

Domain**BRICKLAYING****Title:****Carry out basic concreting****Level: 3****Credits: 4****Purpose**

This unit standard specifies the competencies required to safely install formwork, reinforcement, place and finish concrete for the construction of minor slabs, pathways and other minor works to a specified design finish. It includes positioning the truck, placement of concrete from truck to work area, spreading of concrete and site clean up. This unit standard is intended for those who work as bricklayers and plasterers.

Special Notes

1. Entry information

Prerequisite:

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

2. Simple forms of concrete are to include but not be limited to slabs (not requiring internal beams and piers). Assessors may choose to substitute the slab with other simple forms such as post holes, beam thickeners, pathways, simple concrete aprons, channels and garden edges.

3. To demonstrate competence, at a minimum, requires evidence of preparing subgrade, erecting formwork, cutting, placing and tying reinforcement, placing and hand screeding concrete for a slab of at least 4m² and a minimum depth of 100mm to the required finished level and job specification, incorporating a minimum of four different finishes. Perform these tasks 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.

4. Assessment evidence may be collected from a real workplace or a simulated real workplace or a simulated realistic environment in which bricklaying operations are carried out.

5. All inspection, operation and maintenance procedures associated with the use of tools and equipment shall comply with manufacturers' guidelines and instructions.

6. '*Specifications*' refers to any, or all of the following: manufacturers' specifications and recommendations, site and/or workplace specific requirements.7. Regulations and legislation relevant to this unit standard include the following:

- Labour Act No 6, 1992
- Occupational health and safety regulations No.18, 1997

and 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

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 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: Erect and strip simple formwork

Range

Simple formwork is to include timber or steel edge form to a maximum of 100mm in depth.

Form release agent may include but is not limited to oil or other non bonding agents.

Performance Criteria

- 2.1 Subgrade is prepared.

- 2.2 Formwork design is identified from drawings.
- 2.3 Formwork is erected safely.
- 2.4 Form release agent is applied to erected formwork where specified.

Element 3: Place and tie reinforcement

Range

Simple reinforcing is to include but not is limited to the use of fabric sheet mesh, bar chairs, spacers and may include reinforcing bars and trench mesh.

Performance Criteria

- 3.1 Reinforcing components are handled and positioned safely.
- 3.2 Reinforcing bars and mesh are positioned.
- 3.3 Bar chairs and spacers are positioned, with minimum edge cover.

Element 4: Place concrete

Range

Placing of concrete includes movement of concrete from the truck to the work and is to include, but is not limited to wheel barrows and chutes and may include pump lines and kibbles.

Screed is limited to a hand screed.

Finishing of concrete may include, but is not limited to broomed, trowelled, trowelling machine finish, stipple device finish, wood floated, sponged or other project specified finish.

Floating of the concrete may include hand or power floating.

Performance Criteria

- 4.1 Formwork or excavation is cleaned of excess material and debris prior to concrete placement.
- 4.2 Concrete is safely transported by wheelbarrow.
- 4.3 Pump line/chute is controlled and concrete placed.
- 4.4 Concrete is placed in formwork to specified depth.
- 4.5 Concrete is screeded to the alignment of formwork and project specified datums.
- 4.6 Surface of concrete is finished in accordance with specifications.

Element 5: Dismantle formwork

- 5.1 Timber components are de-nailed following stripping of formwork.
- 5.2 Components are cleaned, stacked and stored for reuse or bundled for removal.
- 5.3 Formwork components are removed from site.

Element 6: Clean up

Performance Criteria

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

Registration Data

Subfield:	General Construction
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