

ITEM NO	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
	BILL NO 1				
	PRELIMINARIES AND GENERAL				
	FIXED COSTS				
	Site Establishment for: Delivery of Office Converted Containers	Once Off	2		
	Site Establishment for: Delivery of 9m Open Plan Container (Dining Area)	Once Off	1		
	Site Establishment for: Delivery of Kitchen Converted Container	Once Off	1		
	Site Establishment for: Delivery of Steel Storage Container	Once Off	1		
	Site De-Establishment for: Collection of Office Converted Containers	Once Off	2		
	Site De-Establishment for: Collection of 9m Open Plan Container	Once Off	1		
	Site De-Establishment for: Collection of Kitchen Converted Container	Once Off	1		
	Site De-Establishment for: Collection of Steel Storage Container	Once Off	1		
	Site Establishment for: Delivery of Hired Plant	Once Off	1		
	Site Establishment for: Collection of Hired Plant	Once Off	1		
	Medicals - Entry	Once Off	48		
	Medicals - Exit	Once Off	48		
	Standard PPE	Once Off	48		
	Safety File	Once Off	1		
	Police Clearance Certification	No	48		
	Delivery and Collection of Portable Flushable Toilets	Once Off	4		
	TIME RELATED COSTS				
	Light Driven Vehicle (2 x 4)	Per Month	8		
	Home-Work-Home (22 Seater Bus) (2No Off)	Per Month	16		
	3 x 6m Office Converted Containers (2No Off)	Per Month	16		
	3 x 9m Open Plan Container	Per Month	8		
	3 x 6m Kitchen Converted Container L-6m	Per Month	8		
	3.4 x 6m Steel Storage Container L-6m	Per Month	8		
	Portable Flushable Toilets with handwash basin (To be serviced once a week) (2No Off)	Per Month	16		
	Sub-Total for P&Gs:				
	Hired Plant Usage:				
	TLB	Days	84		
	Water tank	Days	84		
	Cherry Picker	Days	84		
	12m ³ Tipper Truck	Days	84		
	Rammer	Days	84		
	Crane Truck	Days	84		
	Front End Loader	Days	84		
	Excavator (to include Pecker and Moil, when needed)	Days	42		
	Generator	Days	63		
	Grader	Days	42		
	10 Ton Roller Compactor	Days	42		
	Plate Compactor	Days	42		
	Sub-Total for Hired Plant Usage:				
	RESOURCES				
	Design Crew				
	Electrical Engineer or Technologist [Professionally Registered with ECSA and Minimum of 5 Years Exp]	Hours	1301		
	Civil Engineer or Technologist [Professionally Registered with ECSA and Minimum of 5 Years Exp]	Hours	1301		
	ICT Specialist [5-10 Years Exp]	Hours	1301		
	Draughtsman [Minimum 5 Years Exp]	Hours	1301		
	Structural Engineer or Technologist [Professionally Registered with ECSA and Minimum of 5 Years Exp]	Hours	1301		
	Geotechnical Engineer or Technologist [Professionally Registered with ECSA and Minimum of 5 Years Exp]	Hours	1301		
	Control and Instrumentation Engineer or Technologist [Professionally Registered with ECSA and Minimum of 5 Years Exp]	Hours	1301		
	Site Crew				
	Project Manager [Professionally Registered with SACPCMP and Minimum of 5 Years Exp]	Hours	1301		
	Site Civil Supervisor [5-10 Year Exp]	Hours	1301		
	Site Electrical Supervisor [5-10 Years Exp]	Hours	1301		
	Environmental Officer [1-5 Years Exp]	Hours	1301		
	Safety Officer [1-5 Years Exp]	Hours	1301		
	Quality Officer [1-5 Years Exp]	Hours	1301		
	Land Surveyor [Professionally Registered with SAGC and Minimum of 3 Years Exp]	Hours	1301		
	Civil Technician [1-5 Years Exp]	Hours	1301		
	General Worker [12No Off]	Hours	15616		
	Semi-skilled Labour [12No Off]	Hours	15616		
	Plant Operator	Hours	1301		
	Concrete hand	Hours	1301		
	IT Engineer	Hours	651		
	Electrician	Hours	651		
	Senior Technician	Hours	1301		
	Assistant Technician	Hours	1301		
	Document Controller [Minimum 3 Years Exp]	Hours	1301		
	Sub-Total for Design and Site Resources:				
	Carried to Summary				
	BUILDERS WORK				
	BILL NO 1: PRELIMINARIES AND GENERAL (PROVISIONAL)				

ITEM NO	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
	BILL NO 2 ALTERATIONS SUPPLEMENTARY PREAMBLES View site: Before submitting their tender the contractor shall visit the site and satisfy themselves 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 Old materials to become property of the Contractor: Old materials from alterations, except where described as to be re-used or handed over, become the property of the Employer REMOVAL OF EXISTING WORK: Carefully take down and removing existing gates, fence, etc. including cutting joints: Diamond razor mesh fencing approximately 1800mm high including poles embedded in concrete 1200 x 1800mm high Mild steel pedestrian gate including all necessary accessories 3500mm wide gate REMOVAL OF RUBBISH, DISUSED MATERIALS, ETC Removal of rubbish, disused materials, etc Remove from site all rubbish, disused or unwanted materials around the perimeter fence of the building and cart away to an area to be directed by the Site/Project Manager Carried to Summary				
		m	955		
		No	3		
		No	1		
		Item	1		
	BUILDERS WORK BILL NO 2: ALTERATIONS (PROVISIONAL)				

ITEM NO	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
	BILL NO 3				
	EARTHWORKS				
	SUPPLEMENTARY PREAMBLES				
	Nature of ground:				
	The nature of the ground is assumed to be gravel, therefore "earth", but possibly interspersed with "soft rock" or "hard rock"				
	Should the Contractor encounter any "soft" or "hard" rock in the excavations, he shall immediately notify the Engineer who shall be the sole arbiter as to what constitutes "soft" or "hard" rock for final account purposes				
	Scanning:				
	Scanning of underground services and utilities shall precede all excavation works	Days	3		
	Site Clearance:				
	Allow for clearing the area of the site to be built upon of grass, weeds, shrubs, debris, etc, including grubbing up all roots, scoffling up as required and cart away all vegetation and debris	m ²	955		
	Strip average 150mm thick layer of topsoil and recompact (measures elsewhere)	m ³	688.50		
	EXCAVATIONS, FILLING, ETC OTHER THAN BULK:				
	Excavation in earth not exceeding 2m deep:				
	Trenches (Anti-Tunneling and Cable Sleeves)	m ³	453.63		
	Holes	m ³	155.73		
	Road Crossing	m ³	25.92		
	Extra over trench and hole excavations in earth for excavation in:				
	Soft rock	m ³	63.53		
	Hard rock	m ³	63.53		
	Extra over all excavations for carting away				
	Surplus material from excavations and/or stock piles on site to a dumping site to be located by the employer	m ³	635.27		
	Keeping excavations free of water				
	Keeping excavations free of all water other than subterranean water	Item	1		
	EARTH FILLING, ETC.				
	Import G5 material from commercial sources and use to fill, compact to 93% Mod. AASHTO max density:				
	2% Slope from the edge of the building apron slab	m ³	780.30		
	Compaction of surfaces:				
	Compaction of existing ground surface under floors, paving, etc including scarifying for a depth of 150mm, breaking down oversize material, adding suitable material where necessary and compacting to 95% Mod AASHTO density	m ²	4590		
	Earth filling obtained from the excavations and/or prescribed stock piles on site, compacted to 90% Mod AASHTO max density				
	Backfilling to trenches, holes, etc	m ³	196.08		
	Import G10 material from commercial sources and use to fill in 150mm layers, compact to 95% Mod. AASHTO max density:				
	Patrol Access road	m ³	330		
	Import G5 material from commercial sources and use to fill in 150mm layers, compact to 95% Mod. AASHTO max density:				
	Backfilling to trenches, holes, etc	m ³	162.35		
	Import G5 material from commercial sources and use to fill in 60mm layers, compact to 95% Mod. AASHTO max density:				
	Sub-base				
	Construct sub-base with material from commercial source compacted to 95% Mod MAASHTO				
	60mm cut through the road (G5)	m ³	1.728		

	Import G5 material from commercial sources and use to fill in 150mm layers, compact to 90% Mod. AASHTO max density:				
	Sub-base				
	Construct sub-base with material from commercial source compacted to 90% Mod MAASHTO				
	Aggregated surface on top of sub-base (Patrol Access road)	m ²	365.09		
	Import G4 material from commercial sources and use to fill in 60mm layers, compact to 95% Mod. AASHTO max density:				
	Base				
	Construct base with material from commercial source compacted to 95% Mod MAASHTO				
	60mm cut through the road (G4)	m ³	1.728		
	Aggregated Surface				
	32mm gravel filling on top of sub-base	m ²	28.8		
	Compaction of surfaces:				
	Compaction of existing ground surface under floors, paving, etc and compacting to 90% Mod AASHTO density	m ²	2749.5		
	Compaction of existing ground surface under floors, paving, etc for a depth of 100mm, breaking down oversize material, adding suitable material where necessary and compacting to 90% Mod AASHTO density	m ²	4877.5		
	Compaction of existing ground surface under floors, paving, etc for a depth of 260mm, breaking down oversize material, adding suitable material where necessary and compacting to 90% Mod AASHTO density	m ²	83.16		
	Compaction of existing ground surface under floors, paving, etc for a depth of 150mm, breaking down oversize material, adding suitable material where necessary and compacting to 93% Mod AASHTO density	m ²	477.5		
	Compaction of existing ground surface under floors, paving, etc for a depth of 150mm, breaking down oversize material, adding suitable material where necessary and compacting to 95% Mod AASHTO density	m ²	990.09		
	Compaction of existing ground surface under floors, paving, etc for a depth of 60mm, breaking down oversize material, adding suitable material where necessary and compacting to 95% Mod AASHTO density	m ²	1069.2		
	Prescribed density tests on filling:				
	Modified AASHTO Density test	No	100		
	Carried to Final Summary				
	BUILDERS WORK				
	BILL NO 3: EARTHWORKS (PROVISIONAL)				

ITEM NO	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
	BILL NO 4				
	CONCRETE, FORMWORK AND REINFORCEMENT				
	Cost of tests The costs of making, storing and testing of concrete test cubes as required under 7 "Tests" of SABS 1200G shall include the cost of providing cube moulds necessary for the purpose, for testing costs and for submitting reports on the tests to the Engineer. The testing shall be undertaken by an independent firm or institution nominated by the contractor to the approval of the Engineer				
	CONCRETE WORK				
	UNREINFORCED CONCRETE CAST AGAINST EXCAVATED SURFACES				
	50MPa/19mm concrete:				
	Blinding	m ³	1		
	35MPa/19mm concrete:				
	Road crossing	m ³	1.27		
	25MPa/19mm concrete:				
	Bases for Concrete poles	m ³	21.60		
	20MPa/19mm concrete:				
	Holes, etc	m ³	88.19		
	Anti-tunnelling T-Beam	m ³	47.75		
	15MPa/19mm concrete:				
	Bases for Galvanised poles	m ³	2.20		

	ROUGH FORMWORK (DEGREE OF ACCURACY III)				
	Rough formwork to sides:				
	Anti-tunnelling T-Beam	m ²	448.85		
	25mm x 25mm Chamfer to Stub Columns	m	79.20		
	TEST BLOCK				
	Making and testing 150 x 150 x 150mm concrete strength test cube (3 sets/test) and submit report to the Engineer/Employer (only successful tests will be paid for)	Sets	50		
	CONCRETE SUNDRIES				
	30MPa no-shrink grout:				
	Bedding approximately 50mm thick under 240mm x 240mm base plate	No	44		
	REINFORCED CONCRETE CAST AGAINST EXCAVATED SURFACES				
	35MPa/19mm concrete:				
	Bases for Concrete poles and Gates Bases	m ³	3.51		
	ROUGH FORMWORK (DEGREE OF ACCURACY III)				
	Rough formwork to sides:				
	Manhole bases and top cover	m ²	26.40		
	REINFORCEMENT				
	High tensile steel reinforcement to structural concrete work:				
	395 Mesh panel (size: 6.00m x 2.40m x 8mm) to Manhole bases	No	3.00		
	High tensile steel reinforcement to structural concrete work:				
	High tensile steel bar reinforcement (Y16)	t	0.8342		
	High tensile steel bar reinforcement (Y12)	t	1.2190		
	Mild steel bar reinforcement (R10)	t	0.2851		
	Carried to Summary				
	BUILDERS WORK				
	BILL NO 4: CONCRETE, FORMWORK AND REINFORCEMENT (PROVISIONAL)				

ITEM NO	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
	BILL NO 5 STRUCTURAL STEEL				
	Design and construct approximately 20m (width) x 3m (depth) bridge/culvert crossings with all fixations at all stormwater drainage interfece points. All steel members shall be galvanised	No	3		
	Construct and install approximately 22m (length) guardrail system with all fixation along all stormwater crossings along the fence line. Guardrail to comply with the requirements of SANS 1350	m	288		
	Carried to Summary				
	BUILDERS WORK				
	BILL NO 5: STRUCTURAL STEEL (PROVISIONAL)				

ITEM NO	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
	BILL NO 6 METALWORK				
	FENCING				
	SUPPLY, DELIVER and INSTALL: Single Tier Electric Fence which should be freestanding and erected at a minimum of 5m away from the mechanical fence. 3000mm high above ground level fixed to 100mm x 100mm x 3mm Square tubing 3000mm long (strain post) . Strain post will have 2x 3000m long struts one in each direction manufactured from 50mm x 50mm x 2mm Square tubing. Anti-climb system comprising of spike rails bolted along the fence top, coupled with ripper coil to be installed. All material to be galvanised coated. Strain posts to be planted in 20MPa concrete 500mm x 600mm deep all round the perimeter and struts to be planted in 20MPa concrete 500mm x 300mm deep all around the perimeter. Warning signs shall be displayed conspicuously along the length of the electric fence, fence posts and all access points. The minimum sign dimensions shall be 200mm x 100mm and the lettering and symbols shall be in accordance with SANS 60335-2-76	m	955		
	Supply of 3.0m high Strain posts	No	274		
	Supply of 3.0m long Struts posts	No	47		
	SUPPLY, DELIVER and INSTALL: Double Tier Mechanical Fence, 3000mm high above ground level fixed to 40mm x 40mm x 3mm Hot rolled steel angles 3000mm long (Intermediate post). Intermediate post will have 2x 3000m long struts one in each direction manufactured from 40mm x 40mm x 3mm Angles. Anti-climb system comprising of spike rails bolted along the fence top, coupled with ripper coil to be installed. All material to be galvanised coated. Strain posts to be planted in 20MPa concrete 300mm x 300mm deep all round the perimeter. Warning signs shall be displayed conspicuously along the length of the electric fence, fence posts and all access points. The minimum sign dimensions shall be 200mm x 100mm and the lettering and symbols shall be in accordance with SANS 60335-2-76	m	1910		
	Supply of 3.0m Angles	No	319		
	Supply of 3.0m long Struts angles	No	28		
	10m Overall Length of Lockable Double leaf gates, frames to have rectangular hollow sections and joints shall be continuously welded. The overall height of the gates when fixed shall not be less than the adjacent fencing height. Each gate leaf to have roller wheels and the gate to be fitted with a sliding horizontal locking bar that is secured to a locking plate welded	No	3		
	Supply and install Double Leaf Swing gates where each leaf is approximately 2.15m wide x 3.73m high, including posts, barbed wire and need accessories and shall be hot dip galvanised.	No	6		
	Carried to Summary				
	BUILDERS WORK BILL NO 6: METALWORK (PROVISIONAL)				

ITEM NO	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
	BILL NO 7 MANHOLES & COVERS, SLEEVES, CONCRETE POLES, etc				
	Concrete poles				
	7.5m/130 Diameter tip / 2.5kN Spun Concrete Pole. Poles shall be earthed for protection against lightning and should be earthed via 50 x 3mm earth tails or similar	No	15		
	Concrete manhole rings				
	750 x 0.25 Ring manhole	No	15		
	750 x 0.50 Ring manhole	No	15		
	Kabelflex HDPE pipe				
	DN110 (50m roll) with couplings (Remeasurable)	Roll	82		
	110mm Underground PVC Plain 45 Degree Bend	No	15		
	50mm PVC Plain 45 Degree Bend cast in concrete approximately 800mm long	No	88		
	Gloc Lockable Manhole Cover and Frame (SANS 50124 EN124 Class C250) in cover slab				
	Manhole cover + frame with locking key	No	15		
	Carried to Summary				
	BUILDERS WORK BILL NO 7: EXTERNAL WORKS, MANHOLES, ROADS, SLEEVES, etc (PROVISIONAL)				

ITEM NO	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
	BILL NO 8				
	THERMAL IMAGING SYSTEM (CCTV)				
	Supply PTZ Thermal Camera	No	4		
	Supply Thermal Network Camera (Fixed Thermal)	No	8		
	Supply Fixed IR Camera	No	2		
	Supply CCTV NVMS Platform. Basic 1U server and 512 Camera Licenses (No failover platform)	No	15		
	Supply BASIC MANAGEMENT SERVER (No failover platform and No Integration platform). Dual power, RAID 1, Intel Xeon E-2336 2.9GHz, 16GB UDIMM, 3200MT/s, ECC, 2x 300GB 10K RPM SAS 12GBPS 512N 2.5IN HOT- PLUG HARD, 1x 2.4TB 10K RPM SAS 12GBPS 512E 2.5IN HOT-PLUG HARD2.4TB 10K RPM SAS 12GBPS 512E 2.5IN HOT-PLUG HARD Microsoft_WS_Standard_2019_16 cores_2VMs. 3Y Basic Onsite To 3Y ProSupport	No	1		
	Supply Dedicated Video data Storage Solution. 3U Bays, RAID 5 Configuration with Parity rebuild and Spare drives. Total 128TB (Usable 112TB on RAID 5). 30 Day storage @ nominal frame and quality standards, based on 70% daily motion principles of detection per 24 hours	No	1		
	Supply 42U CABINET. 1Meter deep, Including blanking plates, cable entry and management	No	1		
	Supply Clearline Surge Protected 6way Power distribution units	No	2		
	Supply Hisense "46" HD Digital Signage Panel. Narrow Bezel. 24/7 operation	No	2		
	Supply Video Wall Brackets (specific for video walls) and cabling	No	2		
	Supply Video Wall HDMI decoders. H264/H265 / 4K/1080P	No	1		
	Supply Processor: Intel Core i7-12700 (25M Cache, up to 4.9 GHz) Memory: 16GB (2x8GB) 4400MHz DDR5 4 DIMM slots (dual channel) Up to 128GB or up to 3200MHz Non-ECC & ECC DDR4 Memory Hard Drive: M.2 2280 512GB NVM gen4 Class 40 Optical Drive: 8x DVD ROM Graphics: GeForce RTX 3070 Ti 8GB GDDR6X DX12 Graphics Card. Keyboard: KB216 Multimedia USB Keyboard Mouse: Optical Mouse Operating System: Windows 11 Professional (64Bit) + DELL MONITOR P2722H 27 INCH	No	2		
	Supply PTZ CAMERA Keyboard	No	2		
	Supply Ergonomic designed Control room furniture. 2 to 3 operator desk, cable management and seating	Sum	1		
	Supply and Installation surface cable hardware. Inclusive of Bosal steel conduits, clamps, PVC trunking, power skirting etc)	Sum	1		
	Supply RM-300X D00 - Remote Microphone for VX-3000 Series	No	1		
	Supply IP Horn Maximum sound pressure level is 124dB at 15W powered with POE+	No	15		
	Supply and install and splice 6 core Single mode fiber cable	m	1000		
	Supply and install 5.6m Galvanised steel stepped pole with access opening cover plate to have 250mm x 250mm base plate	No	44		
	Supply and install 50 x 3 Flat Copper fastened to H.D Bolts with 2 Nuts and 2 Washers (450mm width)	No	12		
	Supply and install 4 x M20 Rods approximately 700mm long, 16 x M20 Nuts and 12 x Washers per stub column to receive galvanised pole	No	44		
	Supply Fiber patch panels	No	15		
	Supply and install 465 x 145mm Inspection Boxes (Junction Boxes) mounted on concrete poles	No	15		
	Networking Hardware Per Pole and Head end equipment (Field Hardened PoE switches, media converters, SFP modules, rack/s)	No	15		
	Supply and install Power Reticulation with CoC for poles and head end equipment (power cabling, power points, surge protection, Power cable installation and termination certification)	No	15		
	Supply and install Network CAT6e Cabling, termination per pole and head end equipment	No	15		
	3-Phase 400V 100A IP65 DB Box	No	4		
	DB Support Brackets	No	4		
	60W LED High performance Luminaire including fixation	No	44		
	4mm2/4C/PCV/SWA/PVC Power supply cables	m	1200		
	16mm2/4C/PCV/SWA/PVC Power supply cables	m	1200		

	Cable termination	Sum	1		
	Commissioning, Testing, Integration and handover of the whole system with As Built drawings and Manuals	Days	5		
	Conduit Mandrel Test				
	The contractor to conduct a mandrel test on the conduit pipes after installation is complete	Days	3		
	Plant labelling				
	Anodised Aluminium tags - Label Type GA	No	103		
	Carried to Summary				
	BUILDERS WORK				
	BILL NO 8: THERMAL IMAGING SYSTEM (CCTV) (PROVISIONAL)				

	SUMMARY				
BILL 1	PRELIMINARIES & GENERAL				
BILL 2	ALTERATIONS				
BILL 3	EARTHWORKS				
BILL 4	CONCRETE, FORMWORK AND REINFORCEMENT				
BILL 5	STRUCTURAL STEEL				
BILL 6	METALWORK				
BILL 7	EXTERNAL WORKS, MANHOLES, ROADS, SLEEVES, etc				
BILL 8	THERMAL IMAGING SYSTEM (CCTV)				
	SUB-TOTAL AMOUNT (EXCL VAT)				
	ADD: 0.25% for Contract Skills Development Goal (As per CIDB)		0.25%		
	TOTAL AMOUNT (EXCL VAT)				