



# SPECIFICATION FOR 2400 mm HIGH SECURITY FENCING

- PART 1 - GENERAL**
- 1.1 Submittals**
- A. Certificate of compliance Certificate of compliance for materials and coatings.
- B. Shop drawing for gates.
- C. Quality control program shall be submitted to the employer's agent for review prior to commencement of any work.
- PART 2 - PRODUCTS**
- 2.1 General:**
- A. All steel materials to be good commercial quality, hot-dip galvanized steel.
- B. All pipes to be galvanized. 1 piece no joints. Fit moisture proof caps to posts.
- C. Zinc coating to be smooth and essentially free from lumps, globs, or points.
- D. Miscellaneous material shall be galvanized.
- E. Hot-dip galv to comply with SANS 121, SANS 14713 and ISO 1461:2000.
- 2.2 MANUFACTURER:**
- The manufacturer of the fence to be subject to the approval of the Employer.
- 2.3 DESCRIPTION OF FENCE SYSTEM**
- A. Posts:
- shall be approved taper locking posts of the lengths as described.
  - width shall be 85mm, tapering to 45mm with a depth of 85mm.
  - shall include locking recess mechanism to secure panel edges.
  - shall be sealed with UV stabilized polymer cap and fitted with a 12mm base pin.
- B. Welded mesh fence panels:
- shall be of W x H as described. Panel aperture size (c/c) shall be vertical high tensile steel wires. 76.2mm x 12.7mm with 3mm Ø horizontal & 4mm Ø
  - shall be reinforced with 4 x 50mm deep V-section ribs.
  - shall have 2 x 70° flanges along the sides 2 x 30° flanges along the top and toe.
  - shall finish flush with posts with no climbing aid & bolted to posts anti-vandal bolts and clamping plates.
- C. Accessories:
- A. Toughened steel shark tooth spike shall be fixed to the top edge of the panel, internally at 150mm c/c using anti-vandal bolts.
  - The anti-burrow/under-dig shall be the same as the panels, but bitumen coated and of the depth as described.
- 2.4 GATES:**
- 2.4.1 All connections and joints shall be welded to form rigid frames or assembled with corner fittings.
- Hinges not to twist or turn under the action of the gate, & fixed so that a closed gate cannot be lifted off the hinges to obtain entry.
- PART 3 - EXECUTION**
- 3.1 General**
- Install all fencing and gates in accordance with the manufacturer's specifications. Line posts shall be spaced at intervals not exceeding 3.3m. Terminal posts shall be set at abrupt changes in vertical and horizontal alignment.
- 3.2 Posts**
- shall be set plumb, & follow the indicated alignment. Concrete shall be thoroughly tamped around each post, free of voids, & finished with a domed shaped surface, with the base of dome at grade elevation.
- 3.3 Mesh**
- A mesh panel to the same specification as the mesh panel above the ground should be secured along the lower edge integrated angle along the full width of the fence between the post.
- 3.4 The anti-dig mesh panel shall at least be 400mm deep below the finished ground level.**
- 3.4 The anti-dig mesh shall be secured firmly to the mesh panel above the ground with anti-vandal bolts on the inside and against the concrete foundations for the post.**
- 3.5 Anti-dig mesh panel must be hot-dip galvanized and bitumen-dip coated.**
- 3.6 where the site is rocky or the terrain is sloping, a 20MPa reinforced concrete all should be used as an anti-burrow provision instead of a mesh panel. The concrete all should be at least 200mm wide.**
- 3.7 4 x Y12 steel bars top and bottom, with R8 stirrup @ 500mm c/c to be used as reinforcement**
- 3.8 Concrete should have Class F1 steel shutter finish**
- 3.9 The concrete sill or beam should have a 25x25mm chamfer along the edges above ground.**
- 3.9 a - Concrete to cure prior to installing any additional components to the posts. Conc footings to be carried down to depth shown on drawings & shall not be smaller than the dimensions shown. If a rock is encountered, a hole of a Ø slightly > the Ø of the post may be drilled into the rock & the post grouted in. Then conc. footing to be placed between top of rock & top of the footing elevation as per design documents. Posts to be approx. c/c in their footings. All conc. to be placed promptly & tamped.**
- Where the ground is firm enough to permit excavation of the post hole to neat lines, the concrete may be placed without forms by completely filling the hole.

CLIENT:

Province of the  
**EASTERN CAPE**  
EDUCATION

IMPLEMENTING AGENT:

**DBSA**  
Development Bank of  
Southern Africa

PRINCIPAL AGENT:

**MBSA**  
CONSULTING  
Consulting Engineers • Civil and Electrical

dgirt  
architects

JOHANNESBURG  
210 DEERHOF AVENUE, CHARTWELL AKA, GP 2021  
TEL: 011 461 1111

DURBAN  
WILHELM ROAD, 145 Midway Garden Road  
Durban 4001 - Tel: 031 261 1111

EAST LONDON  
No. 115 Western Avenue, Vincent  
East London, 6047 - Tel: 031 261 1111

DRAWING NAME:

**NOMSA FANS PRIMARY SCHOOL**

**SITE PLAN - PERIMETER FENCING**

DESIGNED BY:	DRAWN BY:	CHECKED BY:	APPROVED BY:
DT	DT	NFS	

PROJECT NO:	DRAWING NO:
RFP: 190/2015	SDP 109
DRAWING REVISION:	SCALE:
A	1:500