

Technical drawing of a chimney structure, showing elevation and plan views.

**Elevation View:**

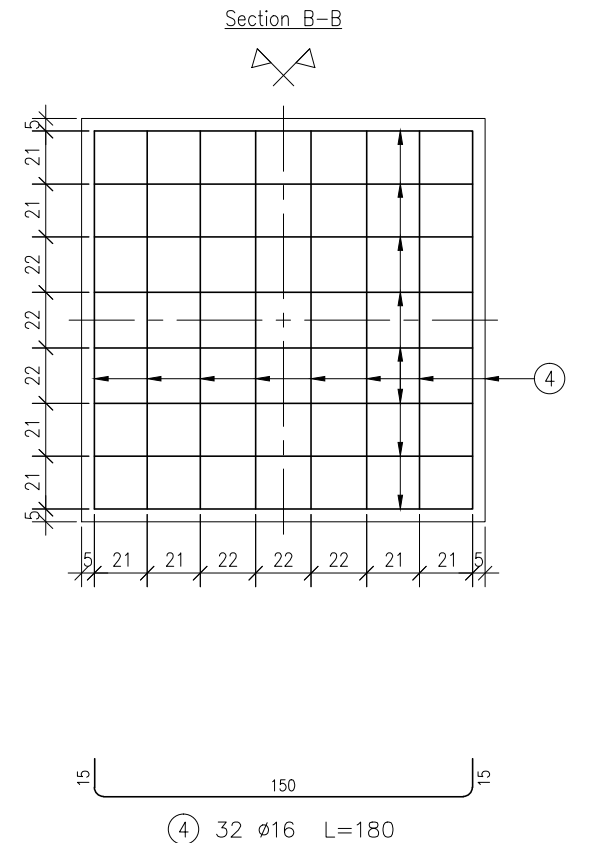
- Overall height: 255
- Top width: 25
- Base width: 160
- Ground level is indicated.
- Theoretical Point Elevation is marked.
- FOR STANDARD CHIMNEY
- Definition point
- LEAN CONCRETE
- Section line A-A
- WP1
- 25, 10, 10, 25
- 25, 5, 3
- 50, 185, 215
- Max. 100 Chimney Ext.
- 262.6
- 2
- 3
- 1x 1
- 2x 1
- 4

**Plan View:**

- Overall height: 255
- Top width: 25
- Base width: 160
- FOR STANDARD CHIMNEY
- Definition point
- LEAN CONCRETE
- Section line B-B
- 25, 10, 7
- 55, 50, 55

**Detail View:**

- Chimney top profile showing a 5.7 degree angle.
- REFER TO STUB SETTING DRAWING



BAR SCHEDULE – EXTENDED CHIMNEY (+50cm)										
Member	Bar mark	Type and size	No. of bars	Length of each bar mm	Shape code	A mm	B mm	C mm	D mm	E/R mm
Chimney	1	X16	12	3300	37	250	3050	–	–	–
Chimney	2	X8	13	1700	61	400	400	–	–	–
Chimney	3	X8	6	1300	61	290	290	–	–	–
Pod	4	X16	32	1800	38	150	1500	150	–	–
SUMMARY OF MATERIALS AND WORKS (ONE LEG)							ø16	ø8		
Total length per dia. :						m	97.2	29.9		
Unit weight of reinforcing steel :						kg	1.579	0.395		
Total weight of reinforcing steel (per dia) :						kg	153.5	11.8		
Total weight of reinforcement :							165.3 Kg			
Excavation : 5.683 m <sup>3</sup>					Concrete :		1.413 m <sup>3</sup>			
Backfilling : 4.517 m <sup>3</sup>					Blinking :		0.179 m <sup>3</sup>			

**GENERAL NOTES:**

1. DIMENSIONS IN cm OR AS SPECIFIED.
2. STUB ANGLE DRAWING NO. KC06.0040\_OHL\_STR\_22-05-02 sh.016.
3. DIMENSION "I" TO BE CHECKED WITH TOWER'S ERECTION DRAWINGS.
4. THIS FOUNDATION SHALL BE USED IN LOCATIONS WHERE THE ALLOWABLE BEARING CAPACITY OF THE SOIL IS AT LEAST 2 ton/cm<sup>2</sup> ACCORDING TO GEOTECHNICAL SURVEY REPORT.

FOUNDATION DESIGN PARAMETERS:

1. CONSIDERED WATER LEVEL IS ALWAYS BELOW FOUNDATION.
2. SOIL TYPE 1:
  - 2.1. SOIL ANGLE OF REPOSE: 30°.
  - 2.2. SOIL UNIT WEIGHT: 1600 kg/m<sup>3</sup>.
  - 2.3. ULTIMATE BEARING CAPACITY: 6 daN/cm<sup>2</sup>.
  - 2.4. ALLOWABLE BEARING CAPACITY: 2 daN/cm<sup>2</sup>.
3. LOADING AS SHOWN IN TOWER DESIGN CALCULATION.
4. IF ANY OF THE ABOVE ASSUMPTIONS ARE FOUND TO BE INVALID IMMEDIATELY CEASE CONSTRUCTION AND CONTACT THE ENGINEER.

CONCRETE MATERIAL:

1. MINIMUM 28 DAYS COMPRESSIVE STRENGTH: 25 N/mm<sup>2</sup>.
2. CONCRETE COVER: 5 cm.
3. LEAN CONCRETE SHALL HAVE THE FOLLOWING RATIO OF  
CEMENT : FINE AGGREGATE : COARSE AGGREGATE = 1 : 3 : 5, MEASURED BY VOLUME.

**REINFORCING STEEL MATERIAL:**

1.  $\phi$  = REBAR DIAMETER IN mm.
2. REINFORCED CONCRETE DESIGN, BAR SCHEDULE, DETAILING AND EXTENSIONS OF REBARS WILL BE ACCORDING TO BS 8110 AND BS 4466. REBAR EXTENSION BY OVERLAPPING ON 50 DIA.
3. MAIN REINFORCEMENT SHALL BE DEFORMED BARS OF HIGH TENSILE STEEL WITH MINIMUM YIELD STRENGTH:  $F_y=500$  N/mm<sup>2</sup>
4. LINKS SHALL BE OF PLAIN BARS OF MILD STEEL WITH MINIMUM YIELD STRENGTH:  $F_y=240$  N/mm<sup>2</sup>.

02	27/05/13	Design updated.			
			PG	SI	VR
01	21/05/13	First issue;			
			PG	SI	VR
REV.	dd/mm/yy	REVISION DESCRIPTION	DRAWN	CHECKED	APPROVED
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			MINISTRY OF ENERGY - REPUBLIC OF KENYA		
<div>ISO Symbol: </div> <div>SCALE: 1/30</div> <div>LAYOUT: A3</div>			DRAWING TITLE :		
			132 kV OHL Nanyuki - Isiolo - Meru Foundation Type LF1 for Tower Type L		
THIS DRAWING SHALL NOT BE COPIED, REPRODUCED, TRANSMITTED OR GRANTED TO THIRD PARTIES WITHOUT OUR PRIOR AGREEMENT			DRAWING No.: 100008-L0-DG-CW03		