

**PROJECT: UNDERPINNING AND JACK PILING**  
**24 August 2022**

**NHBRC QS**

<u>ITEM NO</u>	<u>DESCRIPTION</u>	<u>UNIT</u>	<u>QUANTITY</u>	<u>RATE</u>	<u>AMOUNT</u>
	<b><u>BILL NO. 1</u></b>				
	<b><u>PRELIMINARIES AND GENERAL</u></b>				
1	Allowance for contractor's all risk insurance. etc.	Item	1	R 0.00	R 0.00
2	Allowance for Health and Safety requirements (i.e All work to be in a compliance with the provisions of the OHS Act 85 of 1993 and Regulations R1010)	Item	1	R 0.00	R 0.00
3	Allowance for site establishments and de-establishment etc. (site office, toilet, water & electricity)	Item	1	R 0.00	R 0.00
4	Allowance for site management, security, small tools, plant, scaffolding etc.	Item	1	R 0.00	R 0.00
	<b><u>TOTAL P&amp;G CARRIED TO FINAL SUM</u></b>				<b><u>R 0.00</u></b>
	<b><u>BILL NO. 2</u></b>				
	<b><u>ALTERATIONS</u></b>				
	<b><u>SUPPLEMENTARY PREAMBLES</u></b>				
	View site				
	Before submitting his tender the contractor shall visit the site and satisfy himself as to the nature and extent of the work to be done and the value of the materials contained in the buildings or portions of the buildings to be demolished. No claim for any variations of the contract sum in respect of the nature and extent of the work or of inferior or damaged materials will be entertained.				
	Explosives				
	No explosives whatsoever may be used for demolition purposes unless otherwise stated.				
	General				
	The contractor shall carry out the whole of the works with as little mess and noise as possible and with a minimum of disturbance to adjoining premises and their tenants. He/She shall provide proper protection and provide, erect and remove when directed, any temporary tarpaulins that may be necessary during the progress of the works, all to the satisfaction of the principal agent / Engineer				
	Water supply pipes and other piping that may be encountered and found necessary to disconnect or cut, shall be effectually stopped off or grubbed up and removed, and any new connections that may be necessary shall be made with proper fittings, to the satisfaction of the principal agent / Engineer.				
	Doors, fanlights, fittings, frames, linings, etc which are to be re-used shall be thoroughly overhauled before refixing including taking off, easing and rehangng, cramping up, re-wedging as required and making good cramps, dowels, etc, and easing, oiling, adjusting and repairing ironmongery as necessary, replacing ant glass damaged in removal or subsequently and stopping up all nail and screw holes with tinted plastic wood to match timber, unless otherwise described. Re-painting or re-varnishing is given separately				
	Prices for taking out of doors, windows, etc shall include for				

removal of all beads, architraves, ironmongery, etc  
 Prices for taking out and removing doors and frames shall include for removing door stops, cabin hooks, etc and making good floor and wall finishes to match existing  
 With regard to building up of openings in existing walls, cement screeds and pavings, granolithic, tops of walls, etc, shall be levelled and prepared for raising of brickwork

NHBRC QS

ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
	<p>Making good of finishes shall include making good of the brick and concrete surfaces onto which the new finishes are applied, where necessary</p> <p>The contractor will be required to take all dimensions affecting the existing buildings on site and he will be held solely responsible for accuracy of all such dimensions where used in the manufacture of new items (doors, windows, fittings, etc)</p> <p>All loading and carting away cost of demolished material will be included in the Rate</p> <p><b><u>REMOVAL OF EXISTING WORK</u></b></p> <p><u>Breaking up and removing reinforced concrete, including cutting off and removing reinforcement</u></p>				
1	100 Thick concrete slab (Apron)	m2	1	R 110.00	R 110.00
	<p><u>Sundries</u></p> <p>Carefully remove 60mm thick interlocking paving bricks and stockpile on site for re-use. (Apron)</p>	m2	1	R 40.00	R 40.00
					<b><u>R 150.00</u></b>
	<b><u>TOTAL ALTERATIONS CARRIED TO FINAL SUM</u></b>				
	<b><u>BILL NO.3</u></b>				
	<b><u>PILING</u></b>				
	User note				
	<b><u>SUPPLEMENTARY PREAMBLES</u></b>				
	<u>Indemnity</u>				
	<p>The contractor shall take full responsibility for piling work and shall guarantee that piling work will support the calculated loads laid down by the engineer without injurious settlement. The actual lengths of piles shall be determined on site by the contractor in consultation with the engineer who will give all assistance possible. This does not in any way relieve the contractor of his responsibility or obligation to provide the specified guarantee</p> <p>The contractor shall indemnify the employer against any injury to or death of any person and all loss or damage to all structures resulting from the failure of any pile. In the event of the failure of a pile the contractor shall make good such pile and all consequent damage at his own expense</p> <p>The contractor shall insure by means of a policy, approved by the engineer, against risks arising out of the responsibilities guarantee and indemnities specified. The contractor shall pay all premiums in respect of this insurance policy. The guarantee shall be for the amount and effective period as stated herein this bill</p>				
	<u>Scope of work</u>				
	The work comprises the installation of micro piles.				

Piles are to be installed subsequent to the site being excavated, filled, levelled and compacted to the required levels

NHBRC QS

ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
	<p><b>DRILING</b></p> <p><u>Classification of material</u></p> <p>Hard rock shall mean granite, quartzitic sandstone or other rock similar hardness, the removal of which would normally require drilling, wedging and splitting or the use of explosives</p> <p>"Earth" shall mean all ground other than that classified as "hard rock" and shall include made-up ground and loose stones or pieces of concrete not exceeding 0.03m3 in volume as well as hard material the removal of which would normally warrant the use of pneumatic tools and which includes hard shale, ferrocite, compact oukclip and material of similar hardness</p> <p><b>GUARANTEE AND INSURANCE</b></p> <p>Insurance policy against claims arising from the installation of piling up to a limit of R 500 000 (Five Hundred Thousand Rand) per claim with no limit on the number of claims that may occur and effective for a period of 5 years from the date of completion of the contract</p> <p><b>ESTABLISHMENT</b></p> <p>Transportation to and establishment on site of necessary plant for the execution of the work and removal thereof on completion</p> <p><u>Setting up plant at pile position</u></p> <p><b>JACK PILING ( SPECIALIST CONTRACTOR)</b></p> <p><u>Jack and underpinning the perimeter of the building (Position to be shown by the Engineer). The rate must include the following: The depth of the pile determine by the specialist contractor, Tie back the piles to existing foundation. Specialist services and Dynamic Probe Super Heavy ( DPSH) testing to be carried out prior to the installation of micro piles to determine suitable piles founding depths (Testing elsewhere measured). Jack foundation systematically with monitoring the cracks and ensure that the crack is closed before concreting</u></p>				
1	180kN Micro piles at approximately 1000mm c/c.	No	1	R 15 500.00	R 15 500.00
	<p><b>TESTING</b></p> <p>Conduct DCP test to 2m from the foundation surface of the micro piles (including the test results in the form of bearing capacity of soil)</p>				
2		Item	1	R 2 000.00	R 2 000.00

**R 17 500.00**

**TOTAL PILING CARRIED TO FINAL SUM**

**BILL NO. 4**

**EARTHWORKS, ETC.**

**SUPPLEMENRARY PREAMBLES**

Carting away of excavated material

Desriptions of carting away of excavated material shall be deemed to include loading excavated material onto trucks directly from the excavations or, alternatively, from the stock piles situated on the building site

Filling

Notwithstanding the reference to prescribed multiple handling in clause 1 page 6 of the Standard System of Measuring Building Work, prices for filling and backfilling shall include for all selection and necessary multiple handling of material

**NHRC QS**

<u>ITEM NO</u>	<u>DESCRIPTION</u>	<u>UNIT</u>	<u>QUANTITY</u>	<u>RATE</u>	<u>AMOUNT</u>
	<u>User Note</u>				
	When no information regarding density tests is available the following preamble in respect of testing may be inserted				
	<u>Testing</u>				
	Prices for filling are to include for all necessary density tests in accordance with the SABS 1200D				
	<b><u>EXCAVATION, FILLING ETC</u></b>				
	<b><u>EXCAVATIONS, ETC</u></b>				
	<u>Excavation in earth not exceeding 2m deep</u>				
1	Underpinning in 1m alternating sections under existing foundations	m3	1	R 155.00	R 155.00
	<u>Back excavation of vertical sides of excavations in earth for working space including backfilling compacting in 100mm layers to 95% Mod AASHTO density</u>				
2	Exceeding 1.5m deep and not exceeding 2m deep for underpinning work etc	m2	1	R 100.00	R 100.00
	<u>Extra over all excavations for carting away</u>				
4	Surplus material from excavations and/ stock piles on site to a dumping site to be located by the contractor	m3	1	R 125.00	R 125.00
	<u>Risk of collapse of excavations</u>				
5	Side of trench and hole excavations exceeding 1.5m deep	m2	1	R 18.00	R 18.00
	<u>Keeping excavations free of water</u>				
6	Keeping excavations free of all water other than subterranean water	Item	1	R 500.00	R 500.00
	<b><u>FILLING ETC</u></b>				
	<u>Earth filling obtained from the excavations and/or prescribed</u>				

	<u>stock piles on site, compacted to 95% Mod AASHTO density (All as per Eng Details)</u>				
7	Backfilling to trenches, holes, etc	m3	1	R 105.00	R 105.00
	<u>Prescribed density tests on filling</u>				
8	Modified AASHTO Density test	No	1	R 450.00	R 450.00
	<u>Compacting of surfaces</u>				
9	Compacting of ground surfaces under apron by wetting and compacting.	m2	1	R 20.00	R 20.00
	<u>Soil insecticide in accordance with SANS 5859</u>				
10	Under Aprons etc	m2	1	R 15.00	R 15.00
	<b><u>TOTAL EARTHWORKS ETC CARRIED TO FINAL SUM</u></b>				<b><u>R 1 488.00</u></b>

NHBRC QS

ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
	<u>BILL NO.5</u>				
	<u>CONCRETE, FORMWORK AND REINFORCEMENT</u>				
	<u>For preambles see "Model Preambles for Trades"</u>				
	<u>SUPPLEMENTARY PREAMBLES</u>				
	<u>Cost of tests</u>				
	The costs of making, storing and testing of concrete test cubes as required under clause 7 "Tests" of SABS 1200 G shall include the cost of providing cube moulds necessary for the purpose, for testing costs and for submitting reports on the tests to the architect. The testing shall be undertaken by an independent firm or institution nominated by the contractor and to the approval of the architect. (Test cubes are measured separately)				
	<u>Formwork</u>				
	Descriptions of formwork shall be deemed to include use and waste only (except where described as "left in" or "permanent"), for fitting together in the required forms, wedging, plumbing and fixing to true angles and surfaces as necessary to ensure easy release during stripping and for reconditioning as necessary before re-use.				
	The vertical strutting shall be carried down to such construction as is sufficiently strong to afford the required support without damage and shall remain in position until the newly constructed work is able to support itself				

Formwork to soffits of solid slabs etc shall be deemed to be to slabs not exceeding 250mm thick unless otherwise described

Formwork to soffits of slabs, beams, etc shall be deemed to be propped up exceeding 1,5m and not exceeding 3,5m high unless otherwise described

Formwork to sides of bases, pile caps, ground beams, etc will only be measured where it is prescribed by the engineer for design reasons. Formwork necessitated by irregularity or collapse of excavated faces will not be measured and the cost thereof shall be deemed to be included in the allowance for taking the risk of collapse of the sides of the excavations, provision for which is made in "Earthworks"

User Note

In order to accommodate the custom in some regions to give formwork to sides of beams, isolated beams, etc separately from formwork to the soffits thereof, the items in respect of formwork to beams, isolated beams, etc are given under the headings of "formwork to sides", "formwork to soffits" and "formwork to sides and soffits"

**UNREINFORCED CONCRETE CAST AGAINST EXCAVATED SURFACES**

15Mpa/19mm concrete

1	Aprons cast in panels to falls	m3	1	R 1 800.00	R 1 800.00
---	--------------------------------	----	---	------------	------------

20Mpa/19mm concrete

2	Underpinning bases/strip footings in 1m alternating sections under existing foundations	m3	1	R 2 500.00	R 2 500.00
---	---	----	---	------------	------------

**TEST CUBES**

3	Making and testing 150 x 150 x 150mm concrete strength test cubes (Provisional)	No	1	R 500.00	R 500.00
---	---	----	---	----------	----------

**NHBRC QS**

<u>ITEM NO</u>	<u>DESCRIPTION</u>	<u>UNIT</u>	<u>QUANTITY</u>	<u>RATE</u>	<u>AMOUNT</u>
	<b><u>CONCRETE SUNDRIES</u></b>				
	<u>Finishing top surface of concrete smooth with a wood float</u>				
4	Surface beds, slabs, aprons, etc	m2	1	R 25.00	R 25.00
5	12 x 10mm Saw-cut joint in top of concrete surface beds	m	1	R 30.00	R 30.00
	<b><u>SMOOTH FORMWORK (DEGREE OF ACCURACY II)</u></b>				
6	Edges, risers, ends and reveals not exceeding 300mm high or wide	m	1	R 45.00	R 45.00
	<b><u>TOTAL CONCRETE, FORMWORK AND REINFORCING WORK CARRIED TO FINAL SUM</u></b>				<b><u>R 3 100.00</u></b>
	<b><u>BILL NO. 6</u></b>				
	<b><u>MASONRY</u></b>				
	<b><u>SUPPLEMENTARY PREAMBLES</u></b>				

<b><u>PAVING</u></b>					
<u>Paving of 60mm paving bricks with butt joints on 20mm thick</u>					
<u>riversand bed with sand and cement mixture swept into joints</u>					
<u>and hosed down, including preparation of ground or filling</u>					
1	Re-instate paving bricks in stretcher bond to fall (Apron)	m2	1	R 65.00	R 65.00
2	Paving in stretcher bond to falls (to match existing apron)	m2	1	R 185.00	R 185.00
<b><u>TOTAL BRICK WORK CARRIED TO FINAL SUM</u></b>					<b><u>R 250.00</u></b>

<b><u>FINAL SUMMARY</u></b>		
1	PRELIMINARIES AND GENERAL	R 0.00
2	ALTERATIONS	R 150.00
3	PILING	R 17 500.00
4	EARTHWORKS	R 1 488.00
5	CONCRETE, FORMWORK AND REINFORCEMENT	R 3 100.00
6	MASONRY	R 250.00
<b><u>SUB TOTAL</u></b>		<b><u>R 22 488.00</u></b>
10% CONTINGENCY TO BE USED AS DIRECTED BY THE QUANTITY SURVEYOR		R 2 248.80
<b><u>TOTAL AMOUNT</u></b>		<b><u>R 24 736.80</u></b>
15% VAT		R 3 463.15
<b><u>TOTAL AMOUNT INCLUDING 14% VAT</u></b>		<b><u>R 28 199.95</u></b>

NOTE

12.5% of contract sum



NOTE

NOTE

NOTE

NOTE

NOTE

