



National Unit Specification: general information

UNIT Roads Maintenance: An Introduction to Constructing Brick Works (SCQF level 5)

CODE F55K 11

SUMMARY

This Unit covers essential knowledge and practical experience relating to constructing brick works in the Roads Maintenance environment. The Unit is suitable for candidates who have had little or no experience to date in the Roads Maintenance environment and who want to gain and apply knowledge and understanding of constructing brick works in the workplace environment. Candidates will prepare for the construction of a brick built inspection chamber and then, using a manhole bond, safely build that chamber whilst complying with all relevant legislation.

OUTCOMES

- 1 Demonstrate knowledge and understanding of terminology, tools, materials and building techniques in relation to construction of brick works.
- 2 Prepare for the construction of a brick built inspection chamber.
- 3 Construct a manhole bond inspection chamber.

RECOMMENDED ENTRY

Entry to this Unit is at the discretion of the centre. This Unit is suitable for inexperienced or entry level candidates.

CREDIT VALUE

1 credit at SCQF level 5 (6 SCQF credit points at SCQF level 5*).

**SCQF credit points are used to allocate credit to qualifications in the Scottish Credit and Qualifications Framework (SCQF). Each qualification in the Framework is allocated a number of SCQF credit points at an SCQF level. There are 12 SCQF levels, ranging from Access 1 to Doctorates.*

Administrative Information

Superclass: TK

Publication date: November 2008

Source: Scottish Qualifications Authority

Version: 01

© Scottish Qualifications Authority 2008

This publication may be reproduced in whole or in part for educational purposes provided that no profit is derived from reproduction and that, if reproduced in part, the source is acknowledged.

Additional copies of this Unit Specification can be purchased from the Scottish Qualifications Authority. Please contact the Customer Contact Centre, telephone 0845 279 1000.

National Unit Specification: general information (cont)

UNIT Roads Maintenance: An Introduction to Constructing Brick Works
(SCQF level 5)

CORE SKILLS

There is no automatic certification of Core Skills in this Unit.

The Unit provides opportunities for candidates to develop aspects of the following Core Skills:

- ◆ Communication at SCQF level 3
- ◆ Working with Others at SCQF level 3
- ◆ Numeracy at SCQF level 3

National Unit Specification: statement of standards

UNIT Roads Maintenance: An Introduction to Constructing Brick Works (SCQF level 5)

Acceptable performance in this Unit will be the satisfactory achievement of the standards set out in this part of the Unit Specification. All sections of the statement of standards are mandatory and cannot be altered without reference to SQA.

OUTCOME 1

Demonstrate knowledge and understanding of terminology, tools, materials and building techniques in relation to construction of brick works.

Performance Criteria

- (a) Identify brick works terminology correctly.
- (b) Identify tools used for brick works correctly.
- (c) Identify materials used for brick works correctly.
- (d) Describe building techniques used for brick works correctly.

OUTCOME 2

Prepare for the construction of a brick built inspection chamber.

Performance Criteria

- (a) Accurately interpret the drawings, and contractor's specification given for the related work to be carried out.
- (b) From instructions given accurately measure and calculate the amount of materials required to meet the works specification.
- (c) Select appropriate components and materials to meet specification for the work.
- (d) Select the correct tools and equipment needed to carry out the work.
- (e) Select appropriate Personal Protective Equipment (PPE) for a given task, in accordance with legislative and organisational requirements.

OUTCOME 3

Construct a manhole bond inspection chamber.

Performance Criteria

- (a) Demonstrate the correct adherence to statutory requirements and/or safety notices and warning signs displayed in the workplace.
- (b) Accurately measure and set out brickwork in preparation to build an inspection chamber.
- (c) Mix mortar to the correct consistency for laying brickwork.
- (d) Construct and build an inspection chamber with an inlet and outlet to given specifications.
- (e) Point and seal all joints correctly.

National Unit Specification: statement of standards (cont)

UNIT Roads Maintenance: An Introduction to Constructing Brick Works
(SCQF level 5)

EVIDENCE REQUIREMENTS

Candidates must carry out a risk assessment before any practical activity.

Evidence is required to demonstrate that candidates have achieved all Outcomes and Performance Criteria. The specific Evidence Requirements for each Outcome are outlined below.

Written and/or oral evidence is required to demonstrate that the candidates have achieved Outcomes 1 and 4. The evidence will be produced under open-book supervised conditions within a time limit of 30 minutes.

For Outcomes 2 and 3 performance evidence supplemented with an assessor observation checklist is required to demonstrate that candidates have carried out the necessary preparations and built an inspection chamber whilst complying with workplace legislation and requirements. The final course of the brick chamber should be completed in headers and all joints should be pointed and sealed ensuring excess mortar has been removed and the site is clean, tidy and free of debris. The brick work should be plumb and level. The evidence will be produced under supervised conditions at appropriate points in the Unit once candidates have developed the necessary knowledge and skills.

These Evidence Requirements will be met by the completion of the Assessment Support Pack (ASP) that provides detailed assessment material for this Unit. Centres wishing to develop their own assessments should refer to the ASP to ensure a comparable standard.

National Unit Specification: support notes

UNIT Roads Maintenance: An Introduction to Constructing Brick Works (SCQF level 5)

This part of the Unit Specification is offered as guidance. The support notes are not mandatory.

While the exact time allocated to this Unit is at the discretion of the centre, the notional design length is 40 hours.

GUIDANCE ON THE CONTENT AND CONTEXT FOR THIS UNIT

This Unit is an optional Unit in the NPA in Roads Maintenance at SCQF level 5 but can also be taken as a free-standing Unit.

Constructing basic brick works is integral and key to the Roads Maintenance Industry therefore throughout the Unit emphasis will be placed on the application of Safe Working Practices in line with current safety codes of practice and policies and regulations.

Centres may find opportunities to integrate this Unit with others in the Roads Maintenance NPA at SCQF level 5 eg some parts of this Unit could be combined with *Roads Maintenance: An Introduction to Installing Road Drainage* at SCQF level 5 and *Roads Maintenance: An Introduction to Installation of Ironwork Fixtures* at SCQF level 5.

Site conditions should reflect as near as possible realistic working conditions.

GUIDANCE ON LEARNING AND TEACHING APPROACHES FOR THIS UNIT

The learning environment for this Unit will be a combination of classroom and workshop based learning where the candidate will be involved in group activities and discussions. The knowledge element of this Unit would be taught in a classroom environment and put into practice in conjunction with the practical Outcomes.

Candidates could work in pairs or groups on the practical activity, although they will need to meet all Evidence Requirements individually.

OPPORTUNITIES FOR CORE SKILL DEVELOPMENT

Opportunities may arise in this Unit for candidates to develop aspects of the following Core Skills:

- ◆ Communication at SCQF level 3 by reading contractor specifications and work instructions
- ◆ Working with Others at SCQF level 3 by taking part in group activities and discussions
- ◆ Numeracy at SCQF level 3 by measuring and setting-out brickwork in accordance with drawings/instructions

National Unit Specification: support notes (cont)

UNIT Roads Maintenance: An Introduction to Constructing Brick Works
(SCQF level 5)

GUIDANCE ON APPROACHES TO ASSESSMENT FOR THIS UNIT

Centres may use the instruments of Assessment which they consider to be most appropriate but are encouraged to use the Assessment Support Pack (ASP) developed centrally by SQA. It is expected that candidates will be given as much practise as possible in the methods of safe working practice and risk assessment methods etc, prior to being set the assessment tasks.

A suitable method for assessing candidate knowledge and understanding of constructing brick works for Outcome 1 could be through a set of multiple choice questions.

To allow candidates to generate the Performance Evidence for Outcomes 2 and 3 centres should set a series of practical assignments which accurately reflect the Unit content. During the practical assignment candidates will be assessed as individuals.

Opportunities for the use of e-assessment

E-assessment may be appropriate for some assessments in this Unit. By e-assessment we mean assessment which is supported by information and communications technology (ICT), such as e-testing or the use of e-portfolios or e-checklists. Centres which wish to use e-assessment must ensure that the national standard is applied to all candidate evidence and that conditions of assessment as specified in the Evidence Requirements are met, regardless of the mode of gathering evidence. Further advice is available in *SQA Guidelines on Online Assessment for Further Education (AA1641, March 2003)*, *SQA Guidelines on e-assessment for Schools (BD2625, June 2005)*.

CANDIDATES WITH DISABILITIES AND/OR ADDITIONAL SUPPORT NEEDS

The additional support needs of individual candidates should be taken into account when planning learning experiences, selecting assessment instruments, or considering alternative Outcomes for Units. Further advice can be found in the SQA document *Guidance on Assessment Arrangements for Candidates with Disabilities and/or Additional Support Needs* (www.sqa.org.uk).