

ANNEXURE A

ASSET DESCRIPTION: SECURITY FENCE

ASSET LOCATION: STATION AND SHUNTING AREA

CITY / TOWN: BEAUFORT WEST

WORK DESCRIPTION:

REPAIRS TO 979M LONG X 1,80M HIGH WITH 0,50M O/H SECURITY FENCE

TENDER NO: BLE / 51981

ASSET NO: 07AG047C

ITEM NO. SPECIFICATIONS PER ITEM.

EXCAVATIONS/BACKFILL

836 Work description: DIG HOLES IN MEDIUM HARD SOIL

The Contractor shall give notice, in writing, to the Representative/Agent when the excavations are ready to receive the foundations.

The foundations shall not be laid until the excavations have been approved of, in writing, by the Representative/Agent and they shall not be covered until any variation has been measured.

MED HARD SOIL:

Shall mean SOIL that can be loosened by hand, pick or crowbar and includes hard shale, compact outcrop, stone of a similar hardness and boulders from 75 mm diameter up to 0,03 cubic metres in volume. Holes for foundations shall be excavated to the several lengths, widths and depths shown on drawings or to such other depths as may be directed by the Representative/Agent to ensure a good foundation.

Bottoms of trenches and holes shall be level, with sides trimmed vertical for the full width from top to bottom. Any excavations taken out too deep shall be made up to correct levels with Class A concrete, at the Contractor's expense. Back filling and ramming is not acceptable.

No water shall be allowed to accumulate in any portion of the excavations. The excavations shall be protected against any water entering them whether by seepage, rains, storms, floods or any other means. Any water found in the excavations shall immediately be removed.

Every excavation which is accessible to the public or which is adjacent to public roads or thoroughfares, or whereby the safety of persons may be endangered, to be- STAATSKOERANT, 18 JULIE 2003 No. 25207 35 (j) adequately protected by a barrier or fence of at least one metre in height and as close to the excavation as is practicable; and (ii) . provided with warning signs or any other clearly visible boundary indicators at night or when visibility is poor; 0) ensure that all precautionary measures as stipulated for confined spaces as determined in the General Safety Regulations promulgated by Government Notice No.R. 1031 of 30 May 1986, as amended, are complied with when entering any excavation, (l) cause warning signs to be positioned next to an excavation within which persons are working or carrying out inspections or tests.

MASS CONCRETE/REINFORCING

Respondent's signature: _____ Date: ____/____/____

ITEM NO. SPECIFICATIONS PER ITEM.

- 844 Work description: Hand mix concrete, 20MPA.
CURING OF CONCRETE: After the concrete has been placed, all exposed surfaces shall be continuously kept damp for at least 10 days by methods as may be approved by the Representative/Agent. These include, covering with approved building paper, by means wet sand, by continuous hosing or ponding with water. Where the term "plain concrete" appears in SANS Specification 1200G it shall be read as "mass concrete"
CEMENT:
 Cement shall be Portland cement complying with the requirements of SANS Specification 471 or PC15 complying with SANS Specification 831. Bags of cement shall be stacked in a waterproof, solidly constructed shed with a central door and a floor rendered damp-proof with a tarpaulin. The bags of cement shall be closely stacked (but not against walls) in order to reduce air circulation in such a way that the cement is used in the order in which it was received, i.e. first in first out.
SAND (FINE AGGREGATE):
 The fine aggregate shall comply with the requirements of SANS Specification 1083. Other aggregates may be approved if they have a satisfactory history and/or test results.
STONE (COARSE AGGREGATE):
 The coarse aggregate shall comply with the requirements of SANS Specification 1083. No aggregate may be used until it has been approved.
 NB: Certain fine grained sand and stone originating from the Beaufort Series and Karol Systems which are known by reputation, local experience or tests, to exhibit excessive shrinkage when used in concrete, may be deemed unacceptable by the Representative/Agent.
CONCRETE:
 Concrete shall be of the classes given in the following table. The proportions of the ingredients and the nominal size of the coarse aggregate for each class shall be as laid down therein, unless otherwise specified. Class B concrete shall be used for mass concrete, the consistency of the mixture shall be ascertained by means of the slump test as later described herein.

FENCING

- 862 Work description: Clean area both sides of fence and where Concrete wall will be placed 1.0m wide, in total 2.0m wide x 1691m long = 3382m²
 Cutting veld grass, small shrubs, herbaceous and other undesirable or unwanted plant growth 50mm above ground level, both sides of fence 1m wide and remove from site to approved dumping site. See work description for details of thorn bushes.
- 863 Work description: Remove all wire from 2,30m with 0,50m o/h x 666m long security fence. The existing wire fence with all material to be removed from rail posts galvanized to CLASS A, spaced at 600mm centres. The top and bottom straining wires shall be secured at top of fence height and 75mm above ground level respectively. Straining wires shall be tensioned between and secured to all intermediate posts with 2mm galvanized wire.
- 864 Work description: New straining wire security fence. Distance of wire A. Relay Room 372m. B. From Relay to start of Conc. Wall 2634m. C. From end of Conc. Wall to Double Gate at Platform 1362m.
- 865 Work description: Binding Wire Ø 1,6mm
 Binding wire Ø 1,6mm to secure and connect all type of wire fence, Posts and Razor wire in position. Binding wire to be fouled double to insure strength and to keep all components in position.

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- 866 Work description: Replace intermediate fence rail posts 2,3m with 0,50m o/h
Straining Posts: Posts be installed +/- 5m(maximum) intervals along fence line. Posts to be secured 500mm below ground level and encased in concrete 15 MPA (after 28 days) 450 x 450 x 500mm deep.
- 867 Work description: Fit new corner or straining rail posts 2,30m with 0,50m o/h
Corner Posts and Straining Posts: Rail posts to be installed at corners and at 60m (maximum) intervals along fence line and at gates. Posts to be secured 500mm below ground level and encased in concrete 15 MPA (after 28 days) 450 x 450 x 500mm deep.
- 868 Work description: Replace fence stay post
Stays shall be Ø 100mm fence rails x 2,3m long. Stays - other end flattened and drilled. These to be bolted either side of Corner and Straining posts and on outside of Gate posts (in fence direction) with dia. 10mm bolts. Bolts to be positioned 400mm from top of Corner, Straining or Gate posts. Stays to be encased below ground level 450 x 450 x 500mm deep with 15 MPA concrete. All Corner , Straining and Gate posts to be provided with Stays.
- 872 Work description: Remove security fence complete up to 2.1m high x 978m long
- 874 Work description: Erect 2.3m razor wire fence complete with all post;
STANDARD OF A GOOD AND PROPER FENCE:
The fence shall be in a straight line between straining posts. All posts shall planted vertically in a straight line. All straining, corner, anchor and gate posts shall be solid, upright and embedded in concrete up to ground level. All intermediate posts must be upright, and on the same level, following the natural ground contours.
RAZORFLAT WRAP FENCE:
Flat Wrap Razor Fence 2.3m high and cover 6 rows of Ø500mm x 13m long coils.
Corner Posts and Straining Rails:
Rails shall be Ø 100mm fence Rails 2,3m with 0,50m o/h. The posts to be installed at corners and at 60m (maximum) intervals along fence line. Rails Posts to be secured 500mm below ground level and cased in concrete 15 MPA (after 28 days) 450 x 450 x 500mm deep.
Intermediate posts:
Intermediate posts to be Rail Posts 2,3m Intermediate posts to be secured 500mm below ground level and cased in concrete 15 MPA (after 28 days) 450 x 450 x 500mm deep. Post to be +/- 5m (maximum) intervals and bound to each straining wire with 2mm galvanized steel binding wire.
Straining wire:
The straining wire shall be of dia. 4mm smooth fully galvanized to CLASS A, spaced at 600mm centres. The top and bottom straining wires shall be secured at top of fence height and 75mm above ground level respectively. Straining wires shall be tensioned between and secured to all intermediate posts with 2mm galvanized wire.

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- 876 Work description: Erect flat wrap razor coil fence complete 1,80mHigh.
STANDARD OF A GOOD/PROPER FENCE:
 The fence shall be in a straight line between straining posts. All posts shall planted vertically in a straight line. All straining, corner, anchor and gate posts shall be solid, upright and embedded in concrete up to ground level. All intermediate posts must be upright, and on the same level, following the natural ground contours.
Corner Posts and Straining Posts:
 Posts shall be dia. 75mm fence tubing x 2,mm wall thickness. The posts to be installed at corners and at 10m (maximum) intervals along fence line and at gates. Posts to be fitted with 85mm end caps and 300 x 300 x 3mm steel base plates. Posts to be secured on to concrete abudment wall wit 4/75mm x Ø10mm Rawl Bolts.
Stays:
 Stays shall be Ø48mm x 2,0mm wall thicknes x 1800mm long fitted with 150 x 150 x 3mm base plates - other end flattened and drilled. These to be bolted either side of Corner and Straining posts and on outside of Gate posts (in fence direction) with dia. 10mm bolts. Bolts to be positioned 400mm from top of Corner, Straining or Gate posts. Stays to bebold on to concrete abudment wall with4/75mm x Ø10mm Rawel Bolts. All Corner , Straining and Gate posts to be provided with Stays.
Intermediate posts:
 Intermediate posts to be Ø 48mm x2mm wal thicknes x 1800mm high and fit on to concrete abudment wall with 4/75mm x Ø10mm Rawel Bolts. Intermediat posts to be bound to each straining wire with 1,6mm galvanised binding wire.
Straining wire:
 Straining wir shall be Ø4mm fully galvanized to CLASS A, spaced at 600mm centres. The top and bottom straining wires shall be secured at top of fence height and 75mm above ground level respectively. Straining wires shall be tensioned between and secured to all intermediate posts with1,6mm galvaniced wire.
- 883 Work description:Fit flat wrap razor coil 500mm diameter to wire fence 1,80m high x 45m long.
 Cover fence with flat wrap razor wire Ø500mm to existing fence. Tie flat wrap razor coil every 300mm with1,6mm binding wire.
- 889 Work description: Install double gate 6m x 1,80m high at Relay Room:
 Gate posts 100mm diameter are to be 2,9m long, each planted 0,8 m deep into ground and embedded in a concrete 15MPA block, size 600 x 600 x 800 mm deep.
 Gates for security fence 1.8m and higher to have a framework of diameter class A galvanized 42mm steel pipe and must be of standard type. Gates to be covered with razor clip mesh and fixed to gates with 2mm galvanized steel wire at 300mm intervals or if specified with wire mesh or at coastal areas filled in with plastics coated mesh. Provide locking mechanisms to all gates free of razor mesh. Replace gate. Remove irreparable gates. Provide and hang to adjustable hinges.

Respondent's signature: _____ Date: ____/____/____