

BILL OF QUANTITIES

SABS EAST LONDON BRANCH

BILL NO. 1

No	Description	Unit	Qty	Rate	Amount
1	FIRE PROTECTION INSTALLATION				
1,1	Fire Ring Main				
1.1.1	Supply 100mm internal \varnothing uPVC Class 12 underground fire ring main complete with all joints and fittings as indicated on plan to facilitate fire hydrants and booster connections from municipal water mains <i>including at least 1 m deep trench</i>	m	400		
1.1.2	Install 100mm internal \varnothing uPVC Class 12 underground fire ring main complete with all joints and fittings as indicated on plan to facilitate fire hydrants and booster connections from municipal water mains <i>including backfilling and compacting in accordance with SANS 2001 – DP6.</i>	m	400		
1.1.3	Supply miscellaneous fittings including bends	No	15		
1.1.4	Install miscellaneous fittings including bends	No	15		
1,2	Fire Booster Connection (FPC), Fire Pump Suction (FPS) and Fire Pump Hydrant (FPH) (Ref to Section 5 of the DID SQ Spec M1)				
1.2.1	Supply 2 x 65 mm male instantaneous connectors complete with plastic and gauge. Refer to DID std drawing number ME-E 01 04 03 herein included as appendix	No	1		
1.2.2	Install 2 x 65 mm male instantaneous connectors complete with plastic and gauge. Refer to DID std drawing number ME-E 01 04 03 herein included as appendix	No	1		
1.2.3	Supply fire pump hydrant with 100 mm hydrant valve, with 100 mm storz connector, as indicated on DID Std Drawing No ME-E 01 04 02 herein included as appendix	No	1		
1.2.4	Install fire pump hydrant with 100 mm hydrant valve, with 100 mm storz connector, as indicated on DID Std Drawing No ME-E 01 04 02 herein included as appendix	No	1		
1.2.5	Supply 80 mm hydrant valve with 65 mm female instantaneous connectors and plastic plug refer to DID Std Drawing No ME-E 01 04 01 herein included as appendix	No	7		
1.2.6	Install 80 mm hydrant valve with 65 mm female instantaneous connectors and plastic plug refer to DID Std Drawing No ME-E 01 04 01 herein included as appendix	No	7		
1.2.7	Supply 100 mm Mild steel riser, complete with under ground mild steel piping and fittings i.e. tee, reducer, steel collar, grove and clamp pipe joint, 90 degree bend, Type B concrete anchor and miscellaneous fittings as indicated on DID Std Drawings No ME-E 01 04 01/02	No	1		
1.2.8	Install 100 mm Mild steel riser, complete with under ground mild steel piping and fittings i.e. tee, reducer, steel collar, grove and clamp pipe joint, 90 degree bend, Type B concrete anchor and miscellaneous fittings as indicated on DID Std Drawings No ME-E 01 04 01/02	No	1		
1.2.9	Supply 80 mm Mild steel riser, complete with under ground mild steel piping and fittings i.e. tee, reducer, steel collar, grove and clamp pipe joint, 90 degree bend, Type B concrete anchor and miscellaneous fittings as indicated on DID Std Drawings No ME-E 01 04 01/02/03	No	5		
1.2.10	Install 80 mm Mild steel riser, complete with under ground mild steel piping and fittings i.e. tee, reducer, steel collar, grove and clamp pipe joint, 90 degree bend, Type B concrete anchor and miscellaneous fittings as indicated on DID Std Drawings No ME-E 01 04 01/02/03	No	5		
1.2.11	Supply galvanised 100 mm internal \varnothing feeder supply to 30 meter fire hose reels plus hydrants in the buildings as indicated on plan complete with all joints and fittings. (GMS)	m	90		
1.2.12	Install galvanised 100 mm internal \varnothing feeder supply to 30 meter fire hose reels plus hydrants in the buildings as indicated on plan complete with all joints and fittings. (GMS)	m	90		
1.2.13	Supply galvanised 100/80/100 mm internal \varnothing tee	No	10		
1.2.14	Install galvanised 100/80/100 mm internal \varnothing tee	No	10		
1.2.15	Supply galvanised 100/32/100 mm internal \varnothing tee	No	10		
1.2.16	Install galvanised 100/32/100 mm internal \varnothing tee	No	10		
1.2.17	Supply 100 mm 90 degree elbow GMS	No	15		
1.2.18	Supply 100 mm 90 degree elbow GMS	No	15		
1.2.19	Supply 80 mm 90 degree elbow GMS	No	15		
1.2.20	Supply 80 mm 90 degree elbow GMS	No	15		
1.2.21	Supply 32 mm 90 degree elbow GMS	No	10		
1.2.22	Supply 32 mm 90 degree elbow GMS	No	10		
1.2.23	Supply 32 mm 90 degree elbow GMS	No	10		
1.2.24	Supply 32 mm 90 degree elbow GMS	No	10		
1.2.25	Supply miscellaneous fittings including	No	20		
1.2.26	Install miscellaneous fittings including	No	20		
	30 m Hydrants Hoses in cabinets complete with couplings	No	10		
1.2.27	Supply	No	11		
1.2.28	Install	No	11		
1,3	Fire Water Booster Pumps				
1.3.1	Supply 1 litres/sec 400 kPa fire booster pump complete with control panel plus all the requisite auxiliary equipment and plinth (NWP = 350 kPa)	No	2		
1.3.2	Install 1 litres/sec 400 kPa fire booster pump complete with control panel plus all the requisite auxiliary equipment and plinth (NWP = 350 kPa)	No	2		
1.3.3	Supply Strainer DN 50	No	2		
1.3.4	Install Strainer DN 50	No	2		
1.3.5	Supply Strainer DN 100	No	1		
1.3.6	Install Strainer DN 100	No	1		
1.3.7	Supply Dial pressure gauge, up to 600 kPa, 100 mm dia	No	3		
1.3.8	Install Dial pressure gauge, up to 600 kPa, 100 mm dia	No	3		
Carried Forward					

No	Description	Unit	Qty	Rate	Amount
BILL NO. 1 - CONT					
No	Description	Unit	Qty	Rate	Amount
	Brought Forward				
1.3.9	Supply Dial pressure gauge, up to 600 kPa, 100 mm dia	No	1		
1.3.10	Install Dial pressure gauge, up to 600 kPa, 100 mm dia	No	1		
1.3.11	Supply pressure Switch	No	2		
1.3.12	Install pressure Switch	No	2		
1.3.13	Supply Drain valve + piping DN 32	No	3		
1.3.14	Install Drain valve + piping DN 32	No	3		
1.3.15	Supply Non return valve Ø 50	No	2		
1.3.16	Install Non return valve Ø 50	No	2		
1.3.17	Supply Non return valve Ø 100	No	2		
1.3.18	Install Non return valve Ø 100	No	2		
1.3.19	Supply Shut off valves DN 50	No	4		
1.3.20	Install Shut off valves DN 50	No	4		
1.3.21	Supply Shut off valves DN 100	No	2		
1.3.22	Install Shut off valves DN 100	No	2		
1.3.23	Supply Flexible Coupling	No	6		
1.3.24	Install Flexible Coupling	No	6		
1.3.25	Supply 50 mm diameter header including flanges (Length = 2 m)	No	2		
1.3.26	Install 50 mm diameter header including flanges (Length = 2 m)	No	2		
1.3.27	Supply Piping fittings and accessories (Insulated)	No	Lot		
1.3.28	Install Piping fittings and accessories (Insulated)	No	Lot		
1.3.29	Supply 300 litres pressure tank	No	1		
1.3.30	Install 300 litres pressure tank	No	1		
1.3.31	Supply GMS pipe, 50 diameter	m	10		
1.3.32	Install GMS pipe, 50 diameter	m	10		
1.3.33	Supply GMS pipe, 100 diameter	m	30		
1.3.34	Install GMS pipe, 100 diameter	m	30		
1.3.35	Supply 50 diameter, 90 degree bend GMS	No	15		
1.3.36	Install 50 diameter, 90 degree bend GMS	No	15		
1.3.37	Supply 50 diameter, 90 degree bend GMS	No	10		
1.3.38	Install 50 diameter, 90 degree bend GMS	No	10		
1.3.39	Supply 50/100/50 Tee GMS	No	3		
1.3.40	Install 50/100/50 Tee GMS	No	3		
1.3.41	Supply 100/50/100 Tee GMS	No	3		
1.3.42	Install 100/50/100 Tee GMS	No	3		
1.3.43	Supply 100/100/100 Tee GMS	No	5		
1.3.44	Install 100/100/100 Tee GMS	No	5		
1.3.45	Supply miscellaneous fittings cross overs, reducers, clamps and etc.	Lot	1		
1.3.46	Install miscellaneous fittings cross overs, reducers, clamps and etc.	Lot	1		
1,4	Fire Hose reel feeder supply piping				
1.4.1	Supply galvanised 32mm internal ø feeder supply to 30 meter fire hose reels as indicated on plan complete with all joints and fittings.	m	100		
1.4.2	Install galvanised 32mm internal ø feeder supply to 30 meter fire hose reels as indicated on plan complete with all joints and fittings.	m	100		
1.4.3	Supply galvanised 25 mm internal ø feeder supply to 30 meter fire hose reels	m	5		
1.4.4	Install galvanised 25 mm internal ø feeder supply to 30 meter fire hose reels	m	5		
1,5	Fire Hose Reels				
1.1.1	Supply 30m Fire Hose Reels as indicated on plan	No	7		
1.1.2	Install 30m Fire Hose Reels as indicated on plan	No	7		
1,6	Fire extinguishers (Refer to clause 2 of the GP STD quality spec for fire protection)				
1.6.1	Supply 4.5 kg DCP fire extinguishes complete with backing board	No	22		
1.6.2	Install 4.5 kg DCP fire extinguishes complete with backing board	No	22		
1.6.3	Supply 5 kg CO ₂ fire extinguishes complete with backing board	No	8		
1.6.4	Install 5 kg CO ₂ fire extinguishes complete with backing board	No	8		
1.6.5	Supply 9 kg DCP fire extinguishes complete with backing board	No	4		
1.6.6	Install 9 kg DCP fire extinguishes complete with backing board	No	4		
1.6.7	Supply 10 kg CO ₂ fire extinguishes complete with backing board	No	2		
1.6.8	Install 10 kg CO ₂ fire extinguishes complete with backing board	No	2		
1.6.9	Allow for the servicing of existing fire equipment	Lot	Lot		
1.6.10	Service existing 9 Kg DCP Fire Entinguisher			Rate only	
1.6.11	Service existing 4.5 Kg DCP Fire Entinguisher			Rate only	
1.6.12	Service existing 10 Kg CO ₂ Fire Entinguisher			Rate only	
1.6.13	Service existing 5 Kg CO ₂ Fire Entinguisher			Rate only	
1.6.14	Service existing fire hose reel			Rate only	
Carried Forward					

No	Description	Unit	Qty	Rate	Amount
BILL NO. 1 - CONT					
	Brought Forward				
1,7	fire signage				
	All interna signage to comply with SANS 1186-5, and all external signage to comply with SANS 1186-1				
	Supply				
1.7.1	E1	No	10		
1.7.2	E2	No	10		
1.7.3	E3	No	30		
1.7.4	E99 Exit	No	10		
1.7.5	E1/E2 Double sided complete with aluminium and frame	No	4		
1.7.6	F1	No	5		
1.7.7	F2/3 Double sided complete with aluminium and frame	No	5		
1.7.8	F4	No	10		
1.7.9	F5/6 Double sided complete with aluminium and frame	No	6		
1.7.10	F5	No	3		
1.7.11	F6	No	3		
1.7.12	F13	No	10		
1.7.13	F30 externally, framed and mounted on pole	No	3		
1.7.14	F49 externally, framed and mounted on pole	No	1		
	Install				
1.7.15	E1	No	10		
1.7.16	E2	No	10		
1.7.17	E3	No	30		
1.7.18	E99 Exit	No	10		
1.7.19	E1/E2 Double sided complete with aluminium and frame	No	4		
1.7.20	F1	No	5		
1.7.21	F2/3 Double sided complete with aluminium and frame	No	5		
1.7.22	F4	No	10		
1.7.23	F5/6 Double sided complete with aluminium and frame	No	6		
1.7.24	F5	No	3		
1.7.25	F6	No	3		
1.7.26	F13	No	10		
1.7.27	F30 externally, framed and mounted on pole	No	3		
1.7.28	F49 externally, framed and mounted on pole	No	1		
	FIRE DECTION BUILDING A				
1,8	FIRE DETECTION/ADDRESSABLE FIRE ALARM SYSTEM				
	Supply, deliver, installation, testing, commissioning and handing over in working order and maintenance during guarantee period				
	Front End Equipment				
	Wall Mounted Slave fire panel				
1.8.1	Supply	No.	1		
1.8.2	Install	No.	1		
	Maestro systems software graphics package				
1.8.3	Supply	No.	1		
1.8.4	Install	No.	1		
	Fire Control panel - 4 loop analogue addressable (complete with network card)				
1.8.5	Supply	No.	1		
1.8.6	Install	No.	1		
	Battery Sealed Lead Acid 12V 12Ahr 151 x 98 x 95mm				
1.8.7	Supply	No.	2		
1.8.8	Install	No.	2		
	Allow for a 24 way output board or equivalent to enable interfacing with other services.				
1.8.9	Supply	No.	1		
1.8.10	Install	No.	1		
	Power Supply 10 Amp With Chassis				
1.8.11	Supply	No.	3		
1.8.12	Install	No.	3		
	Aluminum Box - for OCTO + Panel & Node AND Battery Charger Module With Chassis				
1.8.13	Supply	No.	1		
1.8.14	Install	No.	1		
	Detection Field Devices				
	Addressable Dual I/O Module with Isolator & Dual Gang Box				
1.8.15	Supply	No.	6		
1.8.16	Install	No.	6		
	Addressable optical smoke detectors c/w bases				
1.8.17	Supply	No.	35		
1.8.18	Install	No.	35		
	Addressable rate of rise heat detectors c/w bases				
1.8.19	Supply	No.	2		
1.8.20	Install	No.	2		
Carried Forward					

No	Description	Unit	Qty	Rate	Amount
BILL NO. 1 - CONT					
	Brought Forward				
	40/40I Triple IR (IR3) Flame Detector capable of detecting fire at 215 ft (65m) range in less than 5 seconds.				
1.8.21	Supply	No.	1		
1.8.22	Install	No.	1		
	3600-R Single IR Flame Detector capable of detecting fire at 15 m range in less than 5 seconds.				
1.8.23	Supply	No.	1		
1.8.24	Install	No.	1		
	Special control panel for Infrared flame detection system				
1.8.25	Supply	No.	1		
1.8.26	Install	No.	1		
	Addressable interface units				
1.8.27	Supply	No.	3		
1.8.28	Install	No.	3		
	Addressable line isolators				
1.8.29	Supply	No.	4		
1.8.30	Supply	No.	4		
	Manual break glass units complete with resettable elements and transparent covers.				
1.8.31	Supply	No.	10		
1.8.32	Install	No.	10		
	Addressable strobe sounder and sounders combined unit				
1.8.33	Supply	No.	10		
1.8.34	Install	No.	10		
	PH120 1mm 1 pair Fire resistant cable				
1.8.35	Supply	m	1300		
1.8.36	Install	m	1300		
	Diameter 25mm steel conduit				
1.8.37	Supply	m	650		
1.8.38	Install	m	650		
	Diameter 100mm sleeve for electronics services. (Kabelflex)				
1.8.39	Supply	m	0		
1.8.40	Install	m	0		
	FIRE DECTION BUILDING B				
	FIRE DETECTION/ADDRESSABLE FIRE ALARM SYSTEM				
	Supply, deliver, installation, testing, commissioning and handing over in working order and maintenance during guarantee period				
	Front End Equipment				
	Wall Mounted Slave fire panel				
1.8.41	Supply	No.	1		
1.8.42	Install	No.	1		
	Maestro systems software graphics package				
1.8.43	Supply	No.	1		
1.8.44	Install	No.	1		
	Fire Control panel - 4 loop analogue addressable (complete with network card)				
1.8.45	Supply	No.	1		
1.8.46	Install	No.	1		
	Battery Sealed Lead Acid 12V 12Ahr 151 x 98 x 95mm				
1.8.47	Supply	No.	2		
1.8.48	Install	No.	2		
	Allow for a 24 way output board or equivalent to enable interfacing with other services.				
1.8.49	Supply	No.	1		
1.8.50	Install	No.	1		
	Power Supply 10 Amp With Chassis				
1.8.51	Supply	No.	3		
1.8.52	Install	No.	3		
	Aluminum Box - for OCTO + Panel & Node AND Battery Charger Module With Chassis				
1.8.53	Supply	No.	1		
1.8.54	Install	No.	1		
	Detection Field Devices				
	Addressable Dual I/O Module with Isolator & Dual Gang Box				
1.8.55	Supply	No.	6		
1.8.56	Install	No.	6		
	Carried Forward				

No	Description	Unit	Qty	Rate	Amount
BILL NO. 1 - CONT					
No	Description	Unit	Qty	Rate	Amount
	Brought Forward				
	Addressable optical smoke detectors c/w bases				
1.8.57	Supply	No.	22		
1.8.58	Install	No.	22		
	Addressable rate of rise heat detectors c/w bases				
1.8.59	Supply	No.	1		
1.8.60	Install	No.	1		
	Addressable interface units				
1.8.61	Supply	No.	3		
1.8.62	Install	No.	3		
	Addressable line isolators				
1.8.63	Supply	No.	4		
1.8.64	Supply	No.	4		
	Manual break glass units complete with resettable elements and transparent covers.				
1.8.65	Supply	No.	5		
1.8.66	Install	No.	5		
	Addressable strobe sounder and sounders combined unit				
1.8.67	Supply	No.	4		
1.8.68	Install	No.	4		
	PH120 1mm 1 pair Fire resistant cable				
1.8.69	Supply	m	450		
1.8.70	Install	m	450		
	Diameter 25mm steel conduit				
1.8.71	Supply	m	250		
1.8.72	Install	m	250		
	Diameter 100mm sleeve for electronics services. (Kabelflex)				
1.8.73	Supply	m	0		
1.8.74	Install	m	0		
	Consumables	Sum	1		
	Wiring between fire panel and A/C and ventilation panel in building B				
1.8.75	Supply	m	80		
1.8.76	Install	m	80		
	Evacuation plans in both Buildings A and B				
1.8.77	Supply	No	2		
1.8.78	Install	No	2		
	Relays to switc HVAC off				
1.8.79	Supply	No	2		
1.8.80	Install	No	2		
	Project Engineering, Management and Quality Control				
1.8.81	Allow for the provision of project management and quality control in accordance with the conditions of contract	Sum	1		
1.8.82	System design, Configuration and Programming	Sum	1		
1.8.83	12 months free maintenance and guarantee. An original project specific warranty certificate(s) for equipment must be submitted to the Engineer.	Sum	1		
1.8.84	12 months comprehensive maintenance as prescribed by the manufacturer including replacement of equipment, etc. if necessary.	Sum	1		
1.8.85	Final System Design on award of project	Sum	1		
Carried Forward					

No	Description	Unit	Qty	Rate	Amount
BILL NO. 1 - CONT					
	Brought Forward				
1,9	SMOKE VENTILATION IN PRE-TEST ROOM AND PLANT ROOM				
	NB: To be prices by specialist sub-contractor				
	<u>NB: This is a design and supply item. The system must be deigned and supplied by one of accredited ventilation and fire ventilation specialist like CURVENT INTERNATIONAL or a similar accredited service provider</u>				
1.9.1	Supply AMS type LCS1004BA7/5.5 smoke extractor fans, EN12101-3 certified with 1.000 diameter casing housing a 5,5kW (380/3/50) axial motor rated at 300°C for 60 minutes with a duty of 11,5m³/second at 200Pa.	No.	6		
1.9.2	Install AMS type LCS1004BA7/5.5 smoke extractor fans, EN12101-3 certified with 1.000 diameter casing housing a 5,5kW (380/3/50) axial motor rated at 300°C for 60 minutes with a duty of 11,5m³/second at 200Pa.	No.	6		
1.9.3	Supply 380V AC Curvent Control Panel or similar with selector switches and indication lights. The electrical reticulation will consist of 2,5mm 4 core, BS6387 category CWZ armoured cable surface mounted fixed into purlins and other structures from the control panel terminating at a class F300 3 Pole IP65 fire rated isolator at each extractor fan.	No.	1		
1.9.4	Install 380V AC Curvent Control Panel or similar with selector switches and indication lights. The electrical reticulation will consist of 2,5mm 4 core, BS6387 category CWZ armoured cable surface mounted fixed into purlins and other structures from the control panel terminating at a class F300 3 Pole IP65 fire rated isolator at each extractor fan.	No.	1		
1.9.5	Supply Extraction ducting system, refer to drawing No's ME SE-001 and ME-SE-002, approximately 10 m duct per fan system, 800 x 800 mm complete with transformation pieces and elbows, to meet the guidelines and recommendation laid down in the Warrington Fire Agent Test Report Ref N° 12650A. The ducting material is Z275 galvanised sheet metal with material thickness of 1.2mm. Duct flanges are roll formed and material thickness 1.2mm. Flanges will be bolted together with high temperature silicone gasket duct sealant.	No.	6		
1.9.6	Install Extraction ducting system, refer to drawing No's ME SE-001 and ME-SE-002, approximately 10 m duct per fan system, 800 x 800 mm complete with transformation pieces and elbows, to meet the guidelines and recommendation laid down in the Warrington Fire Agent Test Report Ref N° 12650A. The ducting material is Z275 galvanised sheet metal with material thickness of 1.2mm. Duct flanges are roll formed and material thickness 1.2mm. Flanges will be bolted together with high temperature silicone gasket duct sealant.	No.	6		
	<u>Smoke ventilators fitted with SELA N 24 R BS7346: Part 1: 1990, Appendix C certified. 24V DC electromechanical linear actuators controlled by two (2) SE Controls EN12101-10 certified 220V AC control panel, housing a 72-hour battery back-up. A SE Controls EN12101 Part 9 certified, Manual Control Point with selector switches, indication lights and audible sounder will be installed at the designated system control point at low level.</u>				
1.9.7	Supply Curvent Fire X 1620C-EN or similar electromechanical ventilators will be installed on the discharge side of the extraction ducting system. 2045 W by 1870 L, 1.54 m2 Aerodynamic free area	No.	6		
1.9.8	Install Curvent Fire X 1620C-EN or similar electromechanical ventilators will be installed on the discharge side of the extraction ducting system. 2045 W by 1870 L, 1.54 m2 Aerodynamic free area	No.	6		
1.9.9	Supply Curvent Fire-X type or similar 1620K-EN EN12102-2:2003-09 certified slope mounted louvred smoke ventilators in Colorplus material, with 93°C fusible links overriding activation system in plant room, 2400 W by 2370 L, 2.6 m2 aerodynamic free area	No.	10		
1.9.10	Install Curvent Fire-X type or similar 1620K-EN EN12102-2:2003-09 certified slope mounted louvred smoke ventilators in Colorplus material, with 93°C fusible links overriding activation system in plant room, 2400 W by 2370 L, 2.6 m2 aerodynamic free area	No.	10		
1.9.11	Supply electrical wiring consisting of PH30 cable reticulated in galvanised conduit piping from the Curvent control panel or similar to the roof where the rest of the wiring will be fixed into purlins and other structures without conduit to the actuators.	m	180		
1.9.12	Install electrical wiring consisting of PH30 cable reticulated in galvanised conduit piping from the Curvent control panel or similar to the roof where the rest of the wiring will be fixed into purlins and other structures without conduit to the actuators.	m	180		
1.9.13	Supply Back Flashing Sheets for a watertight instillation	No.	90		
1.9.14	Install Back Flashing Sheets for a watertight instillation	No.	90		
1.9.15	Supply 800 x 800 electromechanical fire dampers installed in ceiling void	No.	6		
1.9.16	Install 800 x 800 electromechanical fire dampers installed in ceiling void	No.	6		
1.9.17	Supply and installation of any other miscellaneous items not herein included but necessary for the optimal functioning of the system	Item	lot		
1.9.18	Site establishment by specialist -subcontractor	Item	Lot		
1.9.20	Design and hydraulic calculations	Item	Lot		
1.9.21	Travelling	Item	Lot		
1.9.22	Accommodation	Item	Lot		
1.9.23	She file and medical certificates	Item	Lot		
1.9.24	Supply and installation of any other miscellaneous items not herein included but necessary for the optimal functioning of the system	Item	lot		
1.9.25	Operating and maintenance manuals including all CoCs	No.	4		
1.9.26	twelve-month maintenance plan and product warrantee for the installed system	Item	1		
Carried Forward					

No	Description	Unit	Qty	Rate	Amount
BILL NO. 1 - CONT					
	Brought Forward				
	FIRE PROTECTION IN FUELS STORAGE ROOM				
	NB: To be prices by specialist sub-contractor				
1,10	<u>Design, supply and installation of foam deluge fire suppression system by an accredited fire specialist like Bizzy Fire Control or any other accredited fire specialist company</u>				
1.10.1	Supply 80mm Deluge Control Valve	No.	1		
1.10.2	Install 80mm Deluge Control Valve	No.	1		
1.10.3	Supply 80mm Deluge Foam Inductor	No.	1		
1.10.4	Install 80mm Deluge Foam Inductor	No.	1		
1.10.5	Supply 5 000 litres Stainless Steel Foam Tank	No.	1		
1.10.6	Install 5 000 litres Stainless Steel Foam Tank	No.	1		
1.10.7	Supply AFFF 3% Foam Concentrate; 5 000 litres	No.	1		
1.10.8	Place into 5000 litres tank AFFF 3% Foam Concentrate	No.	1		
1.10.9	Supply 79 Degrees Detection Sprinklers	No.	20		
1.10.10	Install 79 Degrees Detection Sprinklers	No.	20		
1.10.11	Supply High Velocity Foam Sprinkler Heads	No.	20		
1.10.12	Install High Velocity Foam Sprinkler Heads	No.	20		
1.10.13	Supply Spare Box Complete	No.	1		
1.10.14	Install Spare Box Complete	No.	1		
1.10.15	Supply Signage Sprinkler	No.	3		
1.10.16	Install Signage Sprinkler	No.	3		
1.10.17	Supply 50mm Galvanised Pipe Fabricated	m	50		
1.10.18	Install 50mm Galvanised Pipe Fabricated	m	50		
1.10.19	Supply 100mm/80mm Galvanised Pipe Fabricated	No.	36		
1.10.20	Install 100mm/80mm Galvanised Pipe Fabricated	No.	36		
1.10.21	Supply Flow Switch	No.	1		
1.10.22	Install Flow Switch	No.	1		
1.10.23	Supply Fittings and Accessories	Item	Lot		
1.10.24	Install Fittings and Accessories	Item	Lot		
1.10.25	Site establishment by specialist -subcontractor	Item	Lot		
1.10.26	Design and hydraulic calculations	Item	Lot		
1.10.27	Travelling	Item	Lot		
1.10.28	Accommodation	Item	Lot		
1.10.29	She file and medical certificates	Item	Lot		
1.10.30	Supply and installation of any other miscellaneous items not herein included but necessary for the optimal functioning of the system	Item	lot		
1.10.31	Operating and maintenance manuals including all CoCs	No.	4		
1,11	<u>Ventilation installation in fuel storage room</u>				
1.11.1	Supply 1000 x 1000 Uninsulated duct including duct supports	m	25		
1.11.2	Install 1000 x 1000 Uninsulated duct including duct supports	m	25		
1.11.3	Supply 1000 x 1000 Uninsulated duct end cap	m	15		
1.11.4	Install 1000 x 1000 Uninsulated duct end cap	m	15		
1.11.5	Supply 1000 x 1000 Uninsulated duct 90 degree elbows	No	3		
1.11.6	Install 1000 x 1000 Uninsulated duct 90 degree elbows	No	3		
1.11.7	Supply 600 x 600 inlet air louvres complete with fire dampers	No	8		
1.11.8	Install 600 x 600 inlet air louvres complete with fire dampers	No	8		
1.11.9	Supply mechanical extraction fan complete with 2 x sound attenuators,2 x flexible connections, and 2 x duct square to round transformation pieces and fan anti vibration mountings and extraction fan activation swill including wiring, associated electrical items, 1000 l/s, 200 kPa	No	1		
1.11.10	Install mechanical extraction fan complete with 2 x sound attenuators,2 x flexible connections, and 2 x duct square to round transformation pieces and fan anti vibration mountings and extraction fan activation swill including wiring, associated electrical items 1000 l/s, 200 kPa	No	1		
1.11.11	Supply 1000 x 1000 fire damper mounted in extraction fan to contain fire inside the fuel store room	No	1		
1.11.12	Install 1000 x 1000 fire damper mounted in extraction fan to contain fire inside the fuel store room	No	1		
1.11.11	Supply 1000 x 1000 weather louvre anti rodent wire mash screen	No	1		
1.11.12	Install 1000 x 1000 weather louvre anti rodent wire mash screen	No	1		
Carried Forward					

No	Description	Unit	Qty	Rate	Amount
BILL NO. 1 - CONT					
	Brought Forward				
1.11.13	Supply 1500 x 1500 weather louvre anti rodent wire mash screen	No	1		
1.11.14	Install 1500 x 1500 weather louvre anti rodent wire mash screen	No	1		
1.11.15	twelve-month maintenance plan and product warrantee for the installed system	Item	12		
1,12	<u>Building work</u>				
1.12.1	Supply approximately 820 W x 2040 H self closing fire 2 hours rated door with a push button	No.	3		
1.12.2	Install approximately 820 W x 2040 H self closing fire 2 hours rated door with a push button	No.	3		
1.12.3	Supply approximately 1620 W x 2045 H self closing fire 2 hours rated door with a push button	No.	7		
1.12.4	Install approximately 1620 W x 2045 H self closing fire 2 hours rated door with a push button	No.	7		
1.12.5	Supply approximately 2465 W x 2465 H self closing fire 2 hours rated roller shutter door	No.	1		
1.12.6	Install approximately 2465 W x 2465 H self closing fire 2 hours rated roller shutter door	No.	1		
1.12.7	Allow for sealing of roof leak	Item	PC		
1.12.8	Allow for general building work like sealing of openings in slabs and walls and other unforeseeable circumstances; 2 x (1300 mm x 1300 mm 30 Mpa slab) + (1.5 x 1.5 210) brick wall	Item	PC		
	<u>Additional work in HVAC plant room</u>				
1.12.9	Supply 125 mm wide, 2 Hour fire rated drywall partition, non load bearing according to SANS 10177 Part 2	m ²	130		
1.12.10	Supply 125 mm wide, 2 Hour fire rated drywall partition, non load bearing according to SANS 10177 Part 2	m ²	260		
1.12.11	Supply 1600 x 1000 fire damper in supply air duct	No	1		
1.12.12	Install 1600 x 1000 fire damper in supply air duct	No	1		
1.12.11	Supply 1400 x 1000 fire damper in return air duct (2 hour rated)	No	1		
1.12.12	Install 1400 x 1000 fire damper in return air duct (2 hour rated)	No	1		
1.12.15	twelve-month maintenance plan and product warrantee for the installed system	Item	12		
	<u>Decommissioning of existing underground tanks</u>				
1.12.16	Allow for decommissioning of existing underground tanks and filling with concrete	Item	PC		
1,13	Testing and Commissioning of general installation				
1.13.1	Testing and commissioning and handing over of the entire installation	No	1		
1,14	Operating and Maintenance Manuals including as built drawings				
12,1	compilation of all operating and maintenance manuals and issuance in a single file (Plus only 1 Framed Block Plan)	No	4		
1,13	Guarantee				
13,1	12 Months guarantee and free maintenance of non-specilised fire protection systems	No	12		
Carried Forward					

No	Description	Unit	Qty	Rate	Amount
BILL NO. 1 - CONT					
No	Description	Unit	Qty	Rate	Amount
	Brought Forward				
1,14	Preliminaries				
1.14.1	Insurance	Item	Item		
1.14.2	Site Establishment	Item	Item		
1.14.3	Application for new DN 100 metered municipal connection including piping and valve chamber	Item	Item		
1.14.4	Occupational Health and safety including filles	Item	Item		
1.14.4	Quality management plan	Item	Item		
1.14.4	All applicable COCs including the fire compliance certificate	Item	Item		
1,15	Specific Conditions				
	Tenderer shall allow for compliance with all the clauses listed below as well as references to other parts/clauses as indicated. If the tenderer is of the opinion that there is no cost for any specific item, he shall specifically indicate it as such i.e. "NIL"				
1.15.1	Clause 11	Item	Item		
1.15.2	Clause 13.1	Item	Item		
1.15.3	Clause 13.2	Item	Item		
1.15.4	Clause 13.3	Item	Item		
1.15.5	Clause 13.4	Item	Item		
1.15.6	Clause 13.5	Item	Item		
1.15.7	Clause 13.6	Item	Item		
1.15.8	Clause 13.7	Item	Item		
1.15.9	Clause 13.8	Item	Item		
1.15.10	Clause 13.9	Item	Item		
1.15.11	Clause 13.10	Item	Item		
1.15.12	Clause 13.11	Item	Item		
1.15.13	Clause 13.12	Item	Item		
1.15.14	Clause 13.13	Item	Item		
1.15.15	Clause 13.14	Item	Item		
1.15.16	Clause 13.15	Item	Item		
1.15.17	Provide for training of client's personnel	Item	Item		
1,16	Builders Work				
1.16.1	Transport, site accommodation	Item	Item		
1.16.2	Hoisting equipment	Item	Item		
1.16.3	Removal of all rubble associated with the contract	Item	Item		
1.16.4	Safe storage	Item	Item		
1.16.5	Supply and install approximately 2 400 W x 1 000 D, Awning Door Canopy with Black PVC Brackets	No.	2		
1.16.6	Supply approximately 1620 W x 2045 H decay & water resistant self-closing fire 2 hours rated door with a push button	No.	2		
1.16.7	Install approximately 1620 W x 2045 H decay & water resistant self closing fire 2 hours rated door with a push button	No.	2		
CARRIED TO SUMMARY					