



<b>ELSBURG STATION IMPROVEMENT</b>
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**SCOPE, SPECIFICATIONS AND SCHEDULE OF QUANTITIES**

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# **ANNEXURE A CIVIL WORKS: SCHEDULE OF QUANTITIES**

## PROVISIONAL SCHEDULE OF QUANTITIES

### MINOR UPGRADES AT ELSBURG STATION

<b>OCCUPATIONAL HEALTH AND SAFETY</b>		<u>Unit</u>	<u>QTY</u>	<u>Rate</u>		<u>Amount</u>	
<p>The contractor shall comply with all the requirements set out in the Construction Regulations, issued under The Occupational Health &amp; Safety Act no 85 of 1993.</p> <p>Safety file shall be provided by the contractor prior to commencement of work.</p> <p>The contractor shall carry out the works with as little noise and mess as possible. All rubble shall be taken away from site on a daily basis.</p> <p>Note: All designated items should comply with local content threshold.</p>							
<b><u>BILL NO. 1</u></b>		<u>Unit</u>	<u>QTY</u>	<u>Rate</u>		<u>Amount</u>	
<b><u>ALTERATIONS (PROVISIONAL)</u></b>							
<b><u>REMOVAL OF EXISTING WORK</u></b>							
Price shall include removal and disposal of rubble from site							
<b>Taking out and removing glass, beads, etc</b>							
1	4mm Brocken window pane from steel frame including upgrading, cleaning and preparation to receive new	m <sup>2</sup>	5	R	-	R	-
2	38mm Brocken window pane from Aluminium frame including upgrading, cleaning and preparation to receive new	m <sup>2</sup>	2	R	-	R	-
<b>Taking out and removing piping, sanitary fittings, etc including disconnection piping from fittings</b>							
3	Pan and cistern	No.	7	R	-	R	-
4	Kitchen sink cabinet	No.	1	R	-	R	-
5	Ceramic wash hand basin	No.	2	R	-	R	-
6	50mm uPVC piping including fittings and brackets	m	5	R	-	R	-

	<b>Taking out and removing doors including ironmongery and steel frame from walls</b>						
7	Timber single door and frame 813x2032mm high	No.	2	R	-	R	-
	<b>Taking out and removing doors including steel frame from brick walls</b>						
8	Timber double door and frame 1800x2032mm high	No.	1	R	-	R	-
	<b>Hacking up/off and removing ceramic wall tile</b>						
9	Tiles to walls	m <sup>2</sup>	5	R	-	R	-
	<b>Taking down and removing ceiling</b>						
10	Rhino board ceilings including cornices, brandering, jointing strips, etc	m <sup>2</sup>	75	R	-	R	-
	Carried to final summary					R	-
	<b><u>BILL NO 2</u></b>	<b><u>Unit</u></b>	<b><u>QTY</u></b>	<b><u>Rate</u></b>		<b><u>Amount</u></b>	
	<b><u>CARPENTRY AND JOINERY</u></b>						
	<b><u>DOORS</u></b>						
	<b>44mm thick exterior grade flush solid core timber single door with 3mm thick commercial ply on both sides with consolidated edges fitted and complying with SABS 545 in pressed steel frame. All painted in accordance with architect's colour schedules</b>						
1	813 x 2032 x 44mm single leaf solid core with commercial veneer for paint. pricing shall include painting as per manufactures specification	No.	2	R	-	R	-
	<b>44mm thick interior grade flush solid core timber single door with 3mm thick commercial ply on both sides with consolidated edges fitted and complying with SABS 545 in pressed steel frame. All painted in accordance with architect's colour schedules</b>						
2	813 x 2032 x 44mm single leaf solid core with commercial veneer for paint. pricing shall include painting as per manufactures specification	No.	10	R	-	R	-
	<b><u>Level G3 bullet resistant Anti-bandit door, complete with 100 x 50 x 3mm gauge mild steel rectangular frame and 25 x 25 x 3mm MS anlgc rebates, overall size 930 x</u></b>						

	<b><u>2100mm high in powder coating and or galvanized cladding with peep hole, supplied with a 6 pin tumbler key system, mortice dead lock with an additional heavy duty magnetic lock and striker including key switch and surface mounted casing, 6 Amp power supply, push buttons and interlock system, heavy duty aluminium continuous hinge, aluminium slam bar with heavy duty door closer and D-style pull handles. Door to comply to SABS 1658-1996</u></b>						
3	Level G3 bullet resistant anti-bandit external door	No.	1	R	-	R	-
4	Level G3 bullet resistant anti-bandit internal door	No.	1	R	-	R	-
	<b><u>FITTINGS</u></b>						
	<b><u>The following in modular timber cupboards, counters, duty stations, desk etc. as per Cupboard Connections Specification</u></b>						
	<b><u>Carcasses of 16mm thick particle board with both faces white melamine with white Masonite backs. Shelving of 16mm particle board, both faces white melamine and front edge in white PVC. Doors of 16mm particle board with post formed vertical edges and laminated in Renolit. Tops of 32mm particle board with post formed leading edges and laminated in high pressure decorative laminate. All butt edges and edges against walls to be sealed with silicon sealant. Hinges to be "Hettich". Drawer runners to be metal 500mm series with nylon runners or similar. All units complete with door, handles, hinges, cupboards, door, locks, barrel bolts and shelves. Floor unit complete with kick plates. (Formica tops measured elsewhere)</u></b>						
5	Kitchen sink floor cupboard 2000 x 600 x 900mm high with sides, bottom, back, 3 hinged doors and two drawer completely working including handles, etc. top and sink measured else where	No.	2	R	-	R	-
	<b><u>Ticket office work station</u></b>						
6	Office floor cupboard 4500 x 600 x 900mm high with sides, bottom, back, 7 hinged lockable doors and 12 lockable drawers completely working including handles, etc. top and sink measured else where	No.	1	R	-	R	-
7	Office floor cupboard 2000 x 600 x 900mm high with sides, bottom, back, 2 hinged lockable doors and 4 lockable drawers completely working including handles, etc. top and sink measured else where	No.	1	R	-	R	-

	<b>Interior type particle board with Formica veneer</b>						
8	900 x30mm thick granite with all exposed edges large bevel edged, fixed to supports using dabs of 100% black silicone adhesive along all supports with all joints filled with matching polyester resin glue. Granite surface to be sealed using an approved stone sealer, all in accordance with the manufacturer's recommendations.	m	10	R	-	R	-
9	2mm thick edge strip 32mm wide	m	35	R	-	R	-
10	Cut 50mm work top to fit end bowl sink, measured elsewhere	No.	3	R	-	R	-
	<b>Glazed shower doors</b>						
11	Tri-slider patterned obscure glazed shower door	No.	1	R	-	R	-
	Carried to final summary					R	-
	<b><u>BILL NO 3</u></b>	<b><u>Unit</u></b>	<b><u>QTY</u></b>	<b><u>Rate</u></b>	<b><u>Amount</u></b>		
	<b><u>CEILING WORK</u></b>						
	<b><u>SUPPLEMENTARY PREAMBLES</u></b>						
	<b><u>Description</u></b>						
	Items described as “nailed” shall be deemed to be fixed with hardened steel nails or pins or shot pinned to brickwork or concrete						
	Items described as “plugged” shall be deemed to include screwing to fibre, plastic or metal plugs at not exceeding 600mm centres, and where described as “bolted”, bolts priced elsewhere						
	<b>6mm “Everite Nutec” fibre cement boards with H-type pressed steel jointing including painting with one coat of alkali resistance primer , one undercoat and two coat eggshell enamel paint</b>						
1	ceiling generally 600mm wide including 38 x 38mm sawn softwood branderling at maximum 600mm centres nailed to and including 75 x 50mm sawn softwood bearers at 900mm centres suspended approximately 250mm below timber trusses with 75 x 38mm vertical bearers at 600mm centres nailed to tie beams of trusses	m <sup>2</sup>	150	R	-	R	-

2	Extra over ceiling for 800 x 800mm trap door of 38 50mm wrought softwood rebated framing with one 38 x 38mm sawn softwood cross brander covered with ceiling board and fitted flush in opening	m <sup>2</sup>	4	R	-	R	-
	<b>“Rhino” gypsum plasterboard cornice</b>						
3	75mm coved cornices fixed to ceiling	m	150	R	-	R	-
	Carried to final summary					R	-
	<b><u>BILL NO 4</u></b>	<b><u>Unit</u></b>	<b><u>QTY</u></b>	<b><u>Rate</u></b>		<b><u>Amount</u></b>	
	<b><u>IRONMONGERY</u></b>						
	<b><u>LOCKS</u></b>						
	<b><u>Supply and install</u></b>						
1	Ultra-security heavy duty locks	No.	3	R	-	R	-
2	3 liver mortice lockset with handles	No.	5	R	-	R	-
3	7 lever security gate lock	No.	4	R	-	R	-
4	Indicator door lock chrome plated	No.	7	R	-	R	-
	Carried to final summary					R	-
	<b><u>BILL NO 5</u></b>	<b><u>Unit</u></b>	<b><u>QTY</u></b>	<b><u>Rate</u></b>		<b><u>Amount</u></b>	
	<b><u>PLUMBING WORK</u></b>						
	<b><u>SANITARY FITTINGS</u></b>						
1	Anti-vandal High traffic suite complete black low level duct cistern with push button remote control, symphonic flush valve and internal overflow suite to includes CC Cistern and <b>CC Pan</b>	No.	5	R	-	R	-
2	Close coupled suite colour White, comprising 90° outlet open rim pan with matching 9 litre front single flush cistern including lid and fitments and Jazz Thermoset seat.	No.	2	R	-	R	-
3	Bemis vandal proof toilet seat	No.	7	R	-	R	-
4	Wall mounted white Vandal Resistant Wash Hand Basin,	No.	4	R	-	R	-

	330mm (w) x 310 (d) x 325mm (h). Installation as per manufacturer's specification.						
5	Ceramic wash hand basin colour White, size 510 x 405mm with one tap hole including integrated overflow and chain stay hole bolted to wall with two x 10mm bolts and including Classic floor mounted pedestal and sealed with silicone sealant where basin meets wall.	No.	2	R	-	R	-
6	Double bowls stainless steel double end bowl inset sink, overall size 1200 x 535mm wide with two 340 x 370 x 150mm deep bowls, fitted onto cupboard (elsewhere specified) including 38mm waste fitting and PVC traps (traps elsewhere specified).	No.	1	R	-	R	-
7	50mm pipes with all connection and make good	m	20	R	-	R	-
	<b>Urinal Basin</b>						
8	1830 x 1220mm high floor mounted curved manual flush urinal Centre outlet manufactured from stainless steel AISI 304 including 20Mpa/20mm unreinforced concrete slab	No.	1	R	-	R	-
	<b>TAPS, VALVES, ETC</b>						
	<b>Supply and install</b>						
9	15mm pillar tap for hot and cold water	No.	6	R	-	R	-
10	15mm chrome plated deck mounted sink mixer with overarm swivel outlet and adjustable flanges, manufactured in accordance with SANS 226:2004 Type 1.	No.	1	R	-	R	-
11	Flexi connector	No.	15	R	-	R	-
12	15 Brass Gate Valve	No.	4	R	-	R	-
13	Mini Ball Valve	No.	15	R	-	R	-
14	22mm Brass Gate Valve including cast iron valve box	No.	2	R	-	R	-
15	Ø15mm BSP, built-in sleeve, DZR brass urinal flushing valve with internal flow control, strainer and non holder feature for urinal. (High risk, vandal resistant applications 30kPa - 600kPa)	No.	1	R	-	R	-
	<b>Extra over PVC pipes for fittings</b>						
16	110mm pan connector completely	No.	7	R	-	R	-
	<b>WATER SUPPLIERS</b>						



	<b>Class “O” copper pipe</b>						
17	15mm pipes	m	30	R	-	R	-
18	15mm pipes chased into brick walls and make good	m	30	R	-	R	-
19	22mm pipes	m	20	R	-	R	-
20	22mm pipes chased into brick walls	m	20	R	-	R	-
	<b>Extra over class “O” copper pipes for capillary fittings</b>						
21	15mm fitting	No.	20	R	-	R	-
22	22mm fitting	No.	20	R	-	R	-
23	15mm Tee	No.	26	R	-	R	-
24	22mm Tee	No.	10	R	-	R	-
	<b>SOIL DRAINAGE</b>						
	<b>Upvc class 34 pipes including excavation, bedding, backfilling and compaction and disposal of surplus material</b>						
25	110mm pipes laid in and including trenches not exceeding 1m deep	m	50	R	-	R	-
	<b>Extra over Upvc class 34 pipes for fittings</b>						
26	110 Bend	No.	2	R	-	R	-
27	110mm junction	No.	2	R	-	R	-
28	110mm Access bend	No.	2	R	-	R	-
	<b>Upvc Gulley</b>						
29	110mm Gulley not exceeding 1m deep formed of trap, vertical pipe and gully head with loose grating, encased in 15MPa unreinforced concrete, with top of gully 50mm above surrounding finished surfaces, top surface of concrete splayed and with 1:3 cement plaster on exposed surfaces	No.	2	R	-	R	-
	<b>Sundries</b>						
30	110mm Upvc cleaning eye to end of 110 Upvc pipe	No.	2	R	-	R	-

31	350 x 350 x 50mm thick precast concrete inspection eye marker slab finished smooth on exposed surfaces with letters "I.E" or "I.O" on top and placed flush in ground or paving	No.	2	R	-	R	-
32	Testing soil drainage system	Item		R	-	R	-
<b>WATER SUPPLY PIPE</b>							
<b>HDPE PE 100PN 12.5 pipes including excavation, bedding, backfilling, and compaction and disposal of surplus material</b>							
33	25mm pipes laid in and including trenches not exceeding 1m deep	m	100	R	-	R	-
<b>Extra over HDPE</b>							
34	25mm elbow	No.	4	R	-	R	-
35	25mm equal tee	No.	4	R	-	R	-
36	25mm couplings pipe connectors	No.	4	R	-	R	-
37	Testing water supply system	Item		R	-	R	-
<b>0.9mm galvanized sheet iron</b>							
38	250 x 200mm industrial eaves gutter including heavy duty brackets fixed at 500mm centers	m	100	R	-	R	-
39	Extra over 250 x 200mm eaves gutter for stopped end	No.	4	R	-	R	-
40	Extra over 250 x 200 eaves gutter for angle	No.	15	R	-	R	-
41	Extra over 125 x 100mm eaves gutter for outlet for 300mm pipe	No.	15	R	-	R	-
42	300mm rainwater pipes	m	35	R	-	R	-
43	Extra over 300mm rainwater pipe for shoe	No.	15	R	-	R	-
<b>The polymer manhole covers to be installed completely frame and cover as per the applicable Standard (SANS 1882: 2003). to be engraved with PRASA CRES SGR</b>							
44	Type 9B MD polymer lid and frame including to make good after completion	No.	10	R	-	R	-
Carried to final summary						R	-
<b><u>BILL NO.6</u></b>		<b><u>Unit</u></b>	<b><u>QTY</u></b>	<b><u>Rate</u></b>		<b><u>Amount</u></b>	

<u>METAL WORK</u>							
SECURITY GATES							
Supply and install Burglar door							
1	900 x 2100mm high Heavy duty Burglar door and frame with 16mm steel round bar and 40 x 40 x 2.5mm square tubing	No.	12	R	-	R	-
2	1000 x 2500mm high Heavy duty Burglar door and frame with 16mm steelround bar and 40 x 40 x 2.5mm square tubing	No.	2	R	-	R	-
Supply and install Burglar windows							
3	1300mm W x 600mm H Box windows guard constructed with 5mm of expanded metal and 50 x 50 x 6mm equal angles. To be briefly explain during the briefing session.	No.	14	R	-	R	-
PRESSED STEEL DOOR FRAMES							
1.2mm double rebated frames suitable for one brick wall							
4	External Frame for door 813 x 2032mm high	No.	2	R	-	R	-
STEEL WINDOWS							
Standard residential window							
5	Window type NC2F 1022 x 949mm high	No.	3	R	-	R	-
Carried to final summary						R	-
<u>BILL NO.7</u>		<u>Unit</u>	<u>QTY</u>	<u>Rate</u>		<u>Amount</u>	
<u>GLAZING</u>							
<u>GLAZED TO STEEL WITH PUTTY</u>							
4mm clear float glass							
1	Panes exceeding 0.1 m <sup>2</sup> and not exceeding 0.5m <sup>2</sup>	m <sup>2</sup>	5	R	-	R	-

	<b>4mm clear obscure glass</b>					
2	Panes exceeding 0.1 m <sup>2</sup> and not exceeding 0.5 m <sup>2</sup>	m <sup>2</sup>	5	R	-	R -
	<b>38mm bullet proof window including frame</b>					
3	38mm x 600mm width x 1200mm high bullet resistant pay window with its frame and built in speech post which comes as a unit , frame and wooden counter	m <sup>2</sup>	3	R	-	R -
4	38mm x 1000mm width x 1200mm high bullet resistant pay window with its frame and built in speech post which comes as a unit , frame and wooden counter	m <sup>2</sup>	1	R	-	R -
Carried to final summary						R -
	<b><u>BILL NO.8</u></b>	<u>Unit</u>	<u>QTY</u>	<u>Rate</u>	<u>Amount</u>	
	<b><u>PAINTWORK</u></b>					
	For preambles see “Model Preambles for Trades” 2008 edition published by the Association of South African Quantity Surveyors					
	<b>SUPPLEMENTARY PREAMBLES</b>					
	<b>Previously painted plastered surfaces</b>					
	Surfaces shall be thoroughly washed down and allowed to dry completely before any paint is applied. Blistered or peeling paint shall be completely removed and cracks shall be opened, filled with a suitable filler and finished smooth					
	<b>Previously painted metal surfaces</b>					
	Surfaces shall be thoroughly rubbed and cleaned down. Blistered or peeling paint shall be completely removed down to bare metal					
	<b>Previously painted wood surfaces</b>					
	Surfaces shall be thoroughly cleaned down. Blistered or peeling paint shall be completely removed and cracks and crevices shall be primed, filled with a suitable filler and finished smooth					

<b>PAINTWORK, ETC TO NEW WORK</b>							
<b>ON FLOATED PLASTER</b>							
<b>One coat professional plaster primer and two coats acrylic paint</b>							
1	On ceiling and cornices	m <sup>2</sup>	200	R	-	R	-
<b>ON WOOD</b>							
<b>One coat wood primer, one Universal Undercoat and two coats Prasa Oakley Brown enamel paint</b>							
2	On doors	m <sup>2</sup>	120	R	-	R	-
<b>ON METAL</b>							
<b>One coat zinc chromate primer, one under coat and two coats professional white gloss enamel paint</b>							
3	On buglers, gates, door frames, window frames, etc	m <sup>2</sup>	100	R	-	R	-
<b>PAINTWORK ETC TO PREVIOUSLY PAINTED WORK</b>							
<b>ON FLOATED PLASTER</b>							
<b>Wash with polycell sugar soap and rinse with clean water to remove all traces of soap, remove all loose flaking paint and repair any cracks and defects, spot prime bare and repaired areas with bonding liquid and apply one coat sealer and two coats of interior quality Prasa neutral</b>							
4	On internal walls	m <sup>2</sup>	300	R	-	R	-
5	On external walls	m <sup>2</sup>	300	R	-	R	-
<b>ON METAL</b>							
<b>One coat zinc chromate primer, one under coat and two coats professional white gloss enamel paint</b>							
6	On buglers, gates, door frames, window frames, gutters and down pipes	m <sup>2</sup>	150	R	-	R	-

						R	-
	<b><u>BILL NO.9</u></b>  <b><u>MASONRY</u></b>  <b><u>BRICKWORK</u></b>  <b>20-30MPa Silver-gray Travertine or similar approved Imperial FBX clay face brick, size 222 x 106 x 73mm, manufactured in accordance with SANS 227:2007, bedded and jointed in Class I mortar and pointed with flush vertical, flush horizontal joints, with every 6th horizontal joint to be recessed. Brickwork of NFP bricks in class II mortar</b>	<u>Unit</u>	<u>QTY</u>	<u>Rate</u>		<u>Amount</u>	
1	One brick walls	m <sup>2</sup>	10	R	-	R	-
2	Extra over brick work for brick on edge header course band	m	5	R	-	R	-
	<b>Brick reinforcement</b>						
3	230mm wide reinforcement built in horizontal	m	15	R	-	R	-
						R	-
	<b><u>BILL NO.10</u></b>  <b><u>PLASTERING</u></b>  <b><u>SUPPLEMENTARY PREAMBLES</u></b>  <b><u>Preparatory work for textured finishes:</u></b>  Textured finishes to be applied to plaster (plaster elsewhere )  All surfaces are to be inspected and approved by Prasa representative before any work is commenced with  <b><u>Price for texture finishes:</u></b>  Prices are to include for all priming, preparatory work, etc  <b><u>INTERNAL PLASTER</u></b>  <b><u>Cement plaster on brick work</u></b>	<u>Unit</u>	<u>QTY</u>	<u>Rate</u>		<u>Amount</u>	

1	On walls	m <sup>2</sup>	25	R	-	R	-
2	Narrow width	m <sup>2</sup>	10	R	-	R	-
<u>EXTERNAL PLASTER</u>							
<u>Cement plaster on brick work</u>							
3	On walls	m <sup>2</sup>	25	R	-	R	-
4	Narrow width	m <sup>2</sup>	10	R	-	R	-
							R -
	<u>BILL NO.11</u>	<u>Unit</u>	<u>QTY</u>	<u>Rate</u>		<u>Amount</u>	
	<u>TILING</u>						
	WALL TILING						
	Matt Full Bodied Porcelain tiles, size 600 x 300mm x 12mm fixed to internal wall plaster backing with TAL tile adhesive mixed with TAL bonding liquid in lieu of water with joints continuous in both directions and grouted with TAL tile grout, excess grout on the surface to be cleaned with water as work proceeds.						
1	On walls	m <sup>2</sup>	20	R	-	R	-
							R -
	<u>BILL NO.12</u>	<u>Unit</u>	<u>QTY</u>	<u>Rate</u>		<u>Amount</u>	
	<u>PAVING WORK</u>						
	<u>PAVEMENT REHABILITATION</u>						
	<u>Earthworks</u>						
	Cut to spoil or stockpile for re-use, site to be located by the contractor						
1	Taking out paving block for re-use	m <sup>2</sup>	20	R	-	R	-

2	Rip to 200mm of all previous compacted areas.	m <sup>3</sup>	50	R	-	R	-
	<b>Compaction of surfaces</b>						
3	Compaction of ground surface under floors etc	m <sup>2</sup>	30	R	-	R	-
	<b>Cut and borrow to fill including all material, site to be located by the contractor</b>						
4	G5 Material in compacted layer thickness 200mm less compacted to 90% modified AASHTO density	m <sup>3</sup>	10	R	-	R	-
	<b>Coarse river sand filling supplied by the contractor</b>						
5	Geo textile membrane under paving blocks	m <sup>2</sup>	30	R	-	R	-
6	40mm Under floor, etc	m <sup>3</sup>	30	R	-	R	-
	<b>Paving with butt joint on 50mm thick river sand bed with sand and cement mixture swept into joints and hosed down including preparation of ground or filling</b>						
7	Relaying of removed paving blocks	m <sup>2</sup>	20	R	-	R	-
8	80mm grey interlocking paving blocks	m <sup>2</sup>	20	R	-	R	-
						R	-
	<b><u>BILL NO.13</u></b>	<u>Unit</u>	<u>QTY</u>	<u>Rate</u>	<u>Amount</u>		
	<b><u>FENCING AND GATES</u></b>						
	<b>Construction</b>						
	3.4.1 Setting of Post						
	a) Concrete shall be set in holes to a minimum depth of 650 mm for line posts and 900 mm corner post or brace post, and backfilled with earth except where otherwise specified.						
	b) Postholes shall be approximately 100 mm larger than the diameter or side dimension of the posts.						
	c) Earth backfill around posts shall be thoroughly						



tamped in layers not thicker than 100 mm and shall completely fill the postholes up to the ground surface.

d) Concrete backfill around the post shall be rodded into place in layers not thicker than 250 mm and shall completely fill the posthole up to the ground surface.

e) Backfill, either earth or concrete shall be crowned up around posts at the ground surface.

f) No stress shall be applied to posts set in concrete until at least 24 hours after the concrete has set, but for repairs the temporarily fence must be installed until the completion of repairs.

### **3.5 Corner assembly**

3.5.1 Unless otherwise specified, corner assemblies shall be installed at all points where the fence alignment changes 15 degrees or more.

### **3.6 End Panels**

3.6.1 End panel shall be built at the gates and fence ends

### **3.7 Pull or Post assembly**

Pull or Post assemblies shall be installed at the following locations:

3.7.1 In straight fence section, at intervals of approximately 200m

3.7.2 At any point where the vertical angle described by two adjacent reaches of wire is upward and exceeds 10 degrees.

### **3.8 1.8m Ripper Razor mesh Fencing**

Posts: Round hot dip 3300mm H galvanized tubing post 76 x 76 x 1.6mm.

To be 6m at 6m center's

Panels: 2.40m high x 6m wide galvanized panels

Foundation: Foundation pits to be 300mm x 300mm x 650mm deep

Concrete strength to be 30Mpa

Base plates and anchor bolts to be used for fences that need to be erected and fixed on concrete walls and parapets. And hi-tensile anti vandal shear nuts to be used

Steel: Finish to be hot dipped galvanized to comply with SABS 763 Specifications and must be painted on request.

Steel sections shall comply with the requirements of CKS 82

1	<p>Ripper razor mesh 2400 x 6m Stay 2.4m x 38 x 1.6m Y standard 2450m Plain wire 3.15mm LG (50Kg) 810m Plain wire 1.6mm LG (50Kg) 3175m</p> <p><b>Constructed of galvanized steel sections, palisade fence with an 2400mm min height. The materials, construction and installation procedure for steel palisade fences to be in accordance with SANS 30112:2004 " South African National Standard for fence part 12 specifications for steel Palisade fences". Reference to applicable SANS specifications for full details.</b></p> <p>Supply and erect 2.4m high galvanized Razor sharp diamond mesh erected as a complete security fencing as per specification briefly discus above. all the installation to be done as per manufactures specification</p>	m	50	R	-	R	-
						R	-
	<p><b><u>BILL NO.14</u></b></p> <p><b><u>ROOF COVERING ETC</u></b></p> <p><b><u>PROFILED METAL SHEETING AND ACCESSORIES</u></b></p> <p><b><u>Roof sheeting to be Concealed Fix interlocking "KLIP-LOK 700", 0,58mm thick heavy industrial Z275 spelter galvanised steel sheeting with Chromadek, ColorPlus, Colourbond or Globalcoat finish to one side and Grey other side and accessories, fixed to steel purlins using SL 700 approved clips and fasteners. Cover width 700mm. High wind - 120km/h plus - loading to be considered with installation and fixing must be in accordance with manufacturer's recommendations and specifications.</u></b></p>	<u>Unit</u>	<u>QTY</u>	<u>Rate</u>		<u>Amount</u>	
1	Roof covering with pitch not exceeding 25 degrees	m <sup>2</sup>	200	R	-	R	-
Carried to final summary						R	-
	<p><b><u>BILL NO.15</u></b></p> <p><b>Hot mix asphalt resurfacing</b></p> <p><b>The surface to be sprayed with primer (SS60), A 6.7mm continuous fine asphalt mix with a temperature not less than 1000C to be laid maintaining a thickness of 40mm after compaction. The completed surface to be carefully</b></p>	<u>Unit</u>	<u>QTY</u>	<u>Rate</u>		<u>Amount</u>	

	<b>inspected for rough or low spots, surface irregularities, untidy edges, incomplete compaction or other faults and these will need to be rectified.</b>						
1	40mm thick after compaction hot mix asphalt resurfacing	m <sup>2</sup>	100	R	-	R	-
Carried to final summary						R	-

**CIVIL WORKS FINAL SUMMARY****MINOR UPGRADES AT ELSBURG STATION**

	STATION NAME	PAGE	AMOUNT
1	Alterations	3 to 4	R -
2	Carpentry and Joinery	4 to 6	R -
3	Ceiling work	6 to 7	R -
4	Ironmongery	7	R -
5	Plumbing work	7 to 10	R -
6	Metal work	10 to 11	R -
7	Glazing	11 to 12	R -
8	Paint work	12 to 14	R -
9	Masonry	14	R -
10	Plastering	14 to 15	R -
11	Tiling	15	R -
12	Paving rehabilitation	15 to 16	R -
13	Fencing	16 to 18	R -
14	Roof covering	18	R -
15	Resurfacing	18 to 19	R -
SUB TOTAL			R -
ADD VAT @ 15%			R -
TOTAL			R -

## **ANNEXURE B ELECTRICAL WORKS: SCHEDULE OF QUANTITIES**

### PROVISIONAL SCHEDULE OF QUANTITIES

Major Supply and Installation of Platform and Shelter Lighting at  
Elsburg Station

	<u>Description</u>	<u>Unit</u>	<u>QTY</u>	<u>Rate</u>	<u>Amount</u>
	<p><b>OCCUPATIONAL HEALTH AND SAFETY</b></p> <p>The contractor shall comply with all the requirements set out in the Construction Regulations, issued under The Occupational Health &amp; Safety Act no 85 of 1993.</p> <p>Safety file shall be provided by the contractor prior to commencement of work.</p> <p>The contractor shall carry out the works with as little noise and mess as possible. All rubble shall be taken away from site on a daily basis.</p> <p>Note: All designated items should comply with local content threshold.</p> <p><u>Schedule of Quantities</u></p> <p>Unless otherwise stated the description of each item shall be deemed to include manufacturing, conveying, and delivering, unloading, storing, unpacking, hoisting, setting, fitting and fixing in position, cutting, waste, patterns, plant, temporary works, establishment charges, profit and other obligations arising out of the conditions of contract</p>				
	<p><b><u>BILL NO.1</u></b></p> <p><b><u>ELECTRICAL WORK</u></b></p> <p>Fluorescent fittings waterproofed fixture white including 2x58w T8 LED Fluorescent tubes and polycarbonate base with clear polycarbonate cover IP65</p> <p>Waterproof polycarbonate LED 5ft 2 x58w T8 fluorescent fitting including 2 LED tubes</p>	<u>Unit</u>	<u>QTY</u>	<u>Rate</u>	<u>Amount</u>
1		No.	10	R -	R -

2	1200m (4 foot) 2x36w Open channel cool white LED Fluorescent fittings double tubes for ticket office building	No.	20	R	-	R	-
	<b>Bulkhead fittings</b>						
3	7w LED bulk head fittings completely with bulbs	No.	6	R	-	R	-
	<b>Bulkhead fittings</b>						
4	Vandal proof incandescent compact ceiling light fittings 75w power, 1210 lumens with Die cast aluminum housing and tough polycarbonate refractors	No.	25	R	-	R	-
	<b>The luminaire to consists of a separate lamp, control gear and spigot compartment. The control gear housing to be separated from the lamp housing for thermal reasons. To be designed to operate 70/400W mercury vapour and 70/400W high- pressure sodium/metal halide lamps.</b>						
	<b>High mast pole street light fitting</b>						
5	The use of cherry picker/scaffolder or any other equipment to be used for replacing of masts pole fittings and bulbs for the duration of the project	Item	1	R	-	R	-
6	279W LED Luminaire (34460 lumen) with 3 an optical compartment with LED engine, glass protector, LED warm light with colour temperature of 3000 kelvin, gear compartment and a spigot top entry adjustable compartment. Both optical and gear compartments to be rated IP 66. 20kV/kA surge protection. The luminaire housing to be manufactured of marine grade cast aluminium (EN 1706 AC-44300). Including 1 opening tool	No.	3	R	-	R	-
	<b><u>SWITCHES</u></b>						
7	Day light switches	No.	6	R	-	R	-
8	11 kw contactors	No.	4	R	-	R	-
9	White 1 lever 2 way switch	No.	15	R	-	R	-

10	White 2 lever 1 way switch	No.	5	R	-	R	-
<b>Electrical cables</b>							
11	70mm <sup>2</sup> 4 core cable on sleeves (priced elsewhere)	m	30	R	-	R	-
12	35mm <sup>2</sup> 4 core cable on sleeves (priced elsewhere)	m	50	R	-	R	-
13	16mm <sup>2</sup> 4 core cable on sleeves (priced elsewhere)	m	750	R	-	R	-
14	4mm <sup>2</sup> GP wires for stove and geyser	m	20	R	-	R	-
15	2.5mm <sup>2</sup> GP wires (Red, white, blue, black and earth) for lights rewiring of shelters, footbridge, ablutions and access points in 3 phase system	m	300	R	-	R	-
16	2.5mm <sup>2</sup> suffix cable or GP wire for plugs	m	100	R	-	R	-
17	1.5mm <sup>2</sup> suffix cable or GP wire for lights	m	100	R	-	R	-
<b>Electrical casing</b>							
18	20mm galvanized SABS conduit completely with all the couplings, galvanized saddle, spacer bar assembly and heavy duty U clamps	m	300	R	-	R	-
19	20mm PVC SABS conduit completely with all the couplings, saddle, spacer bar assembly and heavy duty U clamps	m	50	R	-	R	-
<b>Circuit breakers</b>							
20	10 A 1P 6KA single circuit breaker	No.	20	R	-	R	-
21	10 A 3P 6KA circuit breaker	No.	5	R	-	R	-
22	12 A 3P Contactor	No.	2	R	-	R	-
23	20 A 1P 6KA single circuit breaker	No.	25	R	-	R	-
24	20 A 3P 6KA circuit breaker	No.	3	R	-	R	-

25	30 A 1P 6KA circuit breaker	No.	3	R	-	R	-
26	30 A 2P 6KA circuit breaker	No.	3	R	-	R	-
27	40 A 2P 6KA circuit breaker	No.	3	R	-	R	-
28	60 A 3P AC1 Contactor	No.	2	R	-	R	-
29	63 A 2P 6KA circuit breaker	No.	2	R	-	R	-
30	150 A main circuit breaker	No.	2	R	-	R	-
31	63 A 3P 6KA circuit breaker	No.	2	R	-	R	-
32	63 A 30Ma 3P + N Earth leakage	No.	2	R	-	R	-
33	250 A 3P Isolator	No.	1	R	-	R	-
34	40 A stove Isolator	No.	1	R	-	R	-
35	30A Air conditioner Isolator	No.	2	R	-	R	-
<b>PLUGS</b>							
36	4 x 4 Double plug	No.	10	R	-	R	-
37	4 x 4 single plug	No.	20	R	-	R	-
<b>DB BOARDS</b>							
38	1000h x 400w x 400d x 2.0mm stainless steel orange IP 65 weatherproofed floor mounted lockable Station kiosk with 1 door completely rewired with all the circuit breakers mounted on din rail as per above and all other accessories, connected to the station	No.	1	R	-	R	-
39	Flush mounted min distribution board completely	No.	2	R	-	R	-
40	Lockable fiber glass water proofed 12 way CBI DB	No.	5	R	-	R	-



	Eaves box to be mounted on external walls for platform shelters, waiting areas, access point, ablutions, etc						
	<b>HVAC Systems</b>						
41	Supply, install and commission new 24000 BTU split unit, inverter technology air conditioner completely with all accessories (drain pipe, amorflex, copper pipe, refrigerant, cable, communication wire, brackets, circuit breaker, isolator, etc )	No.	2	R	-	R	-
	<b><u>ELECTRICAL COMPLIANCE</u></b>						
	All work to comply to SANS 10142 Compliance certificate to be provided on completion Pricing to include all necessary complete connection						
42	Certificate of compliance and all other testing required including 12 month guarantee certificate	Item	1	R	-	R	-
Carried to final summary						R	-
	<b><u>BILL NO. 2</u></b>	<u>Unit</u>	<u>QTY</u>	<u>Rate</u>		<u>Amount</u>	
	<b><u>EARTHWORKS</u></b>						
	<b><u>EXCAVATION, FILLING, ETC</u></b>						
1	Cutting of tar and apply hot mix asphalt re-surfacing after cable has been laid	m <sup>2</sup>	400	R	-	R	-
	<b>Excavation in earth not exceeding 2m deep</b>						
2	Trenches	m <sup>3</sup>	300	R	-	R	-
	<b>15 Mpa/20 mm unreinforced concrete</b>						
3	1m long * 0.5m wide x 0.1m thick Concrete block on every ten meter interval on top of underground cable	m <sup>3</sup>	60	R	-	R	-
	<b>Earth filing obtain from the excavation and/or prescribed stock piles on site compacted to 90% Mod AASHTO density</b>						
4	Backfilling to holes after concrete has been laid	m <sup>3</sup>	400	R	-	R	-
Carried to final summary						R	-

***ELECTRICAL WORK FINAL SUMMARY*****Major Supply and Installation of Platform and Shelter Lighting at Elsburg Station**

	STATION NAME	PAGE	AMOUNT
1	Electrical work	21 to 25	R -
2	Earthworks	25	R -
SUB TOTAL			R -
ADD VAT @ 15%			R -
TOTAL			R -

**ELSBURG STATION IMPROVEMENT FINAL SUMMARY**

	DESCRIPTION	PAGE	AMOUNT
1	Annexure A Civil works BoQ Final summary	3 to 20	R -
2	Annexure B Electrical works BoQ Final summary	21 to 26	R -
SUB TOTAL			R -
ADD VAT @ 15%			R -
TOTAL			R -