

<b>Palabora Asset Management Projects</b>	<b>Technical Specification</b>
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Title:	<b>Supply and Installation of Concrete Palisade Fence At New Prisca Clinic</b>		
Division:	<b>Transformation</b>		
Area:	<b>Prisca Village</b>		
Project No:			
	Name:	Signature:	Date:
Client: Engineer	Otis Mathebula		
Client: Manager	Nozipho Zitha		
Client: Senior Manager	Abby Ledwaba		
Project Lead:	Meshack Maonye		
Projects Supt.:	Rowan Van Rensburg		
Project Manager:	Michael Mbele		

**1. GENERAL:**

**Content:**

The bidder, being an expert in his field, will accurately evaluate the needs of the contract by visiting the Site/s, studying the relevant drawings and Technical Specifications for this Contract, and tender accordingly.

Should there be any discrepancies or omissions in the tender information supplied, the bidder will immediately inform the Project Leader accordingly. The Project Leader will then rectify the situation and will inform all other bidders to ensure that comparable bids are received.

Claims for extra work, as a result of tender omissions, will not be entertained.

**Materials:**

Materials shall be first class grade, new and shall conform to the relevant specifications as described on the reference drawings and elsewhere in the Specifications.

**Equipment:**

All related equipment and machinery which is used in the contractual discipline to achieve the scope of work must be available from the awarded contractor being the expert in the field. The equipment, machinery and tools must be of a very high quality and in suitable order to achieve top level work expected in each engineering discipline.

**Queries:**

All queries, as well as any requests for deviation from this Technical Specification, shall be directed to the Project Leader.

Name:	Meshack Maonye	Tel No:	082 361 9654
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Palabora has appointed the following Project Inspector, who will be responsible for construction supervision and safety on the Contract.

Name:	Meshack Maonye	Tel No:	082 361 9654
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**Contract Clearance Requirements:**

It is a requirement that all contract clearances are obtained prior to commencing work on site. The Project Inspector will assist the Contractor to complete the clearance procedure correctly and without delay.

**2. Scope of work:**

Overview:

The Works comprises Supply and Installation of Concrete Palisade Fence At New Prisca Clinic and site clearance in accordance with drawings and specifications that will be provided to the contractor.

Detailed scope of work:

- 1. SCOPE OF WORK**
- 2. Site clearance**
  - 2.1 Pegging and laying out.
  - 2.2 Digging up and removing rubbish, debris, vegetation, hedges, shrubs and trees not exceeding 200mm girth, bush, etc
- 3. EXCAVATION, FILLING, ETC**
  - 3.1 Excavation in earth not exceeding 2m deep ( Holes)
  - 3.2 Extra over trench and hole excavations in earth for excavation In Soft rock
  - 3.3 Extra over all excavations for carting away**
    - 3.3.1 Surplus material from excavations and/or stock piles on site to a dumping site to be located by the contractor
  - 3.4 Risk of collapse of excavations**
    - Sides of trench and hole excavations not exceeding 1,0m deep
    - 3.4.1 Earth filling obtained from the excavations and/or prescribed stock piles on site compacted to 93% Mod AASHTO density
  - 3.5 Keeping excavations free of water**
    - 3.5.1 Keeping excavations free of all water other than subterranean water Item
    - 3.5.2 Backfilling to trenches, holes
- 4. EXTERNAL WORKS**
  - 4.1 SOIL POISONING**
    - 4.1.1 Supply and apply Soil insecticide to bottoms and sides of trenches etc
  - 4.2 REINFORCED CONCRETE CAST AGAINST EXCAVATED SURFACES**
    - 4.2.1 25MPa/19mm concrete Bases (size of each base 400 x 400 x 600mm thick)
    - 4.2.2 Making and testing 150 x 150 x 150mm concrete strength test cube

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<p><b>5. PRECAST CONCRETE FENCING</b></p> <p><b>5.1</b> Supply and Install 42m x 2lengths with 2.4 height with 2.4m panels height above ground level over flat or sloping terrain with 140mm x 3 000mm long intermediate and end posts at 2m intervals founded in concrete bases, with 150 x 1 940mm long top and bottom horizontal beams with 95 x 2 370mm palings (eight pales per panel) bolted to rails at intersections, including stopping off bolt holes with cement mortar complete.</p> <p><b>5.2</b> Supply and Install Double gate size 5 000 x 1 800mm high overall, the outer frame of 50mm diameter x 2mm tubing, 120mm diameter x 2mm thick steel posts and stays, 50 x 50 x 2,5mm welded mesh welded to frame work and including locks.</p> <p><b>5.3</b> Supply and Mount Razor wires on top of all the installed palisade fence.</p> <p><b>5.4</b> Extra over trench and hole excavations in earth for excavation In hard rock</p> <p><b>5.5</b> Supply and Mounting Razor wires on top of all the installed palisade fence</p> <p><b>5.6</b> The palisades must be connected to the existing school fence to make it one.</p> <p><b>6. Site Description:</b></p> <ul style="list-style-type: none"> <li>The Site is a vacant land adjacent to an existing school</li> </ul> <p><b>7. SITE CLEANING</b></p> <ul style="list-style-type: none"> <li>Clear site of all rubble</li> </ul>	

**3. Drawings:**

No	Description	Drg No	Rev:

**4. Inclusions/Exclusions:**

Palabora

Contractor

**5. Project Schedule:**

Palabora wishes to complete the work by: Project Completion Date:

A detailed schedule must be compiled with PMC personnel within **7 days** of receipt of order.

**6. Quality:**

Quality parameters will be applicable but not limited to this project as per PROJ...Quality Management [PROJ-OP-009]



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**7. Tender Price Submission**

The pricing will be done as per the attached Pricing Schedule (Appendix 1 – Schedule of Quantities) and payments will be subjected to re-measurement of all quantities if applicable, otherwise a realistic progress agreed to by the Project Leader and the Project Inspector.

**8. Safety, Health and Environment Regulations**

The bidder is requested to familiarise himself with Palabora regulations, as laid out in the Palabora Standards, which is available on CD, from Contractor Management Centre.

**Housekeeping and Site Management**

The contractor will maintain a demarcated and tidy site at all times.

All construction rubble, waste and redundant equipment will be removed to appropriate dumping areas within the Palabora property on a daily basis.

**Environment:**

Palabora Mining Company is a certified ISO 14001 Company. The contractor is required at all times to observe the environmental requirements of the specific area in which the work is to be carried out and the property as a whole.

In particular, any chemicals that will be brought onto the property during the course of the contract execution should be brought to the attention of the Environmental Department

**9. PPE (Personal Protective Clothing)**

Standard Palabora PPE (minimum)  
Area specific (specify which items apply)

**10. Training And Qualifications**

See Appendix 2 – SHEQ plan, training and qualification matrix

**11. Site Supervision**

Minimum supervision required will be as specified in the latest revision of the Mines Health and Safety Act.

If more stringent supervision is required, it is to be specified here:

**12. Tender deliverables**


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<b>Appendix 1</b>					
Schedule of Quantities					
Project Title:		Supply and Installation of Concrete Palisade Fence At New Prisca Clinic			
Project No:					
	Description:	Unit	Qty	Rate	Amount
<b>1.</b>	<b>Preliminary &amp; Generals</b>				
<b>1.1</b>	COMPLIANCE WITH OHS REGULATIONS Clause 7.0 <b>Note:</b> The provisions herein include inter alia, compliance with all the requirements set out in the Construction Regulations, 2003 issued under the Occupational Health and Safety Act, 1993 (Act No 85 of 1993), and in particular with Regulation 5(1) requiring the compilation of a health and safety plan, as well as Regulation 6(1) requiring the appointment of a construction Supervisor.	Sum	1		
<b>1.2</b>	<b>The P's &amp; G's shall entail but not limited to:</b> Defined works area, Inspection of the site, Existing premises occupied, Protection of existing services, works and premises, Security of the works, Works cleaning and clearing while works is in progress, sound protection, Management of the works, Programme for the works, Labour and plant, Samples of materials, Workmanship samples, Shop drawings, Compliance with manufacturers' instructions, Telecommunication, and all other overheads.	Sum	1		
<b>2.</b>	<b>Site Establishment/Clearance</b>				
<b>2.1</b>	Pegging and laying out	Sum	1		
<b>2.2</b>	Digging up and removing rubbish, debris, vegetation, hedges, shrubs and trees not exceeding 200mm girth, bush, etc	M <sup>2</sup>	15		

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<b>3</b>	<b>EXCAVATION, FILLING, ETC</b>				
3.1	Excavation in earth not exceeding 2m deep ( Holes)	M <sup>3</sup>	21,6		
3.2	Extra over trench and hole excavations in earth for excavation In Soft rock	M <sup>3</sup>	21,6		
<b>3.3</b>	<b>Extra over all excavations for carting away</b>				
3.3.1	Surplus material from excavations and/or stock piles on site to a dumping site to be located by the contractor	M <sup>3</sup>	21,6		
<b>3.4</b>	<b>Risk of collapse of excavations</b>				
3.4.1	Sides of trench and hole excavations not exceeding 1,0m deep	Sum	1		
3.4.2	Earth filling obtained from the excavations and/or prescribed stock piles on site compacted to 93% Mod AASHTO density	M <sup>3</sup>	2		
<b>3.5</b>	<b>Keeping excavations free of water</b>				
3.5.1	Keeping excavations free of all water other than subterranean water Item	Sum	1		
3.5.2	Backfilling to trenches, holes	M <sup>3</sup>	2		
<b>4</b>	<b>EXTERNAL WORKS</b>				
<b>4.1</b>	<b>SOIL POISONING</b>				
4.1.1	Supply and apply Soil insecticide to bottoms and sides of trenches etc	Sum	1		
<b>4.2</b>	<b>REINFORCED CONCRETE CAST AGAINST EXCAVATED SURFACES</b>				
4.2.1	25MPa/19mm concrete Bases (size of each base 400 x 400 x 600mm thick)	M <sup>3</sup>	0,096		
4.2.2	Making and testing 150 x 150 x 150mm concrete strength test cube	M <sup>3</sup>	0,45		
3.4	Extra over trench and hole excavations in earth for excavation In hard rock	M <sup>3</sup>	21,6		
<b>5</b>	<b>PRECAST CONCRETE FENCING</b>				
5.1	Supply and Install 52m lengths with 2.4 height with 2.4m panels height above ground level over flat or sloping terrain with 140mm x 3 000mm long intermediate and end posts at 2m intervals founded in concrete bases, with 150 x 1 940mm long top and bottom horizontal beams with 95 x	M	500		

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	2 370mm palings (eight pales per panel) bolted to rails at intersections, including stopping off bolt holes with cement mortar complete				
5.2	Supply and Install Double gate size 5 000 x 1 800mm high overall, the outer frame of 50mm diameter x 2mm tubing, 120mm diameter x 2mm thick steel posts and stays, 50 x 50 x 2,5mm welded mesh welded to frame work and including locks.	M	2		
5.3	Supply and Mount Razor wires on top of all the installed palisade fence	Sum	1		
	<b>SITE CLEANING</b>				
	Clear site of all rubble	Sum	1		
		Total			

Appendix 2 TRAINING AND QUALIFICATION MATRIX				
Contract description:		Supply and Installation of Concrete Palisade Fence At New Prisca Clinic		
Project No:				
Description	Team/member	Vehicle/equipment Operator	Supervisor	Manager
2.6.1 Appointment				
2.9.2 Appointment				
Medical examination				
Generic safety induction				
General isolation				
Working at heights				
Basic rigging				
Gas cutting & welding				
Electrical grinding				
Crane driver's license				

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Truck & hydraulic hoist license (Hiab)				
HIRA Training				
Supervisor legal course				
Provincial license				
<b>Access and driving license:</b>				
PP&V mining				
VO plant				
Mining surface				
Mining pit				
Concentrator dams				
<b>Trade certificates:</b>				
Fitter				
Boilermaker				
Electrician				
Instrument Technician				
Rigger				

<b>After receiving an official order:</b>	
Attend scope clarification meeting with project personnel.	
Submit method statement to Project Inspector	
Submit HIRA for job	
Participate in developing the project schedule	
Obtain contract clearance from Projects	
HIRA approval from Project Lead	
<b>Before starting work:</b>	
Report to CMC for tool, equipment, personnel and competency and certification checks	





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Attend site specific induction by client supervisor	
Obtain daily permit to work from client operations supervisor and sign off at end of shift.	
Obtain hot work permit from client supervisor if required	
Obtain confined space permit if required.	
Obtain excavation permit if required.	
Attach personal locks to equipment locked out by client isolation officer and supervisor if required, and remove when job is complete.	