



## **Level 2 NVQ Diploma in Construction and Civil Engineering Operations (Construction)**

### **Qualification Specification**

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## Introduction

The aim of the Level 2 NVQ Diploma in Construction and Civil Engineering Operations (Construction) qualification aims to recognise the knowledge, skills and competence demonstrated by an individual in the workplace. It provides the opportunity for individuals who specialise in general building operations to demonstrate their competence. It provides a nationally recognised qualification for individuals working in this sector.

There are 8 pathways available:

Pathway 1: Modular Pavement Construction

Pathway 2: Laying Kerbs and Channels

Pathway 3: Drainage Construction

Pathway 4: Structural Concreting

Pathway 5: Concreting

Pathway 6: Construction Operations

Pathway 7: General Construction

Pathway 8: Excavation and Reinstatement

The awarding body for this qualification is ProQual Awarding Body and the regulatory body is the Office of Qualifications and Examinations Regulation (Ofqual). The specification for the qualifications has been approved by the Council for the Curriculum Examinations and Assessment (CCEA) for use by centres in Northern Ireland.

This qualification has been accredited onto the Regulated Qualifications Framework (RQF) and it provides a progression route to discipline related qualifications.

## Qualification Profile

### Level 2 NVQ Diploma in Construction and Civil Engineering Operations (Construction)

Qualification title	<b>ProQual Level 2 NVQ Diploma in Construction and Civil Engineering Operations (Construction)</b>
Ofqual qualification number	610/3385/6
Level	2
Total qualification time	321 - 570 (Dependent on Pathway)
Guided learning hours	209 - 359 (Dependent on Pathway)
Assessment	Pass or fail Internally assessed and verified by centre staff External quality assurance by ProQual verifiers
Qualification start date	19/02/2024
Qualification end date	

## Entry Requirements

There are no formal entry requirements for this qualification.

Centres should carry out an **initial assessment** of candidate skills and knowledge to identify any gaps and help plan the assessment.

## Qualification Structure

Candidates must complete the Mandatory and Optional Unit requirements from one of the Pathways.

**Unit Endorsements** are indicated in the Pathway unit listings below.

Pathway	Minimum TQT
Pathway 1: Modular Pavement Construction	350
Pathway 2: Laying Kerbs and Channels	350
Pathway 3: Drainage Construction	532
Pathway 4: Structural Concreting	340
Pathway 5: Concreting	570
Pathway 6: Construction Operations	340
Pathway 7: General Construction	321
Pathway 8: Excavation and Reinstatement	471

**Please note that Mandatory units cannot be duplicated by selecting the same unit from the Optional list, another unit must be selected.**

CITB references are provided in this document for information only.

### Pathway 1: Modular Pavement Construction

Mandatory Units – candidates must complete all units in this group				
Unit Reference Number	Unit Title	Unit Level	GLH	CITB Ref. No
J/617/1197	Installing, maintaining and removing work area protection and safety equipment in the workplace <i>Unit Endorsements:</i> <i>One of the following endorsements required:</i> <i>Protection and safety notices</i> <i>Safety lighting</i>	2	55	360v4
R/651/0010	Laying modular pavement in the workplace <i>Unit Endorsements:</i> <i>One of the following endorsements required:</i> <i>Block paving</i> <i>Brick paving</i> <i>Stone/Concrete setts</i> <i>Flags</i> <i>Natural stone rough cut</i> <i>Natural stone uniformly cut</i>	2	75	367v3

D/651/0014	<p>Preparing and operating powered units, tools or pedestrian plant, machinery or equipment in the workplace</p> <p><u>Unit Endorsements:</u>  <b>One</b> of the following endorsements required:  Generators  Pumps  Pedestrian operated plant or machines  Mixers  Compressors  Self-powered tools</p>	2	23	400v2
K/508/6536	<p>Setting out secondary dimensional work control in the workplace</p> <p><u>Unit Endorsements:</u>  <b>Three</b> of the following endorsements required:  Lines  Levels  Depths  Areas  Heights  Angles</p>	2	23	401v2
M/508/6537	<p>Conforming to general health, safety and welfare in the workplace</p>	1	7	641v1
T/508/6538	<p>Conforming to productive working practices in the workplace</p>	2	10	642v1

## Pathway 2: Laying Kerbs and Channels

Mandatory Units – candidates must complete all units in this group				
Unit Reference Number	Unit Title	Unit Level	GLH	CITB Ref. No
J/617/1197	Installing, maintaining and removing work area protection and safety equipment in the workplace <i>Unit Endorsements:</i> <b>One of the following endorsements required:</b> <i>Protection and safety notices</i> <i>Safety lighting</i>	2	55	360v4
F/651/0015	Laying preformed kerbs and channels in the workplace	2	75	368v3
D/651/0014	Preparing and operating powered units, tools or pedestrian plant, machinery or equipment in the workplace <i>Unit Endorsements:</i> <b>One of the following endorsements required:</b> <i>Generators</i> <i>Pumps</i> <i>Pedestrian operated plant or machines</i> <i>Mixers</i> <i>Compressors</i> <i>Self-powered tools</i>	2	23	400v2
K/508/6536	Setting out secondary dimensional work control in the workplace <i>Unit Endorsements:</i> <b>Three of the following endorsements required:</b> <i>Lines</i> <i>Levels</i> <i>Depths</i> <i>Areas</i> <i>Heights</i> <i>Angles</i>	2	23	401v2
M/508/6537	Conforming to general health, safety and welfare in the workplace	1	7	641v1
T/508/6538	Conforming to productive working practices in the workplace	2	10	642v1

### Pathway 3: Drainage Construction

Mandatory Units – candidates must complete all units in this group				
Unit Reference Number	Unit Title	Unit Level	GLH	CITB Ref. No
J/617/1197	Installing, maintaining and removing work area protection and safety equipment in the workplace <i>Unit Endorsements:</i> <b>One</b> of the following endorsements required: <i>Protection and safety notices</i> <i>Safety lighting</i>	2	55	360v4
T/650/8908	Installing, maintaining and removing temporary excavation support in the workplace <i>Unit Endorsements:</i> <b>One</b> of the following endorsements required: <i>A proprietary system</i> <i>Open and closed support systems</i> <i>Piling systems</i> <i>Bespoke support systems</i>	2	76	370v4
K/508/6536	Setting out secondary dimensional work control in the workplace <i>Unit Endorsements:</i> <b>Three</b> of the following endorsements required: <i>Lines</i> <i>Levels</i> <i>Depths</i> <i>Areas</i> <i>Heights</i> <i>Angles</i>	2	23	401v2
H/651/0016	Installing drainage in the workplace <i>Unit Endorsements:</i> <b>One</b> of the following endorsements required: <i>Inspection chambers</i> <i>Surface water systems</i> <i>Foul water systems</i> <i>Surround pipe with specified materials</i> <i>Place backfill to trench using given work instructions for both compacted and free drainage materials</i>	2	106	639v4
M/508/6537	Conforming to general health, safety and welfare in the workplace	1	7	641v1
T/508/6538	Conforming to productive working practices in the workplace	2	10	642v1



## Pathway 4: Structural Concreting

Mandatory Units – candidates must complete all units in this group				
Unit Reference Number	Unit Title	Unit Level	GLH	CITB Ref. No
D/615/4986	Placing and compacting concrete in the workplace <u>Unit Endorsements:</u> <b>Three</b> of the following endorsements required: <i>Chute; Elephant's Trunk; Skip; Pump; Mono-rail; Manually</i>	2	37	225v2
J/617/1197	Installing, maintaining and removing work area protection and safety equipment in the workplace <u>Unit Endorsements:</u> <b>One</b> of the following endorsements required: <i>Protection and safety notices Safety lighting</i>	2	55	360v4
D/651/0014	Preparing and operating powered units, tools or pedestrian plant, machinery or equipment in the workplace <u>Unit Endorsements:</u> <b>One</b> of the following endorsements required: <i>Generators Pumps Pedestrian operated plant or machines Mixers Compressors Self-powered tools</i>	2	23	400v2
M/508/6537	Conforming to general health, safety and welfare in the workplace	1	7	641v1
T/508/6538	Conforming to productive working practices in the workplace	2	10	642v1
Optional Units – candidates must complete one unit in this group				
K/650/8913	Preparing, mixing and distributing concrete and mortars in the workplace	1	33	36v3
K/651/0027	Reinstating ground condition in the workplace <u>Unit Endorsements:</u> <b>Three</b> of the following endorsements required: <i>Backfill (excavated materials) Backfill (new materials) Compact Hard top surfaces Cultivated and grassed areas</i>	2	43	172v2

D/600/8281	<p>Erecting and dismantling access/working platforms in the workplace</p> <p><u>Unit Endorsements:</u>  <i>Own area of work (i.e. Construction and Civil Engineering Operations)</i>  <b>Plus two or more of the following:</b>  <i>Ladders/crawler boards</i>  <i>Step ladders/platform steps</i>  <i>Proprietary towers</i>  <i>Trestle platforms</i>  <i>Mobile scaffold towers</i>  <i>Proprietary staging/podiums</i></p>	2	27	250v1
A/650/8919	<p>Cutting, drilling and shaping construction related materials in the workplace</p> <p><u>Unit Endorsements:</u>  <b>Four of the following endorsements required:</b>  <i>Composites</i>  <i>Plastic</i>  <i>Masonry</i>  <i>Vitreous clay</i>  <i>Metal</i>  <i>Timber and timber based</i>  <i>Cementitious</i>  <i>Bituminous</i>  <i>Geotextiles</i></p>	1	65	361v4
H/650/8920	<p>Laying, placing or applying construction related materials in the workplace</p> <p><u>Unit Endorsements:</u>  <b>Three of the following endorsements required:</b>  <i>Top soil or subsoil</i>  <i>Granular fill</i>  <i>Cohesive fill</i>  <i>Concrete</i>  <i>Cementitious</i>  <i>Bituminous</i>  <i>Geotextiles</i></p>	1	65	362v4
J/650/8921	<p>Preparing and mixing construction related materials in the workplace</p> <p><u>Unit Endorsements:</u>  <b>Two of the following endorsements required:</b>  <i>Cementitious</i>  <i>Resins</i>  <i>Adhesives</i>  <i>Bonding agents</i>  <i>Colourings</i>  <i>Waterproof coatings</i>  <i>Grouts</i>  <i>Pre-mixed compounds</i></p>	1	75	363v4

T/650/8908	Installing, maintaining and removing temporary excavation support in the workplace <u>Unit Endorsements:</u> <b>One of the following endorsements required:</b> <i>A proprietary system</i> <i>Open and closed support systems</i> <i>Piling systems</i> <i>Bespoke support systems</i>	2	76	370v4
K/650/8922	Identifying and marking the location of utilities apparatus and sub-structures in the workplace	2	65	372v3
M/651/0029	Preparing and operating forward tipping dumpers to receive, transport and discharge materials in the workplace <u>Unit Endorsements:</u> <b>One of the following endorsements required:</b> <i>Forward tipping dumper wheeled</i> <i>Forward tipping dumper tracked</i>	2	53	391Bv3
Y/651/0030	Preparing and operating ride-on rollers to compact materials in the workplace <u>Unit Endorsements:</u> <i>Ride-on roller</i>	2	53	394Av3
D/651/0014	Preparing and operating powered units, tools or pedestrian plant, machinery or equipment in the workplace <u>Unit Endorsements:</u> <b>One of the following endorsements required:</b> <i>Generators</i> <i>Pumps</i> <i>Pedestrian operated plant or machines</i> <i>Mixers</i> <i>Compressors</i> <i>Self-powered tools</i>	2	23	400v2
F/503/1171	Moving, handling and storing resources in the workplace	2	17	643v1
R/508/6532	Controlling, directing and guiding the operation of plant or machinery in the workplace <u>Unit Endorsements:</u> <i>Operations Guide Banksman</i>	2	60	760v1

J/618/8498	<p>Installing, constructing, maintaining, dismantling and removing temporary works in the workplace</p> <p><i>Unit Endorsements:</i></p> <p><i>Own area of work (i.e. Construction and Civil Engineering Operations)</i></p> <p><i>Plus <b>four</b> or more of the following:</i></p> <p><i>Protective screens, hoardings and covers</i></p> <p><i>Access and egress routes</i></p> <p><i>Supports</i></p> <p><i>Supporting structures</i></p> <p><i>Removal equipment</i></p> <p><i>Diverting equipment</i></p> <p><i>Site facilities</i></p> <p><i>Stabilisation</i></p>	2	73	763v1
L/650/8923	Locating and excavating to expose buried utility services in the workplace	2	70	782v1

## Pathway 5: Concreting

Mandatory Units – candidates must complete all units in this group				
Unit Reference Number	Unit Title	Unit Level	GLH	CITB Ref. No
A/651/0031	Placing and finishing concrete in the workplace	2	120	45v4
J/617/1197	Installing, maintaining and removing work area protection and safety equipment in the workplace <u>Unit Endorsements:</u> <b>One</b> of the following endorsements required: <i>Protection and safety notices</i> <i>Safety lighting</i>	2	55	360v4
D/651/0032	Erecting and striking proprietary formwork in the workplace	2	90	640v3
M/508/6537	Conforming to general health, safety and welfare in the workplace	1	7	641v1
T/508/6538	Conforming to productive working practices in the workplace	2	10	642v1
Optional Units – candidates must complete one unit in this group				
Unit Reference Number	Unit Title	Unit Level	GLH	CITB Ref. No
K/650/8913	Preparing, mixing and distributing concrete and mortars in the workplace	1	33	36v3
K/651/0027	Reinstating ground condition in the workplace <u>Unit Endorsements:</u> <b>Three</b> of the following endorsements required: <i>Backfill (excavated materials)</i> <i>Backfill (new materials)</i> <i>Compact</i> <i>Hard top surfaces</i> <i>Cultivated and grassed areas</i>	2	43	172v2
D/615/4986	Placing and compacting concrete in the workplace <u>Unit Endorsements:</u> <b>Three</b> of the following endorsements required: <i>Chute; Elephant's Trunk; Skip; Pump; Mono-rail; Manually</i>	2	37	225v2

D/600/8281	Erecting and dismantling access/working platforms in the workplace <u>Unit Endorsements:</u> <i>Own area of work (i.e. Construction and Civil Engineering Operations)</i> <i>Plus two or more of the following:</i> <i>Ladders/crawler boards</i> <i>Step ladders/platform steps</i> <i>Proprietary towers</i> <i>Trestle platforms</i> <i>Mobile scaffold towers</i> <i>Proprietary staging/podiums</i>	2	27	250v1
A/650/8919	Cutting, drilling and shaping construction related materials in the workplace <u>Unit Endorsements:</u> <b>Four of the following endorsements required:</b> <i>Composites</i> <i>Plastic</i> <i>Masonry</i> <i>Vitreous clay</i> <i>Metal</i> <i>Timber and timber based</i> <i>Cementitious</i> <i>Bituminous</i> <i>Geotextiles</i>	1	65	361v4
H/650/8920	Laying, placing or applying construction related materials in the workplace <u>Unit Endorsements:</u> <b>Three of the following endorsements required:</b> <i>Top soil or subsoil</i> <i>Granular fill</i> <i>Cohesive fill</i> <i>Concrete</i> <i>Cementitious</i> <i>Bituminous</i> <i>Geotextiles</i>	1	65	362v4
J/650/8921	Preparing and mixing construction related materials in the workplace <u>Unit Endorsements:</u> <b>Two of the following endorsements required:</b> <i>Cementitious</i> <i>Resins</i> <i>Adhesives</i> <i>Bonding agents</i> <i>Colourings</i> <i>Waterproof coatings</i> <i>Grouts</i> <i>Pre-mixed compounds</i>	1	75	363v4

T/650/8908	Installing, maintaining and removing temporary excavation support in the workplace <u>Unit Endorsements:</u> <b>One of the following endorsements required:</b> <i>A proprietary system</i> <i>Open and closed support systems</i> <i>Piling systems</i> <i>Bespoke support systems</i>	2	76	370v4
K/650/8922	Identifying and marking the location of utilities apparatus and sub-structures in the workplace	2	65	372v3
M/651/0029	Preparing and operating forward tipping dumpers to receive, transport and discharge materials in the workplace <u>Unit Endorsements:</u> <b>One of the following endorsements required:</b> <i>Forward tipping dumper wheeled</i> <i>Forward tipping dumper tracked</i>	2	53	391Bv3
Y/651/0030	Preparing and operating ride-on rollers to compact materials in the workplace <u>Unit Endorsements:</u> <i>Ride-on roller</i>	2	53	394Av3
D/651/0014	Preparing and operating powered units, tools or pedestrian plant, machinery or equipment in the workplace <u>Unit Endorsements:</u> <b>One of the following endorsements required:</b> <i>Generators</i> <i>Pumps</i> <i>Pedestrian operated plant or machines</i> <i>Mixers</i> <i>Compressors</i> <i>Self-powered tools</i>	2	23	400v2
F/503/1171	Moving, handling and storing resources in the workplace	2	17	643v1
R/508/6532	Controlling, directing and guiding the operation of plant or machinery in the workplace <u>Unit Endorsements:</u> <i>Operations Guide Banksman</i>	2	60	760v1

J/618/8498	<p>Installing, constructing, maintaining, dismantling and removing temporary works in the workplace</p> <p><u>Unit Endorsements:</u></p> <p><i>Own area of work (i.e. Construction and Civil Engineering Operations)</i></p> <p><i>Plus <b>four</b> or more of the following:</i></p> <p><i>Protective screens, hoardings and covers</i></p> <p><i>Access and egress routes</i></p> <p><i>Supports</i></p> <p><i>Supporting structures</i></p> <p><i>Removal equipment</i></p> <p><i>Diverting equipment</i></p> <p><i>Site facilities</i></p> <p><i>Stabilisation</i></p>	2	73	763v1
L/650/8923	Locating and excavating to expose buried utility services in the workplace	2	70	782v1



## Pathway 6: Construction Operations

Mandatory Units – candidates must complete all units in this group				
Unit Reference Number	Unit Title	Unit Level	GLH	CITB Ref. No
J/617/1197	Installing, maintaining and removing work area protection and safety equipment in the workplace <i>Unit Endorsements:</i> <b>One</b> of the following endorsements required: <i>Protection and safety notices</i> <i>Safety lighting</i>	2	55	360v4
M/508/6537	Conforming to general health, safety and welfare in the workplace	1	7	641v1
T/508/6538	Conforming to productive working practices in the workplace	2	10	642v1
F/503/1171	Moving, handling and storing resources in the workplace	2	17	643v1
Optional Units Group 1 – candidates must complete one unit in this group				
Unit Reference Number	Unit Title	Unit Level	GLH	CITB Ref. No
D/615/4986	Placing and compacting concrete in the workplace <i>Unit Endorsements:</i> <b>Three</b> of the following endorsements required: <i>Chute; Elephant's Trunk; Skip; Pump; Mono-rail; Manually</i>	2	37	225v2
H/651/0016	Installing drainage in the workplace <i>Unit Endorsements:</i> <b>One</b> of the following endorsements required: <i>Inspection chambers</i> <i>Surface water systems</i> <i>Foul water systems</i> <i>Surround pipe with specified materials</i> <i>Place backfill to trench using given work instructions for both compacted and free drainage materials</i>	2	106	639v4
Optional Units Group 2 – candidates must complete one unit in this group				
Unit Reference Number	Unit Title	Unit Level	GLH	CITB Ref. No
K/650/8913	Preparing, mixing and distributing concrete and mortars in the workplace	1	33	36v3

K/651/0027	Reinstating ground condition in the workplace <u>Unit Endorsements:</u> <b>Three</b> of the following endorsements required: <i>Backfill (excavated materials)</i> <i>Backfill (new materials)</i> <i>Compact</i> <i>Hard top surfaces</i> <i>Cultivated and grassed areas</i>	2	43	172v2
D/600/8281	Erecting and dismantling access/working platforms in the workplace <u>Unit Endorsements:</u> <i>Own area of work (i.e. Construction and Civil Engineering Operations)</i> <b>Plus two</b> or more of the following: <i>Ladders/crawler boards</i> <i>Step ladders/platform steps</i> <i>Proprietary towers</i> <i>Trestle platforms</i> <i>Mobile scaffold towers</i> <i>Proprietary staging/podiums</i>	2	27	250v1
A/650/8919	Cutting, drilling and shaping construction related materials in the workplace <u>Unit Endorsements:</u> <b>Four</b> of the following endorsements required: <i>Composites</i> <i>Plastic</i> <i>Masonry</i> <i>Vitreous clay</i> <i>Metal</i> <i>Timber and timber based</i> <i>Cementitious</i> <i>Bituminous</i> <i>Geotextiles</i>	1	65	361v4
H/650/8920	Laying, placing or applying construction related materials in the workplace <u>Unit Endorsements:</u> <b>Three</b> of the following endorsements required: <i>Top soil or subsoil</i> <i>Granular fill</i> <i>Cohesive fill</i> <i>Concrete</i> <i>Cementitious</i> <i>Bituminous</i> <i>Geotextiles</i>	1	65	362v4

J/650/8921	<p>Preparing and mixing construction related materials in the workplace</p> <p><u>Unit Endorsements:</u></p> <p><b>Two of the following endorsements required:</b></p> <p><i>Cementitious</i></p> <p><i>Resins</i></p> <p><i>Adhesives</i></p> <p><i>Bonding agents</i></p> <p><i>Colourings</i></p> <p><i>Waterproof coatings</i></p> <p><i>Grouts</i></p> <p><i>Pre-mixed compounds</i></p>	1	75	363v4
T/650/8908	<p>Installing, maintaining and removing temporary excavation support in the workplace</p> <p><u>Unit Endorsements:</u></p> <p><b>One of the following endorsements required:</b></p> <p><i>A proprietary system</i></p> <p><i>Open and closed support systems</i></p> <p><i>Piling systems</i></p> <p><i>Bespoke support systems</i></p>	2	76	370v4
K/650/8922	<p>Identifying and marking the location of utilities apparatus and sub-structures in the workplace</p>	2	65	372v3
M/651/0029	<p>Preparing and operating forward tipping dumpers to receive, transport and discharge materials in the workplace</p> <p><u>Unit Endorsements:</u></p> <p><b>One of the following endorsements required:</b></p> <p><i>Forward tipping dumper wheeled</i></p> <p><i>Forward tipping dumper tracked</i></p>	2	53	391Bv3
Y/651/0030	<p>Preparing and operating ride-on rollers to compact materials in the workplace</p> <p><u>Unit Endorsements:</u></p> <p><i>Ride-on roller</i></p>	2	53	394Av3
D/651/0014	<p>Preparing and operating powered units, tools or pedestrian plant, machinery or equipment in the workplace</p> <p><u>Unit Endorsements:</u></p> <p><b>One of the following endorsements required:</b></p> <p><i>Generators</i></p> <p><i>Pumps</i></p> <p><i>Pedestrian operated plant or machines</i></p> <p><i>Mixers</i></p> <p><i>Compressors</i></p> <p><i>Self-powered tools</i></p>	2	23	400v2
R/508/6532	<p>Controlling, directing and guiding the operation of plant or machinery in the workplace</p> <p><u>Unit Endorsements:</u></p> <p><i>Operations Guide Banksman</i></p>	2	60	760v1

J/618/8498	<p>Installing, constructing, maintaining, dismantling and removing temporary works in the workplace</p> <p><u>Unit Endorsements:</u></p> <p><i>Own area of work (i.e. Construction and Civil Engineering Operations)</i></p> <p><i>Plus <b>four</b> or more of the following:</i></p> <p><i>Protective screens, hoardings and covers</i></p> <p><i>Access and egress routes</i></p> <p><i>Supports</i></p> <p><i>Supporting structures</i></p> <p><i>Removal equipment</i></p> <p><i>Diverting equipment</i></p> <p><i>Site facilities</i></p> <p><i>Stabilisation</i></p>	2	73	763v1
L/650/8923	Locating and excavating to expose buried utility services in the workplace	2	70	782v1

## Pathway 7: General Construction

Mandatory Units – candidates must complete all units in this group				
Unit Reference Number	Unit Title	Unit Level	GLH	CITB Ref. No
J/617/1197	Installing, maintaining and removing work area protection and safety equipment in the workplace <i>Unit Endorsements:</i> <b>One of the following endorsements required:</b> <i>Protection and safety notices</i> <i>Safety lighting</i>	2	55	360v4
M/508/6537	Conforming to general health, safety and welfare in the workplace	1	7	641v1
T/508/6538	Conforming to productive working practices in the workplace	2	10	642v1
Optional Group – candidates must complete one unit in this group				
Unit Reference Number	Unit Title	Unit Level	GLH	CITB Ref. No
A/651/0031	Placing and finishing concrete in the workplace	2	120	45v4
H/651/0016	Installing drainage in the workplace <i>Unit Endorsements:</i> <b>One of the following endorsements required:</b> <i>Inspection chambers</i> <i>Surface water systems</i> <i>Foul water systems</i> <i>Surround pipe with specified materials</i> <i>Place backfill to trench using given work instructions for both compacted and free drainage materials</i>	2	106	639v4

## Pathway 8: Excavation and Reinstatement

Mandatory Units – candidates must complete all units in this group				
Unit Reference Number	Unit Title	Unit Level	GLH	CITB Ref. No
K/651/0027	Reinstating ground condition in the workplace <u>Unit Endorsements:</u> <b>Three</b> of the following endorsements required: <i>Backfill (excavated materials)</i> <i>Backfill (new materials)</i> <i>Compact</i> <i>Hard top surfaces</i> <i>Cultivated and grassed areas</i>	2	43	172v2
J/617/1197	Installing, maintaining and removing work area protection and safety equipment in the workplace <u>Unit Endorsements:</u> <b>One</b> of the following endorsements required: <i>Protection and safety notices</i> <i>Safety lighting</i>	2	55	360v4
Y/503/9650	Forming and finishing excavations manually in the workplace	2	61	373v4
M/508/6537	Conforming to general health, safety and welfare in the workplace	1	7	641v1
T/508/6538	Conforming to productive working practices in the workplace	2	10	642v1
Optional Group – candidates must complete one unit in this group				
Unit Reference Number	Unit Title	Unit Level	GLH	CITB Ref. No
K/650/8922	Identifying and marking the location of utilities apparatus and sub-structures in the workplace	2	65	372v3
D/651/0014	Preparing and operating powered units, tools or pedestrian plant, machinery or equipment in the workplace <u>Unit Endorsements:</u> <b>One</b> of the following endorsements required: <i>Generators</i> <i>Pumps</i> <i>Pedestrian operated plant or machines</i> <i>Mixers</i> <i>Compressors</i> <i>Self-powered tools</i>	2	23	400v2

R/508/6532	Controlling, directing and guiding the operation of plant or machinery in the workplace <i>Unit Endorsements:</i> <i>Operations Guide Banksman</i>	2	60	760v1
L/650/8923	Locating and excavating to expose buried utility services in the workplace	2	70	782v1

## Centre Requirements

Centres must be approved to offer this qualification. If your centre is not approved please complete and submit form **ProQual Additional Qualification Approval Application**.

### Staff

Staff delivering this qualification must be appropriately qualified and/or occupationally competent.

### Assessors/Internal Quality Assurance

For each competence-based unit centres must be able to provide at least one assessor and one internal quality assurance verifier who are suitably qualified for the specific occupational area. Assessors and internal quality assurance verifiers for competence-based units or qualifications will normally need to hold appropriate assessor or verifier qualifications, such as:

- Award in Assessing Competence in the Work Environment
- Award in Assessing Vocationally Related Achievement
- Certificate in Assessing Vocational Achievement
- Award in the Internal Quality Assurance of Assessment Processes and Practices
- Certificate in Leading the Internal Quality Assurance of Assessment Processes and Practices

## Support for Candidates

Materials produced by centres to support candidates should:

- enable them to track their achievements as they progress through the learning outcomes and assessment criteria;
- provide information on where ProQual's policies and procedures can be viewed;
- provide a means of enabling Internal and External Quality Assurance staff to authenticate evidence

## Links to National Standards / NOS mapping

National Occupational Standards (NOS) describe the skills, knowledge and understanding needed to undertake a particular task or job at different levels of competence.

The structure and units of this qualification are based on NOS for the construction sector developed by CITB.



## Assessment

This suite of qualifications are competence-based, candidates must demonstrate the level of competence described in the units. Assessment is the process of measuring a candidate's skill, knowledge and understanding against the standards set in the qualification.

The qualifications must be assessed in line with the Construction Skills Assessment Strategy and must be internally assessed by an appropriately experienced and qualified assessor.

Each candidate is required to produce a portfolio of evidence which demonstrates their achievement of all of the learning outcomes and assessment criteria for each unit.

- Evidence can include:
- observation report by assessor
  - assignments/projects/reports
  - professional discussion
  - witness testimony
  - candidate product
  - worksheets
  - record of oral and written questioning
  - Recognition of Prior Learning

**Learning outcomes** set out what a candidate is expected to know, understand or be able to do.

**Assessment criteria** specify the standard a candidate must meet to show the learning outcome has been achieved.

Learning outcomes and assessment criteria can be found from page 27.

## Internal Quality Assurance

An internal quality assurance verifier confirms that assessment decisions made in centres are made by competent and qualified assessors, that they are the result of sound and fair assessment practice and that they are recorded accurately and appropriately.

## Adjustments to Assessment

Adjustments to standard assessment arrangements are made on the individual needs of candidates. ProQual's Reasonable Adjustments Policy and Special Consideration Policy sets out the steps to follow when implementing reasonable adjustments and special considerations and the service that ProQual provides for some of these arrangements.

Centres should contact ProQual for further information or queries about the contents of the policy.

## Results Enquiries and Appeals

All enquiries relating to assessment or other decisions should be dealt with by centres, with reference to ProQual's Enquiries and Appeals Procedures.

## Certification

Candidates who achieve the required credits for qualifications will be awarded:

- A certificate listing all units achieved with their related credit value, and
- A certificate giving the full qualification title -

**ProQual Level 2 NVQ Diploma in Construction and Civil Engineering Operations (Construction)**

### Claiming certificates

Centres may claim certificates for candidates who have been registered with ProQual and who have successfully achieved the required number of credits for a qualification. All certificates will be issued to the centre for successful candidates.

### Unit certificates

If a candidate does not achieve all of the units/credits required for a qualification, the centre may claim a unit certificate for the candidate which will list all of the units/credits achieved.

### Replacement certificates

If a replacement certificate is required a request must be made to ProQual in writing. Replacement certificates are labelled as such and are only provided when the claim has been authenticated. Refer to the Fee Schedule for details of charges for replacement certificates.

## Learning Outcomes and Assessment Criteria

**Title:** Conforming to general health, safety and welfare in the workplace

**Unit Number:** M/508/6537

### Learning outcomes

*The learner will be able to:*

1 Comply with all workplace health, safety and welfare legislation requirements.

### Assessment criteria

*The learner can:*

- 1.1 Comply with information from workplace inductions and any health, safety and welfare briefings attended relevant to the occupational area.
- 1.2 Use health and safety control equipment safely to carry out the activity in accordance with legislation and organisational requirements.
- 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. | <ul style="list-style-type: none"> <li>2.1 Report any hazards created by changing circumstances within the workplace in accordance with organisational procedures.</li> <li>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.</li> <li>2.3 List the current Health and Safety Executive top ten safety risks.</li> <li>2.4 List the current Health and Safety Executive top five health risks.</li> <li>2.5 State how changing circumstances within the workplace could cause hazards.</li> <li>2.6 State the methods used for reporting changed circumstances, hazards and incidents in the workplace.</li> </ul> |
| 3 | Comply with organisational policies and procedures to contribute to health, safety and welfare.  | <ul style="list-style-type: none"> <li>3.1 Interpret and comply with given instructions to maintain safe systems of work and quality working practices.</li> <li>3.2 Contribute to discussions by offering/providing feedback relating to health, safety and welfare.</li> <li>3.3 Contribute to the maintenance of workplace welfare facilities in accordance with workplace welfare procedures.</li> <li>3.4 Safely store health and safety control equipment in accordance with given instructions.</li> <li>3.5 Dispose of waste and/or consumable items in accordance with legislation.</li> </ul>  |

3	continued	3.6 State the organisational policies and procedures for health, safety and welfare, in relation to:
		<ul style="list-style-type: none"> <li>- dealing with accidents and emergencies associated with the work and environment</li> <li>- methods of receiving or sourcing information</li> <li>- reporting</li> <li>- stopping work</li> <li>- evacuation</li> <li>- fire risks and safe exit procedures</li> <li>- consultation and feedback.</li> </ul>
		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:
		<ul style="list-style-type: none"> <li>- recognising when to stop work in the face of serious and imminent danger to self and/or others</li> <li>- contributing to discussions and providing feedback</li> <li>- reporting changed circumstances and incidents in the workplace</li> <li>- complying with the environmental requirements of the workplace.</li> </ul>
		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:
		<ul style="list-style-type: none"> <li>- during the working day</li> <li>- on completion of the day's work</li> <li>- for unauthorised personnel (other operatives and the general public)</li> <li>- for theft.</li> </ul>

5 continued

5.2 State how security arrangements are implemented in relation to the workplace, the general public, site personnel and resources.

**Title:** Conforming to general health, safety and welfare in the workplace

**Additional information about this unit**

Assessment Guidance	<p>This unit must be assessed in a work environment, in accordance with the ConstructionSkills' Consolidated Assessment Strategy for Construction and the Built Environment.</p> <p>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.</p>
Sector Subject Area	Workplace evidence of skills cannot be simulated. 5.2 Building and Construction
Availability for use	Shared unit
Unit guided learning hours	7

**Title:** Conforming to productive working practices in the workplace

**Unit Number:** T/508/6538

**Learning outcomes**

*The learner will be able to:*

**Assessment criteria**

*The learner can:*

1	Communicate with others to establish productive work practices.	1.1	Communicate in an appropriate manner with line management, colleagues and/or customers to ensure that work is carried out productively.
		1.2	Describe the different methods of communicating with line management, colleagues and customers.
		1.3	Describe how to use different methods of communication to ensure that the work carried out is productive.
2	Follow organisational procedures to plan the sequence of work.	2.1	Interpret relevant information from organisational procedures in order to plan the sequence of work.
		2.2	Plan the sequence of work, using appropriate resources, in accordance with organisational procedures to ensure work is completed productively.
		2.3	Describe how organisational procedures are applied to ensure work is planned and carried out productively, in relation to: <ul style="list-style-type: none"><li>- using resources for own and other's work requirements</li><li>- allocating appropriate work to employees</li><li>- organising the work sequence</li><li>- reducing carbon emissions.</li></ul>
		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: <ul style="list-style-type: none"><li>- job cards</li><li>- worksheets</li><li>- material/resource lists</li><li>- time sheets.</li></ul>



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

**Title:** Conforming to productive working practices in the workplace

**Additional information about this unit**

Assessment Guidance

This unit must be assessed in a work environment, in accordance with the ConstructionSkills' Consolidated Assessment Strategy for Construction and the Built Environment.

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

Workplace evidence of skills cannot be simulated.

Sector Subject Areas

5.2 Building and Construction

Availability for use

Shared unit

Unit guided learning hours

10

**Title:** Installing, maintaining and removing work area protection and safety equipment in the workplace

**Unit Number:** J/617/1197

**Learning outcomes**

*The learner will be able to:*

**Assessment criteria**

*The learner can:*

- |   |  |     |  |
|---|--|-----|--|
| 1 | Interpret the given information relating to the work and resources when installing, maintaining, and removing work area protection and safety equipment. | 1.1 | Interpret and extract relevant information from: <ul style="list-style-type: none"><li>- drawings</li><li>- plans</li><li>- specifications</li><li>- schedules</li><li>- risk assessments</li><li>- method statements</li><li>- manufacturers' information</li><li>- suppliers' information.</li></ul>   |
|   |  | 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: <ul style="list-style-type: none"><li>- drawings</li><li>- plans</li><li>- specifications</li><li>- schedules</li><li>- risk assessments</li><li>- method statements</li><li>- site inspection reports</li><li>- manufacturers' information</li><li>- verbal and written instructions</li><li>- sketches</li><li>- electronic data</li><li>- current regulations and official guidance.</li></ul> |

- |   |  |   |
|---|--|---|
| 2 | Know how to comply with relevant legislation and official guidance when installing, maintaining, and removing work area protection and safety equipment. | <p>2.1 Describe their responsibilities regarding potential accidents, health hazards and the environment, whilst working:</p> <ul style="list-style-type: none"> <li>- in the workplace</li> <li>- below ground level</li> <li>- in confined spaces</li> <li>- at height</li> <li>- with tools and equipment</li> <li>- with materials and substances</li> <li>- with the movement and storage of materials by manual handling and mechanical lifting.</li> </ul> <p>2.2 Describe the organisational security procedures for tools, equipment, and personal belongings in relation to:</p> <ul style="list-style-type: none"> <li>- site</li> <li>- workplace</li> <li>- company</li> <li>- operative</li> <li>- vehicles.</li> </ul> <p>2.3 Explain what the accident reporting procedures are and who is responsible for making reports.</p> <p>2.4 Describe the types of fire extinguishers available and describe how and when they are used for:</p> <ul style="list-style-type: none"> <li>- water</li> <li>- CO2</li> <li>- foam</li> <li>- powder.</li> </ul> |
| 3 | Maintain safe and healthy working practices when installing, maintaining, and removing work area protection and safety equipment.                        | <p>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.</p> <p>3.2 Demonstrate compliance with given information and relevant legislation in relation to at least two of the following:</p> <ul style="list-style-type: none"> <li>- safe use of access equipment</li> <li>- safe use, storage and handling of materials, tools, and equipment</li> <li>- specific risks to health.</li> </ul>  |

- |   |  |   |
|---|--|---|
| 3 | continued  | <p>3.3 Explain why and when health and safety control equipment, identified by the principles of prevention, should be used, and the types, purpose and limitations of each type, the work situation and general work environment, in relation to:</p> <ul style="list-style-type: none"> <li>- collective protective measures</li> <li>- personal protective equipment (PPE)</li> <li>- respiratory protective equipment (RPE)</li> <li>- local exhaust ventilation (LEV).</li> </ul> <p>3.4 Describe how the relevant health and safety control equipment should be used in accordance with the given working instructions.</p> <p>3.5 Describe how emergencies should be responded to in accordance with organisational authorisation and personal skills when involved with:</p> <ul style="list-style-type: none"> <li>- fires, spillages, injuries</li> <li>- other task related activities.</li> </ul>   |
| 4 | Select the required quantity and quality of resources for the methods of work to install, maintain and remove work area protection and safety equipment. | <p>4.1 Select resources associated with own work in relation to:</p> <ul style="list-style-type: none"> <li>- materials, components and fixings</li> <li>- tools and equipment.</li> </ul> <p>4.2 Describe the characteristics, quality, uses, sustainability, limitations, and defects associated with the resources in relation to:</p> <ul style="list-style-type: none"> <li>- safety and security equipment (cones, tapes, fences, barriers, hoarding, doors, gates)</li> <li>- protection and safety notices</li> <li>- signs and safety lighting</li> <li>- hand and power tools.</li> </ul> <p>4.3 Describe how to confirm that the resources and materials conform to the specification.</p> <p>4.4 Describe how the resources should be used correctly and how problems associated with the resources are reported.</p> <p>4.5 Explain why the organisational procedures have been developed and how they are used for the selection of required resources.</p> |

4	continued	4.6	Describe any potential hazards associated with the resources and methods of work.
		4.7	Describe how to calculate quantity, length and area associated with the method and procedure to install, maintain, and remove work area protection and safety equipment.
5	Minimise the risk of damage to the work and surrounding area when installing, maintaining, and removing work area protection and safety equipment.	5.1	Protect the work and its surrounding area from damage in accordance with safe working practices and organisational procedures.
		5.2	Maintain a clear and tidy work space.
		5.3	Dispose of waste in accordance with current legislation.
		5.4	Describe how to protect work from damage and the purpose of protection in relation to: <ul style="list-style-type: none"> <li>- general workplace activities</li> <li>- other occupations</li> <li>- adverse weather conditions.</li> </ul>
		5.5	Explain why the disposal of waste should be carried out safely in accordance with: <ul style="list-style-type: none"> <li>- environmental responsibilities</li> <li>- organisational procedures</li> <li>- manufacturers' information</li> <li>- statutory regulations</li> <li>- official guidance.</li> </ul>
6	Complete the work within the allocated time when installing, maintaining, and removing work area protection and safety equipment.	6.1	Demonstrate completion of the work within the estimated, allocated time.
		6.2	Describe the purpose of the work programme and explain why deadlines should be kept in relation to: <ul style="list-style-type: none"> <li>- types of productivity targets and time scales</li> <li>- how times are estimated</li> <li>- organisational procedures for reporting circumstances which will affect the work programme.</li> </ul>

- 7 Comply with the given contract information to install, maintain, and remove work area protection and safety equipment to the required specification.
- 7.1 Demonstrate the following work skills:
- measuring
  - setting out
  - positioning
  - assembling
  - constructing
  - securing
  - dismantling
  - removing.
- 7.2 Use and maintain hand and power tools.
- 7.3 Install, maintain, and remove temporary protection and safety arrangements for the work area, to given working instructions, relating to protection equipment, barriers, fences and at least one of the following:
- protection and safety notices
  - safety lighting.

7 continued

7.4 Describe how to apply safe and healthy work practices, follow procedures, report problems, and establish the authority needed to rectify them, to:

- plan for the protection and the safety of the work and surrounding environment
- conform to agreed specification
- confirm the location of utility services and ensure they are protected
- prepare and set out area protection equipment to required dimensions
- install, check, and maintain the protection and safety equipment, barriers, and fences
- dismantle and remove protection and safety equipment
- install protection and safety notices
- install safety lighting systems
- monitor and check accuracy during progress and on completion of work
- install, maintain, and remove work area protection equipment in public areas
- transport, load, and off load work area protection equipment
- recognise and determine when specialist skills and knowledge are required and report accordingly
- report work undertaken
- use hand and power tools
- work at height
- use access equipment.

7.5 Describe the needs of other occupations and how to communicate effectively within a team.

7.6 Describe how to maintain the tools and equipment used.



**Title:** Installing, maintaining and removing work area protection and safety equipment in the workplace

**Additional information about this unit**

Assessment Guidance	<p>This unit must be assessed in a work environment, in accordance with the ConstructionSkills' Consolidated Assessment Strategy for Construction and the Built Environment.</p> <p>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.</p> <p>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.</p> <p>Workplace evidence of skills cannot be simulated.</p>
Sector Subject Areas	5.2 Building and Construction
Availability for use	Shared unit
Unit guided learning hours	55
Assessment	10

## Behaviours

When performing to this standard you are likely to demonstrate the following behaviours.

- 1 **Work safely:**  
Consider the safety of yourself and those around you, challenge unsafe behaviour.
- 2 **Effective communication:**  
Oral, written, electronic, listening, body language, presentation.
- 3 **Respect:**  
Apply equality, diversity and inclusion in dealing with others.
- 4 **Team work:**  
Work effectively and safely with others with limited supervision.
- 5 **Independent working:**  
Take responsibility for safe completion of your own work.
- 6 **Logical thinking:**  
Use clear and valid reasoning when making decisions to safely undertake work instructions.
- 7 **Working effectively:**  
Undertake the work in a reliable, safe and productive manner.
- 8 **Time management:**  
Use own time effectively to complete the work instructions to schedule, take the time to be safe.
- 9 **Adaptability:**  
Be able to adjust to changes to the work instructions, put safety first.

**Title:** Laying modular pavement in the workplace

**Unit Number:** R/651/0010

**Learning outcomes**

**Assessment criteria**

*The learner will be able to:*

*The learner can:*

1	Interpret the given information relating to the work and resources when laying modular pavement.	1.1	Interpret and extract relevant information from drawings, risk assessments, method statements, specifications, schedules 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: <ul style="list-style-type: none"><li>- drawings, specifications, schedules, risk assessments, method statements, manufacturers' information and regulations governing the laying of modular pavement.</li></ul>
2	Know how to comply with relevant legislation and official guidance when laying modular pavement.	2.1	Describe their responsibilities regarding potential accidents, health hazards and the environment whilst working: <ul style="list-style-type: none"><li>- in the workplace, below ground level, in confined spaces, with tools and equipment, with materials and substances, with movement and storage of materials and by manual handling and mechanical lifting.</li></ul>
		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 laying modular pavement.	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 laying modular pavement.

- 3 continued
- 3.2 Demonstrate compliance with given information and relevant legislation when laying modular pavement in relation to the following:
- 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 laying modular pavement, 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).
- 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 lay modular pavement.
- 4.1 Select resources associated with own work in relation to materials and components, and tools and equipment.
- 4.2 Describe the characteristics, quality, uses, sustainability, limitations and defects associated with the resources in relation to:
- graded granular material, mortar and concrete
  - blocks, stone setts, bricks, flags, natural stone
  - kerbs, channels, drainage
  - hand tools, power tools and equipment.
- 4.3 Describe how to confirm that the resources and materials conform to the specification.
- 4.4 Describe how the resources should be used correctly and how problems associated with the resources are reported.
- 4.5 Explain why the organisational procedures have been developed and how they are used for the selection of required resources.
- 4.6 Describe any potential hazards associated with the resources and methods of work.

4	continued	4.7	Describe how to identify by calculation, quantity, length, area, volume and wastage associated with the method and procedure to lay modular paving.
5	Minimise the risk of damage to the work and surrounding area when laying modular pavement.	5.1	Protect the work and its surrounding area from damage in accordance with safe working practices and organisational procedures.
		5.2	Maintain a clear and tidy work space.
		5.3	Dispose of waste in accordance with current legislation.
		5.4	Describe how to protect work from damage and the purpose of protection in relation to general workplace activities, other occupations and adverse weather conditions.
		5.5	Explain why the disposal of waste should be carried out safely in accordance with environmental responsibilities, organisational procedures, manufacturers' information, statutory regulations and official guidance.
6	Complete the work within the allocated time when laying modular pavement.	6.1	Demonstrate completion of the work within the allocated time.
		6.2	Describe the purpose of the work programme and explain why deadlines should be kept in relation to: <ul style="list-style-type: none"> <li>- types of productivity targets and time scales</li> <li>- how times are estimated</li> <li>- organisational procedures for reporting circumstances which will affect the work programme.</li> </ul>
7	Comply with the given contract information to lay modular pavement to the required specification.	7.1	Demonstrate the following work skills when laying modular pavement: <ul style="list-style-type: none"> <li>- setting out, preparing, measuring, marking out, cutting, placing, laying, levelling, aligning, compacting and finishing.</li> </ul>
		7.2	Use and maintain hand tools, power tools and ancillary equipment.

- 7.3 Place bedding and lay modular paving manually and/or by machine to given working instructions, to produce a bound or unbound pavement using at least two of the following:
- block paving
  - brick paving
  - stone and/or concrete setts
  - flags
  - natural stone rough cut (riven and/or cropped)
  - natural stone uniformly cut (sawn in dimension).
- 7.4 Describe how to apply safe and healthy work practices, follow procedures, report problems and establish the authority needed to rectify them, to:
- confirm the area and location of work, the operations, safety and security requirements including temporary traffic management and immediate area protection
  - confirm the type of block, brick, sett, flag and natural stone modular paving unit, bedding and jointing materials
  - conform to the agreed specifications
  - identify the differences between rigid (bound) and flexible (unbound) pavements
  - inspect and confirm substrate as acceptable for laying modular paving to given specification
  - set out the area and prepare substrate for modular pavement construction
  - install kerbs, channels, edgings and drainage
  - mark and cut modular paving
  - lay modular block, brick, sett, flag and natural stone paving manually and by machine to the required design, pattern, levels and stability
  - work around street furniture and ironwork
  - work with, in close proximity to and around plant or machinery
  - monitor and check work against specification(s)
  - lift modular paving for removal, maintenance and repair
  - maintain and repair modular paving to match existing design functions
  - return infrastructure to operational status
  - recognise and determine when specialist skills and knowledge are required and report accordingly
  - use hand tools, power tools and equipment.
- 7.5 Describe the needs of other occupations and how to effectively communicate within a team when laying modular pavement.

7 continued

7.6 Describe how to maintain the tools and equipment used when laying modular pavement.

**Title:** Laying modular pavement in the workplace

**Additional information about this unit**

Assessment Guidance

This unit must be assessed in a work environment, in accordance with the ConstructionSkills' Consolidated Assessment Strategy for Construction and the Built Environment.

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

Workplace evidence of skills cannot be simulated.

This unit must be assessed against 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.

Sector Subject Area

5.2 Building and Construction

Availability for use

Shared unit

Unit guided learning hours

75



**Title:** Preparing and operating powered units, tools or pedestrian plant, machinery or equipment in the workplace

**Unit Number:** D/651/0014

**Learning outcomes**

**Assessment criteria**

*The learner will be able to:*

*The learner can:*

1	Interpret the given information relating to the preparation and use of powered units, tools or pedestrian plant, machinery or equipment.	1.1	Interpret and extract relevant information from drawings, specifications, schedules, risk assessments, operating instructions 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: <ul style="list-style-type: none"><li>- drawings, specifications, schedules, method statements, risk assessments, legislation, Codes of Practice, manufacturers' information and operating instructions.</li></ul>
2	Know how to comply with relevant legislation and official guidance to prepare and use powered units, tools or pedestrian plant, machinery or equipment.	2.1	Describe their responsibilities regarding potential accidents, health hazards and the environment whilst working: <ul style="list-style-type: none"><li>- in the workplace, below ground level, in confined spaces, at height, with tools and equipment, with materials and substances, with movement/storage of materials and by manual handling and mechanical lifting.</li></ul>
		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 preparing for and using powered units, tools or pedestrian plant, machinery or equipment.	3.1	Use health and safety control equipment safely and comply with the methods of work to carry out the activity in accordance with legislation and organisational requirements when using powered units, tools or pedestrian plant, machinery or equipment.

- 3 continued
- 3.2 Demonstrate compliance with given information and relevant legislation when using powered units, tools or pedestrian plant, machinery or equipment in relation to two or more of the following:
- safe use of access equipment
  - safe handling of materials
  - safe use and storage 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 protection, should be used, relating to powered units, tools or pedestrian plant, machinery or equipment use, 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 to prepare for and sustain powered units, tools or pedestrian plant, machinery or equipment.
- 4.1 Select resources associated with the type of work in relation to fuel/power source, lubricants and consumables.
- 4.2 Describe the characteristics, quality, uses, sustainability, limitations and defects associated with the resources, and how they should be used correctly, relating to:  
power source/fuels  
consumables, lubricants.
- 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 identify quantity, length, area and wastage associated with the method/procedures to operate powered units, tools or pedestrian plant, machinery or equipment.

5	Minimise the risk of damage to the work and surrounding area when preparing to and using powered units, tools or pedestrian plant, machinery or equipment.	5.1	Protect the work and its surrounding area from damage. in accordance with safe working practices and organisational procedures.
		5.2	Prevent damage and maintain a clean work space.
		5.3	Dispose of waste in accordance with current legislation.
		5.4	Describe how to protect work from damage and the purpose of protection in relation to general workplace activities, other occupations and adverse weather conditions.
		5.5	Explain why the disposal of waste should be carried out safely in accordance with environmental responsibilities, organisational procedures, manufacturers' information, statutory regulations and official guidance.
6	Complete the work within the allocated time when preparing to and using powered units, tools or pedestrian plant, machinery or equipment.	6.1	Demonstrate completion of the work within the allocated time.
		6.2	Describe the purpose of the work programme and describe why deadlines should be kept in relation to: <ul style="list-style-type: none"> <li>- types of progress charts, timetables and estimated times</li> <li>- organisational procedures for reporting circumstances which will affect the work programme.</li> </ul>
7	Comply with the given contract information to operate powered units, tools or pedestrian plant, machinery or equipment to the required specification.	7.1	Demonstrate the following work skills when using powered units, tools or pedestrian plant, machinery or equipment: <ul style="list-style-type: none"> <li>- starting, stopping, replenishing, controlling and cleaning.</li> </ul>
		7.2	Use and maintain powered units, tools and ancillary equipment.
		7.3	Operate and monitor powered units and tools or pedestrian plant, machinery or associated equipment to given working instructions relating to: <ul style="list-style-type: none"> <li>- continual running</li> <li>- closing down</li> <li>- cleaning.</li> </ul>
		7.4	Return powered unit, tools or pedestrian plant, machinery or equipment to a safe operational condition on completion of work.
		7.5	Disassemble and/or clean powered unit, tools or pedestrian plant, machinery or equipment.

7 continued

- 7.6 Describe how to apply safe and healthy work practices, follow procedures, report problems and establish authority needed to rectify, to:
- prepare, position and set up for work
  - secure accessories and tool attachments
  - carry out pre-use and function checks to manufacturers' and suppliers' information/ and procedures
  - complete pre-start and post stop checks
  - recognise the characteristics of the plant, machinery and equipment
  - identify specific operating and safety requirements for the task and work
  - recognise and determine when specific skills and knowledge are required and report accordingly
- 7.7
- operate, use and control
  - monitor and maintain
  - replenish consumables
  - close down and secure
  - disassemble and clean
  - use access equipment
  - transport and store.
- 7.8 Describe the needs of other occupations and how to effectively communicate within a team when preparing for and using powered units, tools or pedestrian plant, machinery or equipment.
- 7.9 Describe how to maintain the hand tools, portable power tools, powered units, pedestrian plant, machinery and ancillary equipment used for the work.

**Title:** Preparing and operating powered units, tools or pedestrian plant, machinery or equipment in the workplace

**Additional information about this unit**

Assessment Guidance	<p>This unit must be assessed in a work environment and in accordance with the ConstructionSkills' Consolidated Assessment Strategy for Construction and the Built Environment.</p> <p>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.</p> <p>Workplace evidence of skills cannot be simulated.</p> <p>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.</p>
Sector subject area	5.2 Building and Construction
Availability for use	Shared unit
Unit guided learning hours	23

**Title:** Setting out secondary dimensional work control in the workplace

**Unit Number:** K/508/6536

**Learning outcomes**

**Assessment criteria**

*The learner will be able to:*

*The learner can:*

1	Interpret the given information relating to setting out dimensional control of the work.	1.1	Interpret and extract relevant information from drawings, specifications, schedules, method statements, risk assessments, manufacturers' information and reference points.
		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: <ul style="list-style-type: none"><li>- drawings, specifications, schedules, method statements, risk assessments, manufacturers' information, reference points and current regulations governing buildings and construction work.</li></ul>
2	Know how to comply with relevant legislation and official guidance to set out dimensional control of the work.	2.1	Describe their responsibilities regarding potential accidents, health hazards and the environment whilst working: <ul style="list-style-type: none"><li>- in the workplace, below ground level, in confined spaces, at height, with tools and equipment, with materials and substances, with movement/storage of materials and by manual handling and mechanical lifting.</li></ul>
		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 dimensional control of the work.	3.1	Use health and safety control equipment safely and comply with the methods of work to carry out the activity in accordance with legislation and organisational requirements during setting out dimensional control of the work.

- 3 continued
- 3.2 Demonstrate compliance with given information and relevant legislation when setting out dimensional control of the work in relation to two or more of the following:
- safe use of access equipment/working platforms
  - safe handling of materials
  - safe use and storage 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 protection, should be used, relating to setting out dimensional control of the work, 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 to set out dimensional control of the work.
- 4.1 Select resources associated with the work in relation to measuring tools and instruments, marking materials/components, tools and equipment.
- 4.2 Describe the characteristics, quality, uses, sustainability, limitations and defects associated with the resources, and how they should be used correctly, relating to:
- measuring tools and instruments
  - marking equipment
  - level and alignment tools.
- 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 identify quantity of resources associated with the method/procedure to set out for secondary dimensional work control.

- |   |  |   |
|---|--|---|
| 5 | Minimise the risk of damage to the work and surrounding area when setting out dimensional control of the work.       | <p>5.1 Protect the work and its surrounding area from damage in accordance with safe working practices and organisational procedures.</p> <p>5.2 Prevent damage and maintain a clean work area.</p> <p>5.3 Dispose of waste in accordance with current legislation.</p> <p>5.4 Describe how to protect work from damage and the purpose of protection in relation to general workplace activities, other occupations and adverse weather conditions.</p> <p>5.5 Explain why the disposal of waste should be carried out safely in accordance with environmental responsibilities, organisational procedures, manufacturers' information, statutory regulations and official guidance.</p> |
| 6 | Complete the work within the allocated time when setting out dimensional control of the work.                        | <p>6.1 Demonstrate completion of the work within the allocated time.</p> <p>6.2 Describe the purpose of the work programme and describe why deadlines should be kept in relation to:</p> <ul style="list-style-type: none"> <li>- types of progress charts, timetables and estimated times</li> <li>- organisational procedures for reporting circumstances which will affect the work programme.</li> </ul>  |
| 7 | Comply with the given contract information to set out dimensional control of the work to the required specification. | <p>7.1 Demonstrate the following work skills when setting out dimensional control of the work:</p> <ul style="list-style-type: none"> <li>- transferring, transposing, levelling, measuring, marking, positioning, fixing and securing.</li> </ul> <p>7.2 Use and maintain hand tools, measuring and marking equipment.</p> <p>7.3 Set out secondary dimensional control for the work to given working instructions for three or more of the following:</p> <ul style="list-style-type: none"> <li>- line</li> <li>- level</li> <li>- depth</li> <li>- area</li> <li>- height</li> <li>- angle.</li> </ul>  |



7 continued

- 7.4 Describe how to apply safe and healthy work practices, follow procedures, report problems and establish authority needed to rectify, to:
- measure and set out secondary dimensional control for the work
  - measure, align and level to dimensional control requirements
  - transfer and set out lines, angles and levels to dimensional control requirements
  - recognise and determine when specific skills and knowledge are required and report accordingly
  - use hand tools, measuring and marking equipment
  - work at height
  - use access equipment.
- 7.5 Describe how to calculate height, depth, angle, length and area associated with the method/procedure to set out secondary dimensional work control.
- 7.6 Describe the needs of other occupations and how to effectively communicate within a team when setting out dimensional control of the work.
- 7.7 Describe how to maintain the hand tools, measuring, marking and ancillary and equipment used to set out dimensional control of the work.

**Title:** Setting out secondary dimensional work control in the workplace

**Additional information about this unit**

Assessment Guidance

This unit must be assessed in a work environment and in accordance with the ConstructionSkills' Consolidated Assessment Strategy for Construction and the Built Environment.

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

Workplace evidence of skills cannot be simulated.

This unit must be assessed against 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.

Sector subject areas

5.2 Building and Construction

Availability for use

Shared unit

Unit guided learning hours

23

**Title:** Laying preformed kerbs and channels in the workplace

**Unit Number:** F/651/0015

**Learning outcomes**

**Assessment criteria**

*The learner will be able to:*

*The learner can:*

1	Interpret the given information relating to the work and resources when laying preformed kerbs and channels.	1.1	Interpret and extract relevant information from drawings, specifications, schedules, risk assessments, method statements 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: <ul style="list-style-type: none"><li>- drawings, specifications, schedules, risk assessments, method statements, manufacturers' information, verbal, written and graphical instructions and current regulations for laying preformed kerbs and channels.</li></ul>
2	Know how to comply with relevant legislation and official guidance when laying preformed kerbs and channels.	2.1	Describe their responsibilities regarding potential accidents, health hazards and the environment whilst working: <ul style="list-style-type: none"><li>- in the workplace, below ground level, in confined spaces, tools and equipment, with materials and substances, with movement and storage of materials by manual handling and mechanical lifting.</li></ul>
		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 laying preformed kerbs and channels.	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 laying preformed kerbs and channels.

- 3 continued
- 3.2 Demonstrate compliance with given information and relevant legislation when laying preformed kerbs and channels in relation to the following:
- safe use, storage and handling of materials, tools and equipment
  - specific risks to health
  - others affected by the work.
- 3.3 Explain why and when health and safety control equipment, identified by the principles of prevention, should be used, relating to laying preformed kerbs and channels, 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).
- 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 lay preformed kerbs and channels.
- 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:
- sand, cement, aggregates, additives, sealants and resins
  - kerbs, channels and combined drainage and kerb systems
  - hand tools, power tools and ancillary equipment.
- 4.3 Describe how to confirm that the resources and materials conform to the specification.
- 4.4 Describe how the resources should be used correctly and how problems associated with the resources are reported.
- 4.5 Explain why the organisational procedures have been developed and how they are used for the selection of required resources.
- 4.6 Describe any potential hazards associated with the resources and methods of work.

4	continued	4.7	Describe how to identify by calculation, quantity, length, area and wastage associated with the method and procedure to lay preformed kerbs, channels and combined drainage and kerb systems.
5	Minimise the risk of damage to the work and surrounding area when laying preformed kerbs and channels.	5.1	Protect the work and its surrounding area from damage in accordance with safe working practices and organisational procedures.
		5.2	Maintain a clear and tidy work space.
		5.3	Dispose of waste in accordance with current legislation.
		5.4	Describe how to protect work from damage and the purpose of protection in relation to general workplace activities, other occupations and adverse weather conditions.
		5.5	Explain why the disposal of waste should be carried out safely in accordance with environmental responsibilities, organisational procedures, manufacturers' information, statutory regulations and official guidance.
6	Complete the work within the allocated time when laying preformed kerbs and channels.	6.1	Demonstrate completion of the work within the allocated time.
		6.2	Describe the purpose of the work programme and explain why deadlines should be kept in relation to: <ul style="list-style-type: none"> <li>- types of productivity targets and time scales</li> <li>- how times are estimated</li> <li>- organisational procedures for reporting circumstances which will affect the work programme.</li> </ul>
7	Comply with the given contract information to lay preformed kerbs and channels to the required specification.	7.1	Demonstrate the following work skills when laying preformed kerbs and channels: <ul style="list-style-type: none"> <li>- measuring, marking out, cutting, positioning, levelling, aligning, compacting, sealing and finishing.</li> </ul>
		7.2	Use and maintain hand tools, power tools and ancillary equipment.
		7.3	Lay preformed kerbs and/or channels and/or combined drainage and kerb systems to given working instructions.

7 continued

- 7.4 Describe how to apply safe and healthy work practices, follow procedures, report problems and establish the authority needed to rectify them, to:
- confirm the area and location of work, the operations, safety and security requirements including temporary traffic management and immediate area protection
  - identify different types of kerbs, channels and combined drainage and kerb systems
  - conform to agreed specifications
  - set out the area and prepare substrate and foundation for laying kerbs, channels and combined drainage and kerb systems
  - lay and align kerbs, channels and combined drainage and kerb systems to the required specifications
  - mark and cut kerbs, channels and combined drainage and kerb systems
  - work around street furniture and ironwork
  - protect completed work for curing process
  - deal with others affected by the work
  - return infrastructure to operational status
  - recognise and determine when specialist skills and knowledge are required and report accordingly
  - use hand tools, power tools and equipment.
- 7.5 Describe the needs of other occupations and how to effectively communicate within a team when laying preformed kerbs, channels and combined drainage and kerb systems.
- 7.6 Describe how to maintain the tools and equipment used when laying preformed kerbs, channels and combined drainage and kerb systems.

**Title:** Laying preformed kerbs and channels in the workplace

**Additional information about this unit**

Assessment Guidance

This unit must be assessed in a work environment, in accordance with the ConstructionSkills' Consolidated Assessment Strategy for Construction and the Built Environment.

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

Workplace evidence of skills cannot be simulated.

This unit must be assessed against 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.

Sector Subject Area

5.2 Building and Construction

Availability for use

Shared unit

Unit guided learning hours

75

**Title:** Installing, maintaining and removing temporary excavation support in the workplace

**Unit Number:** T/650/8908

**Learning outcomes**

*The learner will be able to:*

**Assessment criteria**

*The learner can:*

1	Interpret the given information relating to the work and resources when installing, maintaining and removing temporary excavation support.	1.1	Interpret and extract relevant information from: <ul style="list-style-type: none"><li>- drawings</li><li>- specifications</li><li>- schedules</li><li>- risk assessments</li><li>- method statements</li><li>- manufacturers' information</li><li>- suppliers' information.</li></ul>
		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: <ul style="list-style-type: none"><li>- drawings</li><li>- specifications</li><li>- schedules</li><li>- risk assessments</li><li>- method statements</li><li>- manufacturers' information</li><li>- verbal and written instructions</li><li>- sketches</li><li>- electronic data</li><li>- current regulations</li><li>- official guidance.</li></ul>
2	Know how to comply with relevant legislation and official guidance when installing, maintaining and removing temporary excavation support.	2.1	Describe their responsibilities regarding potential accidents, health hazards and the environment whilst working: <ul style="list-style-type: none"><li>- in the workplace</li><li>- below ground level</li><li>- in confined spaces</li><li>- at height</li><li>- with tools and equipment</li><li>- with materials and substances</li><li>- with the movement and storage of materials by manual handling and mechanical lifting.</li></ul>



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| 2 | continued   | <p>2.2 Describe the organisational security procedures for tools, equipment and personal belongings in relation to:</p> <ul style="list-style-type: none"> <li>- site</li> <li>- workplace</li> <li>- company</li> <li>- operative</li> <li>- vehicles.</li> </ul> <p>2.3 Explain what the accident reporting procedures are and who is responsible for making reports.</p> <p>2.4 Describe the types of fire extinguishers available and describe how and when they are used:</p> <ul style="list-style-type: none"> <li>- water</li> <li>- CO2</li> <li>- foam</li> <li>- powder.</li> </ul>   |
| 3 | Maintain safe and healthy working practices when installing, maintaining and removing temporary excavation support. | <p>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.</p> <p>3.2 Demonstrate compliance with given information and relevant legislation relating to three of the following:</p> <ul style="list-style-type: none"> <li>- working with and around utility services including ground penetration</li> <li>- safe use of access equipment</li> <li>- safe use, storage and handling of materials, tools and equipment</li> <li>- specific risks to health.</li> </ul> <p>3.3 Explain why and when health and safety control equipment, identified by the principles of prevention, should be used, and the types, purpose and limitations of each type, the work situation and general work environment, in relation to:</p> <ul style="list-style-type: none"> <li>- collective protective measures</li> <li>- personal protective equipment (PPE)</li> <li>- respiratory protective equipment (RPE)</li> <li>- local exhaust ventilation (LEV).</li> </ul> <p>3.4 Describe how the relevant health and safety control equipment should be used in accordance with the given working instructions.</p> <p>3.5 Describe how emergencies should be responded to in accordance with organisational authorisation and personal skills when involved with:</p> <ul style="list-style-type: none"> <li>- fires, spillages, injuries</li> <li>- other task related activities.</li> </ul> |

- 4 Select the required quantity and quality of resources for the methods of work to install, maintain and remove temporary excavation support.
- 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:
- proprietary systems
  - open and closed support systems
  - piling systems
  - bespoke support systems
  - fixing devices
  - hand and power tools.
- 4.3 Describe how to confirm that the resources and materials conform to the specification.
- 4.4 Describe how the resources should be used correctly and how problems associated with the resources are reported.
- 4.5 Explain why the organisational procedures have been developed and how they are used for the selection of required resources.
- 4.6 Describe any potential hazards associated with the resources and methods of work.
- 4.7 Describe how to calculate quantity, length, area and wastage associated with the method and procedure to install, maintain and remove temporary excavation support.
- 5 Select the required quantity and quality of resources for the methods of work to install, maintain and remove temporary excavation support.
- 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 work space.
- 5.3 Dispose of waste in accordance with current legislation.
- 5.4 Describe how to protect work from damage and the purpose of protection in relation to:
- general workplace activities
  - other occupations
  - 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
  - official guidance.

6	Complete the work within the allocated time when installing, maintaining and removing temporary excavation support.	<p>6.1 Demonstrate completion of the work within the estimated, allocated time.</p> <p>6.2 Describe the purpose of the work programme and explain why deadlines should be kept in relation to:</p> <ul style="list-style-type: none"> <li>- types of productivity targets and time scales</li> <li>- how times are estimated</li> <li>- organisational procedures for reporting circumstances which will affect the work programme.</li> </ul>
7	Comply with the given contract information to install, maintain and remove temporary excavation support to the required specification.	<p>7.1 Demonstrate the following work skills:</p> <ul style="list-style-type: none"> <li>- measuring, marking out, preparing, positioning, fitting, supporting, fixing, securing, dismantling and removing.</li> </ul> <p>7.2 Use and maintain hand and power tools.</p> <p>7.3 Install, maintain and remove temporary excavation support to given working instructions, relating to at least one of the following:</p> <ul style="list-style-type: none"> <li>- a proprietary system</li> <li>- open and closed support systems</li> <li>- piling systems</li> <li>- bespoke support systems.</li> </ul> <p>7.4 Describe how to apply safe and healthy work practices, follow procedures, report problems and establish the authority needed to rectify them, to:</p> <ul style="list-style-type: none"> <li>- recognise types of temporary support for excavations</li> <li>- conform to agreed specifications</li> <li>- plan, prepare and set out for the installation of the excavation support and edge protection</li> <li>- remove surface courses, ironwork, modular components, street furniture and sub-surface structures</li> <li>- recognise changes in ground conditions, ground water conditions, soil types and excavation stability</li> <li>- recognise the dangers of loads and structures at the edge of excavations</li> <li>- identify and locate utility services, excavate around services and protect</li> <li>- recognise inspection and test criteria for excavation support systems</li> <li>- provide for safe access and egress into the excavation and around the temporary excavation support</li> <li>- protect and monitor adjacent structures</li> </ul>

7 continued

- 7.4 cont.
- excavate manually for the installation, maintenance and removal of excavation supports
  - construct, erect and install temporary excavation support as excavations progress and on completion including:
    - proprietary systems including but not limited to: drag box, trench box and manhole
    - open and closed support systems
    - piling systems including but not limited to: diaphragm wall, trench sheets, sheet piles, secant support and contiguous support
    - bespoke support systems
  - monitor and check accuracy at start, during progress and on completion of work
  - work with, around and in close proximity to plant and machinery including lifting equipment
  - inspect and maintain the integrity and safety of the temporary support structures
  - dismantle and remove the excavation support structure
  - recognise and determine when specialist skills and knowledge are required and report accordingly
  - use hand and power tools
  - work at height and in confined spaces
  - use access equipment.
- 7.5 Describe the needs of other occupations and how to communicate effectively within a team.
- 7.6 Describe how to maintain the tools and equipment used.

**Title:** Installing, maintaining and removing temporary excavation support in the workplace

**Additional information about this unit**

Assessment Guidance	<p>This unit must be assessed in a work environment, in accordance with the ConstructionSkills' Consolidated Assessment Strategy for Construction and the Built Environment.</p> <p>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.</p> <p>Workplace evidence of skills cannot be simulated.</p> <p>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.</p>
Sector Subject Area	5.2 Building and Construction
Availability for use	Shared unit
Unit guided learning hours	76
Assessment hours	10

## Behaviours

When performing to this standard you are likely to demonstrate the following behaviours.

- 1 **Work safely:**  
Consider the safety of yourself and those around you, challenge unsafe behaviour.
- 2 **Effective communication:**  
Oral, written, electronic, listening, body language, presentation.
- 3 **Respect:**  
Apply equality, diversity and inclusion in dealing with others.
- 4 **Team work:**  
Work effectively and safely with others with limited supervision.
- 5 **Independent working:**  
Take responsibility for safe completion of your own work.
- 6 **Logical thinking:**  
Use clear and valid reasoning when making decisions to safely undertake work instructions.
- 7 **Working effectively:**  
Undertake the work in a reliable, safe and productive manner.
- 8 **Time management:**  
Use own time effectively to complete the work instructions to schedule, take the time to be safe.
- 9 **Adaptability:**  
Be able to adjust to changes to the work instructions, put safety first.

**Title:** Installing drainage in the workplace

**Unit Number:** H/651/0016

**Learning outcomes**

**Assessment criteria**

*The learner will be able to:*

*The learner can:*

1	Interpret the given information relating to the work and resources when installing drainage.	1.1	Interpret and extract relevant information from: <ul style="list-style-type: none"><li>- drawings</li><li>- specifications</li><li>- schedules</li><li>- risk assessments</li><li>- method statements</li><li>- manufacturers' information</li><li>- suppliers' information.</li></ul>
		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: <ul style="list-style-type: none"><li>- drawings</li><li>- specifications</li><li>- schedules</li><li>- risk assessments</li><li>- method statements</li><li>- manufacturers' information</li><li>- verbal and written instructions</li><li>- sketches</li><li>- electronic data</li><li>- permits</li><li>- current regulations</li><li>- official guidance.</li></ul>
2	Know how to comply with relevant legislation and official guidance when installing drainage.	2.1	Describe their responsibilities regarding potential accidents, health hazards and the environment whilst working: <ul style="list-style-type: none"><li>- in the workplace</li><li>- below ground level</li><li>- in confined spaces</li><li>- at height</li><li>- with tools and equipment</li><li>- with materials and substances</li><li>- with the movement and storage of materials by manual handling and mechanical lifting.</li></ul>

- |   |   |  |
|---|---|--|
| 2 | continued   | <p>2.2 Describe the organisational security procedures for tools, equipment and personal belongings in relation to:</p> <ul style="list-style-type: none"> <li>- site</li> <li>- workplace</li> <li>- company</li> <li>- operative</li> <li>- vehicles.</li> </ul> <p>2.3 Explain what the accident reporting procedures are and who is responsible for making reports.</p> <p>2.4 Describe the types of fire extinguishers available and describe how and when they are used:</p> <ul style="list-style-type: none"> <li>- water</li> <li>- CO<sub>2</sub></li> <li>- foam</li> <li>- powder.</li> </ul>  |
| 3 | Maintain safe and healthy working practices when installing drainage. | <p>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.</p> <p>3.2 Demonstrate compliance with given information and relevant legislation in relation to at least three of the following:</p> <ul style="list-style-type: none"> <li>- working with and around utility services including ground penetration</li> <li>- safe use of access equipment</li> <li>- safe use, storage and handling of materials, tools and equipment</li> <li>- specific risks to health.</li> </ul> <p>3.3 Explain why and when health and safety control equipment, identified by the principles of prevention, should be used, and the types, purpose and limitations of each type, the work situation and general work environment, in relation to:</p> <ul style="list-style-type: none"> <li>- collective protective measures</li> <li>- personal protective equipment (PPE)</li> <li>- respiratory protective equipment (RPE)</li> <li>- local exhaust ventilation (LEV).</li> </ul> <p>3.4 Describe how the relevant health and safety control equipment should be used in accordance with the given instructions.</p> |



3	continued	3.5	Describe how emergencies should be responded to in accordance with organisational authorisation and personal skills when involved with: <ul style="list-style-type: none"> <li>- fires, spillages, injuries</li> <li>- other task related activities.</li> </ul>
4	Select the required quantity and quality of resources for the methods of work to install drainage.	4.1	Select resources associated with own work in relation to: <ul style="list-style-type: none"> <li>- materials, components and fixings</li> <li>- tools and equipment.</li> </ul>
		4.2	Describe the characteristics, quality, uses, sustainability, limitations and defects associated with the resources in relation to: <ul style="list-style-type: none"> <li>- pipes, fittings and ancillary components</li> <li>- pre-cast (metal, concrete, clay or plastic) components</li> <li>- bricks, blocks and sandbags</li> <li>- granular materials, aggregates, cement, concrete, mortars and sand</li> <li>- sealant materials (adhesives, compounds, solvents)</li> <li>- hand and power tools.</li> </ul>
		4.3	Describe how to confirm that the resources and materials conform to the specification.
		4.4	Describe how the resources should be used correctly and how problems associated with the resources are reported.
		4.5	Explain why the organisational procedures have been developed and how they are used for the selection of required resources.
		4.6	Describe any potential hazards associated with the resources and methods of work.
		4.7	Describe how to calculate quantity, length, volume, area and wastage associated with the method and procedure to install drainage.
5	Minimise the risk of damage to the work and surrounding area when installing drainage.	5.1	Protect the work and its surrounding area from damage in accordance with safe working practices and organisational procedures.
		5.2	Maintain a clear and tidy work space.
		5.3	Dispose of waste in accordance with current legislation.
		5.4	Describe how to protect work from damage and the purpose of protection in relation to: <ul style="list-style-type: none"> <li>- general workplace activities</li> <li>- other occupations</li> <li>- adverse weather conditions.</li> </ul>

5	continued	<p>5.5 Explain why the disposal of waste should be carried out safely in accordance with:</p> <ul style="list-style-type: none"> <li>- environmental responsibilities</li> <li>- organisational procedures</li> <li>- manufacturers' information</li> <li>- statutory regulations</li> <li>- official guidance.</li> </ul>
6	Complete the work within the allocated time when installing drainage.	<p>6.1 Demonstrate completion of the work within the estimated, allocated time.</p> <p>6.2 Describe the purpose of the work programme and explain why deadlines should be kept in relation to:</p> <ul style="list-style-type: none"> <li>- types of progress charts, timetables, productivity targets and time scales</li> <li>- how times are estimated</li> <li>- organisational procedures for reporting circumstances which will affect the work programme.</li> </ul>
7	Comply with the given contract information to install drainage to the required specification.	<p>7.1 Demonstrate the following work skills:</p> <ul style="list-style-type: none"> <li>- checking</li> <li>- measuring</li> <li>- marking out</li> <li>- cutting</li> <li>- laying</li> <li>- positioning</li> <li>- fitting</li> <li>- joining</li> <li>- levelling</li> <li>- plumbing</li> <li>- aligning</li> <li>- securing</li> <li>- testing.</li> </ul> <p>7.2 Use and maintain hand and power tools.</p> <p>7.3 Lay bedding materials, install and test pipework and drainage structures for new or replacement, foul or surface water drainage for at least one of the following to given working instructions:</p> <ul style="list-style-type: none"> <li>- inspection chambers</li> <li>- surface water systems</li> <li>- foul water systems</li> <li>- surround pipe with specified materials</li> <li>- place backfill to trench using given work instructions for both compacted and free drainage materials.</li> </ul>

- 7.4 Describe how to apply safe and healthy work practices, follow procedures, report problems and establish the authority needed to rectify them, to:
- excavate trenches and provide trench support
  - confirm ground conditions, site and excavations are suitable for the drainage installation work
  - recognise the dangers of loads and structures at the edge of excavations
  - deal with groundwater
  - work around other utility services
  - install geotextile materials
  - prepare different granular and cementitious bedding
  - determine levels and gradients
  - identify the differences between surface and foul water drainage
  - measure, mark and cut drainage materials
  - lay, position, level, plumb, align, fit, join, fix and secure new and replacement drainage systems
  - lift and transport assembled drainage systems
  - construct structures of a drainage system (storm alleviation, culverts, inspection chambers, lateral drains, overflows, sumps, filter drains, soak-aways, cess pools, reed beds or treatment plants)
  - install pre-cast components (metal, concrete, clay and plastic) of a drainage system structure (inspection chambers, septic tanks and street iron work)
  - connect and seal new systems to existing systems
  - prepare for conducting tests on drainage systems
  - work with, around and in close proximity to with plant and machinery including lifting plant
  - store and dispose of removed drainage components
  - follow specified hygiene procedures particularly when dealing with foul water draining systems
  - recognise and determine when 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 and power tools
  - work at height and below ground level
  - use access equipment.
- 7.5 Describe the needs of other occupations and how to communicate effectively within a team.
- 7.6 Describe how to maintain the tools and equipment used.

**Title:** Installing drainage in the workplace

**Additional information about this unit**

Assessment Guidance

This unit must be assessed in a work environment, in accordance with the ConstructionSkills' Consolidated Assessment Strategy for Construction and the Built Environment.

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

Workplace evidence of skills cannot be simulated.

This unit must be assessed against 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.

Sector Subject Area

5.2 Building and Construction

Availability for use

Shared unit

Unit guided learning hours

106

Assessment hours

10

## Behaviours

When performing to this standard you are likely to demonstrate the following behaviours.

- 1 **Work safely:**  
Consider the safety of yourself and those around you, challenge unsafe behaviour.
- 2 **Effective communication:**  
Oral, written, electronic, listening, body language, presentation.
- 3 **Respect:**  
Apply equality, diversity and inclusion in dealing with others.
- 4 **Team work:**  
Work effectively and safely with others with limited supervision.
- 5 **Independent working:**  
Take responsibility for safe completion of your own work.
- 6 **Logical thinking:**  
Use clear and valid reasoning when making decisions to safely undertake work instructions.
- 7 **Working effectively:**  
Undertake the work in a reliable, safe and productive manner.
- 8 **Time management:**  
Use own time effectively to complete the work instructions to schedule, take the time to be safe.
- 9 **Adaptability:**  
Be able to adjust to changes to the work instructions, put safety first.

**Title:** Placing and compacting concrete in the workplace

**Unit Number:** D/615/4986

**Learning outcomes**

**Assessment criteria**

*The learner will be able to:*

*The learner can:*

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: <ul style="list-style-type: none"><li>- 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.</li></ul>
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: <ul style="list-style-type: none"><li>- 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.</li></ul>
		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 current legislation and organisational requirements when placing and compacting concrete.

- 3 continued
- 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 the 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 fires, spillages, injuries and other 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 relation 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	continued	4.6	Describe the methods of calculating quantity, length, area and wastage associated with the method and procedure to place and 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 work space.
		5.3	Dispose of waste in accordance with current legislation.
		5.4	Describe how to protect work from damage and the purpose of protection in relation to general workplace activities, other occupations and adverse weather conditions.
		5.5	Explain why the disposal of waste should be carried out safely in accordance with environmental responsibilities, organisational procedures, 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: <ul style="list-style-type: none"> <li>- types of progress charts, timetables and estimated times</li> <li>- organisational procedures for reporting circumstances which will affect the work programme.</li> </ul>
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: <ul style="list-style-type: none"> <li>- measuring, marking out, inspecting, receiving, handling, transporting, placing, spreading, levelling, vibrating, compacting, testing and protecting.</li> </ul>
		7.2	Use and maintain hand tools, portable power tools, plant or machinery and ancillary equipment.
		7.3	Place, lay and compact concrete to given working instructions using three of the following placement methods: <ul style="list-style-type: none"> <li>- chute</li> <li>- elephant's trunk</li> <li>- skip</li> <li>- pump</li> <li>- mono-rail</li> <li>- manually.</li> </ul>



- 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 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 in close proximity to 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.

**Title:** Placing and compacting concrete in the workplace

**Additional information about this unit**

Assessment Guidance	<p>This unit must be assessed in a work environment, in accordance the ConstructionSkills' Consolidated Assessment Strategy for Construction and the Built Environment.</p> <p>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.</p> <p>Workplace evidence of skills cannot be simulated.</p> <p>Evidence for assessment criteria 7.2 must be for at least three different structures/placements.</p> <p>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.</p>
Sector subject area	5.2 Building and Construction
Availability for use	Shared unit
Unit guided learning hours	37

**Title:** Preparing, mixing and distributing concrete and mortars in the workplace

**Unit Number:** K/650/8913

**Learning outcomes**

**Assessment criteria**

*The learner will be able to:*

*The learner can:*

1	Interpret the given information relating to the work and resources when preparing, mixing and distributing concrete and mortars.	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: <ul style="list-style-type: none"><li>- drawings, specifications, current legislation, schedules, method statements, risk assessments, manufacturers' information, oral and written instructions, sketches, electronic data, official guidance and current regulations associated with preparing, mixing and distributing concrete and mortars.</li></ul>
2	Know how to comply with relevant legislation and official guidance when preparing, mixing and distributing concrete and mortars.	2.1	Describe their responsibilities regarding potential accidents, health hazards and the environment, whilst working: <ul style="list-style-type: none"><li>- 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 by manual handling and mechanical lifting.</li></ul>
		2.2	Describe the organisational security procedures for tools, equipment and personal belongings in relation to site, workplace, company, operative and vehicles.
		2.3	Explain what the accident reporting procedures are and who is responsible for making reports.
3	Maintain safe and healthy working practices when preparing, mixing and distributing concrete and mortars.	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 preparing, mixing and distributing concrete and mortars.

- 3 continued
- 3.2 Demonstrate compliance with given information and relevant legislation when preparing, mixing and distributing concrete and mortars 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 preparing, mixing and distributing concrete and mortars, 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 prepare, mix and distribute concrete and mortars.
- 4.1 Select resources associated with own work in relation to materials, components, tools and equipment.
- 4.2 Describe the characteristics, quality, uses, sustainability, limitations and defects associated with the resources in relation to:
- aggregate, sand, lime, cement, water, additives
  - hand and power tools, mixing plant, transportation and distribution equipment.
- 4.3 Describe how to confirm that the resources and materials conform with the specification.
- 4.4 Describe how the resources should be used correctly and how problems associated with the resources are reported.
- 4.5 Explain why the organisational procedures have been developed and how they are used for the selection of required resources.
- 4.6 Describe any potential hazards associated with the resources and methods of work.

4	continued	4.7	Describe how to calculate quantity, volume, length, width, area and wastage of materials associated with the method and procedure to prepare, mix and distribute concrete and mortars.
5	Minimise the risk of damage to the work and surrounding area when preparing, mixing and distributing concrete and mortars.	5.1	Protect the work and its surrounding area from damage in accordance with safe working practices and organisational procedures.
		5.2	Maintain a clear and tidy work space.
		5.3	Dispose of waste in accordance with current legislation.
		5.4	Describe how to protect work from damage and the purpose of protection in relation to general workplace activities, other occupations and adverse weather conditions.
		5.5	Explain why the disposal of waste should be carried out safely in accordance with environmental responsibilities, organisational procedures, manufacturers' information, statutory regulations and official guidance.
6	Complete the work within the allocated time when preparing, mixing and distributing concrete and mortars.	6.1	Demonstrate completion of the work within the estimated allocated time.
		6.2	Describe the purpose of the work programme and explain why deadlines should be kept in relation to: <ul style="list-style-type: none"> <li>- types of productivity targets and time scales</li> <li>- how times are estimated</li> <li>- organisational procedures for reporting circumstances which will affect the work programme.</li> </ul>
7	Comply with the given contract information to prepare, mix and distribute concrete and mortars to the required specification.	7.1	Demonstrate the following work skills when preparing, mixing and distributing concrete and mortars: <ul style="list-style-type: none"> <li>- gauging, mixing and distributing.</li> </ul>
		7.2	Use and maintain hand and power tools and mixing plant and equipment.
		7.3	Gauge and mix concrete and/or mortars and distribute to given working instructions.

7 continued

- 7.4 Describe how to apply safe and healthy work practices, follow procedures, report problems and establish the authority needed to rectify them, to:
- gauge and mix concrete and mortars by hand
  - gauge and mix concrete and mortars mechanically
  - carry out pre-use checks on mechanical mixers
  - recognise types of concrete and mortar
  - maintain consistency of mixes for strength, colour and texture
  - recognise and determine when specialist skills and knowledge are required and report accordingly
  - work with, around and in close proximity to plant and machinery
  - transport and distribute concrete and mortars
  - use hand and power tools, mixing plant and equipment
  - work at height
  - use access equipment.
- 7.5 Describe the needs of other occupations and how to communicate effectively within a team when preparing, mixing and distributing concrete and mortars.
- 7.6 Describe how to maintain the tools and equipment used when preparing, mixing and distributing concrete and mortars.

**Title:** Preparing, mixing and distributing concrete and mortars in the workplace

**Additional information about this unit**

Assessment Guidance

This unit must be assessed in a work environment, in accordance with the ConstructionSkills' Consolidated Assessment Strategy for Construction and the Built Environment.

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

Workplace evidence of skills cannot be simulated.

Sector Subject areas

5.2 Building and Construction

Availability for use

Shared unit

Unit guided learning hours

33

Assessment hours

10

**Title:** Reinstating ground condition in the workplace

**Unit Number:** K/651/0027

**Learning outcomes**

**Assessment criteria**

*The learner will be able to:*

*The learner can:*

1	Interpret the given information relating to the work and resources when reinstating ground condition.	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: <ul style="list-style-type: none"><li>- drawings, specifications, schedules method statements, risk assessments and manufacturers' information, current regulations governing buildings and official guidance associated with the reinstatement of ground conditions.</li></ul>
2	Know how to comply with relevant legislation and official guidance when reinstating ground condition.	2.1	Describe their responsibilities regarding potential accidents, health hazards and the environment whilst working: <ul style="list-style-type: none"><li>- 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.</li></ul>
		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 reinstating ground condition.	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 reinstating ground condition.



- 3 continued
- 3.2 Demonstrate compliance with given information and relevant legislation when reinstating ground condition in relation to at two of 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 reinstating ground condition, 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 reinstate ground condition.
- 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:
- flags, blocks, edging, aggregates, cement, black top, top soil, seeds
  - backfill materials
  - 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 and wastage associated with the method and procedure to reinstate ground condition.

5	Minimise the risk of damage to the work and surrounding area when reinstating ground condition.	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 work space.
		5.3	Dispose of waste in accordance with current legislation.
		5.4	Describe how to protect work from damage and the purpose of protection in relation to general workplace activities, other occupations and adverse weather conditions.
		5.5	Explain why the disposal of waste should be carried safely in accordance with environmental responsibilities, organisational procedures, manufacturers' information, statutory regulations and official guidance.
6	Complete the work within the allocated time when reinstating ground condition.	6.1	Demonstrate completion of the work within the allocated time.
		6.2	Describe the purpose of the work programme and explain why deadlines should be kept in relation to: <ul style="list-style-type: none"> <li>- types of progress charts, timetables and estimated times</li> <li>- organisational procedures for reporting circumstances which will affect the work programme.</li> </ul>
7	Comply with the given contract information to reinstate ground condition to the required specification.	7.1	Demonstrate the following work skills when reinstating ground condition: <ul style="list-style-type: none"> <li>- measuring, marking out, laying, bedding, positioning, securing and finishing.</li> </ul>
		7.2	Use and maintain hand tools, portable power tools and ancillary equipment.
		7.3	Reinstate ground conditions to given working instructions for three of the following: <ul style="list-style-type: none"> <li>- backfill with suitable excavated materials</li> <li>- backfill with new materials</li> <li>- compact</li> <li>- hard top surfaces (flags, blocks, concrete, blacktop)</li> <li>- replant cultivated and grassed areas or relay turf.</li> </ul>

- 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
  - backfill with suitable excavated materials
  - backfill with new materials
  - recognise the requirement to compact in layers
  - place and compact sub-grade and sub-base
  - form levels
  - replace hard top surfaces (flags, blocks, concrete, blacktop, cultivated grassed areas)
  - replant cultivated and grassed areas and relay turf
  - work with, around and in close proximity to plant and machinery
  - direct and guide the operations and movement of 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.
- 7.5 Describe the needs of other occupations and how to effectively communicate within a team when reinstating ground condition.
- 7.6 Describe how to maintain the tools and equipment used when reinstating ground condition.

**Title:** Reinstating ground condition in the workplace

**Additional information about this unit**

Assessment Guidance	<p>This unit must be assessed in a work environment and in accordance with the ConstructionSkills' Consolidated Assessment Strategy for Construction and the Built Environment.</p> <p>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.</p> <p>Workplace evidence of skills cannot be simulated.</p>
Sector subject area	5.2 Building and Construction
Availability for use	Shared unit
Unit guided learning hours	43

**Title:** Erecting and dismantling access/working platforms in the workplace

**Unit Number:** D/600/8281

**Learning outcomes**

**Assessment criteria**

*The learner will be able to:*

*The learner can:*

1	Interpret the given information relating to the work and resources when erecting and dismantling access/working platforms.	1.1	Interpret and extract information from specifications, method statements, risk assessments and manufacturers' information.
		1.2	Comply with information and/or instructions derived from risk assessments and method statement.
		1.3	State 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: <ul style="list-style-type: none"><li>- specifications, current legislation, method statements, risk assessments and manufacturers' information.</li></ul>
2	Know how to comply with relevant legislation and official guidance when erecting and dismantling access/working platforms.	2.1	Describe their responsibilities under current legislation and official guidance whilst working: <ul style="list-style-type: none"><li>- in the workplace, at height, in confined areas, with tools and equipment, with movement/storage of materials and by manual handling.</li></ul>
		2.2	Describe the organisational security procedures for tools, equipment and personal belongings in relation to site, workplace, company and operative.
		2.3	State what the accident reporting procedures are and who is responsible for making reports.
3	Maintain safe working practices when erecting and dismantling access/working platforms.	3.1	Use personal protective equipment (PPE) and access equipment safely to carry out the activity in accordance with legislation and organisational requirements when erecting and dismantling access/working platforms.
		3.2	Explain why, when and how personal protective equipment (PPE) should be used, relating to erecting and dismantling access/working platforms, and the types, purpose and limitations of each type.
		3.3	State how emergencies should be responded to in accordance with organisational authorisation and personal skills when involved with fires, spillages, injuries and other task-related hazards.

4	Select the required quantity and quality of resources for the methods of work to erect and dismantle access/working platforms.	<p>4.1 Describe the characteristics, quality, uses, limitations and defects associated with the resources in relation to:</p> <ul style="list-style-type: none"> <li>- ladders/crawler boards</li> <li>- stepladders/platform steps</li> <li>- trestles</li> <li>- proprietary staging/podiums</li> <li>- proprietary towers</li> <li>- mobile scaffold towers</li> <li>- protection equipment and notices</li> <li>- tools and ancillary equipment.</li> </ul> <p>4.2 Select resources associated with own work in relation to materials, components, tools and equipment.</p> <p>4.3 State how the resources should be used correctly, how problems associated with the resources are reported and how the organisational procedures are used.</p> <p>4.4 Outline potential hazards associated with the resources and method of work.</p> <p>4.5 Describe how to calculate quantity of equipment required associated with the method/procedure to erect and dismantle access equipment/working platforms.</p>
5	Minimise the risk of damage to the work and surrounding area when erecting and dismantling access/working platforms.	<p>5.1 Protect the work and its surrounding area from damage.</p> <p>5.2 Minimise damage and maintain a clean work space.</p> <p>5.3 Describe how to protect work from damage and the purpose of protection in relation to general workplace activities, other occupations and adverse weather conditions.</p> <p>5.4 Dispose of waste in accordance with legislation.</p> <p>5.5 State why the disposal of waste should be carried out in relation to the work.</p>
6	Complete the work within the allocated time when erecting and dismantling access/working platforms.	<p>6.1 Demonstrate completion of the work within the allocated time.</p> <p>6.2 State the purpose of the work programme and explain why deadlines should be kept in relation to:</p> <ul style="list-style-type: none"> <li>- organisational procedures for reporting circumstances which will affect the work programme.</li> </ul>
7	Comply with the given contract information to erect and dismantle access/working platforms to the required specification.	<p>7.1 Demonstrate the following work skills when erecting and dismantling access/working platforms:</p> <ul style="list-style-type: none"> <li>- moving, positioning/erecting, securing, checking, dismantling and removing.</li> </ul>

- 7.2 Erect, dismantle and store two of the following access equipment to given access regulations:
- ladders/crawler boards
  - stepladders/platform steps
  - proprietary towers
  - trestle platforms
  - mobile scaffold towers
  - proprietary staging/podiums.
- 7.3 Describe how to apply safe work practices, follow procedures, report problems and establish the authority needed to rectify them, to:
- provide protection to the work area
  - establish a base for equipment
  - erect proprietary access equipment to manufacturer's instructions suitable for the work
  - erect non-proprietary access equipment suitable for the work
  - place protective screens and notices
  - check/monitor equipment during the period of use
  - dismantle and store access equipment
  - use tools and equipment
  - work at height.
- 7.4 Safely use and store materials, hand tools and ancillary equipment.
- 7.5 State the needs of other occupations and how to communicate within a team when erecting and dismantling access/working platforms.
- 7.6 Describe how to maintain the tools and equipment used when erecting and dismantling access/working platforms.

**Title:** Erecting and dismantling access/working platforms in the workplace

**Additional information about this unit**

Assessment Guidance

This unit must be assessed in a work environment, in accordance with the ConstructionSkills' Consolidated Assessment Strategy for Construction and the Built Environment.

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

Workplace evidence of skills cannot be simulated.

This unit must be assessed against 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.

Sector Subject Areas

5.2 Building and Construction

Availability for use

Shared unit

Unit guided learning hours

27



**Title:** Cutting, drilling and shaping construction related materials in the workplace

**Unit Number:** A/650/8919

**Learning outcomes**

**Assessment criteria**

*The learner will be able to:*

*The learner can:*

1	Interpret the given information relating to the work and resources when cutting, drilling and shaping construction related materials.	1.1	Interpret and extract relevant information from: <ul style="list-style-type: none"><li>- drawings</li><li>- specifications</li><li>- schedules</li><li>- method statements</li><li>- risk assessments</li><li>- manufacturers' information</li><li>- suppliers' information.</li></ul>
		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: <ul style="list-style-type: none"><li>- drawings</li><li>- specifications</li><li>- schedules</li><li>- method statements</li><li>- risk assessments</li><li>- permits</li><li>- manufacturers' information</li><li>- verbal and written instructions</li><li>- sketches</li><li>- electronic data</li><li>- current regulations</li><li>- official guidance.</li></ul>
2	Know how to comply with relevant legislation and official guidance when cutting, drilling and shaping construction related materials.	2.1	Describe their responsibilities regarding potential accidents, health hazards and the environment, whilst working: <ul style="list-style-type: none"><li>- in the workplace</li><li>- below ground level</li><li>- in confined spaces</li><li>- at height</li><li>- with tools and equipment</li><li>- with materials and substances</li><li>- with the movement and storage of materials by manual handling and mechanical lifting.</li></ul>

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|---|--|--|
| 2 | continued  | <p>2.2 Describe the organisational security procedures for tools, equipment and personal belongings in relation to:</p> <ul style="list-style-type: none"> <li>- site</li> <li>- workplace</li> <li>- company</li> <li>- operative vehicles.</li> </ul> <p>2.3 Explain what the accident reporting procedures are and who is responsible for making reports.</p> <p>2.4 Describe the types of fire extinguishers available and describe how and when they are used:</p> <ul style="list-style-type: none"> <li>- water</li> <li>- CO<sub>2</sub></li> <li>- foam</li> <li>- powder.</li> </ul>   |
| 3 | Maintain safe and healthy working practices when cutting, drilling and shaping construction related materials. | <p>3.1 Use health and safety control equipment safely and comply with the methods of work to carry out the activity in accordance with legislation and organisational requirements.</p> <p>3.2 Demonstrate compliance with given information and relevant legislation in relation to at least two of the following:</p> <ul style="list-style-type: none"> <li>- safe use of access equipment</li> <li>- safe use, storage and handling of materials, tools, and equipment</li> <li>- specific risks to health.</li> </ul> <p>3.3 Explain why and when health and safety control equipment, identified by the principles of prevention, should be used, and the types, purpose and limitations of each type, the work situation and general work environment, in relation to:</p> <ul style="list-style-type: none"> <li>- collective protective measures</li> <li>- personal protective equipment (PPE)</li> <li>- respiratory protective equipment (RPE)</li> <li>- local exhaust ventilation (LEV).</li> </ul> <p>3.4 Describe how the relevant health and safety control equipment should be used in accordance with the given working instructions.</p> <p>3.5 Describe how emergencies should be responded to in accordance with organisational authorisation and personal skills when involved with:</p> <ul style="list-style-type: none"> <li>- fires, spillages, injuries</li> <li>- other task related activities.</li> </ul> |

- 4 Select the required quantity and quality of resources for the methods of work to cut, drill and shape construction related materials.
- 4.1 Select resources associated with own work in relation to:
- materials, components and fixings
  - tools and equipment.
- 4.2 Describe the characteristics, quality, uses, sustainability, limitations and defects associated with the resources in relation to:
- composites
  - plastic
  - masonry
  - vitreous clay
  - metal
  - timber
  - timber based materials
  - cementitious materials
  - bituminous materials
  - geotextiles
  - jigs and clamps
  - blades and bits
  - hand and power tools.
- 4.3 Describe how to confirm that the resources and materials conform to the specification.
- 4.4 Describe how the resources should be used correctly and how problems associated with the resources are reported.
- 4.5 Explain why the organisational procedures have been developed and how they are used for the selection of the required resources.
- 4.6 Describe any potential hazards associated with the resources and methods of work.
- 4.7 Describe how to calculate quantity, length, area and wastage associated with the method and procedure to cut, drill and shape construction related materials.
- 5 Minimise the risk of damage to the work and surrounding area when cutting, drilling and shaping construction related materials.
- 5.1 Protect the work and its surrounding area from damage in accordance with safe working practices and organisational procedures.
- 5.2 Maintain a clear and tidy work space.
- 5.3 Dispose of waste in accordance with current legislation.
- 5.4 Describe how to protect work from damage and the purpose of protection in relation to:
- general workplace activities
  - other occupations
  - adverse weather conditions.

5	continued	<p>5.5 Explain why the disposal of waste should be carried out safely in accordance with:</p> <ul style="list-style-type: none"> <li>- environmental responsibilities</li> <li>- organisational procedures</li> <li>- manufacturers' information</li> <li>- statutory regulations</li> <li>- official guidance.</li> </ul>
6	Complete the work within the allocated time when cutting, drilling and shaping construction related materials.	<p>6.1 Demonstrate completion of the work within the estimated, allocated time.</p> <p>6.2 Describe the purpose of the work programme and explain why deadlines should be kept in relation to:</p> <ul style="list-style-type: none"> <li>- types of productivity targets and timescales</li> <li>- how times are estimated</li> <li>- organisational procedures for reporting circumstances which will affect the work programme.</li> </ul>
7	Comply with the given contract information to cut, drill and shape construction related materials to the required specification.	<p>7.1 Demonstrate the following work skills:</p> <ul style="list-style-type: none"> <li>- measuring</li> <li>- marking out</li> <li>- positioning</li> <li>- securing</li> <li>- severing</li> <li>- cutting</li> <li>- drilling</li> <li>- shaping.</li> </ul> <p>7.2 Use and maintain hand and power tools.</p> <p>7.3 Select tools to cut, drill and shape at least four of the following materials to line or mark to given working instructions:</p> <ul style="list-style-type: none"> <li>- composites</li> <li>- plastic</li> <li>- masonry</li> <li>- vitreous clay</li> <li>- metal</li> <li>- timber and timber based</li> <li>- cementitious</li> <li>- bituminous</li> <li>- geotextiles.</li> </ul>

7 continued

- 7.4 Describe how to apply safe and healthy work practices, follow procedures, report problems and establish the authority needed to rectify them, to:
- plan, mark and set out for cutting, severing, drilling and shaping
  - conform to agreed specifications
  - cut, drill, shape and prepare composites, plastic, masonry, vitreous clay, metal, timber and timber based materials, cementitious, bituminous materials and geotextiles for use
  - operate standard and specialist cutting, drilling and shaping equipment
  - change cutting, drilling and shaping blades and bits
  - suppress and control dust, fumes and debris
  - monitor and check accuracy during progress and on completion of work
  - recognise hazards not previously identified while cutting, drilling and shaping
  - recognise and determine when specialist skills and knowledge are required and report accordingly
  - use hand and power tools
  - work at height
  - use access equipment.
- 7.5 Describe the needs of other occupations and how to communicate effectively within a team.
- 7.6 Describe how to maintain the tools and equipment used.

**Title:** Cutting, drilling and shaping construction related materials in the workplace

**Additional information about this unit**

Assessment Guidance

This unit must be assessed in a work environment and in accordance with the ConstructionSkills' Consolidated Assessment Strategy for Construction and the Built Environment.

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

Workplace evidence of skills cannot be simulated.

This unit must be assessed against 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.

Sector Subject Area

5.2 Building and Construction

Availability for use

Shared unit

Unit guided learning hours

65

Assessment hours

10

## Behaviours

When performing to this standard you are likely to demonstrate the following behaviours.

- 1 **Work safely:**  
Consider the safety of yourself and those around you, challenge unsafe behaviour.
- 2 **Effective communication:**  
Oral, written, electronic, listening, body language, presentation.
- 3 **Respect:**  
Apply equality, diversity and inclusion in dealing with others.
- 4 **Team work:**  
Work effectively and safely with others with limited supervision.
- 5 **Independent working:**  
Take responsibility for safe completion of your own work.
- 6 **Logical thinking:**  
Use clear and valid reasoning when making decisions to safely undertake work instructions.
- 7 **Working effectively:**  
Undertake the work in a reliable, safe and productive manner.
- 8 **Time management:**  
Use own time effectively to complete the work instructions to schedule, take the time to be safe.
- 9 **Adaptability:**  
Be able to adjust to changes to the work instructions, put safety first.

**Title:** Laying, placing or applying construction related materials in the workplace

**Unit Number:** H/650/8920

**Learning outcomes**

**Assessment criteria**

*The learner will be able to:*

*The learner can:*

1	Interpret the given information relating to the work and resources when laying, placing or applying construction related materials.	1.1	Interpret and extract relevant information from: <ul style="list-style-type: none"><li>- drawings</li><li>- specifications</li><li>- schedules</li><li>- method statements</li><li>- risk assessments</li><li>- manufacturers' information</li><li>- suppliers' information.</li></ul>
		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: <ul style="list-style-type: none"><li>- drawings</li><li>- specifications</li><li>- schedules</li><li>- method statements</li><li>- risk assessments</li><li>- manufacturers' information</li><li>- verbal and written instructions</li><li>- sketches</li><li>- electronic data</li><li>- current regulations</li><li>- official guidance.</li></ul>
2	Know how to comply with relevant legislation and official guidance when laying, placing or applying construction related materials.	2.1	Describe their responsibilities regarding potential accidents, health hazards and the environment whilst working: <ul style="list-style-type: none"><li>- in the workplace</li><li>- below ground level</li><li>- in confined spaces</li><li>- at height</li><li>- with tools and equipment</li><li>- with materials and substances</li><li>- with the movement and storage of materials by manual handling and mechanical lifting.</li></ul>



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| 2 | continued  | <p>2.2 Describe the organisational security procedures for tools, equipment and personal belongings in relation to:</p> <ul style="list-style-type: none"> <li>- site</li> <li>- workplace</li> <li>- company</li> <li>- operative</li> <li>- vehicles.</li> </ul> <p>2.3 Explain what the accident reporting procedures are and who is responsible for making reports.</p> <p>2.4 Describe the types of fire extinguishers available and describe how and when they are used:</p> <ul style="list-style-type: none"> <li>- water</li> <li>- CO<sub>2</sub></li> <li>- foam</li> <li>- powder.</li> </ul>   |
| 3 | Maintain safe and healthy working practices when laying, placing or applying construction related materials. | <p>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.</p> <p>3.2 Demonstrate compliance with given information and relevant legislation in relation to at least two of the following:</p> <ul style="list-style-type: none"> <li>- safe use of access equipment</li> <li>- safe use, storage and handling of materials, tools and equipment</li> <li>- specific risks to health.</li> </ul> <p>3.3 Explain why and when health and safety control equipment, identified by the principles of prevention, should be used, and the types, purpose and limitations of each type, the work situation and general work environment, in relation to:</p> <ul style="list-style-type: none"> <li>- collective protective measures</li> <li>- personal protective equipment (PPE)</li> <li>- respiratory protective equipment (RPE)</li> <li>- local exhaust ventilation (LEV).</li> </ul> <p>3.4 Describe how the relevant health and safety control equipment should be used in accordance with the given working instructions.</p> <p>3.5 Describe how emergencies should be responded to in accordance with organisational authorisation and personal skills when involved with:</p> <ul style="list-style-type: none"> <li>- fires, spillages, injuries</li> <li>- other task related activities.</li> </ul> |

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| 4 | Select the required quantity and quality of resources for the methods of work to lay, place or apply construction related materials. | <p>4.1 Select resources associated with own work in relation to:</p> <ul style="list-style-type: none"> <li>- materials, components and fixings</li> <li>- tools and equipment.</li> </ul> <p>4.2 Describe the characteristics, quality, uses, sustainability, limitations and defects associated with the resources in relation to:</p> <ul style="list-style-type: none"> <li>- concrete</li> <li>- screeds</li> <li>- sub-base</li> <li>- aggregate</li> <li>- bituminous materials</li> <li>- geotextiles</li> <li>- hand and power tools.</li> </ul> <p>4.3 Describe how to confirm that the resources and materials conform to the specification.</p> <p>4.4 Describe how the resources should be used correctly and how problems associated with the resources are reported.</p> <p>4.5 Explain why the organisational procedures have been developed and how they are used for the selection of required resources.</p> <p>4.6 Describe any potential hazards associated with the resources and methods of work.</p> <p>4.7 Describe how to calculate quantity, length, area, volume and wastage associated with the method and procedure to lay, place or apply construction related materials.</p> |
| 5 | Minimise the risk of damage to the work and surrounding area when laying, placing or applying construction related materials.        | <p>5.1 Protect the work and its surrounding area from damage in accordance with safe working practices and organisational procedures.</p> <p>5.2 Maintain a clear and tidy work space.</p> <p>5.3 Dispose of waste in accordance with current legislation.</p> <p>5.4 Describe how to protect work from damage and the purpose of protection in relation to:</p> <ul style="list-style-type: none"> <li>- general workplace activities</li> <li>- other occupations</li> <li>- adverse weather conditions.</li> </ul> <p>5.5 Explain why the disposal of waste should be carried out safely in accordance with:</p> <ul style="list-style-type: none"> <li>- environmental responsibilities</li> <li>- organisational procedures</li> <li>- manufacturers' information</li> <li>- statutory regulations</li> <li>- official guidance.</li> </ul>   |

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| 6 | Complete the work within the allocated time when laying, placing or applying construction related materials.                    | 6.1 | Demonstrate completion of the work within the estimated, allocated time.   |
|   |   | 6.2 | Describe the purpose of the work programme and explain why deadlines should be kept in relation to: <ul style="list-style-type: none"> <li>- types of productivity and time scales</li> <li>- how times are estimated</li> <li>- organisational procedures for reporting circumstances which will affect the work programme.</li> </ul>                          |
| 7 | Comply with the given contract information to lay, place or apply construction related materials to the required specification. | 7.1 | Demonstrate the following work skills: <ul style="list-style-type: none"> <li>- setting out</li> <li>- laying</li> <li>- compacting</li> <li>- levelling</li> <li>- finishing.</li> </ul>  |
|   |   | 7.2 | Use and maintain hand and power tools.   |
|   |   | 7.3 | Lay, place or apply at least three of the following construction related materials by oneself or with others to given working instructions: <ul style="list-style-type: none"> <li>- top soil or sub-soil</li> <li>- granular fill</li> <li>- cohesive fill</li> <li>- concrete</li> <li>- cementitious</li> <li>- bituminous</li> <li>- geotextiles.</li> </ul> |

- 7.4 Describe how to apply safe and healthy work practices, follow procedures, report problems and establish the authority needed to rectify them, to:
- plan, set out, lay, place, apply, compact and finish the following materials: top soil and sub-soils, granular fill, cohesive fill, concrete, cementitious, bituminous and geotextiles
  - conform with agreed specifications
  - identify and confirm the protection of services
  - work with, around and in close proximity to plant and machinery including lifting equipment
  - recognise types of material
  - identify methods of placement, laying and compaction for different materials
  - identify requirements for quality control including tests
  - recognise and determine when specialist skills and knowledge are required and report accordingly
  - identify protection criteria for completed work
  - protect cementitious materials during the curing process
  - monitor and check the accuracy during progress and on completion of work
  - use hand and power tools
  - work at height
  - use access equipment.
- 7.5 Describe the needs of other occupations and how to communicate effectively within a team.
- 7.6 Describe how to maintain the tools and equipment used.

**Title:** Laying, placing or applying construction related materials in the workplace

**Additional information about this unit**

Assessment Guidance

This unit must be assessed in a work environment and in accordance with the ConstructionSkills' Consolidated Assessment Strategy for Construction and the Built Environment.

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

Workplace evidence of skills cannot be simulated.

This unit must be assessed against 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.

Sector Subject Area

5.2 Building and Construction

Availability for use

Shared unit

Unit guided learning hours

65

Assessment hours

10

## Behaviours

When performing to this standard you are likely to demonstrate the following behaviours.

- 1 **Work safely:**  
Consider the safety of yourself and those around you, challenge unsafe behaviour.
- 2 **Effective communication:**  
Oral, written, electronic, listening, body language, presentation.
- 3 **Respect:**  
Apply equality, diversity and inclusion in dealing with others.
- 4 **Team work:**  
Work effectively and safely with others with limited supervision.
- 5 **Independent working:**  
Take responsibility for safe completion of your own work.
- 6 **Logical thinking:**  
Use clear and valid reasoning when making decisions to safely undertake work instructions.
- 7 **Working effectively:**  
Undertake the work in a reliable, safe and productive manner.
- 8 **Time management:**  
Use own time effectively to complete the work instructions to schedule, take the time to be safe.
- 9 **Adaptability:**  
Be able to adjust to changes to the work instructions, put safety first.

**Title:** Preparing and mixing construction related materials in the workplace

**Unit Number:** J/650/8921

**Learning outcomes**

**Assessment criteria**

*The learner will be able to:*

*The learner can:*

1	Interpret the given information relating to the work and resources when preparing and mixing construction related materials.	1.1	Interpret and extract relevant information from: <ul style="list-style-type: none"><li>- drawings</li><li>- specifications</li><li>- schedules</li><li>- method statements</li><li>- risk assessments</li><li>- manufacturers' information</li><li>- suppliers' information.</li></ul>
		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: <ul style="list-style-type: none"><li>- drawings</li><li>- specifications</li><li>- schedules</li><li>- method statements</li><li>- risk assessments</li><li>- manufacturers' information</li><li>- verbal and written instructions</li><li>- sketches</li><li>- electronic data</li><li>- current regulations</li><li>- official guidance.</li></ul>
2	Know how to comply with relevant legislation and official guidance when preparing and mixing construction related materials.	2.1	Describe their responsibilities regarding potential accidents, health hazards and the environment, whilst working: <ul style="list-style-type: none"><li>- in the workplace</li><li>- below ground level</li><li>- in confined spaces</li><li>- at height</li><li>- with tools and equipment</li><li>- with materials and substances</li><li>- with the movement and storage of materials by manual handling and mechanical lifting.</li></ul>

- 2 continued
- 2.2 Describe the organisational security procedures for tools, equipment, and personal belongings in relation to:
- site
  - workplace
  - company
  - operative
  - vehicles.
- 2.3 Explain what the accident reporting procedures are and who is responsible for making reports.
- 2.4 Describe the types of fire extinguishers available and describe how and when they are used:
- water
  - CO<sub>2</sub>
  - foam
  - powder.
- 3 Maintain safe and healthy working practices when preparing and mixing construction related materials.
- 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.
- 3.2 Demonstrate compliance with given information and relevant legislation in relation to at least two of 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, 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
  - other task related activities.



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| 4 | Select the required quantity and quality of resources for the methods of work to prepare and mix construction related materials. | <p>4.1 Select resources associated with own work in relation to:</p> <ul style="list-style-type: none"> <li>- materials and components</li> <li>- tools and equipment.</li> </ul> <p>4.2 Describe the characteristics, quality, uses, sustainability, limitations and defects associated with the resources in relation to:</p> <ul style="list-style-type: none"> <li>- cementitious materials</li> <li>- resins</li> <li>- adhesives</li> <li>- bonding agents</li> <li>- colourings</li> <li>- waterproof coatings</li> <li>- grouts</li> <li>- pre-mixed compounds</li> <li>- hand and power tools.</li> </ul> <p>4.3 Describe how to confirm that the resources and materials conform to the specification.</p> <p>4.4 Describe how the resources should be used correctly and how problems associated with the resources are reported.</p> <p>4.5 Explain why the organisational procedures have been developed and how they are used for the selection of required resources.</p> <p>4.6 Describe any potential hazards associated with the resources and methods of work.</p> <p>4.7 Describe how to calculate quantity, length, area, volume and wastage associated with the method and procedure to prepare and mix construction related materials.</p> |
| 5 | Minimise the risk of damage to the work and surrounding area when preparing and mixing construction related materials.           | <p>5.1 Protect the work and its surrounding area from damage in accordance with safe working practices and organisational procedures.</p> <p>5.2 Maintain a clear and tidy work space.</p> <p>5.3 Dispose of waste in accordance with current legislation.</p> <p>5.4 Describe how to protect work from damage and the purpose of protection in relation to:</p> <ul style="list-style-type: none"> <li>- general workplace activities</li> <li>- other occupations</li> <li>- adverse weather conditions.</li> </ul>   |

5	continued	5.5	<p>Explain why the disposal of waste should be carried out safely in accordance with:</p> <ul style="list-style-type: none"> <li>- environmental responsibilities</li> <li>- organisational procedures</li> <li>- manufacturers' information</li> <li>- statutory regulations</li> <li>- official guidance.</li> </ul>
6	Complete the work within the allocated time when preparing and mixing construction related materials.	6.1	Demonstrate completion of the work within the estimated, allocated time.
		6.2	<p>Describe the purpose of the work programme and explain why deadlines should be kept in relation to:</p> <ul style="list-style-type: none"> <li>- types of productivity targets and time scales</li> <li>- how times are estimated</li> <li>- organisational procedures for reporting circumstances which will affect the work programme.</li> </ul>
7	Comply with the given contract information to prepare and mix construction related materials to the required specification.	7.1	<p>Demonstrate the following work skills:</p> <ul style="list-style-type: none"> <li>- measuring</li> <li>- gauging</li> <li>- stirring</li> <li>- mixing</li> <li>- agitating</li> <li>- blending.</li> </ul>
		7.2	Use and maintain hand and power tools.
		7.3	<p>Prepare at least two of the following materials for use to given working instructions:</p> <ul style="list-style-type: none"> <li>- cementitious</li> <li>- resins</li> <li>- adhesives</li> <li>- bonding agents</li> <li>- colourings</li> <li>- waterproof coatings</li> <li>- grouts</li> <li>- pre-mixed compounds.</li> </ul>

7 continued

- 7.4 Describe how to apply safe and healthy work practices, follow procedures, report problems and establish the authority needed to rectify them, to:
- plan, set out and prepare cementitious materials, resins, adhesives, bonding agents, colourings, waterproof coatings, grouts and pre-mixed compounds for use
  - conform to agreed specifications
  - set up, prepare, conduct pre-start checks, start, operate, monitor the operation of and close down specialist mixing machinery and equipment
  - recognise types of materials and constituents
  - work with, around and in close proximity to plant or machinery and lifting equipment
  - monitor and check accuracy during progress and on completion of work
  - protect constituents and mixed materials
  - identify requirements for quality control including tests
  - recognise and determine when specialist skills and knowledge are required and report accordingly
  - use hand and power tools
  - use access equipment.
- 7.5 Describe the needs of other occupations and how to communicate effectively within a team.
- 7.6 Describe how to maintain the tools and equipment used.

**Title:** Preparing and mixing construction related materials in the workplace

**Additional information about this unit**

Assessment Guidance	<p>This unit must be assessed in a work environment and in accordance with the ConstructionSkills' Consolidated Assessment Strategy for Construction and the Built Environment.</p> <p>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.</p> <p>Workplace evidence of skills cannot be simulated.</p> <p>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.</p>
Sector Subject Area	5.2 Building and Construction
Availability for use	Shared unit
Unit guided learning hours	75
Assessment hours	10

## Behaviours

When performing to this standard you are likely to demonstrate the following behaviours.

- 1 **Work safely:**  
Consider the safety of yourself and those around you, challenge unsafe behaviour.
- 2 **Effective communication:**  
Oral, written, electronic, listening, body language, presentation.
- 3 **Respect:**  
Apply equality, diversity and inclusion in dealing with others.
- 4 **Team work:**  
Work effectively and safely with others with limited supervision.
- 5 **Independent working:**  
Take responsibility for safe completion of your own work.
- 6 **Logical thinking:**  
Use clear and valid reasoning when making decisions to safely undertake work instructions.
- 7 **Working effectively:**  
Undertake the work in a reliable, safe and productive manner.
- 8 **Time management:**  
Use own time effectively to complete the work instructions to schedule, take the time to be safe.
- 9 **Adaptability:**  
Be able to adjust to changes to the work instructions, put safety first.

**Title:** Identifying and marking the location of utilities apparatus and sub-structures in the workplace

**Unit Number:** K/650/8922

**Learning outcomes**

**Assessment criteria**

*The learner will be able to:*

*The learner can:*

1	Interpret the given information relating to the work and resources when identifying and marking the location of utilities apparatus and sub-structures.	1.1	Interpret and extract relevant information from drawings, specifications, schedules, risk assessments, method statements, survey and utility company information, 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: <ul style="list-style-type: none"><li>- drawings, specifications, schedules, risk assessments, method statements, organisational and manufacturers' information, verbal, written and graphical instructions, current regulations and official guidance governing utilities.</li></ul>
2	Know how to comply with relevant legislation and official guidance when identifying and marking the location of utilities apparatus and sub-structures.	2.1	Describe their responsibilities regarding potential accidents, health hazards and the environment whilst working: <ul style="list-style-type: none"><li>- 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 by manual handling and mechanical lifting.</li></ul>
		2.2	Describe the organisational security procedures for tools, equipment and personal belongings in relation to site, workplace, company and operative.
		2.3	Explain what the accident reporting procedures are and who is responsible for making reports.
		2.4	Describe the types of fire extinguishers available when identifying and marking the location of utilities apparatus and sub-structures and describe how and when they are used.

- 3 Maintain safe and healthy working practices when identifying and marking the location of utilities apparatus and sub-structures.
- 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 identifying and marking the location of utilities apparatus and sub-structures.
- 3.2 Demonstrate compliance with given information and relevant legislation when identifying and marking the location of utilities apparatus and sub-structures in relation to the following:
- safe use, storage and handling of materials, tools and equipment
  - specific risks to health
  - others affected by the work.
- 3.3 Explain why and when health and safety control equipment, identified by the principles of prevention, should be used, relating to identifying and marking the location of utilities apparatus and sub-structures, 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).
- 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, damage to utilities apparatus and sub-structures and other task-related activities.
- 4 Select the required quantity and quality of resources for the methods of work to identify and mark the location of utilities apparatus and sub-structures.
- 4.1 Select resources associated with own work in relation to materials, components, tools, equipment and electronic location instruments.
- 4.2 Describe the characteristics, quality, uses, sustainability, limitations and defects associated with the resources in relation to:
- electronic location instruments
  - marking materials and equipment
  - hand tools, power tools and equipment
  - ancillary equipment.
- 4.3 Describe how to confirm that the resources and materials conform to the specification.
- 4.4 Describe how the resources should be used correctly and how problems associated with the resources are reported.

4	continued	4.5	Explain why the organisational procedures have been developed and how they are used for the selection of required resources.
		4.6	Describe any potential hazards associated with the resources and methods of work.
		4.7	Describe how to identify by calculation, quantity, length and area associated with the method and procedure to identify and mark the location of utilities apparatus and sub-structures.
5	Minimise the risk of damage to the work and surrounding area when identifying and marking the location of utilities apparatus and sub-structures.	5.1	Protect the work and its surrounding area from damage in accordance with safe working practices and organisational procedures.
		5.2	Maintain a clear and tidy work space.
		5.3	Dispose of waste in accordance with current legislation.
		5.4	Describe how to protect work from damage and the purpose of protection in relation to general workplace activities, other occupations and adverse weather conditions.
		5.5	Explain why the disposal of waste should be carried out safely in accordance with environmental responsibilities, organisational procedures, manufacturers' information, statutory regulations and official guidance.
6	Complete the work within the allocated time when identifying and marking the location of utilities apparatus and sub-structures.	6.1	Demonstrate completion of the work within the allocated time.
		6.2	Describe the purpose of the work programme and explain why deadlines should be kept in relation to: <ul style="list-style-type: none"> <li>- types of productivity targets and time scales</li> <li>- how times are estimated</li> <li>- organisational procedures for reporting circumstances which will affect the work programme.</li> </ul>
7	Comply with the given contract information to identify and mark the location of utilities apparatus and sub-structures to the required specification.	7.1	Demonstrate the following work skills when identifying and marking the location of utilities apparatus and sub-structures: <ul style="list-style-type: none"> <li>- measuring, locating, identifying, marking out, positioning, protecting and securing.</li> </ul>
		7.2	Use and maintain hand tools, power tools and ancillary equipment.
		7.3	Survey, identify and mark the location of utilities apparatus and sub-structures 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:
- confirm the area and location of work, the operations, safety and security requirements including temporary traffic management and immediate area protection
  - ensure electronic equipment is calibrated
  - conform to agreed specification and local utility providers requirements
  - identify utilities apparatus and sub-structures by electronic locators and visually
  - confirm the type of service including gas, fuel, electric, communication, water, sewage
  - work around street furniture and ironwork
  - recognise identification markers for utility types
  - confirm structures (foundations, inspection chambers, joint and junction boxes)
  - confirm the impact of the natural environment (tree roots, watercourses)
  - mark the position of the utilities apparatus and sub-structures
  - return infrastructure to operational status
  - recognise and determine when specialist skills and knowledge are required and report accordingly
  - use hand tools, power tools and equipment
  - work at height.
- 7.5 Describe the needs of other occupations and how to effectively communicate within a team when identifying and marking the location of utilities apparatus and sub-structures.
- 7.6 Describe how to maintain the tools, equipment and electronic instruments used when identifying and marking the location of utilities apparatus and sub-structures.

**Title:** Identifying and marking the location of utilities apparatus and sub-structures in the workplace

**Additional information about this unit**

Assessment Guidance	<p>This unit must be assessed in a work environment, in accordance with the ConstructionSkills' Consolidated Assessment Strategy for Construction and the Built Environment.</p> <p>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.</p> <p>Workplace evidence of skills cannot be simulated.</p> <p>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.</p>
Sector Subject Areas	5.2 Building and Construction
Availability for use	Shared unit
Unit guided learning hours	65

**Title:** Preparing and operating forward tipping dumpers to receive, transport and discharge materials in the workplace

**Unit Number:** M/651/0029

**Learning outcomes**

**Assessment criteria**

*The learner will be able to:*

*The learner can:*

1	Interpret the given information relating to the preparation and use of forward tipping dumpers to carry out transporting and discharging operations.	1.1	Interpret and extract relevant information from drawings, specifications, schedules, 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: <ul style="list-style-type: none"><li>- drawings, specifications, schedules, method statements, risk assessments, manufacturers' information, and current regulations governing the operation of forward tipping dumpers.</li></ul>
2	Organise with others the sequence and operation in which transporting and discharging operations using forward tipping dumpers are to be carried out.	2.1	Organise the work according to given information or instructions.
		2.2	Describe how to communicate ideas between team members.
		2.3	Organise and communicate with team members and other associated occupations.
		2.4	Describe how to organise resources prior to and during transporting and discharging operations.
3	Know how to comply with relevant legislation and official guidance when carrying out transporting and discharging operations using forward tipping dumpers.	3.1	Describe their responsibilities regarding potential accidents, health hazards and the environment whilst working: <ul style="list-style-type: none"><li>- in the workplace, below ground level, in confined spaces, at height, with tools and equipment, with materials and substances, with movement/storage of materials and by manual handling and mechanical lifting.</li></ul>
		3.2	Describe the organisational security procedures for tools, equipment and personal belongings in relation to site, workplace, company and operative.
		3.3	Explain what the accident reporting procedures are and who is responsible for making reports.

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| 4 | Maintain safe and healthy working practices when preparing for and carrying out transporting and discharging operations using forward tipping dumpers.                | <p>4.1 Use health and safety control equipment safely and comply with the methods of work to carry out the activity in accordance with legislation and organisational requirements during transporting and discharging operations.</p> <p>4.2 Demonstrate compliance with given information and relevant legislation when carrying out transporting and discharging operations using forward tipping dumpers in relation to two or more of the following:</p> <ul style="list-style-type: none"> <li>- safe use and storage of plant or machinery</li> <li>- safe use and storage of tools and equipment</li> <li>- specific risks to health.</li> </ul> <p>4.3 Explain why and when health and safety control equipment, identified by the principles of protection, should be used, relating to forward tipping dumper use, and the types, purpose and limitations of each type, the work situation and general work environment, in relation to:</p> <ul style="list-style-type: none"> <li>- collective protective measures</li> <li>- personal protective equipment (PPE)</li> <li>- respiratory protective equipment (RPE)</li> <li>- local exhaust ventilation (LEV).</li> </ul> <p>4.4 Describe how the relevant health and safety control equipment should be used in accordance with the given working instructions.</p> <p>4.5 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.</p> |
| 5 | Request and select the required quantity and quality of resources to prepare for and carry out transporting and discharging operations using forward tipping dumpers. | <p>5.1 Request and select resources associated with forward tipping dumpers in relation to consumables, materials, tools, ancillary equipment and/or accessories.</p> <p>5.2 Describe the characteristics, quality, uses, sustainability, limitations and defects associated with the resources, and how they should be used correctly, relating to:</p> <ul style="list-style-type: none"> <li>- consumables, lubricants and fuels</li> <li>- attachments and load coverings</li> <li>- hand tools, ancillary equipment and accessories.</li> </ul> <p>5.3 Describe how the resources should be used correctly and how problems associated with the resources are reported.</p> <p>5.4 Explain why the organisational procedures have been developed and how they are used for the selection of required resources.</p>   |

5	continued	5.5	Describe any potential hazards associated with the resources and methods of work.
		5.6	Describe how to identify weight, quantity, pressure, length and area associated with the method/procedures to carry out transporting and discharging operations.
6	Minimise the risk of damage to the work and surrounding area when preparing to and transporting and discharging materials.	6.1	Protect the work and its surrounding area from damage in accordance with safe working practices and organisational procedures.
		6.2	Prevent damage and maintain a clean work space.
		6.3	Dispose of waste in accordance with current legislation.
		6.4	Describe how to protect work from damage and the purpose of protection in relation to general workplace activities, other occupations and adverse weather conditions.
		6.5	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.
7	Complete the work within the allocated time when preparing to and transporting and discharging materials using forward tipping dumpers.	7.1	Demonstrate completion of the work within the allocated time.
		7.2	Describe the purpose of the work programme and describe why deadlines should be kept in relation to: <ul style="list-style-type: none"> <li>- types of progress charts, timetables and estimated times</li> <li>- organisational procedures for reporting circumstances which will affect the work programme.</li> </ul>
8	Comply with the given contract information to receive, transport and discharge materials using forward tipping dumpers to the required specification.	8.1	Demonstrate the following work skills when preparing for and transporting and discharging materials using forward tipping dumpers: <ul style="list-style-type: none"> <li>- checking, adjusting, communicating, manoeuvring, positioning, receiving, depositing, transporting, discharging and cleaning.</li> </ul>
		8.2	Use and maintain hand tools, ancillary equipment and/or accessories.
		8.3	Prepare to, position, set up and operate forward tipping dumpers to receive, transport and discharge loads to given working instructions.
		8.4	Shut down and secure forward tipping dumpers.

- 8.5 Describe how to apply safe and healthy work practices, follow procedures, report problems and establish authority needed to rectify, to:
- identify the characteristics of the forward tipping dumpers used for transporting and discharging work
  - carry out function checks to receive, transport and discharge loads
  - identify characteristics, type and volume of loads to receive and transport
  - prepare, set up and adjust for operational requirements
  - carry out pre-operational checks for obstructions, stability, safety and security of the work and surrounding area
  - recognise and determine when specific skills and knowledge are required and report accordingly
- 8.6
- identify the area for discharging
  - check to avoid damage to structures and utilities service apparatus
  - receive, transport and discharge materials safely and securely
  - be on the public highway
  - shut down and secure the forward tipping dumper
  - use hand tools, ancillary equipment and accessories.
- 8.7 Describe the needs of other occupations and how to effectively communicate within a team when preparing to and carrying out transporting and discharging operations.
- 8.8 Describe how to maintain the plant and machinery, hand tools and ancillary equipment used for transporting and discharging operations.

**Title:** Preparing and operating forward tipping dumpers to receive, transport and discharge materials in the workplace

**Additional information about this unit**

Assessment Guidance	<p>This unit must be assessed in a work environment and in accordance with the ConstructionSkills' Consolidated Assessment Strategy for Construction and the Built Environment.</p> <p>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.</p> <p>Workplace evidence of skills cannot be simulated.</p> <p>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.</p>
Sector subject areas	5.2 Building and Construction
Availability for use	Shared unit
Unit guided learning hours	53

**Title:** Preparing and operating ride-on rollers to compact materials in the workplace

**Unit Number:** Y/651/0030

**Learning outcomes**

**Assessment criteria**

*The learner will be able to:*

*The learner can:*

1	Interpret the given information relating to the preparation and use of ride-on rollers to carry out compacting operations.	1.1	Interpret and extract relevant information from drawings, specifications, schedules, 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: <ul style="list-style-type: none"><li>- drawings, specifications, schedules, method statements, risk assessments, manufacturers' information, and current regulations governing the operation of ride-on rollers for compaction work.</li></ul>
2	Organise with others the sequence and operation in which compacting operations using ride-on rollers are to be carried out.	2.1	Organise the work according to given information or instructions.
		2.2	Describe how to communicate ideas between team members.
		2.3	Organise and communicate with team members and other associated occupations.
		2.4	Describe how to organise resources prior to and during compacting operations using ride-on rollers.
3	Know how to comply with relevant legislation and official guidance when carrying out compacting operations using ride-on rollers.	3.1	Describe their responsibilities regarding potential accidents, health hazards and the environment whilst working: <ul style="list-style-type: none"><li>- in the workplace, below ground level, in confined spaces, at height, with tools and equipment, with materials and substances, with movement/storage of materials and by manual handling and mechanical lifting.</li></ul>
		3.2	Describe the organisational security procedures for tools, equipment and personal belongings in relation to site, workplace, company and operative.
		3.3	Explain what the accident reporting procedures are and who is responsible for making reports.



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| 4 | Maintain safe and healthy working practices when preparing for and carrying out compacting operations using ride-on rollers.                | <p>4.1 Use health and safety control equipment safely and comply with the methods of work to carry out the activity in accordance with legislation and organisational requirements during compacting operations.</p> <p>4.2 Demonstrate compliance with given information and relevant legislation when carrying out compacting operations using ride-on rollers in relation to two or more of the following:</p> <ul style="list-style-type: none"> <li>- safe use and storage of plant or machinery</li> <li>- safe use and storage of tools and equipment</li> <li>- specific risks to health.</li> </ul> <p>4.3 Explain why and when health and safety control equipment, identified by the principles of protection, should be used, relating to ride-on roller use, and the types, purpose and limitations of each type, the work situation and general work environment, in relation to:</p> <ul style="list-style-type: none"> <li>- collective protective measures</li> <li>- personal protective equipment (PPE)</li> <li>- respiratory protective equipment (RPE)</li> <li>- local exhaust ventilation (LEV).</li> </ul> <p>4.4 Describe how the relevant health and safety control equipment should be used in accordance with the given working instructions.</p> <p>4.5 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.</p> |
| 5 | Request and select the required quantity and quality of resources to prepare for and carry out compacting operations using ride-on rollers. | <p>5.1 Request and select resources associated with ride-on rollers in relation to consumables, materials, tools, ancillary equipment and/or accessories.</p> <p>5.2 Describe the characteristics, quality, uses, sustainability, limitations and defects associated with the resources, and how they should be used correctly, relating to:</p> <ul style="list-style-type: none"> <li>– consumables, lubricants and fuels</li> <li>– attachments and compaction operational aids</li> <li>– hand tools, ancillary equipment and accessories.</li> </ul> <p>5.3 Describe how the resources should be used correctly and how problems associated with the resources are reported.</p> <p>5.4 Explain why the organisational procedures have been developed and how they are used for the selection of required resources.</p> <p>5.5 Describe any potential hazards associated with the resources and methods of work.</p>   |

5	continued	5.6	Describe how to identify weight, pressure, quantity, length and area associated with the method/procedures to carry out compaction work using ride-on rollers.
6	Minimise the risk of damage to the work and surrounding area when preparing for and compacting materials.	6.1	Protect the work and its surrounding area from damage in accordance with safe working practices and organisational procedures.
		6.2	Prevent damage and maintain a clean work space.
		6.3	Dispose of waste in accordance with current legislation.
		6.4	Describe how to protect work from damage and the purpose of protection in relation to general workplace activities, other occupations and adverse weather conditions.
		6.5	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.
7	Complete the work within the allocated time when preparing to and compacting materials.	7.1	Demonstrate completion of the work within the allocated time.
		7.2	Describe the purpose of the work programme and describe why deadlines should be kept in relation to: <ul style="list-style-type: none"> <li>- types of progress charts, timetables and estimated times</li> <li>- organisational procedures for reporting circumstances which will affect the work programme.</li> </ul>
8	Comply with the given contract information to compact materials using ride-on rollers to the required specification.	8.1	Demonstrate the following work skills when preparing for and compacting materials using ride-on rollers: <ul style="list-style-type: none"> <li>- checking, adjusting, communicating, manoeuvring, positioning and compacting.</li> </ul>
		8.2	Use and maintain hand tools, ancillary equipment and/or accessories.
		8.3	Prepare for, position, set up and operate ride-on rollers to compact a variety of materials, in various locations, to given working instructions.
		8.4	Shut down and secure ride-on rollers.

- 8.5 Describe how to apply safe and healthy work practices, follow procedures, report problems and establish authority needed to rectify, to:
- identify the characteristics of the ride-on roller used for compaction operations
  - carry out function checks for compaction operations
  - identify the area for the compaction work
  - prepare, set up and adjust for operational requirements
  - carry out pre-operational checks for obstructions, stability, safety and security of the work and surrounding area
  - identify geological, environmental and material changes and report
  - check to avoid damage to structures and utilities service apparatus
  - recognise different compaction methods
  - recognise and work compaction patterns
- 8.6
- recognise and determine when specific skills and knowledge are required and report accordingly
  - compact materials safely and securely
  - complete compaction work
  - be on the public highway
  - shut down and secure the ride-on roller
  - use hand tools, ancillary equipment and accessories.
- 8.7 Describe the needs of other occupations and how to effectively communicate within a team when preparing to and carrying out compacting operations.
- 8.8 Describe how to maintain the plant and machinery, hand tools and ancillary equipment used to compact materials.

**Title:** Preparing and operating ride-on rollers to compact materials in the workplace

**Additional information about this unit**

Assessment Guidance

This unit must be assessed in a work environment and in accordance with the ConstructionSkills' Consolidated Assessment Strategy for Construction and the Built Environment.

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

Workplace evidence of skills cannot be simulated.

This unit must be assessed against 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.

Sector subject areas

5.2 Building and Construction

Availability for use

Shared unit

Unit guided learning hours

53

**Title:** Moving, handling and storing resources in the workplace

**Unit Number:** F/503/1171

**Learning outcomes**

**Assessment criteria**

*The learner will be able to:*

*The learner can:*

1	Comply with given information when moving, handling and/or storing resources.	1.1	Interpret the given information relating to moving, handling and/or storing resources, relevant to the given occupation.
		1.2	Interpret the given information relating to the use and storage of lifting aids and equipment.
		1.3	Describe the different types of technical, product and regulatory information, their source and how they are interpreted.
		1.4	State the organisational procedures developed to report and rectify inappropriate information and unsuitable resources and how they are implemented.
		1.5	Describe how to obtain information relating to using and storing lifting aids and equipment.
2	Know how to comply with relevant legislation and official guidance when moving, handling and/or storing resources.	2.1	Describe their responsibilities under current legislation and official guidance whilst working: <ul style="list-style-type: none"><li>- 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.</li></ul>
		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	Maintain safe working practices when moving, handling and/or storing resources.	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 continued
- 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 work space 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 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: <ul style="list-style-type: none"> <li>- progress charts, timetables and estimated times</li> <li>- organisational procedures for reporting circumstances which will affect the work programme.</li> </ul>  |
| 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: <ul style="list-style-type: none"> <li>- moving, positioning, storing, securing and/or using lifting aids and kinetic lifting techniques.</li> </ul>  |
|   |  | 7.2 | Move, handle and/or store occupational resources to meet product information and organisational requirements relating to three of the following: <ul style="list-style-type: none"> <li>- sheet material</li> <li>- loose material</li> <li>- bagged or wrapped material</li> <li>- fragile material</li> <li>- tools and equipment</li> <li>- components</li> <li>- liquids.</li> </ul> |
|   |  | 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.  |

**Title:** Moving, handling and storing resources in the workplace

**Additional information about this unit**

Assessment Guidance

This unit must be assessed in a work environment, in accordance with the ConstructionSkills' Consolidated Assessment Strategy for Construction and the Built Environment.

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

Workplace evidence of skills cannot be simulated.

Sector Subject Areas

5.2 Building and Construction

Availability for use

Shared unit

Unit guided learning hours

17



**Title:** Controlling, directing and guiding the operation of plant or machinery in the workplace

**Unit Number:** R/508/6532

**Learning outcomes**

**Assessment criteria**

*The learner will be able to:*

*The learner can:*

1	Interpret the given information relating to controlling, directing and guiding the operation of plant or machinery.	1.1	Interpret and extract relevant information from specifications, schedules, 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: <ul style="list-style-type: none"><li>- drawings, specifications, schedules, method statements, risk assessments, work instructions, manufacturers' information and official guidance for controlling, directing and guiding the operations of plant and machinery.</li></ul>
2	Organise with others the sequence and operation in which directing and guiding operations are to be carried out.	2.1	Organise the work according to given information or instructions.
		2.2	Describe how to communicate ideas between team members.
		2.3	Organise and communicate with team members and other associated occupations.
		2.4	Describe how to organise resources prior to and during directing and guiding the operation of plant and machinery.
3	Know how to comply with relevant legislation and official guidance when carrying out controlling, directing and guiding operations of plant or machinery.	3.1	Describe their responsibilities regarding potential accidents, health hazards and the environment whilst working: <ul style="list-style-type: none"><li>- in the workplace, below ground level, in confined spaces, at height, with tools and equipment, with materials and substances, with movement/storage of materials and by manual handling and mechanical lifting.</li></ul>
		3.2	Describe the organisational security procedures for tools, equipment and personal belongings in relation to site, workplace, company and operative.
		3.3	Explain what the accident reporting procedures are and who is responsible for making reports.

- 4 Maintain safe and healthy working practices when controlling, directing and guiding the operation of plant and machinery.
- 4.1 Use health and safety control equipment safely and comply with the methods of work to carry out the activity in accordance with legislation and organisational requirements during controlling, directing and guiding the operation of plant and machinery.
- 4.2 Demonstrate compliance with given information and relevant legislation when controlling, directing and guiding the operation of plant and machinery in relation to two or more of the following:
- safe use and storage of tools
  - safe use and storage of equipment
  - specific risks to health.
- 4.3 Explain why and when health and safety control equipment, identified by the principles of protection, should be used, relating to directing and guiding operations of plant and machinery, 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).
- 4.4 Describe how the relevant health and safety control equipment should be used in accordance with the given working instructions.
- 4.5 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.
- 5 Select the required quantity and quality of resources to direct and guide the operation of plant and machinery.
- 5.1 Select resources associated with directing and guiding the operation of plant and machinery in relation to hand tools, ancillary equipment, and signalling and communication equipment.
- 5.2 Describe the characteristics, quality, uses, sustainability, limitations and defects associated with the resources, and how they should be used correctly, relating to:
- signalling and communication equipment
  - hand tools and ancillary equipment
  - electronic guidance equipment, global positioning systems and laser marking devices
  - measuring equipment (pegs, tapes, strings, lines and levels).
- 5.3 Describe how the resources should be used correctly and how problems associated with the resources are reported.
- 5.4 Explain why the organisational procedures have been developed and how they are used for the selection of required resources.

5	continued	5.5	Describe any potential hazards associated with the resources and methods of work.
		5.6	Describe how to identify weight and bearing pressures quantity, length, area and volume associated with the method/procedure for controlling, directing and guiding the operation of plant and machinery.
6	Minimise the risk of damage to the work and surrounding area when controlling, directing and guiding the operation of plant and machinery.	6.1	Protect the work and its surrounding area from damage in accordance with safe working practices and organisational procedures.
		6.2	Prevent damage and maintain a clean work space.
		6.3	Dispose of waste in accordance with current legislation.
		6.4	Describe how to protect work from damage and the purpose of protection in relation to general workplace activities, other occupations and adverse weather conditions.
		6.5	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.
7	Complete the work within the allocated time when controlling, directing and guiding the operation of plant and machinery.	7.1	Demonstrate completion of the work within the allocated time.
		7.2	Describe the purpose of the work programme and describe why deadlines should be kept in relation to: <ul style="list-style-type: none"> <li>- types of progress charts, timetables and estimated times</li> <li>- organisational procedures for reporting circumstances which will affect the work programme.</li> </ul>
8	Comply with the given contract information to control, direct and guide the operation of plant or machinery to the required specification.	8.1	Demonstrate the following work skills when controlling, directing and guiding the operation of plant or machinery: <ul style="list-style-type: none"> <li>- measuring, gauging, estimating, interpreting, judging, explaining, preparing, commanding, directing, guiding, indicating, informing, instructing, signing, positioning, moving, securing, signalling and relaying.</li> </ul>
		8.2	Use and maintain hand tools, ancillary equipment, and signalling and communication equipment.
		8.3	Control, direct and guide the operation of plant or machinery not being used for lifting operations, but including plant or machinery used as work platforms, to given working instructions, relating to the following: <ul style="list-style-type: none"> <li>- hand signals</li> <li>- hand signalling equipment</li> <li>- verbal and electronic communication equipment.</li> </ul>

- 8.4 Describe how to apply safe and healthy work practices, follow procedures, report problems and establish authority needed to rectify, to:
- identify the differences between directing and guiding operations, directing and guiding movement and slinging and signalling
  - interpret work plans
  - assess and determine the operation of plant and machinery (not being used for lifting operation but including plant or machinery used as work platforms) to include own position, visibility, ground conditions and features, proximity hazards and weight limits
  - identify the operational characteristics and limitations of plant and machinery, width, length, height, radius, reach, capacity
  - recognise blind-spots, potential crush zones and other limitations to operator visibility
- 8.5
- control, direct and guide the operation of plant and machinery not being used for lifting operations to extract, excavate, construct, form, receive, transport, access, lay, distribute, compact, process, sweep, clean and clear
  - assess and determine the movement of extracted and excavated materials or commodities including the formation and removal of stockpiles, unloading, discharging and loading
  - control, direct and guide the operation of plant and machinery not being used for lifting operations on rough, uneven terrain and in areas of restricted movement
  - ensure the integrity of equipment, structures, materials and components close to operations while directing and guiding
- 8.6
- recognise and utilise measurement and operation monitoring aids, pegs, tapes, strings, lines and levels, electronic guidance equipment, global positioning systems and laser marking devices
  - check measurements
  - signal and communicate following recognised and agreed operational procedures
  - recognise requirements for working on public highways
  - recognise and determine when specific skills and knowledge are required and report accordingly
  - use hand tools, ancillary equipment, and signalling and communication equipment.

8 continued

8.7 Describe the needs of other occupations and how to effectively communicate within a team when controlling, directing and guiding the operation of plant and machinery.

8.8 Describe how to maintain hand tools, ancillary equipment, signalling and communication equipment used to control, direct and guide the operation of plant and machinery.

**Title:** Controlling, directing and guiding the operation of plant or machinery in the workplace

**Additional information about this unit**

Assessment Guidance	<p>This unit must be assessed in a work environment and in accordance with the ConstructionSkills' Consolidated Assessment Strategy for Construction and the Built Environment.</p> <p>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.</p> <p>Workplace evidence of skills cannot be simulated.</p>
Sector subject areas	5.2 Building and Construction
Availability for use	Shared unit
Unit guided learning hours	60

**Title:** Installing, constructing, maintaining, dismantling and removing temporary works in the workplace

**Unit Number:** J/618/8498

**Learning outcomes**

**Assessment criteria**

*The learner will be able to:*

*The learner can:*

1	Interpret the given information relating to the work and resources when installing, constructing, maintaining, dismantling and removing temporary works.	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: <ul style="list-style-type: none"><li>- 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.</li></ul>
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: <ul style="list-style-type: none"><li>- 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.</li></ul>
		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 continued
- 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 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:
- 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 procedure to install, construct, maintain, dismantle and remove temporary works.



5	Minimise the risk of damage to the work and surrounding area when installing, constructing, 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 work space.
		5.3	Dispose of waste in accordance with current legislation.
		5.4	Describe how to protect work from damage and the purpose of protection in relation to general workplace activities, other occupations and adverse weather conditions.
		5.5	Explain why the disposal of waste should be carried out safely in accordance with environmental responsibilities, organisational procedures, 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: <ul style="list-style-type: none"> <li>- types of progress charts, timetables and estimated times</li> <li>- organisational procedures for reporting circumstances which will affect the work programme.</li> </ul>
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 : <ul style="list-style-type: none"> <li>- measuring, marking out, aligning, altering, assembling, building, erecting, laying, levelling, plumb, installing, checking, monitoring, adjusting, reinforcing, fitting, fixing, positioning, securing, dismantling and removing.</li> </ul>
		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: <ul style="list-style-type: none"> <li>- protective screens, hoardings and covers</li> <li>- access and egress routes</li> <li>- supports</li> <li>- supporting structures</li> <li>- removal equipment</li> <li>- diverting equipment</li> <li>- site facilities</li> <li>- stabilisation.</li> </ul>

- 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 in order 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

7.4 cont.

- work with, around and in close proximity to 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 continued

- 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 used when installing, constructing, maintaining, dismantling and removing temporary works.

**Title:** Installing, constructing, maintaining, dismantling and removing temporary works in the workplace

**Additional information about this unit**

Assessment Guidance	<p>This unit must be assessed in a work environment, in accordance with the ConstructionSkills' Consolidated Assessment Strategy for Construction and the Built Environment.</p> <p>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.</p> <p>Workplace evidence of skills cannot be simulated.</p> <p>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.</p>
Sector subject area	5.2 Building and Construction
Availability for use	Shared unit
Unit guided learning hours	73

**Title:** Locating and excavating to expose buried utility services in the workplace

**Unit Number:** L/650/8923

**Learning outcomes**

**Assessment criteria**

*The learner will be able to:*

*The learner can:*

1	Interpret the given information relating to the work and resources when locating and excavating to expose buried utility services.	1.1	Interpret and extract relevant information from drawings, specifications, schedules, risk assessments, method statements, survey and utility company information 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: <ul style="list-style-type: none"><li>- drawings, specifications, schedules, risk assessments, method statements, permits, verbal, written and graphical instructions, organisational and manufacturers' information, current regulations and official guidance governing utility services.</li></ul>
2	Know how to comply with relevant legislation and official guidance when locating and excavating to expose buried utility services.	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 by manual handling and mechanical lifting.
		2.2	Describe the organisational security procedures for tools, equipment and personal belongings in relation to site, workplace, company and operative.
		2.3	Explain what the accident reporting procedures are and who is responsible for making reports.
		2.4	Describe the types of fire extinguishers available when locating and excavating to expose buried utility services and describe how and when they are used.
3	Maintain safe and healthy working practices when locating and excavating to expose buried utility services.	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 locating and excavating to expose buried utility services.

- 3 continued
- 3.2 Demonstrate compliance with given information and relevant legislation when locating and excavating to expose buried utility services in relation to the following:
- safe use, storage and handling of materials, tools and equipment
  - specific risks to health
  - working with and around utility services including ground penetration
  - working in excavations
  - others affected by the work.
- 3.3 Explain why and when health and safety control equipment, identified by the principles of prevention, should be used, relating to locating and excavating to expose buried utility services, 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).
- 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, damage to utilities apparatus and sub-structures and other task-related activities.
- 4 Select the required quantity and quality of resources for the methods of work when locating and excavating to expose buried utility services.
- 4.1 Select resources associated with own work in relation to materials, components, tools, equipment and electronic location instruments.
- 4.2 Describe the characteristics, quality, uses, sustainability, limitations and defects associated with the resources in relation to:
- electronic instruments
  - marking and protection materials
  - excavation plant and machinery
  - hand tools, power tools, and equipment including specialist tools (insulated and non-sparking tools)
  - ancillary equipment.
- 4.3 Describe how to confirm that the resources and materials conform to the specification.
- 4.4 Describe how the resources should be used correctly and how problems associated with the resources are reported.
- 4.5 Explain why the organisational procedures have been developed and how they are used for the selection of required resources.

4	continued	4.6	Describe any potential hazards associated with the resources and methods of work.
		4.7	Describe how to identify by calculation, the quantity, length, volume and area associated with the method/procedure to locate and excavate to expose buried utility services.
5	Minimise the risk of damage to the work and surrounding area when locating and excavating to expose buried utility services.	5.1	Protect the work and its surrounding area from damage in accordance with safe working practices and organisational procedures.
		5.2	Maintain a clear and tidy work space.
		5.3	Dispose of waste in accordance with current legislation.
		5.4	Describe how to protect work from damage and the purpose of protection in relation to general workplace activities, other occupations and adverse weather conditions.
		5.5	Explain why the disposal of waste should be carried out safely in accordance with environmental responsibilities, organisational procedures, manufacturers' information, statutory regulations and official guidance.
6	Complete the work within the allocated time when locating and excavating to expose buried utility services.	6.1	Demonstrate completion of the work within the allocated time.
		6.2	Describe the purpose of the work programme and explain why deadlines should be kept in relation to: <ul style="list-style-type: none"> <li>- types of productivity targets and time scales</li> <li>- how times are estimated</li> <li>- organisational procedures for reporting circumstances which will affect the work programme.</li> </ul>
7	Comply with the given contract information when locating and excavating to expose buried utility services to the required specification.	7.1	Demonstrate the following work skills when locating and excavating to expose buried utility services: <ul style="list-style-type: none"> <li>- measuring, locating, exposing, marking out, positioning, protecting and securing.</li> </ul>
		7.2	Use and maintain hand tools, power tools, ancillary equipment and electronic instruments.
		7.3	Locate and excavate to expose buried utility services to given working instructions.
		7.4	Apply protection measures to utility services.



- 7.5 Describe how to apply safe and healthy work practices, follow procedures, report problems and establish the authority needed to rectify them, to:
- confirm the area and location of work, the operations, safety and security requirements including temporary traffic management and immediate area protection
  - ensure electronic equipment is calibrated
  - conform to agreed specification and local utility services providers requirements
  - identify utility services by electronic locators, trial holes and visually
  - recognise criteria for operating location equipment and their limitations
  - confirm the type of service including: gas, fuel, electric, communication, water, sewage
  - liaise with utility services organisations
  - recognise identification markers for utility types
  - excavate by hand and with the assistance of plant or machinery
  - work with, in close proximity to, and around plant and machinery
  - recognise the criteria for directing and guiding the operations and movement of plant and machinery
  - work around street furniture and ironwork
  - work in excavations, including the need for excavation supports, edge protection and access equipment
  - provide for the recognition and protection of the utility services, sub-structure and the natural environment during operational activities
  - install supports for exposed utility services
  - recognise and determine when specialist skills and knowledge are required and report accordingly
  - use hand tools, portable power tools and equipment including specialist equipment
  - use access equipment
  - work at height.
- 7.6 Describe the needs of other occupations and how to effectively communicate within a team when locating and excavating to expose buried utility services.
- 7.7 Describe how to maintain the tools and equipment used to locate and excavate to expose buried utility services.

**Title:** Locating and excavating to expose buried utility services in the workplace

**Additional information about this unit**

Assessment Guidance	<p>This unit must be assessed in a work environment, in accordance with the ConstructionSkills' Consolidated Assessment Strategy for Construction and the Built Environment.</p> <p>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.</p> <p>Workplace evidence of skills cannot be simulated.</p>
Sector Subject Area	5.2 Building and Construction
Availability for use	Shared unit
Unit guided learning hours	70

**Title:** Placing and finishing concrete in the workplace

**Unit Number:** A/651/0031

**Learning outcomes**

**Assessment criteria**

*The learner will be able to:*

*The learner can:*

1	Interpret the given information relating to the work and resources when placing and finishing concrete.	1.1	Interpret and extract relevant information from: <ul style="list-style-type: none"><li>- drawings</li><li>- plans</li><li>- specifications</li><li>- schedules</li><li>- risk assessments</li><li>- method statements</li><li>- manufacturers' information</li><li>- suppliers' information.</li></ul>
		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: <ul style="list-style-type: none"><li>- drawings</li><li>- plans</li><li>- specifications</li><li>- schedules</li><li>- method statements</li><li>- risk assessments</li><li>- manufacturers' information</li><li>- verbal and written instructions</li><li>- sketches</li><li>- electronic data</li><li>- official guidance</li><li>- current regulations.</li></ul>
2	Know how to comply with relevant legislation and official guidance when placing and finishing concrete.	2.1	Describe their responsibilities regarding potential accidents, health hazards and the environment, whilst working: <ul style="list-style-type: none"><li>- in the workplace</li><li>- below ground level</li><li>- in confined spaces</li><li>- at height</li><li>- with tools and equipment</li><li>- with materials and substances</li><li>- with the movement and storage of materials by manual handling and mechanical lifting.</li></ul>

- 2 continued
- 2.2 Describe the organisational security procedures for tools, equipment and personal belongings in relation to:
- site
  - workplace
  - company
  - operative
  - vehicles.
- 2.3 Explain what the accident reporting procedures are and who is responsible for making reports.
- 2.4 Describe the types of fire extinguishers available and describe how and when they are used:
- water
  - CO<sub>2</sub>
  - foam
  - powder.
- 3 Maintain safe and healthy working practices when placing and finishing 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 current legislation and organisational requirements.
- 3.2 Demonstrate compliance with given information and relevant legislation in relation to two of 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, 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 instructions.
- 3.5 Describe how emergencies should be responded to in accordance with organisational authorisation and personal skills when involved with:
- fires, spillages, injuries
  - other task related activities.

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| 4 | Select the required quantity and quality of resources for the methods of work to place and finish concrete. | <p>4.1 Select resources associated with own work in relation to:</p> <ul style="list-style-type: none"> <li>- materials, components and fixings</li> </ul> <p>tools and equipment.</p> <p>4.2 Describe the characteristics, quality, uses, sustainability, limitations and defects associated with the resources in relation to:</p> <ul style="list-style-type: none"> <li>- concrete</li> <li>- reinforcement</li> <li>- timber</li> <li>- plywood</li> <li>- proprietary slab edgings and fixings</li> <li>- hand and power tools.</li> </ul> <p>4.3 Describe how to confirm that are resources and materials conform to the specification.</p> <p>4.4 Describe how the resources should be used correctly and how problems associated with the resources are reported.</p> <p>4.5 Explain why the organisational procedures have been developed and how they are used for the selection of required resources.</p> <p>4.6 Describe any potential hazards associated with the resources and methods of work.</p> <p>4.7 Describe how to calculate quantity, length, area and wastage associated with the method and procedure to place and finish concrete.</p> |
| 5 | Minimise the risk of damage to the work and surrounding area when placing and finishing concrete.           | <p>5.1 Protect the work and its surrounding area from damage in accordance with safe working practices and organisational procedures.</p> <p>5.2 Maintain a clear and tidy work space.</p> <p>5.3 Dispose of waste in accordance with current legislation.</p> <p>5.4 Describe how to protect work from damage and the purpose of protection in relation to:</p> <ul style="list-style-type: none"> <li>- general workplace activities</li> <li>- other occupations</li> <li>- adverse weather conditions.</li> </ul> <p>5.5 Explain why the disposal of waste should be carried out safely in accordance with:</p> <ul style="list-style-type: none"> <li>- environmental responsibilities</li> <li>- organisational procedures</li> <li>- manufacturers' information</li> <li>- statutory regulations</li> <li>- official guidance.</li> </ul>   |

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| 6 | Complete the work within the allocated time when placing and finishing concrete.                       | <p>6.1 Demonstrate completion of the work within the estimated, allocated time.</p> <p>6.2 Describe the purpose of the work programme and explain why deadlines should be kept in relation to:</p> <ul style="list-style-type: none"> <li>- types of productivity targets and timescales</li> <li>- how times are estimated</li> <li>- organisational procedures for reporting circumstances which will affect the work programme.</li> </ul>   |
| 7 | Comply with the given contract information to place and finish concrete to the required specification. | <p>7.1 Demonstrate the following work skills:</p> <ul style="list-style-type: none"> <li>- measuring</li> <li>- marking out</li> <li>- placing</li> <li>- compacting</li> <li>- finishing</li> <li>- positioning</li> <li>- securing.</li> </ul> <p>7.2 Use and maintain hand and power tools.</p> <p>7.3 Place, compact and finish concrete to given working instructions for the following:</p> <ul style="list-style-type: none"> <li>- concrete slabs and bases (footing, oversites or paths)</li> <li>- form slab edging (trowelled)</li> <li>- position reinforcement</li> <li>- form surface finish (tamped, floated, brushed and trowelled).</li> </ul> |

7 continued

- 7.4 Describe how to apply safe and healthy work practices, follow procedures, report problems and establish the authority needed to rectify them, to:
- handle, transport and test concrete
  - transport, place, compact, and finish concrete
  - cure and protect
  - place reinforcement
  - identify concrete mix ratios
  - place concrete into formwork and shuttering
  - form slab edging including joints and level changes
  - recognise and determine when specialist skills and knowledge are required and report accordingly
  - identify and follow the installation quality requirements
  - work with, around and in close proximity to plant and machinery
  - direct and guide the operations and movement of plant and machinery
  - use hand and power tools
  - work at height
  - use access equipment.
- 7.5 Describe the needs of other occupations and how to communicate effectively within a team.
- 7.6 Describe how to maintain the tools and equipment used.

**Title:** Placing and finishing concrete in the workplace

**Additional information about this unit**

Assessment Guidance	<p>This unit must be assessed in a work environment, in accordance with the ConstructionSkills' Consolidated Assessment Strategy for Construction and the Built Environment.</p> <p>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.</p> <p>Workplace evidence of skills cannot be simulated.</p>
Sector Subject Areas	5.2 Building and Construction
Availability for use	Shared unit
Unit guided learning hours	120
Assessment hours	10



## Behaviours

When performing to this standard you are likely to demonstrate the following behaviours.

- 1 **Work safely:**  
Consider the safety of yourself and those around you, challenge unsafe behaviour.
- 2 **Effective communication:**  
Oral, written, electronic, listening, body language, presentation.
- 3 **Respect:**  
Apply equality, diversity and inclusion in dealing with others.
- 4 **Team work:**  
Work effectively and safely with others with limited supervision.
- 5 **Independent working:**  
Take responsibility for safe completion of your own work.
- 6 **Logical thinking:**  
Use clear and valid reasoning when making decisions to safely undertake work instructions.
- 7 **Working effectively:**  
Undertake the work in a reliable, safe and productive manner.
- 8 **Time management:**  
Use own time effectively to complete the work instructions to schedule, take the time to be safe.
- 9 **Adaptability:**  
Be able to adjust to changes to the work instructions, put safety first.

**Title:** Erecting and striking proprietary formwork in the workplace

**Unit Number:** D/651/0032

**Learning outcomes**

**Assessment criteria**

*The learner will be able to:*

*The learner can:*

1	Interpret the given information relating to the work and resources when erecting and striking proprietary formwork.	1.1	Interpret and extract relevant information from: <ul style="list-style-type: none"><li>- drawings</li><li>- specifications</li><li>- schedules</li><li>- risk assessments</li><li>- method statements</li><li>- manufacturers' information</li><li>- suppliers' information.</li></ul>
		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: <ul style="list-style-type: none"><li>- drawings</li><li>- specifications</li><li>- schedules</li><li>- risk assessments</li><li>- method statements</li><li>- permits</li><li>- manufacturers' and suppliers' information</li><li>- verbal and written instructions</li><li>- sketches</li><li>- electronic data</li><li>- current regulations</li><li>- official guidance.</li></ul>
2	Know how to comply with relevant legislation and official guidance when erecting and striking proprietary formwork.	2.1	Describe their responsibilities regarding potential accidents, health hazards and the environment, whilst working: <ul style="list-style-type: none"><li>- in the workplace</li><li>- below ground level</li><li>- in confined spaces</li><li>- at height</li><li>- with tools and equipment</li><li>- with materials and substances</li><li>- with the movement and storage of materials by manual handling and mechanical lifting.</li></ul>

- 2 continued
- 2.2 Describe the organisational security procedures for tools, equipment and personal belongings in relation to:
- site
  - workplace
  - company
  - operative
  - vehicles.
- 2.3 Explain what the accident reporting procedures are and who is responsible for making reports.
- 2.4 Describe the types of fire extinguishers available and describe how and when they are used:
- water
  - CO<sub>2</sub>
  - foam
  - powder.
- 3 Maintain safe and healthy working practices when erecting and striking proprietary 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.
- 3.2 Demonstrate compliance with given information and relevant legislation in relation to at least two of 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, 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
  - other task related activities.

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| 4 | Select the required quantity and quality of resources for the methods of work to erect and strike proprietary formwork. | <p>4.1 Select resources associated with own work in relation to:</p> <ul style="list-style-type: none"> <li>- materials, components and fixings</li> </ul> <p>4.2 Describe the characteristics, quality, uses, sustainability, limitations and defects associated with the resources in relation to:</p> <ul style="list-style-type: none"> <li>- proprietary formwork and associated items</li> <li>- tie systems</li> <li>- prop systems</li> <li>- protective coatings</li> <li>- fixtures and fittings</li> <li>- access equipment</li> <li>- hand and power tools.</li> </ul> <p>4.3 Describe how to confirm that the resources and materials conform to the specification.</p> <p>4.4 Describe how the resources should be used correctly and how problems associated with the resources are reported.</p> <p>4.5 Explain why the organisational procedures have been developed and how they are used for the selection of required resources.</p> <p>4.6 Describe any potential hazards associated with the resources and methods of work.</p> <p>4.7 Describe how to calculate quantity, length, area and wastage associated with the method and procedure to erect and strike proprietary formwork.</p> |
| 5 | Minimise the risk of damage to the work and surrounding area when erecting and striking proprietary formwork.           | <p>5.1 Protect the work and its surrounding area from damage in accordance with safe working practices and organisational procedures.</p> <p>5.2 Maintain a clear and tidy work space.</p> <p>5.3 Dispose of waste in accordance with current legislation.</p> <p>5.4 Describe how to protect work from damage and the purpose of protection in relation to:</p> <ul style="list-style-type: none"> <li>- general workplace activities</li> <li>- other occupations</li> <li>- adverse weather conditions.</li> </ul> <p>5.5 Explain why the disposal of waste should be carried out safely in accordance with:</p> <ul style="list-style-type: none"> <li>- environmental responsibilities</li> <li>- organisational procedures</li> <li>- manufacturers' information</li> <li>- statutory regulations</li> <li>- official guidance.</li> </ul>   |

6	Complete the work within the allocated time when erecting and striking proprietary formwork.	6.1	Demonstrate completion of the work within the estimated, allocated time.
		6.2	Describe the purpose of the work programme and explain why deadlines should be kept in relation to: <ul style="list-style-type: none"> <li>- types of productivity targets and time scales</li> <li>- how times are estimated</li> <li>- organisational procedures for reporting circumstances which will affect the work programme.</li> </ul>
7	Comply with the given contract information to erect and strike proprietary formwork to the required specification.	7.1	Demonstrate the following work skills: <ul style="list-style-type: none"> <li>- measuring</li> <li>- marking out</li> <li>- aligning</li> <li>- positioning</li> <li>- levelling</li> <li>- plumbing</li> <li>- securing</li> <li>- removing</li> <li>- storing.</li> </ul>
		7.2	Use and maintain hand and power tools.
		7.3	Erect and strike proprietary formwork 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: <ul style="list-style-type: none"> <li>- set out, erect and strike proprietary formwork for channels, ground slabs and bases</li> <li>- conform to agreed specifications</li> <li>- attach and remove safe lifting provision</li> <li>- position, secure and remove prop and tie systems</li> <li>- monitor and check accuracy during progress and on completion of work</li> <li>- apply release agents</li> <li>- move, clean, stack and store proprietary forms</li> <li>- recognise and determine when specialist skills and knowledge are required and report accordingly</li> <li>- work with, around and in close proximity to plant and machinery including lifting equipment</li> <li>- use hand and power tools</li> <li>- work at height</li> <li>- use access equipment.</li> </ul>
		7.5	Describe the needs of other occupations and how to communicate effectively within a team.
		7.6	Describe how to maintain the tools and equipment used.

**Title:** Erecting and striking proprietary formwork in the workplace

**Additional information about this unit**

Assessment Guidance	<p>This unit must be assessed in a work environment, in accordance with the ConstructionSkills' Consolidated Assessment Strategy for Construction and the Built Environment.</p> <p>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.</p> <p>Workplace evidence of skills cannot be simulated.</p>
Sector Subject Areas	5.2 Building and Construction
Availability for use	Shared unit
Unit guided learning hours	90
Assessment hours	10

## Behaviours

When performing to this standard you are likely to demonstrate the following behaviours.

- 1 **Work safely:**  
Consider the safety of yourself and those around you, challenge unsafe behaviour.
- 2 **Effective communication:**  
Oral, written, electronic, listening, body language, presentation.
- 3 **Respect:**  
Apply equality, diversity and inclusion in dealing with others.
- 4 **Team work:**  
Work effectively and safely with others with limited supervision.
- 5 **Independent working:**  
Take responsibility for safe completion of your own work.
- 6 **Logical thinking:**  
Use clear and valid reasoning when making decisions to safely undertake work instructions.
- 7 **Working effectively:**  
Undertake the work in a reliable, safe and productive manner.
- 8 **Time management:**  
Use own time effectively to complete the work instructions to schedule, take the time to be safe.
- 9 **Adaptability:**  
Be able to adjust to changes to the work instructions, put safety first.

**Title:** Forming and finishing excavations manually in the workplace

**Unit Number:** M/650/8924

**Learning outcomes**

**Assessment criteria**

*The learner will be able to:*

*The learner can:*

1	Interpret the given information relating to the work and resources when forming and finishing excavations manually.	1.1	Interpret and extract relevant information from: <ul style="list-style-type: none"><li>- drawings</li><li>- specifications</li><li>- schedules</li><li>- risk assessments</li><li>- method statements</li><li>- manufacturers' information</li><li>- suppliers' information.</li></ul>
		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: <ul style="list-style-type: none"><li>- drawings</li><li>- specifications</li><li>- schedules</li><li>- risk assessments</li><li>- method statements</li><li>- manufacturers' information</li><li>- verbal and written instructions</li><li>- sketches</li><li>- electronic data</li><li>- permits</li><li>- current legislation</li><li>- official guidance.</li></ul>
2	Know how to comply with relevant legislation and official guidance when forming and finishing excavations manually.	2.1	Describe their responsibilities regarding potential accidents, health hazards and the environment whilst working: <ul style="list-style-type: none"><li>- in the workplace</li><li>- below ground level</li><li>- in confined spaces</li><li>- at height</li><li>- with tools and equipment</li><li>- with materials and substances</li><li>- with the movement and storage of materials by manual handling and mechanical lifting.</li></ul>



- 2 continued
- 2.2 Describe the organisational security procedures for tools, equipment and personal belongings in relation to:
- site
  - workplace
  - company
  - operative
  - vehicles.
- 2.3 Explain what the accident reporting procedures are and who is responsible for making reports.
- 2.4 Describe the types of fire extinguishers available and describe how and when they are used:
- water
  - CO<sub>2</sub>
  - foam
  - powder.
- 3 Maintain safe and healthy working practices when forming and finishing excavations manually.
- 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.
- 3.2 Demonstrate compliance with given information and relevant legislation in relation to at least three of the following:
- working with and around utility services including ground penetration
  - 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, 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
  - other task related activities.

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| 4 | Select the required quantity and quality of resources for the methods of work to form and finish excavations manually. | <p>4.1 Select resources associated with own work in relation to:</p> <ul style="list-style-type: none"> <li>- materials and components</li> <li>- tools and equipment.</li> </ul> <p>4.2 Describe the characteristics, quality, uses, sustainability, limitations and defects associated with the resources in relation to:</p> <ul style="list-style-type: none"> <li>- digging equipment</li> <li>- hand and power tools.</li> </ul> <p>4.3 Describe how to confirm that the resources and materials conform to the specification.</p> <p>4.4 Describe how the resources should be used correctly and how problems associated with the resources are reported.</p> <p>4.5 Explain why the organisational procedures have been developed and how they are used for the selection of required resources.</p> <p>4.6 Describe any potential hazards associated with the resources and methods of work.</p> <p>4.7 Describe how to calculate quantity, length, area, volume and wastage associated with the method and procedure to form and finish excavations manually.</p> |
| 5 | Minimise the risk of damage to the work and surrounding area when forming and finishing excavations manually.          | <p>5.1 Protect the work and its surrounding area from damage in accordance with safe working practices and organisational procedures.</p> <p>5.2 Maintain a clear and tidy work space.</p> <p>5.3 Dispose of waste in accordance with current legislation.</p> <p>5.4 Describe how to protect work from damage and the purpose of protection in relation to:</p> <ul style="list-style-type: none"> <li>- general workplace activities</li> <li>- other occupations</li> <li>- adverse weather conditions.</li> </ul> <p>5.5 Explain why the disposal of waste should be carried out safely in accordance with:</p> <ul style="list-style-type: none"> <li>- environmental responsibilities</li> <li>- organisational procedures</li> <li>- manufacturers' information</li> <li>- statutory regulations</li> <li>- official guidance.</li> </ul>  |

6	Complete the work within the allocated time when forming and finishing excavations manually.	6.1	Demonstrate completion of the work within the estimated, allocated time.
		6.2	Describe the purpose of the work programme and explain why deadlines should be kept in relation to: <ul style="list-style-type: none"> <li>- types of productivity targets and time scales</li> <li>- how times are estimated</li> <li>- organisational procedures for reporting circumstances which will affect the work programme.</li> </ul>
7	Comply with the given contract information to form and finish excavations manually to the required specification.	7.1	Demonstrate the following work skills: <ul style="list-style-type: none"> <li>- checking, locating, measuring, marking out, excavating and securing.</li> </ul>
		7.2	Use and maintain hand and power tools.
		7.3	Form and finish excavations manually 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: <ul style="list-style-type: none"> <li>- locate, position, identify and confirm the type of surface and sub-surface composition including ground water</li> <li>- conform to agreed specifications</li> <li>- plan, prepare, set out and mark out excavations</li> <li>- remove surface courses, street furniture and sub-surface structures</li> <li>- protect and monitor adjacent structures</li> <li>- excavate, form and finish ground manually</li> <li>- recognise changes in ground conditions, ground water conditions, soil types and excavation stability</li> <li>- recognise the dangers of loads and structures at the edge of excavations</li> <li>- identify and locate utility services, excavate around services and protect</li> <li>- monitor and check accuracy during progress and on completion of work</li> <li>- recognise inspection and test criteria for excavations</li> <li>- identify and store excavated and reusable materials</li> <li>- confirm the disposal of unusable materials</li> <li>- recognise the need for positioning, securing and removing excavation supports</li> <li>- provide for access and egress</li> <li>- work with, around and in close proximity to plant and machinery</li> <li>- recognise and determine when specialist skills and knowledge are required and report accordingly</li> <li>- use hand and power tools</li> <li>- use access equipment</li> <li>- work at height.</li> </ul>

7 continued

7.5 Describe the needs of other occupations and how to communicate effectively within a team.

7.6 Describe how to maintain the tools and equipment used.

**Title:** Forming and finishing excavations manually in the workplace

**Additional information about this unit**

**Assessment Guidance** This unit must be assessed in a work environment, in accordance with the ConstructionSkills' Consolidated Assessment Strategy for Construction and the Built Environment.

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

Workplace evidence of skills cannot be simulated.

**Sector Subject Areas** 5.2 Building and Construction

**Availability for use** Shared unit

**Unit guided learning hours** 61

**Assessment hours** 10

## Behaviours

When performing to this standard you are likely to demonstrate the following behaviours.

- 1 **Work safely:**  
Consider the safety of yourself and those around you, challenge unsafe behaviour.
- 2 **Effective communication:**  
Oral, written, electronic, listening, body language, presentation.
- 3 **Respect:**  
Apply equality, diversity and inclusion in dealing with others.
- 4 **Team work:**  
Work effectively and safely with others with limited supervision.
- 5 **Independent working:**  
Take responsibility for safe completion of your own work.
- 6 **Logical thinking:**  
Use clear and valid reasoning when making decisions to safely undertake work instructions.
- 7 **Working effectively:**  
Undertake the work in a reliable, safe and productive manner.
- 8 **Time management:**  
Use own time effectively to complete the work instructions to schedule, take the time to be safe.
- 9 **Adaptability:**  
Be able to adjust to changes to the work instructions, put safety first.



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