Describe their responsibilities regarding potential accidents, health hazards and the environment, whilst working: in the workplace, below ground level, in confined spaces, at height, with tools and equipment, with materials and substances, with movement and 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			
3 Maintain safe and healthy working practices when excavating for underpinning	3.1 Use health and safety control equipment safely and comply with the methods of work to carry out the activity in accordance with current legislation and organisational requirements when excavating for underpinning			
	3.2 Demonstrate compliance with given information and relevant legislation when excavating for underpinning in relation to the following: - safe use of access equipment - safe use, storage and handling of materials, tools and equipment - specific risks to health			
	3.3 Explain why and when health and safety control equipment, identified by the principles of prevention, should be used, relating to excavating for underpinning, and the types, purpose and limitations of each type, the work situation and general work environment, in relation to: - collective protective measures - personal protective equipment (PPE) - respiratory protective equipment (RPE)			

	local exhaust ventilation (LEV) (including the monitoring of gas types and levels)			
	3.4 Describe how the relevant health and safety control equipment should be used in accordance with the given working instructions			
	3.5 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 activities			
4 Select the required quantity and quality of resources for the methods of work to excavate for underpinning	4.1 Select resources associated with own work in relation to materials, components, fixings, tools and equipment			
	4.2 Describe the characteristics, quality, uses, sustainability, limitations and defects associated with the resources in relation to: - excavation support, fixings, fittings - plant and machinery - hand tools, portable power tools and equipment			
	4.3 Describe how the resources should be used correctly and how problems associated with the resources are reported			
	4.4 Explain why the organisational procedures have been developed and how they are used for the selection of required resources			
	4.5 Describe any potential hazards associated with the resources and methods of work			
	4.6 Describe the methods of calculating quantity, length, area and wastage associated with the method and procedure to excavate for underpinning			
5 Minimise the risk of damage to the work and surrounding area when excavating for underpinning	5.1 Protect the work and its surrounding area from damage in accordance with safe working practices and organisational procedures			
	5.2 Install temporary earth work support and edge protection			
	5.3 Maintain a clean workspace			
	5.4 Dispose of waste in accordance with current legislation			
	5.5 Describe how to protect work from the damage and the purpose of protection in			

	relation to general workplace activities, other occupations and adverse weather conditions			
	5.6 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 excavating for underpinning	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: - types of progress charts, timetables and estimated times - organisational procedures for reporting circumstances which will affect the work programme			
7 Comply with the given contract information to excavate for underpinning to the required specification	7.1 Demonstrate the following work skills when excavating for underpinning: measuring, marking out, excavating, positioning and securing			
	7.2 Use and maintain hand tools, portable power tools and ancillary equipment			
	7.3 Excavate pits and trenches for underpinning to contractor's working instructions			
	7.4 Utilise excavation plant, machinery and equipment			
	7.5 Locate, mark and protect services			
	7.6 Describe how to apply safe and healthy work practices, follow procedures, report problems and establish the authority needed to rectify them, to: - identify installation quality requirements - conform to agreed specification - recognise the sequence of excavation - excavate pits and trenches to line and level - meet design and quality requirements, angles and depth - excavate in sequence - recognise changes in ground conditions and soil types - support excavations, temporary earth work support and edge protection			

	• locate, mark and protect services • remove water • store and remove spoil and excavated materials • install, operate and work with conveyor belt systems • work with, around and near plant and machinery • direct and guide the operations of plant and machinery • load excavated materials onto transportation • recognise and determine when additional specialist skills and knowledge are required and report accordingly • determine specific requirements for structures of special interest, traditional build (pre-1919) and historical significance • use hand tools, portable power tools and equipment • work at height • use access equipment			
	7.7 Describe the needs of other occupations and how to effectively communicate within a team when excavating for underpinning			
	7.8 Describe how to maintain the tools and equipment used when excavating for underpinning			
<u>Assessor Comments/Feedback</u>				

Excavating and providing temporary support to pits and trenches in the workplace (Unit Endorsements: One of the following endorsements required: Timber, Trench sheet, Frames, Support systems)							
GQA Ref	173v3	Regulatory Ref	M/650/8771	Level	2	Credit Value	14
Unit Aims The aim of this unit is to ensure the candidate can excavate and provide temporary support, to given working instructions, to pits and trenches with one of the following - timber - trench sheet - frames - support systems (e.g., skeleton, open and closed boarding, drag box, trench box, coffer dam, diaphragm wall or secant support) They will be able to follow installation quality requirements and conform to agreed specification. Candidates will also be able to work around protected services as well as work with, around and near plant and Machinery. Candidates will also recognise and be able to determine when additional specialist skills and knowledge are required and report, accordingly.							
Assessment Guidance This unit must be assessed in a work environment and in accordance with the Construction Skills '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 the endorsements detailed within the relevant NVQ Structure. Please refer to the NVQ Structure applicable to the qualification/occupational area in which the candidate is being assessed.							
Learner Outcomes - The learner will:		Assessment Criteria - The learner can:		Evidence Ref Number			
				1	2	3	
1 Interpret the given information relating to the work and resources when excavating and providing temporary support to pits and trenches		1.1 Interpret and extract relevant information from drawings, specifications, schedules method statements, risk assessments and manufacturers' information					
		1.2 Comply with information and/or instructions derived from risk assessments and method statements					
		1.3 Describe the organisational procedures developed to report and rectify inappropriate information and unsuitable resources and how they are implemented					

	1.4 Describe different types of information, their source and how they are interpreted in relation to: drawings, specifications, schedules, method statements, risk assessments, manufacturers' information, current regulations governing buildings and official guidance associated with excavation and provision of temporary support to pits and trenches			
2 Know how to comply with relevant legislation and official guidance when excavating and providing temporary support to pits and trenches	2.1 Describe their responsibilities regarding potential accidents, health hazards and the environment whilst working: in the workplace, below ground level, in confined spaces, at height, with tools and equipment, with materials and substances, with movement and 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			
3 Maintain safe and healthy working practices when excavating and providing temporary support to pits and trenches	3.1 Use health and safety control equipment safely and comply with the methods of work to carry out the activity in accordance with current legislation and organisational requirements when excavating and providing temporary support to pits and trenches			
	3.2 Demonstrate compliance with given information and relevant legislation when excavating and providing temporary support to pits and trenches in relation to the following: - safe use of access equipment - safe use, storage and handling of materials, tools and equipment - specific risks to health			
	3.3 Explain why and when health and safety control equipment, identified by the principles of prevention, should be used, relating to excavating and providing temporary support to pits and trenches, and the types, purpose and			

	limitations of each type, the work situation and general work environment, in relation to: • collective protective measures • personal protective equipment (PPE) • respiratory protective equipment (RPE) • local exhaust ventilation (LEV) (including the monitoring of gas types and levels)			
	3.4 Describe how the relevant health and safety control equipment should be used in accordance with the given working instructions			
	3.5 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 activities			
4 Select the required quantity and quality of resources for the methods of work to excavate and provide temporary support to pits and trenches	4.1 Select resources associated with own work in relation to materials, components, fixings, tools and equipment			
	4.2 Describe the characteristics, quality, uses, sustainability, limitations and defects associated with the resources in relation to: • timber support systems, frames, trench sheets, • support systems including skeleton, open and closed boarding, drag box, trench box, coffer dam, diaphragm wall and secant support • hand tools, portable power tools, plant, machinery and equipment			
	4.3 Describe how the resources should be used correctly and how problems associated with the resources are reported			
	4.4 Explain why the organisational procedures have been developed and how they are used for the selection of required resources			
	4.5 Describe any potential hazards associated with the resources and methods of work			
	4.6 Describe the methods of calculating quantity, length, area, volume and wastage associated with the method and procedure to excavate and provide temporary support to pits and trenches			
5 Minimise the risk of damage to the work and surrounding area when	5.1 Protect the work and its surrounding area from damage in accordance with safe working practices and organisational procedures			

excavating and providing temporary support to pits and trenches	5.2 Maintain a clean workspace			
	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, manufacturers' information, statutory regulations and official guidance			
6 Complete the work within the allocated time when excavating and providing temporary support to pits and trenches	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: - types of progress charts, timetables and estimated times - organisational procedure for reporting circumstances which will affect the work programme			
7 Comply with the given contract information to excavate and provide temporary support to pits and trenches to the required specification	7.1 Demonstrate the following work skills when excavating and providing temporary support to pits and trenches: measuring, marking out, excavating, positioning and securing			
	7.2 Use and maintain hand tools, portable power tools and ancillary equipment			
	7.3 Excavate and provide temporary support, to given working instructions, to pits and trenches with one of the following - timber - trench sheet - frames - support systems (e.g., skeleton, open and closed boarding, drag box, trench box, coffer dam, diaphragm wall or secant support)			
	7.4 Describe how to apply safe and healthy work practices, follow procedures, report problems and establish the authority needed to rectify them, to:			

	• identify installation quality requirements • conform to agreed specification • confirm and work to agreed designs • recognise changes in ground and soil conditions • visually inspect excavations prior to entry • recognise side wall pressure, pressure from existing structures and hydrostatic pressure to depth ratios • support excavations with timber, trench sheets, frames and support systems including skeleton, open and closed boarding, drag box, trench box, coffer dam, diaphragm wall and secant support • work around protected services • work with, around and near plant and machinery • direct and guide the operations of plant and machinery • remove water • work in confined spaces • recognise the potential effects of installing temporary supports on adjacent structures • protect adjacent and neighbouring structures • assess and adjust propping systems • reduce voids behind supports, backfill, wedges and grouts • install and secure edge protection • recognise and determine when additional specialist skills and knowledge are required and report accordingly • determine specific requirements for structures of special interest, traditional build (pre-1919) and historical significance • use hand tools, portable power tools and equipment • work at height • use access equipment			
	7.5 Describe the needs of other occupations and how to effectively communicate within a team when excavating and providing temporary support to pits and trenches			
	7.6 Describe how to maintain the tools and equipment used when excavating and providing temporary support to pits and trenches			

Assessor Comments/Feedback

Erecting and striking underpinning formwork in the workplace (Unit endorsements: One of the following endorsements required (i.e., own area of work): Excavated underpinning, Basement Construction – Excavated Underpinning)							
GQA Ref	161v2	Regulatory Ref	R/650/8772	Level	2	Credit Value	9
Unit Aims The aim of this unit is to ensure the candidate can erect and strike formwork to given working instructions to underpin structures for one of the following: - structural underpinning - basement construction Candidates must apply safe and healthy work practices, follow procedures, report problems and establish the authority needed to rectify them. They will also be able to identify installation quality requirements and conform to agreed specification. Candidates will be able to recognise design requirements. Candidates will be able to recognise and determine when additional specialist skills and knowledge are required and report accordingly.							
Assessment Guidance This unit must be assessed in a work environment and in accordance with the Construction Skills '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 the endorsements detailed within the relevant NVQ Structure. Please refer to the NVQ Structure applicable to the qualification/occupational area in which the candidate is being assessed.							
Learner Outcomes - The learner will:		Assessment Criteria - The learner can:		Evidence Ref Number			
				1	2	3	
1 Interpret the given information relating to the work and resources when erecting and striking underpinning formwork		1.1 Interpret and extract relevant information from drawings, specifications, schedules method statements, risk assessments and manufacturers information					
		1.2 Comply with information and/or instructions derived from risk assessments and method statements					
		1.3 Describe the organisational procedures developed to report and rectify inappropriate information and unsuitable resources and how they are implemented					
		1.4 Describe different types of information, their source and how they are interpreted in relation to:					

	drawings, specifications, schedules method statements, risk assessments, manufacturers' information, current regulations governing buildings and official guidance associated with underpinning			
2 Know how to comply with relevant legislation and official guidance when erecting and striking underpinning formwork	2.1 Describe their responsibilities regarding potential accidents, health hazards and the environment, whilst working: in the workplace, below ground level, at ground level, in confined spaces, at height, with tools and equipment, with materials and substances, with movement and 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			
3 Maintain safe and healthy working practices when erecting and striking underpinning formwork	3.1 Use health and safety control equipment safely and comply with the methods of work to carry out the activity in accordance with current legislation and organisational requirements when erecting and striking underpinning formwork			
	3.2 Demonstrate compliance with given information and relevant legislation when erecting and striking underpinning formwork in relation to the following: - safe use of access equipment - safe use, storage and handling of materials, tools and equipment - specific risks to health			
	3.3 Explain why and when health and safety control equipment, identified by the principles of prevention, should be used, relating to erecting and striking underpinning formwork, and the types, purpose and limitations of each type, the work situation and general work environment, in relation to: - collective protective measures - personal protective equipment (PPE) - respiratory protective equipment (RPE)			

	local exhaust ventilation (LEV) (including the monitoring of gas types and levels)			
	3.4 Describe how the relevant health and safety control equipment should be used in accordance with the given working instructions			
	3.5 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 activities			
4 Select the required quantity and quality of resources for the methods of work to erect and strike underpinning formwork	4.1 Select resources associated with own work in relation to materials, components, fixings, tools and equipment			
	4.2 Describe the characteristics, quality, uses, sustainability, limitations and defects associated with the resources in relation to: - formwork, timber and non-timber-based sheet material, tie systems, proprietary soldiers and walings, release agents, fixings and fittings - hand tools portable power tools and equipment			
	4.3 Describe how the resources should be used correctly and how problems associated with the resources are reported			
	4.4 Explain why the organisational procedures have been developed and how they are used for the selection of required resources			
	4.5 Describe any potential hazards associated with the resources and methods of work			
	4.6 Describe the methods of calculating quality, length, area and wastage associated with the methods and procedure to erect a strike underpinning formwork			
5 Minimise the risk of damage to the work and surrounding area when erecting and striking underpinning formwork	5.1 Protect the work and its surrounding area from damage in accordance with safe working practices and organisational procedures			
	5.2 Maintain a clean workspace			
	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, manufacturers' information, statutory regulations and official guidance			
6 Complete the work within the allocated time when erecting and striking underpinning formwork	6.1 Demonstrate completion of the work withing the allocated time			
	6.2 Describe the purpose of the work programme and explain why deadlines should be kept in relation to: • types of progress charts, timetables and estimated times • organisational procedure for reporting circumstances which will affect the work programme			
7 Comply with the given contract information to erect and strike underpinning formwork to the required specification	7.1 Demonstrate the following work skills when erecting and striking underpinning formwork: • measuring, marking out, fitting, levelling, plumb, finishing, removing, positioning and securing			
	7.2 Use and maintain hand tools, portable power tools and ancillary equipment			
	7.3 Erect and strike formwork to given working instructions to underpin structures for one of the following: • structural underpinning • basement construction			
	7.4 Describe how to apply safe and healthy work practices, follow procedures, report problems and establish the authority needed to rectify them, to: • identify installation quality requirements • conform to agreed specification • erect formwork for columns, walls, beams, floor slabs, including kickers, stop ends and for pre-cast units • produce and assemble formwork from timber and timber-based products • assemble proprietary formwork systems • attach and remove soldiers and walings • recognise design requirements for the reduction of the effects of hydrostatic pressure			

	• position and strike box-outs and bolt boxes, grout checks, level controls, angle fillets and features • position and remove tie systems, fixtures and fittings • install water stops • apply release agents • recognise and determine when additional specialist skills and knowledge are required and report accordingly • determine specific requirements for structures of special interest, traditional build (pre-1919) and historical significance • use hand tools, portable power tools and equipment • work at height • use access equipment			
	7.5 Describe the needs of other occupations and how to effectively communicate within a team when erecting and striking underpinning formwork			
	7.6 Describe how to maintain the tools and equipment used when erecting and striking underpinning formwork			
<u>Assessor Comments/Feedback</u>				

Installing reinforcement steel for underpinning in the workplace							
GQA Ref	164v2	Regulatory Ref	T/650/8773	Level	2	Credit Value	9
Unit Aims The aim of this unit is to apply safe and healthy work practices, follow procedures, report problems and establish the authority needed to rectify them to install in-situ and/or prefabricated reinforcement steel to support concrete structures for underpinning to given working instructions incorporating of the following: • mesh • steel bar • spacers • cover blocks • ties Candidates will also be able to identify installation quality requirements while conforming to agreed specifications. Individuals will also be able to position and support prefabricated cages, form associated wire ties to tie and secure mesh and steel bar reinforcement, and to tie and secure cover blocks and spacers. Assessment Guidance This unit must be assessed in a work environment and in accordance with the Construction Skills '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.							
Learner Outcomes - The learner will:		Assessment Criteria - The learner can:		Evidence Ref Number			
				1	2	3	
1 Interpret the given information relating to the work and resources when installing reinforcement steel for underpinning		1.1 Interpret and extract relevant information from drawings, specifications, schedules method statements, risk assessments and manufacturers' information					
		1.2 Comply with information and/or instructions derived from risk assessments and method statements					
		1.3 Describe the organisational procedures developed to report and rectify inappropriate information and unsuitable resources and how they are implemented					
		1.4 Describe different types of information, their source and how they are interpreted in relation to: • drawings, specifications, schedules, shape codes, method statements, risk assessments, manufacturers'					

	information, oral and written instructions and official guidance relating to steel fixing for underpinning			
2 Know how to comply with relevant legislation and official guidance when installing reinforcement steel for underpinning	2.1 Describe their responsibilities regarding potential accidents, health hazards and the environment, whilst working: in the workplace, below ground level, in confined spaces, at height, with tools and equipment, with materials and substances, with movement and 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			
3 Maintain safe and healthy working practices when installing reinforcement steel for underpinning	3.1 Use health and safety control equipment safely and comply with the methods of work to carry out the activity in accordance with current legislation and organisational requirements when installing reinforcement steel for underpinning			
	3.2 Demonstrate compliance with given information and relevant legislation when installing reinforcement steel for underpinning in relation to the following: - safe use of access equipment - safe use, storage and handling of materials, tools and equipment - specific risks to health			
	3.3 Explain why and when health and safety control equipment, identified by the principles of prevention, should be used, relating to installing reinforcement steel for underpinning, and the types, purpose and limitations of each type, the work situation and general work environment, in relation to: - collective protective measures - personal protective equipment (PPE) - respiratory protective equipment (RPE)			

	local exhaust ventilation (LEV) (including the monitoring of gas types and levels)			
	3.4 Describe how the relevant health and safety control equipment should be used in accordance with the given working instructions			
	3.5 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 activities			
4 Select the required quantity and quality of resources for the methods of work to install reinforcement steel for underpinning	4.1 Select resources associated with own work in relation to materials, components, fixings, tools and equipment			
	4.2 Describe the characteristics, quality, uses, sustainability, limitations and defects associated with the resources in relation to: - prefabricated cages, wire mesh, reinforcement steel, tie wire, ancillary steel fixing components - hand tools, portable power tools and equipment			
	4.3 Describe how the resources should be used correctly and how problems associated with the resources are reported			
	4.4 Explain why the organisational procedures have been developed and how they are used for the selection of required resources			
	4.5 Describe any potential hazards associated with the resources and methods of work			
	4.6 Describe the methods of calculating quantity, length, area and wastage associated with the method and procedure to install reinforcement steel for underpinning			
5 Minimise the risk of damage to the work and surrounding area when installing reinforcement steel for underpinning	5.1 Protect the work and its surrounding area from damage in accordance with safe working practices and organisational procedures			
	5.2 Maintain a clean workspace			
	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, organisations procedure, manufacturers' information, statutory regulations and official guidance			
6 Complete the work within the allocated time when installing reinforcement steel for underpinning	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: - types of progress charts, timetables and estimated times - organisational procedures for reporting circumstances which will affect progress and the work programme			
7 Comply with the given contract information to install reinforcement steel for underpinning to the required specification	7.1 Demonstrate the following work skills when installing reinforcement steel for underpinning: sorting, measuring, marking out, cutting, fitting, positioning and securing			
	7.2 Use and maintain hand tools, portable power tools and ancillary equipment			
	7.3 Install in-situ and/or prefabricated reinforcement steel to support concrete structures for underpinning to given working instructions incorporating of the following: - mesh - steel bar - spacers - cover blocks - ties			
	7.4 Describe how to apply safe and healthy work practices, follow procedures, report problems and establish the authority needed to rectify them, to: - identify installation quality requirements - conform to agreed specification - prepare mesh and steel bar reinforcement - position and support mesh and steel bar reinforcement (e.g., chairs, cover blocks)			

	• position and support prefabricated cages • form associated wire ties to tie and secure mesh and steel bar reinforcement, and to tie and secure cover blocks and spacers • recognise and determine when additional specialist skills and knowledge are required and report accordingly • determine specific requirements for structures of special interest, traditional build (pre-1919) and historical significance • use hand tools, portable power tools and equipment • work at height • use access equipment			
	7.5 Describe the needs of other occupations and how to effectively communicate within a team when installing reinforcement steel for underpinning			
	7.6 Describe how to maintain the tools and equipment used when installing reinforcement steel for underpinning			
<u>Assessor Comments/Feedback</u>				

Installing dry packing in the workplace							
GQA Ref	169v2	Regulatory Ref	Y/650/8774	Level	2	Credit Value	17
Unit Aims The outcome of this unit will see individuals being able to successfully describe how to apply safe and healthy work practices, follow procedures, report problems and establish the authority needed to rectify them to prepare and install temporary or permanent support to given working instructions: • cut pockets • jack positions • stool positions • formation • foundations • structural members • dry pack . Candidates will be able to identify installation quality requirements and conform to agreed specifications. They will also be able to cut and form pockets to position jacks, stools and footing pads. Individuals will be able to demonstrate they are able to prepare formations and foundations as well as preparing and mixing dry packs. Assessment Guidance This unit must be assessed in a work environment and in accordance with the Construction Skills '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.							
Learner Outcomes - The learner will:		Assessment Criteria - The learner can:		Evidence Ref Number			
				1	2	3	
1 Interpret the given information relating to the work and resources when installing dry packing		1.1 Interpret and extract relevant information from drawings, specifications, schedules, method statements, risk assessments and manufacturers' information					
		1.2 Comply with information and/or instructions derived from risk assessments and method statements					
		1.3 Describe the organisational procedures developed to report and rectify inappropriate information and unsuitable resources and how they are implemented					

	1.4 Describe different types of information, their source and how they are interpreted in relation to: drawings, specifications, schedules, method statement, risk assessments, manufacturers' information, current regulations governing buildings and official guidance associated with underpinning			
2 Know how to comply with relevant legislation and official guidance when installing dry packing	2.1 Describe their responsibilities regarding potential accidents, health hazards and the environment whilst working: in the workplace, below ground level, in confined spaces, at height, with tools and equipment, with materials and substances, with movement and 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			
3 Maintain safe working practices when installing dry packing	3.1 Use health and safety control equipment safely and comply with the methods of work to carry out the activity in accordance with current legislation and organisational requirements when installing dry packing			
	3.2 Demonstrate compliance with given information and relevant legislation when installing dry packing in relation to the following: - safe use of access equipment - safe use, storage and handling of materials, tools and equipment - specific risks to health			
	3.3 Explain why and when health and safety control equipment, identified by the principles of prevention, should be used, relating to installing dry packing, and the types, purpose and limitations of each type, the work situation and general work environment, in relation to: - collective protective measures - personal protective equipment (PPE)			

	- respiratory protective equipment (RPE) - local exhaust ventilation (LEV) (including the monitoring of gas types and levels)			
	3.4 Describe how the relevant health and safety control equipment should be used in accordance with the given working instructions			
	3.5 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 activities			
4 Select the required quantity and quality of resources for the methods of work to install dry packing	4.1 Select resources associated with own work in relation to materials, components, fixings, tools and equipment			
	4.2 Describe the characteristics, quality, uses, sustainability, limitations and defects associated with the resources in relation to: - jacks, stools, footing pads, shims, packings, cement, aggregates and additives - hand tool, portable power tools and equipment			
	4.3 Describe how the resources should be used correctly and how problems associated with the resources are reported			
	4.4 Explain why the organisational procedures have been developed and how they are used for the selection of required resources			
	4.5 Describe any potential hazards associated with the resources and methods of work			
	4.6 Describe the methods of calculating quantity, length, area and wastage associated with the method and procedure to install dry packing			
5 Minimise the risk of damage to the work and surrounding area when installing dry packing	5.1 Protect the work and its surrounding area from damage in accordance with safe working practices and organisational procedures			
	5.2 Maintain a clean workspace			
	5.3 Dispose of waste in accordance with current legislations			

	5.4 Describe how to protect work from damage and 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 dry packing	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: - types of progress charts, timetables and estimated times - organisational procedures for reporting circumstances which will affect the work programme			
7 Comply with the given contract information to install dry packing to the required specification	7.1 Demonstrate the following work skills when installing dry packing: measuring, marking out, removing, mixing, placing, positioning and securing			
	7.2 Use and maintain hand tools, portable power tools and ancillary equipment			
	7.3 Prepare and install temporary or permanent support to given working instructions: - cut pockets - jack positions - stool positions - formation - foundations - structural members - dry pack			
	7.4 Describe how to apply safe and healthy work practices, follow procedures, report problems and establish the authority needed to rectify them, to: - identify installation quality requirements - conform to agreed specification - cut and form pockets to position jacks, stools and footing pads			

	• prepare formations and foundations and structural members • prepare and mix dry packs, cement and aggregates including additives • place and compact dry pack • select and insert shims • consider the relationship between existing structures, dry packs and new structures • recognise the potential effects of installing dry packs on adjacent structures • protect dry packs for curing • determine the quality of dry packs in accordance with specifications • recognise and determine when specialist skills and knowledge are required and report accordingly • use hand tools, portable power tools and equipment • work at height • use access equipment			
	7.5 Describe the needs of other occupations and how to effectively communicate within a team when installing dry packing			
	7.6 Describe how to maintain the tools and equipment used when installing dry packing			
<u>Assessor Comments/Feedback</u>				

Repairing sub-structure after underpinning in the workplace							
(Unit Endorsements: Two of the following endorsements required: Brickwork, Blockwork, Concrete, Timber, Facings, Linings, Waterproofing systems)							
GQA Ref	171v2	Regulatory Ref	A/650/8775	Level	2	Credit Value	22
Unit Aims The aim of this unit is to be able to describe how to apply safe and healthy work practices, follow procedures, report problems and establish the authority needed to rectify them to repair existing sub-structure to given working instruction for two for the following: • brickwork • blockwork • concrete • timber • facings • linings • waterproofing systems . Candidates will also be able to identify installation quality requirements and conform to agreed specifications. Candidates will also be able to repair existing brick, block, timber, facings, linings and concrete sub-structures, mix concrete, recognise the requirements and criteria for effective drainage, apply waterproofing and install temporary support. Assessment Guidance This unit must be assessed in a work environment and in accordance with the Construction Skills '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 the endorsements detailed within the relevant NVQ Structure. Please refer to the NVQ Structure applicable to the qualification/occupational area in which the candidate is being assessed.							
Learner Outcomes - The learner will:		Assessment Criteria - The learner can:		Evidence Ref Number			
				1	2	3	
1 Interpret the given information relating to the work and resources when repairing sub-structure after underpinning		1.1 Interpret and extract relevant information from drawings, specifications, schedules method statements, risk assessments and manufacturers' information					
		1.2 Comply with information and/or instructions derived from risk assessments and method statements					

	1.3 Describe the organisational procedures developed to report and rectify inappropriate information and unsuitable resources and how they are implemented			
	1.4 Describe different types of information, their source and how they are interpreted in relation to: drawings, specifications, schedules, method statements, risk assessments, manufacturers' information, current regulations governing buildings and official guidance associated with underpinning			
2 Know how to comply with relevant legislation and official guidance when repairing sub-structure after underpinning	2.1 Describe their responsibilities regarding potential accidents, health hazards and the environment, whilst working: in the workplace, below ground level, in confined spaces, at height, with tools and equipment, with materials and substances, with movement and 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			
3 Maintain safe and healthy working practices when repairing sub-structure after underpinning	3.1 Use health and safety control equipment safely and comply with the methods of work to carry out the activity in accordance with current legislation and organisational requirements when repairing sub-structure after underpinning			
	3.2 Demonstrate compliance with given information and relevant legislation when repairing sub-structure after underpinning in relation to the following: - safe use of access equipment - safe use, storage and handling of materials, tools and equipment - specific risks to health			
	3.3 Explain why and when health and safety control equipment, identified by the principles of prevention should be used, relating to repairing			

	sub-structure after underpinning, and the types, purpose and limitations of each type, the work situation and general work environment, in relation to: - collective protective measures - personal protective equipment (PPE) - respiratory protective equipment (RPE) - local exhaust ventilation (LEV) (including the monitoring of gas types and levels)			
	3.4 Describe how the relevant health and safety control equipment should be used in accordance with the given working instructions			
	3.5 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 activities			
4 Select the required quantity and quality of resources for the methods of work to repair sub-structure after underpinning	4.1 Select resources associated with own work in relation to materials, components, fixings, tools and equipment			
	4.2 Describe the characteristics, quality, uses, sustainability, limitations and defects associated with the resources in relation to: - bricks, blocks, timber, stone, concrete, aggregates, cements and additives - hand tools, portable power tools and equipment			
	4.3 Describe how the resources should be used correctly and how problems associated with the resources are reported			
	4.4 Explain why the organisational procedures have been developed and how they are used for the selection of required resources			
	4.5 Describe any potential hazards associated with the resources and methods of work			
	4.6 Describe the methods of calculating quality, length, area and wastage associated with the method and procedure to repair sub-structure after underpinning			
5 Minimise the risk of damage to the work and surrounding area when repairing sub-structure after underpinning	5.1 Protect the work and its surrounding area from damage in accordance with safe working practices and organisational procedures			
	5.2 Maintain a clean workspace			

	5.3 Dispose of waste in accordance with current legislation			
	5.4 Describe how to protect work from damage and purpose of protection in relation to general workplace activities, other occupations and adverse weather			
	5.5 Explain why the disposal of waste should be carried safely in accordance with environmental responsibilities, organisational procedures, manufacturers' information, statutory regulations and official guidance			
6 Complete the work within the allocated time when repairing sub-structure after underpinning	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: - types of progress charts, timetables and estimated times - organisational procedures for reporting circumstances which will affect the work programme			
7 Comply with the given contract information to repair sub-structure after underpinning to the required specification	7.1 Demonstrate the following work skills when repairing sub-structure after underpinning: mixing, placing, positioning and securing			
	7.2 Use and maintain hand tools, portable power tools and ancillary equipment			
	7.3 Repair existing sub-structure to given working instruction for two for the following: - brickwork - blockwork - concrete - timber - facings - linings - waterproofing systems			
	7.4 Provide temporary support			
	7.5 Describe how to apply safe and healthy work practices, follow procedures, report problems and establish the authority needed to rectify them, to: - identify installation quality requirements - conform to agreed specification			

	• repair existing brick, block, timber, facings, linings and concrete sub-structures • mix concrete • recognise the requirements and criteria for effective drainage • apply waterproofing • install temporary support • work with, around and near plant and machinery • recognise and determine when additional specialist skills and knowledge are required and report accordingly • determine specific requirements for structures of special interest, traditional build (pre-1919) and historical significance • use hand tools, portable power tools and equipment • work at height • use access equipment			
	7.6 Describe the needs of other occupations and how to effectively communicate within a team when repairing sub-structure after underpinning			
	7.7 Describe how to maintain the tools and equipment used when repairing sub-structure after underpinning			
<u>Assessor Comments/Feedback</u>				

Placing and compacting concrete in the workplace							
(Unit Endorsements: Three of the following endorsements required: Chute, Elephants trunk, Skip, Pump, Mono-rail, Manual)							
GQA Ref	225v2	Regulatory Ref	M/650/0291	Level	2	Credit Value	11
<u>Unit Aims</u> The aim of this unit is to be able to apply safe and healthy work practices, follow procedures, report problems and establish the authority needed to rectify them to place, lay and compact concrete to given working instructions using three of the following placement methods – chute – elephant’s trunk – skip – pump – mono-rail – manually. Candidates will successfully be able to identify installation quality requirements, conform to agreed specifications. Individuals will be able to demonstrate they can handle and transport concrete as well as being able to place concrete using shuts, elephant’s trunk, skip, pump, mono-rail while visually assessing the quality of the concrete prior to and during pouring and placement and extract samples for testing.							
<u>Assessment Guidance</u> This unit must be assessed in a work environment, in accordance the Construction Skills ‘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. Evidence for assessment criteria 7.2 must be for at least three different structures/placements. This unit must be assessed against the endorsements detailed within the relevant NVQ Structure. Please refer to the NVQ Structure applicable to the qualification/occupational area in which the candidate is being assessed.							
Learner Outcomes - The learner will:		Assessment Criteria - The learner can:		Evidence Ref Number			
				1	2	3	
1 Interpret the given information relating to the work and resources when placing and compacting concrete		1.1 Interpret and extract relevant information from drawings, specifications, schedules method statements, risk assessments and manufacturers' information					
		1.2 Comply with information and/or instructions derived from risk assessments and method statements					

	1.3 Describe the organisational procedures developed to report and rectify inappropriate information and unsuitable resources and how they are implemented			
	1.4 Describe different types of information, their source and how they are interpreted in relation to: drawings, specifications, schedules, method statements, risk assessments, manufacturers' information, oral and written instructions, current regulations governing buildings and official guidance associated with the placement and compaction of concrete			
2 Know how to comply with relevant legislation and official guidance when placing and compacting concrete	2.1 Describe their responsibilities regarding potential accidents, health hazards and the environment whilst working: in the workplace, below ground level, in confined spaces, at height, with tools and equipment, with materials and substances, with movement and 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			
3 Maintain safe and healthy working practices when placing and compacting concrete	3.1 Use health and safety control equipment safely and comply with the methods of work to carry out the activity in accordance with the methods of work to carry out the activity in accordance with current legislation and organisational requirements when placing and compacting concrete			
	3.2 Demonstrate compliance with given information and relevant legislation when placing and compacting concrete in relation to the following: - safe use of access equipment - safe use, storage and handling of materials, tools and equipment - specific risks to health			

	3.3 Explain why and when health and safety control equipment, identified by the principles of prevention, should be used, relating to placing and compacting concrete, and the types, purpose and limitations of each type, the work situation and general work environment, in relation to: • collective protective measures • personal protective equipment (PPE) • respiratory protective equipment (RPE) • local exhaust ventilation (LEV)			
	3.4 Describe how to relevant health and safety control equipment should be used in accordance with the given instructions			
	3.5 Describe how emergencies should be responded to in accordance with organisational authorisation and personal skills when involved with fired, spillages, injuries and over task-related activities			
4 Select the required quantity and quality of resources for the methods of work to place and compact concrete	4.1 Select resources associated with own work in relation to materials, components, fixings, tools and equipment			
	4.2 Describe the characteristics, quality, uses, sustainability, limitations and defects associated with the resources in relations to: • aggregates, cements, concrete, reinforcement, membranes, release agents, anti-heave materials, moulds, additives and retardants • hand tools, portable power tools and equipment, slump test equipment, skips, compaction equipment, poker vibrator, tampers, floats and trowels			
	4.3 Describe how the resources should be used correctly and how problems associated with the resources are reported			
	4.4 Explain why the organisational procedures have been developed and how they are used for the selection of required resources			
	4.5 Describe any potential hazards associated with the resources and methods of work			
	4.6 Describe the methods of calculating quantity, length, area and wastage associated with the methods and procedure to place compact concrete			

5 Minimise the risk of damage to the work and surrounding area when placing and compacting concrete	5.1 Protect the work and its surrounding area from damage in accordance with safe working practices and organisational procedures			
	5.2 Maintain a clean workspace			
	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 relations 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 placing and compacting concrete	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: - types of progress charts, timetables and estimated times - organisational procedures for reporting circumstances which will affect the work programme			
7 Comply with the given contract information to place and compact concrete to the required specification	7.1 Demonstrate the following work skills when placing and compacting concrete: measuring, marking out, inspecting, receiving, handling, transporting, placing, spreading, levelling, vibrating, compacting, testing and protecting			
	7.2 Use and maintain hand tools, portable power tools, plant and machinery and ancillary equipment			
	7.3 Place, lay and compact concrete to given working instructions using three of the following placement methods: - chute - elephant's trunk - skip - pump - mono-rail - manually			

	Describe how to apply safe and healthy work practices, follow procedures, report problems and establish the authority needed to rectify them, to: • identify installation quality requirements • conform to agreed specification • confirm integrity of formwork and temporary supports • handle and transport concrete • place concrete using shuts, elephant's trunk, skip, pump, mono-rail and manually • visually assess the quality of the concrete prior to and during pouring and placement • extract samples for testing • work with, around and near plant and machinery • direct and guide the operations and movement of plant and machinery • compact and finish concrete • protect concrete to assist the curing process • apply curing accelerants and aids • recognise requirements for working with concretes containing additives for waterproofing and retardants • recognise and determine when additional specialist skills and knowledge are required and report accordingly • determine specific requirements for structures of special interest, traditional build (pre-1919) and historical significance • use hand tools, portable power tools, plant, machinery and equipment • work at height • use access equipment			
	7.5 Describe the needs of other occupations and how to effectively communicate within a team when placing and compacting concrete			
	7.6 Describe how to maintain the tools and equipment used when placing and compacting concrete			

Assessor Comments/Feedback

Installing, constructing, maintaining, dismantling and removing temporary works in the workplace (Unit endorsements: Four of the following endorsements required: Protective screens, hoardings and covers - Access and egress routes - Supports - Supporting structures - Removal equipment - Diverting equipment - Site facilities - Stabilisation)							
GQA Ref	763v1	Regulatory Ref	D/650/8776	Level	2	Credit Value	15
Unit Aims The aim of this unit is for individuals to be able to install, construct, maintain, dismantle and remove to given working instructions for four of the following as temporary works to allow or enable permanent construction: • protective screens, hoardings and covers • access and egress routes • supports • supporting structures • removal equipment • diverting equipment • site facilities • stabilisation Candidates will also need to be able to demonstrate skills when installing, constructing, maintaining, dismantling and removing temporary works including measuring, marking out, aligning, altering, assembling, building, erecting, laying, levelling, plumb, installing, checking, monitoring, adjusting, reinforcing, fitting, fixing, positioning, securing, dismantling and removing.							
Assessment Guidance This unit must be assessed in a work environment, in accordance with the Construction Skills '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 the endorsements detailed within the relevant NVQ Structure. Please refer to the NVQ Structure applicable to the qualification/occupational area in which the candidate is being assessed.							
Learner Outcomes - The learner will:		Assessment Criteria - The learner can:		Evidence Ref Number			
				1	2	3	
1 Interpret the given information relating to the work and resources when installing, constructing, maintaining,		1.1 Interpret and extract relevant information from drawings, specifications, schedules, method statements, risk assessments and manufacturers' information					

dismantling and removing temporary works	1.2 Comply with information and/or instructions derived from risk assessments and method statements			
	1.3 Describe the organisational procedures developed to report and rectify inappropriate information and unsuitable resources and how they are implemented			
	1.4 Describe different types of information, their source and how they are interpreted in relation to: drawings, specifications, schedules, method statement, risk assessments, electronic data, written and verbal instructions, permits, manufacturers' information, current regulations governing buildings, structures and official guidance associated with installation, construction, maintenance, dismantling and removal of temporary works			
2 Know how to comply with relevant legislation and official guidance when installing, constructing, maintaining, dismantling and removing temporary works	2.1 Describe their responsibilities regarding potential accidents, health hazards and the environment, whilst working: in the workplace, below ground level, in confined spaces, at height, with tools and equipment, with materials and substances, with movement and 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			
3 Maintain safe and healthy working practices when installing, constructing, maintaining, dismantling and removing temporary works	3.1 Use health and safety control equipment safely and comply with the methods of work to carry out the activity in accordance with current legislation and organisational requirements when installing, constructing, maintaining, dismantling and removing temporary works			
	3.2 Demonstrate compliance with given information and relevant legislation when installing, constructing, maintaining, dismantling and removing temporary works in relation to the following: - safe use of access equipment - safe use, storage and handling of materials, tools and equipment			

	specific risks to health			
	3.3 Explain why and when health and safety control equipment, identified by the principles of prevention should be used, relating to installing, constructing, maintaining, dismantling and removing temporary works and the types, purpose and limitations of each type, the work situation and general work environment, in relation to: - collective protective measures - personal protective equipment (PPE) - respiratory protective equipment (RPE) - local exhaust ventilation (LEV)			
	3.4 Describe how the relevant health and safety control equipment should be used in accordance with the given working instructions			
	3.5 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 activities			
4 Select the required quantity and quality of resources for the methods of work to install, construct, maintain, dismantle and remove temporary works	4.1 Select resources with own work in relation to materials, components, fixings, tools and equipment			
	4.2 Describe the characteristics, quality, uses, sustainability, limitations and defects associated with the resources in relation to: - protective measures - materials - supports - components, fittings and fixings - hand tools, portable power tools and equipment			
	4.3 Describe how the resources should be used correctly and how problems associated with the resources are reported			
	4.4 Explain why the organisational procedures have been developed and how they are used for the selection of required resources			
	4.5 Describe any potential hazards associated with the resources and methods of work			
	4.6 Describe how to calculate quantity, length, area, volume and wastage associated with the method and produce to install, construct, maintain, dismantle and remove temporary works			

5 Minimise the risk of damage to the work and surrounding area when installing, construction, maintaining, dismantling and removing temporary works	5.1 Protect the work and its surrounding area from damage in accordance with safe working practices and organisational procedures			
	5.2 Maintain a clean and tidy workspace			
	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, manufacturers' information, statutory regulations and official guidance			
6 Complete the work within the allocated time when installing, constructing, maintaining, dismantling and removing temporary works	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: - types of progress charts, timetables and estimated times - organisational procedures for reporting circumstances which will affect the work programme			
7 Comply with the given contract information to install, construct, maintain, dismantle and remove temporary works to the required specification	7.1 Demonstrate the following work skills when installing, constructing, maintaining, dismantling and removing temporary works: measuring, marking out, aligning, altering, assembling, building, erecting, laying, levelling, plumb, installing, checking, monitoring, adjusting, reinforcing, fitting, fixing, positioning, securing, dismantling and removing			
	7.2 Use and maintain hand tools, portable power tools and ancillary equipment			
	7.3 Install, construct, maintain, dismantle and remove to given working instructions for four of the following as temporary works to allow or enable permanent construction: - protective screens, hoardings and covers - access and egress routes - supports - supporting structures			

	• removal equipment • diverting equipment • site facilities • stabilisation			
	7.4 Describe how to apply safe and healthy work practices, follow procedures, report problems and establish the authority needed to rectify them, to: • identify agreed quality requirements • conform to agreed specification • identify the roles of the temporary works supervisor and the temporary work co-ordinator • recognise the characteristics, critical factors of temporary works and interface with existing structures and permanent work • identify temporary works control mechanisms • check resources for type, quantity and damage and report discrepancies • install, construct, maintain, dismantle and remove protective screens, hoardings and covers to restrict access and maintain the integrity of the protected items • install, construct, maintain, dismantle and remove access and egress routes, new and alterations to existing routes including pedestrian routes, vehicle routes, bridges, decks, openings, stairs, ramps, passing and parking places • assemble, build, align, erect, install, construct, dismantle and remove load bearing supports • assemble, build, align, erect, install, construct, dismantle and remove supports that hold in position including formwork, falsework and excavation support systems • identify the criteria, characteristics and differences between proprietary and bespoke support systems • check and maintain supporting structures including scaffolding, formwork, falsework, props, excavation support and dewatering systems • check condition, support and protection of utilities • recognise the checking, inspection, examination and certification criteria for temporary works • install removal equipment including gantries, hoists, skips, chutes, conveyors, vacuums, pumps and pipework			

	• maintain removal and diverting equipment, including alterations by reinforcement • recognise the criteria for disconnecting, protecting and reconnecting utilities • fit, fix, position, align, secure, dismantle and remove supports and carriage systems, underground and overhead, to divert utility carrying equipment including electric, communications, water (foul, surface and fresh), gas and air • work with, around and near plant and machinery • recognise the criteria for directing and guiding the movement and operations of vehicles, plant and machinery • measure, mark out, transfer, set out and maintain lines, plumbs and levels • monitor wear and tear on temporary works and report • recognise and determine when additional specialist skills and knowledge are required and report accordingly • determine specific requirements for structures of special interest, traditional build (pre-1919) and historical significance • use hand tools, portable power tools and equipment • work at height • use access equipment			
	7.5 Describe the needs of other occupations and how to effectively communicate within a team when installing, constructing, maintaining, dismantling and removing temporary works			
	7.6 Describe how to maintain the tools and equipment when installing, constructing, maintaining, dismantling and removing temporary works			
<u>Assessor Comments/Feedback</u>				

Notes



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