

**BLOCK B: ADMINISTRATION, MAIN CENTRAL AREA****ELECTRICAL INSTALLATION****PROVISIONAL BILLS OF QUANTITIES****SECTION A**

Item	Description	Qty	Unit	Rate	Amount
1.1	<b>Distribution Boards</b> Supply, installation and commissioning of Kiosk, Distribution Boards, including all circuit breakers (as per load schedule), earthing straps, labels the making off of wire connections (external wiring, conduit, armoured cable and terminations given elsewhere). All DB's are to be equipped with a three phase or single phase surge arrestor. Special note, the accessories are inclusive on the quoted price				
1.1.1	Distribution Board	Supply Install	1 1	No. No.	
1.1.2	<b>Security System</b> Installation of Camera Sytem equipment and All Access Control Systems as specified of the Detailed Specification.				
1.1.2.1	360 Degree resolution CCTV Camera	Supply Install	6 6	No. No.	
1.1.2.3	Double Door Access Controller Panel	Supply Install	3 3	No. No.	
1.1.2.4	Fingerprint Keypad Reader-Standalone	Supply Install	3 3	No. No.	
1.1.2.5	Magnetic Lock 544 KG Holding Force	Supply Install	3 3	No. No.	
1.1.2.6	Emergency Door Release Call Point (Breaker Glass)	Supply Install	3 3	No. No.	
1.2	<b>Ancillary Distribution Boards and Outlets</b> Supply and installation of the following metal Ancillary Distribution Boards and coverplates for Data and Telephone outlets. (Conduit and Conduit boxes given elsewhere).				
1.2.1	Telephone Distribution Board (450mm x 450mm).	Supply Install	1 1	No. No.	
1.2.2	Data Distribution Board (450mm x 450mm)	Supply Install	1 1	No. No.	
1.2.4	Data, Telephone and Ancillary Coverplates	Supply Install	17 17	No. No.	
1.3	<b>Cables</b> Supply, delivery and laying of PVC/SWA/PVC ECC Aluminium cables as specified, excluding terminations and cable supports. Lengths given shall be taken as measured lengths to cable runs from terminal to terminal and rates quoted shall include for off-cuts.				
1.3.1	35mm <sup>2</sup> 4C Aluminium Cable PVC Mains 600/1000V	Supply Install	65 65	m m	
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Item	Description	Qty	Unit	Rate
1.4	<b>Cable Terminations</b> Including the supply and fitting of Pratley Cable gland, shroud, making off the cable and fitting the gland to gland plates, switchgear or equipment including final connections of cable tails with lugs onto board terminals and including earth in ECC cable.			
1.4.1	35mm <sup>2</sup> 4C Aluminium Cable PVC Mains 600/1000V	Supply 2 Install 2	No. No.	
1.5	<b>Cable Sleeves</b> Supply and Installation of Cable Sleeves as specified, in trenches			
1.5.1	110mm Ø Flexible Cable Sleeve	Supply 65 Install 65	m m	
1.6	<b>EXCAVATIONS</b> In trenches for cables and sleeves extra over soft excavation intermediate extra over soft excavation in hard rock	65 65 65	m3 m3 m3	
1.7	<b>Conduit</b> Supply and installation of PVC conduit. Lengths given shall be taken as measured horizontal and vertical runs between conduit terminations. Rates quoted shall allow for wastage, offcuts, couplings, cuttings, bending, jointing socket and tees.			
1.7.1	25mm Conduit	Supply 850 Install 850	m m	
1.8	<b>Conduit Boxes and Ends</b> Terminate and connect one pair of conduit ends including supply and installation of 1, 2, 3 or 4 way box on surface or in brickwork. (excluding coverplates), including holes for conduit.			
1.8.1	25mm Conduit (100 x 100mm) Galvanized Box	Supply 81 Install 81	No. No.	
1.9	<b>Conduit Ends</b> Terminate and connect one pair of conduit ends including lock nuts, bushes, etc. connecting into board tray, wiring channel etc. including cutting holes for conduit entries, but excluding conduit box.			
1.9.1	25mm uPVC Conduit	Supply 81 Install 81	No. No.	
1.10	<b>Conductors</b> Supply and installation of PVC insulated copper conductors drawn into conduit or wiring channel in groups of 2, 3, 4, etc. with the required colour coding, but excluding any wiring connections.			
1.10.1	2,5 mm <sup>2</sup> PVC Conductors Red	Supply 800 Install 800	m m	
	2,5 mm <sup>2</sup> PVC Conductors Black	Supply 800 Install 800	m m	
	2,5 mm <sup>2</sup> PVC Conductors Pink	Supply 800 Install 800	m m	
	4 x 2 PVC Wall Box	Supply 21 Install 21	No. No.	
	Hospital Saddle	Supply 65 Install 65	No. No.	
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Item	Description	Qty	Unit	Rate	Amount
	4-Way Box PVC	Supply Install	65 65	No. No.	
1.10.2	4 mm <sup>2</sup> PVC Conductors Blue	Supply Install	500 500	m m	
	4 mm <sup>2</sup> PVC Conductors Brown	Supply Install	500 500	m m	
	4 mm <sup>2</sup> PVC Conductors Earth	Supply Install	500 500	m m	
	Adaptors 25mm	Supply Install	35 35	No. No.	
	4 x 4 PVC Wall Box	Supply Install	40 40	No. No.	
	Coupling 25mm	Supply Install	50 50	No. No.	
1.12	<b><u>Light Switches</u></b> Supply, fitting and electrical connection of a Legrand type flush or surface mounted 16A switch in 100 x 50 excluding box (for flush type) and conduit connections, but including cover plates.				
1.12.1	16A 1 Lever 1 Way	Supply Install	18 18	No. No.	
1.12.2	16A 1 Lever 2 Way	Supply Install	4 4	No. No.	
1.13	<b><u>Luminaires</u></b> Mounting, fixing and electrically connecting the following luminaires, complete with lamps as specified in Section E of the Detailed Specification.				
1.13.1	Type B1 50w 1200 x 600 LED Panel Surface Mount Non-Dimmable, 3400lm, 5000k, as per Regent, Beka, Rubicon	Supply Install	44 44	No. No.	
1.13.5	Type J1.1 Round LED Bulkhead Light, 18w, 220-240v ac, IP54	Supply Install	16 16	No. No.	
1.14	<b><u>Daylight Switch</u></b> Supply and installation of approved daylight switch.				
1.14.1	Daylight Switch	Supply Install	1 1	No. No.	
1.15.2	Elbows Internal/External	Supply Install	20 20	No. No.	
1.15.3	End Caps	Supply Install	20 20	No. No.	
1.15.4	Cover Joiner Clips	Supply Install	20 20	No. No.	
1.15.5	16A SSO's c/w cover on Powerskirting	Supply Install	12 12	No. No.	
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Item	Description	Qty	Unit	Rate	Amount
1.16	<b>Socket Outlets</b> Supply, fitting and electrical connection of flush or surface mounted Legrand type switched socket in either 100 x 100, 100 x 50, round box or wiring channel, <u>excluding</u> box (for flush type) and conduit connections, but including cover plate.				
1.16.1	5A Single SSO c/w coverplate.Legrand type.	Supply Install	No. No.		
1.16.2	16A Double SSO c/w coverplate.Legrand type.	Supply Install	16 16	No. No.	
1.16.3	16A Dedicated Double SSO c/w coverplate.Legrand type.	Supply Install	24 24	No. No.	
1.16.4	Powerskirting, Legrand Type	Supply Install	30 30	m m	
1.16.5	RJ11 Connector with cradle/ cover and mod blank, Legrand Type	Supply Install	12 12	No No	
1.16.6	RJ45 Connector with cradle/ cover mod blank, Legrand Type	Supply Install	12 12	No No	
1.17	<b>Isolators</b> Supply, fitting and electrical connection of flush or surface mounted Metal Clad Isolators in either 100 x 100, 100 x 50, round box or wiring channel, <u>excluding</u> box (for flush type) and conduit connections, but including cover plate. For more details please refer to the specific drawings				
1.17.1	20A Double2 Pole Flush waterproof Isolator for HVAC	Supply Install	6 6	No. No.	
1.17.2	32A Double-Pole waterproof Isolator for Handdryer	Supply Install	1 1	No. No.	
1.17.3	20A 2 Pole Flush waterproof Isolator - Geyser	Supply Install	2 2	No. No.	
1.18	<b>Electrical connection of appliances and installations.</b>				
1.18.1	Total Airconditioning Plant (Internal/External Units): Single and three phase	Connect	6	No.	
1.18.2	Hand dryers	Connect	1	No.	
1.19	<b>TELEPHONE INSTALLATION</b> Supply and installation of the following items for the Telephone Installation				
1.19.1	25mm PVC Conduit	Supply Install	130 130	m m	
1.19.2	25mm PVC Conduit end	Supply Install	11 11	No. No.	
1.19.3	25mm PVC Conduit box	Supply Install	11 11	No. No.	
1.20	<b>DATA INSTALLATION</b> Supply and installation of the following items for the Data installation				
1.20.1	25mm PVC Conduit	Supply Install	130 130	m m	
1.20.2	25mm PVC Conduit end	Supply Install	11 11	No. No.	
Total for Bill No. 1 : Carried Forward to Summary Page					

Item	Description	Qty	Unit	Rate	Amount
1.20.3	25mm PVC Conduit box	Supply Install	11 11	No. No.	
1.20.4	<b>UPS</b> Supply and install of UPS for IT and electronic equipment housed in the server room. Capacity 6KVA, or a minimum of 2 hours backup	Supply Install	1 1	No. No.	
1.20.5	<b>IT Server Cabinet</b>  Complete Wi-fi and network points to all rooms, security, Admin building.Refer to technical specification for system details.Detail design and layout to be done by contractor. 2 Main fibre feeds to be provide. All sever room compete supply of server and all accessories, including 48 Port Gigabit PoE Managed Switch, 12 Port SFP+ Router, 24 port CAT6 shielded patch panel, 42U 1M Deep Cabinet and all accessories. Fans,shelves., 8 Way C13 IEC Aluminium Rack Mount PDU-With surge protection, Cat6 Flylead, Fibre Patch Panel and associated assessories, Environment Monitoring Kit-In main server rooms Supply,install,program and layout of 6 wireless routes (one per block). All equipment to be preapproved by Engineer	Supply	1	No.	
1.20.6	<b>LAN points</b> Supply and install cat 6A Shielded cable LAN from server room to each LAN point Included wall box and patch lead to device & Labour for each point.incl cable. Termination on field and server patch panel	Install Supply Install	1 55 55	No. No. No.	
1.21	<b>Nurse Call System</b> Supply and installation of approved Nurse Call System.				
1.20.1	Nurse call Panel	Supply Install	1 1	No. No.	
1.20.2	PA System	Supply Install	1 1	No. No.	
1.20.3	Microphone	Supply Install	1 1	No. No.	
1.20.4	Loud Speaker	Supply Install	3 3	No. No.	
Total for Bill No. 1 : Carried Forward to Summary Page					

**BLOCK - F - CHRONIC CARE****ELECTRICAL INSTALLATION****PROVISIONAL BILLS OF QUANTITIES****SECTION A**

Item	Description	Qty	Unit	Rate	Amount
1.1	<b>Security System</b> Installation of Camera Sytem equipment and All Access Control Systems as specified of the Detailed Specification.				
1.1.1	360 Degree resolution CCTV Camera	Supply Install	4 4	No. No.	
1.1.2	Double Door Access Controller Panel	Supply Install	2 2	No. No.	
1.1.3	Fingerprint Keypad Reader-Standalone	Supply Install	2 2	No. No.	
1.1.4	Magnetic Lock 544 KG Holding Force	Supply Install	2 2	No. No.	
1.1.5	Emergency Door Release Call Point (Breaker Glass)	Supply Install	2 2	No. No.	
1.2	<b>Ancillary Distribution Boards and Outlets</b> Supply and installation of the following metal Ancillary Distribution Boards and coverplates for Data and Telephone outlets. (Conduit and Conduit boxes given elsewhere).				
1.2.1	Data, Telephone and Ancillary Coverplates	Supply Install	8 8	No. No.	
1.5	<b>Cable Sleeves</b> Supply and Installation of Cable Sleeves as specified, in trenches				
1.6	<b>Conduit</b> Supply and installation of PVC conduit. Lengths given shall be taken as measured horizontal and vertical runs between conduit terminations. Rates quoted shall allow for wastage, offcuts, couplings, cuttings, bending, jointing socket and tees.				
1.6.1	25mm Conduit	Supply Install	330 330	m m	
1.7	<b>Conduit Boxes and Ends</b> Terminate and connect one pair of conduit ends including supply and installation of 1, 2, 3 or 4 way box on surface or in brickwork. (excluding coverplates), including holes for conduit.				
1.7.1	25mm Conduit (100 x 100mm) Galvanized Box	Supply Install	20 20	No. No.	
1.8	<b>Conduit Ends</b> Terminate and connect one pair of conduit ends including lock nuts, bushes, etc. connecting into board tray, wiring channel etc. including cutting holes for conduit entries, but excluding conduit box.				
1.8.1	25mm uPVC Conduit	Supply Install	20 20	No. No.	
Total for Bill No. 1 : Carried Forward to Summary Page					

Item	Description	Qty	Unit	Rate	Amount
1.9	<b>Conductors</b> Supply and installation of PVC insulated copper conductors drawn into conduit or wiring channel in groups of 2, 3, 4, etc. with the required colour coding, but excluding any wiring connections.				
1.9.1	2.5 mm <sup>2</sup> PVC Conductors Red	Supply 300 Install 300	m m		
	2,5 mm <sup>2</sup> PVC Conductors Black	Supply 300 Install 300	m m		
	2,5 mm <sup>2</sup> PVC Conductors Pink	Supply 300 Install 300	m m		
	4 x 2 PVC Wall Box	Supply 8 Install 8	No. No.		
	Hospital Saddle	Supply 15 Install 15	No. No.		
	4-Way Box PVC	Supply 10 Install 10	No. No.		
1.9.2	4 mm <sup>2</sup> PVC Conductors Blue	Supply 150 Install 150	m m		
	4 mm <sup>2</sup> PVC Conductors Brown	Supply 150 Install 150	m m		
	4 mm <sup>2</sup> PVC Conductors Earth	Supply 100 Install 100	m m		
	Adaptors 25mm	Supply 15 Install 15	No. No.		
	4 x 4 PVC Wall Box	Supply 13 Install 13	No. No.		
	Coupling 25mm	Supply 10 Install 10	No. No.		
1.10.	<b>Light Switches</b> Supply, fitting and electrical connection of a Legrand type flush or surface mounted 16A switch in 100 x 50 excluding box (for flush type) and conduit connections, but including cover plates.				
1.10.1	16A 1 Lever 1 Way	Supply 6 Install 6	No. No.		
1.10.2	16A 1 Lever 2 Way	Supply 2 Install 2	No. No.		
1.11	<b>Luminaires</b> Mounting, fixing and electrically connecting the following luminaires, complete with lamps as specified in Section E of the Detailed Specification.				
1.11.1	Type B1 50w 1200 x 600 LED Panel Surface Mount Non-Dimmable, 3400lm, 5000k, as per Regent, Beka, Rubicon	Supply 28 Install 28	No. No.		
1.11.2	Type J1.1 Round LED Bulkhead Light, 18w, 220-240v ac, IP54	Supply 10 Install 10	No. No.		
1.12	<b>Daylight Switch</b> Supply and installation of approved daylight switch.				
1.12.1	Daylight Switch	Supply 1 Install 1	No. No.		
Total for Bill No. 1 : Carried Forward to Summary Page					

Item	Description		Qty	Unit	Rate	Amount
1.12.2	Elbows Internal/External	Supply	10	No.		
		Install	10	No.		
1.12.3	End Caps	Supply	10	No.		
		Install	10	No.		
1.12.4	Cover Joiner Clips	Supply	10	No.		
		Install	10	No.		
1.12.5	16A SSO's c/w cover on Powerskirting	Supply	13	No.		
		Install	13	No.		
1.13	<b><u>Socket Outlets</u></b> Supply, fitting and electrical connection of flush or surface mounted Legrand type switched socket in either 100 x 100, 100 x 50, round box or wiring channel, <u>excluding</u> box (for flush type) and conduit connections, but including cover plate.					
1.13.1	5A Single SSO c/w coverplate.Legrand type.	Supply	2	No.		
		Install	2	No.		
1.13.2	16A Double SSO c/w coverplate.Legrand type.	Supply	2	No.		
		Install	2	No.		
1.13.3	16A Dedicated Double SSO c/w coverplate.Legrand type.	Supply	8	No.		
		Install	8	No.		
1.13.4	16A UPS Single SSO c/w coverplate.Legrand type.	Supply	3	No.		
		Install	3	No.		
1.13.5	Powerskirting, Legrand Type	Supply	26	m		
		Install	26	m		
1.13.6	RJ11 Connector with cradle/ cover and mod blank	Supply	4	No		
		Install	4	No		
1.13.7	RJ45 Connector with cradle/ cover mod blank	Supply	4	No		
		Install	4	No		
1.14	<b><u>Isolators</u></b> Supply, fitting and electrical connection of flush or surface mounted Metal Clad Isolators in either 100 x 100, 100 x 50, round box or wiring channel, <u>excluding</u> box (for flush type) and conduit connections, but including cover plate. For more details please refer to the specific drawings					
1.14.1	20A Double2 Pole Flush waterproof Isolator for HVAC	Supply	4	No.		
		Install	4	No.		
1.14.2	32A Double-Pole waterproof Isolator for Handdryer	Supply	2	No.		
		Install	2	No.		
1.14.3	5A 2 Pole Flush waterproof Isolator	Supply	1	No.		
		Install	1	No.		
1.14.4	20A 2 Pole Flush waterproof Isolator - Geysers	Supply	1	No.		
		Install	1	No.		
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Item	Description		Qty	Unit	Rate	Amount
1.15	<b><u>Electrical connection of appliances and installations.</u></b>					
1.15.1	Total Airconditioning Plant (Internal/External Units): Single and three phase	Connect	4	No.		
1.16	<b>TELEPHONE INSTALLATION</b> Supply and installation of the following items for the Telephone Installation					
1.16.1	25mm PVC Conduit	Supply	50	m		
		Install	50	m		
1.16.2	25mm PVC Conduit end	Supply	8	No.		
		Install	8	No.		
1.16.3	25mm PVC Conduit box	Supply	5	No.		
		Install	5	No.		
1.17	<b>DATA INSTALLATION</b> Supply and installation of the following items for the Data installation					
1.17.1	25mm PVC Conduit	Supply	50	m		
		Install	50	m		
1.17.2	25mm PVC Conduit end	Supply	8	No.		
		Install	8	No.		
1.17.3	25mm PVC Conduit box	Supply	5	No.		
		Install	5	No.		
1.18	<b><u>Nurse Call System</u></b> Supply and installation of approved Nurse Call System.					
1.18.1	Loud Speaker	Supply	1	No.		
		Install	1	No.		
Total for Bill No. 1 : Carried Forward to Summary Page						

**BLOCK - E - ACUTE CARE****ELECTRICAL INSTALLATION****PROVISIONAL BILLS OF QUANTITIES****SECTION A**

Item	Description		Qty	Unit	Rate	Amount
1.1	<b>Security System</b> Installation of Camera Sytem equipment and All Access Control Systems as specified of the Detailed Specification.					
1.1.1	360 Degree resolution CCTV Camera	Supply	5	No.		
		Install	5	No.		
1.1.2	Double Door Access Controller Panel	Supply	2	No.		
		Install	2	No.		
1.1.3	Fingerprint Keypad Reader-Standalone	Supply	2	No.		
		Install	2	No.		
1.1.4	Magnetic Lock 544 KG Holding Force	Supply	2	No.		
		Install	2	No.		
1.1.5	Emergency Door Release Call Point (Breaker Glass)	Supply	2	No.		
		Install	2	No.		
1.2	<b>Ancillary Distribution Boards and Outlets</b> Supply and installation of the following metal Ancillary Distribution Boards and coverplates for Data and Telephone outlets. (Conduit and Conduit boxes given elsewhere).					
1.2.1	Data, Telephone and Ancillary Coverplates	Supply	6	No.		
		Install	6	No.		
1.3	<b>Conduit</b> Supply and installation of PVC conduit. Lengths given shall be taken as measured horizontal and vertical runs between conduit terminations. Rates quoted shall allow for wastage, offcuts, couplings, cuttings, bending, jointing socket and tees.					
1.3.1	25mm Conduit	Supply	300	m		
		Install	300	m		
1.4	<b>Conduit Boxes and Ends</b> Terminate and connect one pair of conduit ends including supply and installation of 1, 2, 3 or 4 way box on surface or in brickwork. (excluding coverplates), including holes for conduit.					
1.4.1	25mm Conduit (100 x 100mm) Galvanized Box	Supply	20	No.		
		Install	20	No.		
1.5	<b>Conduit Ends</b> Terminate and connect one pair of conduit ends including lock nuts, bushes, etc. connecting into board tray, wiring channel etc. including cutting holes for conduit entries, but excluding conduit box.					
1.5.1	25mm uPVC Conduit	Supply	25	No.		
		Install	25	No.		
Total for Bill No. 1 : Carried Forward to Summary Page						

Item	Description	Qty	Unit	Rate	Amount
1.6	<b><u>Conductors</u></b> Supply and installation of PVC insulated copper conductors drawn into conduit or wiring channel in groups of 2, 3, 4, etc. with the required colour coding, but excluding any wiring connections.				
1.6.1	2,5 mm <sup>2</sup> PVC Conductors Red	Supply 200 Install 200	m m		
	2,5 mm <sup>2</sup> PVC Conductors Black	Supply 200 Install 200	m m		
	2,5 mm <sup>2</sup> PVC Conductors Pink	Supply 200 Install 200	m m		
	4 x 2 PVC Wall Box	Supply 9 Install 9	No. No.		
	Hospital Saddle	Supply 15 Install 15	No. No.		
	4-Way Box PVC	Supply 10 Install 10	No. No.		
1.6.2	4 mm <sup>2</sup> PVC Conductors Blue	Supply 150 Install 150	m m		
	4 mm <sup>2</sup> PVC Conductors Brown	Supply 150 Install 150	m m		
	4 mm <sup>2</sup> PVC Conductors Earth	Supply 100 Install 100	m m		
	Adaptors 25mm	Supply 15 Install 15	No. No.		
	4 x 4 PVC Wall Box	Supply 14 Install 14	No. No.		
	Coupling 25mm	Supply 10 Install 10	No. No.		
1.7	<b><u>Light Switches</u></b> Supply, fitting and electrical connection of a Legrand type flush or surface mounted 16A switch in 100 x 50 excluding box (for flush type) and conduit connections, but including cover plates.				
1.7.1	16A 1 Lever 1 Way	Supply 8 Install 8	No. No.		
1.7.2	16A 1 Lever 2 Way	Supply 2 Install 2	No. No.		
1.8	<b><u>Luminaires</u></b> Mounting, fixing and electrically connecting the following luminaires, complete with lamps as specified in Section E of the Detailed Specification.				
1.8.1	Type B1 50w 1200 x 600 LED Panel Surface Mount Non-Dimmable, 3400lm, 5000k, as per Regent, Beka, Rubicon	Supply 24 Install 24	No. No.		
1.8.2	Type J1.1 Round LED Bulkhead Light, 18w, 220-240v ac, IP54	Supply 12 Install 12	No. No.		
1.9	<b><u>Daylight Switch</u></b> Supply and installation of approved daylight switch.				
1.9.1	Daylight Switch	Supply 1 Install 1	No. No.		
1.9.2	Elbows Internal/External	Supply 10 Install 10	No. No.		
1.9.3	End Caps	Supply 10 Install 10	No. No.		
Total for Bill No. 1 : Carried Forward to Summary Page					

Item	Description		Qty	Unit	Rate	Amount
1.9.4	Cover Joiner Clips	Supply	10	No.		
		Install	10	No.		
1.9.5	16A SSO's c/w cover on Powerskirting	Supply	9	No.		
		Install	9	No.		
1.10.	<b>Socket Outlets</b>					
	Supply, fitting and electrical connection of flush or surface mounted Legrand type switched socket in either 100 x 100, 100 x 50, round box or wiring channel. <u>excluding</u> box (for flush type) and conduit connections, but including cover plate.					
1.10.1	5A Single SSO c/w coverplate.Legrand type.	Supply	2	No.		
		Install	2	No.		
1.10.2	16A Double SSO c/w coverplate.Legrand type.	Supply	3	No.		
		Install	3	No.		
1.10.3	16A Dedicated Double SSO c/w coverplate.Legrand type.	Supply	8	No.		
		Install	8	No.		
1.10.4	16A UPS Single SSO c/w coverplate.Legrand type.	Supply	3	No.		
		Install	3	No.		
1.10.5	Powerskirting, Legrand Type	Supply	15	m		
		Install	15	m		
1.10.6	RJ11 Connector with cradle/ cover and mod blank	Supply	13	m		
		Install	13	m		
1.10.7	RJ45 Connector with cradle/ cover mod blank	Supply	13	m		
		Install	13	m		
1.11	<b>Isolators</b>					
	Supply, fitting and electrical connection of flush or surface mounted Metal Clad Isolators in either 100 x 100, 100 x 50, round box or wiring channel, <u>excluding</u> box (for flush type) and conduit connections, but including cover plate. For more details please refer to the specific drawings					
1.11.1	20A Double2 Pole Flush waterproof Isolator for HVAC	Supply	4	No.		
		Install	4	No.		
1.11.2	20A 2 Pole Flush waterproof Isolator - Geyser	Supply	4	No.		
		Install	4	No.		
Total for Bill No. 1 : Carried Forward to Summary Page						

Item	Description		Qty	Unit	Rate	Amount
1.12	<b><u>Electrical connection of appliances and installations.</u></b>					
1.12.1	Total Airconditioning Plant (Internal/External Units): Single and three phase	Connect	4	No.		
1.13	<b>TELEPHONE INSTALLATION</b> Supply and installation of the following items for the Telephone Installation					
1.13.1	25mm PVC Conduit	Supply	15	m		
		Install	15	m		
1.13.2	25mm PVC Conduit end	Supply	9	No.		
		Install	9	No.		
1.13.3	25mm PVC Conduit box	Supply	5	No.		
		Install	5	No.		
1.14	<b>DATA INSTALLATION</b> Supply and installation of the following items for the Data installation					
1.14.1	25mm PVC Conduit	Supply	15	m		
		Install	15	m		
1.14.2	25mm PVC Conduit end	Supply	8	No.		
		Install	8	No.		
1.14.3	25mm PVC Conduit box	Supply	5	No.		
		Install	5	No.		
1.15	<b><u>Nurse Call System</u></b> Supply and installation of approved Nurse Call System.					
1.15.1	Loud Speaker	Supply	1	No.		
		Install	1	No.		
Total for Bill No. 1 : Carried Forward to Summary Page						

**BLOCK - A - GUARD HOUSE & PUBLIC ABLUTIONS****ELECTRICAL INSTALLATION****PROVISIONAL BILLS OF QUANTITIES****SECTION A**

Item	Description		Qty	Unit	Rate	Amount
1.1	<b><u>Distribution Boards</u></b> Supply, installation and commissioning of Kiosk, Distribution Boards, including all circuit breakers (as per load schedule), earthing straps, labels the making off of wire connections (external wiring, conduit, armoured cable and terminations given elsewhere). All DB's are to be equipped with a three phase or single phase surge arrester. Special note, the accessories are inclusive on the quoted price					
1.1.1	Distribution Board	Supply	1	No.		
		Install	1	No.		
1.1.2	<b><u>Security System</u></b> Installation of Camera Sytem equipment and All Access Control Systems as specified of the Detailed Specification.					
1.1.2.1	360 Degree resolution CCTV Camera	Supply	4	No.		
		Install	4	No.		
1.1.2.3	Double Door Access Controller Panel	Supply	1	No.		
		Install	1	No.		
1.1.2.4	Fingerprint Keypad Reader-Standalone	Supply	1	No.		
		Install	1	No.		
1.1.2.5	Magnetic Lock 544 KG Holding Force	Supply	1	No.		
		Install	1	No.		
1.1.2.7	CCTV Monitor Screen	Supply	3	No.		
		Install	3	No.		
1.2	<b><u>Ancillary Distribution Boards and Outlets</u></b> Supply and installation of the following metal Ancillary Distribution Boards and coverplates for Data and Telephone outlets. (Conduit and Conduit boxes given elsewhere).					
1.2.1	Data, Telephone and Ancillary Coverplates	Supply	11	No.		
		Install	11	No.		
1.3	<b><u>Cables</u></b> Supply, delivery and laying of PVC/SWA/PVC ECC Aluminium cables as specified, excluding terminations and cable supports. Lengths given shall be taken as measured lengths to cable runs from terminal to terminal and rates quoted shall include for off-cuts.					
1.3.1	25mm <sup>2</sup> 4C Aluminium Cable PVC Mains 600/1000V	Supply	80	m		
		Install	80	m		
1.4	<b><u>Cable Terminations</u></b> Including the supply and fitting of Pratley Cable gland, shroud, making off the cable and fitting the gland to gland plates, switchgear or equipment including final connections of cable tails with lugs onto board terminals and including earth in ECC cable.					
1.4.1	25mm <sup>2</sup> 4C Aluminium Cable PVC Mains 600/1000V	Supply	2	No.		
		Install	2	No.		
Total for Bill No. 1 : Carried Forward to Summary Page						

Item	Description	Qty	Unit	Rate
1.5	<b>Cable Sleeves</b> Supply and Installation of Cable Sleeves as specified, in trenches or cast in concrete, excluding trenching or backfilling.			
1.5.1	110mm Ø Flexible Cable Sleeve	Supply Install	80 80	m m
	<b>EXTRA ON upvc piping for:</b> 100mm Diameter long radius bend		80	m3
1.6	<b>EXCAVATIONS</b> In trenches for cables and sleeves	80	m3	
	extra over soft excavation intermediate	80	m3	
	extra over soft excavation in hard rock	80	m3	
1.7	<b>Conduit</b> Supply and installation of PVC conduit. Lengths given shall be taken as measured horizontal and vertical runs between conduit terminations. Rates quoted shall allow for wastage, offcuts, couplings, cuttings, bending, jointing socket and tees.			
1.7.1	25mm Conduit	Supply Install	640 640	m m
1.8	<b>Conduit Boxes and Ends</b> Terminate and connect one pair of conduit ends including supply and installation of 1, 2, 3 or 4 way box on surface or in brickwork. (excluding coverplates), including holes for conduit.			
1.8.1	25mm Conduit (100 x 100mm) Galvanized Box	Supply Install	31 31	No. No.
1.9	<b>Conduit Ends</b> Terminate and connect one pair of conduit ends including lock nuts, bushes, etc. connecting into board tray, wiring channel etc. including cutting holes for conduit entries, but excluding conduit box.			
1.9.1	25mm uPVC Conduit	Supply Install	20 20	No. No.
1.10	<b>Conductors</b> Supply and installation of PVC insulated copper conductors drawn into conduit or wiring channel in groups of 2, 3, 4, etc. with the required colour coding, but excluding any wiring connections.			
1.10.1	2,5 mm <sup>2</sup> PVC Conductors Red	Supply Install	420 420	m m
	2,5 mm <sup>2</sup> PVC Conductors Black	Supply Install	420 420	m m
	2,5 mm <sup>2</sup> PVC Conductors Pink	Supply Install	420 420	m m
	4 x 2 PVC Wall Box	Supply Install	10 10	No. No.
	Hospital Saddle	Supply Install	15 15	No. No.
	4-Way Box PVC	Supply Install	15 15	No. No.
1.10.2	4 mm <sup>2</sup> PVC Conductors Blue	Supply Install	500 500	m m
Total for Bill No. 1 : Carried Forward to Summary Page				

Item	Description		Qty	Unit	Rate	Amount
	4 mm <sup>2</sup> PVC Conductors Brown	Supply	500	m		
		Install	500	m		
	4 mm <sup>2</sup> PVC Conductors Earth	Supply	500	m		
		Install	500	m		
	Adaptors 25mm	Supply	20	No.		
		Install	20	No.		
	4 x 4 PVC Wall Box	Supply	15	No.		
		Install	15	No.		
	Coupling 25mm	Supply	15	No.		
		Install	15	No.		
1.12	<b><u>Light Switches</u></b>					
	Supply, fitting and electrical connection of a Legrand type flush or surface mounted 16A switch in 100 x 50 excluding box (for flush type) and conduit connections, but including cover plates.					
1.12.1	16A 1 Lever 1 Way	Supply	10	No.		
		Install	10	No.		
1.13	<b><u>Luminaires</u></b>					
	Mounting, fixing and electrically connecting the following luminaires, complete with lamps as specified in Section E of the Detailed Specification.					
1.13.1	Type B1 50w 1200 x 600 LED Panel Surface Mount Non-Dimmable, 3400lm, 5000k, as per Regent, Beka, Rubicon	Supply	12	No.		
		Install	12	No.		
1.13.5	Type J1.1 Round LED Bulkhead Light, 18w, 220-240v ac, IP54	Supply	21	No.		
		Install	21	No.		
1.14	<b><u>Daylight Switch</u></b>					
	Supply and installation of approved daylight switch.					
1.14.1	Daylight Switch	Supply	1	No.		
		Install	1	No.		
1.15.2	Elbows Internal/External	Supply	10	No.		
		Install	10	No.		
1.15.3	End Caps	Supply	10	No.		
		Install	10	No.		
1.15.4	Cover Joiner Clips	Supply	10	No.		
		Install	10	No.		
1.15.5	16A SSO's c/w cover on Powerskirting	Supply	9	No.		
		Install	9	No.		
1.16	<b><u>Socket Outlets</u></b>					
	Supply, fitting and electrical connection of flush or surface mounted Legrand type switched socket in either 100 x 100, 100 x 50, round box or wiring channel, <u>excluding</u> box (for flush type) and conduit connections, but including cover plate.					
1.16.1	16A Double SSO c/w coverplate. Legrand type.	Supply	5	No.		
		Install	5	No.		
1.16.2	16A Dedicated Double SSO c/w coverplate. Legrand type.	Supply	10	No.		
		Install	10	No.		
1.16.3	Powerskirting, Legrand Type	Supply	9	m		
		Install	9	m		
1.16.4	RJ11 Connector with cradle/ cover and mod blank	Supply	8	m		
		Install	8	m		
1.16.5	RJ45 Connector with cradle/ cover mod blank	Supply	8	m		
		Install	8	m		
Total for Bill No. 1 : Carried Forward to Summary Page						



Item	Description		Qty	Unit	Rate	Amount
1.17	<b>Isolators</b> Supply, fitting and electrical connection of flush or surface mounted Metal Clad Isolators in either 100 x 100, 100 x 50, round box or wiring channel, <u>excluding</u> box (for flush type) and conduit connections, but including cover plate. For more details please refer to the specific drawings					
1.17.1	20A Double2 Pole Flush waterproof Isolator for HVAC	Supply Install	4 4	No. No.		
1.17.2	32A Double-Pole waterproof Isolator for Handdryer	Supply Install	2 2	No. No.		
1.17.3	20A 4 Pole Flush waterproof Isolator for Scanner & Turnstill gate	Supply Install	2 2	No. No.		
1.17.4	5A 2 Pole Flush waterproof Isolator	Supply Install	2 2	No. No.		
1.17.4	20A 2 Pole Flush waterproof Isolator - Geyser	Supply Install	1 1	No. No.		
1.18	<b><u>Electrical connection of appliances and installations.</u></b>					
1.18.1	Total Airconditioning Plant (Internal/External Units): Single and three phase	Connect	4	No.		
1.18.2	Hand dryers	Connect	2	No.		
1.19	<b>TELEPHONE INSTALLATION</b> Supply and installation of the following items for the Telephone Installation					
1.19.1	25mm PVC Conduit	Supply Install	9 9	m m		
1.19.2	25mm PVC Conduit end	Supply Install	5 5	No. No.		
1.19.3	25mm PVC Conduit box	Supply Install	5 5	No. No.		
1.20	<b>DATA INSTALLATION</b> Supply and installation of the following items for the Data installation					
1.20.1	25mm PVC Conduit	Supply Install	9 9	m m		
1.20.2	25mm PVC Conduit end	Supply Install	5 5	No. No.		
1.20.3	25mm PVC Conduit box	Supply Install	5 5	No. No.		
Total for Bill No. 1 : Carried Forward to Summary Page						

**BLOCK - E - PREVENTIVE & PROMOTIVE****ELECTRICAL INSTALLATION****PROVISIONAL BILLS OF QUANTITIES****SECTION A**

Item	Description		Qty	Unit	Rate	Amount
1.1	<b>Security System</b> Installation of Camera Sytem equipment and All Access Control Systems as specified of the Detailed Specification.					
1.1.1	360 Degree resolution CCTV Camera	Supply	1	No.		
		Install	1	No.		
1.1.2	Double Door Access Controller Panel	Supply	2	No.		
		Install	2	No.		
1.1.3	Fingerprint Keypad Reader-Standalone	Supply	2	No.		
		Install	2	No.		
1.1.4	Magnetic Lock 544 KG Holding Force	Supply	2	No.		
		Install	2	No.		
1.1.5	Emergency Door Release Call Point (Breaker Glass)	Supply	2	No.		
		Install	2	No.		
1.2	<b>Ancillary Distribution Boards and Outlets</b> Supply and installation of the following metal Ancillary Distribution Boards and coverplates for Data and Telephone outlets. (Conduit and Conduit boxes given elsewhere).					
1.2.1	Data, Telephone and Ancillary Coverplates	Supply	8	No.		
		Install	8	No.		
1.3	<b>Conduit</b> Supply and installation of PVC conduit. Lengths given shall be taken as measured horizontal and vertical runs between conduit terminations. Rates quoted shall allow for wastage, offcuts, couplings, cuttings, bending, jointing socket and tees.					
1.3.1	25mm Conduit	Supply	250	m		
		Install	250	m		
1.4	<b>Conduit Boxes and Ends</b> Terminate and connect one pair of conduit ends including supply and installation of 1, 2, 3 or 4 way box on surface or in brickwork. (excluding coverplates), including holes for conduit.					
1.4.1	25mm Conduit (100 x 100mm) Galvanized Box	Supply	20	No.		
		Install	20	No.		
1.5	<b>Conduit Ends</b> Terminate and connect one pair of conduit ends including lock nuts, bushes, etc. connecting into board tray, wiring channel etc. including cutting holes for conduit entries, but excluding conduit box.					
1.5.1	25mm uPVC Conduit	Supply	25	No.		
		Install	25	No.		
Total for Bill No. 1 : Carried Forward to Summary Page						

Item	Description		Qty	Unit	Rate	Amount
1.6	<b><u>Conductors</u></b> Supply and installation of PVC insulated copper conductors drawn into conduit or wiring channel in groups of 2, 3, 4, etc. with the required colour coding, but excluding any wiring connections.					
1.6.1	2,5 mm <sup>2</sup> PVC Conductors Red	Supply	300	m		
		Install	300	m		
	2,5 mm <sup>2</sup> PVC Conductors Black	Supply	300	m		
		Install	300	m		
	2,5 mm <sup>2</sup> PVC Conductors Pink	Supply	300	m		
		Install	300	m		
	4 x 2 PVC Wall Box	Supply	9	No.		
		Install	9	No.		
	Hospital Saddle	Supply	15	No.		
		Install	15	No.		
	4-Way Box PVC	Supply	10	No.		
		Install	10	No.		
1.6.2	4 mm <sup>2</sup> PVC Conductors Blue	Supply	150	m		
		Install	150	m		
	4 mm <sup>2</sup> PVC Conductors Brown	Supply	150	m		
		Install	150	m		
	4 mm <sup>2</sup> PVC Conductors Earth	Supply	100	m		
		Install	100	m		
	Adaptors 25mm	Supply	15	No.		
		Install	15	No.		
	4 x 4 PVC Wall Box	Supply	16	No.		
		Install	16	No.		
	Coupling 25mm	Supply	10	No.		
		Install	10	No.		
1.7	<b><u>Light Switches</u></b> Supply, fitting and electrical connection of a Legrand type flush or surface mounted 16A switch in 100 x 50 excluding box (for flush type) and conduit connections, but including cover plates.					
1.7.1	16A 1 Lever 1 Way	Supply	7	No.		
		Install	7	No.		
1.7.2	16A 1 Lever 2 Way	Supply	4	No.		
		Install	4	No.		
1.8	<b><u>Luminaires</u></b> Mounting, fixing and electrically connecting the following luminaires, complete with lamps as specified in Section E of the Detailed Specification.					
1.8.1	Type B1 50w 1200 x 600 LED Panel Surface Mount Non-Dimmable, 3400lm, 5000k, as per Regent, Beka, Rubicon	Supply	27	No.		
		Install	27	No.		
1.8.2	Type J1.1 Round LED Bulkhead Light, 18w, 220-240v ac, IP54	Supply	8	No.		
		Install	8	No.		
1.9	<b><u>Daylight Switch</u></b> Supply and installation of approved daylight switch.					
1.9.1	Daylight Switch	Supply	1	No.		
		Install	1	No.		
Total for Bill No. 1 : Carried Forward to Summary Page						

Item	Description		Qty	Unit	Rate	Amount
1.9.2	Elbows Internal/External	Supply	10	No.		
		Install	10	No.		
1.9.3	End Caps	Supply	10	No.		
		Install	10	No.		
1.9.4	Cover Joiner Clips	Supply	10	No.		
		Install	10	No.		
1.9.5	16A SSO's c/w cover on Powerskirting	Supply	12	No.		
		Install	12	No.		
1.10.	<b><u>Socket Outlets</u></b>					
	Supply, fitting and electrical connection of flush or surface mounted Legrand type switched socket in either 100 x 100, 100 x 50, round box or wiring channel, <u>excluding</u> box (for flush type) and conduit connections, but including cover plate.					
1.10.1	5A Single SSO c/w coverplate.Legrand type.	Supply	2	No.		
		Install	2	No.		
1.10.2	16A Double SSO c/w coverplate.Legrand type.	Supply	6	No.		
		Install	6	No.		
1.10.3	16A Dedicated Double SSO c/w coverplate.Legrand type.	Supply	9	No.		
		Install	9	No.		
1.10.4	16A UPS Single SSO c/w coverplate.Legrand type.	Supply	3	No.		
		Install	3	No.		
1.10.5	Powerskirting, Legrand Type	Supply	20	m		
		Install	20	m		
1.10.6	RJ11 Connector with cradle/ cover and mod blank	Supply	4	No.		
		Install	4	No.		
1.10.7	RJ45 Connector with cradle/ cover mod blank	Supply	4	No.		
		Install	4	No.		
1.11	<b><u>Isolators</u></b>					
	Supply, fitting and electrical connection of flush or surface mounted Metal Clad Isolators in either 100 x 100, 100 x 50, round box or wiring channel, <u>excluding</u> box (for flush type) and conduit connections, but including cover plate. For more details please refer to the specific drawings					
1.11.1	20A Double2 Pole Flush waterproof Isolator for HVAC	Supply	4	No.		
		Install	4	No.		
1.11.2	5A 2 Pole Flush waterproof Isolator	Supply	1	No.		
		Install	1	No.		
Total for Bill No. 1 : Carried Forward to Summary Page						

Item	Description		Qty	Unit	Rate	Amount
1.12	<b><u>Electrical connection of appliances and installations.</u></b>					
1.12.1	Total Airconditioning Plant (Internal/External Units): Single and three phase	Connect	4	No.		
1.13	<b>TELEPHONE INSTALLATION</b> Supply and installation of the following items for the Telephone Installation					
1.13.1	25mm PVC Conduit	Supply	35	m		
		Install	35	m		
1.13.2	25mm PVC Conduit end	Supply	9	No.		
		Install	9	No.		
1.13.3	25mm PVC Conduit box	Supply	5	No.		
		Install	5	No.		
1.14	<b>DATA INSTALLATION</b> Supply and installation of the following items for the Data installation					
1.14.1	25mm PVC Conduit	Supply	35	m		
		Install	35	m		
1.14.2	25mm PVC Conduit end	Supply	8	No.		
		Install	8	No.		
1.14.3	25mm PVC Conduit box	Supply	5	No.		
		Install	5	No.		
1.15	<b><u>Nurse Call System</u></b> Supply and installation of approved Nurse Call System.					
1.15.1	Loud Speaker	Supply	1	No.		
		Install	1	No.		
Total for Bill No. 1 : Carried Forward to Summary Page						

**BLOCK - C & D - SERVICE ACCESS, EMERGENCY & SUPPORT SERVICE****ELECTRICAL INSTALLATION****PROVISIONAL BILLS OF QUANTITIES****SECTION A**

Item	Description		Qty	Unit	Rate	Amount
1.1	<b>Distribution Boards</b> Supply, installation and commissioning of Kiosk, Distribution Boards, including all circuit breakers (as per load schedule), earthing straps, labels the making off of wire connections (external wiring, conduit, armoured cable and terminations given elsewhere). All DB's are to be equipped with a three phase or single phase surge arrestor. Special note, the accessories are inclusive on the quoted price					
1.1.1	Distribution Board	Supply	1	No.		
		Install	1	No.		
1.1.2	<b>Security System</b> Installation of Camera Sytem equipment and All Access Control Systems as specified of the Detailed Specification.					
1.1.2.1	360 Degree resolution CCTV Camera	Supply	4	No.		
		Install	4	No.		
1.1.2.3	Double Door Access Controller Panel	Supply	1	No.		
		Install	1	No.		
1.1.2.4	Fingerprint Keypad Reader-Standalone	Supply	1	No.		
		Install	1	No.		
1.1.2.5	Magnetic Lock 544 KG Holding Force	Supply	1	No.		
		Install	1	No.		
1.1.2.6	Emergency Door Release Call Point (Breaker Glass)	Supply	1	No.		
		Install	1	No.		
1.2	<b>Ancillary Distribution Boards and Outlets</b> Supply and installation of the following metal Ancillary Distribution Boards and coverplates for Data and Telephone outlets. (Conduit and Conduit boxes given elsewhere).					
1.2.1	Data, Telephone and Ancillary Coverplates	Supply	4	No.		
		Install	4	No.		
1.3	<b>Cables</b> Supply, delivery and laying of PVC/SWA/PVC ECC Aluminium cables as specified, excluding terminations and cable supports. Lengths given shall be taken as measured lengths to cable runs from terminal to terminal and rates quoted shall include for off-cuts.					
1.3.1	25mm <sup>2</sup> 4C Aluminium Cable PVC Mains 600/1000V	Supply	35	m		
		Install	35	m		
1.4	<b>Cable Terminations</b> Including the supply and fitting of Pratley Cable gland, shroud, making off the cable and fitting the gland to gland plates, switchgear or equipment including final connections of cable tails with lugs onto board terminals and including earth in ECC cable.					
1.4.1	25mm <sup>2</sup> 4C Aluminium Cable PVC Mains 600/1000V	Supply	2	No.		
		Install	2	No.		
Total for Bill No. 1 : Carried Forward to Summary Page						

Item	Description		Qty	Unit	Rate
1.5	<b>Cable Sleeves</b> Supply and Installation of Cable Sleeves as specified, in trenches				
1.5.1	110mm Ø Flexible Cable Sleeve	Supply	35	m	
		Install	35	m	
	<b>EXTRA ON upvc piping for:</b> 100mm Diameter long radius bend		35	m3	
	<b>EXCAVATIONS</b>				
1.6	In trenches for cables and sleeves		35	m3	
	Extra over soft excavation intermediate		10	m3	
	Extra over soft excavation in hard rock		10	m3	
1.7	<b>Conduit</b> Supply and installation of PVC conduit. Lengths given shall be taken as measured horizontal and vertical runs between conduit terminations. Rates quoted shall allow for wastage, offcuts, couplings, cuttings, bending, jointing socket and tees.				
1.7.1	25mm Conduit	Supply	610	m	
		Install	610	m	
1.8	<b>Conduit Boxes and Ends</b> Terminate and connect one pair of conduit ends including supply and installation of 1, 2, 3 or 4 way box on surface or in brickwork. (excluding coverplates), including holes for conduit.				
1.8.1	25mm Conduit (100 x 100mm) Galvanized Box	Supply	25	No.	
		Install	25	No.	
1.9	<b>Conduit Ends</b> Terminate and connect one pair of conduit ends including lock nuts, bushes, etc. connecting into board tray, wiring channel etc. including cutting holes for conduit entries, but excluding conduit box.				
1.9.1	25mm uPVC Conduit	Supply	35	No.	
		Install	35	No.	
1.10	<b>Conductors</b> Supply and installation of PVC insulated copper conductors drawn into conduit or wiring channel in groups of 2, 3, 4, etc. with the required colour coding, but excluding any wiring connections.				
1.10.1	2,5 mm <sup>2</sup> PVC Conductors Red	Supply	500	m	
		Install	500	m	
	2,5 mm <sup>2</sup> PVC Conductors Black	Supply	500	m	
		Install	500	m	
	2,5 mm <sup>2</sup> PVC Conductors Pink	Supply	500	m	
		Install	500	m	
	4 x 2 PVC Wall Box	Supply	25	No.	
		Install	25	No.	
	Hospital Saddle	Supply	20	No.	
		Install	20	No.	
	4-Way Box PVC	Supply	40	No.	
		Install	40	No.	
1.10.2	4 mm <sup>2</sup> PVC Conductors Blue	Supply	500	m	
		Install	500	m	
	4 mm <sup>2</sup> PVC Conductors Brown	Supply	500	m	
		Install	500	m	
	4 mm <sup>2</sup> PVC Conductors Earth	Supply	300	m	
		Install	300	m	
Total for Bill No. 1 : Carried Forward to Summary Page					

Item	Description		Qty	Unit	Rate	Amount
	Adaptors 25mm	Supply	20	No.		
		Install	20	No.		
	4 x 4 PVC Wall Box	Supply	45	No.		
		Install	45	No.		
	Coupling 25mm	Supply	15	No.		
		Install	15	No.		
1.12	<b><u>Light Switches</u></b>					
	Supply, fitting and electrical connection of a Legrand type flush or surface mounted 16A switch in 100 x 50 excluding box (for flush type) and conduit connections, but including cover plates.					
1.12.1	16A 1 Lever 1 Way	Supply	18	No.		
		Install	18	No.		
1.12.2	16A 1 Lever 2 Way	Supply	6	No.		
		Install	6	No.		
1.13	<b><u>Luminaires</u></b>					
	Mounting, fixing and electrically connecting the following luminaires, complete with lamps as specified in Section E of the Detailed Specification.					
1.13.1	Type B1					
	50w 1200 x 600 LED Panel Surface Mount Non-Dimmable, 3400lm, 5000k, as per Regent, Beka, Rubicon	Supply	26	No.		
		Install	26	No.		
1.13.2	Type J1.1					
	Round LED Bulkhead Light. 18w, 220-240v ac, IP54	Supply	24	No.		
		Install	24	No.		
1.14	<b><u>Daylight Switch</u></b>					
	Supply and installation of approved daylight switch.					
1.14.1	Daylight Switch	Supply	1	No.		
		Install	1	No.		
1.15.2	Elbows Internal/External	Supply	15	No.		
		Install	15	No.		
1.15.3	End Caps	Supply	15	No.		
		Install	15	No.		
1.15.4	Cover Joiner Clips	Supply	15	No.		
		Install	15	No.		
1.15.5	16A SSO's c/w cover on Powerskirting	Supply	12	No.		
		Install	12	No.		
1.16.7	RJ11 Connector with cradle/ cover and mod blank	Supply	2	m		
		Install	2	m		
1.16.8	RJ45 Connector with cradle/ cover mod blank	Supply	2	m		
		Install	2	m		
1.16	<b><u>Socket Outlets</u></b>					
	Supply, fitting and electrical connection of flush or surface mounted Legrand type switched socket in either 100 x 100, 100 x 50, round box or wiring channel, excluding box (for flush type) and conduit connections, but including cover plate.					
1.16.1	5A Single SSO c/w coverplate. Legrand type.	Supply	1	No.		
		Install	1	No.		
Total for Bill No. 1 : Carried Forward to Summary Page						



Item	Description		Qty	Unit	Rate	Amount
1.16.2	16A Double SSO c/w coverplate. Legrand type.	Supply	16	No.		
		Install	16	No.		
1.16.3	16A Dedicated Double SSO c/w coverplate. Legrand type.	Supply	20	No.		
		Install	20	No.		
1.16.4	16A UPS Single SSO c/w coverplate. Legrand type.	Supply	3	No.		
		Install	3	No.		
1.16.5	Medical Gas Outlets	Supply	6	No.		
		Install	6	No.		
1.16.6	Powerskirting, Legrand Type	Supply	28	m		
		Install	28	m		
1.16.7	Bedhead Trunking					
	The adaptable HU10-01 is a wall mounted horizontal bedhead service system, which includes customized electrical and medical gas outlets to suit the clients' unique requirements.	Supply	6	m		
		Install	6	m		
1.17	<b>Isolators</b>					
	Supply, fitting and electrical connection of flush or surface mounted Metal Clad Isolators in either 100 x 100, 100 x 50, round box or wiring channel, <u>excluding</u> box (for flush type) and conduit connections, but including cover plate. For more details please refer to the specific drawings					
1.17.1	20A Double2 Pole Flush waterproof Isolator for HVAC	Supply	6	No.		
		Install	6	No.		
1.17.2	32A Double-Pole waterproof Isolator for Handdryer	Supply	2	No.		
		Install	2	No.		
1.17.3	5A 2 Pole Flush waterproof Isolator	Supply	1	No.		
		Install	1	No.		
1.17.4	20A 2 Pole Flush waterproof Isolator - Geysers	Supply	4	No.		
		Install	4	No.		
Total for Bill No. 1 : Carried Forward to Summary Page						

Item	Description		Qty	Unit	Rate	Amount
1.18	<b><u>Electrical connection of appliances and installations.</u></b>					
1.18.1	Total Airconditioning Plant (Internal/External Units): Single and three phase	Connect	3	No.		
1.18.2	Hand dryers	Connect	2	No.		
1.19	<b>TELEPHONE INSTALLATION</b> Supply and installation of the following items for the Telephone Installation					
1.19.1	25mm PVC Conduit	Supply	40	m		
		Install	40	m		
1.19.2	25mm PVC Conduit end	Supply	5	No.		
		Install	5	No.		
1.19.3	25mm PVC Conduit box	Supply	5	No.		
		Install	5	No.		
1.20	<b>DATA INSTALLATION</b> Supply and installation of the following items for the Data installation					
1.20.1	25mm PVC Conduit	Supply	40	m		
		Install	40	m		
1.20.2	25mm PVC Conduit end	Supply	5	No.		
		Install	5	No.		
1.20.3	25mm PVC Conduit box	Supply	5	No.		
		Install	5	No.		
1.21	<b><u>Nurse Call System</u></b> Supply and installation of approved Nurse Call System.					
1.20.1	Nurse call Push Button	Supply	3	No.		
		Install	3	No.		
1.20.2	Emergency call Push Button	Supply	3	No.		
		Install	3	No.		
1.20.3	Nurse call Light	Supply	2	No.		
		Install	2	No.		
1.20.4	Loud Speaker	Supply	2	No.		
		Install	2	No.		
Total for Bill No. 1 : Carried Forward to Summary Page						

**BLOCK - H - YOUTH & OUTREACH CENTER****ELECTRICAL INSTALLATION****PROVISIONAL BILLS OF QUANTITIES****SECTION A**

Item	Description		Qty	Unit	Rate	Amount
1.1	<b><u>Distribution Boards</u></b> Supply, installation and commissioning of Kiosk, Distribution Boards, including all circuit breakers (as per load schedule), earthing straps, labels the making off of wire connections (external wiring, conduit, armoured cable and terminations given elsewhere). All DB's are to be equipped with a three phase or single phase surge arrestor. Special note, the accessories are inclusive on the quoted price					
1.1.1	Distribution Board	Supply	1	No.		
		Install	1	No.		
1.1.2	<b><u>Security System</u></b> Installation of Camera Sytem equipment and All Access Control Systems as specified of the Detailed Specification.					
1.1.2.1	360 Degree resolution CCTV Camera	Supply	2	No.		
		Install	2	No.		
1.1.2.3	Double Door Access Controller Panel	Supply	1	No.		
		Install	1	No.		
1.1.2.4	Fingerprint Keypad Reader-Standalone	Supply	1	No.		
		Install	1	No.		
1.1.2.5	Magnetic Lock 544 KG Holding Force	Supply	1	No.		
		Install	1	No.		
1.1.2.6	Emergency Door Release Call Point (Breaker Glass)	Supply	1	No.		
		Install	1	No.		
1.2	<b><u>Ancillary Distribution Boards and Outlets</u></b> Supply and installation of the following metal Ancillary Distribution Boards and coverplates for Data and Telephone outlets. (Conduit and Conduit boxes given elsewhere).					
1.2.1	Data, Telephone and Ancillary Coverplates	Supply	12	No.		
		Install	12	No.		
1.3	<b><u>Cables</u></b> Supply, delivery and laying of PVC/SWA/PVC ECC Aluminium cables as specified, excluding terminations and cable supports. Lengths given shall be taken as measured lengths to cable runs from terminal to terminal and rates quoted shall include for off-cuts.					
1.3.1	25mm <sup>2</sup> 4C Aluminium Cable PVC Mains 600/1000V	Supply	50	m		
		Install	50	m		
1.4	<b><u>Cable Terminations</u></b> Including the supply and fitting of Pratley Cable gland, shroud, making off the cable and fitting the gland to gland plates, switchgear or equipment including final connections of cable tails with lugs onto board terminals and including earth in ECC cable.					
1.4.1	25mm <sup>2</sup> 4C Aluminium Cable PVC Mains 600/1000V	Supply	2	No.		
		Install	2	No.		
Total for Bill No. 1 : Carried Forward to Summary Page						

Item	Description	Qty	Unit	Rate
1.5	<b>Cable Sleeves</b> Supply and Installation of Cable Sleeves as specified, in trenches			
1.5.1	110mm Ø Flexible Cable Sleeve	Supply Install	50 50	m m
	<b>EXTRA ON upvc piping for:</b> 100mm Diameter long radius bend		50	m3
	<b>EXCAVATIONS</b> In trenches for cables and sleeves		50	m3
	extra over soft excavation intermediate		15	m3
	extra over soft excavation in hard rock		15	m3
1.7	<b>Conduit</b> Supply and installation of PVC conduit. Lengths given shall be taken as measured horizontal and vertical runs between conduit terminations. Rates quoted shall allow for wastage, offcuts, couplings, cuttings, bending, jointing socket and tees.			
1.7.1	25mm Conduit	Supply Install	450 450	m m
1.8	<b>Conduit Boxes and Ends</b> Terminate and connect one pair of conduit ends including supply and installation of 1, 2, 3 or 4 way box on surface or in brickwork. (excluding coverplates), including holes for conduit.			
1.8.1	25mm Conduit (100 x 100mm) Galvanized Box	Supply Install	20 20	No. No.
1.9	<b>Conduit Ends</b> Terminate and connect one pair of conduit ends including lock nuts, bushes, etc. connecting into board tray, wiring channel etc. including cutting holes for conduit entries, but excluding conduit box.			
1.9.1	25mm uPVC Conduit	Supply Install	25 25	No. No.
1.10	<b>Conductors</b> Supply and installation of PVC insulated copper conductors drawn into conduit or wiring channel in groups of 2, 3, 4, etc. with the required colour coding, but excluding any wiring connections.			
1.10.1	2,5 mm <sup>2</sup> PVC Conductors Red	Supply Install	500 500	m m
	2,5 mm <sup>2</sup> PVC Conductors Black	Supply Install	500 500	m m
	2,5 mm <sup>2</sup> PVC Conductors Pink	Supply Install	500 500	m m
	4 x 2 PVC Wall Box	Supply Install	11 11	No. No.
	Hospital Saddle	Supply Install	20 20	No. No.
	4-Way Box PVC	Supply Install	15 15	No. No.
1.10.2	4 mm <sup>2</sup> PVC Conductors Blue	Supply Install	450 450	m m
	4 mm <sup>2</sup> PVC Conductors Brown	Supply Install	450 450	m m
Total for Bill No. 1 : Carried Forward to Summary Page				

Item	Description		Qty	Unit	Rate	Amount
	4 mm <sup>2</sup> PVC Conductors Earth	Supply	200	m		
		Install	200	m		
	Adaptors 25mm	Supply	20	No.		
		Install	20	No.		
	4 x 4 PVC Wall Box	Supply	24	No.		
		Install	24	No.		
	Coupling 25mm	Supply	15	No.		
		Install	15	No.		
1.11	<b>Light Switches</b>					
	Supply, fitting and electrical connection of a Legrand type flush or surface mounted 16A switch in 100 x 50 excluding box (for flush type) and conduit connections, but including cover plates.					
1.11.1	16A 1 Lever 1 Way	Supply	7	No.		
		Install	7	No.		
1.11.2	16A 1 Lever 2 Way	Supply	4	No.		
		Install	4	No.		
1.12	<b>Luminaires</b>					
	Mounting, fixing and electrically connecting the following luminaires, complete with lamps as specified in Section E of the Detailed Specification.					
1.12.1	Type B1					
	50w 1200 x 600 LED Panel Surface Mount Non-Dimmable. 3400lm, 5000k, as per Beka, Regent, Rubicon, Altsa					
		Supply	16	No.		
		Install	16	No.		
1.12.1	Type J1.1					
	Round LED Bulkhead Light. 18w, 220-240v ac, IP54					
		Supply	15	No.		
		Install	15	No.		
1.13	<b>Daylight Switch</b>					
	Supply and installation of approved daylight switch.					
1.13.1	Daylight Switch	Supply	1	No.		
		Install	1	No.		
1.13.2	Elbows Internal/External	Supply	15	No.		
		Install	15	No.		
1.13.3	End Caps	Supply	15	No.		
		Install	15	No.		
1.13.4	Cover Joiner Clips	Supply	15	No.		
		Install	15	No.		
1.13.5	16A SSO's c/w cover on Powerskirting	Supply	13	No.		
		Install	13	No.		
Total for Bill No. 1 : Carried Forward to Summary Page						

Item	Description	Qty	Unit	Rate	Amount
1.16	<b><u>Socket Outlets</u></b> Supply, fitting and electrical connection of flush or surface mounted Legrand type switched socket in either 100 x 100, 100 x 50, round box or wiring channel, <u>excluding</u> box (for flush type) and conduit connections, but including cover plate.				
1.16.1	5A Single SSO c/w coverplate.Legrand type.	Supply Install	1 1	No. No.	
1.16.2	16A Double SSO c/w coverplate.Legrand type.	Supply Install	8 8	No. No.	
1.16.3	16A Dedicated Double SSO c/w coverplate.Legrand type.	Supply Install	12 12	No. No.	
1.16.4	16A UPS Single SSO c/w coverplate.Legrand type.	Supply Install	1 1	No. No.	
1.16.5	Powerskirting, Legrand Type	Supply Install	30 30	m m	
1.16.6	RJ11 Connector with cradle/ cover and mod blank	Supply Install	4 4	No. No.	
1.16.7	RJ45 Connector with cradle/ cover mod blank	Supply Install	4 4	No. No.	
1.17	<b><u>Isolators</u></b> Supply, fitting and electrical connection of flush or surface mounted Metal Clad Isolators in either 100 x 100, 100 x 50, round box or wiring channel, <u>excluding</u> box (for flush type) and conduit connections, but including cover plate. For more details please refer to the specific drawings				
1.17.1	20A Double2 Pole Flush waterproof Isolator for HVAC	Supply Install	4 4	No. No.	
1.17.2	5A 2 Pole Flush waterproof Isolator	Supply Install	1 1	No. No.	
1.17.3	20A 2 Pole Flush waterproof Isolator - Geyser	Supply Install	2 2	No. No.	
1.18	<b><u>Electrical connection of appliances and installations.</u></b>				
1.18.1	Total Airconditioning Plant (Internal/External Units): Single and three phase	Connect	4	No.	
1.19	<b>TELEPHONE INSTALLATION</b> Supply and installation of the following items for the Telephone Installation				
1.19.1	25mm PVC Conduit	Supply Install	35 35	m m	
1.19.2	25mm PVC Conduit end	Supply Install	9 9	No. No.	
1.19.3	25mm PVC Conduit box	Supply Install	5 5	No. No.	
1.20	<b>DATA INSTALLATION</b> Supply and installation of the following items for the Data installation				
1.20.1	25mm PVC Conduit	Supply Install	35 35	m m	
1.20.2	25mm PVC Conduit end	Supply Install	8 8	No. No.	
1.20.3	25mm PVC Conduit box	Supply Install	5 5	No. No.	
1.21	<b><u>Nurse Call System</u></b> Supply and installation of approved Nurse Call System.				
1.20.1	Loud Speaker	Supply Install	1 1	No. No.	
Total for Bill No. 1 : Carried Forward to Summary Page					

**LIGHTNING PROTECTION****BILL OF QUANTITIES****SECTION A**

**Note:** All rates for items contained in this Bill shall be computed excluding the applicable Value Added Tax. The Contractor shall include in the rates for any work or anything in the Conditions of Contract or Specification or shown on the Drawings not included elsewhere in the Bills of Quantities and for which he considers charges are required.

**Allowance for Complete Lightning Protection Installation of all the Ideal Clinics.**  
**The Lightning Protection installation is to be undertaken by a specialist and is required to provide two soil resistivity tests, one at the beginning of the project and one at completion. The first test is to be conducted within 14 days of the contractor being appointed. The Lightning Protection installer is to provide a Test Certificate in accordance with SANS 10313. The Contractor to provide a lightning protection design report based on SANS 10313 & 62305. The contractor to note that all conduit provisions for the Lightning Protection installation are to be recessed and provided by the Electrical Sub-Contractor.**

Item	Description	Qty	Unit	Rate	Amount
1.	<b>Down Conductors</b> Supply and fixing on surface in an approved manner of aluminium conductor including all fixing accessories, such as insulating sleeves and stand-off brackets, but not including terminations. Rates quoted shall allow for wastage, off-cuts and joints.				
1.1	50mm <sup>2</sup> aluminium conductor	108	m		
2.	<b>Air Terminal Conductors</b> Supply and fixing on surface in an approved manner of 50mm <sup>2</sup> aluminium conductor including all fixing accessories, such as insulating sleeves and stand-off brackets, but not including terminations. Rates quoted shall allow for wastage, off-cuts and joints.				
		108	m		
3.	<b>Terminations of Down Conductors to Air Terminals</b> Termination of aluminium conductor to metal roof as specified in Clause A1.4 including lugs and making off of the ends etc.				
3.1	50mm <sup>2</sup> aluminium conductor to metal roof.	24	No.		
4.	<b>Earthing Conductors</b> Supply and laying in the ground and in conduits of copper earth wire as specified in Clause A1.5 excluding terminations. Rates quoted shall allow for wastage, off-cut and joints.				
4.1	50mm <sup>2</sup> Green PVC insulated copper conductor	108	m		
5.	<b>Termination of Earthing Conductors to Down Conductors</b> Termination of earth conductor to aluminium down conductor and earth electrodes including making off the ends, lugs, clamps, etc.				
5.1	50mm <sup>2</sup> Termination to 50mm <sup>2</sup> conductor	24	No.		
5.2	Connecting conductor all around the roof	632	m		
6.	<b>Earth Electrodes</b> Supply and installation of earth electrodes generally as specified in Clause A1.3.3.				
6.1	3,6m long earth electrodes	24	No.		
7.	<b>Termination of Earth Conductors to Earth Electrodes</b> Termination of Earth Conductors to Earth Electrodes including making off of ends, lugs, clamps, etc.				
7.1	50mm <sup>2</sup> Earth Conductor to Earth Electrode	24	No.		
8.	<b>General Earth Bonding</b> Bonding of metal drainage down pipes and items.				
		24	Item		
9.	<b>Testing</b> Supply and testing apparatus and testing in accordance with SABS Code.				
9.1	Testing of joint continuity	2	Item		
9.2	Testing of Lightning Protection System	2	Item		
9.3	Testing of Earthing Points	2	Item		
9.4	Soil Resistivity Test and Report	2	Item		
Total for Bill No. 2 : Carried Forward to Summary Page					

**ELECTRICAL INSTALLATION MECHANICAL EQUIPMENT****BILLS OF QUANTITIES****SECTION A**

Item	Description	Qty	Unit	Rate	Amount
1.1	<b><u>PUMPS</u></b>  Refer to the attached Specifications for the Electrical Installation. The Tenderer must at all times read the Bills of Quantities in conjunction with the specification and drawings prior to pricing this section. Items 1-4 below applies to the entire electrical installation for the Clinic.				
1.1.1	<b><u>General Earthing</u></b>  Earthing and bonding of all other metal to comply with regulations.	1	Item		
1.1	<b><u>Distribution Boards</u></b>  Supply, installation and commissioning of Kiosk, Distribution Boards, including all circuit breakers (as per load schedule), earthing straps, labels the making off of wire connections (external wiring, conduit, armoured cable and terminations given elsewhere). All DB's are to be equipped with a three phase or single phase surge arrester. Special note, the accessories are inclusive on the quoted price				
1.1.1	Distribution Board	Supply Install	1 1	No. No.	
1.2	<b><u>Isolators</u></b>  Supply, fitting and electrical connection of flush or surface mounted Metal Clad Isolators in either 100 x 100, 100 x 50, round box or wiring channel, <u>excluding</u> box (for flush type) and conduit connections, but including cover plate. For more details please refer to the specific drawings				
1.2.1	20A Double2 Pole Flush waterproof Isolator for Pumps	Supply Install	3 3	No. No.	
1.2.3	20A 4 Pole Flush waterproof Isolator _ Fire Jockey Pump	Supply Install	1 1	No. No.	
2.	<b><u>Cables</u></b>  Supply, delivery and laying of PVC/SWA/PVC ECC Aluminium cables as specified, excluding terminations and cable supports. Lengths given shall be taken as measured lengths to cable runs from terminal to terminal and rates quoted shall include for off-cuts.				
2.1	70 mm <sup>2</sup> 4 core Al PVC 400V from the Main Kiosk to the pump DB	Supply Install	50 50	m m	
2.2	16 mm <sup>2</sup> 4 core Al PVC 400V from the Pump DB to the Isolators	Supply Install	20 20	m m	
	<b><u>Cable Terminations</u></b>  Including the supply and fitting of Pratley Cable gland, shroud, making off the cable and fitting the gland to gland plates, switchgear or equipment including final connections of cable tails with lugs onto board terminals and including earth in ECC cable.				
2.3	70 mm <sup>2</sup> 4 core Al PVC 400V	Supply Install	2 2	No. No.	
2.4	16 mm <sup>2</sup> 4 core Al PVC 400V	Supply Install	8 8	No. No.	
2.5	<b><u>Wireway Installation (for Electrical Supply Cables)</u></b>  114mm Wide Medium Duty Galvanized Return Flange Cable Tray. Mounted Underside of Ceiling Complete with all Accessories. Covers, 90° Bends, T-Junctions and rnd Caps etc.	Supply Install	20 20	m m	



3.	<b>EXCAVATIONS</b>				
3.1	Excavations other than bulk in soft excavation not exceeding 2m deep for:  Allowance is to be made for the installation of cable markers and warning sheets				
3.2	In trenches for cables and sleeves	100	m <sup>3</sup>		
3.3	Extra over "soft excavation" for excavation in intermediate excavations	20	m <sup>3</sup>		
3.4	Extra over "soft excavation" for excavation in hard rock excavations	20	m <sup>3</sup>		
3.5	Filling obtained from excavations and/or prescribed stock piles on site compacted to 95% Mod AASHTO density				
3.6	Backfilling of trenches  Risk of collapse of excavations other than bulk	100	m <sup>3</sup>		
3.7	Sides of trenches and hole excavations not exceeding 0.8m deep  Manholes Supply and installation of manholes as shown on the drawings. Refer to Clause B6	100	m <sup>3</sup>		
3.8	600 x 600mm Concrete Manholes  Cable Markers Allow to supply and install cable markers	2	No.		
3.9	PVC warning marking tape	100	m		
3.9.1	Concrete cable route markers	2	No.		
Total for Bill No. 1 : Carried Forward to Summary Page					

**ELECTRICAL INSTALLATION EXTERNAL WORKS**

**BILLS OF QUANTITIES**

**SECTION A**

Item	Description	Qty	Unit	Rate	Amount
1.1	<b>ELECTRICAL WORK</b> <b>CPAP WORKGROUP NO 160 UNLESS OTHERWISE STATED</b> <b>PREAMBLES</b> Refer to the attached Specifications for the Electrical Installation. The Tenderer must at all times read the Bills of Quantities in conjunction with the specification and drawings prior to pricing this section. Items 1-4 below applies to the entire electrical installation for the Clinic.				
1.1.1	<b>General Earthing</b> Earthing and bonding of cold and hot water pipes and all other metal to comply with regulations.	1	Item		
1.2	<b>Commissioning and Testing</b> Allow for testing, balancing and commissioning the whole of the electrical installation as laid down in the specification and for re-testing as may be required after the making good of all defective work to the satisfaction of the Department and the Engineer.	1	Item		
1.5	<b>As Built Drawings</b> Provision for the drawings showing all site cable routes, conduit routes, draw boxes and positions of outlets, etc.	1	Item		
1.6	<b>Labelling and Marking</b> Allow for marking and labelling of all equipment, cables, plugs, light switches etc.	1	Item		
1.7	<b>Diesel Generator</b> Allow for the supply and Connection with a Back-up Generator of 200KVA with ATS and Circuit breaker. Tank capacity of greater than 600l to provide for 72 hours  Maximum 200kVA standby power at 230/400v @ 50Hz 1500rpm High quality and reliable six-cylinder Scania/ Volvo turbodiesel engine, Silent canopy which can stand outside with lockable doors. Fuel tank to be built into the unit base to include enough of fuel for 72 hour operation (600l). Automatic changeover (ATS) to include mains/solar/diesel generator inputs. Maintenance free batteries and trickle charger included. Four-way protection system included, H-specification insulation, brushless alternator with AVR provides stable output, digital controller with auto and manual start options. All sets must undergo a comprehensive testing/pre delivery inspection, prior to delivery and include one year/1000 hour warranty. Including first fuel fill, oil filters, fuel filters and all other consumables necessary for operation. To provide all associated civil works including a plinth with corresponding cable trays and exits ducts into the ground for cables. Allowance for Profit.....%	1	Item		
	Allowance for Attendance.....%			5%	
				5%	
1.7.1	<b>Solar Plant</b> Design, solar modelling and installation of solar plant by engineer approved and accredited solar contractor to tie into the grid and diesel generator plant. Supply, deliver, accept and store solar panels and associated equipment including inverters, DC Cables ,Earthing, Switchgear, grid tie system, Protection and Metering equipment which are to be as specified or otherwise approved. The rooftop solar system is to be sized to supply a minimum of 150kW. Alternative designs to supply the required energy value will be considered. The rooftops to be utilised is the clinic areas and must be designed to suit the panel weight by the Contractors structural engineer and well as all waterproofing and sealing for cable ways must be done. A model design must included in the tender. Erect, fix, connect and commission the following solar panels and equipment, including any galvanised additional supports and brackets which may be required. All equipment to be rated for outdoor, coastal conditions. Inverters and batteries will be stored in the pump room.  Allow for a 150kw Solar System Allowance for Profit.....%	1	SUM	R 2 500 000.00	R 2 500 000.00
		5%			R 125 000.00

	Allowance for Attendance.....%		5%			R	125 000.00
1.8	<b>New Kiosk</b> Supply and Installation and commissioning of the Kiosk, including making off all wire connections (external wiring, conduit, armoured cable and terminations given elsewhere). Inclusive of all Main Circuit Breakers Kiosk, Coastal	Supply Install	1 1	No. No.			
1.9	<b>Guarantee and Maintenance</b> Guarantee and maintenance for the complete installation of Electrical Installation including fittings, materials and workmanship for a period of <b>TWELVE MONTHS</b> after date of completion and handover.		1	Item			
1.9.1	Payment of <b>200kVA Eskom/Municipality Connection.</b> (Inclusive of Transformer & Main Kiosk) Plus Profit and Attendance .....		1	Sum	R	250 000.00	R 250 000.00
			5%				R 12 500.00
1.10	<b>CERTIFICATE OF COMPLIANCE</b> Provision for the Certificate of Compliance to be issued on completion of the project.		4	Item			
2.	<b>Cables</b> Supply, delivery and laying of PVC/SWA/PVC ECC Aluminium cables as specified, excluding terminations and cable supports. Lengths given shall be taken as measured lengths to cable runs from terminal to terminal and rates quoted shall include for off-cuts.						
2.1	240 mm <sup>2</sup> 4 core Al PVC 400V from the TRF to Generator	Supply Install	100 100	m m			
2.2	240 mm <sup>2</sup> 4 core Al PVC 400V from the Generator to the LV Kiosk	Supply Install	25 25	m m			
2.3	16 mm <sup>2</sup> 4 core Al PVC 400V for external lights	Supply Install	140 140	m m			
	<b>Cable Terminations</b> Including the supply and fitting of Pratley Cable gland, shroud, making off the cable and fitting the gland to gland plates, switchgear or equipment including final connections of cable tails with lugs onto board terminals and including earth in ECC cable.						
2.3	240 mm <sup>2</sup> 4 core Al PVC 400V from the TRF	Supply Install	4 4	No. No.			
2.4	240 mm <sup>2</sup> 4 core Al PVC 400V from the Generator	Supply Install	4 4	No. No.			
2.5	<b>Wireway Installation (for Electrical Supply Cables)</b> 114mm Wide Medium Duty Galvanized Return Flange Cable Tray. Mounted Underside of Ceiling Complete with all Accessories. Covers, 90° Bends, T-Junctions and end Caps etc. Allowances has been made for IT & Power	Supply Install	380 380	m m			
2.6	<b>Server ( Telecommunication Network)</b> Supply, install of Fibre Optic cable (Fibrework/Krone/Legrand or other Approved) in wire way & CAT6A. 1-off 24 Port Internet Switches (3-Com or Other Approved) Housed a 15U Cabinet. 1-off 24 Port Internet Switches (Krone/Legrand or Other Approved) Housed a 15U Cabinet. Multi-Mode Fibre optic cable to 24- port Switch in offices and one to 24-Port Switch in Security room. The Termination of the fibre optic cables in the 15U Cabinets						
2.6.1	Fibre Network Installation	Sum	1	Item	R	15 000.00	R 15 000.00
2.6.2	Supply and Install of <b>Data Equipment</b> Plus Profit and Attendance .....		1	Sum	R	125 000.00	R 125 000.00
			5%				
2.6.3	Supply and Install of CAT6A cable Krone/Legrand for cameras, IT network & Telephones		1200	m			

3.	<b>EXCAVATIONS</b> <b>CPAP WORKGROUP NO 104 UNLESS OTHERWISE</b>				
3.1	Excavations other than bulk in soft excavation not exceeding 2m deep for: Allowance is to be made for the installation of cable markers and warning sheets				
3.2	In trenches for cables and sleeves		100	m <sup>3</sup>	
3.3	Extra over "soft excavation" for excavation in intermediate excavations		100	m <sup>3</sup>	
3.4	Extra over "soft excavation" for excavation in hard rock excavations		100	m <sup>3</sup>	
3.5	Filling obtained from excavations and/or prescribed stock piles on site compacted to 95% Mod AASHTO density				
3.6	Backfilling of trenches Risk of collapse of excavations other than bulk		100	m <sup>3</sup>	
3.7	Sides of trenches and hole excavations not exceeding 1.5m deep <b>Manholes</b> Supply and installation of manholes as shown on the drawings. Refer to Clause B6		100	m <sup>3</sup>	
3.8	600 x 600mm Concrete Manholes Cable Markers Allow to supply and install cable markers		2	No.	
3.9	PVC warning marking tape		100	m	
3.9.1	Concrete cable route markers		5	No.	
3.10	<b>Security System</b> Installation of Camera System equipment and All Access Control Systems as specified of the Detailed Specification. 360 Degree resolution CCTV Camera	Supply Install	2 2	No. No.	
3.11	<b>Luminaires</b> Supply and install and electrically connecting the following luminaires, complete with lamps. Parking areas & In front of residences				
3.11.1	Type B1.1 2 x 36w LED Fitting	Supply Install	17 17	No. No.	
3.11.2	Streetlight, Type P1.1 LED Post top Luminaire Manufactured from Powder coated die - cats, 36w Pending Height. Lumen variance, 4000lm plus, 4000K, Beka, Regent or	Supply Install	5 5	No. No.	
3.11.3	7m Pole for P1.1	Supply Install	5 5	No. No.	
3.11.4	Bollards, Type BO1 18w or 25w, LM 6 Die cast Aluminium / Plastic, Beka, Regent or Rubicon	Supply Install	6 6	No. No.	
3.11.5	Type A1+ 2 x 18 w Vapor Proof Double Tube LED Fitting, IP65, Beka, Regent or Rubicon	Supply Install	4 4	No. No.	
4	<b>Daylight Switch</b> Supply and installation of approved daylight switch. Daylight Switch	Supply Install	3 3	No. No.	
5	20A 4 Pole Flush waterproof Isolator for Boom Gate	Supply Install	1 1	No. No.	
6	Loud Speaker	Supply Install	2 2	No. No.	
Total for Bill No. 1 : Carried Forward to Summary Page					

**RESIDENCES****ELECTRICAL INSTALLATION****PROVISIONAL BILLS OF QUANTITIES****SECTION B**

Item	Description	Qty	Unit	Rate	Amount
1.1	<b>Distribution Boards</b> Supply, installation and commissioning of Kiosk, Distribution Boards, including all circuit breakers (as per load schedule), earthing straps, labels the making off of wire connections (external wiring, conduit, armoured cable and terminations given elsewhere). All DB's are to be equipped with a three phase or single phase surge arrester. Special note, the accessories are inclusive on the quoted price				
1.1.1	Distribution Board	Supply Install	6 6	No. No.	
1.2	<b>Cables</b> Supply, delivery and laying of PVC/SWA/PVC ECC Aluminium cables as specified, excluding terminations and cable supports. Lengths given shall be taken as measured lengths to cable runs from terminal to terminal and rates quoted shall include for off-cuts.				
1.2.1	25mm <sup>2</sup> 4C Aluminium Cable PVC Mains 600/1000V	Supply Install	480 480	m m	
1.3	<b>Cable Terminations</b> Including the supply and fitting of Pratley Cable gland, shroud, making off the cable and fitting the gland to gland plates, switchgear or equipment including final connections of cable tails with lugs onto board terminals and including earth in ECC cable.				
1.3.1	25mm <sup>2</sup> 4C Aluminium Cable PVC Mains 600/1000V	Supply Install	12 12	No. No.	
1.4	<b>Cable Sleeves</b> Supply and Installation of Cable Sleeves as specified, in trenches				
1.4.1	110mm Ø Flexible Cable Sleeve	Supply Install	180 180	m m	
	<b>EXTRA ON upvc piping for:</b> 100mm Diameter long radius bend		180	m3	
1.5	<b>EXCAVATIONS</b> In trenches for cables and sleeves extra over soft excavation intermediate extra over soft excavation in hard rock		180 15 15	m3 m3 m3	
1.6	<b>Conduit</b> Supply and installation of PVC conduit. Lengths given shall be taken as measured horizontal and vertical runs between conduit terminations. Rates quoted shall allow for wastage, offcuts, couplings, cuttings, bending, jointing socket and tees.				
1.6.1	25mm Conduit	Supply Install	2760 2760	m m	
Total for Bill No. 1 : Carried Forward to Summary Page					R -

Item	Description		Qty	Unit	Amount
1.7	<b><u>Conduit Boxes and Ends</u></b> Terminate and connect one pair of conduit ends including supply and installation of 1, 2, 3 or 4 way box on surface or in brickwork, (excluding coverplates), including holes for conduit.				
1.7.1	25mm Conduit (100 x 100mm) Galvanized Box	Supply	20	No.	
		Install	20	No.	
1.8	<b><u>Conductors</u></b> Supply and installation of PVC insulated copper conductors drawn into conduit or wiring channel in groups of 2, 3, 4, etc. with the required colour coding, but excluding any wiring connections.				
1.8.1	2,5 mm <sup>2</sup> PVC Conductors Red	Supply	800	m	
		Install	800	m	
	2,5 mm <sup>2</sup> PVC Conductors Black	Supply	800	m	
		Install	800	m	
	4 x 2 PVC Wall Box	Supply	11	No.	
		Install	11	No.	
	4-Way Box PVC	Supply	15	No.	
		Install	15	No.	
1.8.2	4 mm <sup>2</sup> PVC Conductors Blue	Supply	600	m	
		Install	600	m	
	4 mm <sup>2</sup> PVC Conductors Brown	Supply	600	m	
		Install	600	m	
	4 mm <sup>2</sup> PVC Conductors Earth	Supply	600	m	
		Install	600	m	
	Adaptors 25mm	Supply	20	No.	
		Install	20	No.	
	4 x 4 PVC Wall Box	Supply	72	No.	
		Install	72	No.	
	Coupling 25mm	Supply	15	No.	
		Install	15	No.	
1.9	<b><u>Light Switches</u></b> Supply, fitting and electrical connection of a Legrand type flush or surface mounted 16A switch in 100 x 50 excluding box (for flush type) and conduit connections, but including cover plates.				
1.9.1	16A 1 Lever 1 Way	Supply	36	No.	
		Install	36	No.	
1.9.2	16A 1 Lever 2 Way	Supply	12	No.	
		Install	12	No.	
1.1	<b><u>Luminaires</u></b> Mounting, fixing and electrically connecting the following luminaires, complete with lamps as specified in Section E of the Detailed Specification.				
1.10.1	Type R1 18w Ceiling recessed LED Non-Dimmable, 5000K, as per Regent Luxon, Beka, Rubicon	Supply	84	No.	
		Install	84	No.	
Total for Bill No. 1 : Carried Forward to Summary Page					

Item	Description		Qty	Unit	Amount
1.10.2	Type J1.1 Round LED recessed Bulkhead Light, 18w, 220-240v ac, IP54, Regent Odin, Beka, Rubicon	Supply Install	26 26	No. No.	
1.11	<b><u>Daylight Switch</u></b> Supply and installation of approved daylight switch.				
1.11.1	Daylight Switch	Supply Install	6 6	No. No.	
1.12	<b><u>Socket Outlets</u></b> Supply, fitting and electrical connection of flush or surface mounted Legrand type switched socket in either 100 x 100, 100 x 50, round box or wiring channel, <u>excluding</u> box (for flush type) and conduit connections, but including cover plate.				
1.12.1	16A Double SSO c/w coverplate. Legrand type.	Supply Install	54 54	No. No.	
1.12.2	RJ11 Connector with cradle/ cover and mod blank	Supply Install	6 6	No. No.	
1.12.3	RJ45 Connector with cradle/ cover mod blank	Supply Install	6 6	No. No.	
1.12.4	RJ45 Connector with cradle/ cover mod blank	Supply Install	6 6	No. No.	
1.13	<b><u>Isolators</u></b> Supply, fitting and electrical connection of flush or surface mounted Metal Clad Isolators in either 100 x 100, 100 x 50, round box or wiring channel, <u>excluding</u> box (for flush type) and conduit connections, but including cover plate. For more details please refer to the specific drawings				
1.13.1	5A 2 Pole Flush waterproof Isolator	Supply Install	1 1	No. No.	
1.13.2	20A 2 Pole Flush waterproof Isolator - Geyser	Supply Install	6 6	No. No.	
1.13.4	20A Double Pole Flush Mounted Stove Isolator, Legrand	Supply Install	6 6	No. No.	
Total for Bill No. 1 : Carried Forward to Summary Page					

Item	Description		Qty	Unit	Amount
1.14	<b>TELEPHONE INSTALLATION</b> Supply and installation of the following items for the Telephone Installation				
1.14.1	25mm PVC Conduit	Supply	36	m	
		Install	36	m	
1.14.2	25mm PVC Conduit end	Supply	3	No.	
		Install	3	No.	
1.14.3	25mm PVC Conduit box	Supply	5	No.	
		Install	5	No.	
1.15	<b>DATA INSTALLATION</b> Supply and installation of the following items for the Data installation				
1.15.1	25mm PVC Conduit	Supply	36	m	
		Install	36	m	
1.15.2	25mm PVC Conduit end	Supply	8	No.	
		Install	8	No.	
1.15.3	25mm PVC Conduit box	Supply	5	No.	
		Install	5	No.	
1.16	<b><u>Solar Plant (Panels) with Batteries</u></b>  Allow for a Connection with the 5kVA Solar System complete with DC cables, earthing, hybrid inverter and Batteries for 4 hour backup and required communication modules and software. Protection, Metering and monitoring equipment to be included. Erect, fix, connect and commission the following solar panels and equipment, including any galvanised additional supports and brackets which may be required. All equipment to be rated for outdoor, coastal conditions. IP65 Enclosure suitable for mounting on wall in the patio will be included.		6	Item	
Total for Bill No. 1 : Carried Forward to Summary Page					



**ELECTRICAL INSTALLATION**

**SUMMARY PAGE**

<b>BILL NO.</b>	<b>Amounts brought forward from:</b>	<b>Amounts (R)</b>
1	Adminstration, Main Central Area & Phamarcy	
2	Block G - Chronic Care	
3	Block F - Acute care	
4	Block A - Guard House & public Ablutions	
5	Block E - Preventive & Promotive	
6	Block D - Service Access, Block C - Emergency & Support Services	
7	Block H - Youth & Outreach Center	
8	Lightning Protection	
9	External Works	
10	Mechanical Works	
11	Residence	
<b>TOTAL CARRIED FORWARD TO FINAL SUMMARY OF MAIN BILLS OF QUANTITIES</b>		

- A This Bill needs to be read in conjunction with HVAC Layout for full project descriptions and supporting information.
- B Drawing Reference: KZN-MC-HVAC-TD-00.
- C All products supplied for this installation must be SABs and/or appropriate EU/IEC Standard.
- D The installation of all supplied materials must be in accordance with the OEM requirements and the installer must be accredited by the OEM to conduct such installation.
- E Pricing of all these items must include for all transport, supply, labour and P&G's.
- F Pricing of all these items must include for any building repair work that may be required as a result of the installation works.
- G All product and material specifications, and warranty (offering and conditions) to be provided in the Tender reply.
- H All Pricing to include for all copper tubing & trunking, housing, bracket connections, condensate drainage and electrical supply from socket point.
- I All compressor units to be installed with anti-vibration mountings.
- J Condenser units to be positioned as per the layout drawing.
- K Product offering for AC units must be Carrier or equivalent.
- L Energy Efficiency Ratings will be taken into account.
- M All units to be single phase, 220V.
- N Corrosion protection must be suitable to the proximity of the site. It must include for appropriately galvanised structural components. Details must be provided.
- O Cooling systems, materials, components and refrigerant type must comply with SANS 10147:2014.
- P All work to be conducted in accordance with the relevant Regulations, Standards and Tender Specification Report (KZN-MC-TS-00).
- Q All AC condensate drain piping to be chased into wall and discharged at a low level to the outside.
- R All AC condensate drain piping to be thermally insulated.

NO.	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
1	12000 BTU (QHGO12DS) - Invertor Type (ERR & COP Ratings to be "Carrier" or Equivalent)	No.	28		

BILL 2 - MECHANICAL VENTILATION

- A This Bill needs to be read in conjunction with HVAC Layout for full project descriptions and supporting information.
- B Drawing Reference: KZN-MC-HVAC-TD-00.
- C All products supplied for this installation must be SABS and/or appropriate EU/IEC Standard.
- D The installation of all supplied materials must be in accordance with the OEM requirements.
- E Pricing of all these items must include for all transport, supply, labour and P&G's.
- F Pricing of all these items must include for any building repair work that may be required as a result of the installation works.
- G All product and material specifications, and warranty (offering and conditions) to be provided in the Tender reply.
- H All wall mounted fans to be single phase, 220V.
- I All wall mounted extraction fans to have back to back grills included.
- J Supply and Extraction Fans to be AMS or equivalent.
- K Grills and Weather Louvres to be AMS or equivalent.
- L Corrosion protection must be suitable to the proximity of the site. It must include for appropriately galvanised structural components. Details must be provided.
- M All work to be conducted in accordance with the relevant Regulations, Standards and Tender Specification Report (KZN-MC-TS-00).

NO.	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
1	Extraction Fans				
	HV-150AE	No.	1		
	HIT-200	No.	2		
	HIT-125	No.	1		
2	Fresh Air Fans				
	HV-150AE	No.	2		
	HIT-125	No.	1		
3	Ducting (Galvanised sheet metal)				
	110mm Diameter	m	30		
	150mm Diameter	m	4		
	150mmx180mm	m	5		
	200mmx180mm	m	8		
	220mmx200mm	m	4		
	300mmx200mm	m	5		



- A This Bill needs to be read in conjunction with Potable Water Layout for full project descriptions and supporting information.
- B Drawing Reference: KZN-MC-PHW-TD-00; KZN-MR-PHW-TD-00.
- C All products supplied for this installation must be SABS and/or appropriate EU/IEC Standard.
- D The installation of all supplied materials must be in accordance with the OEM requirements.
- E Pricing of all these items must include for all transport, supply, labour and P&G's.
- F Pricing of all these items must include for any building repair work that may be required as a result of the installation works.
- G All product and material specifications, and warranty (offering and conditions) to be provided in the Tender reply.
- H Pricing to include for necessary couplings between all pipes of similar and dissimilar materials, and between taps and valves.
- I All water reticulation connective fittings to be Compression Type (Cobra) - to be included in the pricing.
- J Pricing to include for copper pipes to be chased into the walls. A suitable paper or plastic protective wrap is required around the pipes. Details must be provided.
- K All work to be conducted in accordance with the relevant Regulations, Standards and Tender Specification Report (KZN-MC-TS-00).

NO.	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
1	CuCl2 Reticulation - Diameter 15mm	m	235		
2	CuCl2 Reticulation - Diameter 22mm	m	200		
3	CuCl2 Reticulation - Diameter 28mm	m	90		
4	CuCl2 Reticulation - Diameter 35mm	m	20		
5	Cobra RB Gate Valve 1001/125 15mm SABS FXF Prestex	No.	36		
6	Cobra RB Gate Valve 1001/125 22mm SABS FXF Prestex	No.	16		
7	Cobra RB Gate Valve 1001/125 28mm SABS FXF Prestex	No.	7		
8	Cobra RB Gate Valve 1001/125 35mm SABS FXF Prestex	No.	3		
9	Pressure Relief Valve 600kpa 22mm	No.	6		
10	Water Meter and Connection Fee	No.	1		
11	Electrical Bonding of Cu Pipes	Sum			

- A This Bill needs to be read in conjunction with Hot Water Layout for full project descriptions and supporting information.
- B Drawing Reference: KZN-MC-PHW-TD-00; KZN-MR-PHW-TD-00.
- C All products supplied for this installation must be SABS and/or appropriate EU/IEC Standard.
- D The installation of all supplied materials must be in accordance with the OEM requirements.
- E Pricing of all these items must include for all transport, supply, labour and P&G's.
- F Pricing of all these items must include for any building repair work that may be required as a result of the installation works.
- G All product and material specifications, and warranty (offering and conditions) to be provided in the Tender reply.
- H Heat Pump and Geyser sets to be supplied complete. Product offering must be Kwikot or equivalent.
- I All copper pipes to be chased into the building walls.
- J All pricing to include for 2m insulation on incoming cold water pipes and insulate all outgoing hot water pipes (including pipes chased into the walls). Product offering to be SANS 204 and XA compliant.
- K Pricing to include for necessary couplings between all pipes of similar and dissimilar materials, and between taps and valves.
- L All hot water reticulation connective fittings to be Compression Type (Cobra). To be included in the pricing.
- M Corrosion protection must be suitable to the proximity of the site. It must include for appropriately galvanised structural components. Details must be provided.
- N All work to be conducted in accordance with the relevant Regulations, Standards and Tender Specification Report (KZN-MC-TS-00).

NO.	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
1	CuCl2 Reticulation - Diameter 15mm	m	200		
2	CuCl2 Reticulation - Diameter 22mm	m	90		
3	CuCl2 Reticulation - Diameter 28mm	m	35		
4	Cobra RB Gate Valve 1001/125 15mm SABS FXF Prestex	No.	10		
5	Cobra RB Gate Valve 1001/125 22mm SABS FXF Prestex	No.	4		
6	Cobra RB Gate Valve 1001/125 28mm SABS FXF Prestex	No.	1		
7	DSG-050-5 - KWIKOT Superline Geyser 50L (2kW)	No.	6		
	KHN3-224 - 400 kpa Multi Valve	No.	6		
	KHN4-200CX - 22mm Vacuum Breaker	No.	12		
	DRT 600 - Drip Tray	No.	6		



- A This Bill needs to be read in conjunction with Sewage Layout for full project descriptions and supporting information.
- B Drawing Reference: KZN-MC-SW-TD-00; KZN-MR-SW-TD-00
- C Product offering must be Giberit or Valsir HDPE.
- D All products supplied for this installation must be SBS and/or appropriate EU/IEC Standard.
- E Pricing of all these items must include for all transport, supply, labour and P&G's.
- F Pricing of all these items must include for any building repair work that may be required as a result of the installation works.
- G All product and material specifications, and warranty (offering and conditions) to be provided in the Tender reply.
- H Pricing to include for necessary couplings between all pipes of similar and dissimilar materials.
- I Pricing to include for necessary ventilation and inspection requirements in accordance with SANS 10252-2.
- J All work to be conducted in accordance with the relevant Regulations, Standards and Tender Specification Report (KZN-MC-TS-00).

NO.	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
1	Diameter 50mm uPVC Reticulation	m	205		
2	Diameter 100mm uPVC Reticulation	m	50		
3	Diameter 50mm uPVC 45 Degree Junction (With Inspection Eye)	No.	72		
4	Diameter 50mm uPVC 90 Degree Bend (With Inspection Eye)	No.	78		
5	Diameter 100mm uPVC 90 Degree Bend (With Inspection Eye)	No.	20		
6	Pan Connector	No.	20		
7	Geberit P-Trap for Double Sink 50mm	No.	3		
8	Geberit P-Trap for Sink 50mm	No.	59		
9	Geberit Urinal Trap 50mm	No.	4		
10	ACO Hygenic Gully 157 Fixed Height W200 L200 D110 Vertical with FAT, FHD, EN1253, 1.4301	No.	6		
11	ACO Slob Hyg Ladder Grate W168W168H25; L/C R50; SS 1.4301	No.	6		
12	ACO Slit Basket for Vertical Gully 157, EN1253, 1.4301	No.	6		



BILL 6 - FIRE INSTALLATION

- A This Bill needs to be read in conjunction with Fire Installation Layout for full project descriptions and supporting information.
- B Drawing Reference: KZN-MC-FI-TD-00.
- C All products supplied for this installation must be SABS and/or appropriate EU/IEC Standard.
- D The installation of all supplied materials must be in accordance with the OEM requirements.
- E Pricing of all these items must include for all transport, supply, labour and P&G's.
- F Pricing of all these items must include for any building repair work that may be required as a result of the installation works.
- G All product and material specifications, and warranty (offering and conditions) to be provided in the Tender reply.
- H All pricing to include for bracket connections and hangers.
- I Class B Fire Doors to include Pregalvanised frame, Slam bars, Magnetic hold open device, Certifire Hinges, and Georgian wired vision panels. Product offering to be 'Firechief' or equivalent.
- J Fire Suppression to be Stat-X type, inclusive of a control panel, battery back-up, optical smoke detectors, manual gas release, bell, beacon, signage, commissioning, testing and training.
- K Pricing to include for necessary couplings between all pipes of similar and dissimilar materials, and between taps and valves.
- L Corrosion protection must be suitable to the proximity of the site. It must include for appropriately galvanised structural components. Details must be provided.
- M All work to be conducted in accordance with the relevant Regulations, Standards and Tender Specification Report (KZN-MC-TS-00).

NO.	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
1	Fire Hose Reel (30m)	No.	7		
2	Fire Hydrant	No.	3		
3	4,5 kg DCP Fire Extinguisher	No.	16		
4	Diameter 100mm HDPE Class 16	m	85		
5	Diameter 150mm HDPE Class 16	m	45		
6	Diameter 25mm Mild Steel Medium Class	m	60		
7	Diameter 32mm Mild Steel Medium Class	m	30		
8	Diameter 100mm Mild Steel Medium Class	m	95		
9	110mm 90 Degree grooved	No.	24		
10	110mm Klambons	No.	38		
11	100mm Blank Caps	No.	5		
12	25mm Elbows	No.	38		
13	25mm Unions	No.	15		



- A This Bill needs to be read in conjunction with Fire Installation Layout for full project descriptions and supporting information.
- B Drawing Reference: KZN-MC-FD-TD-00.
- C All products supplied for this installation must be SABS and/or appropriate EU/IEC Standard.
- D The installation of all supplied materials must be in accordance with the OEM requirements.
- E Pricing of all these items must include for all transport, supply, labour and P&G's.
- F Pricing of all these items must include for any building repair work that may be required as a result of the installation works.
- G All product and material specifications, and warranty (offering and conditions) to be provided in the Tender reply.
- H All Pricing to include for all tubing / trunking, housing, bracket connections / hangers and electrical supply to socket point.
- I All work to be conducted in accordance with the relevant Regulations, Standards and Tender Specification Report (KZN-MC-TS-00).

NO.	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
1	AE-TCS101 - 1 Loop Addressable Control Panel c/w 1; Loop Card	No.	1		
2	AE-TCS202 - 2 Loop Addressable Control Panel c/w 2; Loop Card	No.	1		
3	EL-B121 12 V DC 7.5AH Battery	No.	2		
4	AP-XP-O XP95 - Optical Smoke Detector	No.	70		
5	AP-XP-H XP95 - Fixed Temperature Heat Detector; Class A2/S (55°C)	No.	6		
6	AP-XP-B XP95 - Mounting Base	No.	76		
7	AP-XPWDSO-SBR XP95 - Open-Area Sounder Beacon Red (Sonos)	No.	17		
8	AP-XPWD-SBRWP XP95 - Weatherproof Open-Area; Sounder Beacon, Red	No.	3		
9	AP-DIS-MCP - Discovery MCP with Isolator, Red (Surface)	No.	20		
10	KB-FLAP MCP Transparent Hinged Protective Flap	No.	20		
11	Fire Retardant braided screened 1,5mm stranded PH 30 red cable incl. terminations	m	1000		
12	AP-SAI-IO Soteria/XP95 - Input / Output Unit	No.	2		
13	TS-FDH-R Fire Document Holder, A4, Red, c/w Logbook	No.	1		
14	6 months Defective Maintenance, 12 month Warranty Maintenance	Sum	1		

- A This Bill needs to be read in conjunction with Signage Layout for full project descriptions and supporting information.
- B Drawing Reference: KZN-MC-FI-TD-00.
- C All products supplied for this installation must be SABS and/or appropriate EU/IEC Standard.
- D All signage to be Aluminium Framed, Photo Illuminiscent.
- E Pricing of all these items must include for all transport, supply, labour and P&G's.
- F Pricing of all these items must include for any building repair work that may be required as a result of the installation works.
- G All product and material specifications, and warranty (offering and conditions) to be provided in the Tender reply.
- H All work to be conducted in accordance with the relevant Regulations, Standards and Tender Specification Report (KZN-MC-TS-00).

NO.	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
1	Signage - E3 - Fire Escape (Green) 190mm X 380mm	No.	40		
2	Signage - F4 - Fire Equipment; Fire Exit; Arrow (Red). 190mm X 190mm 190mm X 380mm 190mm X 570mm 190mm X 760mm	No. No. No. No.	15 5 10 5		

BILL 9 - STORAGE WATER TANK AND PUMP SETS

- A This Bill needs to be read in conjunction with Potable Water, Fire Installation & Pump Layouts for full project descriptions and supporting information.
- B Drawing Reference: KZN-MC-PT-TD-00.
- C All products supplied for this installation must be SABS and/or appropriate EU/IEC Standard.
- D The installation of all supplied materials must be in accordance with the OEM requirements.
- E Pricing of all these items must include for all transport, supply, labour and P&G's.
- F Pricing of all these items must include for any building repair work that may be required as a result of the installation works.
- G All product and material specifications, and warranty (offering and conditions) to be provided in the Tender reply.
- H Corrosion protection must be suitable to the proximity of the site. It must include for appropriately galvanised structural components. Details must be provided.
- I All work to be conducted in accordance with the relevant Regulations, Standards and Tender Specification Report (KZN-MC-TS-00).

NO.	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
1	Potable Pump Set - Duty & Standby (Wilo or Equivalent); Inclusive of Stainless Steel Manifolds, Non Return & Butterfly Valve	No.	1		
2	Potable Pump Control Panel	No.	1		
3	Fire Pump Set - Jockey & Primary (Wilo or Equivalent); Inclusive of Stainless Steel Manifolds, Non Return & Butterfly Valve	No.	1		
4	Fire Pump Control Panel	No.	1		
5	Ablution Pump Set - Duty & Standby (Wilo or Equivalent); Inclusive of Stainless Steel Manifolds, Non Return & Butterfly Valve	No.	1		
6	Ablution Pump Control Panel	No.	1		
7	Abeco Tank	No.	1		
8	Diameter 54mm CuCl2	m	15		
9	Solenoid Valves (for level control - 54mm inlet) to Abeco Tank	No.	2		
10	Isolation Valves (for drain - 80mm) to Abeco Tank	No.	2		
11	80mm Overflow pipe (galvanised with welded flange)	No.	2		
12	Non-return Valves (Diameter 54mm)	No.	3		
13	Isolation Valves (Diameter 54mm)	No.	4		

BILL 10 - RAINWATER HARVESTING

- A This Bill needs to be read in conjunction with Rainwater Harvesting Layout for full project descriptions and supporting information.
- B All products supplied for this installation must be SABS and/or appropriate EU/IEC Standard.
- C The installation of all supplied materials must be in accordance with the OEM requirements.
- D Pricing of all these items must include for all transport, supply, labour and P&G's.
- E Pricing of all these items must include for any building repair work that may be required as a result of the installation works.
- F All product and material specifications, and warranty (offering and conditions) to be provided in the Tender reply.
- G Corrosion protection must be suitable to the proximity of the site. It must include for appropriately galvanised structural components. Details must be provided.
- H Pricing to include for necessary couplings between all pipes of similar and dissimilar materials, and between taps and valves.
- I All work to be conducted in accordance with the relevant Regulations, Standards and Tender Specification Report (KZN-MC-TS-00).

NO.	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
1	Jojo Tank (5kL)	No.	7		
2	Self-priming Irrigation Pump (Complete with Accessible Weatherproof Enclosure and In-Line Disc Filter)	No.	3		
3	Standpipe and Tap Set (22mm)	No.	3		
4	Isolation Valves (Diameter 50mm)	No.	13		
5	Non-return Valves (Diameter 50mm)	No.	3		
6	Diameter 50mm HDPE 16	m	220		
7	Diameter 80mm PVC	m	21		
8	Diameter 50mm PVC	m	39		
9	First Flush Diverter Valves (Diameter 80mm)	No.	7		

- A All products supplied for this installation must be SABS approved.
- B The installation of all supplied materials must be in accordance with the OEM requirements.
- C Pricing of all these items must include for all transport, supply, labour and P&G's.
- D Pricing of all these items must include for any building repair work that may be required as a result of the installation works.
- E All product and material specifications, and warranty (offering and conditions) to be provided in the Tender reply.
- F Product offering must be Centurion D10 (industrial) or equivalent.
- G All work to be conducted in accordance with the relevant Regulations, Standards and Tender Specification Report (KZN-MC-TS-00).

NO.	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
1	Rack Drive Motor Set Complete (including battery & brackets)	No.	1		
2	Goosenecks (Galvanised Mild Steel)	No.	2		
3	Keypad	No.	1		
4	Anti-knock Shields	No.	2		
5	Remotes	No.	4		

MECHANICAL, WET SERVICES & FIRE

BILL NO.	DESCRIPTION	TOTAL
BILL 1	AIR CONDITIONING	
BILL 2	MECHANICAL VENTILATION	
BILL 3	POTABLE WATER	
BILL 4	HOT WATER	
BILL 5	SEWAGE	
BILL 6	FIRE INSTALLATION	
BILL 7	FIRE DETECTION	
BILL 8	SIGNAGE	
BILL 9	STORAGE TANK & PUMP SETS (FIRE & POTABLE)	
BILL 10	RAINWATER HARVESTING	
BILL 11	GATE MOTOR	



SECTION NO.	FINAL SUMMARY	AMOUNT
1	<b>Section No. 1</b> Preliminaries	
2	<b>Section No. 2</b> Builders Work	
3	<b>Section No. 3</b> External works	
4	<b>Section No. 4</b> Electrical Works (Provisional)	
5	<b>Section No. 5</b> Mechanical, Wet services and Fire Installation	
<b>Sub - total excluding VAT and contingencies</b>		
<b>ADD CONTINGENCIES</b> Allow 10% for contingencies which shall be applied to the work as directed by the Project Manager and deducted in whole or part if not required		
<b>Sub - total excluding VAT</b>		
ADD: VAT @ 15%		
<b>Carried to Form of Tender</b>		
<b>TOTAL</b>		



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## CONSTRUCTION OF A SMALL CLINIC INCLUDING RESIDENCES AT MAHLONI CLINIC

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### PART C3. SCOPE OF WORKS

**C3.1 SCOPE OF WORKS  
GCC FOR CONSTRUCTION WORKS (Edition 2 of 2010)**

Scope of Works complied in accordance with SANS 10403 where reference is made to this part of SANS 1921-1:2004

<b>Project title:</b>	<b>CONSTRUCTION OF A SMALL CLINIC INCLUDING RESIDENCES AT MAHLONI CLINIC</b>		
<b>Tender no:</b>	<b>ZNB5547/2023-H</b>	<b>Project Code:</b>	<b>N/A</b>

	<p><b><u>SECTION 1</u></b></p> <p><b><u>1 EXTENT OF THE WORKS</u></b></p> <p><b>1.1 EMPLOYERS OBJECTIVES</b> Construct and small clinic including residences</p> <p><b>1.2 OVERVIEW OF THE WORKS</b> Construction of a single storey clinic and residences, including guard house, fencing, external works.</p> <p><b>1.3 EXTENT OF THE WORKS</b> The works includes the construction of a new single storey clinic and residences units. The external works includes the construction of new guard house, fencing, site services, parking, water tank, borehole, bulk earthworks. etc.</p> <p><b>1.4 LOCATION OF THE WORKS</b> The site is located in the Zululand District Municipality. The Latitude is 27° 35' 07".2 S and Longitude is 30° 54' 08".2 E.</p> <p><b>1.5 TEMPORARY WORKS</b> All temporary work to comply with the Occupational Health and safety Act (Act 85 of 1993)</p>
<b>2</b>	<p><b><u>ENGINEERING</u></b></p> <p><b>2.1 EMPLOYER'S/CONTRACTOR'S DESIGN</b> Not applicable</p> <p><b>2.2 DESIGN BRIEF</b> Not applicable</p> <p><b>2.3 DRAWINGS</b> See list of Drawings/Annexures attached to this document</p>

2.4	<b>DESIGN PROCEDURES</b>  Not applicable
3	<b><u>PROCUREMENT</u></b>  <b>3.1 PREFERENTIAL PROCUREMENT PROCEDURES</b>  This tender will be subject to the implementation of the Preferential Procurement Regulations, 2022 pertaining to the Preferential Procurement Policy Framework Act, Act Number 5 of 2000 and the relevant Supply Chain Management Legislation and the KwaZulu-Natal Supply Chain Management Policy Framework published by the KwaZulu-Natal Provincial Treasury. Tenderders are referred to <a href="http://www.kzntreasury.gov.za">www.kzntreasury.gov.za</a> for access to the relevant documents. Tenderders are advised to familiarize themselves with the contents of the KwaZulu-Natal Supply Chain Management Policy Framework regarding Preference Point Systems, evaluation of tenders appeals and other matters.  <b>3.2 RESOURCE STANDARD PERTAINING TO TARGETED PROCUREMENT</b>  NOTE : This project will be adjudicated as exceeding R 50,000 000,00  <b>3.3 SCOPE OF MANDATORY SUBCONTRACT WORK</b>  Not applicable  <b>3.4 PREFERRED SUBCONTRACTORS/SUPPLIERS</b>  Not applicable  <b>3.5 SUBCONTRACTING PROCEDURES</b>  Not applicable
4	<b><u>CONSTRUCTION</u></b>  <b>4.1 APPLICABLE SANS 2001 STANDARDS FOR CONSTRUCTION WORKS</b>  The Contractor is referred to the "Model Preambles to Trades - 2008", any "Supplementary Preambles", the Electrical Specifications and Mechanical Specification for full descriptions of materials and methods referred to in these Bills of Quantities/Lump Sum documents, insofar as they apply. The Contractor is advised to study the "Standard Preambles to all Trades", any "Supplementary Preambles", the Electrical Specifications and Mechanical Specification, before pricing Bills of Quantities/Lump Sum documents. Where the description in the Bills of Quantities/Lump Sum documents differ from those in the Standard Electrical Specifications, the descriptions in the Bills of Quantities/Lump Sum documents are to apply. No claim whatsoever will be allowed in respect of errors in pricing due to brevity of description of items in the Bills of Quantities/Lump Sum documents which are fully described when read in conjunction with the relevant Preambles and/or Specifications. Suppliers of materials and the like, whose quality systems apply with one or more of the SABS/SANS ISO 9000 Series should be used whenever possible in the absence of a particular SABS/SANS Specification Standard Mark. Wherever the words "shall be deemed to be included in the description", "shall be stated" or other words having the same effect, appear in the Standard System, it shall be deemed that all descriptions in these Bills of Quantities/Lump Sum documents incorporated such inclusions and statements whether specifically stated or not.  The Contractor is hereby informed that where SABS/SANS Specifications are referred to in these Bills of Quantities/Lump Sums documents and Specifications thereto, then ONLY the Specification of Work Clauses will apply. The method of measurement and payment clauses will NOT apply to this Contract.

The Contractor is hereby informed that risk of collapse and keeping excavations free from water (excluding subterranean water) generally are deemed to be included in the descriptions unless accommodated in the system of measurement. Please refer to the Geotechnical Investigation report when included at the end of these tender documents.

Whenever reference is made to "Sub-Contractor", "Nominated Sub-Contractor" or the like in the specifications included or referred to in these Bills of Quantities/Lump Sums documents, it shall be deemed to mean "Contractor" as defined.

**4.2 APPLICABLE NATIONAL AND INTERNATIONAL STANDARDS**

See above 4.1

**4.3 PARTICULAR / GENERIC SPECIFICATIONS**

The Contractor is referred to the following documents whether attached to this document or not:

<u>SPECIFICATION</u>	<u>PAGES</u>
Specification for HIV/AIDS Awareness (CIDB)	HIV1 TO HIV3
Specific Construction, Safety, Health and Environmental Plan	
Standard Preambles for all Trades (Rev 3) - DOH 2009	1 to 95
General Electrical Specification	E/1 to E/20
Lightning Protection Installation	LP/1 to LP/6

**4.4 CERTIFICATION BY RECOGNIZED BODIES**

Appointed consultants must be actively registered with their relevant professional discipline

**4.5 AGRÉMENT CERTIFICATES**

Not applicable

**4.6 PLANT AND MATERIAL PROVIDED BY THE EMPLOYER**

Not applicable

**4.7 SERVICES AND FACILITIES PROVIDED BY THE EMPLOYER**

None.

**4.8 OTHER SERVICES AND FACILITIES**

The Contractor shall provide any artificial lighting which may be necessary or required for the proper execution of the works, and provide electric power and water required by all Sub-Contractors, Nominated Sub-Contractors and Sub-Contractors appointed directly by the Administration.

The Contractor shall give all notices and pay all fees in connection with temporary electrical and water connections and shall connect temporary Electrical and Water meters for and pay for all current and water consumed.

The Contractor is advised that the permanent light fittings and water points of any kind installed in the Works are not to be used to provide temporary lighting and supplement water requirements for construction purposes.

5

**MANAGEMENT**

**5.1 APPLICABLE SANS 1921 STANDARDS**

- SANS 876:2016 - Cable terminations and live conductors within air-filled enclosures (insulation co-ordination) for rated a.c. voltages from 7,2 kV up to and including 36 kV.
- SANS 1874:2015 - Switchgear - Metal-enclosed ring main units for rated a.c. voltages above 1 kV and up to and including 36 kV.
- o The Occupational Health and Safety Act (Act 85, 1993) as amended
- o The control panel, associated components and wiring shall be installed in compliance with the latest, relevant and applicable standards.
- o SANS 10147: Refrigerating systems, including plants associated with AC systems
- o SANS 347: Categorization and conformity assessment criteria for all pressure equipment
- o SANS 10142: Code of Practice for Wiring of Premises
- o SANS 60947-1: 2005/IEC 60947-1: 2004 to SANS 60947-8: 2004/IEC 60947-8: 2004: Low voltage switch gear and control gear.
- o A Certificate of Conformity, in accordance with the OHS Act as amended and SANS 347, will be required for all refrigeration and air-conditioning works
- o KwaZulu-Natal Department of Health Policy on Design of Mechanical Installations
- o An Electrical Certificate of Compliance, in accordance with the OHS Act as amended, will be required for all Electrical Works.
- o The Machinery and Occupational Safety Act - Act 6/1983
- o The Municipal by-laws and any special requirements of the Supply Authorities of the area or district concerned.
- o Local Fire Regulations.
- o All building works shall be in accordance with the Standard Preambles to All Trades. The contractor should fully familiarise himself with these documents prior to quoting.

**5.2 RECORDING OF WEATHER**

The Contractor shall keep record of abnormal climatic conditions to facilitate the adjudication of claims for extension of the contract period.

The Contractor shall allow in his programme for the following number of days for rain days (rain > 10mm per day) as per the table below:

CURRENT YEAR			YEAR + 1	YEAR + 2
January	w/days	3	3	3
February	w/days	3	3	3
March	w/days	3	3	3
April	w/days	3	3	3
May	w/days	3	3	3
June	w/days	3	3	3
July	w/days	3	3	3
August	w/days	3	3	3
September	w/days	3	3	3
October	w/days	3	3	3
November	w/days	3	3	3
December	w/days	3	3	3

**5.3 MANAGEMENT MEETINGS**

In order to facilitate the smooth functioning of the Works and to ensure the closest co-operation between all the parties concerned, the Employer will call for regular meetings to be held on the site, at which a senior member of the Contracting firm and the General Foreman of the Works will always be required to be present. In addition to the above, other persons will be required to attend these meetings as and when their presence is necessary, e.g., Consultants in all disciplines, representatives of the various Sub-Contractors, etc. Proper minutes of these meetings will be kept by the Employer/Principal Agent and copies will be circulated to all persons attending the meetings and to others who need to be kept informed.

**5.4 FORMS FOR CONTRACT ADMINISTRATION**

The Employer shall provide all necessary forms.

**5.5 ELECTRONIC PAYMENTS**

The Contractor shall provide all required information to the Employer to facilitate electronic payments upon request.

**5.6 DAILY RECORDS**

The Contractor shall keep daily records of people and equipment employed as well as a site diary in respect of work performed on the site.

At the end of each week the Contractor shall provide the Principal Agent with a written record, in schedule form, reflecting the number and description of tradesmen and labourers employed by him and all Sub-Contractors on the works each day.

At the end of each week the Contractor shall provide the Principal Agent with a written record, in schedule form, reflecting the number, type and capacity of all plant, excluding hand tools, currently used on the works.

**5.7 BONDS AND GUARANTEES**

The Contractor shall within 10 calendar days after receiving notice from the Engineer and prior to receiving a completed copy of this agreement, including the schedule of deviations (if any), contact the Employer's agent (whose details are given in the contract data) to arrange the delivery of any bonds, guarantees, proof of insurance and any other documentation to be provided in terms of the conditions of contract identified in the Contract Data.

5.8	<p><b>PAYMENT CERTIFICATES</b></p> <p>Requirements will be in accordance with the Employers prescriptions.</p>
5.9	<p><b>PERMITS</b></p> <p>The Contractor is advised that, in the case of an existing building or institution, all security measures in force will remain in operation and he must acquaint himself and his Employees with them as he and his Employees will at all times be subject to these measures.</p> <p>The Contractor will on no account extend his operations beyond the confines of the building site as indicated by the Employer and must ensure that all his Employees are made aware of these limits. Any Employee disregarding this instruction and found outside the limit of the building site without authority, shall be redeployed immediately and shall not again be employed on this Contract.</p> <p>The Contractor will be responsible for ensuring that this instruction is strictly enforced and must provide and remove upon completion or when directed, such other necessary temporary barriers, fences, etc., as may be required and is to allow opposite this item for any charges he may wish to make in this connection.</p> <p>The Employer will accept no responsibility whatsoever for damage to or the loss of plant, materials, etc., from the site.</p>
5.10	<p><b>PROOF OF COMPLIANCE WITH THE LAW</b></p> <p>The following certificates must be provided before first delivery is taken:</p> <ul style="list-style-type: none"> <li>- Electrical Compliance Certificate</li> <li>- Lightning Certificate</li> <li>- Electrical and Mechanical test certificates</li> <li>- SANS 10400-A:2010 compliance certificates</li> <li>- Latest National Building Regulation</li> <li>- Asbestos removal compliance certificates</li> </ul>
5.11	<p><b>INSURANCE PROVIDED BY THE EMPLOYER</b></p> <p>Not Applicable</p>
	<p><b><u>SECTION 2</u></b></p> <p><b><u>SPECIFICATION DATA ASSOCIATED WITH SANS 1921-2004</u></b></p>
Clause Numbers	
4.1.7	<p><b>The requirements for drawings, information and calculations for which the Contractor is responsible are:</b></p>
	<p>As built drainage drawings to be submitted by the contractor to the Engineer</p>
4.2.1	<p><b>The responsibility strategy assigned to the Contractor for the works is:</b></p>
	<p>Strategy A</p>
4.2.2	<p><b>The structural engineer is:</b></p>
	<p>AKSHAN Engineers</p>
4.2.3	<p><b>Drawings &amp; other info are to be submitted in accordance with the contractors programme</b></p>
	<p>Not applicable</p>



4.3	<p><b>The planning, programme and method statement are to comply with the following:</b></p> <p>N/A</p>
4.12.1	<p><b>Samples of materials</b></p> <p>The work is to be executed with materials of the best specified and in the most substantial and workmanlike manner under the inspection of the Employer and to his satisfaction. The Contractor shall furnish, without delay, such samples as called for or may be called for by the Employer, who may reject all materials or workmanship not corresponding with the approved sample. The samples of materials, workmanship and finishes that the Contractor is to provide and deliver to the employer are: Tiles, Vinyl Sheeting, Ceiling, Insulation, Lights</p>
4.12.2	<p><b>Fabrication drawings that the contractor is to provide to the employer are:</b></p> <p>None</p>
4.12.3	<p><b>Office accommodation, equipment, accommodation for site meetings and other facilities for use by the employer and his agents are:</b></p> <p>OFFICE FOR FOREMAN</p> <p>Provide, erect, maintain and remove at completion a suitable temporary office for the Contractor or his Foreman, perfectly secured, lighted and ventilated and having a desk with drawers.</p> <p>TELEPHONE</p> <p>The Contractor shall provide a telephone on the site for the use of the Contractor and all Sub-Contractors for the duration of the Contract, and must make the necessary application for connection, give all notices and pay all fees, rentals and charges for the service and also for all calls.</p> <p>OFFICE FOR INSPECTOR OF WORKS</p> <p>Provide, erect, maintain and remove at completion a well constructed temporary office for the Inspector of Works not less than 4 x 3 m on plan and 3 m high to eaves to the approval of the Employer. The office shall be constructed of wood framing covered externally with corrugated iron or corrugated asbestos and with a lean-to roof covered with the same material as the external wall covering. The office shall be lined internally with soft board or other approved material and a ceiling shall be provided of the same material as the internal lining. A suspended wood floor shall be provided and is to finish not less than 300 mm above the ground level. A lockable door and a window, which provides adequate light and ventilation, shall be fitted. An office constructed of 115 mm thick brick-work and provided with a screeded concrete floor and roofed and ceiled as above described may be accepted as an alternative but prior permission of the Employer will be necessary before construction of such an office is commenced and his requirements shall be stated and fulfilled by the Contractor. The office shall be fitted in an approved manner with a sloping topped desk of height and length suitable for the laying out and studying of drawings, a desk or table with not less than two lock-up drawers, shelves, seating and wash-stand, and the Contractor shall provide all necessary attendance.</p> <p>TELEPHONE IN OFFICE FOR INSPECTOR OF WORKS</p> <p>The Contractor shall arrange for the installation of a lockable telephone in the Office for the Inspector of Works for the duration of the Contract. The Contractor will be required to make the necessary application for connection and give all notices on behalf of the Employer. The Employer will, however, be responsible for the direct payment of all fees, rentals and other charges by Telkom for the service for the Inspector of Works and for all calls made from this telephone.</p>

	<p>SHED</p> <p>Provide, erect, maintain and remove at completion, ample temporary sheds for the proper storage of materials and for the use of the workmen, and remove when no longer required.</p>
<p><b>4.14.6</b></p>	<p><b>The requirement for provision and erection of signboards are:</b></p> <p>Supply, erect, maintain and remove at completion a painted notice board, size overall 2800 x 2345 mm high sign written to detail as Drawing No. T9506 which drawing is available from offices of the Department of Public Works. Only the official notice board is to be displayed on the site and no Sub-Contractor's boards will be permitted. The Contractor, at his own cost, may provide a board on which all sub-contract firms' names may be sign written. The notice board is to be to the approval of the Employer and is to be maintained in first class condition and placed where directed at the entrance to the site and remain there for the duration of the Contract.</p>
<p><b>4.17.1</b></p>	<p><b>Requirement for the termination, diversion or maintenance of existing services:</b></p> <p>Should the Contractor come in contact with any underground cables or pipes during excavations, immediate notification must be made to the Employer and all work in the vicinity of such cables, pipes, etc., shall cease until authority to proceed has been obtained from the Employer. Should the Contractor damage underground cables or pipes resulting in a disruption of services to an existing institution such damage shall be repaired immediately.</p>
<p><b>4.17.3</b></p>	<p><b>Services which are known to exist on the site:</b></p> <p>Investigate and provide detail drawings.</p>
<p><b>4.17.4</b></p>	<p><b>Requirement for detection apparatus</b></p> <p>None</p>
<p><b>4.18</b></p>	<p><b>ADDITIONAL HEALTH AND SAFETY REQUIREMENTS ARE:</b></p> <p>By the submission of a tender, any Tenderder will, if awarded the contract to which this tender document relates, be deemed to be the mandatory as envisaged by Section 37 (2) of the Act. As a mandatory the successful Tenderder will be deemed to be the "principal contractor" and an employer in his/her/their own right with duties as prescribed in the Act and accordingly will be deemed to have agreed to be solely responsible for ensuring that in connection with the service to which this tender document relates, all work will be performed and machinery and plant used in accordance with the Act. Should the Contractor, for whatever reason be unable to perform as required by the Act, the Contractor undertakes to inform the Employer accordingly.</p> <p>Tenderders are advised that it is a Condition of this Tender that a 'Construction Phase Safety, Health and Environmental Plan' specifically relates to the project for which tenders are being submitted and must be prepared by the Tenderder and submitted with the other tender documents at the time of tender. Failure to do so will</p> <p>Tenderders are therefore advised to study the 'Construction Safety, Health and Environmental Specification' which is issued as part of this tender document, the Model Preambles to Trades - 2008, any project Specification included in this tender document and any and all drawings which are referred to and issued as part of this tender document before preparing their own project specific 'Construction Phase Safety, Health and Environmental Plan' .</p> <p>Tenderders are also advised that such a plan which is submitted with a tender but is incomplete or considered inadequate by the Employer or his Representative will invalidate the tender.</p> <p>The Contractor will be deemed to have satisfied himself with his obligations in terms of the Act and to have allowed for all costs arising from compliance with the Act as no claim for extra costs arising from compliance with, and obligations in terms of the Act will be entertained.</p>
<p><b>4.22</b></p>	<p><b>WORK BY NOMINATED AND SELECTED SUBCONTRACTORS COMPRISE:</b></p> <p>List of applicable sub-contractors to be compiled post award.</p>

## C3.2 - SPECIFICATION FOR HIV/AIDS AWARENESS

### 1 Scope

This generic specification contains requirements applicable to the reduction of the risk of transfer of the HIV virus between and among construction workers and the local community through the following four strategies:

- a) raising awareness about HIV/AIDS;
- b) providing construction workers with access to condoms;
- c) HIV counselling, testing and referral services; and
- d) Sexually Transmitted Infection diagnosis and treatment.

### 2 Normative references:

The following standard contains provisions that, through reference in this text, constitute provisions of this standard:

SANS 4074 ISO 4074, *Condom Rubbers*

### 3 Definitions and Abbreviations

#### 3.1 Definitions

**Construction Worker:** all persons in the employ of the contractor or in the employ of any of the subcontractors contracted by the contractor.

**Local Community:** the communities local to the site which are most likely to have contact with the construction worker and, in particular, sex workers in those communities.

**Service provider:** the natural or juristic person recognised by the South African Department of Health as specialist in conducting Aids Awareness Programmes.

#### 3.2 Abbreviations

STI: Sexually transmitted infection

HIV: Human Immunodeficiency Virus

AIDS: Acquired Immune Deficiency Syndrome

### 4 Objectives

The objectives are to:

- a) reduce the risk of transfer of the HIV virus between and among construction workers and the local community;
- b) raise awareness amongst construction workers and the local community of the risk of infection with the HIV virus;
- c) promote early diagnosis; and
- d) assist affected individuals to access care and counselling.

- b) either place and maintain HIV/AIDS awareness posters of size of not less than A1 in areas which are highly trafficked by construction workers, or provide construction workers with a pamphlet, in languages largely understood by construction workers, which
- c) encourage voluntary HIV/STI testing;
- d) provide information concerning counselling, support and care of those that are infected services; and
- e) comply with the requirements of 5.2.

***The provisions of 5.1 c) and d) do not apply to this contract.***

## **5.2 HIV awareness programme**

**5.2.1** The contractor shall:

- a) engage a qualified service provider as described in the scope of works to conduct an HIV Awareness Programme which is structured to achieve the outcomes stated in 5.2.3 for contract workers as soon as a construction workers camp is established and populated or, where no such camp is established, within two weeks of the commencement of a significant portion of the works and at subsequent intervals, if any, provided for in the scope of works; and
- b) arrange for, provide a suitable venue, and instruct all construction workers to attend the HIV Awareness Programme and notify the Employer's Representative of the date, time and venue whenever a session with construction workers is conducted.

**Note: The National Department of Public Works maintains a list of qualified service providers.**

**5.2.2** The contractor shall do nothing to dissuade construction workers from attending such an HIV Awareness Programme and shall take all reasonable steps to ensure that a minimum of 90% of construction workers engaged in the works attend such a programme, when it is conducted.

**5.2.3** The outcomes of the HIV Awareness Programme shall as a minimum, result in contract workers exposed to such a programme being able to:

- a) communicate the existence of problems of HIV and be able to outline the consequences of transmission of HIV to or from the local community;
- b) recall and communicate the mode of HIV transmission and preventative measures including the proper use of the condom.

**The HIV/ Aids awareness programme described in 5.2 is to be repeated at four month intervals throughout the duration of the contract. (Four times in total, including the initial one at the start of the contract)**

### **5.3 Reporting**

- 5.3.1** The contractor shall prepare and attach to his claims for payment a brief report which outlines how the actions taken by the contractor in the period for which payment is claimed satisfy the requirements and a schedule which lists the names, identity numbers, trade / occupation and name of employer of all construction workers exposed to the programme (see **HIV/STI Compliance Report**).
- 5.3.2** The employer's representative shall certify the report and schedule described in 5.3.1 whenever a claim for payment is issued to the employer.

**Note: In the event that the contractor fails to satisfy the requirements of this specification, the employer (Head: Public Works) may apply any of the sanctions provided for in the contract. Sanctions may include the application of a financial penalty of .04% of the Contract Sum.**

The *HIV /Aids* awareness programme *described* in 5.2 shall in addition *be conducted* for the benefit of the local community on two occasions in the community centre nearest to the building site. The contractor shall be *responsible* for inviting identifiable community-based *institutions and organisations, churches, and schools to participate in the programme.*

### C3.3 - HIV/STI COMPLIANCE REPORT

Pro-forma reporting format in terms of the SPECIFICATION FOR HIV/AIDS AWARENESS

Project Code:

0

Payment Claim number:

Period covered by payment claim:

1. Distribution of condoms (briefly describe where and how condoms are distributed).

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2. Posters / pamphlets (briefly describe where posters were placed / how pamphlets were distributed).

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3. Voluntary testing (briefly describe the actions taken / information provided to promote testing).

4. Counselling, support and care (summarise information provided).

5. HIV awareness programme (briefly describe action).

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## Project: KZN DOH CLINICS

### Electrical Specification

- 1) Network distribution to all server cabinets
  - 2) Installation of all network cabling
  - 3) Installation and termination of IT, Access control PA & Speakers, CCTV, Nurse Call and other electronic equipment as per BOQ.
  - 4) Conduits and cable trays for IT, Speakers wiring, CCTV and Audio distribution separated from power routes by at least 300mm edge to edge from single phase circuits.
  - 5) All plaster boxes as per BOQ
  - 6) Supply and install of IT cables (CAT6/6A)
  - 7) Commissioning of all IT, Audio and Video
- 
- d) Conduit to Switches plaster mounting boxes 4 x 2 and 4x4 plaster boxes supplied and installed
  - e) Earthing as per design including earthmats/rods at Distribution Boards, Generator and pumps. 16mm<sup>2</sup> earth cable as needed and per BOM
  - f) The supply and install of lights, plugs and isolators at the residences.
  - g) Supply and install of all solar panels, DC cabling, inverters & batteries as per the bill for residences and clinic as two sperate system.
  - h) Electrical compliance (3 phase certification) of the installation as per legislation for lighting, and power DB included.
  - i) Supply and install including Termination of speaker cables as per BOM.
  - j) Conduits sizes as per BOM and design
  - k) Supply, install and terminate all power distribution single and 3 phase as well as all power required by all third party devices such as pumps.
  - l) Labelling of cables as per design
  - m) Testing continuity of all cables prior to termination
  - n) Hold points for inspection by Engineer and authorities will be detailed in the Quality plans and 1 week notice would be required or as per Inspection Test plans

#### **1.7 Limits of Scope of Work**

The complete backup power solution includes the integration of the scope of work to be completed by both the Electrical Contractor and the Utility Contractor. The limits of the scope of work for the contractor will be the terminals of the Utility supplied transformer or Kiosk and the Fibre Optic supplier Kiosk terminals.



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**1.8 Environmental Conditions**

The electrical installation shall be capable of withstanding any combination of the following environmental conditions in which it must operate and without any electrical or mechanical damage or degradation of the operating characteristics:

- a) Altitude : up to 1300m height above sea level
- b) Ambient Temperature : -10 to 47 degrees
- c) Relative Humidity : up to 90%

**1.9 Co-ordination**

- a) Due to the nature of the installation, a fixed sequence of operation is required to properly install the complete solution. The Contractor shall perform the installation of all electrical and electronic works and shall co-ordinate his program to ensure that the works is completed and ready for commissioning of the end users of power.
- b) The work shall be closely scheduled in order not to delay the entire project. and proper planning to ensure that the works is carried out with minimum interruptions.
- a) Delays due to lack of co-ordination between the Contractor shall not form a basis for claims by the Contractor of this Contract.

**1.10 Test Certificates and Inspections**

The following tests are to be carried out:

- (a) After completion of the works and before first delivery is taken, a full test will be carried out on the installation for a period of sufficient duration to determine the satisfactory working thereof. During this period the installation will be inspected and the Contractor shall make good, to the satisfaction of the Representative/Agent, any defects which may arise.
- (b) The Contractor shall provide all instruments and equipment required for testing and commissioning of the installation at completion.
- (c) The Contractor shall ensure that he is a qualified electrician and completes the testing and commissioning of the complete installation. The electrician shall provide a valid Certificate of Compliance (CoC) for the completed installation. The CoC must be accompanied by a test report in the format stipulated in SANS 10142.
- (d) Due to possible load changes at the main existing metering board, the Contractor shall ensure that the application for extra power as calculated by new load requirements is included and any necessary upgrades are performed accordingly and the necessary applications for such upgrades as well as obtaining the local permits.
- (e) Test reports and CoC as specified above are to be submitted to the Department.

**1.11 Guarantee, Warranty and Maintenance**

- a) The Contractor shall guarantee the complete plant for a period of 24 months for any defects on equipment and installation.

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- b) If during this period the plant is not in working order, or not working satisfactorily owing to faulty material, design or workmanship, the Contractor will be notified and immediate steps shall be taken by him to rectify the defects and/or replace the affected parts or installation on site at his own expense.
- c) The Contractor shall offer technical support where required during normal working hours i.e. phone, email support.

**1.12 Materials and Workmanship**

- (a) The work throughout shall be executed to the highest standards and to the entire satisfaction of the Representative/Agent who shall interpret the meaning of the Contract Document and shall have the authority to reject any work and materials, which, in his judgement, are not in full accordance therewith. All condemned material and workmanship shall be replaced or rectified as directed and approved by the Engineer.
- (b) All work shall be executed in a first-class manner by qualified tradesman.
- (c) The Contractor shall warrant that the materials and workmanship shall be of the highest grade, that the equipment shall be installed in a practical and first-class manner in accordance with the best practices and ready and complete for full operation. It is specifically intended that all material or labour which is usually provided as part of such equipment as is called for and which is necessary for its proper completion and operation shall be provided without additional cost whether or not shown or described in the Contract Document.
- (d) The Contractor shall thoroughly acquaint himself with the work involved and shall verify on site all measurements necessary for proper installation work. The Contractor shall also be prepared to promptly furnish any information relating to his own work as may be necessary for the proper installation work and shall co-operate with and co-ordinate the work of others as may be applicable.
- (e) All components and their respective adjustment, which do not form part of the equipment installation work, but influence the optimum and safe operation of the equipment shall be considered to form part of, and shall be included in the Contractor's scope of works.
- (f) The Contractor shall make sure that all safety regulations and measures are applied and enforced during the installation.
- (g) The Contractor is to include for all scaffolding required to complete the work required.

**1.13 Schedule of Fitting**

In all instances where schedule of light, socket outlet and power points are attached to or included on the drawings, these schedules are to be regarded as forming part of the specification.

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**1.14 Quality of Materials**

- (a) All materials procured for the installation shall be in compliance with the requirements of SANS 10142.
- (b) Only materials of first class quality shall be used and all materials shall comply with the relevant South African Bureau of Standards, specifications, or to IEC Standard Specifications, where no SABS Specifications exist.
- (c) Materials wherever possible, must be of South African manufacture.

**1.15 Workmanship and Staff**

- (a) The workmanship shall be of the highest grade and to the satisfaction of the owner.
- (b) All inferior work shall, on indication by the Engineers inspecting officers, immediately be removed and rectified by and at the expense of the Contractor.

**1.16 Certificate of Compliance**

- (a) On completion of the service, a certificate of compliance must be issued to the Department's Representative/Agent in terms of the Occupational Health and Safety Act, 1993 (Act 85 of 1993).
- (b) The certificate of compliance shall be for the complete installation including the power side of the IT Boards as well as to free issue distribution boards if applicable.
- (c) A test report shall be accompanied with the certificate of compliance.

**1.17 Submittals**

The following information must accompany the tender documents

No	List of Technical Tender Returnable	Compliant	
		Yes	No
1	Certification of Master Electrician		
2	Certification of Electrician		
3	Wireman's License		
6	Low voltage distribution board type test		
7	OSHACT Compliance		
8	Previous Experience (Projects similar size and nature of this project for last 3 years)		
10	Price Schedules		
11	Deviations from specification		
11	High level schedule		

## 2 SECTION 2 LOW VOLTAGE DISTRIBUTION

### A. EQUIPMENT REQUIREMENTS

#### 2.1 Quality, Standards & Regulations

All material and equipment supplied for this contract shall be new and the best of their respective kind. All new materials and equipment supplied, shall comply fully with the requirements laid down in the specification. The whole of the works shall be executed in accordance with best practice and to approval of the engineer. The equipment shall comply with the latest issues of the following standard specifications:

##### 2.1.1 Standards

The low voltage system must be designed and produced in compliance with the following standards but not limited to:

- SANS 10142-1 Wiring Code of Practice.
- SANS 1765 Distribution Boards
- SANS 1507 PVC Cables
- SANS 950 PVC Conduit
- SANS 156 Circuits Breakers
- SANS 60947-2 Circuit Breakers
- SANS 556-1 Circuit Breakers
- SANS1239 Socket outlets
- SANS 1433-1 Terminals
- SANS 61008-1 Earth Leakage Devices
- SABS 150 Insulated wire
- SANS 1213 Cable Glands

##### 2.1.2 Regulations and Rights of Engineer

Apart from any other authority, which the engineer may have in terms of the contract, he shall have the right to set the standard and to accept or reject part of the specified equipment depending on the quality of material and workmanship offered.

The Contractor shall be notified if the quality of such materials and/or workmanship is not acceptable. In such an event, the contractor shall replace the specific part or repair it to the satisfaction of the engineer, all at the cost of the contractor. Such an instruction shall not exempt the contractor from any of his obligations in terms of the contract.

The installation shall be erected and carried out in accordance with:

- a) The Occupational Health and Safety Act, 1993 (Act 85 of 1993) as amended.
- b) The local Municipality by-laws and Regulations as well as the regulations of the local Supply Authority.
- c) The local Fire regulations.

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- d) The Standard Regulations of any Government Department or public service company where applicable.

In addition the Contractor shall at his cost issue all notices in respect of the installation to the local authorities, and shall exempt the client from all losses, costs or expenditures which may arise as a result of the Contractor's failure to comply with the requirements of the regulations enumerated above.

It shall be assumed that the Contractor is conversant with the above-mentioned requirements. Should any requirements, by-law or regulation, which contradicts the requirements of this document, apply or become applicable during erection of the installation, the Contractor shall immediately inform the engineer of such a contradiction. Under no circumstances shall the Contractor carry out variations to the installation in terms of such contradictions without obtaining the written permission to do so from the engineer.

## **2.2 Low Voltage Equipment**

### **2.2.1 General**

The installation shall be in accordance with SANS 10142 and at handover the Contractor shall give the end user a Certificate of Compliance in accordance with the Occupational Health and Safety Act.

(A readable copy of the Certificate of Compliance is to be submitted to the project manager)

The low voltage connection shall consist of:

1. All cabling for the generator, ATS and main and sub distribution board and all loads.
2. Main and sub distribution boards.
3. All solar plant
4. All protection and metering plant
5. Circuit wiring from the distribution board to sub distribution board to loads:
  - a) Switched socket outlets;
  - b) Electronic boards such as data & telephones
  - c) External lighting to sub distribution board

### **2.2.2 Earthing and Bonding**

#### **Main earthing**

- a) Where the supply authority does not provide an earth terminal or conductor, an earth electrode system that complies with the requirements of SANS 10142 shall be supplied.
- b) At least one earth electrode shall be installed for the main distribution board or ready board irrespective of whether the supply authority provides an earth terminal (or conductor) or not: the earth electrode shall comply with SANS 10142. The earth wire shall be protected by a steel pipe.
- c) Where the supply authority provides an earth terminal, it shall be connected to the consumer's earth terminal.
- d) Installations shall be effectively earthed in accordance with the "Wiring Code" and

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to the requirements of the supply authority. All earth conductors shall be stranded copper with or without green PVC installation with suitable thickness.

- e) Earthmat for the generator as per design

#### **Sub-distribution boards**

- a) A separate earth connection shall be supplied between the earth busbar in each sub-distribution board and the earth busbar in the Main Switchboard. These connections shall consist of a bare or insulated stranded copper conductors installed along the same routes as the supply cables or in the same conduit as the supply conductors. Alternatively armoured cables with earth continuity conductors included in the armouring may be utilised where specified or approved.

#### **Sub-circuits**

- a) The earth conductors of all sub-circuits shall be connected to the earth busbar in the supply board in accordance with SABS 0142.

#### **Connection**

- a) Under no circumstances shall any connection points, bolts, screws, etc., used for earthing be utilised for any other purpose. It will be the responsibility of the Contractor to supply and fit earth terminals or clamps on equipment and materials that must be earthed where these are not provided. Unless earth conductors are connected to proper terminals, the end shall be tinned and lugged.

#### **Bonding**

- a) Bonding shall be in accordance with the requirements of SANS 10142.

### **2.2.3 Earth Continuity**

- a) Earth continuity conductors and resistances shall be installed in accordance with SANS 10142.

### **2.2.4 Distribution Boards**

- a) Distribution Boards and equipment used within the board shall comply with relevant SANS Standards.
- b) Each distribution board shall comprise of a main circuit breaker, busbar, plug and light circuit breakers, earth leakage unit, neutral and earth bar, etc.
- c) Each distribution board shall be controlled by main circuit breaker mounted in the board.
- d) Each distribution board shall have appropriate labelling (main switch, loads, generator supply, etc.) and danger notices as per SANS Standards.
- e) Each distribution board shall include adequately rated cabling for jumpers as per SANS.
- f) The distribution board shall be suitable for the environment conditions in which it operates and the boards shall be protected against corrosion.
- g) The distribution board shall be mounted at a suitable height above the existing floor level in order to obtain access during normal operation.
- h) The position of the distribution board shall allow safe operation and maintenance.
- i) Each unoccupied opening of the distribution board shall be fitted with a blanking plate.

- j) All circuit breakers shall be adequately rated for the prospective short circuit current.
- k) All Coastal rating materials (3CR12) to be used.

### **2.2.5 Wall Switches and Accessories**

The IT supplier and install provide all switches and coverplates necessary for installation.

- a) All switches are suitable for mounting in standard wall outlet boxes.
- b) NOTE – Exterior switches shall be mounted in positions protected from rain or water ingress.
- c) Cover plates for wall outlet boxes shall be supplied and installed by the specialist.

### **2.2.6 Switched Socket Outlets**

- a) This section covers switched socket outlets for use in general installations under normal conditions.
- b) Switched socket outlets shall be surface mounted and comply with SABS 163, SABS 164, and SABS 1085 and be rated 16A, 22 V/250 V and shall have 2 switched 3-pin sockets.
- c) Switch socket outlet covers shall be white. There will be a combination of 2 x 4, 4x4 and 6 and 8 way boxes depending on application
- d) The sockets shall be level and mounted equally distance and as per design heights.
- e) The contractor shall be asked to remove the plaster boxes and redo should the design heights and distances not be correct.



### **2.2.7 Lighting**

- a) All lights shall be provided as per the bill and drawings.
- b) Where lights are indicated on panel ceilings, these should be 1200x600mm panel fittings.
- c) Where lights are on plaster ceilings, fittings will be flush surface mounted type.
- d) All outdoor lighting shall be IP65 or better.
- e) All light fittings shall be rated for coastal conditions including screws.

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**2.2.8 Surface Wiring and Accessories**

- a) This section covers the requirements for wiring and accessories for general installations under normal conditions.
- b) All surface wiring shall comply with SABS 1574 and SABS 1507.
- c) The installation shall comply with SANS 10142.
- d) Surface wiring shall enter wall boxes and luminaires using the correct size compression glands. Wiring for lighting circuits is to be carried out with 2 x 1.5mm<sup>2</sup> conductors and earth conductor. For socket outlet circuits the wiring shall comprise 2 x 2.5mm<sup>2</sup> conductors and earth conductor.
- e) Surface wiring shall be connected and interconnected in draw and junction boxes with push wire type connectors. No terminations shall be made in conduit junction boxes. These should only be used for draw wires. All terminations are to be done in DB's, Equipment, Switch boxes and or sockets.
- f) Only for power circuits can the single stands be used but colored as per the phase color and enclosed in suitable trays as per SANS requirement.
- g) Lighting circuits shall be as per item d and no single stands will be permitted.

**2.2.9 PVC Conduit and Conduit Accessories**

This section covers the requirements for conduit and conduit accessories for general installations under normal environmental conditions.

- a) All PVC conduit shall comply with SABS 950 and be fitted and glued with the correct size coupler and lock nut where the conduit terminates in any box.
- b) PVC accessories shall be suitable for the PVC conduit.
- c) The installation of conduit and accessories shall be symmetrical, vertical and parallel to the respective walls and floors and saddled and screwed down where surface mounted.

**2.2.10 Diesel Generator**

The generator will be as follows:

- a) Maximum 200kVA standby power at 230/400v @ 50Hz 1500rpm High quality and reliable six-cylinder Scania/ Volvo turbodiesel engine, Silent canopy which can stand outside with lockable doors. Fuel tank to be built into the unit base to include enough of fuel for 72hours operation and a minimum of 600l.
- b) Automatic changeover (ATS) to include mains/solar/diesel generator inputs.
- c) Maintenance free batteries and trickle charger included.
- d) Four-way protection system included, H-specification insulation, brushless alternator with AVR provides stable output, digital controller with auto and manual start options.
- e) All sets must undergo a comprehensive testing/pre delivery inspection, prior to delivery and include one year/1000 hour warranty. Including first fuel fill, oil filters, fuel filters and all other consumables necessary for operation.
- f) Must be positioned away from patient areas



## **2.3 ELECTRONIC EQUIPMENT**

### **2.3.1 Server Cabinets and room**

- a) Server cabinets and equipment used within the server cabinets shall comply with relevant Standards.
- b) Each distribution board shall comprise of network switch, patch panel, patch leads, brushes, all network equipment and UPS.
- c) The Contractor to design the server rooms and plan the termination points for all network points. The network must be planned and installed that best suits the layout of server rooms
- d) Each server room to have raised flooring for cable routes.
- e) Each server room shall include adequately rated cabling for jumpers as per SANS.
- f) The server cabinet shall be suitable for the environment conditions in which it operates and must be protected against corrosion.
- g) The position of the server cabinet shall allow safe operation and maintenance.

### **2.3.2 PA System**

Complete PA sound system has been designed for audio distributed throughout the Clinic by using ceiling, Wall mount and Horn speaker. The main front end Mic is to be in the Admin building at the reception desk as indicated on the drawings.

The Contractor must provide as listed

1. The Position all speaker has been marked on the design layout drawing. Speaker points must be moved on site to the most suitable position.
2. The Contractor to run all speaker cable from the server room to the speaker point. Contractor must install and terminate all speakers.
3. The Contractor must install all amplifiers in server cabinet and programme the complete system as per the specification below and comply with the standards below.
4. The Contractor must test the installation that audio is distributed thought out the Clinic. The Contractor shall install additional speakers were required.

### **2.3.3 IT Network - Data – coms**

The IT network has been designed with the infrastructure to house all IT equipment and provide WIFI and LAN through the Clinic as per guideline provided.

Bulk infrastructure service sleeves in trenches/cable routes for main cables and routes to interconnect or enter buildings as been designed thought out the project site.

Adequate cable trays (for IT and Electrical) has been allowed to accommodate all the electronic/Electrical cabling.

Listed is the typical allowance in the Sever cabinets includes as listed

- 1 x 42-20 U 800x800mm cabinet depending on space required
- 1 x 24 port network POE switch
- 1 x 24 port patch panel
- 1 x Surge protection PDU
- 1 x Fibre Panel to link server rooms
- 48 x panel leads

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- 1 x 6 KVA Rack mounted UPS

Additional space has been allowed in each cabinet to house all ICT equipment from all systems. There is also additional space for future expansion.

Each server room will be fitted with as listed:

- Air-con split units for cooling
- Environment monitoring kits for alarm

#### **2.4 CCTV Camera Network**

The CCTV Network will cover all areas as listed for security. This to provide security to all staff and visitors using the clinic. The main front end screens will be house in designated control room in the security building for monitoring. The system can be linked to the principle PC for remote monitoring.

Typical camera system function is listed below:

- All cameras with IP protocol type
- All with day and night vision
- Each camera is fully programable
- Infrared cameras will be used
- All camera is outdoor ready IP 66. Low maintenance
- The complete system is linked to main control room for monitoring
- This link can also be on principle PC and remote access

### **B. INSTALLATION DETAILS**

#### **2.5 Cable Sleeve Pipes**

Where cables cross under roadways, paved areas, other services and where cables enter buildings, the cables shall be installed in asbestos-cement pipes, earthenware or high-density polyethylene pipes.

The ends of all sleeves shall be sealed with a non-hardening watertight compound after the installation of cables. All sleeves intended for future use shall likewise be sealed.

#### **2.6 Notices**

If required, the Contractor shall issue all notices and make the necessary arrangements with Supply Authorities and other authorities as may be required with respect to the installation.

#### **2.7 Electrical Equipment**

All equipment and fittings supplied must be in accordance with the relevant SANS Standards and suitable for the relevant supply voltage, and frequency.

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**2.8 Drawings**

The drawings generally show the scope and extent of the proposed work and shall not be held as showing every minute detail of the work to be executed.

The position of power points, switches and light points that may be influenced by built-in furniture must be established on site, prior to these items being built in.

Drawings that form part of this Specification are included in Section 3:

**2.9 Balancing of Load**

- a) The Contractor is required to balance the load as nearly as is practicable, over the multiphase supply. The Single line diagram will be provided and this shall be used to balance the load. Updates are to be made on the drawing should changes be required
- b) In cases where the single phase loads for the new distribution board causes an imbalance of currents, the Contractor is required to reallocated some of the loads on the existing main distribution board in order to balance all loads as nearly as is practicable, over all three phases.

**2.10 Service Conditions**

All plant shall be designed for the climatic conditions as pertaining to the service.

**2.11 Switches and Socket Outlets**

The installation of switches and socket outlets must conform SANS Standards and Section 2 of this specification.

**2.12 Earthing and Bonding**

The Contractor will be responsible for all earthing and bonding of the building and installation. The earthing and bonding is to be carried out strictly as described Section 2 of this specification and the SANS Standards.

**2.13 Maintenance of Electrical Supply**

All interruptions of the electrical supply that may be necessary for the execution of the work, will be subject to prior arrangement between the Contractor and the Department's representative.

**2.14 Extent of Work**

The work covered by this contract comprises the complete electrical installation, in working order, as shown on the drawings and as per this specification, including the

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supply and installation of all fittings and also the installation of such equipment supplied by the Department.

**2.15 Bulk Supply and Connection**

The supply will be applied for to the local electricity utility (Eskom).

**2.16 Diesel Generator**

- a) The 200kVA diesel generator complete with automatic changeover control panel will be supplied, installed and commissioned. It shall be noted that supply of cabling from the generator to the ATS will be provided by the generator Contractor. Installation of the cabling shall be included as part of this scope of work.
- b) The Contractor will be responsible for the supply and installation of all other cabling in order to provide a complete solution. The cabling includes connection between the main DB and the ATS, the ATS and new sub DB, generator and ATS, all plug and lighting circuits.
- c) The supply cables are listed in the Schedule of Cables and measured in the Bill of Quantities.
- d) The Diesel Generator must be positioned away from patient areas but as close as possible to the main incomer

**2.17 Power Points**

- a) Allow for the installation of power points as listed in the schedule and indicated on the drawings.
- b) All plaster boxes that are 6 or 8 way shall be galvanized
- c) The boxes shall be installed level and maximum 12mm from plaster edge
- d) The power sockets are Legrand modular therefore contractor shall allow for multiple wiring with sockets in one box.
- e) All terminations shall be in boxes or DB and never in ceilings

**2.18 Lighting Circuits**

- a) All lighting circuits must not exceed the breaker rating of 80% of rated load amperage for continuous current i.e. 8A for 10A breaker and 12A for 15A breaker.
- b) All terminations shall be in boxes or DB and never in ceilings

**2.19 Switches**

- a) All switch boxes shall be mounted 4 x 2 (vertically mounted ) unless specified otherwise.

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- b) The switch boxes shall be supplied and installed by contractor and shall be standard PVC 4 x2 or 4x 4 if specified
- c) Supply, install and termination of bus is done by others unless otherwise specified
- d) All terminations shall be in boxes or DB and never in ceilings

**2.20 Cables trays**

The Contractor shall supply and completely install all distribution cables as per BOM. If single strands used for power then these have to be enclosed in galvanized trays

The cables trays for IT shall be 300mm apart from power cables and shall be open

**2.21 Cables**

The Contractor shall supply and completely install all distribution cables as indicated on the drawings, and listed in the Schedule of Cables. All power cables shall comply with the relevant SANS standards.

The storage, transportation, handling and laying of the cables shall be according to first class practice, and the Contractor shall have adequate and suitable equipment and labour to ensure that no damage is done to cables during such operations.

The Contractor to assess sites conditions for the installation of the main cable from generator ATS to the main/sub distribution board. The preference is to consider running the cabling on the surface. All cabling shall be inserted metal conduit to protect cabling from mechanical damage and exposure. The installation shall be done in accordance with SANS 10142.

All lighting cables shall be 2 wire and earth surflex 1.5mm<sup>2</sup> and not single strands

Single strands for power is permitted however colour codes shall e in line with phase it connected too.

All cables shall be labelled with suitable permit markers with 4 digit number as per design

Outdoor power cables shall be armoured and installed as per SANS requirements, No joints are permitted on outdoor cables.

**2.22 Conduits**

The Contractor shall supply and completely install all conduits, junction boxes as per BOM.

The sizing of conduits are as per BOM

All conduits that are installed but are not for power and lighting shall include a draw wire for others to install cables

All conduits for Cameras shall end with a round junction box plastered in the wall

**2.23 Lights and Fittings**

The Contractor shall install

- a) All lighting to be installed as per the manufacturers instructions.
- b) Install all light fittings are to free issued by Owner as applicable
- c) All light fittings are to be handled with care and in a professional manner
- d) All screws for outside mounting should be of a quality to minimize rusting



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**CONSTRUCTION OF A SMALL CLINIC INCLUDING RESIDENCES AT MAHLONI CLINIC**

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**PART C4. SITE INFORMATION**

<b>C4.1 SITE INFORMATION</b> GCC FOR CONSTRUCTION WORKS (2 Edition of 2010)			
<b>Project title:</b>	<b>CONSTRUCTION OF A SMALL CLINIC INCLUDING RESIDENCES AT MAHLONI CLINIC</b>		
<b>Tender No.</b>	<b>ZNB5547/2023-H</b>	<b>Project Code:</b>	<b>N/A</b>
<b>C4.1 Site Information</b>			
<b>C4.1</b>	<b>GENERAL</b>		
(a)	The condition of the soil will not affect construction as blasting will not be required. The water table is not visible and should not hamper construction.		
(b)	0		
(c)	0		
<b>C4.2</b>	<b>GEOTECHNICAL INVESTIGATION REPORT</b>		
(a)	Not applicable		



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**CONSTRUCTION OF A SMALL CLINIC INCLUDING RESIDENCES AT MAHLONI CLINIC**

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**PART C5 - DRAWINGS / ANNEXURES**













# DOOR SCHEDULE

DOOR SCHEDULE - COUNT		
Type Mark	Count	Description
CD02	16	TYPICAL CUPBOARD DOUBLE DOOR
D6	1	600x900 INTERNAL ROLLER SHUTTER DOOR
DBD01	1	TYPICAL FIRE CUPBOARD DOUBLE DOOR
FCD01	6	TYPICAL FIRE CUPBOARD DOUBLE DOOR
FD03	1	1600x2032 DOUBLE 'CLASS B' FIRE DOOR GMS CLADDED WITH THUMB TURN & LOCK
FD05	3	1400x2032 UNEVEN DOUBLE CLASS B FIRE DOOR WITH HOLD OPEN
FD07	1	813x2032 SINGLE ACCESS CONTROLLED CLASS B FIRE DOOR
FD10	1	813x2032 SINGLE CLASS B FIRE DOOR GMS CLADDED WITH THUMB TURN & LOCK
G2	4	2000 x 1200 GALVANISED STEEL SWING GATE. PRIMED AND PAINTED
G3	3	2100 x 1500 1.5 LEAF GALVANISED STEEL SECURITY GATE. PRIMED AND PAINTED
G4	3	2125 x 900 GALVANISED STEEL SWING GATE. PRIMED AND PAINTED
G5	2	1800 x 900 GALVANISED STEEL SWING GATE. PRIMED AND PAINTED
G6	8	2130 x 1850 GALVANISED STEEL DOUBLE SWING GATE. PRIMED AND PAINTED
G7	1	1950 x 2100 GALVANISED STEEL DOUBLE SWING GATE. PRIMED AND PAINTED
SD02	2	1050x2100 SINGLE STEEL LOUVRED SERVICE DOOR
SED	1	SPECIALISED SECURITY MANAGEMENT DOUBLE DOOR
SFD02	6	1400 x2050 DOUBLE SHOPFRONT DOOR
SFD04	3	1600x2050 DOUBLE SHOPFRONT DOOR WITH LOCK
SFD05	3	1600x2050 DOUBLE SHOPFRONT DOOR WITH PANIC BAR
SFD06	1	1400x2050 UNEVEN DOUBLE EXTERNAL ALUMINIUM GLASS DOOR
SFD07	7	1300x2050 UNEVEN DOUBLE EXTERNAL ALUMINIUM GLASS DOOR
SFD11	1	1600x2032 DOUBLE SHOPFRONT DOOR
SPD01	2	SPECIALISED RECORDS ROOM DOOR BY SPECIALIST MANUFACTURERS DETAILS
WD04	7	813x2032 SOLID CORE HARDWOOD TIMBER BATTEN EXTERNAL DOOR
WD05	3	1350x2032 UNEVEN DOUBLE SOLID TIMBER DOOR
WD06	4	1400x2032 UNEVEN DOUBLE SOLID TIMBER DOOR WITH VIEWING PANEL
WD06B	3	1350x2032 UNEVEN DOUBLE SOLID TIMBER DOOR WITH VIEWING PANEL WITHOUT LOCK
WD07	4	813x2032 ACCESS CONTROLLED SOLID TIMBER DOOR
WD08	19	813x2032 SOLID TIMBER DOOR WITH LEVER & LOCK SET
WD09	9	900x2032 SOLID TIMBER DOOR WITH PUSH/PULL ACTION
WD10	5	900x2032 SOLID CORE TIMBER DOOR FOR DISABLE WC
WD11	12	813x2032 SOLID TIMBER DOOR FOR WC
WD13	16	813x2032 SOLID TIMBER DOOR WITH CLOSER & LOCK SET
WD14	15	900x2032 SOLID TIMBER DOOR WITH CLOSER & LOCK SET
Grand total	174	

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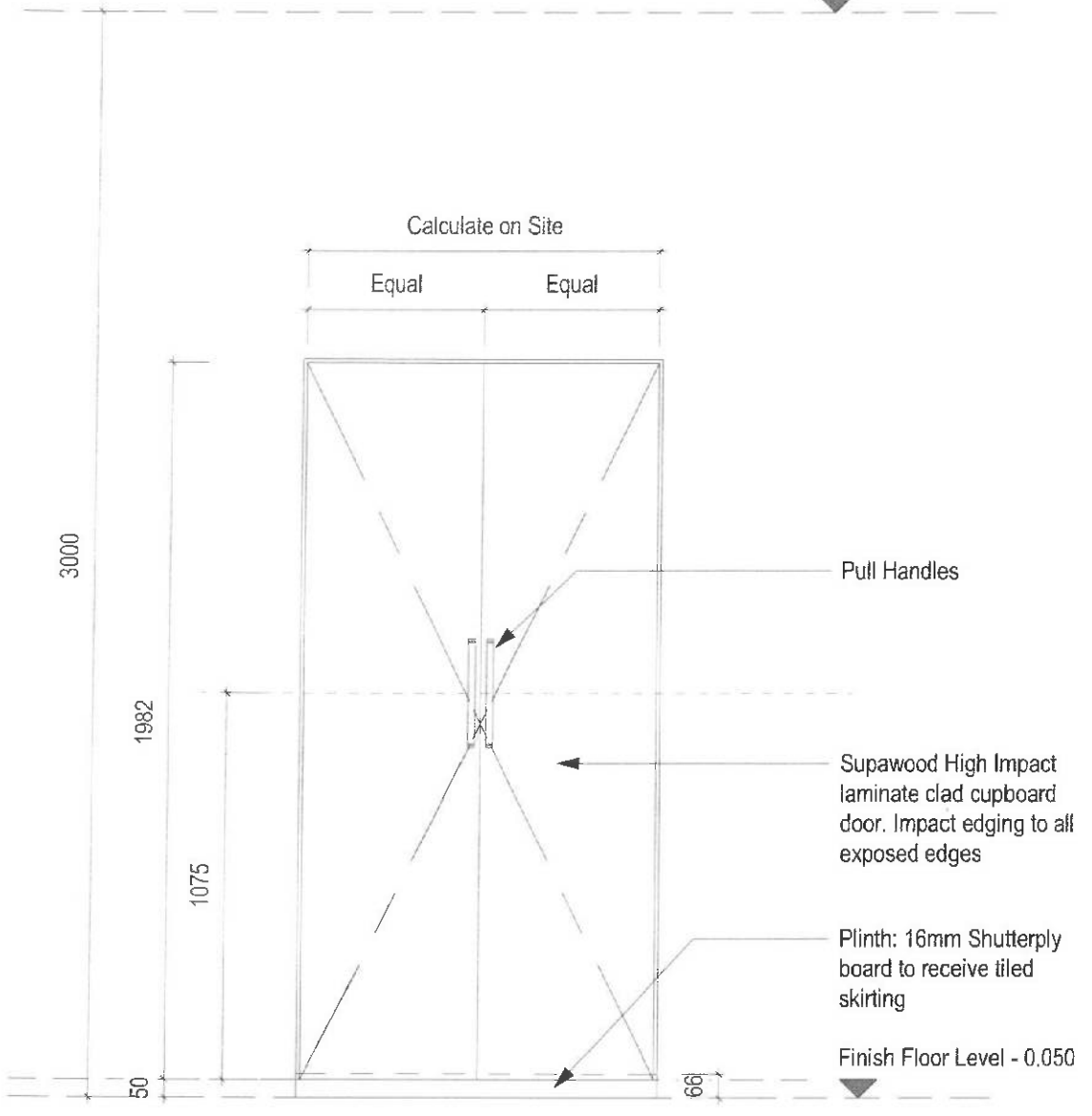
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# DOOR SCHEDULE

Door Type : CD02

Ceiling Level Level



DESCRIPTION:	C.O.S x 2032 x 16mm Demountable Supawood Cupboard door. Door to be equal leafs. Supawood to be clad with HPL. Max on Top Colour: TBC	
FRAME:	Compact High Pressure Laminate Frame section to suit door opening - supplied complete with door by specialist.	
GLAZING:	N/A	
IRONMONGERY:		
HANDLES:	1 of Gelmar Strip Handles per leaf, 192mm. Brushed Satin Nickel finish	
LOCKS:	Locking system to suit application, installed by manufacturer. Sample to be approved by Architects.	
CYLINDERS:	As per manufacturers specifications	
SUNDRY 1:		
SUNDRY 2:		
DOOR CLOSER:		EXTRAS:
DOOR STOP:		FLUSH BOLT: 2 of Flushbolt 150mm ST/C to suit application by manufacturer
ACCESS CONTROL:		
HINGES:	2 Pairs per leaf of Hafele 90° with integrated soft close. Hinge - 311.60.565, - Plate: 311.60.566 or equal approved	
KICKPLATE:		
SIGNAGE:	Signage as per detail	

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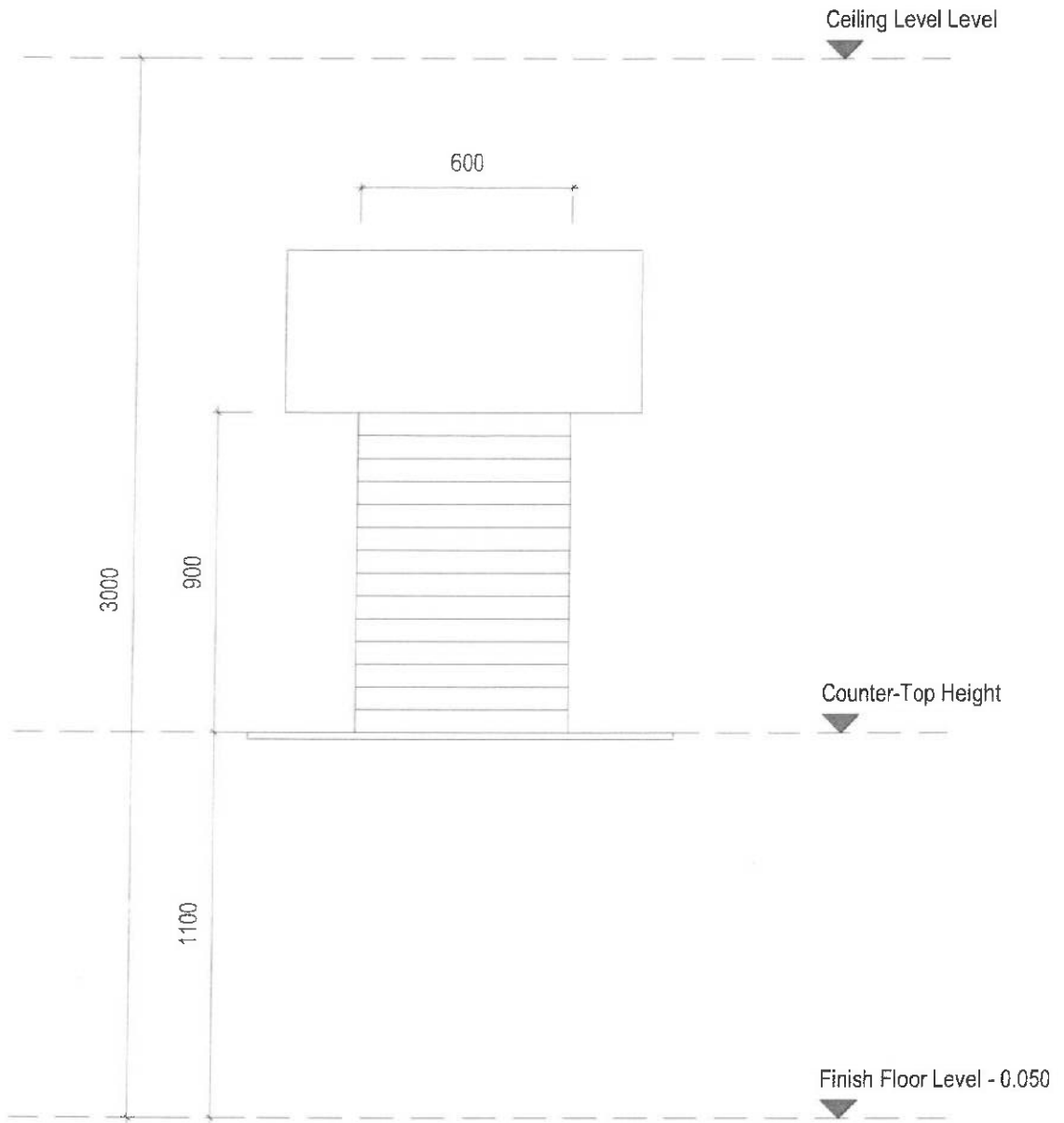
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# DOOR SCHEDULE

Door Type : D6



**DESCRIPTION:**

600 x 900 Roll-up shutter door. Galvanized steel primed and painted with chain operated on inside.

**FRAME:** As per manufacturers specifications

**GLAZING:** N/A

**IRONMONGERY:**

**HANDLES:** N/A

**LOCKS:** As per manufacturers specifications

**CYLINDERS:** As per manufacturers specifications

**SUNDRY 1:**

**SUNDRY 2:**

**DOOR CLOSER:** EXTRAS: Door locking latch as per manufacturers specifications

**DOOR STOP:** FLUSH BOLT:

**ACCESS CONTROL:**

**HINGES:**

**KICKPLATE:**

**SIGNAGE:**

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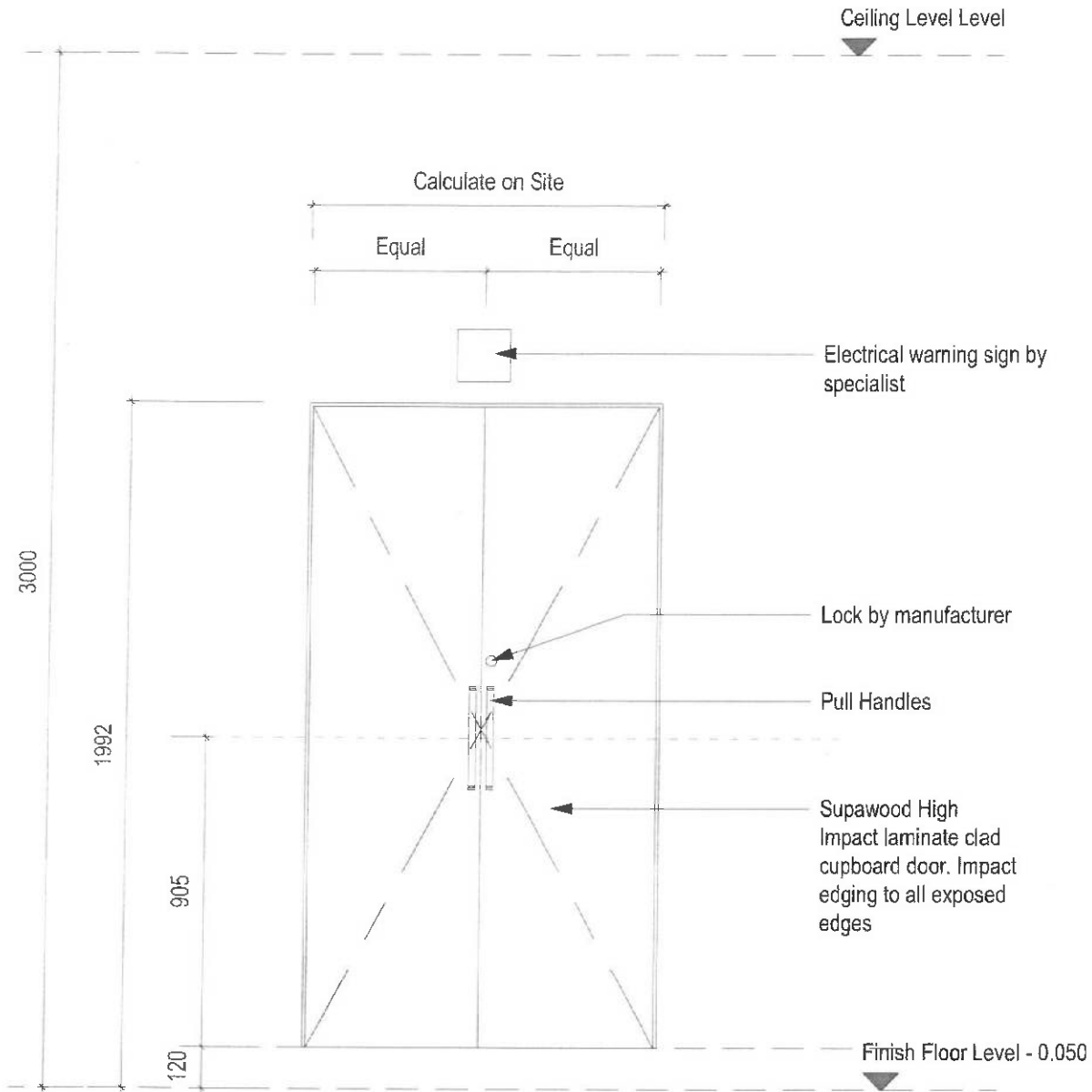
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Director | Architect | Interior Designer | Quantity Surveyor | Project Manager



# DOOR SCHEDULE

Door Type : DBD01



<b>DESCRIPTION:</b>	
C.O.S x 2032 x 16mm Demountable Supawood MEP Services duct door. Door to be equal leafs. Supawood to be clad with HPL. Max on Top Colour: TBC	
<b>FRAME:</b>	
Compact High Pressure Laminate Frame section to suit door opening - supplied complete with door by specialist.	
<b>GLAZING:</b>	
N/A	
<b>IRONMONGERY:</b>	
<b>HANDLES:</b>	
1 of Hafele Bar Handle per leaf, 200mm. Steel handle Brushed Nickel plated finish. Cat.No. 117.97.043	
<b>LOCKS:</b>	
Locking system to suit application, installed by manufacturer. Sample to be approved by Architects.	
<b>CYLINDERS:</b>	
As per manufacturers specifications	
<b>SUNDRY 1:</b>	
<b>SUNDRY 2:</b>	
<b>DOOR CLOSER:</b>	<b>EXTRAS:</b>
<b>DOOR STOP:</b>	FLUSH BOLT: 2 of Flushbolt 150mm ST/C to suit application by manufacturer
<b>ACCESS CONTROL:</b>	
<b>HINGES:</b>	
2 Pairs per leaf of Hafele 90° with integrated soft close. Hinge - 311,60, 565, - Plate: 311,60,566 or equal approved	
<b>KICKPLATE:</b>	
<b>SIGNAGE:</b>	
Signage as per detail	

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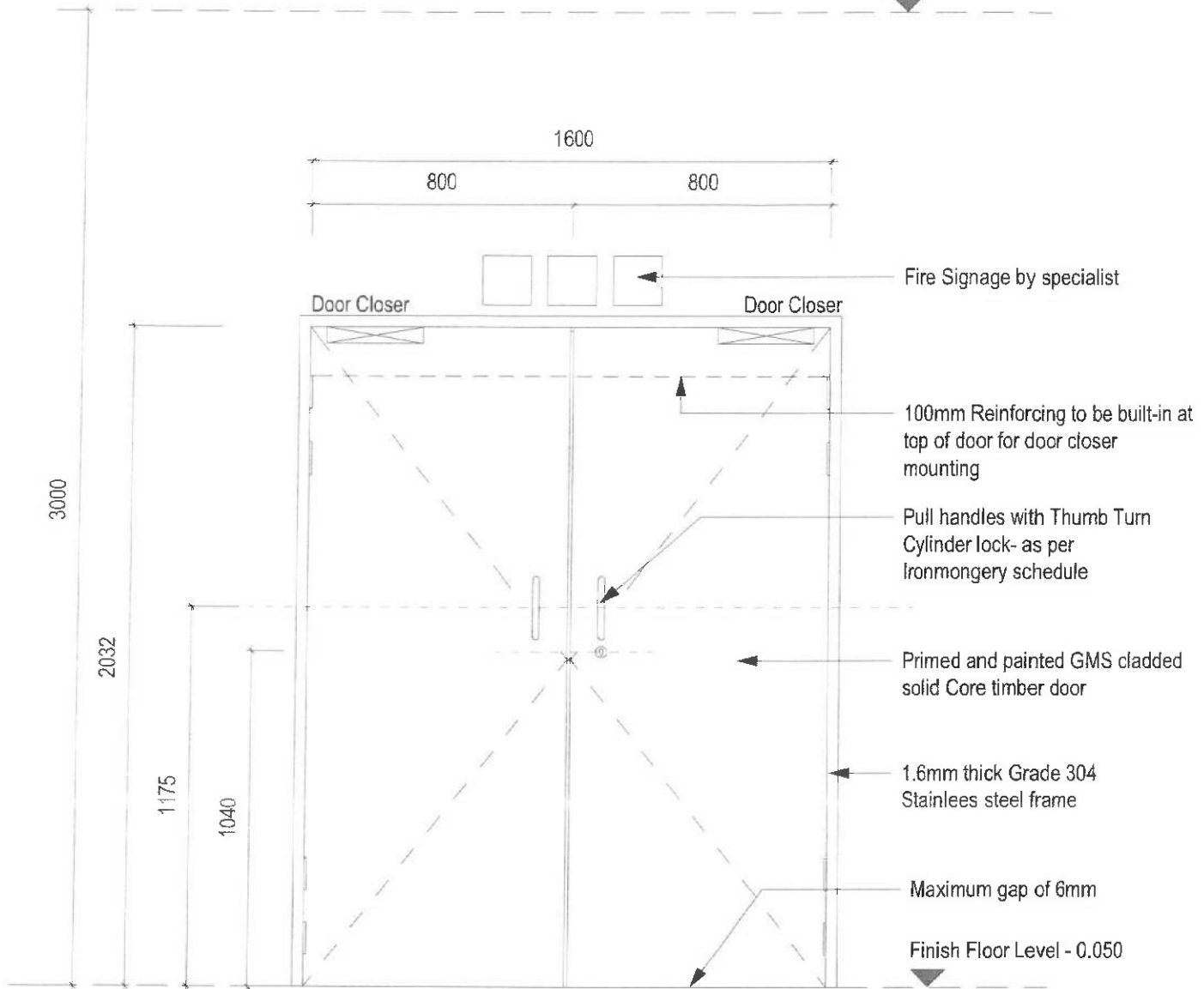




# DOOR SCHEDULE

Door Type : FD03

Ceiling Level Level



DESCRIPTION:	Fire certified and approved 1600x2032x46mm, CLASS B 2 hour fire rated double door completely clad in GMS sheeting with all edges sealed. Supplied complete with frame in accordance with SANS 1253. Primed & painted with 2 coats Dulux Pearlgló Waterbased Enamel applied in strict accordance with the manufacturers specifications. Colour TBC	
FRAME:	Fire door frame as supplied complete with door by manufacturer. Stainless steel Grade 316 with approximately 48mm rebate to suit door. Brush steel finish.	
GLAZING:	N/A	
IRONMONGERY:		
HANDLES:	4 of Geze B/B Pull Handles	
LOCKS:	1 of Geze 194/01 Thumb Tum and Lock TT001SS	
CYLINDERS:	1 of Geze IG950933338M N/PL Double Cylinder 66mm Master Key CMK	
SUNDRY 1:		
SUNDRY 2:		
DOOR CLOSER:	1 of Geze AZ5034SR TS5000 Door Closer C/W ISM Guide Rail	EXTRAS: 2 of Geze AD4001 Mounting Plate for TS5000 Door Closer
DOOR STOP:	2 of Geze 140/69 S/S Floor Mounted Door Stop	FLUSH BOLT:
ACCESS CONTROL:		
HINGES:	2 Pairs Stainless Steel Hinges per leaf supplied complete with door and frame by manufacturer	
KICKPLATE:		
SIGNAGE:	Signage as per detail	

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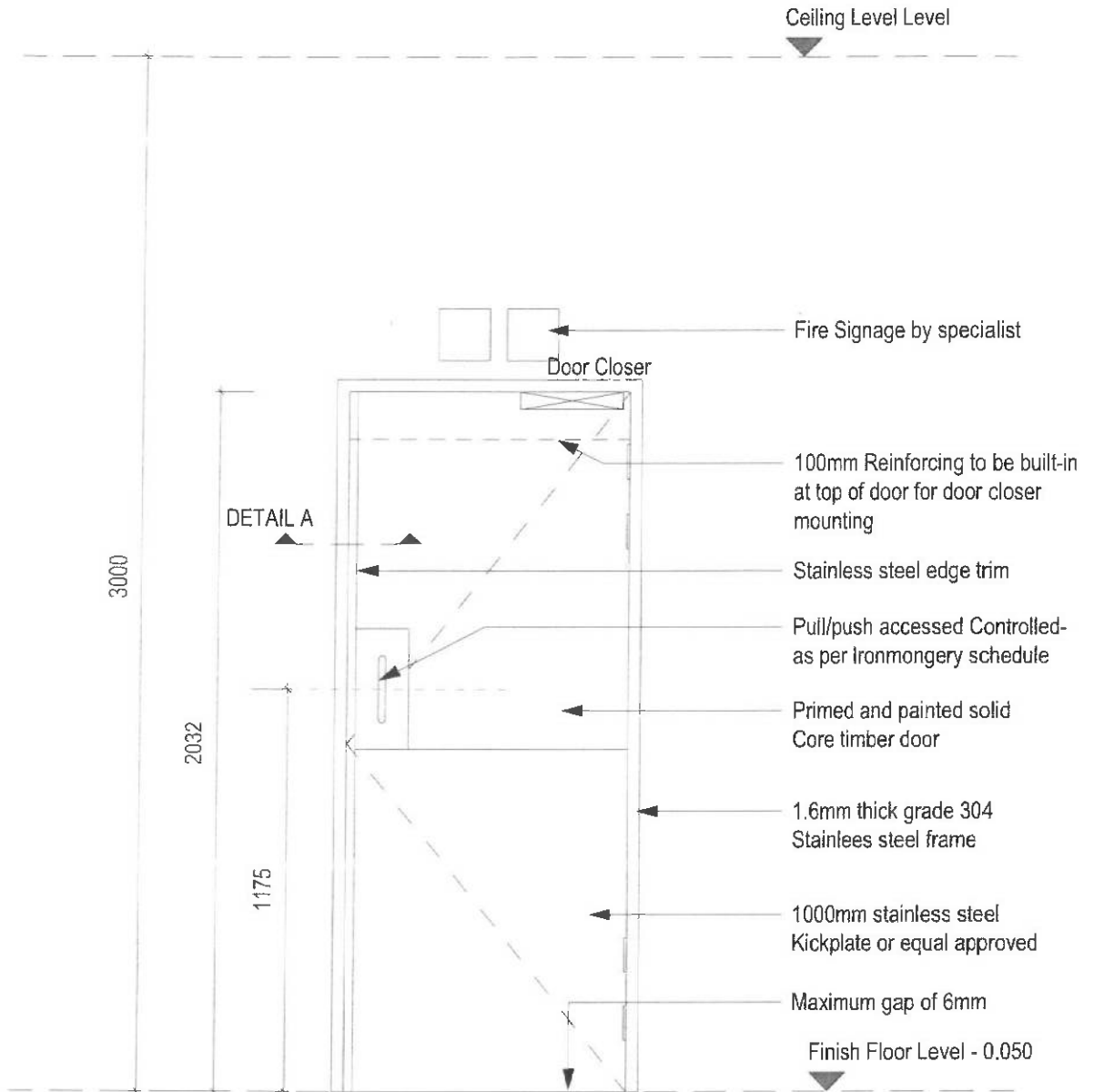
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# DOOR SCHEDULE

Door Type : FD07



DESCRIPTION:	Fire certified and approved 813x2032x46mm Accessed Controlled CLASS B 2 hour fire rated single door with masonite veneer. Front & back edges dressed in stainless steel as per detail A by manufacturer. All exposed sides incl top & bottom to be Primed and Painted with 2 Coats of Dulux Pearlglø Waterbased Enamel applied in Strict Accordance to Manufacturers Specs. Colour - TBC Supplied complete with frame in accordance with SANS 1253.	
FRAME:	Fire door frame as supplied complete with door by manufacturer. Stainless steel Grade 304 with approximately 48mm rebate to suit door. Brush steel finish.	
GLAZING:		
IRONMONGERY:		
HANDLES:	1 of Geze 075/350/B Pull Handle on 350x150x1.6mm Blank S/S 6 Fix Holes	
LOCKS:		
CYLINDERS:		
SUNDRY 1:	1 x Geze 079/350/B Push Plate on 350x150x1.6mm S/S 6 fix holes with "Push" Engraved	
SUNDRY 2:		
DOOR CLOSER:	1 of Geze AZ5003SR TS5000 with Guide Rail	EXTRAS: 6 of Geze ND0501 Patent Fixing Screws
DOOR STOP:	1 of Geze 140/69 S/S Floor Mounted Door Stop	FLUSH BOLT:
ACCESS CONTROL:	Access Control by Specialist	
HINGES:	2 Pairs Stainless Steel Hinges per leaf supplied complete with door and frame by manufacturer	
KICKPLATE:	1000 High Stainless Steel kick plate on passage side with Epoxy Adhesive or screwed with countersunk stainless steel screws +/- 20mm long screwed along the edges at 150mm c/c.	
SIGNAGE:	Signage as per detail	

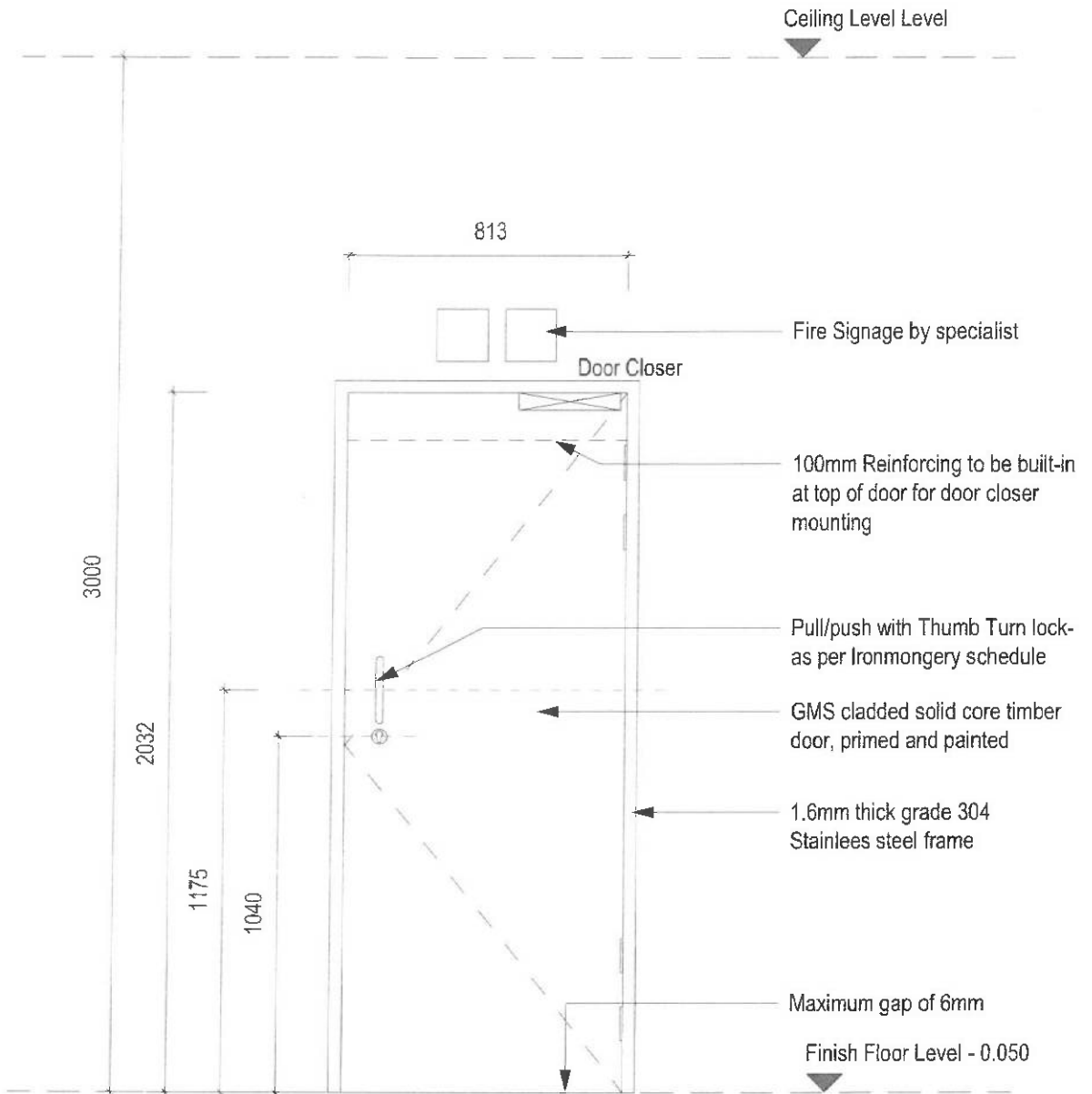
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DESCRIPTION:	Fire certified and approved 813x2032x46mm CLASS B 2 hour fire rated single door with masonite veneer. Front & back edges dressed in stainless steel as per detail A by manufacturer. All exposed sides incl top & bottom to be Primed and P	
FRAME:	Fire door frame as supplied complete with door by manufacturer. Stainless steel Grade 304 with approximately 48mm rebate to suit door. Brush steel finish.	
GLAZING:		
IRONMONGERY:		
HANDLES:	1 of Geze 075/350/B Pull Handle on 350x150x1.6mm Blank S/S 6 Fix Holes	
LOCKS:	1 of Geze 194/01 Thumb Turn and Lock TT001SS	
CYLINDERS:	1 of Geze IG950933338M N/PL Double Cylinder 66mm Master Key CMK	
SUNDRY 1:	1 x Geze 079/350/B Push Plate on 350x150x1.6mm S/S 6 fix holes with "Push" Engraved	
SUNDRY 2:		
DOOR CLOSER:	1 of Geze AZ5003SR TS5000 with Guide Rail	EXTRAS: 2 of Geze AD4001 Mounting Plate for TS5000 Door Closer
DOOR STOP:	1 of Geze 140/69 S/S Floor Mounted Door Stop	FLUSH BOLT:
ACCESS CONTROL:		
HINGES:	1.5 pairs Stainless Steel hinges per leaf supplied complete with door and frame by manufacturer	
KICKPLATE:		
SIGNAGE:	Signage as per detail	

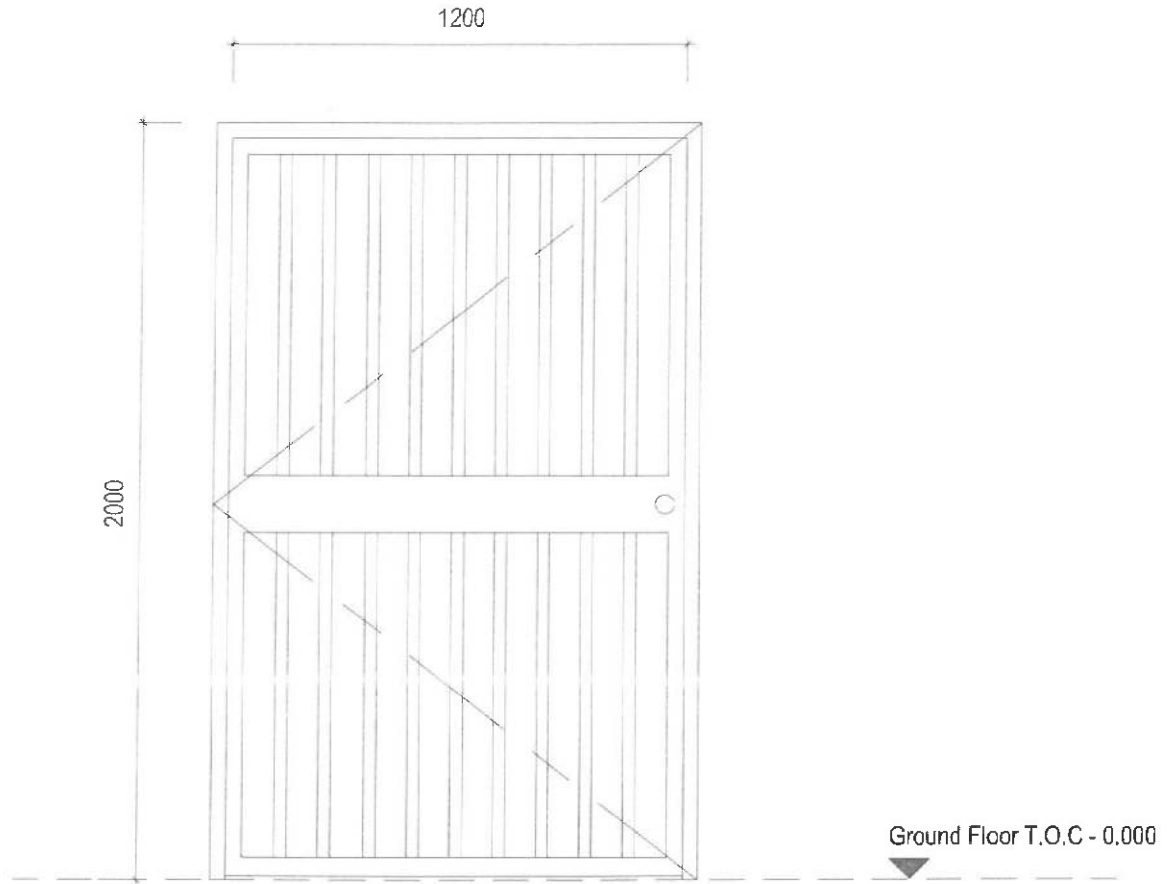
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DESCRIPTION:	
2000 x 1200 Galvanised Steel swing gate. Primed and painted as per manufacturers specifications	
FRAME:	GMS Primed and painted. To manufacturers specification
GLAZING:	N/A
IRONMONGERY:	
HANDLES:	As per manufacturers specifications
LOCKS:	As per manufacturers specifications
CYLINDERS:	
SUNDRY 1:	
SUNDRY 2:	N/A
DOOR CLOSER:	EXTRAS:
DOOR STOP:	FLUSH BOLT:
ACCESS CONTROL:	
HINGES:	
KICKPLATE:	
SIGNAGE:	

26/06/2023 11:23:12: TIME STAMP

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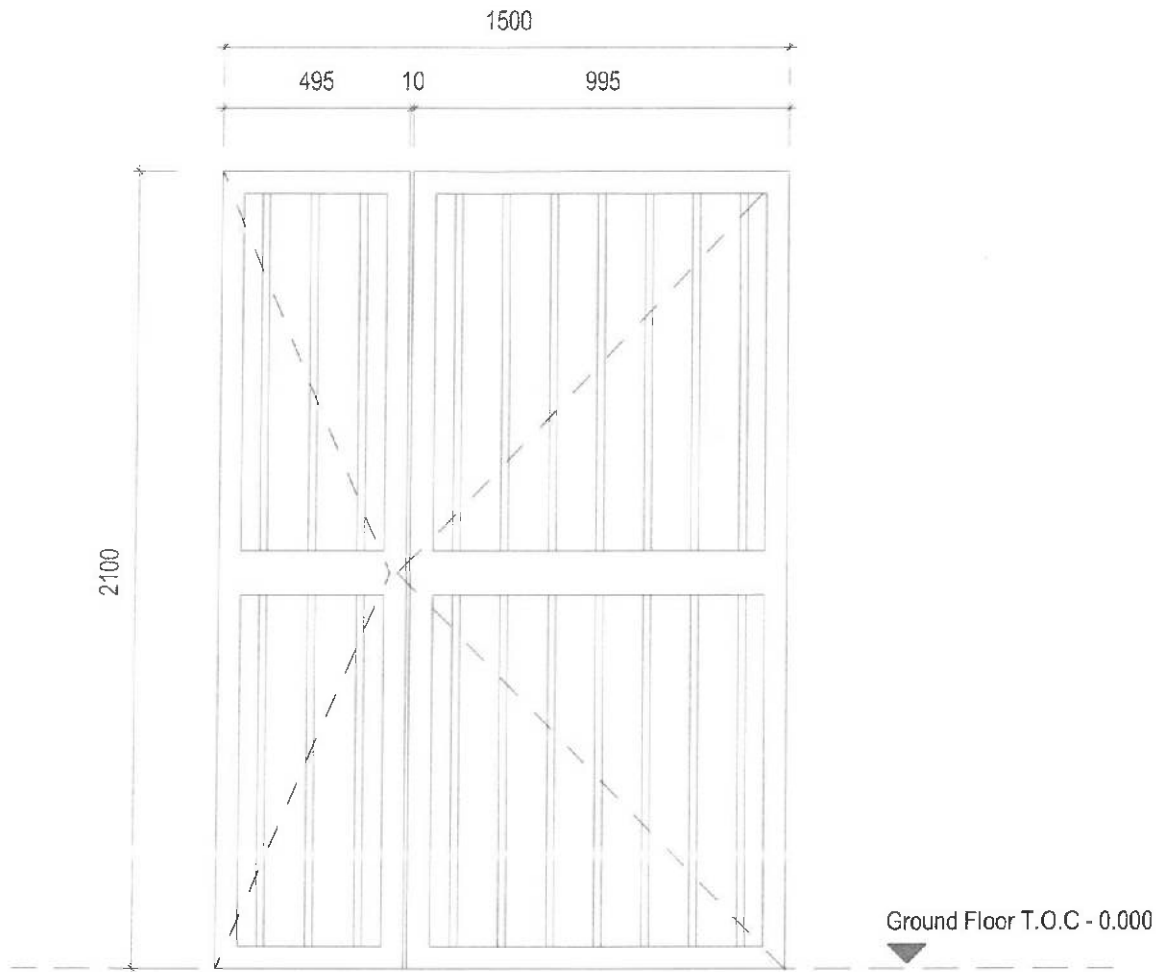
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# DOOR SCHEDULE

Door Type : G3



DESCRIPTION:	2130 x 1500 1.5 Leaf Galvanised Steel security gate. Primed and painted as per manufacturers specifications	
FRAME:	GMS Primed and painted. To manufacturers specification	
GLAZING:	N/A	
IRONMONGERY:		
HANDLES:	As per manufacturers specifications	
LOCKS:	As per manufacturers specifications	
CYLINDERS:		
SUNDRY 1:		
SUNDRY 2:		
DOOR CLOSER:	As per manufacturers specifications	EXTRAS:
DOOR STOP:		FLUSH BOLT:
ACCESS CONTROL:		
HINGES:		
KICKPLATE:		
SIGNAGE:		

26/06/2023 11:23:14 TIME STAMP

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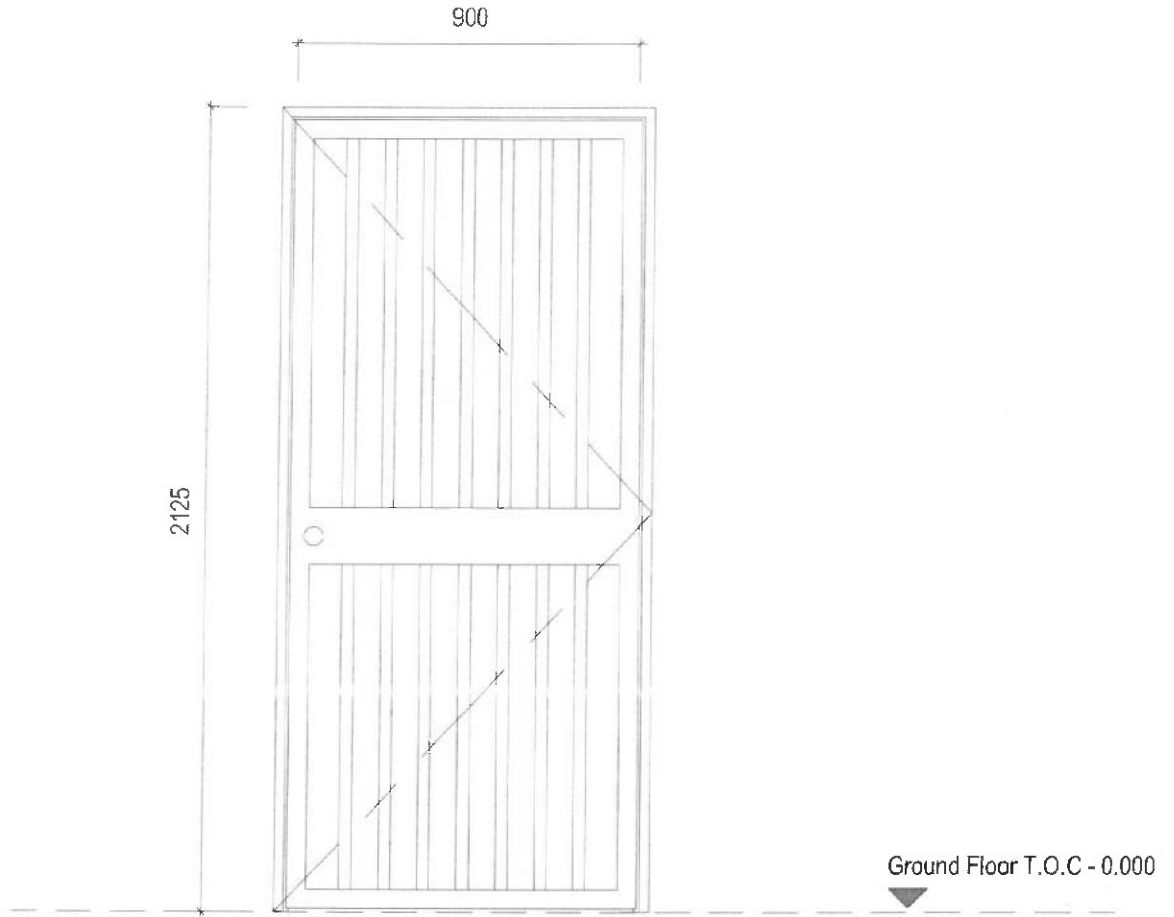
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# DOOR SCHEDULE

Door Type : G4



DESCRIPTION:	
2130 x 900 Galvanised Steel swing gate. Primed and painted as per manufacturers specifications	
FRAME:	GMS Primed and painted. To manufacturers specification
GLAZING:	N/A
IRONMONGERY:	
HANDLES:	As per manufacturers specifications
LOCKS:	As per manufacturers specifications
CYLINDERS:	As per manufacturers specifications
SUNDRY 1:	
SUNDRY 2:	
DOOR CLOSER:	EXTRAS:
DOOR STOP:	FLUSH BOLT:
ACCESS CONTROL:	
HINGES:	
KICKPLATE:	
SIGNAGE:	

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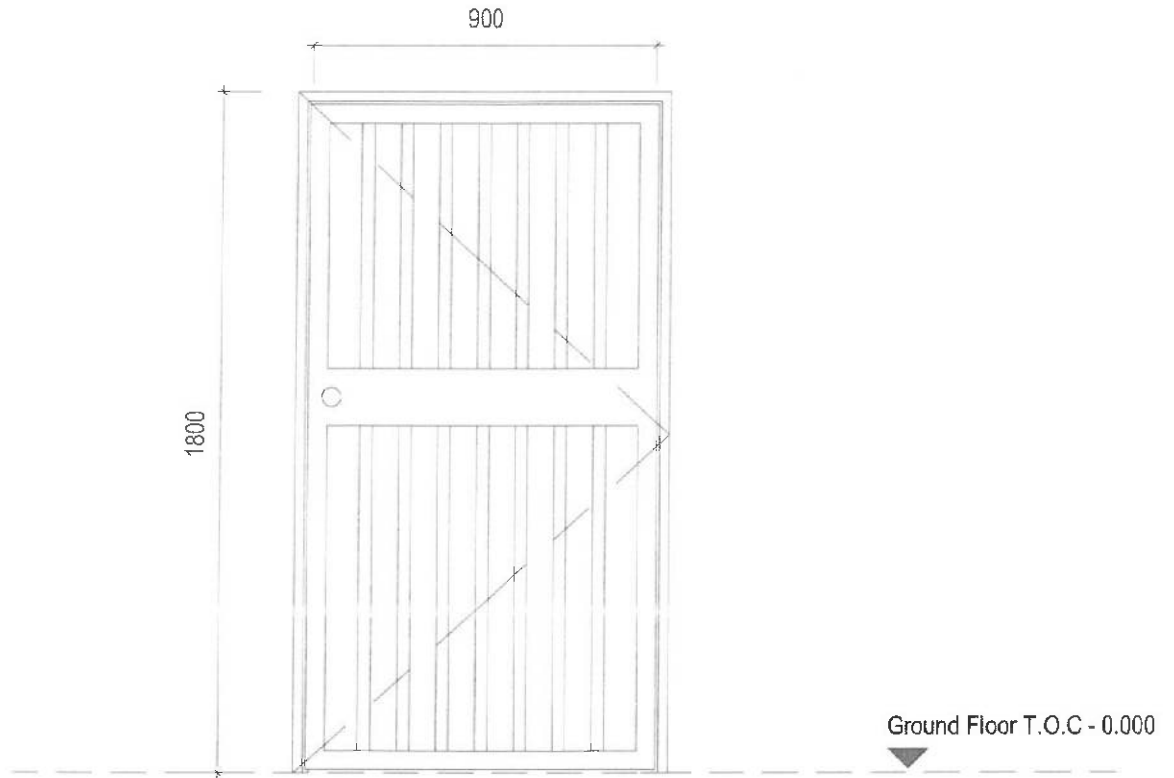
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# DOOR SCHEDULE

Door Type : G5




DESCRIPTION:	1800 x 900 Galvanised Steel swing gate. Primed and painted as per manufacturers specifications	
FRAME:	GMS Primed and painted. To manufacturers specification	
GLAZING:	N/A	
IRONMONGERY:		
HANDLES:	As per manufacturers specifications	
LOCKS:	As per manufacturers specifications	
CYLINDERS:		
SUNDRY 1:		
SUNDRY 2:		
DOOR CLOSER:		EXTRAS:
DOOR STOP:		FLUSH BOLT:
ACCESS CONTROL:		
HINGES:		
KICKPLATE:		
SIGNAGE:		

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# DOOR SCHEDULE


Ground Floor T.O.C - 0.000



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- ALL UNDERCUTTING OF DOORS IS TO BE CALCULATED FROM MECHANICAL DETAILED CONSTRUCTION DRAWINGS.
- ALL SHOP FRONT DOORS ARE TO BE AAAMSA APPROVED.

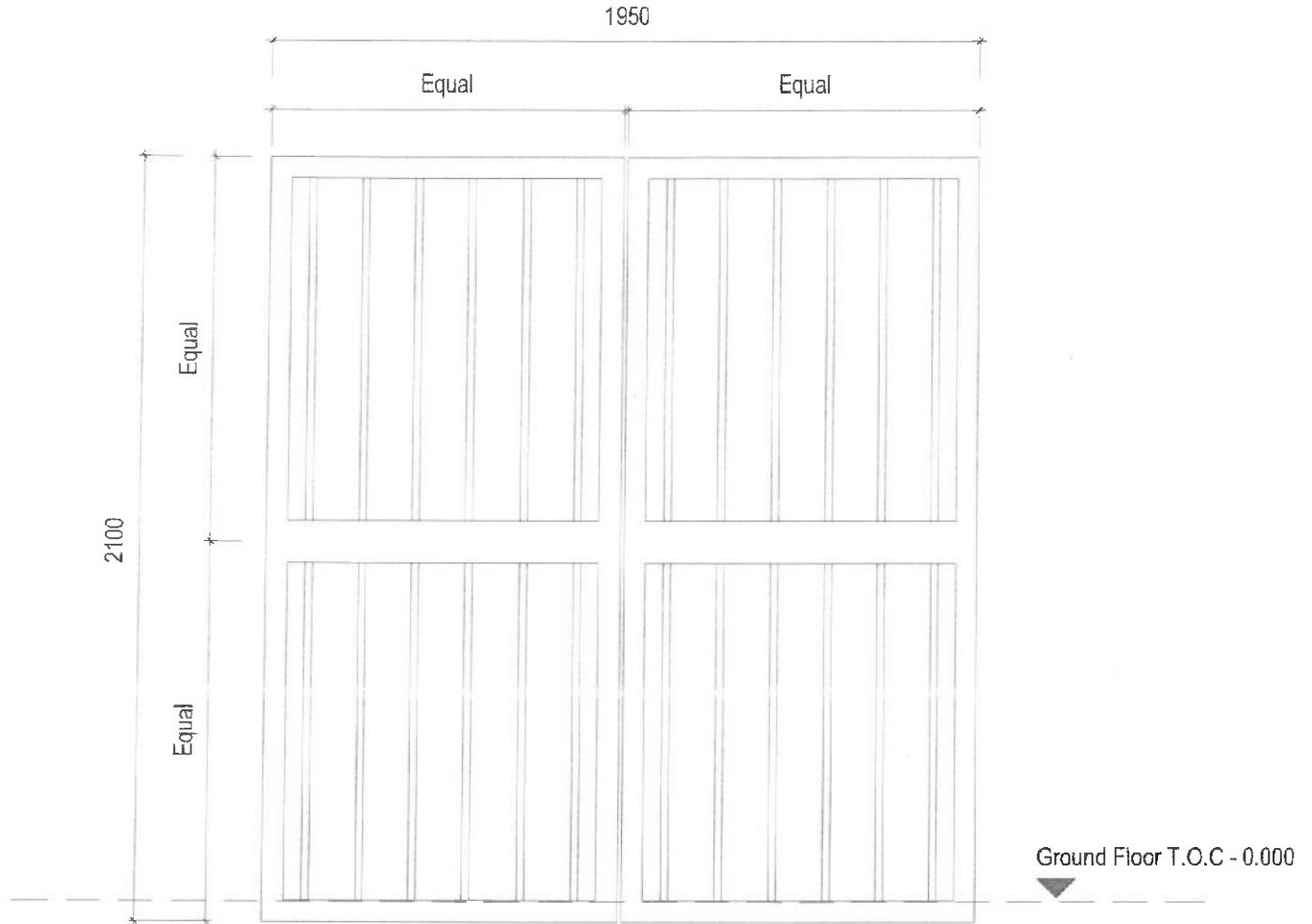
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 **ruben reddy architects**

Office : 10, Park Street, 1st Floor, Park Street, Chennai - 600005  
RUBENREDDYARCHITECTS.COM

# DOOR SCHEDULE

Door Type : **G7**



DESCRIPTION:	
1950 x 2100 Galvanised Steel Double swing gate. Primed and painted as per manufacturers specifications	
FRAME:	GMS Primed and painted. To manufacturers specification
GLAZING:	N/A
IRONMONGERY:	
HANDLES:	As per manufacturers specifications
LOCKS:	As per manufacturers specifications
CYLINDERS:	
SUNDRY 1:	
SUNDRY 2:	
DOOR CLOSER:	EXTRAS:
DOOR STOP:	FLUSH BOLT:
ACCESS CONTROL:	
HINGES:	
KICKPLATE:	
SIGNAGE:	

26/06/2023 11:23:23: TIME STAMP

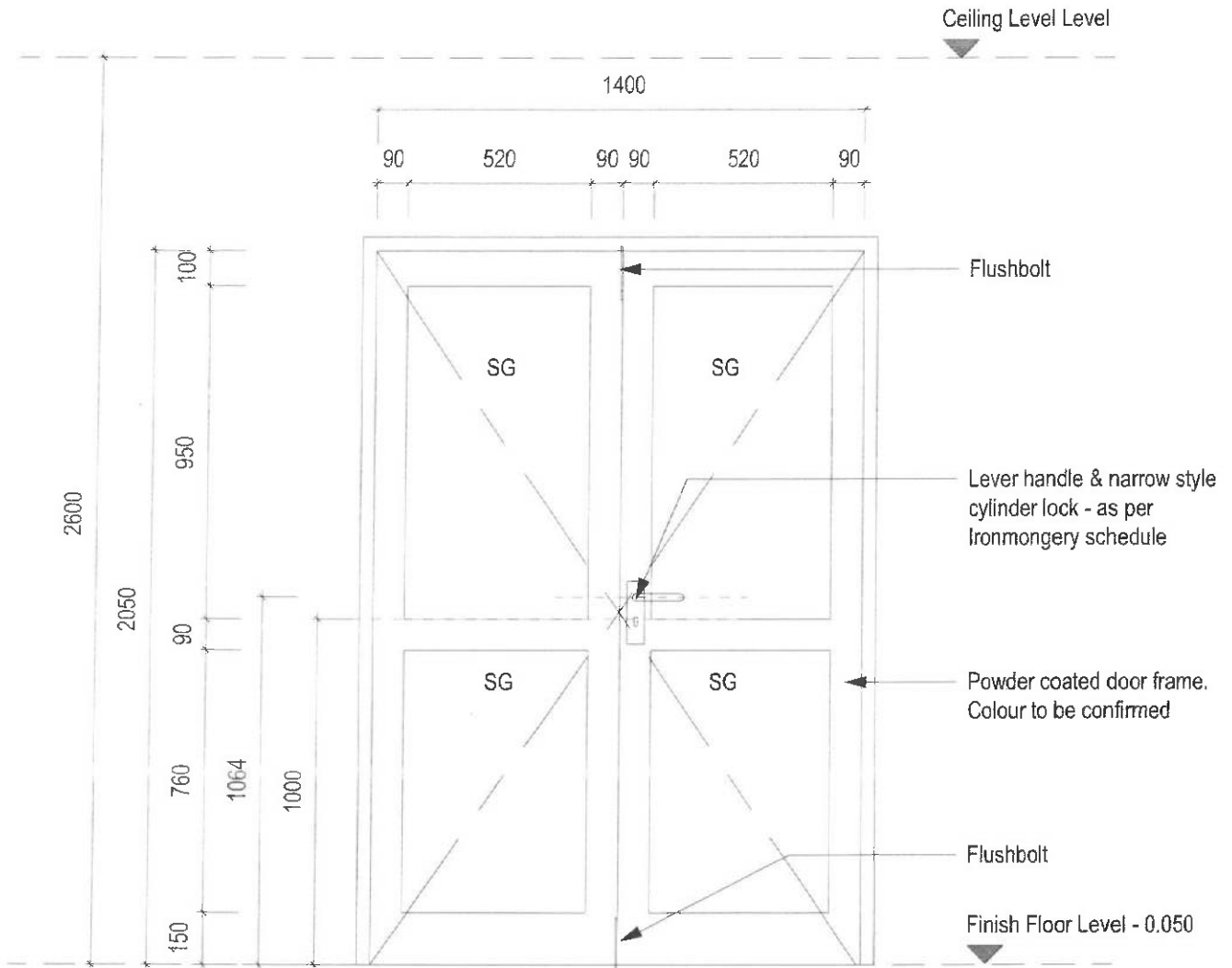
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**ruben reddy architects**

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info@rubenreddy.com | +27 11 460 8800

# DOOR SCHEDULE

Door Type : SFD02



DESCRIPTION:	1400 x 2050 Powder Coated Double Aluminium Swing Door with Glazing Panels and Aluminium Signage Plate. Alum Sizes and Door Configuration as per Detail Drawing on this page.	
FRAME:	Powder Coated Aluminium Door Frame to suit Door and Wall. Powder Coating Colour : To match Door	
GLAZING:	AAAMSA & SAGGA approved safety glazing to suit aluminium door as shown	
IRONMONGERY:		
HANDLES:	1 x Geze DB171BNC01 Tokyo Lever on Narrowstyle Backplate Cyl S/A	
LOCKS:	1 of Geze 625/35 Euro Cyl Sashlock with Drawback Latch N/S S/S 35mm BS	
CYLINDERS:		
SUNDRY 1:	1 of Geze GZZW4405 S/S Narrowstyle Escutcheon	
SUNDRY 2:		
DOOR CLOSER:		EXTRAS:
DOOR STOP:		FLUSH BOLT : 2 of Flushbolts by Manufacturer
ACCESS CONTROL:		
HINGES:	4 pairs Sinkless Hinges per leaf supplied by manufacturer	
KICKPLATE:		
SIGNAGE:	Signage as per detail	

26/06/2023 11:23:25: TIME STAMP

- DOOR SWINGS AND POSITIONS TO BE CALCULATED FROM THE DOOR REFERENCE PLANS.
- ALL DIMENSIONS ARE TO BE CHECKED ON SITE BY THE CONTRACTOR PRIOR TO CONSTRUCTION.
- ANY DISCREPANCIES ON THIS DRAWING ARE TO BE REPORTED TO THE OFFICE OF THE ARCHITECT PRIOR TO CONSTRUCTION.
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- ALL UNDERCUTTING OF DOORS IS TO BE CALCULATED FROM MECHANICAL DETAILED CONSTRUCTION DRAWINGS.
- ALL SHOP FRONT DOORS ARE TO BE AAAMSA APPROVED.

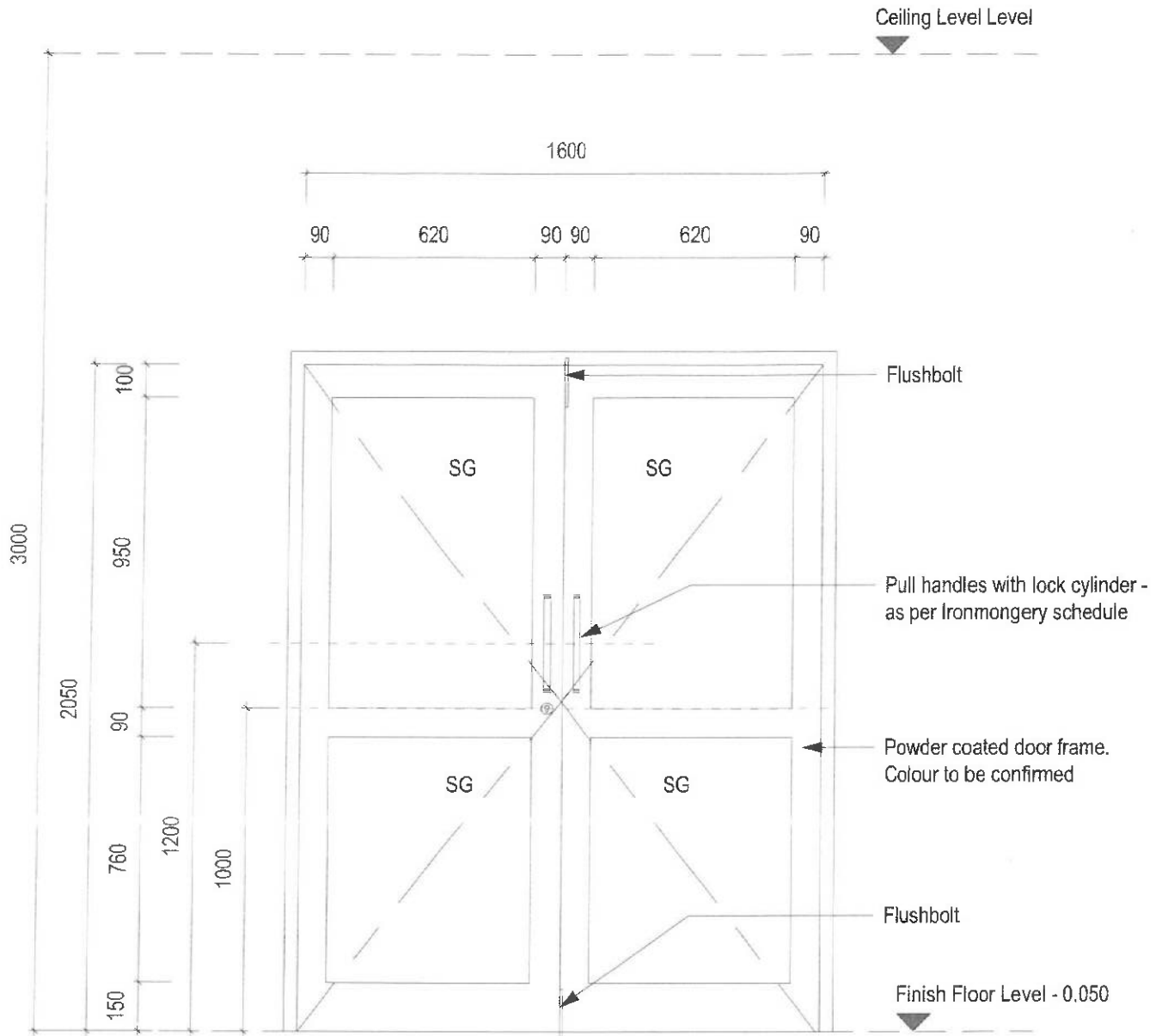
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ruben reddy architects

Building | Interiors | Gate Way | Room Division | Furniture  
45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100, 101, 102, 103, 104, 105, 106, 107, 108, 109, 110, 111, 112, 113, 114, 115, 116, 117, 118, 119, 120, 121, 122, 123, 124, 125, 126, 127, 128, 129, 130, 131, 132, 133, 134, 135, 136, 137, 138, 139, 140, 141, 142, 143, 144, 145, 146, 147, 148, 149, 150, 151, 152, 153, 154, 155, 156, 157, 158, 159, 160, 161, 162, 163, 164, 165, 166, 167, 168, 169, 170, 171, 172, 173, 174, 175, 176, 177, 178, 179, 180, 181, 182, 183, 184, 185, 186, 187, 188, 189, 190, 191, 192, 193, 194, 195, 196, 197, 198, 199, 200, 201, 202, 203, 204, 205, 206, 207, 208, 209, 210, 211, 212, 213, 214, 215, 216, 217, 218, 219, 220, 221, 222, 223, 224, 225, 226, 227, 228, 229, 230, 231, 232, 233, 234, 235, 236, 237, 238, 239, 240, 241, 242, 243, 244, 245, 246, 247, 248, 249, 250, 251, 252, 253, 254, 255, 256, 257, 258, 259, 260, 261, 262, 263, 264, 265, 266, 267, 268, 269, 270, 271, 272, 273, 274, 275, 276, 277, 278, 279, 280, 281, 282, 283, 284, 285, 286, 287, 288, 289, 290, 291, 292, 293, 294, 295, 296, 297, 298, 299, 300, 301, 302, 303, 304, 305, 306, 307, 308, 309, 310, 311, 312, 313, 314, 315, 316, 317, 318, 319, 320, 321, 322, 323, 324, 325, 326, 327, 328, 329, 330, 331, 332, 333, 334, 335, 336, 337, 338, 339, 340, 341, 342, 343, 344, 345, 346, 347, 348, 349, 350, 351, 352, 353, 354, 355, 356, 357, 358, 359, 360, 361, 362, 363, 364, 365, 366, 367, 368, 369, 370, 371, 372, 373, 374, 375, 376, 377, 378, 379, 380, 381, 382, 383, 384, 385, 386, 387, 388, 389, 390, 391, 392, 393, 394, 395, 396, 397, 398, 399, 400, 401, 402, 403, 404, 405, 406, 407, 408, 409, 410, 411, 412, 413, 414, 415, 416, 417, 418, 419, 420, 421, 422, 423, 424, 425, 426, 427, 428, 429, 430, 431, 432, 433, 434, 435, 436, 437, 438, 439, 440, 441, 442, 443, 444, 445, 446, 447, 448, 449, 450, 451, 452, 453, 454, 455, 456, 457, 458, 459, 460, 461, 462, 463, 464, 465, 466, 467, 468, 469, 470, 471, 472, 473, 474, 475, 476, 477, 478, 479, 480, 481, 482, 483, 484, 485, 486, 487, 488, 489, 490, 491, 492, 493, 494, 495, 496, 497, 498, 499, 500, 501, 502, 503, 504, 505, 506, 507, 508, 509, 510, 511, 512, 513, 514, 515, 516, 517, 518, 519, 520, 521, 522, 523, 524, 525, 526, 527, 528, 529, 530, 531, 532, 533, 534, 535, 536, 537, 538, 539, 540, 541, 542, 543, 544, 545, 546, 547, 548, 549, 550, 551, 552, 553, 554, 555, 556, 557, 558, 559, 560, 561, 562, 563, 564, 565, 566, 567, 568, 569, 570, 571, 572, 573, 574, 575, 576, 577, 578, 579, 580, 581, 582, 583, 584, 585, 586, 587, 588, 589, 590, 591, 592, 593, 594, 595, 596, 597, 598, 599, 600, 601, 602, 603, 604, 605, 606, 607, 608, 609, 610, 611, 612, 613, 614, 615, 616, 617, 618, 619, 620, 621, 622, 623, 624, 625, 626, 627, 628, 629, 630, 631, 632, 633, 634, 635, 636, 637, 638, 639, 640, 641, 642, 643, 644, 645, 646, 647, 648, 649, 650, 651, 652, 653, 654, 655, 656, 657, 658, 659, 660, 661, 662, 663, 664, 665, 666, 667, 668, 669, 670, 671, 672, 673, 674, 675, 676, 677, 678, 679, 680, 681, 682, 683, 684, 685, 686, 687, 688, 689, 690, 691, 692, 693, 694, 695, 696, 697, 698, 699, 700, 701, 702, 703, 704, 705, 706, 707, 708, 709, 710, 711, 712, 713, 714, 715, 716, 717, 718, 719, 720, 721, 722, 723, 724, 725, 726, 727, 728, 729, 730, 731, 732, 733, 734, 735, 736, 737, 738, 739, 740, 741, 742, 743, 744, 745, 746, 747, 748, 749, 750, 751, 752, 753, 754, 755, 756, 757, 758, 759, 760, 761, 762, 763, 764, 765, 766, 767, 768, 769, 770, 771, 772, 773, 774, 775, 776, 777, 778, 779, 780, 781, 782, 783, 784, 785, 786, 787, 788, 789, 790, 791, 792, 793, 794, 795, 796, 797, 798, 799, 800, 801, 802, 803, 804, 805, 806, 807, 808, 809, 810, 811, 812, 813, 814, 815, 816, 817, 818, 819, 820, 821, 822, 823, 824, 825, 826, 827, 828, 829, 830, 831, 832, 833, 834, 835, 836, 837, 838, 839, 840, 841, 842, 843, 844, 845, 846, 847, 848, 849, 850, 851, 852, 853, 854, 855, 856, 857, 858, 859, 860, 861, 862, 863, 864, 865, 866, 867, 868, 869, 870, 871, 872, 873, 874, 875, 876, 877, 878, 879, 880, 881, 882, 883, 884, 885, 886, 887, 888, 889, 890, 891, 892, 893, 894, 895, 896, 897, 898, 899, 900, 901, 902, 903, 904, 905, 906, 907, 908, 909, 910, 911, 912, 913, 914, 915, 916, 917, 918, 919, 920, 921, 922, 923, 924, 925, 926, 927, 928, 929, 930, 931, 932, 933, 934, 935, 936, 937, 938, 939, 940, 941, 942, 943, 944, 945, 946, 947, 948, 949, 950, 951, 952, 953, 954, 955, 956, 957, 958, 959, 960, 961, 962, 963, 964, 965, 966, 967, 968, 969, 970, 971, 972, 973, 974, 975, 976, 977, 978, 979, 980, 981, 982, 983, 984, 985, 986, 987, 988, 989, 990, 991, 992, 993, 994, 995, 996, 997, 998, 999, 1000

# DOOR SCHEDULE

Door Type : SFD04



DESCRIPTION:	1600 x 2050 Powder Coated Double Aluminium Swing Door with Glazing Panels and Aluminium Signage Plate. Alum Sizes and Door Configuration as per Detail Drawing on this page.	
FRAME:	Powder Coated Aluminium Door Frame to suit Door and Wall. Powder Coating Colour : To match Door	
GLAZING:	AAAMSA & SAGGA approved safety glazing to suit aluminium door as shown	
IRONMONGERY:		
HANDLES:	2 of Geze JDC215/350 BTB S/S Pull Handle 375x350x25mm	
LOCKS:	1 of Geze 642/35 Euro Cyl Deadlock N/S S/S 35mm BS	
CYLINDERS:	1 of Geze IG950933338M N/PL Double Cylinder 66mm Master Key CMK	
SUNDRY 1:	1 of Geze GZZW4405 S/S Narrowstyle Escutcheon	
SUNDRY 2:		
DOOR CLOSER:	1 of Geze AZ5034SR TS5000 Door Closer C/W ISM Guide Rail	EXTRAS: 2 of Geze AD4001 Mounting Plate for TS5000 Door Closer
DOOR STOP:	2 of Geze 140/69 S/S Floor Mounted Door Stop	FLUSH BOLT: 2 of Flushbolts by Manufacturer
ACCESS CONTROL:		
HINGES:	4 pairs Sinkless Hinges per leaf supplied by manufacturer	
KICKPLATE:		
SIGNAGE:	Signage as per detail	

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- DOOR SWINGS AND POSITIONS TO BE CALCULATED FROM THE DOOR REFERENCE PLANS.
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- ANY DISCREPANCIES ON THIS DRAWING ARE TO BE REPORTED TO THE OFFICE OF THE ARCHITECT PRIOR TO CONSTRUCTION.
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- ALL SHOP FRONT DOORS ARE TO BE AAAMSA APPROVED.

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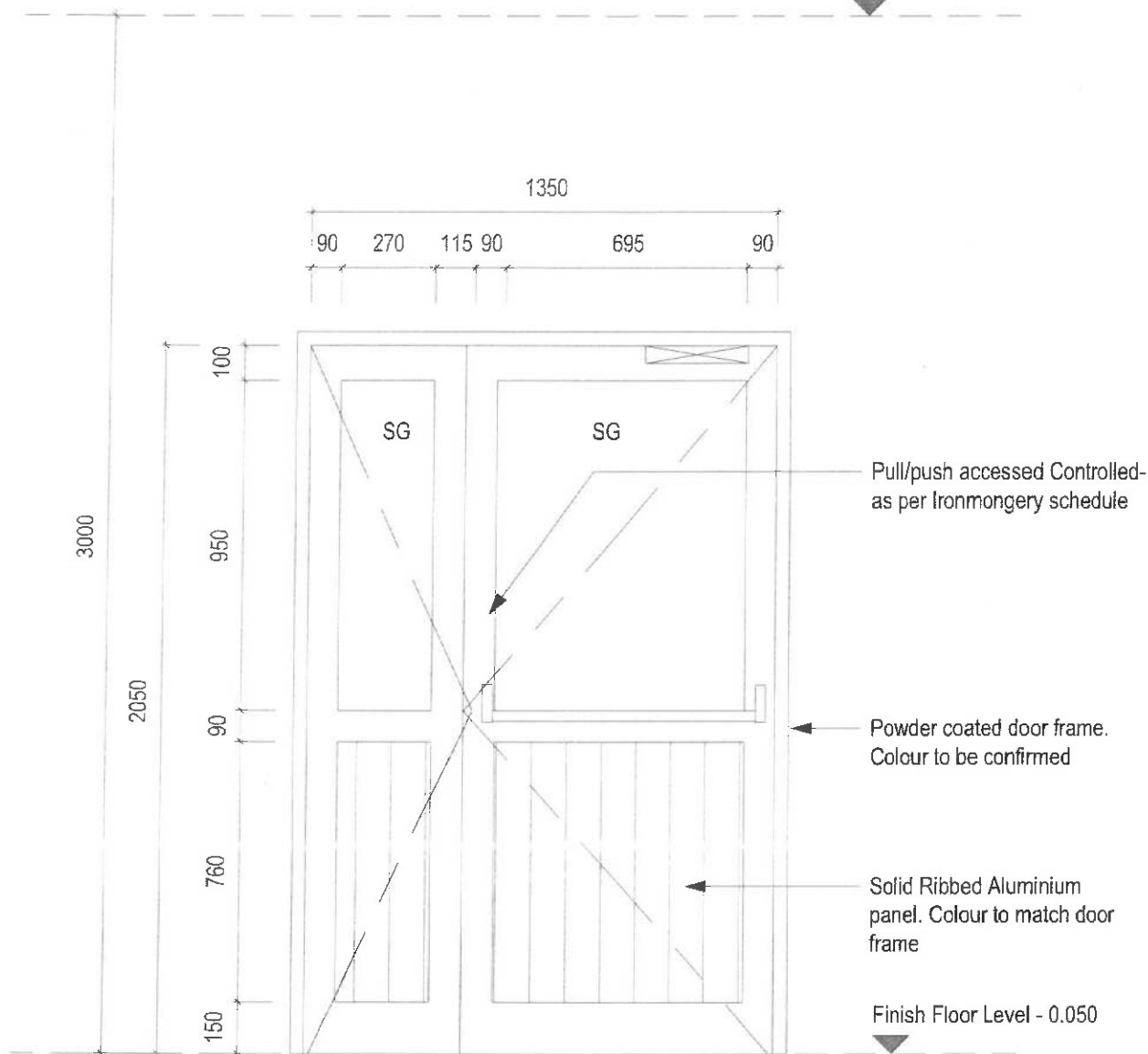
Gurbin | Durban | Cape Town | Johannesburg | Durbanville | Johannesburg



# DOOR SCHEDULE

Door Type : SFD06

Ceiling Level Level



DESCRIPTION:	1400x2050mm Powder Coated 1.5 Leaf Aluminium Door with Glazing Panels and Aluminium Signage Plate. Alum Sizes and Door Configuration as per Detail Drawing on this page.	
FRAME:	Powder Coated Aluminium Door Frame to suit Door and Wall. Powder Coating Colour : To match Door	
GLAZING:	AAAMSA & SAGGA approved safety glazing to suit aluminium door as shown	
IRONMONGERY:		
HANDLES:	2 of Geze JDC215/350 BTB S/S Pull Handle 375x350x25mm	
LOCKS:	1 of Geze 642/35 Euro Cyl Deadlock N/S S/S 35mm BS	
CYLINDERS:	1 of Geze IG95093338M N/PL Double Cylinder 66mm Master Key CMK	
SUNDRY 1:	1 of Geze GZZW4405 S/S Narrowstyle Escutcheon	
SUNDRY 2:		
DOOR CLOSER:	1 of Geze AZ5034SR TS5000 Door Closer C/W ISM Guide Rail	EXTRAS: 2 of Geze AD4001 Mounting Plate for TS5000 Door Closer
DOOR STOP:	2 of Geze 140/69 S/S Floor Mounted Door Stop	FLUSH BOLT: 2 of Flushbolts by Manufacturer
ACCESS CONTROL:		
HINGES:	2 pairs Sinkless Hinges per leaf supplied by manufacturer	
KICKPLATE:		
SIGNAGE:	Signage as per detail	

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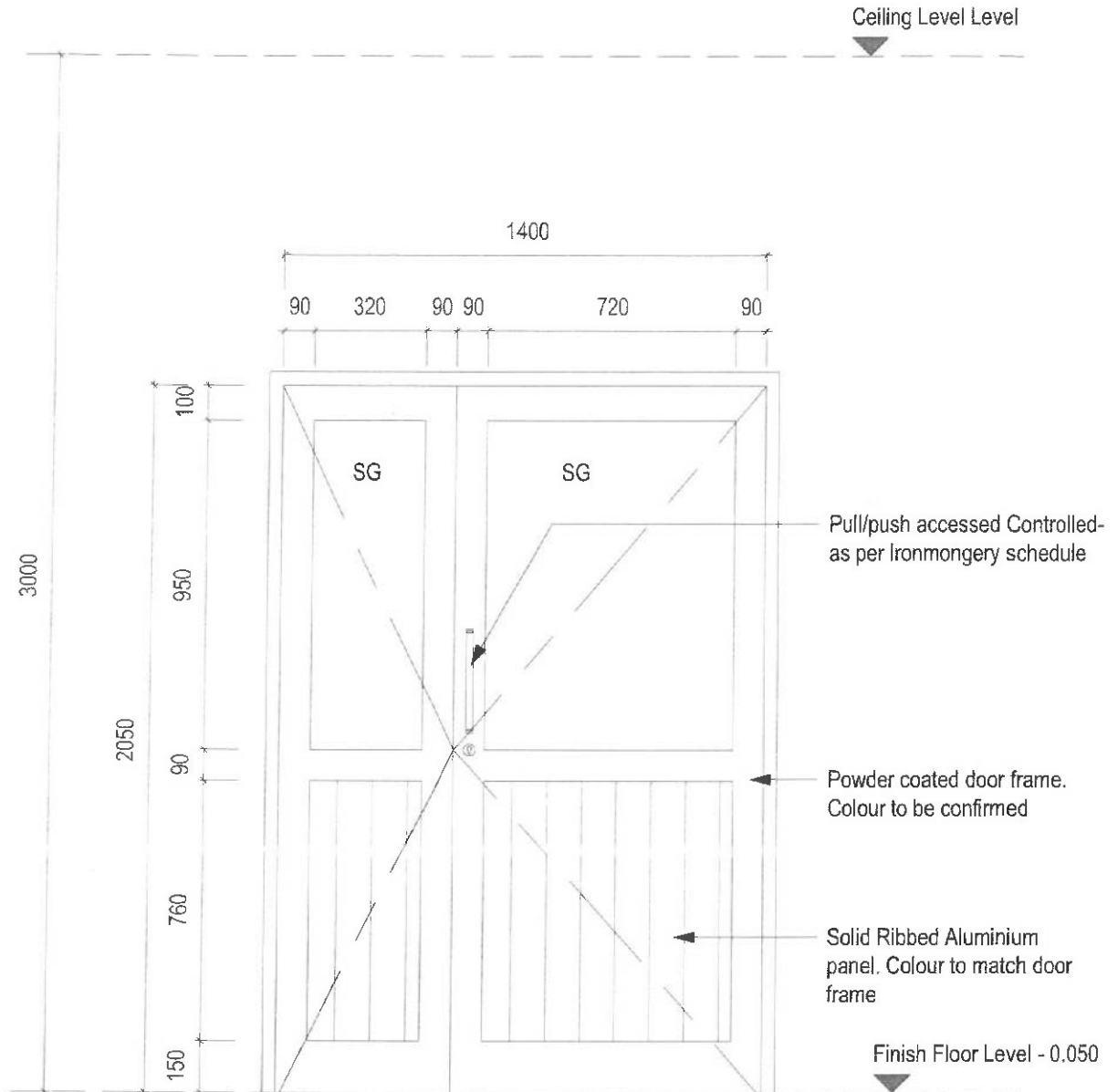
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- ALL SHOP FRONT DOORS ARE TO BE AAAMSA APPROVED.

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CarPark | Commercial | Cafe | Office | Residential | Retail | School | Sports | Transport | Warehouse





<b>DESCRIPTION:</b>	
1400x2050mm Powder Coated 1.5 Leaf Aluminium Door with Glazing Panels and Aluminium Signage Plate. Alum Sizes and Door Configuration as per Detail Drawing on this page.	
<b>FRAME:</b>	Powder Coated Aluminium Door Frame to suit Door and Wall. Powder Coating Colour : To match Door
<b>GLAZING:</b>	AAAMSA & SAGGA approved safety glazing to suit aluminium door as shown
<b>IRONMONGERY:</b>	
<b>HANDLES:</b>	2 of Geze JDC215/350 BTB S/S Pull Handle 375x350x25mm
<b>LOCKS:</b>	1 of Geze 642/35 Euro Cyl Deadlock N/S S/S 35mm BS
<b>CYLINDERS:</b>	1 of Geze IG950933338M N/PL Double Cylinder 66mm Master Key CMK
<b>SUNDRY 1:</b>	1 of Geze GZZW4405 S/S Narrowstyle Escutcheon
<b>SUNDRY 2:</b>	
<b>DOOR CLOSER:</b>	1 of Geze AZ5034SR TS5000 Door Closer C/W ISM Guide Rail
<b>DOOR STOP:</b>	2 of Geze 140/69 S/S Floor Mounted Door Stop
<b>ACCESS CONTROL:</b>	
<b>HINGES:</b>	4 pairs Sinkless Hinges per leaf supplied by manufacturer
<b>KICKPLATE:</b>	
<b>SIGNAGE:</b>	Signage as per detail
<b>EXTRAS:</b>	2 of Geze AD4001 Mounting Plate for TS5000 Door Closer
<b>FLUSH BOLT:</b>	2 of Flushbolts by Manufacturer

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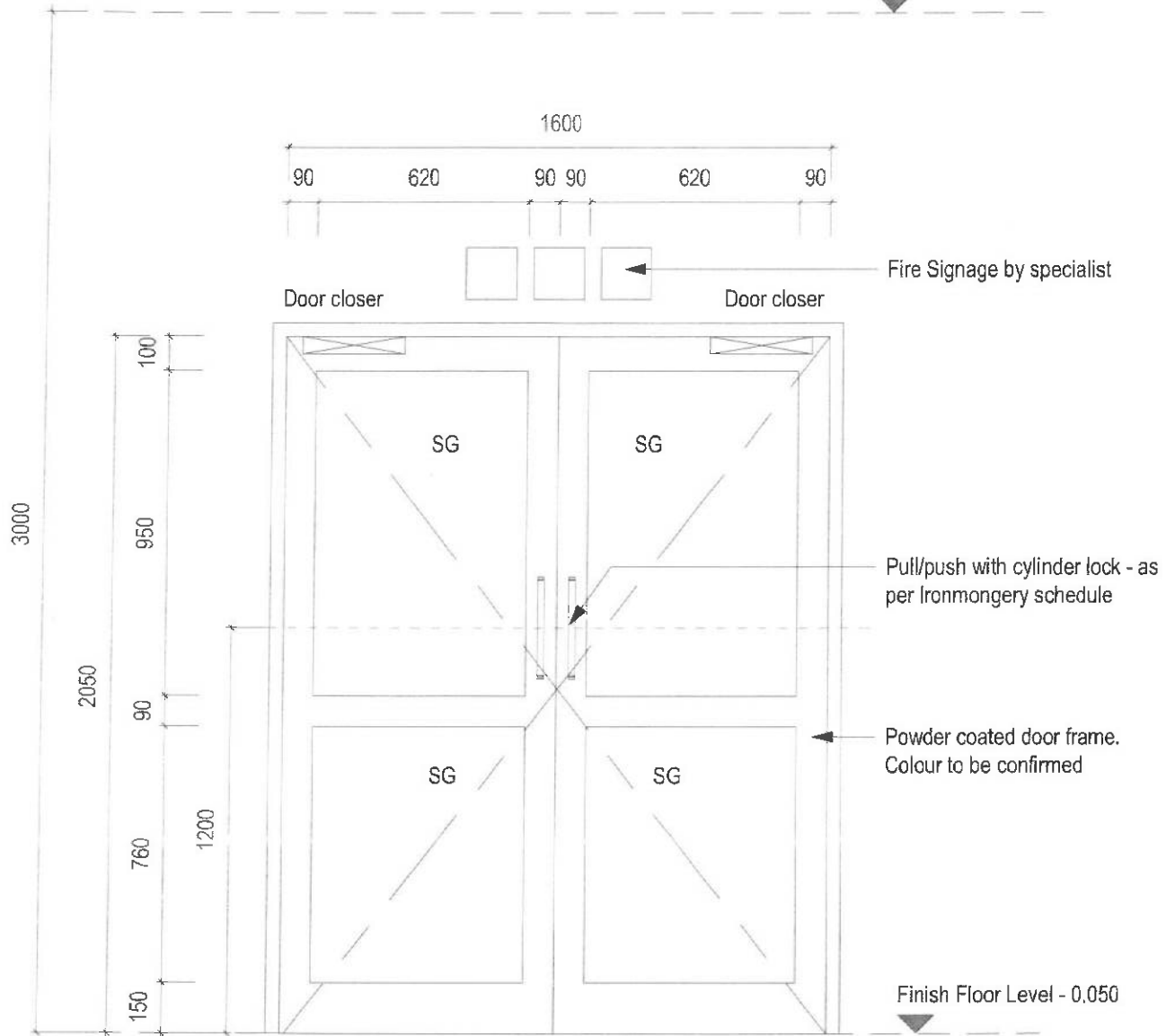
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**ruben reddy architects**  
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 17, 18th Floor, 108, 11th Floor, Cape Town, Bloubaai, Cape Town  
 www.rubenreddy.com

# DOOR SCHEDULE

Door Type : SFD11

Ceiling Level Level



DESCRIPTION:	1600 x 2050 Powder Coated Double Aluminium Swing Door with Glazing Panels and Aluminium Signage Plate. Alum Sizes and Door Configuration as per Detail Drawing on this page.	
FRAME:	Powder Coated Aluminium Door Frame to suit Door and Wall. Powder Coating Colour : To match Door	
GLAZING:	AAAMSA & SAGGA approved safety glazing to suit aluminium door as shown	
IRONMONGERY:		
HANDLES:	4 of Geze B/B Pull Handles	
LOCKS:		
CYLINDERS:		
SUNDRY 1:		
SUNDRY 2:		
DOOR CLOSER:	1 of Geze AZ5034SR TS5000 Door Closer C/W ISM Guide Rail	EXTRAS: 6 of Geze ND0501 Patent Fixing Screws
DOOR STOP:		FLUSH BOLT:
ACCESS CONTROL:		
HINGES:	2 pairs Sinkless Hinges per leaf supplied by manufacturer	
KICKPLATE:		
SIGNAGE:	Signage as per detail	

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- DOOR SWINGS AND POSITIONS TO BE CALCULATED FROM THE DOOR REFERENCE PLANS.
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- ALL SHOP FRONT DOORS ARE TO BE AAAMSA APPROVED.

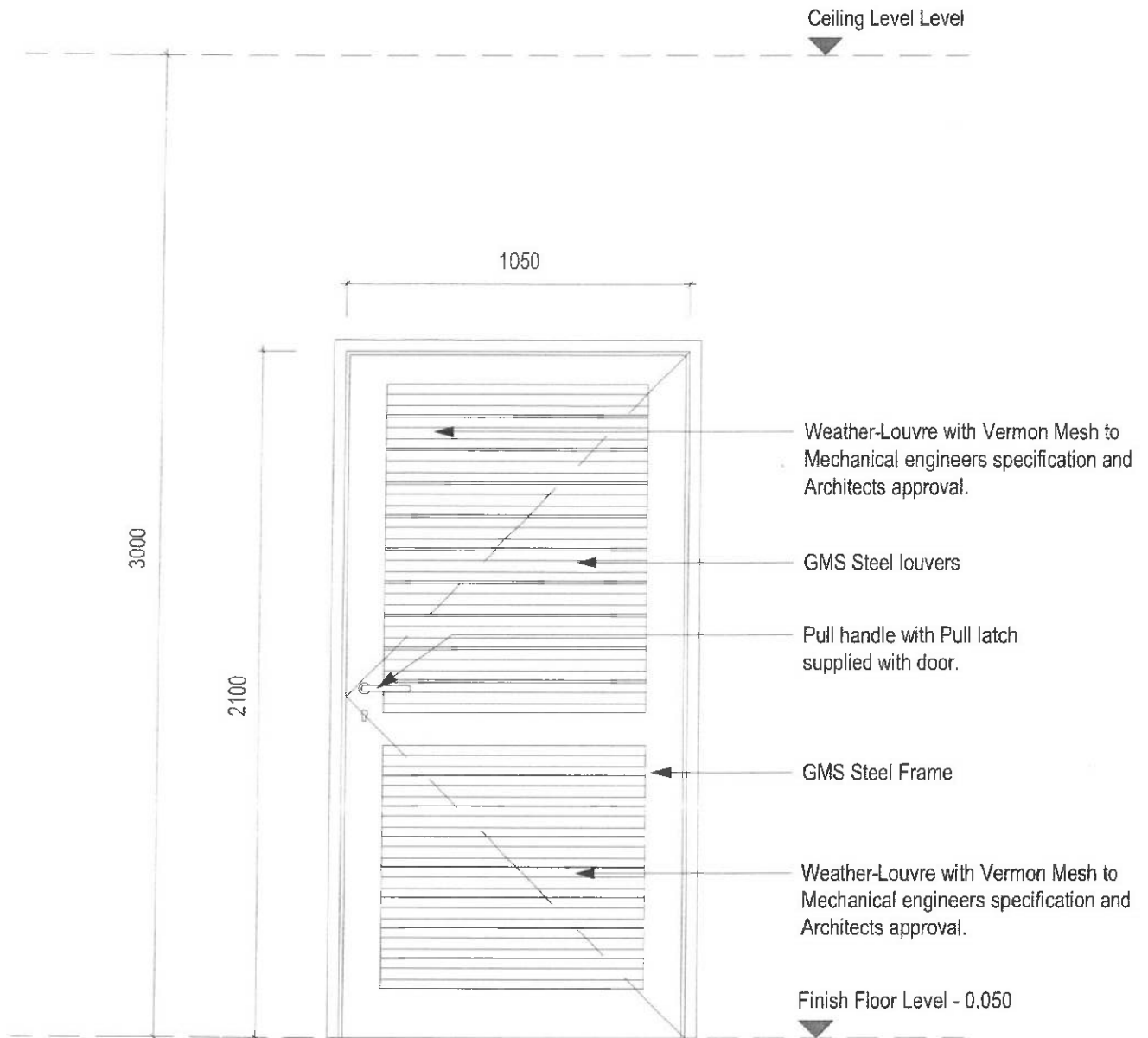
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ruben reddy architects

1st Floor, 100, Market Street, Bangalore, Karnataka, India

# DOOR SCHEDULE

Door Type : SD02



DESCRIPTION:	1050 x 2100 GMS Steel Single Weather Louvred Service Door by specialist manufacturer. To have Vernon Mesh on the inner side. Primed and Painted with Dulux Pearlgló Waterbased Enamel - Colour TBC. Weather Louvre to Mechanical engineers specification and Architects approval.	
FRAME:	GMS Primed and painted. To manufacturers specification	
GLAZING:	N/A	
IRONMONGERY:		
HANDLES:	As per manufacturers specifications	
LOCKS:	As per manufacturers specifications	
CYLINDERS:	As per manufacturers specifications	
SUNDRY 1:		
SUNDRY 2:		
DOOR CLOSER:	As per manufacturers specifications	EXTRAS:
DOOR STOP:		FLUSH BOLT:
ACCESS CONTROL:		
HINGES:	1.5 pairs Stainless Steel hinges per leaf supplied complete with door and frame by manufacturer	
KICKPLATE:		
SIGNAGE:		

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- ALL SHOPFRONT DOORS ARE TO BE AAAMSA APPROVED.

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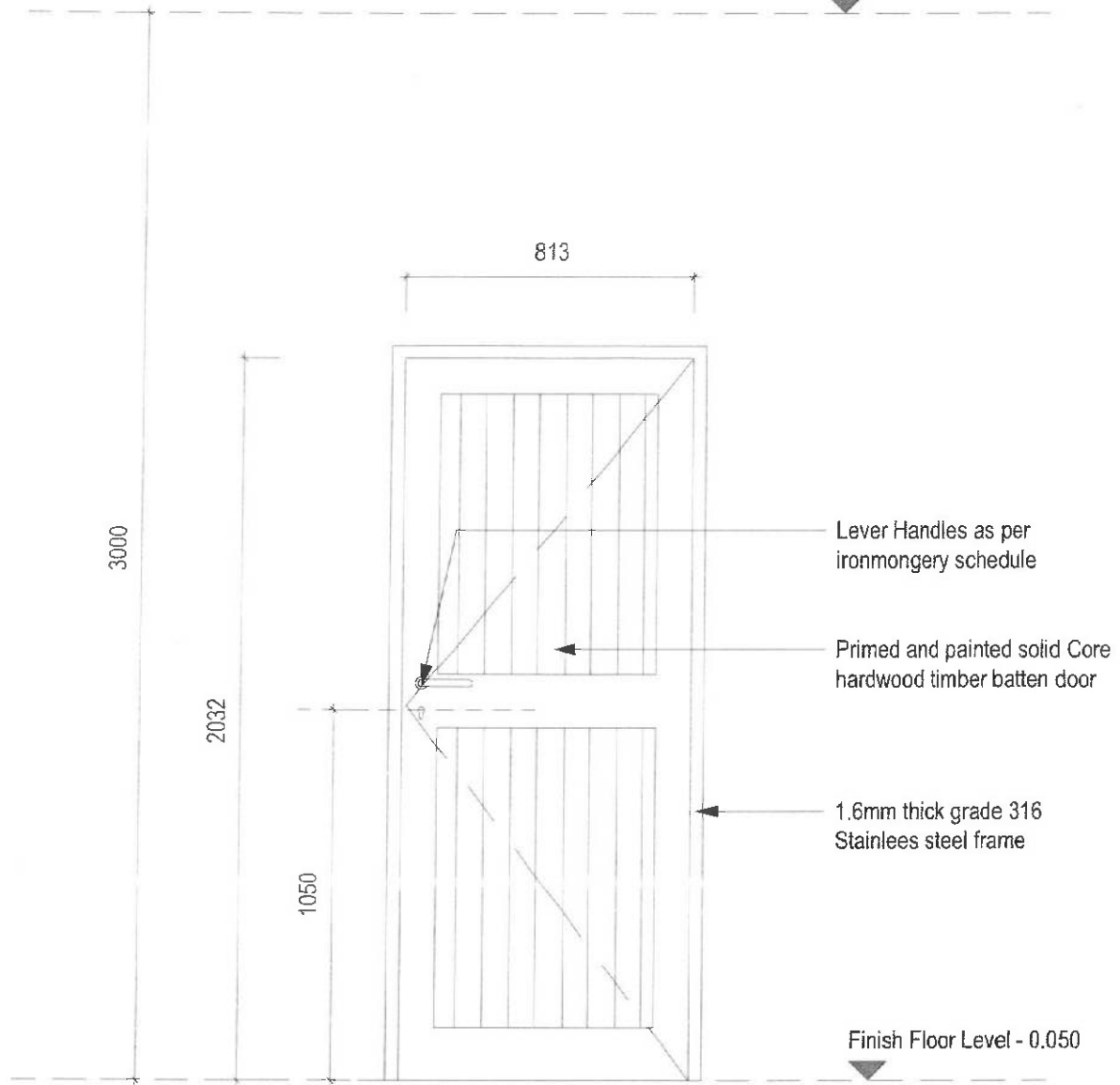
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 Hyderabad | London | Melbourne | Mumbai | New York

# DOOR SCHEDULE

Door Type : WD04

Ceiling Level Level



DESCRIPTION:	813x2032x40mm Solid Hardwood Timber Batten Door - weatherproofed, primed and painted on all sides & edges with 2 Coats of Dulux Pearlgló Waterbased Enamel applied in Strict Accordance to Manufacturers Specs. Colour - TBC	
FRAME:	Stainless Steel 1.6mm Grade 304 frame with 45mm rebate to accomodate door. To suit door and wall. Brushed steel finish.	
GLAZING:	N/A	
IRONMONGERY:		
HANDLES:	1 of Geze EDE101C69 Daytona Lever 160x160x1.6mm Cyl C/O S/S B/PL	
LOCKS:	1 of Geze 730/68 Euro Profile Cyl Sashlock S/S 76mm	
CYLINDERS:	1 of Geze IG950933338M N/PL Double Cylinder 66mm Master Key CMK	
SUNDRY 1:		
SUNDRY 2:		
DOOR CLOSER:		EXTRAS:
DOOR STOP:	1 of Geze 140/69 S/S Floor Mounted Door Stop	FLUSH BOLT:
ACCESS CONTROL:		
HINGES:	1.5pairs per leaf Stainless Steel 100x75x2.7mm 4 Ball Bearing Butt Hinges	
KICKPLATE:		
SIGNAGE:	Signage as per detail	

26/06/2023 11:23:47 TIME STAMP

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- ALL SHOP FRONT DOORS ARE TO BE AAAMSA APPROVED.

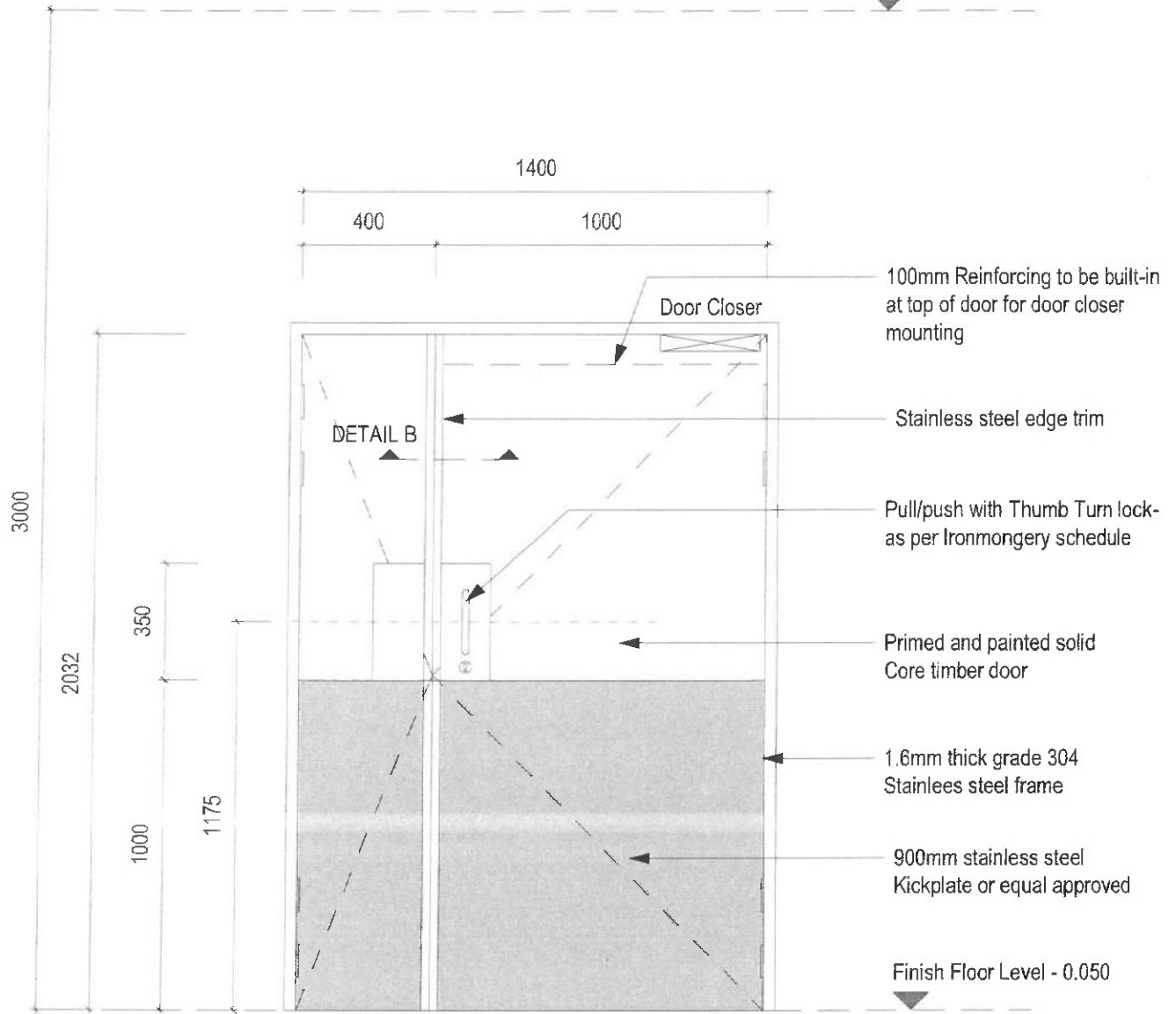
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**Oruben reddy architects**  
 Durban | Johannesburg | Cape Town | Bloemfontein | Polokwane  
 info@orubensha.com | www.orubensha.com

# DOOR SCHEDULE

Door Type : WD05

Ceiling Level Level



DESCRIPTION:	1400x2032x40mm Solid Core Timber Uneven Double doors with single overlapping stainless steel trim as per Detail B. Vertical edges dressed in stainless steel as per detail A. All exposed sides incl top & bottom to be Primed and Painted on all exposed sides with 2 Coats of Dulux Pearligo Waterbased Enamel applied in Strict Accordance to Manufacturers Specs. Colour - TBC	
FRAME:	Stainless Steel 1.6mm Grade 304 frame with 45mm rebate to accomodate door. To suit door and wall. Brushed steel finish.	
GLAZING:		
IRONMONGERY:		
HANDLES:	2 of Geze 075/350/B Pull Handle on 350x150x1.6mm Blank S/S 6 Fix Holes	
LOCKS:	1 of Geze 742/68 Euro Profile Cyl Deadlock S/S 76mm	
CYLINDERS:	1 of Geze IG950933338M N/PL Double Cylinder 66mm Master Key CMK	
SUNDRY 1:	2 x Geze 079/350/B Push Plate on 350x150x1.6mm S/S 6 fix holes with "Push" Engraved	
SUNDRY 2:	1 of Geze 131/69 Rebate Conversion Set for 700 Series Lock	
DOOR CLOSER:	1 of Geze AZ5003SR TS5000 with Guide Rail	EXTRAS: 3 of Geze ND0501 Patent Fixing Screws
DOOR STOP:		FLUSH BOLT: 2 of Geze 120/150 Flushbolt 150mm ST/C
ACCESS CONTROL:		
HINGES:	1.5pairs per leaf Stainless Steel 100x75x2.7mm 4 Ball Bearing Butt Hinges	
KICKPLATE:	1000 High Stainless Steel kick plate on passage side with Epoxy Adhesive or screwed with countersunk stainless steel screws +/- 20mm long screwed along the edges at 150mm c/c.	
SIGNAGE:	Signage as per detail	

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- DOOR SWINGS AND POSITIONS TO BE CALCULATED FROM THE DOOR REFERENCE PLANS.
- ALL DIMENSIONS ARE TO BE CHECKED ON SITE BY THE CONTRACTOR PRIOR TO CONSTRUCTION.
- ANY DISCREPANCIES ON THIS DRAWING ARE TO BE REPORTED TO THE OFFICE OF THE ARCHITECT PRIOR TO CONSTRUCTION.
- ALL ALUMINIUM AND STEEL IS TO BE ISOLATED FROM ONE ANOTHER TO PREVENT GALVANIC ACTION.
- ALL QUANTITIES ARE TO BE CHECKED ON SITE BY THE CONTRACTOR PRIOR TO PLACING ORDERS.
- ALL UNDERCUTTING OF DOORS IS TO BE CALCULATED FROM MECHANICAL DETAILED CONSTRUCTION DRAWINGS.
- ALL SHOP FRONT DOORS ARE TO BE AAAMSA APPROVED.

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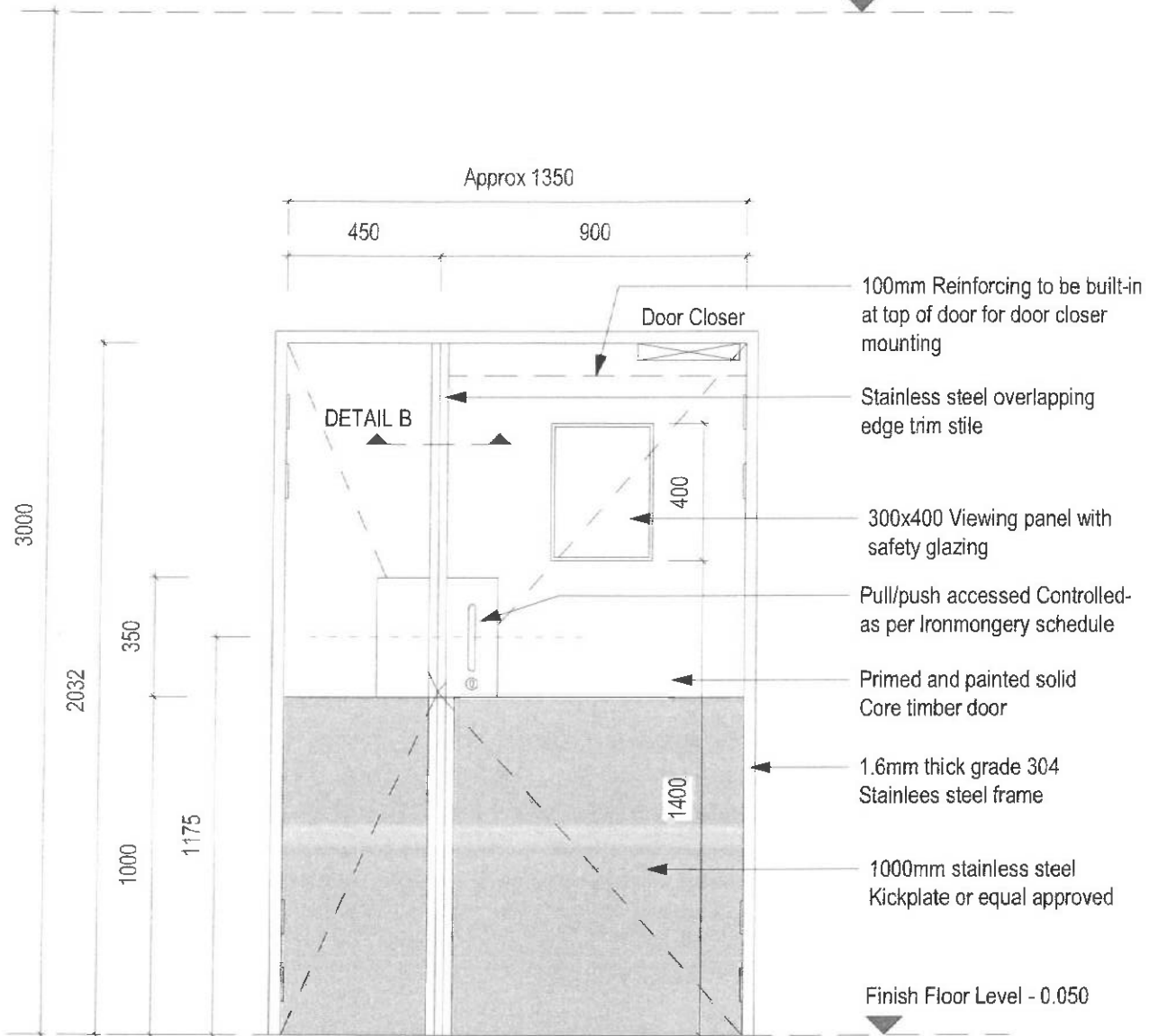
ruben reddy architects

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# DOOR SCHEDULE

Door Type : WD06

Ceiling Level Level



DESCRIPTION:	1350x2032x40mm Solid Core Timber Uneven Double doors with viewing pane & single overlapping stainless steel trim as per Detail B. Vertical edges dressed in stainless steel as per detail A. All exposed sides incl top & bottom to be Primed and Painted on all exposed sides with 2 Coats of Dulux Pearlglø Waterbased Enamel applied in Strict Accordance to Manufacturers Specs. Colour - TBC	
FRAME:	Stainless Steel 1.6mm Grade 304 frame with 45mm rebate to accomodate door. To suit door and wall. Brushed steel finish.	
GLAZING:	AAAMSA & SAGGA approved safety glazing to suit door as shown	
IRONMONGERY:		
HANDLES:	2 of Geze 075/350/B Pull Handle on 350x150x1.6mm Blank S/S 6 Fix Holes	
LOCKS:	1 of Geze 742/68 Euro Profile Cyl Deadlock S/S 76mm	
CYLINDERS:	1 of Geze IG950933338M N/PL Double Cylinder 66mm Master Key CMK	
SUNDRY 1:	1 x Geze 079/350/B Push Plate on 350x150x1.6mm S/S 6 fix holes with "Push" Engraved	
SUNDRY 2:	1 of Geze 131/69 Rebate Conversion Set for 700 Series Lock	
DOOR CLOSER:	1 of Geze AZ5003SR TS5000 with Guide Rail	EXTRAS: 3 of Geze ND0501 Patent Fixing Screws
DOOR STOP:	2 of Geze 140/69 S/S Floor Mounted Door Stop	FLUSH BOLT: 1 of Geze 120/150 Flushbolt 150mm ST/C & 1 of Geze 120/300 Flushbolt 300mm ST/C
ACCESS CONTROL:		
HINGES:	1.5pairs per leaf Stainless Steel 100x75x2.7mm 4 Ball Bearing Butt Hinges	
KICKPLATE:	1000 High Stainless Steel kick plate on passage side with Epoxy Adhesive or screwed with countersunk stainless steel screws +/- 20mm long screwed along the edges at 150mm c/c.	
SIGNAGE:	Signage as per detail	

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- DOOR SWINGS AND POSITIONS TO BE CALCULATED FROM THE DOOR REFERENCE PLANS.
- ALL DIMENSIONS ARE TO BE CHECKED ON SITE BY THE CONTRACTOR PRIOR TO CONSTRUCTION.
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- ALL UNDERCUTTING OF DOORS IS TO BE CALCULATED FROM MECHANICAL DETAILED CONSTRUCTION DRAWINGS.
- ALL SHOP FRONT DOORS ARE TO BE AAAMSA APPROVED.

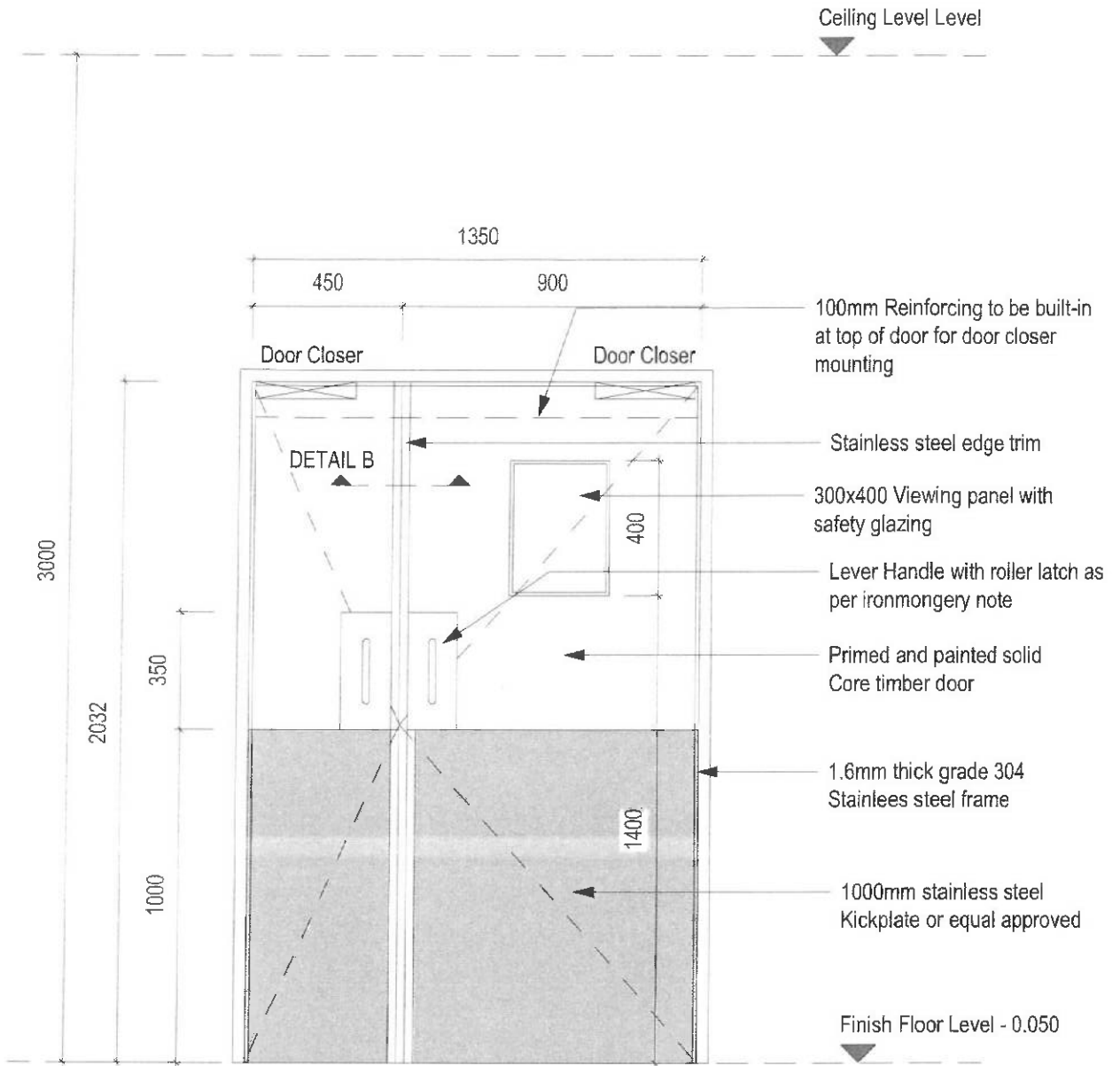
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# DOOR SCHEDULE

Door Type : WD06B



DESCRIPTION:	1350x2032x40mm Solid Core Timber Uneven Double doors with viewing pane & single overlapping stainless steel trim as per Detail B. Vertical edges dressed in stainless steel as per detail A. All exposed sides incl top & bottom to be Primed and Painted on all exposed sides with 2 Coats of Dulux Pearlglø Waterbased Enamel applied in Strict Accordance to Manufacturers Specs. Colour - TBC	
FRAME:	Stainless Steel 1.6mm Grade 304 frame with 45mm rebate to accomodate door. To suit door and wall. Brushed steel finish.	
GLAZING:	AAAMSA & SAGGA approved safety glazing to suit door as shown	
IRONMONGERY:		
HANDLES:	2 of Geze 075/350/B Pull Handle on 350x150x1.6mm Blank S/S 6 Fix Holes	
LOCKS:		
CYLINDERS:		
SUNDRY 1:	1 x Geze 079/350/B Push Plate on 350x150x1.6mm S/S 6 fix holes with "Push" Engraved	
SUNDRY 2:		
DOOR CLOSER:	1 of Geze AZ5003SR TS5000 with Guide Rail	EXTRAS: 3 of Geze ND0501 Patent Fixing Screws
DOOR STOP:	2 of Geze 140/69 S/S Floor Mounted Door Stop	FLUSH BOLT: 1 of Geze 120/150 Flushbolt 150mm ST/C & 1 of Geze 120/300 Flushbolt 300mm ST/C
ACCESS CONTROL:		
HINGES:	1.5pairs per leaf Stainless Steel 100x75x2.7mm 4 Ball Bearing Butt Hinges	
KICKPLATE:	1000 High Stainless Steel kick plate on passage side with Epoxy Adhesive or screwed with countersunk stainless steel screws +/- 20mm long screwed along the edges at 150mm c/c.	
SIGNAGE:	Signage as per detail	

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- DOOR SWINGS AND POSITIONS TO BE CALCULATED FROM THE DOOR REFERENCE PLANS.
- ALL DIMENSIONS ARE TO BE CHECKED ON SITE BY THE CONTRACTOR PRIOR TO CONSTRUCTION.
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- ALL QUANTITIES ARE TO BE CHECKED ON SITE BY THE CONTRACTOR PRIOR TO PLACING ORDERS.
- ALL UNDERCUTTING OF DOORS IS TO BE CALCULATED FROM MECHANICAL DETAILED CONSTRUCTION DRAWINGS.
- ALL SHOP FRONT DOORS ARE TO BE AAAMSA APPROVED.

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**Oruben reddy architects**

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