



National Unit Specification: general information

UNIT Stonemasonry: Fix Cladding to Structures (SCQF level 6)

CODE F6PW 12

SUMMARY

This Unit is suitable for candidates working towards a Modern Apprenticeship in Stonemasonry and will develop the candidates craft skills in fixing stone cladding, restraint fixings and load bearing fixings. This Unit is designed to provide candidates with competence in the use of tools and equipment to set out and build stone cladding fixings and the ability to apply these skills in the workplace. It is also designed to enable candidates to develop their skills and understand and use stonemasonry terminology, techniques and practices used to set out and build a stone cladding panel.

OUTCOMES

- 1 Demonstrate knowledge and understanding of terminology, setting out techniques and construction practices used in stone cladding.
- 2 Set out, build and fix wrought stone to structural wall.
- 3 Set out, build and fix cladding to a structural wall using restrains and load bearing fixings.
- 4 Point, clean and protect completed panels.

RECOMMENDED ENTRY

While entry to this Unit is at the discretion of the centre, candidates undertaking the Professional Development Award in Stonemasonry at SCQF level 6 must meet the requirements of the Modern Apprentices which include being employed in the relevant craft industry.

Administrative Information

Superclass: TG

Publication date: May 2009

Source: Scottish Qualifications Authority

Version: 01

© Scottish Qualifications Authority 2009

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 Stonemasonry: Fix Cladding to Structures (SCQF level 6)

CREDIT VALUE

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

**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.*

CORE SKILLS

There is no automatic certification of Core Skills or Core Skill components in this Unit. Opportunities for developing aspects of the following Core Skills are highlighted in Support Notes of this Unit:

- ◆ *Problem Solving* at SCQF level 4
- ◆ *Working with Others* at SCQF level 4
- ◆ *ICT* at SCQF level 3
- ◆ *Numeracy* at SCQF level 4
- ◆ *Communication* at SCQF level 4

National Unit Specification: statement of standards

UNIT Stonemasonry: Fix Cladding to Structures (SCQF level 6)

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, setting out techniques and construction practices used in stone cladding.

Performance Criteria

- (a) Identify terminology related to stone cladding.
- (b) Identify setting out techniques correctly.
- (c) Identify and explain construction practices correctly.

OUTCOME 2

Set out, build and fix wrought stone to structural wall.

Performance Criteria

- (a) Set out and build wrought stone panel to the given specification.
- (b) Secure restraint fixings in accordance to the given specification.
- (c) Comply with current Health and Safety requirements during all work methods and activities.

OUTCOME 3

Set out, build and fix cladding to a structural wall using restraints and load bearing fixings.

Performance Criteria

- (a) Set out and build stone cladding panels in accordance with the given specification.
- (b) Form compression bed using load bearing fixings to a given specification.
- (c) Form expansion joint in accordance with the given specification.
- (d) Comply with current Health and Safety requirements during all work methods and activities.

OUTCOME 4

Point, clean and protect completed panels.

Performance Criteria

- (a) Point panel to a given specification.
- (b) Clean and protect panel in accordance with the given specification.
- (c) Comply with current Health and Safety requirements during all work methods and activities.

National Unit Specification: statement of standards

UNIT Stonemasonry: Fix Cladding to Structures (SCQF level 6)

EVIDENCE REQUIREMENTS FOR THIS UNIT

These Evidence Requirements will be met by the completion of the Stonemasonry Training and Assessment Programme (TAP).

Evidence is required to demonstrate that the candidate has achieved this Unit to the standard specified in all Outcomes and Performance Criteria.

Written and/or oral recorded evidence is required to demonstrate that the candidate has achieved Outcome one to the standard specified in the Performance Criteria. Candidates will be required to demonstrate their knowledge of terminology, techniques and practices by defining terms, describing setting out techniques and identifying required construction practices as well as schedules, drawings calculations and codes of practice. Assessment will take the form of a question paper which will be carried out under controlled, supervised conditions. Evidence will be gathered using an appropriate Instrument of Assessment.

Product and performance evidence is required to demonstrate that the candidate has achieved Outcomes 2, 3 and 4 to the standards specified in the Performance Criteria. Candidates will be required to build a stone cladding panel and wrought stone panel and secure all fixings. Assessment of these Outcomes will be evidenced through observation of work processes and assessment of completed work pieces. Candidates must meet the given standards and tolerances during the practical assessments. An assessor observation checklist must be used to record this evidence. Assessment should be conducted under controlled, supervised conditions in a workshop.

Outcome 2

Summary of standards (working towards industrial tolerances)	
Item	Measurement of standard
Base course Length	±6 mm
Quions stones-course plumb 4 points	±2 mm
Alignment rubble	±3 mm between quoin stones course 1
Quion stone 1-6 plum 4 points	±5 mm over length
Sill centred on wall	±5 mm
Sill projection 30 mm	±3 mm
Sill parallel to quoins stones	±2 mm
Sill level	±2 mm
Rybats plumb 4 points	±3 mm
Rybats level across opening	±2 mm
Rybats level with quoin stones	±3 mm
Rybats aligned with quoin stones	±2 mm
Daylight size –vertical and horizontal	±3 mm
Rubble work bonding minimum	100 mm
Rubble work alignment with quions	±3 mm
Rubble work level with quions	±3 mm
Rubble work joints 10 mm	±3 mm
Wrought work joints 5 mm	±2 mm
Pointing flat slight recess	Minimum staining and uniform
Overall height	±6 mm
Fixings	Securely fixed with Torque wrench.

National Unit Specification: statement of standards (cont)

UNIT Stonemasonry: Fix Cladding to Structures (SCQF level 6)

Outcome 3

Summary of standards (working towards industrial tolerances)	
Item	Measurement of standard
Length course 1	±6 mm
Height course 1 - 4	±6 mm
Course 1 alignment	±2 mm
Course 1 level	±4 mm over length
Course 1 restraint fixings	Correct location ±5 mm centre of stone-dowels vertical
Course 1 anchor bolts	Securely fixed with torque wrench
Course 2 and 3 plumb 4 points	±4 mm (course 1-3)
Courses 2 and 3 alignment	±2 mm
Courses 2 and 3 level	±4 mm over length
Courses 2 and 3 restraint fixings	Correct location ±5mm centre of stone-dowels vertical
Courses 2 and 3 anchor bolts	Securely fixed with torque wrench
Course 4 plumb 4 points	±5 mm (courses 1-4)
Course 4 alignment	±2 mm
Course 4 level	±4 mm over length
Course 4 restraint fixings	Correct location ±5mm centre of stone-dowels vertical
Course 4 corbel plates alignment	±3 mm
Course 4 anchor bolts	Securely fixed with torque wrench
Jointing	±2 mm
Pointing flat slight recess	Minimum staining and uniform
Expansion and compression joints (mastic)	Neat and uniform to manufacturers instructions
Insulation	Minimum cutting for fixings and anchors.
Health and safety	Complies at all times
Risk Assessment	Safety boots worn at all times Hard hat worn at all times High visibility vest worn at all times All other PPE as risk assessed
Method Statement	Working area kept clean at all times Materials stacked correctly at all times Tools handled correctly at all times Tools cleaned and stored safely at end of working day

National Unit Specification: support notes

UNIT Stonemasonry: Fix Cladding to Structures (SCQF level 6)

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 has been developed as a mandatory Unit in the Professional Development Award in Stonemasonry at SCQF level 6.

The successful completion of this Unit will provide candidates with the required underpinning knowledge and skills relating to setting out techniques and construction practices associated with building stone cladding panels and wrought stone panels.

This Unit should be offered to candidates from the construction and related services industries. The skills and knowledge and understanding are transferable within different working environments but the Unit is primarily aimed at candidates whose normal place of work would be a site, workshop, or similar environment.

The Unit deals with stone cladding panels and fixings. It should be delivered as part of a structured programme of training and orientated to the context of the candidate's work and area of responsibility.

Health and safety and sustainability are integral and key to the construction industry therefore throughout the Unit emphasis will be placed where appropriate on the application of health and safety and sustainability. Safety working practices should be looked at in accordance with current safety codes of practice and regulations. Sustainability should include reference to criteria affecting sustainability, impact of not implementing sustainability on the environment and the legislation promoting sustainability

GUIDANCE ON LEARNING AND TEACHING APPROACHES FOR THIS UNIT

The candidate should be given the opportunity to further develop the skills of securing cladding and jointing stone techniques used in the stonemasonry craft. The use of a datum should be encouraged for transferring levels for the stone cladding panel. The terms used for cladding and fixings construction should be integrated to the practical assessment as it is undertaken, and the basic principles of such explained as the workpiece is being built. This teaching approach should help ensure the candidate acquires the underpinning knowledge required for the Unit. Teachers/Lecturers should demonstrate practical elements step by step until they feel that the candidate is competent to attempt tasks under assessment conditions. Effective questioning should be encouraged throughout, focusing on skills construction practices and underpinning knowledge related to fixing claddings to structures.

Candidates can work in pairs during the practical activities within this Unit.

National Unit Specification: statement of standards (cont)

UNIT Stonemasonry: Fix Cladding to Structures (SCQF level 6)

Opportunities should be taken throughout delivery of this Unit to meet the requirements of the generic Units of the Training and Assessment Programme including:

- ◆ Conform to General Workplace Safety.
- ◆ Confirm Work Activities and Resources for the Work.
- ◆ Develop and Maintain Good Working Relationships.
- ◆ Confirm the Occupational Method of Work.
- ◆ Conform to Efficient Working Practices.
- ◆ Move and Handle Resources.

OPPORTUNITIES FOR CORE SKILL DEVELOPMENT

Components of the Core Skill of *Problem Solving* at SCQF level 4 such as Planning and Organising and Critical Thinking will be developed as candidates undertake this Unit. Candidates will need to take account of a range of factors in order to work efficiently and safely, such as the choice of tools, appropriate materials, safety issues, safety equipment and sustainability. Individual discussions with assessors will enhance the evaluation of efficient working practices.

There are opportunities for candidates to develop the Core Skill of *Working with Others* at SCQF level 4 particularly in Outcomes 2, 3 and 4 as this practical assessment may be carried out working in pairs. Candidates can agree responsibilities and provide support and information to each other during the assessments. After assessment, they should be encouraged to consider how effectively they supported each other.

Opportunities also arise for candidates to develop the Core Skill of *Information and Communication Technology* at level SCQF level 3 by researching Health and Safety legislation and codes of practice for cladding affecting their area of work.

Numeracy at SCQF level 4 could be developed through the interpretation of information from working drawings and the practical use of calculation and measuring scales required for assessments for Outcomes 2, 3, and 4.

There will be opportunities for candidates to develop the Core Skill of *Communication* at SCQF level 4. Candidates will have the opportunity to develop written and/or oral communication skills for the knowledge part of the assessment for Outcome 1. As candidates complete practical tasks, they should be expected to communicate with others using the correct terminology, tone and style suited to the workplace.

GUIDANCE ON APPROACHES TO ASSESSMENT FOR THIS UNIT

Detailed assessment materials for this Unit will be found in section 7 of the Stonemasonry TAP. Centres may use the instruments of assessment which they consider to be most appropriate but are advised to use the Stonemasonry TAP which has been developed centrally by SQA. Any other instruments of assessment used must be comparable to the TAP and have been through prior verification.

National Unit Specification: statement of standards (cont)

UNIT Stonemasonry: Fix Cladding to Structures (SCQF level 6)

The candidates' knowledge and understanding of terminology, techniques and construction practices of stonemasonry will be assessed through a question paper and conducted under controlled, supervised conditions.

Candidates should be given as much practise as possible in cladding and fixings techniques, prior to being set the assessment. Evidence will be gathered for Outcomes 2, 3 and 4 through observation that the candidates have met the given standards and tolerances during the practical assessment. An assessor observation checklist can be used to record this evidence. Assessment should be conducted under controlled, supervised conditions.

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 Communication 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)*.

DISABLED CANDIDATES AND/OR THOSE WITH ADDITIONAL SUPPORT NEEDS

The additional support needs of individual candidates should be taken into account when planning learning experiences, selecting assessment instruments, or considering whether any reasonable adjustments may be required. Further advice can be found on our website www.sqa.org.uk/assessmentarrangements