PROJECT: ALTERATIONS AND ADDITIONS TO EXISTING BUILDING STRUCTURES FOR A PERIOD OF EIGHT (8) MONTHS AT KUSILE POWER STATION

ITEM NO.	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
	ITEM 1				
1	**PRELIMINARIES AND GENERAL**				
1.1	Preliminaries and General	Item	1.00		
	Total Item 1 (Preliminaries and General) carried to Final Summary				
	ITEM 2				
1.2	**RESOURCES**				
1.2.1	Design and Site Supervision	Item	1.00		
1.2.2	Normal Hours	Item	1.00		
1.2.3	Saturdays Overtime	Item	1.00		
1.2.4	Public Holidays ad Sundays Overtime	Item	1.00		
	Total Item 2 (Resources) carried to Final Summary				
	ITEM 3				
2	**CONSTRUCTION WORK**				
2.1	Alterations	Item	1.00		
2.2	Building Works	Item	1.00		
2.3	HVAC	Item	1.00		
2.4	Water Detection	Item	1.00		
2.5	Fire Detection	Item	1.00		
2.6	Signage	Item	1.00		
2.7	Electrical Installation	Item	1.00		
	Total for Construction Work carried to Final Summary				
	FINAL SUMMARY				
ITEM 1	PRELIMINARIES AND GENERAL				
ITEM 2	RESOURCES				
ITEM 3	CONSTRUCTION WORK				
	Final Summary Total (Excl VAT)				

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Item No	Description	Unit	NO. OFF	Qty	Rate	Amount
1	**PRELIMINARIES & GENERAL**					
1	**PRELIMINARIES & GENERAL**					
1.1.1	Site Establishment for: Delivery of Office Converted Containers (6m x 12m) (1 Off) *Insulation, Illumination, Aircon and Office Equipments*	Once Off	1	1		
1.1.2	Site Establishment for: Delivery of Kitchen Converted Container (3m x 12m) (1 Off) *Steel Kitchen Sink with Cabinet, Picnic Solid Wood Table and Chairs , Microwave and Fridge*	Once Off	1	1		
1.1.3	Site Establishment for: Delivery of Flushable Ablution Container - Female (3m x 6m) (1 Off) *4 Toilets, 4 SHE Bins, 4 Hand Wash and basin with soap dispensor*	Once Off	1	1		
1.1.4	Site Establishment for: Delivery of Flushable Ablution Container - Male (3m x 6m) (1 Off) *3 Toilets, 3 Urinal, 3 Hand Wash and basin with soap dispensor*	Once Off	1	1		
1.1.5	Site Establishment for: Delivery of Female change rooms with 30 lockers (3m x 6m) (1 Off)	Once Off	1	1		
1.1.6	Site Establishment for: Delivery of Male change rooms with 40 lockers (3m x 9m) (1 Off)	Once Off	1	1		
1.1.7	Site Establishment for: Delivery of Storage Containers (3m x 12m) (1 Off)	Once Off	1	1		
1.1.8	Site Establishment for: Delivery of Lighting Plant (Lighting up on large areas which cn be extended masts to 7m, heavy duty trailer-mounted with petrol/diesel units) (1 Off)	Once Off	2	1		
1.1.9	Delivery and connection of temporary waste water system, including, piping and plastic under-ground septic tank (6000 litres) typical for 20 to 25 people use	Once Off	2	1		
1.1.10	Delivery and connection of temporary water supply inlcuding, piping and storage tank (5000L Jojo) adjacent contractor camp	Once Off	1	1		
1.1.11	Delivery and Installation of Site Fencing (1.8m High Diamond Mesh Wire, 40 Stell Poles, 2 Way Double Swing Gate)	m	1	200		
1.1.12	De Establishment - Kitchen Converted Container (3m x 12m) (1 Off)	Once Off	1	1		
1.1.13	De Establishment - Office Converted Containers (3m x 12m) (1 Off)	Once Off	1	1		
1.1.14	De Establishment - Flushable Ablution Container - Female (3m x 6m) (1 Off)	Once Off	1	1		
1.1.15	De Establishment - Flushable Ablution Container - Male (3m x 6m) (1 Off)	Once Off	1	1		
1.1.16	De Establishment - Storage Containers (3m x 12m) (1 Off)	Once Off	1	1		
1.1.17	De Establishment - Female change rooms with 15 lockers (3m x 6m) (1 Off)	Once Off	1	1		
1.1.18	De Establishment - Male change rooms with 22 lockers (3m x 6m) (1 Off)	Once Off	1	1		
1.1.19	De Establishment for: Lighting Plant (Lighting up on large areas which cn be extended masts to 7m, heavy duty trailer-mounted with petrol/diesel units) (1 Off)	Once Off	2	1		
1.1.20	Removal and Collection of Site Fencing (1.8m High Diamond Mesh wire, 40 Steel Poles, 2 way double swing gate)	m	1	200		
1.1.21	Disconnection and Collection of Temporary water supply inlcuding, piping and storage tank (5000L Jojo) adjacent contractor camp	Once Off	1	1		
1.1.22	Disconnection and Collection of Temporary waste water system, including, piping and plastic under-ground spectic tank (6000 litres) typical for 20 to 25 people use	Once Off	2	1		
1.1.23	**Site Clearance at Contractors Camp**					
1.1.23.1	Site Establishment for: Delivery of TLB - 4 X 4 Backhoe Loader (1 Off)	Once Off	1	1		
1.1.23.2	De-Site Establishment for: Delivery of TLB - 4 X 4 Backhoe Loader (1 Off)	Once Off	1	1		
1.1.23.3	TLB - 4 X 4 Backhoe Loader	Per Day	1	1		
1.2	**Temporary Site Facilities and Transportation**					
1.2.1	Rental of 4x2 Double Cab Bakkie (1 Off)	Monthly	1	8		
1.2.2	Rental of 14 Seater Bus (2 Off)	Monthly	2	8		
1.2.3	Rental of 7 Seater (2 Off)	Monthly	2	8		
1.2.4	Rental of Office Converted Containers (6m x 12m) (1 Off)	Monthly	1	8		
1.2.5	Rental of Kitchen Converted Container (3m x 12m) (1 Off)	Monthly	1	8		
1.2.6	Rental of Storage Containers (3m x 12m) (1 Off)	Monthly	1	8		
1.2.7	Rental of Flushable Ablution Container - Female (3m x 6m) (1 Off) (To be serviced once a week)	Monthly	1	8		
1.2.8	Rental of Flushable Ablution Container - Male (3m x 6m) (1 Off) (To be serviced once a week)	Monthly	1	8		
1.2.9	Rental of Female change rooms with 15 lockers (3m x 6m) (1 Off)	Monthly	1	8		
1.2.10	Rental of Male change rooms with 22 lockers (3m x 9m) (1 Off)	Monthly	1	8		
1.2.11	Rental of Lighting Plant (Lighting up on large areas which cn be extended masts to 7m, heavy duty trailer-mounted with petrol/diesel units) (2 Off)	Monthly	2	8		
1.3	**Health and Safety Requirements**					
1.3.1	Safety file	Once Off	1	1		
1.3.2	Fire Extinguishers (Per container)	Once Off	1	7		
1.3.3	Medicals - Entry (Per Person)	Per Person	40	1		
1.3.4	Medicals - Exit (Per Person)	Per Person	40	1		
1.3.5	Security Clearance Certification (Per Person)	Per Person	40	1		
1.4	**Personal Protective Equipment (PPE) Consumbles**					
1.4.1	Overall Trouser	Per Person	37	1		
1.4.2	Overall Jacket	Per Person	37	1		
1.4.3	Safety Boots	Per Person	37	1		
1.4.4	Hardhat	Per Person	37	1		
1.4.5	Reflector Vest	Per Person	37	1		
1.4.6	Full Body Harness	Per Person	37	1		
1.4.7	Ear Muffs (Standard)	Per Person	37	1		
1.4.8	Ear Protection	Per Person	37	1		
1.4.9	Safety Gloves	Per Person	37	1		
1.5	**Trainings**					
1.5.1	First Aid (Valid for 3 years)	Per Person	2	1		
1.5.2	Basic Fire Fighting (Valid for 2 years)	Per Person	2	1		
1.5.3	OHS Act (Valid for 2 years)	Per Person	2	1		
1.5.4	Legal Liability (Once Off) (2 Off)	Per Person	2	1		
1.5.5	Supervisory Safety (Valid for 2 years) (2 Off)	Per Person	2	1		
1.5.6	Planned Job Observation (Once Off)	Per Person	2	1		
1.5.7	HIRA (Valid for 2 years))	Per Person	2	1		
1.5.8	Incident Investigator (Valid for 2 years)	Per Person	2	1		
1.5.9	Training (Working at heights) (Per Person)	Per Person	33	1		
1.60	**OCCUPATIONAL HYGIENE SURVEYS / (HEALTH RISK ASSESSMENTS)**					
1.6.1	Illumination for Office, Kitchen, Ablution and Storage Containers (valid for 2 years)	No	7	1		
1.6.2	Indoor Air Quality for Office container (valid for 2 years)	No	7	1		
1.6.3	Ergonomics (valid for 2 years)	No	7	1		
1.4	**Documentation**					
1.4.1	As built-drawings	Item	1	1		
1.4.2	O&M Manuals	Item	1	1		

1.4.3	Testing and Commissioning (HVAC, Fire Protection & Detection, Electrical, Plumbing, C&I works)	Item	1	1	
1.4.4	Signing Off (HVAC, Fire Protection & Detection, Electrical, Plumbing, C&I works)	Item	1	1	
1.4.5	12 Months maintenance & warrantee (Including all consumables & parts)	Item	1	1	
1.4.6	Construction guarantee	Item	1	1	
1.4.7	Fabrication or Shop Drawings	Item	1	1	
1.4.8	Spares and Special tools and Equipment	Item	1	1	
1.4.9	Construction data packages	Item	1	1	
	Total Item 1 (Preliminaries and General) carried to Summary:				
2	**RESOURCES**				
2.1	**DESIGN AND SITE SUPERVISION RESOURCES:**				
2.1.1	Architectural (Professional withSACAP with Years Relevant experience)(1 Off)	Hours	1	480	
2.1.2	Geotechnical Engineer (Professional with ECSA with 5 Years Relevant experience)(1 Off)	Hours	1	480	
2.1.3	Mechanical Engineer/ Fire Engineer (Professional with ECSA with 5 Years Relevant experience)(1 Off)	Hours	1	480	
2.1.4	Mechanical Engineer/HVAC (Professional with ECSA with 5 Years Relevant experience)(1 Off)	Hours	1	480	
2.1.5	Commissioning Engineer (Professional with ECSA with 5 Years Relevant experience)(1 Off)	Hours	1	480	
2.1.6	Electrical Engineer (Professional with ECSA with 5 Years Relevant experience)(1 Off)	Hours	1	480	
2.1.7	Structural Engineer (Professional with ECSA with 5 Years Relevant experience)(1 Off)	Hours	1	480	
	Total for item 2.1 (Design and Site Supervision Resources) Carried to Final Summary :				
2.2	**CONSTRUCTION RESOURCES:**				
2.2	**Normal Hours**				
2.2.1	Construction Project Manager (Professional with SACPMP with 5 Years Relevant experience)(1 Off)	Hours	1	1304	
2.2.2	Land Surveyor (Professional with SAGC with 3 Years Relevant experience)(1 Off)	Hours	1	1304	
2.2.3	Safety Officer (Professional with SACPMP with 5 Years Relevant experience)(1 Off)	Hours	1	1304	
2.2.4	Site Agent / Site Manager (5 Years Relevant experience)(1 Off)	Hours	1	1304	
2.2.5	Site Foreman - Partitioning (Fire) (5 Years Relevant experience)(1 Off)	Hours	1	1304	
2.2.6	Site Foreman - Mechanical Works (Fire) (5 Years Relevant experience)(1 Off)	Hours	1	1304	
2.2.7	Site Foreman - Mechanical Works (HVAC) (5 Years Relevant experience)(1 Off)	Hours	1	1304	
2.2.8	Electrical Electrician with wireman licence (5 Years Relevant experience)(1 Off)	Hours	1	1304	
2.2.9	Fire Detection System Electrician (5 Years Relevant experience)(1 Off)	Hours	1	1304	
2.2.10	Planner/Scheduling Engineer (with '5 Years Relevant experience)(1 Off)	Hours	1	1304	
2.2.11	Environmental Officer (5 Years Relevant experience)(1 Off)	Hours	1	1304	
2.2.12	Architectural Draughtsperson (Civil & Structural) (5 Years Relevant experience)(1 Off)	Hours	1	1304	
2.2.13	Draughtsperson - Civil & Structural (5 Years Relevant experience)(1 Off)	Hours	1	1304	
2.2.14	Mechanical Draughtsperson (5 Years Relevant experience)(1 Off)	Hours	1	1304	
2.2.15	Electrical & C&I Draughtsperson (5 Years Relevant experience)(1 Off)	Hours	1	1304	
2.2.16	Document Controller/Record Officer (3 Years Relevant experience)(1 Off)	Hours	1	1304	
2.2.17	Plumber (5 Years Relevant experience) (1 Off)	Hours	1	1304	
2.2.18	Semi-skilled site support (3 Years Relevant experience) (6 Off)	Hours	6	1304	
2.2.19	General Labour (1-3 Years Relevant experience) (10 Off)	Hours	10	1304	
2.2.20	Cleaner (2 Off)	Hours	2	1304	
2.2.21	Driver (For 14 Seater Bus) (2 Off)	Hours	2	1304	
2.2.22	Driver (For 7 Seater) (1 Off)	Hours	1	1304	
	Total for Normal Hours :				
2.3	**Saturday Overtime**				
2.3.1	Construction Project Manager (Professional with SACPMP with 5 Years Relevant experience)(1 Off)	Hours	1	256	
2.3.2	Safety Officer (Professional with SACPMP with 5 Years Relevant experience)(1 Off)	Hours	1	256	
2.3.3	Site Agent / Site Manager (5 Years Relevant experience)(1 Off)	Hours	1	256	
2.3.4	Site Foreman - Partitioning (Fire) (5 Years Relevant experience)(1 Off)	Hours	1	256	
2.3.5	Site Foreman - Mechanical Works (Fire) (5 Years Relevant experience)(1 Off)	Hours	1	256	
2.3.6	Site Foreman - Mechanical Works (HVAC) (5 Years Relevant experience)(1 Off)	Hours	1	256	
2.3.7	Electrical Electrician with wireman licence (5 Years Relevant experience)(1 Off)	Hours	1	256	
2.3.8	Fire Detection System Electrician (5 Years Relevant experience)(1 Off)	Hours	1	256	
2.3.9	Environmental Officer (5 Years Relevant experience)(1 Off)	Hours	1	256	
2.3.10	Plumber (5 Years Relevant experience) (1 Off)	Hours	1	256	
2.3.11	Semi-skilled site support (3 Years Relevant experience) (6 Off)	Hours	6	256	
2.3.12	General Labour (1-3 Years Relevant experience) (10 Off)	Hours	10	256	
2.3.13	Cleaner (1 Off)	Hours	1	256	
2.3.14	Driver (For 14 Seater Bus) (2 Off)	Hours	2	256	
	Total for Saturday Overtime :				
2.3	**Overtime - Sundays and Public Holidays**				
2.3.1	Construction Project Manager (Professional with SACPMP with 5 Years Relevant experience)(1 Off)	Hours	1	256	
2.3.2	Safety Officer (Professional with SACPMP with 5 Years Relevant experience)(1 Off)	Hours	1	256	
2.3.3	Site Agent / Site Manager (5 Years Relevant experience)(1 Off)	Hours	1	256	
2.3.4	Site Foreman - Partitioning (Fire) (5 Years Relevant experience)(1 Off)	Hours	1	256	
2.3.5	Site Foreman - Mechanical Works (Fire) (5 Years Relevant experience)(1 Off)	Hours	1	256	
2.3.6	Site Foreman - Mechanical Works (HVAC) (5 Years Relevant experience)(1 Off)	Hours	1	256	
2.3.7	Electrical Electrician with wireman licence (5 Years Relevant experience)(1 Off)	Hours	1	256	
2.3.8	Fire Detection System Electrician (5 Years Relevant experience)(1 Off)	Hours	1	256	
2.3.9	Environmental Officer (5 Years Relevant experience)(1 Off)	Hours	1	256	
2.3.10	Plumber (5 Years Relevant experience) (1 Off)	Hours	1	256	
2.3.11	Semi-skilled site support (3 Years Relevant experience) (6 Off)	Hours	6	256	
2.3.12	General Labour (1-3 Years Relevant experience) (10 Off)	Hours	10	256	
2.3.13	Cleaner (1 Off)	Hours	1	256	
2.3.14	Driver (For 14 Seater Bus) (2 Off)	Hours	2	256	
	Total for Overtime - Sundays and Public Holidays :				
	TOTAL AMOUNT EXCL VAT :				

PROJECT: ALTERATIONS AND ADDITIONS TO EXISTING BUILDING STRUCTURES FOR A PERIOD OF EIGHT (8) MONTHS AT KUSILE POWER STATION

ITEM NO	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
	KEY NOTES: A - Auxillary Buidlding 1 B - FGD Control Room C - Admin Building D - BOP Building				
	GENERAL The contractor shall carry out the whole of the The Works with as little mess and noise as possible and with a minimum of disturbance to adjoining premises and their tenants/occupants. He/She shall provide proper protection and provide,erect and maintain in position proper temporary tarpaulins that may be necessary to protect existing fixtures, fittings and furniture during the progress of the works and remove on completion or when directed, all to the satisfaction of the Project Manager/Principal Agent				
	SECTION 1 **BILL 1**				
	ALTERATIONS				
	REMOVAL OF EXISTING WORK				
	Breaking up and removing reinforced concrete, including cutting off and removing reinforcement				
1	150m Thick surface beds A : 47 B : 0 C : 0 D : 21	M^2	68		
	Breaking down and removing brickwork etc				
2	Half brick wall m2 39 A : 0 B : 0 C : 0 D : 39	M^2	39		
3	One brick wall m2 29 A : 11 B : 0 C : 0 D : 18	M^2	29		
4	Timber single door and frame not exceeding 2,5m2 (Credit R.....) A : 0 B : 0 C : 0 D : 1	No	1		
5	Glazed steel window exceeding 2,5m2 and not exceeding 5m2 (Credit R.....) A : 2 B : 1 C : 0 D : 0	No	3		
6	Glazed aluminium window exceeding 2,5m2 and not exceeding 5m2 (Credit R.....) A : 0 B : 0 C : 0 D : 1	No	1		
	Taking down and removing roofs, floors, panelling, ceilings, partitions, etc				
	Care is to be taken when removing the ceilings as the tiles, AC gratings, etc in good conditions are to be stored and reused where possible				
7	Gypsum plasterboard ceiling bulkhead, 600 x 300mm high including cornices, timber brandering, etc. A : 6 B : 0 C : 0 D : 0	M	6		
8	Gypsum plasterboard ceiling bulkhead, 1,400 x 320mm high circular on plan including cornices, timber brandering, etc. A : 0 B : 13 C : 0 D : 0	M	13		
9	Gypsum plasterboard ceiling bulkhead, 1,140mm radius x 320mm high circular on plan including cornices, timber brandering, etc. A : 0 B : 1 C : 0 D : 0	No	1		
10	Acoustic tile suspended ceilings including suspension grid, hangers, etc. suspended up to 2m (Credit R.....) A : 76 B : 123 C : 0 D : 101	M^2	300		
11	Drywall partitioning 2,72m high including doors, ironmongery, glazed borrowed lights, etc. (setting aside and storing the necessary doors for later refixing in new position) A : 27 B : 0 C : 0 D : 0	M	27		
12	Drywall partitioning 3,06m high including doors, ironmongery, glazed borrowed lights, etc. (setting aside and storing the necessary doors for later refixing in new position) A : 0 B : 7 C : 0 D : 0	M	7		
13	Drywall partitioning 4,46m high including doors, ironmongery, glazed borrowed lights, etc. (setting aside and storing the necessary doors for later refixing in new position) A : 140 B : 0 C : 0 D : 0	M	140		
14	Drywall partitioning 5,05m high including doors, ironmongery, glazed borrowed lights, etc. (setting aside and storing the necessary doors for later refixing in new position) A : 0 B : 0 C : 34 D : 0	M	34		
15	Single door and frame not exceeding 2,5m2 from drywall partition and building closed opening in drywall partition to match existing A : 12 B : 1 C : 0 D : 0	No	13		

16	Double door and frame exceeding 2,5m2 not exceeding 5m2 from drywall partition and building closed opening in drywall partition to match existing	No	10		
	A : 10 B : 0 C : 0 D : 0				
	Taking out and removing joinery fittings etc				
17	Timber wall and floor cupboards, 600mm wide x 900mm high high (Credit R.....)	M	7		
	A : 7 B : 0 C : 0 D : 0				
	Taking out and removing ironmongery				
18	Chromium plated towel rail not exceeding 1000mm long (Credit R.....)	No	12		
	A : 8 B : 0 C : 0 D : 4				
19	Chromium plated toilet paper holder (Credit R.....)	No	11		
	A : 7B : 0C : 0D : 4				
20	Steel lockers, approximately 300x450x1800mm high (Credit R.....)	No	104		
	A : 74B : 0C : 0D : 30				
	Hacking up/off and removing ceramic tile floor and wall finishes including removing mortar bed or backing and preparing concrete or brick surfaces for new screed, plaster or tile finishes				
21	300 x 300mm Tiles to floors	M^2	52		
	Taking out and removing piping, sanitary fittings, etc. including disconnecting piping from fittings and making good floor and wall finishes (making good tiling and paintwork elsewhere)				
22	Vitreous china wash hand basin and built-in vanity (Credit R.....)	No	12		
23	Vitreous china WC pan with cistern (Credit R.....)	No	11		
24	Vitreous china urinal (Credit R.....)	No	6		
25	Wash trough (Credit R.....)	No	5		
26	Floor drain and sealing pipes	No	5		
	Taking out and removing glass and mirrors, setting aside for re-use and later refixing in new position				
27	Mirror 600 x 900mm high from wall (Credit R.....)	No	12		
	A : 8B : 0C : 0D : 4				
	BUILDING UP OPENINGS				
	Brickwork in NFP bricks in class II mortar in building up openings				
28	One brick walls A : 6B : 3C : 0D : 5	M^2	13		
	PREPARATORY WORK TO EXISTING SURFACES				
29	Making good defects in existing screeded floors with self levelling screed	M^2	2		
	A : 2B : 0C : 0D : 0				
	MAKING GOOD OF FINISHES ETC **Making good internal cement plaster**				
	Walls in patches	M^2	10		
30	A : 3B : 7C : 0D : 0				
	Making good ceilings				
31	300 x 1,800 x 20mm "Armstrong Optima" ceiling board suspended from 65 x 65 x 2mm studding at 600mm centres fixed to channel with 6mm gutter bolts and nuts as part of roof structure Suspended ceiling with curved soffit where drywall removed	M	34		
	A : 0B : 0C : 34D : 0				
	Making good access flooring				
	"Lafarge" Universal Snap-on Stringer Access floor system (SS) with type 2 panel, system pedestal with freestanding head and high pressure laminate panel with integral trim edge (Colour: Grey Dust)				
32	Access floor where drywall removed or to be installed	M	182		
	A : 0B : 0C : 182D : 0				
	2,5mm Thick vinyl sheeting to match existing fixed with approved adhesive to manufacturer's specifications				
33	On floors in patches	M^2	2		
	A : 2B : 0C : 0D : 0				
	OPENINGS THROUGH EXISTING WALLS ETC				
34	Opening for door with steel frame approximately 900 x 2,100mm high overall through 230mm brick wall	No	2		
	A : 0B : 0C : 0D : 2				

35	Opening for door with steel frame approximately 900 x 2,100mm high overall through 270mm brick cavity wall A : 0B : 0C : 0D : 3	No	3		
	Total for Section 1 (Alterations) Carried to Final Summary:				
	SECTION 1: BUILDERS WORK **BILL NO. 1** **EARTHWORKS**				
	SITE CLEARANCE ETC **Site clearance**				
1	Digging up and removing rubbish, debris, vegetation, hedges, shrubs and trees not exceeding 200mm girth, bush, etc	M^2	113		
2	Stripping average 100mm thick layer of top soil and stockpiling on site	M^2	113		
	BULK EXCAVATION, FILLING, ETC. - BUILDING PLATFORMS **Open face excavation in earth over sloping site**				
3	Open face excavation	M^3	54		
	Extra over bulk excavation in earth for excavation in				
4	Soft rock	M^3	5		
5	Hard rock	M^3	3		
	Extra over all excavations for carting away				
6	Surplus material from excavations and/or stock piles on site to a dumping site to be located by the contractor	M^3	60		
	Risk of collapse of excavations				
7	Sides of bulk excavations not exceeding 1,5m deep	M^2	21		
	Keeping excavations free of water				
8	Keeping excavations free of water, other than subterranean water	Item	1		
	Earth filling (G5 quality material or similar approved) supplied and brought onto site by the contractor compacted to 95% Mod AASHTO density				
9	Under floors, steps, pavings, etc.	M^3	54		
	Compaction of surfaces				
10	Compaction of ground surface under floors etc including ripping and scarifying for a depth of 150mm, breaking down oversize material, adding suitable material where necessary and compacting to 93% Mod AASHTO density	M^2	113		
	Prescribed density tests on filling etc,				
11	"Natural California Bearing Ratio" test	No	3		
	PROTECTION AGAINST TERMITES **Soil insecticide**				
12	Under floors, etc., including forming and poisoning shallow furrows against foundation walls, etc., filling in furrows and ramming	M^2	161		
	Sub-Total Earthworks carried to Final Summary:				
	SECTION 2: BILL 2 **CONCRETE, FORMWORK AND REINFORCEMENT**				
	UNREINFORCED CONCRETE CAST AGAINST EXCAVATED SURFACES **15Mpa/19mm concrete**				
1	Blinding	M^3	2		
	REINFORCED CONCRETE CAST AGAINST EXCAVATED SURFACES **35Mpa/19mm concrete**				
2	Surface beds cast in panels on waterproofing	M^3	13		
3	Ramps cast in panels on waterproofing	M^3	9		
4	Thickening under surface beds	M^3	5		
5	Slabs including beams and inverted beams	M^3	15		
	TEST BLOCKS				
6	Making and testing 150 x 150 x 150mm concrete strength test cube	No	13		
	CONCRETE SUNDRIES **Finishing top surfaces of concrete smooth with a power float**				
7	Surface beds, slabs, etc	M^2	101		
	Finishing top surfaces of concrete smooth with a wood float				
8	Surface beds, slabs, etc to falls	M^2	64		
	ROUGH FORMWORK (DEGREE OF ACCURACY II)				

	Rough formwork to sides				
9	Inverted beams	M^2	14		
10	Inverted beams above concrete	M^2	7		
11	Edges, risers, ends and reveals not exceeding 300mm high or wide	M	73		
	Rough formwork to soffits of				
12	Slabs exceeding 250mm and not exceeding 500mm thick propped up exceeding 1,5m but not exceeding 3,5m high	M^2	52		
	Boxing in rough formwork to form				
13	25mm Horizontal chamfer at edge of beam	M	84		
	MOVEMENT JOINTS, ETC **Three layers of two ply Malthoid with one layer 500 micron polyethylene inbetween as slip joints between horizontal concrete and brick surfaces including cement mortar bed**				
14	Not exceeding 300mm wide	M	57		
	Expansion joints with 10mm bitumen impregnated fibre board between vertical concrete surfaces				
15	Not exceeding 300mm high	M	23		
	Expansion joints with 10mm closed cell polyethylene with 10x10mm tear-off strips between vertical concrete surfaces				
16	Not exceeding 300mm high	M	42		
	REINFORCEMENT (Provisional)				
	High tensile steel reinforcement to structural concrete work				
17	High tensile steel reinforcement (Y20 to Y40)	T	0		
18	High tensile steel reinforcement (Y8 to Y16)	T	2		
	Mild steel reinforcement to structural concrete work				
19	Mild steel reinforcement (R20 to R32)	T	0		
20	Mild steel reinforcement (R8 to R16)	T	0		
21	R12 Dowel,700mm long @ 500mm c/c drilled and epoxied into existing structure with 450mm exposed portion to be dipped in bitumen prior to casting	No	28		
	Fabric reinforcement				
22	Type Ref. 395 fabric reinforcement in concrete surface beds, slabs, etc.	M^2	113		
	Sub-Total Concrete, Formwork and Reinforcement carried to Final Summary:				
	SECTION 3: BILL 3 **MASONRY**				
	BRICKWORK **Brickwork of NFP bricks in class II mortar**				
1	Half brick walls	M^2	170		
	Brickwork of NFX bricks (14 MPa nominal compressive strength) in class I mortar				
2	One brick walls	M^2	1 177		
3	270mm Hollow walls of two half brick skins including wire ties	M^2	57		
	BRICKWORK SUNDRIES				
4	Splayed mortar fillet one course high in 50mm cavity	M	20		
5	Closing 50mm cavity of hollow wall horizontally with four courses of brickwork	M	20		
	Brickwork reinforcement				
6	75mm Wide reinforcement built in horizontally	M	837		
7	150mm Wide reinforcement built in horizontally	M	3 543		
	Prestressed fabricated lintels				
8	110 x 75mm Lintels in lengths not exceeding 3m	M	147		
	Turning pieces				
9	115mm Wide turning piece to lintels etc	M	25		
	FACE BRICKWORK **"Corobrick - Terracotta Satin FBS" or other approved clay FBX face brick pointed with recessed horizontal and vertical joints to comply with SABS 227 to match existing**				
10	Extra over brickwork for face brickwork in stretcher bond	M^2	57		
11	Brick-on-edge header course lintel	M	2		
	Sub-Total Masonry carried to Final Summary:				

	SECTION 2: BILL 4 **WATERPROOFING**				
	DAMP PROOFING OF WALLS AND FLOORS **One layer of 375 micron "Consol Plastics Brikgrip DPC" embossed damp proof course**				
1	In walls	M^2	75		
	One layer of 250 micron "Consol Plastics Gunplas USB Green" waterproof sheeting sealed at laps with "Gunplas Pressure Sensitive Tape"				
2	Under surface beds	M^2	133		
3	Between brick walls (bond breaker)	M^2	23		
	WATERPROOFING TO ROOFS, ETC. **4mm "Derbigum SP" or other approved fully bonded waterproofing**				
4	On flat roofs	M^2	45		
5	On walls	M^2	14		
6	Sealing edges to brickwork or concrete including trowelled mastic bead	M	28		
7	Additional membrane not exceeding 500mm girth at turn-ups, fillets, etc. including flashing strip not exceeding 300mm girth and sealing top edge into groove with mastic	M	28		
8	Additional membrane at 100mm diameter outlet	No	2		
	PROTECTIVE ROOFING PAINT **Two coats bituminous aluminium paint**				
9	On waterproofing to roofs	M^2	105		
	INSULATION LAYER **"IsoWall" or other approved insulation**				
10	50mm "IsoWall" extruded polystyrene insulation in cavity of walls to manufacturer's specifications	M^2	57		
	JOINT SEALANTS ETC **Two-part grey polysulphide sealing compound including backing cord, bond breaker, primer, etc**				
11	3 x 60mm In saw cut joints in floors	M	85		
12	10 x 10mm In expansion joints in floors	M	23		
13	12 x 13mm In expansion joints in floors	M	28		
	Polyethylene sealing compound including backing cord, bond breaker, primer, etc				
14	10 x 10mm In expansion joints in concrete	M	14		
	Sub-Total Waterproofing carried to Final Summary:				
	SECTION 2: BILL 5 **CARPENTRY AND JOINERY**				
	STRUCTURAL TIMBERWORK ETC **Sawn softwood grade to SABS**				
1	50 x 228mm Beams / frame fixed to drywalls	M	443		
2	50 x 228mm Batterns plugged	M	1 098		
	DOORS, ETC **Wrought meranti solid doors**				
3	40mm Thick framed and ledged battern door, 736 x 2,032mm high with plywood flush panel back cover	No	1		
	Semi-solid flush panel doors with hardwood edges, masonite veneer both sides including edges and hung to steel frames (steel frames elsewhere)				
4	40mm Thick door, 600 x 2,032mm high with concealed coat hook block	No	6		
5	40mm Thick door, 762 x 2,032mm high with concealed coat hook block	No	4		
6	40mm Thick door 813 x 2,032mm high	No	2		
	Solid flush panel doors with hardwood edges, masonite veneer both sides including edges and hung to steel frames (steel frames elsewhere)				
7	40mm Thick door 813 x 2,032mm high	No	10		
8	40mm Thick double door 1,613 x 2,032 high with rebated meeting edges	No	20		
	FITTINGS **Wrought meranti**				
9	Backing board for two coat hooks, 400mm long x 75mm high x 20mm thick plugged to drywall with 10 x 33 plug wing toggles (coat hooks elsewhere) (as per architect's detail drawing)	No	12		
10	Slatted shelving, seats, etc., 800mm long x 376mm wide formed of two 100 x 38mm and two 50 x 38mm slats spaced 25mm apart and two 38 x 50mm side cleats, screwed to steel framing including holes (steel framing elsewhere) (as per architect's detail drawing)	No	12		

	Vanities				
11	Vanity unit, size 2,090 x 600 x 380mm high overall with 30mm Rustenburg black granite top with three basin cut-outs, two drilled holes per basin cut-out, set level and with pencil bull nose edges, 18mm blockboard panel suitably fixed between Gypframe Ultrasteel studs, 500mm high 12mm fibre cement front, sides and tile panels, sealed with silicone sealant and all fixed to welded steel web framework (welded steel web framework elsewhere) plugged to wall complete to architect's details (see architect's drawings)	No	1		
12	Vanity unit, size 2,250 x 600 x 500mm high overall with 30mm Rustenburg black granite top with three basin cut-outs, two drilled holes per basin cut-out, set level and with pencil bull nose edges, 18mm blockboard panel suitably fixed between Gypframe Ultrasteel studs, 500mm high 12mm fibre cement front, sides and tile panels, sealed with silicone sealant and all fixed to welded steel web framework (welded steel web framework elsewhere) plugged to wall complete to architect's details (see architect's drawings)	No	2		
	Kitchens etc.				
	Kitchen Worktop - 32mm thick Rustenburg Black granite worktop, with 25mm diameter bull nose edge and cut-out for sink unit				
	Cupboard doors, sides, bottom, shelves & backplate- 16 Melamine cupboard doors etc. Colours: doors - Vancouver Maple Sides - Seringa Shelves - White				
	Cupboard door handles etc- "Buchel B2518" flush fit for 110 degree opening swing, Nickel Plated pair spring loaded self closing hinges per door "Buchel B2696" ball bearing telescopic drawer slides "Buchel B2644" 110mm stainless steel secret fix bow pull handle in Satin Chrome-horizontal per door 3mm Aluminium skirting glued on solid SA Pine backing frame				
	Sink unit - Grade 304 18/10 polished stainless steel double end bowl drop-in sink (Code: 811024), overall size 1500 x 460mm with two 340 x 370 x 149mm deep bowls, fitted onto cupboard (elsewhere specified) including PVC traps (traps elsewhere specified) with 90mm waste fitting.				
	Hot water supply - Kwikot Kwikboil 10 point of use 7.5 litre electric thermostat regulated overbasin water heater, plugged and screwed to wall and connected to 230V electrical power supply, all in accordance to manufacturer's recommendations (see architect's drawing/s accompanying these bills of quantities)				
13	Sink cabinet cupboard, 2,800mm long x 600mm wide x 900mm high with top, sides, bottom, division, shelf, back, single hinged doors, double hinged doors, drawer units and dividing framework (including sink cut-out, but sink elsewhere) complete to architect's details (see architect's drawings no. 24002-A-1.02)	No	1		
14	Sink corner cabinet cupboard, 2,850mm and 1,650mm long x 600mm wide x 900mm high with top, sides, bottom, division, shelf, back, single hinged doors, double hinged doors, drawer units and dividing framework (including sink cut-out, but sink elsewhere) complete to architect's details (see architect's drawings no. 24002-AB-101)	No	5		
	Sub-Total Capentry and Joinery carried toFinal Summary:				
	SECTION 2 BILL 6 **CEILINGS, PARTITIONS AND ACCESS FLOORING**				
	CEILINGS ETC. **"Isover" glasswool insulation**				
1	75mm Thick insulation closely fitted and laid on top of ceiling	M^2	360		
	SUSPENDED CEILINGS				
	Hangers, suspension grids, "lay-in" panels, etc are to be in accordance with the manufacturers' recommendations Electrical light fittings, diffusers, panels etc are generally "lay-in" units of the same dimensions as the suspension grid described and allowance must be made in the rates accordingly for their support inclusive of any flexibility in setting out that ma 600 x 600 x 20mm Thick "Armstrong - Optima" acoustic gypsum ceiling panels laid on white enamel finished T-suspension system as Prelude				
	XL2/TL 24mm, comprising main tees, cross tees, necessary hangers, grids, etc. all suspended with galvanised hangers at				
2	Ceilings suspended exceeding 1m and not exceeding 2m below steel roof trusses	M^2	48		
	1,200 x 600 x 20mm Thick "Armstrong - Optima" acoustic gypsum ceiling panels laid on white enamel finished T-suspension system as Prelude XL2/TL 24mm, comprising main tees, cross tees, necessary hangers, grids, etc. all suspended with galvanised hangers at centres not exceeding 1,200mm and all in accordance with manufacturer's specifications				
3	Ceilings suspended exceeding 1m and not exceeding 2m below steel roof trusses	M^2	106		
	600 x 600 x 10mm Thick "Armstrong - vinyl clad Greenboard" ceiling panels laid on white enamel finished T-suspension system as Prelude XL2/TL 24mm, comprising main tees, cross tees, necessary hangers, grids, etc. all suspended with galvanised hangers at centres not exceeding 1,200mm and all in accordance with manufacturer's specifications				
4	Ceilings suspended exceeding 1m and not exceeding 2m below steel roof trusses	M^2	137		
	1,200 x 600 x 10mm Thick "Gyproc SoundBloc" ceiling panels laid on white enamel finished T- suspension system as Prelude XL2/TL 24mm, comprising main tees, cross tees, necessary hangers, grids, etc. all suspended with galvanised hangers at centres not exceeding 1,200mm and all in accordance with manufacturer's specifications				
5	Ceilings suspended exceeding 1m and not exceeding 2m below steel roof trusses	M^2	68		
	"GypRoc - SoundBloc" panels to soffits				
6	15mm "Gyproc SoundBloc" boarding plugged	M^2	494		
	Cornices, transition strips, etc. to suspended ceilings				
7	51 x 25mm "Gyproc LM651X" perimeter trim /cornice plugged to walls	M	268		
	PARTITIONS ETC **FIXED PARTITIONS** SUPPLEMENTARY PREAMBLES				
	"GypRoc Drywall" or other approved partition systems				

	Partitions consisting of 63,5 x 35mm "Donn - UltraSTEEL Drywall" steel studs inserted at 600mm centres into 63,5 x 25mm "Donn - UltraSTEEL Drywall" steel track at top and bottom clad on both sides as described, including additional studs as necessary at a Unless otherwise described rates for partitions shall be deemed to include for a 125mm High x 10mm profiled "Smooth Edge" or other approved brushed stainless steel in sharp cornered top finish skirtings to architects detail on both sides Wall paper and/or paint and varnish finishes are given elsewhere "GypWall Duraline 63/F30S45" steel stud partitions with both sides clad with one layer of 15mm "Taper-edge Rhinoboard"				
8	Partitioning 2,720mm high with bottom track plugged and top track fixed to suspended ceiling tees	M	41		
9	Extra over partition 2,720mm high for vertical abutment, corner, T-intersection, etc.	No	7		
10	Extra over partition 2,720mm high for corner	No	4		
11	Partitioning 3,060mm high with bottom track plugged and top track fixed to suspended ceiling tees	M	62		
12	Extra over partition 3,060mm high for vertical abutment	No	16		
13	Extra over partition 3,060mm high for corner	No	3		
14	Extra over partition 3,060mm high for T-intersection	No	1		
	"GypWall Duraline 63/F30S45" steel stud partitions with both sides clad with one layer of 15mm "Gyproc Moisture resistant Taper-edge Rhinoboard"				
15	Partitioning 2,720mm high with bottom track plugged and top track fixed to suspended ceiling tees	M	34		
16	Extra over partition 2,720mm high for vertical abutment, corner, T-intersection, etc.	No	15		
17	Extra over partition 2,720mm high for corner	No	3		
18	Extra over partition 2,720mm high for T-intersection	No	9		
19	Partitioning 3,060mm high with bottom track plugged and top track fixed to suspended ceiling tees	M	6		
20	Extra over partition 3,060mm high for vertical abutment	No	4		
21	Extra over partition 3,060mm high for corner	No	2		
	"Saint Gobain Sound Block Duraline 63/F30S45" steel stud partitions with both sides clad with two layers of 15mm "Gyprock Block board"				
22	Partitioning 2,700mm high with bottom track plugged and top track fixed to suspended ceiling tees	M	114		
23	Extra over partition 2,700mm high for vertical abutment	No	19		
24	Extra over partition 2,700mm high for corner	No	5		
25	Extra over partition 2,700mm high for T-intersection	No	11		
26	Partitioning 2,750mm high with bottom track plugged and top track fixed to suspended ceiling tees	M	7		
27	Extra over partition 2,750mm high for vertical abutment	No	2		
28	Extra over partition 2,750mm high for corner	No	1		
29	Partitioning 2,805mm high with bottom track plugged and top track fixed to suspended ceiling tees	M	27		
30	Extra over partition 2,805mm high for vertical abutment	No	5		
31	Extra over partition 2,805mm high for corner	No	2		
32	Extra over partition 2,805mm high for T-intersection	No	3		
	Extra over partition for window (standard approved aluminum windows frame with 6.8mm clear laminated safety fixed glass (as per window specification / schedule)				
33	Window type "Sidelight", 900mm wide x 2,350mm high	No	9		
34	Window type W01, 1,500mm wide x 1,500mm high	No	1		
35	Window type W02, 2,000mm wide x 1,225mm high	No	2		
36	Window type W01, 1,495mm wide x 3,060mm high	No	4		
	Extra over partition for doors etc.				
37	44mm semi-solid core flush door 686 x 2,032mm high with masonite veneer both sides, concealed hardwood edges, concealed coathook block and hung to and including aluminium door frame (to match existing) with one pair of 100mm steel hinges, fixing of ironmongery (see ironmongery elsewhere), additional studding, trimming, etc.	No	7		
38	44mm semi-solid core flush door 760 x 2,032mm high with masonite veneer both sides, concealed hardwood edges, concealed coathook block and hung to and including aluminium door frame (to match existing) with one pair of 100mm steel hinges, fixing of ironmongery (see ironmongery elsewhere), additional studding, trimming, etc.	No	5		
39	44mm semi-solid core flush door 813 x 2,032mm high with masonite veneer both sides, concealed hardwood edges and hung to and including aluminium door frame (to match existing) with one pair of 100mm steel hinges, fixing of ironmongery (see ironmongery elsewhere), additional studding, trimming, etc.	No	5		
40	44mm semi-solid core flush door 900 x 2,450mm high with masonite veneer both sides, concealed hardwood edges and hung to and including aluminium door frame (to match existing) with one pair of 100mm steel hinges, fixing of ironmongery (see ironmongery elsewhere), additional studding, trimming, etc.	No	9		
41	44mm solid core flush door 813 x 2,032mm high with masonite veneer both sides, concealed hardwood edges and hung to and including aluminium door frame (to match existing) with one pair of 100mm steel hinges, fixing of ironmongery (see ironmongery elsewhere), additional studding, trimming, etc.	No	5		

42	40mm semi-solid flush double door 1,210 x 2,032mm high with masonite veneer on both sides and hardwood edge strips to vertical edges hung to and including aluminium door frame (to match existing) with one pair of 100mm steel hinges, fixing of ironmongery (see ironmongery elsewhere), additional studding, trimming, etc.	No	1		
43	Natural anodised glazed aluminium swing door type D03, 900mm wide x 2,100mm high with 6,8mm clear laminated safety glass swing door. aluminium frame with 1.5 pair 100 butt hinges per leaf, as well as with lockset, pull handles, etc. (see Ironmongery trade for ironmongery) all to manufacturer's specification	M	8		
44	Natural anodised glazed aluminium swing door type D02, 900mm wide x 2,450mm high with 6,8mm clear laminated safety glass swing door. aluminium frame with 1.5 pair 100 butt hinges per leaf, as well as with lockset, pull handles, etc. (see Ironmongery trade for ironmongery) all to manufacturer's specification	No	1		
45	Shopfront type D06, 2,600mm wide x 3,060mm high with glazed sliding door. fanlight and sidelight, as well as with and including lockset, pull handles and 2x 18 Euro profile cylinder all to manufacturer's specification	No	1		
46	Shopfront type D05, 4,200mm wide x 3,060mm high with glazed sliding door and sidelights, as well as with and including lockset, pull handles and 2x 18 Euro profile cylinder all to manufacturer's specification	No	2		
	Insulation				
47	63mm Thick "Isover Cavitybatt 14kg/m3" insulation blanket in cavity of partitioning	M^2	815		
	"GypRoc - SoundBloc" panels to walls/partitions				
48	12.5mm "Gyproc SoundBloc" boarding plugged	M^2	65		
	Polyurethane sealant				
49	10 x 10mm Polyurethane sealant strip to door frame rebate	M^2	113		
	Sub-Total Celing , Partition and Access Flooring carried to Final Summary:				
	SECTION 2 BILL 7 **FLOOR COVERINGS, PLASTIC LININGS, ETC**				
	FLOOR COVERINGS **3,5mm Thick "Floorworx - Industrial" (colour: tbc) vinyl sheeting fixed with recommended adhesive and sealed as recommended, all to manufacturer's specifications**				
1	On floors	M^2	956		
	POLISH, SEALERS, ETC				
2	Strip, seal and two coats polish on vinyl tile/flooring with approved products as per manufacturer's specifications	M^2	956		
	Sub-Total Floor Covering, Plastic Linnging, ETC carried to Final Summary:				
	SECTION 2: BILL 8 **IRONMONGERY**				
	"Union" or other approved				
1	"AL8208-225AS" flush bolt top	No	21		
2	"AL8082-AS/150" flush bolt bottom with YCS80 dust proof keep	No	21		
	LOCKS **"Union" or other approved**				
3	"AL6C63-73 Cedar" Mortice upright bathroom deadlock lockset with indicator thumb turn	No	22		
4	"AL6C63-05AS Cedar L22315-76SS" Euro profile upright lock case	No	37		
5	"AL6C63-05AS Cedar L21315-40SS" Narrow Stile Euro profile lock case	No	9		
6	"2x18" Euro profile double cylinder	No	60		
7	"L-2109-78" Euro profile cylinder deadlock	No	2		
8	73.5mm "L-22315-76SS" Euro lockcase (commercial) with SS forend	No	15		
9	"131/69" Rebate for 700 series lock	Sets	21		
	HANDLES **"Union" or other approved**				
10	"AL6C66-05AS" lever handle on oval backplate	Pairs	23		
11	300 x 300mm "AL587-300BBAS BTB" S/S back-to-back square pull handle	Pairs	35		
	PUSH PLATES AND KICKING PLATES **1,6mm "GEZE" or other approved brushed stainless steel grade 304 push and kick plates**				
12	800 x 150mm Kick plate	No	4		
	DOOR CLOSERS **"GEZE" or other approved**				
13	"TS3000 V" door closer	Sets	2		
	BATHROOM FITTINGS **"Franke" or other approved stainless steel**				
14	145 x 25 x 130mm Toilet roll holder manufactured from 0,9mm 18/10 stainless steel with satin finish plugged (ZF18)	No	9		

15	328 x 203 x 1162mm Recessed paper towel dispenser and waste bin combination manufactured from 18/10 1,2/1,5mm stainless steel with satin finish with surface treatment - InoxPlus (anti-fingerprint), both parts with cylinder lock with standard key, paper towel dispenser with capacity of 300 to 400 towels, waste bin approximately 22 litres and including mounting kit (ZF09)	No	9		
16	280mm Diameter x 500mm Inset mounted waste bin manufactured from 18/10 1,2/1,5mm stainless steel with satin finish and including mounting kit	No	1		
	SUNDRIES				
	"Buchel" or other approved				
17	"B3444(CH)" Floor mounted door stop	No	41		
18	"B2742" Hat & coathook	No	24		
	"Union" or other approved				
19	"9002AS" Floor mounted door stop	No	2		
20	"87001SS" Floor mounted door stop	No	49		
21	"AL8253AS" S/S hat and coat hook with rubber buffer	No	22		
	STEEL LOCKERS **"Symo" or other approved steel lockers with standard baked enamel finish**				
22	300 x 450 x 1,800mm High locker unit with two 900mm high stack lockers each with a single compartment complete with lock and bolted in position	No	104		
	Sub-Total Ironmongery carried to Final Summary:				
	SECTION 2: BILL 9 **METALWORK**				
	SUNDRY STEELWORK **Epoxy powdercoated welded framing to concrete (colour: Black)**				
1	50 x 50 x 3mm Angle section framing, 376mm wide x 425mm high with four mitred corners and twice holed for 8mm bolts (bolts elsewhere) (as per architect's detail drawing)	No	12		
2	50 x 50 x 5mm Angle section framing, 2,090mm long x 600mm wide x 380mm high with horizontal bracings at 750mm centres and mitred corners and eight times holed for 8mm bolts (bolts elsewhere) (as per architect's detail drawing)	No	1		
3	50 x 50 x 5mm Angle section framing, 2,250mm long x 600mm wide x 500mm high with horizontal bracings at 750mm centres and mitred corners and eight times holed for 8mm bolts (bolts elsewhere) (as per architect's detail drawing)	No	2		
4	80mm M8 expansion bolt	No	84		
	Galvanised bolts				
5	M10 x 100mm long galvanised bolts drilled and 50mm epoxied into existing concrete	No	9		
	Expansion joint covers				
6	"Kirk Trim AMU120" aluminium movement joint cover	M	2		
	Parapet cover				
7	0,6mm Galvanised sheet metal flashing 450mm girth over parapet wall	M	7		
	PRESSED STEEL DOOR FRAMES **1,6mm Double rebated pressed mild steel door frames complete with one-and-a-half pairs 100mm heavy duty butt hinges, adjustable striking plate, rubber buffers to lock and jamb and fixing lugs, suitable for half brick walls**				
8	Frame for door, 600 x 2,032mm high	No	6		
9	Frame for door, 762 x 2,032mm high	No	4		
10	Frame for door, 813 x 2,032mm high	No	2		
	1,6mm Double rebated pressed mild steel door frames complete with one-and-a-half pairs 100mm heavy duty butt hinges, adjustable striking plate, rubber buffers to lock and jamb and fixing lugs, suitable for one brick walls				
11	Frame for door, 813 x 2,032mm high	No	10		
12	Frame for door, 736 x 2,032mm high with 600mm high steel weather louvred fanlight as supplied by frame manufacturer	No	1		
13	Frame for double door, 1,613 x 2,032mm high	No	20		
	ALUMINIUM WINDOWS, DOORS, ETC. Note:				
	Epoxy powder coated drak bronze VP6113 matt aluminium windows glazed with minimum 6,76mm HPR (high penetration resistance) clear laminated safety glass and plugged to brickwork or concrete				
14	Window type W01, 2,000mm wide x 1,500mm high	No	1		
	STAINLESS STEEL GLAZED SHOWER DOOR				
	Natural anodised aluminium hinged shower door frame with 6.8mm laminated obscure safety glass to manufacturer's specifications				
15	900 x 1,850mm Shower door and frame	No	13		
	Sub-Total Metalwork carried to Final Summary:				

	SECTION 2: BILL 110 **PLASTERING**				
	SCREEDS **Screeds on concrete**				
1	40mm Thick on floors and landings	M^2	1 204		
	"Pearlite" insulating screeds to slope 1:100 on concrete				
2	Average 75mm thick on floors to falls	M^2	45		
3	75 x 75mm Triangular mortar fillet	M	28		
	Gloss finish self-levelling screed laid to manufacturer's specifications				
4	2mm Thick on floors and landings	M^2	956		
	Chemical reistant industrial epoxy mortar screed including primer and sealer to manufacturer's specifications				
5	6mm Thick on floors and landings	M^2	112		
	INTERNAL PLASTER **One coat cement plaster wood floated on brickwork**				
6	On walls	M^2	156		
7	On narrow widths not exceeding 300mm wide	M^2	12		
	One coat cement plaster with one coat gypsum skim plaster finishing coat				
8	On walls	M^2	2 731		
9	On narrow widths not exceeding 300mm wide	M^2	3		
	EXTERNAL PLASTER **Cement plaster on concrete**				
10	On projecting and isolated beams	M^2	33		
	SPECIALIST PLASTER WALL COVERINGS **2mm Thick "Cemcrete - CreteCote" wall coating by specialist applicator to manufacturer's specifications on drywall**				
11	On walls	M^2	80		
12	On narrow widths	M^2	3		
	CORNER PROTECTORS, DIVIDING STRIPS, ETC				
13	15 x 5mm Thick flat section brass dividing strips between different floor finishes	M	49		
	Sub-Total Plastering carried to Final Summary:				
	SECTION 2: BILL 11 **TILING**				
	WALL TILING				
	600 x 600 x 9mmmm "Spazio White ECO" porcelain tiles fixed to drywalls with TAL Sureproof shower and TAL Goldstar XL adhesives and approved grout to manufacturer's specifications and in compliance with the SABS approved standards, pattern and colour to architects approval				
1	On walls	M^2	220		
2	On narrow widths	M^2	5		
	600 x 600 x 9mm "Spazio White ECO" porcelain tiles fixed to brick walls with TAL Sureproof shower and TAL Goldstar XL adhesives and approved grout to manufacturer's specifications and in compliance with the SABS approved standards, pattern and colour to architects approval				
3	On walls	M^2	136		
	590 x 590 x 9mmmm "Matrix Grey rectified" matt glazed porcelain tiles fixed to brick walls with TAL Sureproof shower and TAL Goldstar XL adhesives and approved grout to manufacturer's specifications and in compliance with the SABS approved standards, pattern and colour to architects approval				
4	On walls	M^2	20		
	100 x 100 x 6mmmm "Incredible Tiles, Pretoria" Olive green ceramic tiles fixed to plastered walls with approved adhesives and grout to manufacturer's specifications and in compliance with the SABS approved standards, pattern and colour to architects approval				
5	On walls in isolated panels, splashbacks, etc.	M^2	19		
	FLOOR TILING **600 x 600 x 9mmmm "Spazio Gris ECO" porcelain tiles with matt finish, laid in approved pattern with approved adhesive and grout, laid to SABS approved standards with colour and pattern to architects approval**				
6	On floors and landings	M^2	137		
7	Skirting 150mm high of cut tiles	M	74		
	Sub-Total Tiling carried to Final Summary:				
	SECTION 2: BILL 12 **PLUMBING AND DRAINAGE**				

	STORMWATER DRAINAGE **"Ductile" cast iron outlet**				
1	100mm Vertical outlet cast into concrete	No	2		
	RainWater Pipes:				
2	Rainwater downpipe not exceeding 175mm x 100mm or 150mm diameter including bends, elbows, etc.	M	6		
3	Full - Bore outlets not exceeding 150mm diameter	No	2		
	Class 34 PVC pipes				
4	110mm Diameter pipe cast in concrete column, etc	M	12		
5	Extra over 110mm diameter pipe for bend	No	4		
6	Extra over 110mm diameter pipe for shoe	No	2		
	Weepholes				
7	50mm Diameter uPVC pipe, 300mm long through brickwork	No	14		
	SANITARY FITTINGS **Stainless steel**				
8	600 x 500 x 258mm "Franke model LDS" stainless steel drip sink with 50mm waste outlet, supply stainless steel bucket grid and angle brackets fixed to wall, grade 304(18/10) stainless steel sink to comply with SABS 906	No	1		
9	1,500 x 510mm Stainless steel double end bowl drop-in sink, bowl to be fitted to kitchen cupboard (cupboard elsewhere measured), grade 304(18/10) stainless steel sink to comply with SABS 906	No	6		
	Vitreous china etc.				
10	"Lecico Comfort Round COMBOXDFL0SCSBE" or other approved vitreous china close coupled pan with matching dual flush cistern complete with lid and fitments, with quality soft close seat	No	9		
11	500 x 410 x 175mm Wide "Lecico Atlas code ALTBASWHU0500UE" basin and semi pedestal code "MADPEDSEM0000UE" or other approved vitreous china basin with two tapholes or overflow, two 15mm "Ledimo SKU: FTP2A1LE-0GTO1" CP pillar taps, waste outlet, 400mm long flexible connector pipes with angle valves, basin sealed in strict accordance to manufacturer's specification	No	1		
12	560 x 420 x 210mm "Lecico BS code ALTDUOUND0560UE" undermount basin or other approved vitreous china round vanity basin with no tapholes or overflow, two 15mm "Ledimo SKU: FTP2A1LE-0GTO1" CP pillar taps, waste outlet, 400mm long flexible connector pipes with angle valves, basin sealed in strict accordance to manufacturer's specification	No	8		
13	410 x 665 x 315mm "Lecico BS60 ATLBOXUII0T60UE" vitreous china wall hung urinal with top inlet, back inlet fittings, 38mm CP domical grating, spreader with 20mm diameter thread and to hanger brackets (flushing valve elsewhere)	No	4		
14	1,200 x 800mm "Duravit D-Code" or other approved shower tray complete with waste and trap to manufacturer's specifications	No	13		
	WASTE UNIONS ETC				
15	32mm Basin waste union	No	9		
16	38mm Bath or sink waste union	No	21		
	TRAPS ETC				
17	Traps, etc including joints to steel pipe and/or fittings unless otherwise described				
	uPVC etc.				
18	32 - 40mm Butyl rubber deep seal "P" or "S" trap	No	8		
19	40 x 300mm Sink combination for double bowl with deepseal "P" anti-syphon trap	No	7		
	Brass				
20	40mm Shower trap including stainless steel grating	No	13		
	"Cobra Watertech" or other approved CP				
21	32mm 340 CP bottle trap with 75mm deep seal telescopic pipe	No	9		
22	40mm 345/40 CP bottle trap with tail pipe	No	4		
	TAPS, VALVES, ETC **"Cobra" or other approved**				
23	15mm CP angle regulating valve	No	45		
34	22mm Chromium plated stopcock	No	1		
25	15mm "Cobra Star FBBHN1S3-oGT0054" bib tap	No	2		
26	15mm "Cobra Ledimo FSTAF1LE-oGT01-LO-228- 15/NKD2.04" female taps	No	26		
27	"Cobra KP2.6" vandal resistant shower rose	No	13		
28	FJ6000CP "Flushmaster Junior" urinal flush valve with flush pipe	No	4		
29	15mm "Cobra - Ledimo FSK2D1LE-0GT01" sink mixer and angle valves	No	6		
30	400kPa Vacuum breaker	No	1		
31	400kPa pressure control valve with vacuum breaker	No	1		

	SANITARY PLUMBING **uPVC pipes**				
32	50mm Pipes	M	175		
33	110mm Pipes	M	280		
34	110mm Diameter pipes laid in trenches exceeding 1m and not exceeding 2m deep	M	280		
	Extra over uPVC pipes for fittings				
35	50mm Bend	No	77		
36	50mm Access bend	No	44		
37	110mm Bend	No	18		
38	110mm Pan connector	No	9		
39	110mm Access bend	No	21		
	Sundries				
40	Testing waste pipe system	Item	1		
41	Cutting into existing 110mm drain pipe for and forming junction with 110mm pipe	No	1		
42	Taking out and removing existing 110mm uPVc sewer pipe including locating, excavating, removing pipe etc and backfilling to specification	M	18		
	WATER SUPPLIES				
	Class 1 copper pipes				
43	15mm Pipes	M	290		
44	22mm Pipes	M	205		
	Extra over class 1 copper pipes for capillary fittings				
45	15mm Fittings	No	290		
46	22mm Fittings	No	205		
	CP overflow and service pipes				
47	15mm Flexible connector pipes, 400mm long	No	45		
	ELECTRIC WATER HEATERS **"Kwikot"**				
48	200 Litre horizontal wall mounted electric water heater including all valves, masterbox, overflow trays, pipes, etc.	No	1		
	"Franke Kitchen Systems t/a Citimetal"				
49	7.5 Litre "Kwikot KwikBoil" powdercoated instant boiling water dispenser plugged to wall including 15mm cold water supply and electrical connection complete to manufacturer's specifications	No	6		
	DRIP TRAYS, TANKS, ETC **0.6mm Galvanised sheet steel**				
50	1,600 x 600mm Drip tray for water heater, with 100mm high upstand all round with top edge bent over and with 50mm threaded outlet union	No	1		
	HOLES ETC **Core drilling of hole for pipe exceeding 50mm and not exceeding 100mm diameter**				
51	255mm Reinforced concrete slab, beam, wall, etc	No	4		
	Core drilling of hole for pipe exceeding 100mm and not exceeding 150mm diameter				
52	255mm Reinforced concrete slab, beam, wall, etc	No	3		
	FIRESTOP SEALANT **"Firestop" sealant around pipes to hole exceeding 50mm and not exceeding 100mm diameter**				
53	255mm Reinforced concrete slab, beam, wall, etc.	No	4		
	"Firestop" sealant around pipes to hole exceeding 100mm and not exceeding 150mm diameter				
54	255mm Reinforced concrete slab, beam, wall, etc	No	3		
	Sub-Total Plumbing and Drainage carried to Final Summary:				
	SECTION 2: BILL 13 **GLAZING**				
	TOPS, SHELVES, DOORS, MIRRORS, ETC **6mm Silvered float glass copper backed mirrors with 10mm bevelled and polished edges holed for and fixed with chromium plated dome capped mirror screws with rubber buffers to plugs in brickwork or concrete**				
1	Mirror 600 x 900mm high with four dome-head mirror screws	No	9		
	Sub-Total Glazing carried to Final Summary:				
	SECTION 2: BILL 14 **PAINTWORK**				

	PAINT TO NEW WORK				
	One coat alkali resistant primer and two coats "PLASCON - Velvaglo" paint to SABS 1586				
1	On internal walls	M^2	2 733		
	One coat primer and two coats "Plascon - Wall and All" external quality paint				
2	On external walls	M^2	19		
	ON PLASTER BOARD				
	One coat alkali resistant primer and two coats PVA paint to SABS 1586				
3	On ceilings and cornices	M^2	494		
	One coat alkali resistant primer and two coats "PLASCON - Velvaglo" paint to SABS 1586				
4	On partitions	M^2	1 446		
	ON METAL				
	One coat "Plascon Namelcote (UC53) primer, one coat universal undercoat (UC1) and two coats "Plascon - Velvaglo Y2-D1-4 Old cobblestone" paint				
5	On door frames	M^2	77		
6	On rails, bars, pipes, etc not exceeding 300 mm girth	M	84		
	ON WOOD				
	Three coats "Plascon" wood preservative				
7	On fittings	M^2	1		
8	Open slatted shelves, seats, etc. of two 100 x 38mm and two 50 x 38mm slats spaced at 25mm apart (both sides measured over the full flat area)	M^2	9		
	Three coats "Timberlife Satinwood 28" wood preservative				
9	On doors	M^2	3		
	One coat "Plascon UC2/UC17" oil wood primer and two coats "Plascon Velvaglo VLO colour Y3-D2-2 Ivory Ridge" paint				
10	On doors	M^2	322		
	PAINTWORK ETC TO PREVIOUSLY PAINTED WORK				
	ON FLOATED PLASTER				
	Two coats "PLASCON - Velvaglo" paint to SABS 1586				
11	On internal walls	M^2	1 020		
	ON PLASTER BOARD				
	Two coats "PLASCON - Velvaglo" paint to SABS 1586				
12	On partitions	M^2	2 777		
	ON METAL				
	Two coats "DULUX" high gloss alkyd enamel paint				
13	On door frames	M^2	164		
	ON WOOD				
	Two coats "Plascon Velvaglo VLO" paint				
14	On timber doors	M^2	350		
	Sub-Total Paintwork carried to Final Summary:				
	SECTION 2: BILL 15				
	WALL PAPER				
	FEATURE WALL FINISH				
1	Provide the amount as indicated for feature wall finish by a firm of specialists: BoP Wall Mural size - 9 724 x 3 500mm FGD Engineering room Wall Mural size - 5 205 x 3 060mm FDG Control Room Wall Mural Size - 12 868 x 3 060mm	Item	1		
2	Allow for profit and attendance	%	10%		
	TURTLE WALL PAPER MURIAL				
3	Provide the amount as indicated for turle wall paper murial finish by a firm of specialists	Item	1		
4	Allow for profit and attendance	%	10%		
	Total Wall Paper carried to Final Summary:				
	SECTION 2: BUILDER'S WORK				
	SECTION SUMMARY				
	Earthworks				
	Concrete, Formwork & Reinforcement				
	Masonry				
	Waterproofing				
	Carpentry and Joinery				
	Ceilings, Partitions and Access Flooring				
	Floor Coverings, Plastic Linings, etc				

	Ironmongery Metalwork Plastering Tiling Plumbing and Drainage Glazing Paintwork Wall Paper				
	Total for Section 2 (Building Works) Carried to Final Summary:				
	SECTION NO. 3 **MECHANICAL INSTALLATION**				
	BILL NO 1: **HVAC SYSTEMS**				
	Admin Building - Block A - HVAC System				
	Ground Floor				
1	Thermostat - DEMAN MK2xQ10 Wall Display & Control	QTY	4		
	First Floor				
2	Relocation of existing Thermostats	QTY	7		
3	Thermostat - DEMAN MK2xQ10 Wall Display & Control	QTY	4		
	Admin Building - Block B - HVAC System				
	Ground Floor				
4	Thermostat - DEMAN MK2xQ10 Wall Display & Control	QTY	1		
	First Floor				
5	Removal of existing Return Air Grilles - RG02	QTY	4		
6	Removal of existing Wall Air Grilles - WG01	QTY	4		
7	Removal of existing ducting c/t RG02 and WG01	QTY	4		
8	Relocation of existing Thermostats	QTY	5		
	Admin Building - Block C - HVAC System				
	First Floor				
9	Relocation of existing Thermostats	QTY	4		
10	Thermostat - DEMAN MK2xQ10 Wall Display & Control	QTY	10		
11	Wall Air Grilles - WG01	QTY	11		
12	Return Air Grilles - RG02	QTY	11		
13	Insulated acoustic round flex ducting - Ø200 - 1500 length	QTY	11		
	FGD Control Room - HVAC System				
	Ground Floor				
14	Insulated ducting c/w transformation pieces, plenums, hangers and all other items required for a full ducting installation as indicated on the	LOT	1		
15	Insulated round flex ducting - Ø200 - 1500 length	QTY	7		
16	Insulated round flex ducting - Ø300 - 1500 length	QTY	1		
17	Return Air Grilles - 600x600 - RG.01 - Hinged, aluminium, curved blade	QTY	4		
18	SAD.01 - Ø250 TROX ADLQ Square Metal Ceiling Diffuser	QTY	1		
19	Relocation of existing CV Diffuser - 600x600 - CV04	QTY	6		
20	Relocation of existing CV Diffuser - 600x600 - CV05	QTY	1		
21	Blanking off all existing supply air grilles	LOT	1		
22	Blanking off existing ducting secton	QTY	1		
	PICS Control Room - HVAC System				
	Level 16				
23	Relocation of existing CV Diffuser	QTY	3		
	BOP Control Room - HVAC System				
	Ground Floor				
24	Relocation of existing Thermostats	QTY	2		
25	Thermostat - DEMAN MK2xQ10 Wall Display & Control	QTY	1		
26	Relocation of existing Return Air Grilles - RG03	QTY	2		
27	Return Air Grille - RG03	QTY	1		
	C&I Workshop - HVAC System				
	Level 9				
28	Insulated ducting c/w transformation pieces, plenums, hangers and all other items required for a full ducting installation as indicated on the	LOT	1		
29	Relocation of existing Supply Air Grille	QTY	1		
30	Balancing Damper	QTY	1		
	Connection				
31	Connetion of new HVAC system to existing system	Item	1		
	Sub-Total HVAC System carried to Final Summary:				
	BILL NO 3: **VENTILATION SYSTEMS**				
	Admin Building - Block A - Ventilation System				
	Ground Floor				
1	Relocation of existing diffuser - VV01	QTY	2		
2	FAD. 01 - Ø200 TROX DVV Metal Square Plate Diffuser	QTY	2		
	First Floor				
3	FAD. 01 - Ø200 TROX DVV Metal Square Plate Diffuser	QTY	12		
4	Extension of existing flex ducting	QTY	8		
5	Uninsulated round flex ducting - Ø200 - 1500 length	QTY	4		
	Admin Building - Block B - Ventilation System				
	Ground Floor				
6	Relocation of existing diffuser - VV01	QTY	1		
	First Floor				

	Admin Building - Block C - Ventilation System				
	First Floor				
7	Extension of existing flex ducting	QTY	4		
8	Extension of existing ducting - 500x500 - (extended by 480)	QTY	1		
9	Relocation of existing ducting - 450x450	QTY	2		
10	Relocation of existing diffusers - VV02	QTY	25		
11	FAD. 01 - Ø200 TROX DVV Metal Square Plate Diffuser	QTY	4		
	FGD Control Room - Ventilation System				
	Ground Floor				
12	Uninsulated ducting c/w transformation pieces, plenums, hangers and all other items required for a full ducting installation as indicated on	LOT	1		
13	Uninsulated round flex ducting - Ø150 - 1500 length	QTY	1		
14	Door Grilles - 450x300 - DG01 - Powder coated	QTY	8		
15	DV.01 - Extract Disc Valves - 150dia - Metal, white	QTY	4		
16	Weather Louvre - 300x300 - WL01 - Aluminium, powder coated	QTY	1		
17	Extract Air Fan - Ø250 RVK 250E2-L-sileo circular duct fan - EAF.01	QTY	1		
18	Trox type CA100-250x500 podless sound attenuator	QTY	2		
19	Relocation of existing Extract Disc Valve - DV02	QTY	1		
	PICS Control Room - Ventilation System				
	Level 16				
20	Relocation of existing Extract Disc Valves	QTY	11		
21	DV.01 - Extract Disc Valves - Ø150 - Metal, white	QTY	2		
22	Uninsulated round flex ducting - Ø200 - 1500 length	QTY	2		
23	Uninsulated ducting c/w transformation pieces, plenums, hangers and all other items required for a full ducting installation as indicated on	LOT	1		
24	Blanking off existing linear diffusers	QTY	2		
	BOP Control Room - Ventilation System				
	Ground Floor				
25	Relocation of existing CV Diffusers - 600x600 - CV03	QTY	4		
26	Uninsulated ducting c/w transformation pieces, plenums, hangers and all other items required for a full ducting installation as indicated on	LOT	1		
27	Extract Disc Valves - Ø150 - Metal, white	QTY	8		
28	Weather Louvre - 600x400 - WL.01 - Aluminium, powder coated, c/w insect screen	QTY	1		
29	Extract Air Fan - TD 4000/355 Circular Duct In Line Fan - EAF.01- C/w Speed controller	QTY	1		
30	Trox type CA100-400x500 podless sound attenuator	QTY	2		
	C&I Workshop - Ventilation System				
	Level 9				
31	Wall Mounted Extract Fan - 350x350 - WF.01	QTY	1		
	Connection				
31	Connection of ventilation system to existing system	Item	1		
	Sub-Total Ventilation System carried to Final Summary:				
	BILL NO 4:				
	MISCELLANEOUS SYSTEMS				
32	All items not included in the BOQ but is required for a fully operational system. All items must be listed below separately	QTY	1		
	Sub-Total Miscellaneous System carried to Final Summary:				
	HVAC SYSTEM SUMMARY				
	HVAC SYSTEMS				
	VENTILATION SYSTEMS				
	MISCELLANEOUS SYSTEMS				
	Total for Sectin 3 (HVAC System) carried to Final Summary:				
	SECTION 4				
	FIREWATER				
	HOSE REEL INSTALLATION (FGD & PICS Control Room)				
1	Supply, delivery, installation, connection, testing, and commissioning of a completely functioning hose reel installation as itemised below:				
2	50 mm diameter medium quality (SANS 62) black steel hose reel supply pipework including breaking in, elbows, fittings, hangers, offsets around structure, etc.	M	50		
3	25 mm diameter (horizontal main) medium quality (SANS 62) black steel hose reel supply pipework including breaking in, elbows, fittings, hangers, offsets around structure, etc.	M	60		
4	Hose reels with 30 metres of 25mm diameter approved hose and metal nozzle (not plastic) (Complete).	No	2		
5	5kg CO2 fire extinguishers fully installed on Varnished meranti backing boards	No	1		
6	9kg DCP fire extinguishers fully installed on Varnished meranti backing boards	No	1		
	Connection				
7	Connection of new fire water to existing system	Item	1		
	Total for Section 4 (Fire Water) Carried to Final Summary:				
	SECTION. 5				
	FIRE DETECTION				
	FIRE DETECTION CONTROL EQUIPMENT AND POWER SUPPLIES				
	2 Loop Analogue Addressable Fire Alarm Panel (Complete)				
1	Allow for the detailed design, procurement, delivery, installation, connection, networking, testing and commissioning of analogue addressable fire detection and alarm system control panel as per specification, including the items listed below	No	1		
2	Provision of ordinary power supply to fire detection control panel and any other related equipment	Item	1		
3	**GSM SMS Communicator – Up To 5 Users/Numbers**				
4	Provide for procurement, installation, setup and programming of GSM SMS Communicators interfaces with the Combination Detection and Gas Release Panels: Sim cards to be provided by client	No	1		

	Reprogramming of all panels				
5	Allow for the required reprogramming of the entire detection system (new and old devices) to enable the agreed new cause and affect matrix, evacuation zoning, detection zones, alarm zones etc.	Item	1		
	Networking Of all Panels				
6	Allow for the networking of all fire detection panels	Item	1		
	Cabling allowance for Networking of Panels				
7	Allow for adequate PH120 cabling of appropriate diameter (or similar approved) for the successful networking of all panels	M	100		
	CONDUIT AND CABLING - DETECTION				
	Fire Resistant Cabling - PH120				
	Allow for adequate PH120 cabling of appropriate diameter for the wiring of fire detection system to specification. (PH-120 only – 1.0mm² minimum - 2 core)				
8	All Floors	M	240		
	Conduit and Couplings				
9	Allow for the detailed design, procurement and installation of 25mm Galvanised conduit complete with necessary couplings, junction boxes, steel saddles etc. in terms of the specifications. Include for all drilling, fixing and making good of same; painting by others	M	240		
	Flexible Galvanized Steel Conduit With Ip 40 Rating Including Steel Couplings				
10	Provide for the supply and installation of flexible galvanized steel conduit with steel couplings to be used between surface boxes and actuators to doors and, as well as between other devices where a flexible connection would be required.	M	40		
	DETECTION				
	Analogue Addressable Optical Smoke Detectors (New)				
	Allow for the procurement, installation, testing and commissioning of an analogue addressable optical smoke detectors to specification. **(inclusive of bases)**				
11	All Floors	Item	20		
	Analogue Addressable Optical Smoke Void Detectors (New)				
	Allow for the procurement, installation, testing and commissioning of an analogue addressable optical smoke detectors to specification. **(inclusive of bases)** - to be used as instructed by engineer				
12	All Floors	Item	2		
13	Void Detector LED and Accessories	Item	2		
	Analogue Addressable Heat Detectors (New)				
	Allow for the procurement, installation, testing and commissioning of an analogue addressable heat detectors to specification. **(inclusive of bases)**				
14	All Floors	Item	1		
	Analogue Addressable Manual Fire Alarm Points Complete with Bases, Flaps and Integral Isolator (New)				
	Allow for the procurement, installation, testing and commissioning of analogue addressable manual fire alarm call points to specification				
15	All Floors	Item	1		
	Analogue Addressable Loop Powered Beacon - Ceiling (New)				
	Allow for the procurement, installation, testing and commissioning of an analogue addressable loop powered sounder / beacon to specification. **(inclusive of bases)**				
16	All Floors	Item	2		
	Analogue Addressable Loop Powered Beacon - Wall Mounted (Waterproof) (New)				
	Allow for the procurement, installation, testing and commissioning of an analogue addressable loop powered sounder / beacon to specification. **(inclusive of bases)**				
17	Ground Floor	Item	2		
	AUXILIARY DETECTION EQUIPMENT				
	Loop Isolators				
	Allow for the procurement, installation, testing and commissioning of loop isolators to the satisfaction of SANS 10139:2021				
18	Building Allowance – to be confirmed by contractor during zoning. To be used only after approval of zone plans with client	No.	2		
	CONDUIT AND CABLING - DETECTION				
	Fire Resistant Cabling - PH120				
	Allow for adequate PH120 cabling of appropriate diameter for the wiring of fire detection system to specification. (PH-120 only – 1.0mm² minimum - 2 core)				
19	Ground Floor	M	150		
	Conduit and Couplings				
20	Allow for the detailed design, procurement and installation of 25mm Galvanised conduit complete with necessary couplings, junction boxes, steel saddles etc. in terms of the specifications. Include for all drilling, fixing and making good of same; painting by others	M	150		
	Flexible Galvanized Steel Conduit With Ip 40 Rating Including Steel Couplings				
21	Provide for the supply and installation of flexible galvanized steel conduit with steel couplings to be used between surface boxes and actuators to doors and, as well as between other devices where a flexible connection would be required.	M	30		
	DETECTION				
	Analogue Addressable Optical Smoke Detectors (New)				
	Allow for the procurement, installation, testing and commissioning of an analogue addressable optical smoke detectors to specification. **(inclusive of bases)**				
22	Ground Floor	Item	16		
	Analogue Addressable Optical Smoke Void Detectors (New)				
	Allow for the procurement, installation, testing and commissioning of an analogue addressable optical smoke detectors to specification. **(inclusive of bases)** - to be used as instructed by engineer				
23	Ground Floor	Item	2		
24	Void Detector LED and Accessories	Item	2		
	Analogue Addressable Heat Detectors (New)				
	Allow for the procurement, installation, testing and commissioning of an analogue addressable heat detectors to specification. **(inclusive of bases)**				
25	Ground Floor	Item	1		
	Analogue Addressable Manual Fire Alarm Points Complete with Bases, Flaps and Integral Isolator (New)				

	Allow for the procurement, installation, testing and commissioning of analogue addressable manual fire alarm call points to specification				
26	Ground Floor	Item	1		
	Analogue Addressable Loop Powered Beacon - Ceiling (New)				
	Allow for the procurement, installation, testing and commissioning of an analogue addressable loop powered sounder / beacon to specification. **(inclusive of bases)**				
27	Ground Floor	Item	2		
	Analogue Addressable Loop Powered Beacon - Wall Mounted (Waterproof) (New)				
	Allow for the procurement, installation, testing and commissioning of an analogue addressable loop powered sounder / beacon to specification. **(inclusive of bases)**				
28	Ground Floor	Item	1		
	AUXILIARY DETECTION EQUIPMENT				
	Loop Isolators				
	Allow for the procurement, installation, testing and commissioning of loop isolators to the satisfaction of SANS 10139:2021				
29	Building Allowance – to be confirmed by contractor during zoning. To be used only after approval of zone plans with client	No.	1		
	CONDUIT AND CABLING - DETECTION				
	Fire Resistant Cabling - PH120				
30	Allow for adequate PH120 cabling of appropriate diameter for the wiring of fire detection system to specification. (PH-120 only – 1.0mm² minimum - 2 core)	M	150		
31	Ground Floor	M	150		
	Conduit and Couplings				
32	Allow for the detailed design, procurement and installation of 25mm Galvanised conduit complete with necessary couplings, junction boxes, steel saddles etc. in terms of the specifications. Include for all drilling, fixing and making good of same; painting by others	M	150		
	Flexible Galvanized Steel Conduit With Ip 40 Rating Including Steel Couplings				
33	Provide for the supply and installation of flexible galvanized steel conduit with steel couplings to be used between surface boxes and actuators to doors and, as well as between other devices where a flexible connection would be required.	M	30		
	DETECTION				
	Analogue Addressable Optical Smoke Detectors (New)				
	Allow for the procurement, installation, testing and commissioning of an analogue addressable optical smoke detectors to specification. **(inclusive of bases)**				
34	Ground Floor	Item	6		
	Analogue Addressable Optical Smoke Void Detectors (New)				
	Allow for the procurement, installation, testing and commissioning of an analogue addressable optical smoke detectors to specification. **(inclusive of bases)** - to be used as instructed by engineer				
35	Ground Floor	Item	2		
36	Void Detector LED and Accessories	Item	2		
	Analogue Addressable Heat Detectors (New)				
	Allow for the procurement, installation, testing and commissioning of an analogue addressable heat detectors to specification. **(inclusive of bases)**				
37	Ground Floor	Item	1		
	Analogue Addressable Manual Fire Alarm Points Complete with Bases, Flaps and Integral Isolator (New)				
	Allow for the procurement, installation, testing and commissioning of analogue addressable manual fire alarm call points to specification				
38	Ground Floor	Item	1		
	Analogue Addressable Loop Powered Beacon - Ceiling (New)				
	Allow for the procurement, installation, testing and commissioning of an analogue addressable loop powered sounder / beacon to specification. **(inclusive of bases)**				
39	Ground Floor	Item	2		
	Analogue Addressable Loop Powered Beacon - Wall Mounted (Waterproof) (New)				
	Allow for the procurement, installation, testing and commissioning of an analogue addressable loop powered sounder / beacon to specification. **(inclusive of bases)**				
40	Ground Floor	Item	1		
	Loop Isolators				
	Allow for the procurement, installation, testing and commissioning of loop isolators to the satisfaction of SANS 10139:2021				
41	Building Allowance – to be confirmed by contractor during zoning. To be used only after approval of zone plans with client	No.	1		
	Fire Resistant Cabling - PH120				
	Allow for adequate PH120 cabling of appropriate diameter for the wiring of fire detection system to specification. (PH-120 only – 1.0mm² minimum - 2 core)				
42	Ground Floor	M	180		
	Conduit and Couplings				
43	Allow for the detailed design, procurement and installation of 25mm Galvanised conduit complete with necessary couplings, junction boxes, steel saddles etc. in terms of the specifications. Include for all drilling, fixing and making good of same; painting by others	M	180		
	Flexible Galvanized Steel Conduit With Ip 40 Rating Including Steel Couplings				
44	Provide for the supply and installation of flexible galvanized steel conduit with steel couplings to be used between surface boxes and actuators to doors and, as well as between other devices where a flexible connection would be required.	M	30		
	DETECTION:				
	Analogue Addressable Optical Smoke Detectors (New)				
	Allow for the procurement, installation, testing and commissioning of an analogue addressable optical smoke detectors to specification. **(inclusive of bases)**				
45	All Floors	Item	8		
	Analogue Addressable Optical Smoke Void Detectors (New)				
	Allow for the procurement, installation, testing and commissioning of an analogue addressable optical smoke detectors to specification. **(inclusive of bases)** - to be used as instructed by engineer				
46	All Floors	Item	3		
47	Void Detector LED and Accessories	Item	3		
	Analogue Addressable Heat Detectors (New)				

	Allow for the procurement, installation, testing and commissioning of an analogue addressable heat detectors to specification. **(inclusive of bases)**				
48	All Floors	Item	1		
	Analogue Addressable Manual Fire Alarm Points Complete with Bases, Flaps and Integral Isolator (New)				
	Allow for the procurement, installation, testing and commissioning of analogue addressable manual fire alarm call points to specification				
49	All Floors	Item	1		
	Analogue Addressable Loop Powered Beacon - Ceiling (New)				
	Allow for the procurement, installation, testing and commissioning of an analogue addressable loop powered sounder / beacon to specification. **(inclusive of bases)**				
50	All Floors	Item	1		
	Analogue Addressable Loop Powered Beacon - Wall Mounted (Waterproof) (New)				
	Allow for the procurement, installation, testing and commissioning of an analogue addressable loop powered sounder / beacon to specification. **(inclusive of bases)**				
51	All Floors	Item	1		
	AUXILIARY DETECTION EQUIPMENT:				
	Loop Isolators				
	Allow for the procurement, installation, testing and commissioning of loop isolators to the satisfaction of SANS 10139:2021				
52	Building Allowance – to be confirmed by contractor during zoning. To be used only after approval of zone plans with client	No.	2		
	Connection				
53	Connect new detection system to existing system	Item	1		
	Total for Section 5 (Detection) Carried to Final Summary				
	SECTION 6				
	SIGNAGE				
	PHOTO-LUMINESCENT STATUTORY EMERGENCY SIGNAGE				
1	**Single-Sided Statutory Emergency Signage Standard Signage (Installed, Complete - Suspended or Wall Mounted)**				
	Supply, delivery, and installation of the statutory emergency signage installation in accordance with this document and SANS 1186 Parts 1 and 5 – including all perspex, hooks, chains and other fixing materials as required				
	Ground Floor Admin Building (Block A) - 2 pictogram (190 x 380) – E3, F13 etc.	No.	2		
	Ground Floor Admin Building (Block A) - 3 pictogram (190 x 570) – F4 etc.	No.	2		
	First Floor Admin Building (Block A) - 2 pictogram (190 x 380) – E3, F15 etc.	No.	1		
	Ground Floor Admin Building (Block B) - 2 pictogram (190 x 380) – E3, F13 etc.	No.	6		
	Ground Floor Admin Building (Block B) - 3 pictogram (190 x 570) – F4 etc.	No.	3		
	First Floor Admin Building (Block B) - 2 pictogram (190 x 380) – E3, F13 etc.	No.	6		
	First Floor Admin Building (Block B) - 3 pictogram (190 x 570) – F4 etc.	No.	1		
	Ground Floor BOP Control Room - 2 pictogram (190 x 380) – E3, F13 etc.	No.	7		
	Ground Floor BOP Control Room - 3 pictogram (190 x 570) – F4 etc.	No.	3		
	Ground Floor FGC Control Room - 2 pictogram (190 x 380) – E3, F13 etc.	No.	4		
	Ground Floor FGC Control Room - 3 pictogram (190 x 570) – F4 etc.	No.	2		
	Ninth Floor C&I Workshop - 2 pictogram (190 x 380) – E3, F13 etc.	No.	2		
	Ninth Floor C&I Workshop - 3 pictogram (190 x 570) – F4 etc.	No.	1		
	Sixteenth Floor Production - 2 pictogram (190 x 380) – E3, F13 etc.	No.	3		
	Sixteenth Floor Production - 4 pictogram (190 x 760) – F1 etc.	No.	1		
	Sixteenth Floor PICS Control Room - 2 pictogram (190 x 380) – E3, F13 etc.	No.	8		
	Sixteenth Floor PICS Control Room - 3 pictogram (190 x 570) – F4 etc.	No.	1		
	Sixteenth Floor PICS Control Room - 4 pictogram (190 x 760) – F1 etc.	No.	5		
2	**Double-Sided Statutory Emergency Signage (Installed, Complete)**				
	Supply, delivery, and installation of the statutory emergency signage installation in accordance with this document and SANS 1186 Parts 1 and 5 – including all perspex, hooks, chains and other fixing materials as required				
	Ground Floor Admin Building (Block A) - 2 pictogram (190 x 380) – E1/E2 etc	No.	2		
	Ground Floor Admin Building (Block A) - 3 pictogram (190 x 570) – F5/F6	No.	3		
	First Floor Admin Building (Block B) - 2 pictogram (190 x 380) – E1/E2 etc	No.	1		
	Ground Floor BOP Control Room - 2 pictogram (190 x 380) – E1/E2 etc.	No.	2		
	Ground Floor BOP Control Room - 3 pictogram (190 x 570) – F5/F6 etc.	No.	3		
	Ground Floor FGC Control Room - 2 pictogram (190 x 380) – E1/E2 etc.	No.	1		
	Ground Floor BOP Control Room - 3 pictogram (190 x 570) – F5/F6etc.	No.	2		
	Ninth Floor C&I Workshop - 2 pictogram (190 x 380) – E1/E2 etc.	No.	1		
	Ninth Floor C&I Workshop - 3 pictogram (190 x 570) – F5/F6 etc.	No.	1		
	Sixteenth Floor Production - 4 pictogram (190 x 760) – F2/F2=3 etc.	No.	1		
	Sixteenth Floor PICS Control Room - 3 pictogram (190 x 570) – F5/F6 etc.	No.	1		
	KKS LABELS				
3	Allow for KKS Label	Sum	1		
	Total for Section 6 (Signage) Carried to Final Summary :				
	SECTION NO. 7				
	ELECTRICAL INSTALLATION				
	ADMIN BUILDING				
	POWER DISTRIBUTION BOARDS				
1	Alterations to existing DBs (Install new CB's as per Lighting and Small Power Layout Drawing)	LOT	1		
	INFRARED SCAN AND REPORT FOR DB'S				
	Infrared & Photographic report of the following Distribution Boards at Project PC date				
2	DB	LOT	1		
	FGD CONTROL ROOM				
	POWER DISTRIBUTION BOARDS				
	SHEET METAL				
3	Alterations to existing DBs (Install new CB's as per Lighting and Small Power Layout Drawing)	LOT	1		

	INFRARED SCAN AND REPORT FOR DB'S				
	Infrared & Photographic report of the following Distribution Boards at Project PC date				
4	DB	LOT	1		
	POWER DISTRIBUTION BOARDS				
	SHEET METAL				
5	Alterations to existing DBs (Install new CB's as per Lighting and Small Power Layout Drawing)	LOT	1		
	INFRARED SCAN AND REPORT FOR DB'S				
	Infrared & Photographic report of the following Distribution Boards at Project PC date				
6	DB	LOT	1		
	POWER DISTRIBUTION BOARDS				
	SHEET METAL				
7	Alterations to existing DBs (Install new CB's as per Lighting and Small Power Layout Drawing)	LOT	1		
	INFRARED SCAN AND REPORT FOR DB'S				
	Infrared & Photographic report of the following Distribution Boards at Project PC date				
8	DB	LOT	1		
	WIRING, CONDUITS AND ACCESSORIES:				
	ADMIN BUILDING				
	STEEL CONDUIT				
	Bosal type galvanized conduit including fixings, couplings, bushes, locknuts, bends, waste, drawboxes,chasing, drilling for entry points etc. The conduit may be cast into concrete, placed in to position for building into brickwork or concrete, surface mounted to brickwork, placed in ceiling void or chased and fixed into brickwork or concrete. Chasing etc. to be made good by others				
9	25 mm	M	60		
	GALVANIZED/PVC WALL BOXES				
	Boxes may be cast into concrete slab, placed into position for building into brickwork or concrete, surface mounted to brickwork or concrete, mounted in ceiling void or chased and fixed in concrete or brickwork (made good by others)				
10	All sizes up to 100x100x100.	Each	2		
11	100 mm x 100 mm Expansion Box	Each	2		
	WALL BOX COVERS				
	Ivory blank cover plate installed to wall boxes				
12	All sizes up to 100x100x100	Each	2		
	DOME LIDS				
	Dome lids complete with gasket and screws installed to round boxes (This must include wall box)				
13	25 mm	Each	2		
	CONDUCTORS				
	600/1000V grade PVC insulated stranded copper power conductors drawn into conduit, trunking or power skirting				
14	2,5 sq mm	M	1000		
15	4 sq mm	M	2000		
	Green/yellow insulated copper earth wire drawn into conduit, trunking or power skirting				
16	2,5 sq mm	M	500		
17	4 sq mm	M	1000		
	Surfix cable surface mounted on ceiling, brick wall or concrete including fixings etc.				
18	2,5 sq mm x 3 core	M	100		
19	4 sq mm x 3 core	M	100		
	Termination for SURFIX cables complete with PVC compression gland and connection lugs				
20	2,5 sq mm x 3 core	Each	2		
21	4 sq mm x 3 core	Each	2		
	SOCKET OUTLETS				
	Switched sochet outlets, flush mounted into wall box including cover plate and connections (This must include wall box)				
22	**Type B** - Similar to Diamond Combo Socket (100 x 100mm)	Each	2		
	SWITCHES				
	Flush mounted 16A light switch mounted into wall boxes, including cover plate and connection (This must include wall box)				
23	1Lever - 1 Way	Each	30		
	OCCUPANCY SENSORS				
24	Type A- STEINEL IS 2360 - ABLUTIONS / STORE ROOMS / LOBBIES / ENCLOSED OFFICE	Each	2		
	ISOLATORS				
	Flush mounted isolators in wall box including cover plate and connection. (Wall box measured elsewhere)				
25	30A double pole	Each	1		

	Surface mounted, water tight isolators including connection and fixings				
26	30A Double pole, water proof	Each	1		
	DRAW WIRE				
27	Draw wire for security, telephone and data conduit	M	60		
	BONDING				
28	Allow for bonding hot, cold waste pipes etc., as required by the applicable regulations of the supply authority and Engineers Specification	Sum	1		
	FGD CONTROL ROOM **STEEL CONDUIT**				
	Bosal type galvanized conduit including fixings, couplings, bushes, locknuts, bends, waste, drawboxes,chasing, drilling for entry points etc. The conduit may be cast into concrete, placed in to position for building into brickwork or concrete, surface mounted to brickwork, placed in ceiling void or chased and fixed into brickwork or concrete. Chasing etc. to be made good by others				
30	25 mm	M	100		
	GALVANIZED/PVC WALL BOXES				
	Boxes may be cast into concrete slab, placed into position for building into brickwork or concrete, surface mounted to brickwork or concrete, mounted in ceiling void or chased and fixed in concrete or brickwork (made good by others)				
31	All sizes up to 100x100x100.	Each	8		
32	100 mm x 100 mm Expansion Box	Each	8		
	WALL BOX COVERS				
	Ivory blank cover plate installed to wall boxes				
33	All sizes up to 100x100x100	Each	8		
	EXPANSION BOXES				
34	Expansion Boxes cast into concrete slab with 2 x SANS 1641 & 2 x SANS 164-2 SSO. 2 X Network points 25mm Conduit.	Each	6		
	DOME LIDS				
	Dome lids complete with gasket and screws installed to round boxes (This must include wall box)				
35	25 mm	Each	8		
	CONDUCTORS				
	600/1000V grade PVC insulated stranded copper power conductors drawn into conduit, trunking or power skirting				
36	2,5 sq mm	M	200		
37	4 sq mm	M	400		
	Green/yellow insulated copper earth wire drawn into conduit, trunking or power skirting				
38	2,5 sq mm	M	100		
39	4 sq mm	M	200		
	Surfix cable surface mounted on ceiling, brick wall or concrete including fixings etc.				
40	2,5 sq mm x 3 core	M	100		
41	4 sq mm x 3 core	M	100		
	Termination for SURFIX cables complete with PVC compression gland and connection lugs				
42	2,5 sq mm x 3 core	Each	2		
43	4 sq mm x 3 core	Each	2		
	SOCKET OUTLETS				
	Switched sochet outlets, flush mounted into wall box including cover plate and connections (Wall boxes measured elsewhere)				
44	**Type B** - Similar to Diamond Combo Socket (100 x 100mm)	Each	8		
45	**Type C** - Similar to Diamond Combo Socket (100 x 100mm)	Each	1		
	SWITCHES				
	Flush mounted 16A light switch mounted into wall boxes, including cover plate and connection (This must include wall box)				
46	1Lever - 1 Way	Each	10		
	Surface mounted 16A light switch mounted into wall boxes, including cover plate and connection (This must include wall box)				
47	1Lever - 1 Way	Each	10		
	OCCUPANCY SENSORS				
48	Type A- STEINEL IS 2360 - ABLUTIONS / STORE ROOMS / LOBBIES / ENCLOSED OFFICE	Each	1		
	ISOLATORS				
	Flush mounted isolators in wall box including cover plate and connection. (This must include wall box)				
49	30A double pole	Each	2		
	Surface mounted, water tight isolators including connection and fixings				

50	30A Double pole, water proof	Each	1		
	DRAW WIRE				
51	Draw wire for security, telephone and data conduit	M	100		
	BONDING				
52	Allow for bonding hot, cold waste pipes etc., as required by the applicable regulations of the supply authority and Engineers Specification	Sum	1		
	BOP CONTROL ROOM **STEEL CONDUIT**				
	Bosal type galvanized conduit including fixings, couplings, bushes, locknuts, bends, waste, drawboxes,chasing, drilling for entry points etc. The conduit may be cast into concrete, placed in to position for building into brickwork or concrete, surface mounted to brickwork, placed in ceiling void or chased and fixed into brickwork or concrete. Chasing etc. to be made good by others				
54	25 mm	M	100		
	GALVANIZED/PVC WALL BOXES				
	Boxes may be cast into concrete slab, placed into position for building into brickwork or concrete, surface mounted to brickwork or concrete, mounted in ceiling void or chased and fixed in concrete or brickwork (made good by others)				
55	All sizes up to 100x100x100.	Each	4		
56	100 mm x 100 mm Expansion Box	Each	4		
	WALL BOX COVERS				
	Ivory blank cover plate installed to wall boxes				
57	All sizes up to 100x100x100	Each	4		
	EXPANSION BOXES				
58	Expansion Boxes cast into concrete slab with 2 x SANS 1641 & 2 x SANS 164-2 SSO. 2 X Network points 25mm Conduit.	Each	1		
	DOME LIDS				
	Dome lids complete with gasket and screws installed to round boxes (round boxes measured elsewhere)				
59	25 mm	Each	4		
	CONDUCTORS				
	600/1000V grade PVC insulated stranded copper power conductors drawn into conduit, trunking or power skirting				
60	2,5 sq mm	M	200		
61	4 sq mm	M	400		
	Green/yellow insulated copper earth wire drawn into conduit, trunking or power skirting				
62	2,5 sq mm	M	100		
63	4 sq mm	M	200		
	Surfix cable surface mounted on ceiling, brick wall or concrete including fixings etc.				
64	2,5 sq mm x 3 core	M	100		
65	4 sq mm x 3 core	M	100		
	Termination for SURFIX cables complete with PVC compression gland and connection lugs				
66	2,5 sq mm x 3 core	Each	2		
67	4 sq mm x 3 core	Each	2		
	SOCKET OUTLETS				
	Switched sochet outlets, flush mounted into wall box including cover plate and connections (Wall boxes measured elsewhere)				
68	**Type B** - Similar to Diamond Combo Socket (100 x 100mm)	Each	4		
69	**Type C** - Similar to Diamond Combo Socket (100 x 100mm)	Each	1		
	SWITCHES				
	Flush mounted 16A light switch mounted into wall boxes, including cover plate and connection (This must include wall box)				
70	1Lever - 1 Way	Each	2		
	Surface mounted 16A light switch mounted into wall boxes, including cover plate and connection (This must include wall box)				
71	1Lever - 1 Way	Each	2		
	OCCUPANCY SENSORS				
72	Type A- STEINEL IS 2360 - ABLUTIONS / STORE ROOMS / LOBBIES / ENCLOSED OFFICE	Each	8		
	ISOLATORS				
	Flush mounted isolators in wall box including cover plate and connection. (Wall box measured elsewhere)				
73	30A double pole	Each	2		
	Surface mounted, water tight isolators including connection and fixings				

74	30A Double pole, water proof	Each	2		
	DRAW WIRE				
75	Draw wire for security, telephone and data conduit	M	100		
	BONDING				
76	Allow for bonding hot, cold waste pipes etc., as required by the applicable regulations of the supply authority and Engineers Specification	Sum	1		
	PICS CONTROLROOM/C&I WORKSHOP 9 & 16 LEVEL **STEEL CONDUIT**				
	Bosal type galvanized conduit including fixings, couplings, bushes, locknuts, bends, waste, drawboxes,chasing, drilling for entry points etc. The conduit may be cast into concrete, placed in to position for building into brickwork or concrete, surface mounted to brickwork, placed in ceiling void or chased and fixed into brickwork or concrete. Chasing etc. to be made good by others				
78	25 mm	M	800		
	GALVANIZED WALL BOXES				
	Boxes may be cast into concrete slab, placed into position for building into brickwork or concrete, surface mounted to brickwork or concrete, mounted in ceiling void or chased and fixed in concrete or brickwork (made good by others)				
79	All sizes up to 100x100x100.	Each	27		
80	100 mm x 100 mm Expansion Box	Each	27		
	WALL BOX COVERS				
	Ivory blank cover plate installed to wall boxes				
81	All sizes up to 100x100x100	Each	27		
	DOME LIDS				
	Dome lids complete with gasket and screws installed to round boxes (round boxes measured elsewhere)				
82	25 mm	EACH	27		
	CONDUCTORS				
	600/1000V grade PVC insulated stranded copper power conductors drawn into conduit, trunking or power skirting				
83	2,5 sq mm	M	1600		
84	4 sq mm	M	2000		
	Green/yellow insulated copper earth wire drawn into conduit, trunking or power skirting				
85	2,5 sq mm	M	800		
86	4 sq mm	M	1000		
	Surfix cable surface mounted on ceiling, brick wall or concrete including fixings etc.				
87	2,5 sq mm x 3 core	M	100		
88	4 sq mm x 3 core	M	400		
	Termination for SURFIX cables complete with PVC compression gland and connection lugs				
89	2,5 sq mm x 3 core	Each	2		
90	4 sq mm x 3 core	Each	10		
	SOCKET OUTLETS				
	Switched sochet outlets, flush mounted into wall box including cover plate and connections (Wall boxes measured elsewhere)				
91	**Type B** - Similar to Diamond Combo Socket (100 x 100mm)	Each	22		
92	**Type A** - Similar to Diamond Combo Socket with USB (100 x 100mm)	Each	4		
	SWITCHES				
	Flush mounted 16A light switch mounted into wall boxes, including cover plate and connection (This must include wall box)				
93	1Lever - 1 Way	Each	5		
94	1Lever - 2 Way	Each	5		
	Surface mounted 16A light switch mounted into wall boxes, including cover plate and connection (This must include wall box)				
95	1Lever - 1 Way	Each	3		
96	1Lever - 2 Way	Each	3		
	OCCUPANCY SENSORS				
97	Type A- STEINEL IS 2360 - ABLUTIONS / STORE ROOMS / LOBBIES / ENCLOSED OFFICE	Each	5		
	ISOLATORS				
	Flush mounted isolators in wall box including cover plate and connection. (Wall box measured elsewhere)				
98	30A double pole	Each	5		
	Surface mounted, water tight isolators including connection and fixings				
99	30A Double pole, water proof	Each	5		

	DRAW WIRE				
100	Draw wire for security, telephone and data conduit	m	800		
	BONDING				
101	Allow for bonding hot, cold waste pipes etc., as required by the applicable regulations of the supply authority and Engineers Specification	Sum	1		
	POWER SKIRTING AND TRUNKING **POWERSKIRTING**				
	Sheet metal powerskirting or equivalent, surface mounted to brickwork, concrete or drywall, including cover plates, splices, fixings and rear openings for wiring.				
	Two Compartment, Two Cover (O-Line)				
103	Straight Lengths	M	100		
104	External 90 degree elbow	No	6		
105	Internal 90 degree elbow	No	6		
106	End caps	No	10		
107	Conduit Entries	No	8		
	SOCKET OUTLETS IN POWERSKIRTING				
108	16A - Single switch socket (SANS 164-1) Normal/Emergency/Essential	No	12		
109	16A - Single switch socket (SANS 164-2) Normal/Emergency/Essential	No	12		
110	16A Dedicated switched socket outlet (Isolated Earth)	No	6		
111	RJ45 data/telephone outlet	No	10		
	TRUNKING AND ACCESSORIES				
	Hot dipped galvanized trunking complete with steel covers, splices, fixings, etc.				
	Suspended from concrete slab/roof trusses or surface mounted to brickwork/roof trusses/concrete				
	When suspended take into account the following: 1. 2500 mm average length c/w 20 mm conduit (White) 2. Purpose made hanger, 3. Expansion bolt, nuts, washers, fixings etc.				
	Trunking type: O-LINE 8000 or equivalent.				
112	Straight lengths (including covers)	M	20		
114	90 deg. Bends (Radius)	Each	1		
115	90 deg. Tee (Radius)	Each	1		
116	Crossover (Radius)	Each	1		
117	Distribution outlet (Radius)	Each	1		
118	End Caps	Each	2		
	Trunking type: O-LINE 2000 or equivalent				
119	Straight lengths (including covers)	M	60		
120	90 deg. Bends (Radius)	Each	4		
121	90 deg. Tee (Radius)	Each	4		
122	Crossover (Radius)	Each	1		
123	Distribution outlet (Radius)	Each	1		
124	End Caps	Each	4		
	BONDING				
125	Allow for bonding hot, cold waste pipes etc., as required by the applicable regulations of supply authority and Engineers Specification.	Sum	1		
	TEST AND COMMISSIONING				
126	Test and commissioning of the complete system, and the necessary test certificates	Item	1		
	BOP CONTROL ROOM **POWERSKIRTING**				
	Sheet metal powerskirting or equivalent, surface mounted to brickwork, concrete or drywall, including cover plates, splices, fixings and rear openings for wiring.				
	Two Compartment, Two Cover (O-Line)				
127	Straight Lengths	m	100		
128	External 90 degree elbow	No	6		
129	Internal 90 degree elbow	No	6		
130	End caps	No	8		
131	Conduit Entries	No	8		
	SOCKET OUTLETS IN POWERSKIRTING				
132	16A - Single switch socket (SANS 164-1) Normal/Emergency/Essential	No	16		
133	16A - Single switch socket (SANS 164-2) Normal/Emergency/Essential	No	16		
134	16A Dedicated switched socket outlet (Isolated Earth)	No	8		
135	RJ45 data/telephone outlet	No	18		
	TRUNKING AND ACCESSORIES				
	Hot dipped galvanized trunking complete with steel covers, splices, fixings, etc.				
	Suspended from concrete slab/roof trusses or surface mounted to brickwork/roof trusses/concrete				
	When suspended take into account the following: 1. 2500 mm average length c/w 20 mm conduit (White)				

	2. Purpose made hanger, 3. Expansion bolt, nuts, washers, fixings etc.				
	Trunking type: O-LINE 8000 or equivalent.				
136	Straight lengths (including covers)	M	20		
137	90 deg. Bends (Radius)	Each	1		
138	90 deg. Tee (Radius)	Each	1		
139	Crossover (Radius)	Each	2		
140	Distribution outlet (Radius)	Each	2		
141	End Caps	Each	2		
	Trunking type: O-LINE 2000 or equivalent				
142	Straight lengths (including covers)	M	60		
143	90 deg. Bends (Radius)	Each	4		
144	90 deg. Tee (Radius)	Each	4		
145	Crossover (Radius)	Each	4		
146	Distribution outlet (Radius)	Each	4		
147	End Caps	Each	4		
	BONDING				
148	Allow for bonding hot, cold waste pipes etc., as required by the applicable regulations of supply authority and Engineers Specification.	Sum	1		
	TEST AND COMMISSIONING				
149	Test and commissioning of the complete system, and the necessary test certificates	Item	1		
	PICS CONTROLROOM/C&I WORKSHOP 9 & 16 LEVEL **POWERSKIRTING**				
	Sheet metal powerskirting or equivalent, surface mounted to brickwork, concrete or drywall, including cover plates, splices, fixings and rear openings for wiring.				
	Two Compartment, Two Cover (O-Line)				
150	Straight Lengths	M	200		
151	External 90 degree elbow	No	10		
152	Internal 90 degree elbow	No	10		
153	End caps	No	16		
154	Conduit Entries	No	12		
	SOCKET OUTLETS IN POWERSKIRTING				
155	16A - Single switch socket (SANS 164-1) Normal/Emergency/Essential	No	34		
156	16A - Single switch socket (SANS 164-2) Normal/Emergency/Essential	No	34		
157	16A Dedicated switched socket outlet (Isolated Earth)	No	14		
158	RJ45 data/telephone outlet	No	26		
	TRUNKING AND ACCESSORIES				
	Hot dipped galvanized trunking complete with steel covers, splices, fixings, etc.				
	Suspended from concrete slab/roof trusses or surface mounted to brickwork/roof trusses/concrete				
	When suspended take into account the following: 1. 2500 mm average length c/w 20 mm conduit (White) 2. Purpose made hanger, 3. Expansion bolt, nuts, washers, fixings etc.				
	Trunking type: O-LINE 8000 or equivalent.				
159	Straight lengths (including covers)	M	30		
160	90 deg. Bends (Radius)	Each	2		
161	90 deg. Tee (Radius)	Each	2		
162	Crossover (Radius)	Each	2		
163	Distribution outlet (Radius)	Each	2		
164	End Caps	Each	4		
	Trunking type: O-LINE 2000 or equivalent				
165	Straight lengths (including covers)	M	100		
166	90 deg. Bends (Radius)	Each	6		
167	90 deg. Tee (Radius)	Each	6		
168	Crossover (Radius)	Each	2		
169	Distribution outlet (Radius)	Each	2		
170	End Caps	Each	8		
	BONDING				
171	Allow for bonding hot, cold waste pipes etc., as required by the applicable regulations of supply authority and Engineers Specification.	Sum	1		
	LIGHT FITTINGS				
	ALL TENDERERS SHALL REFER TO THE SCHEDULE OF LIGHT FITTINGS FOR COMPREHENSIVE DESCRIPTION OF LIGHT FITTINGS BEFORE PRICING OF THIS SECTION. ONLY SPECIFIED LIGHT FITTINGS SHALL BE OFFERED				
172	Type B1	Each	44		
173	Type B2	Each	31		
	FGD CONTROL ROOM				
	ALL TENDERERS SHALL REFER TO THE SCHEDULE OF LIGHT FITTINGS FOR COMPREHENSIVE DESCRIPTION OF LIGHT FITTINGS BEFORE PRICING OF THIS SECTION. ONLY SPECIFIED LIGHT FITTINGS SHALL BE OFFERED				
174	Type B	Each	11		

175	Type C	Each	4		
176	Type D	Each	8		
177	Type DE	Each	3		
178	Type F	Each	10		
	FGD CONTROL ROOM				
	ALL TENDERERS SHALL REFER TO THE SCHEDULE OF LIGHT FITTINGS FOR COMPREHENSIVE DESCRIPTION OF LIGHT FITTINGS BEFORE PRICING OF THIS SECTION. ONLY SPECIFIED LIGHT FITTINGS SHALL BE OFFERED				
179	Type C	Each	3		
180	Type CE	Each	1		
181	Type F	Each	26		
182	Type FE	Each	6		
	PICS CONTROLROOM/C&I WORKSHOP 9 & 16 LEVEL				
	ALL TENDERERS SHALL REFER TO THE SCHEDULE OF LIGHT FITTINGS FOR COMPREHENSIVE DESCRIPTION OF LIGHT FITTINGS BEFORE PRICING OF THIS SECTION. ONLY SPECIFIED LIGHT FITTINGS SHALL BE OFFERED				
183	Type A	Each	7		
184	Type B	Each	30		
185	Type F	Each	22		
186	Type FE	Each	6		
	Field Equipment				
187	Shielded RJ45 In-Line Female - Female Coupler IP68 Cable OD 4 - 8 mm	Each	10		
188	Modular Plug 8 Way RJ45 Shielded CAT7	Each	20		
189	Cable Boot for RJ/45 • Black	Each	20		
190	Accessories & Consumables	Lot	1		
	Cable Racks & Supports				
191	Perforated Metal Cable Tray - Heavy Duty Galvanised - 150mm (3000mm)	Each	4		
192	Angle Splice & Bolts	Each	8		
193	P1000 Unistrut - Galvanised (6000mm)	Each	2		
194	Accessories & Consumables	Lot	1		
	Plugs				
195	Plug circuit	Each	97		
196	Type A	Each	42		
197	5A Plugs for lights	Each	76		
198	Single lever light switches	Each	96		
	Lights				
199	Titan Bulkhead 18W	Each	25		
200	EOS 600 x 600 mm, 28W	Each	120		
201	LED Tube 40W (Tyoe D)	Each	50		
202	LED Tube 40W (Tyoe D)	Each	15		
	Structural Cable Management				
203	Structural Scanning for core drill locations in floor	Each	3		
204	Core drilling 50mm	Each	3		
205	Firestop Sealing foam in core drilled holes	Each	3		
	C&I Cables				
206	Telegartner CAT7 Grey, S/FTPShielded, Unterminated LSZH Sheath	M	50		
	Removal and Re-Installation				
207	Removal and re-installing of existing electrical installation	Item	1		
	Total Section 7 (Electrical Installation) Carried to Final Summary :				

	FINAL SUMMARY BILLS OF QUANTITIES				
1	Alterations				
2	Builders Work				
3	HVAC System				
4	Firewater				
5	Fire Detection				
6	Signage				
7	Electrical Installation				
	TOTAL TO BE CARRIED TO FORM OF OFFER:				