

Unit ID: 20

## BRICKLAYING

**Title:** Perform setting out and levelling operations as part of bricklaying operations

**Level:** 3

**Credits:** 8

### Purpose

This unit standard specifies the competencies required to identify site boundaries and survey indicators, establishing, measuring and setting up of profiled set outs for buildings and structural components of building work. It includes the positioning of a building and associated structures on a site. This unit standard is intended for those who work in the construction industry as bricklayers and plasterers.

### Special Notes

1. Entry information

Prerequisite:

- Unit 3 - *Apply safety rules and regulations in bricklaying operations* or demonstrate equivalent knowledge and skills.

2. Setting out may include, but is not limited to residential buildings, commercial buildings and other structures.
3. Footings may include but are not limited to strip, slab, pad, stumps or posts. Walls may include but not be limited to masonry, concrete or framed construction.
4. Topography of the site may include but is not limited to flat, steep or sloping.
5. Setting out may include completion of work as a member of a team.
6. To demonstrate competence, at a minimum, requires evidence of setting out a full size L-shape building on a relatively level site to specifications ensuring correct identification of requirements and finishing of the tasks, correct selection and use of appropriate processes, tools and equipment and completing all work to specification.
7. Assessment evidence may be collected from a real workplace or simulated real workplace or an appropriate simulated realistic environment in which bricklaying operations are carried out.
8. All inspection, operation and maintenance procedures associated with the use of tools and equipment shall comply with manufacturers' guidelines and instructions.
9. '*Specifications*' refers to any, or all of the following: manufacturers' specifications and recommendations, site and workplace specific requirements.
10. Regulations and legislation relevant to this unit standard include the following:
  - Labour Act No 6, 1992,
  - Occupational Health and Safety Regulations No. 18, 1997and all subsequent amendments.

## **Quality Assurance Requirements**

This unit standard and others within this subfield may be awarded by institutions which meet the accreditation requirements set by the Namibia Qualifications Authority and the Namibia Training Authority and which comply with the national assessment and moderation requirements. Details of specific accreditation requirements and the national assessment arrangements are available from the Namibia Qualifications Authority and the Namibia Training Authority on [www.nta.com.na](http://www.nta.com.na)

## **Elements and Performance Criteria**

### **Element 1: Plan and prepare for work**

#### **Range**

Planning and preparation is to include but is not limited to worksite inspection, equipment defect identification, assessment of conditions and hazards and determination of work requirements.

#### **Performance Criteria**

- 1.1 Work instructions, including plans, specifications, quality requirements and operational details are obtained, confirmed and applied.
- 1.2 Safety requirements are followed in accordance with safety plans and policies.
- 1.3 Sign and barricade requirements are identified and implemented.
- 1.4 Plant, tools and equipment selected to carry out tasks that are consistent with the requirements of the job, checked for serviceability and any faults are rectified or reported prior to commencement.
- 1.5 Material quantity requirements are calculated in accordance with plans and/or specifications.
- 1.6 Materials appropriate to the work application are identified, obtained, prepared, safely handled and located ready for use.
- 1.7 Environmental protection requirements for the project are identified and applied in line with environmental plans and regulatory obligations.

### **Element 2: Identify site boundaries**

#### **Performance Criteria**

- 2.1 Survey pegs at corners of site are located and identified in accordance with job drawings and specifications.
- 2.2 String lines are set accurately into position to identify boundaries of site in accordance with site plan and survey pegs.
- 2.3 Levels are checked using a dumpy level.

### **Element 3: Set out first line of building alignment**

#### **Performance Criteria**

- 3.1 Measurements of building line from boundary or existing building are determined from site drawings.
- 3.2 Approximate position and length of line, plus building clearance measurement at each end, is determined for profile location in accordance with site plan and survey pegs.
- 3.3 Pegs and profiles are installed approximately level across and between one another with adequate provision to mark footing width on profile in accordance with job drawings and specifications.
- 3.4 Location for line is accurately marked with nails on profiles and line set out into position to true alignment with boundary in accordance with job drawings and specifications without error.

### **Element 4: Set out right angled corners**

#### **Performance Criteria**

- 4.1 Corner of building is determined on set building line to true measurement from adjacent boundary and marked with peg in accordance with job drawings and specifications.
- 4.2 Right angle is set up to line from corner peg using triangulation principles.
- 4.3 Profiles are installed to approximate level of other profiles and line set out to right angled alignment.

### **Element 5: Install other building lines**

#### **Range**

Site boundary markings may include, but not be limited to survey pegs, fence built on line and building built on line.

#### **Performance Criteria**

- 5.1 Profiles for remaining building lines are installed to appropriate locations, approximately level with established profiles in accordance with job drawings and specifications.
- 5.2 Measurement for remaining building lines are accurately marked and nailed on profiles to dimensions from site drawings.
- 5.3 String lines are set out into position to nailed locations on profiles in accordance with job drawings and specifications.

## **Element 6: Check building lines for square**

### **Performance Criteria**

- 6.1 Diagonal measurements are checked for square and lines adjusted to provide square relationship within 5mm tolerance over minimum diagonal length of 15m.
- 6.2 Measurements are checked for accuracy.

## **Element 7: Clean up**

### **Performance Criteria**

- 7.1 Work area is cleared and materials disposed of, reused or recycled in accordance with relevant legislation, regulations and job specification.
- 7.2 Plant, tools and equipment are cleaned, checked, maintained and stored in accordance with manufacturers' recommendations and standard work practices.

## **Registration Data**

<b>Subfield:</b>	General Construction
<b>Date first registered:</b>	28 September 2006
<b>Date this version registered:</b>	28 September 2006
<b>Anticipated review:</b>	2010
<b>Body responsible for review:</b>	Namibia Training Authority