



Technical drawing of a trapezoidal roof structure, showing side and end elevations with dimensions and labels.

Side Elevation (Left):

- Top horizontal dimension: $B = 1,7 (D + H - 340)$
- Vertical dimensions on the left: 100, D, 100.
- Labels: "BRICKWORK (SEE NOTE 2)" with arrows pointing to the vertical wall sections.
- Bottom horizontal dimension: 220.
- Roof slope angle: 30° .

End Elevation (Right):

- Vertical dimensions: 0.5 B, 0.5 B.
- Roof slope angle: 22° .

Diagram illustrating the cross-section of a bridge structure, showing dimensions and materials.

Dimensions:

- Overall height: $D + H$
- Height of the structure above the concrete floor: H
- Height of the concrete floor: D
- Top width: 300
- Width of the structure above the concrete floor: 220
- Base width: 150
- Width of the concrete floor: 400
- Width of the structure above the concrete floor: $B = 1.7 (D + H - 340)$
- Angle of the structure above the concrete floor: 30°
- Height of the structure above the concrete floor: 170

Materials and Construction:

- NATURAL GROUND LEVEL
- BRICK ON EDGE (BOE)
- BRICKWORK (SEE NOTE 2)
- INSITU MATERIAL COMPACTED TO 90% OF MOD. AASHTO DENSITY
- CONCRETE FLOOR (CLASS 20/19 CONCRETE) (SEE NOTE 3)

WHERE $D+H > 1500$ A STRUCTURAL DESIGN FOR A REINFORCED CONCRETE STRUCTURE MUST BE PREPARED

Technical drawing of a square frame with a central grid. The drawing includes horizontal and vertical dimension lines. Horizontal dimensions at the top are 1000, 220, 600, 220, and 1000. Vertical dimensions on the right are 1000, 220, 600, 220, and 1000. Section lines 'A-A' are shown on the left and right sides.

The diagram illustrates a cross-section of a manhole assembly. At the top, the 'NATURAL GROUND LEVEL' is indicated. The assembly consists of several layers: a top layer of 'CLASS 20/19 CONCRETE (SEE NOTE 3)', a middle layer of 'BRICKWORK (SEE NOTE 2.4)', and a bottom layer of 'CAST IN-SITU COVER SLAB AS SPECIFIED ON DRAWING STD004, SHEET 6 OF 6'. The junction box is shown at the base. Dimensions are provided for various components: a top layer thickness of 125, a brickwork layer thickness of 275, and a bottom layer thickness of 8. The overall width of the assembly is 1000, with a central opening of 600. The distance from the centerline to the edge of the top layer is 220. The distance from the centerline to the edge of the bottom layer is 220. The distance from the centerline to the edge of the junction box is 1000. The distance from the centerline to the edge of the top layer is 220. The distance from the centerline to the edge of the bottom layer is 220. The distance from the centerline to the edge of the junction box is 1000.

Labels and dimensions include:

- NATURAL GROUND LEVEL
- CLASS 20/19 CONCRETE (SEE NOTE 3)
- BRICKWORK (SEE NOTE 2.4)
- CAST IN-SITU COVER SLAB AS SPECIFIED ON DRAWING STD004, SHEET 6 OF 6
- JUNCTION BOX AS SPECIFIED
- IN-SITU MATERIAL COMPACTED TO 90% MOD. AASHTO DENSITY
- Dimensions: 1000, 220, 600, 220, 1000, 125, 275, 8, +50, +50

Technical drawing of a concrete slab with lifting handles. The drawing shows a cross-section of the slab, which is 1150 units wide and 150 units high. The slab is made of Class 25/19 concrete. It features two lifting handles, each 125 units high and 20 units wide. The handles are made of welded steel fabric (Ref. 617) and are embedded in the concrete. The slab is supported by a bed cover slab in 1:3 cement mortar. The drawing also indicates that the weight of the slab is approximately 470kg and that the lifting handles are as specified on Drawing STD004, Sheet 1 of 6.

1150

150

125

20

20

WELDED STEEL FABRIC REF. 617

LIFTING HANDLES AS SPECIFIED ON DRAWING STD004, SHEET 1 OF 6. WEIGHT OF SLAB APPROXIMATELY 470kg

CLASS 25/19 CONCRETE

BED COVER SLAB IN 1:3 CEMENT MORTAR

NOTES:

1. APPLICATION OF TYPICAL OUTLET STRUCTURE

1.1 THE TYPICAL STORMWATER OUTLET STRUCTURE MAY ONLY BE USED WHERE SPECIFIED BY THE ENGINEER

1.2 FOR HIGHER FLOW VELOCITIES THE STRUCTURE MUST BE MODIFIED OR ANOTHER TYPE OF STRUCTURE MUST BE USED, ACCORDING TO THE SPECIFICATIONS OF THE ENGINEER

1.3 NO TYPING OR REVISION MAY OCCUR DOWNSTREAM OF THE OUTLET STRUCTURE

1.4 FOR LARGER STRUCTURES A STRUCTURAL REINFORCED CONCRETE DESIGN IS REQUIRED

2. MASONRY WALLS OF OUTLET STRUCTURE

2.1 MASONRY WALLS SHALL CONFORM TO ALL RESPECTS TO THE REQUIREMENTS OF SANS 10104-1

2.2 MORTAR SHALL BE CLASS II COMPRESSIVE STRENGTH OF 7 MPa AT 28 DAYS

2.3 THE REQUIREMENTS SET OUT IN APPENDIX B OF SANS 10104-1 SHALL BE ADHERED TO UNLESS OTHERWISE APPROVED OR DIRECTED BY THE ENGINEER

2.4 ALL BRICKS SHALL COMPLY WITH SANS 277 AND SHALL BE ENGINEERING BRICKS OF CLASS FB6 (FACE BRICK STANDARD) WITH A NOMINAL COMPRESSIVE STRENGTH OF 4 MPa

3. CONCRETE

3.1 ALL CONCRETE TO BE CURED FOR A MINIMUM PERIOD OF 28 DAYS

REFERENCE DRAWING

NO.	DRAWING NUMBER	DESCRIPTION
01	1015-023-1002	STORMWATER AND SITE LAYOUT

REVISION

NO.	DATE	REVISION	REV. BY
01	15/12/2022	FOR TENDER	Z.OJABINI

SIGPRO NAMES

NAME	SIGNATURE	DATE
DESIGNER Z.OJABINI		24/11/2022
DRAWN BY Z.OJABINI		30/11/2022
CHECKED BY S.SHAZI		23/05/2019

CLIENT DEPARTMENT SIGNATURES

--	--

FACILITY STAMP

FACILITY MANAGER

INFRASTRUCTURE MANAGER

GENERAL MANAGER

Checked by Professional Consultant

Name

Signature

Date

SIGPRO

ENGINEERING AND PROJECT MANAGEMENT

DBSA

Development Bank of Southern Africa

NORTHERN REGION

Project

KZN DOE INFRASTRUCTURE DEVELOPMENT AND MAINTENANCE PROGRAMME

Drawing Description

MATAMZANE DUBE SECONDARY SCHOOL
FIELD INLET AND STORMWATER OUTLET DETAILS

Drawn: SIGPRO

Date: 13/05/2019

Scales:

AS SHOWN

Consultant Drawing Number:

1015-023-1002 Rev 1

DBSA Drawing number

500124283

Stamped by Plans Approval Committee

ISSUED FOR TENDER