

PEMASANGAN ELEKTRIK UNTUK KLINIK CURE & CARE 1 MALAYSIA

BILL OF QUANTITIES (All quantities are Provisional and Subjected To Final Measurement)

ITEM	DESCRIPTION OF WORK	UNIT	QTY	RATE (RM)	AMOUNT (RM)
B	BLOK PENGURUSAN KLIEN DAN PENTADBIRAN				
	To supply, install, testing and commissioning as per drawing and specifications. All quantities given are PROVISIONAL. The actual quantities installed shall be measured on site after completion and prices adjusted accordingly.				
1	WIRING (CONCEALED CONDUIT WIRING)				
	* All wiring shall be in G.I conduit / galvanised sheet steel trunking				
	** Switch Socket Outlets and Switches connected to Essential Supply shall be marked by coloured toggle switches as per drawing and specification L-S1				
	*** Unswitched Socket Outlets connected to Essential Supply shall be marked by coloured face plate as per drawing and specification L-S1				
	**** Switch Socket Outlets of UNDERFLOOR TRUNKING SYSTEM shall be wired and terminated on the partitions of the workstation in row with the Telephone Socket Outlets and ICT Socket Outlets as per drawing and specification.				
1.1	Lighting point using 2 x 1.5mm ² PVC cable & protective conductor c/w 10A 1 way / 10A 2 way & intermediate SP flushed switch.				
	a) Aras Bawah	No	186		0.00
	b) Aras 1	No	176		0.00
1.1	Lighting point using 2 x 1.5mm ² PVC cable & protective conductor c/w 10A 1 way Including 1 no. ceiling mounted pull cord switch, 1 no. rocker switch at 1000mm from floor level for OKU Toilet as per drawing and specification.				
	a) Aras Bawah	Set	1		0.00
1.2	Lighting point using 2 x 1.5mm ² PVC cable & protective conductor for self-contained emergency and keluar sign luminaire.				
	a) Aras Bawah	No	42		0.00
	b) Aras 1	No	32		0.00

1.3	Exhaust fan point using 2 x 1.5mm ² PVC cable & protective conductor c/w unswitched socket outlet , mounting block, opening & frame etc. (Interlocked with lamp in toilet)				
	a) Aras Bawah	No	4		0.00
	b) Aras 1	No	4		0.00
1.4	Exhaust fan point using 2 x 1.5mm ² PVC cable & protective conductor c/w unswitched socket outlet , mounting block, opening & frame etc.				
	a) Aras Bawah	No	3		0.00
	b) Aras 1	No	1		0.00
1.5	Exhaust fan point using 2 x 1.5mm ² PVC cable & protective conductor c/w unswitched socket outlet , mounting block, opening & frame etc. (Ceiling mounted type & Interlocked with lamp)				
	a) Aras Bawah	No	2		0.00
	b) Aras 1	No	1		0.00
1.6	Central Switch Panel c/w back box grid and tagging as per phase respectively as per drawing and schematic diagram.				
	i) Aras 1	No	1		0.00
1.7	1 gang 13A socket outlet point using and tagging 2 x 4mm ² PVC cable & protective conductor c/w 13A 3 pin flushed switch socket outlet. (At 300 mm from floor level)				
	a) Aras Bawah	No	12		0.00
	b) Aras 1	No	18		0.00
1.8	1 gang 13A socket outlet point using 2 x 4mm ² PVC cable & protective conductor c/w 13A 3 pin flushed switch socket outlet. (At 915 mm from floor level)				
	a) Aras Bawah	No	4		0.00
1.9	1 gang 13A socket outlet point using 2 x 4mm ² PVC cable & protective conductor c/w 13A 3 pin flushed switch socket outlet. (At 1450 mm from floor level)				
	a) Aras Bawah	No	22		0.00
	b) Aras 1	No	7		0.00
1.10.	1 gang 13A socket outlet point using 2 x 4mm ² PVC cable & protective conductor c/w 13A 3 pin metalclad switch socket outlet. (At 1450 mm from floor level)				
	a) Aras Bawah	No	4		0.00
	b) Aras 1	No	2		0.00
1.11	1 gang 13A socket outlet point using				

	2 x 4mm2 PVC cable & protective conductor c/w 13A 3 pin flushed unswitched socket outlet etc. for hand-dryer unit at toilet (At 1450 mm from floor level)				
	a) Aras Bawah	No	3		0.00
	b) Aras 1	No	2		0.00
1.12	2 gang 13A socket outlet point using 2 x 4mm2 PVC cable & protective conductor c/w 13A 3 pin flushed switch socket outlet. (At 300 mm from floor level)				
	a) Aras Bawah	No	5		0.00
	b) Aras 1	No	5		0.00
1.13	2 gang 13A socket outlet point using 2 x 4mm2 PVC cable & protective conductor c/w 13A 3 pin flushed switch socket outlet. (At 915 mm from floor level)				
	a) Aras Bawah	No	9		0.00
	b) Aras 1	No	2		0.00
1.14	2 gang 13A socket outlet point using 2 x 4mm2 PVC cable & protective conductor c/w 13A 3 pin flushed switch socket outlet. (For underfloor trunking system with extra lenght 2m)				
	a) Aras Bawah	No	19		0.00
	b) Aras 1	No	32		0.00
1.15	15A socket outlet for A/C point using 2 x 6mm2 PVC cable & protective conductor c/w 15A Round 3 pin switch socket outlet c/w neon indicator (300mm above ceiling level).				
	a) Aras Bawah	No	16		0.00
	b) Aras 1	No	12		0.00
2	ISOLATOR POINTS				
2.1	80A TPN Isolator point using 4 x 35 sq mm XLPE/PVC cable on H.D. Galvanised cable tray c/w protective earth conductor etc. (From SSB N1P to Bilik AHU at Aras 1)	No.	1		0.00
2.2	60A TPN Isolator point using 4 x 25 sq mm XLPE/PVC cable on H.D. Galvanised cable tray c/w protective earth conductor etc. (From SSB NGP to Bilik AHU No.1 at Aras Bawah)	No.	1		0.00
2.3	40A TPN Isolator point using 4 x 16 sq mm PVC cable In Galvanised sheet steel trunking c/w protective earth conductor etc. (From SSB NGP to Bilik AHU No.2 at Aras Bawah)	No.	1		0.00
2.1	Metalclad 80A TPN Isolator	No.	1		0.00
2.5	Metalclad 60A TPN Isolator	No.	1		0.00
2.6	Metalclad 40A TPN Isolator	No.	1		0.00
3	UNDERFLOOR DUCTING SYSTEM				

	Supply, installation and testing of underfloor ducting for distribution of power and telecommunication/data service within screeded flooring including strip of 12 mm x 12 mm mesh galvanised iron chicken wire stapled to concrete floor and c/w single strand PVC draw cable (coloured) in every channel of the ducting for future cabling works.				
3.1	Single compartment heavy duty gauge super high impact uPVC duct with min. 3.2mm thickness for 3 way 75mm(W)x 25mm(H) c/w suitable fixing clip, jointing sleeve, etc.				
	a) Aras Bawah	mtr.	45		0.00
	b) Aras 1	mtr.	60		0.00
3.2	Supply and install 3 compartment 250mm(L) x 250mm(W) x 56mm(H) junction box c/w flyover, zinc alloy die-casting cover etc.				
	a) Aras Bawah	No	15		0.00
	b) Aras 1	No	16		0.00
3.3	Supply and install 3 compartment 250mm(L) x 250mm(W) x 25mm(H) Vertical Access Box c/w accessories				
	a) Aras Bawah	No	2		0.00
	b) Aras 1	No	1		0.00
4	LUMINAIRES				
	i) The fluorescent luminaires shall c/w approved polyester resin low loss (6W) ballast, starter, power factor correction capacitor and tubes of colour 84.				
	ii) KELUAR sign and EMERGENCY LIGHT shall be BOMBA approved type				
	iii) All fitting must be individually suspended				
4.1	1 x 36W flourescent channel luminaire (wall mounted type)				
	a) Aras Bawah	No	23		0.00
	b) Aras 1	No	11		0.00
4.2	1 x 18W flourescent luminaire c/w acrylic diakon diffuser, etc. (wall mounted type)				
	a) Aras Bawah	No	1		0.00
	b) Aras 1	No	1		0.00
4.3	1 x 36W flourescent luminaire c/w acrylic diakon diffuser, etc. (surfaced mounted type)				
	a) Aras Bawah	No	7		0.00

4.4	b) Aras 1	No	5		0.00
	2 x 18W flourescent luminaire c/w aluminium reflector , louvers, etc. (recessed type)				
4.5	a) Aras Bawah	No	13		0.00
	b) Aras 1	No	20		0.00
	3 x 18W flourescent luminaire c/w aluminium reflector , louvers, etc. (recessed type)				
	a) Aras Bawah	No	34		0.00
4.6	b) Aras 1	No	36		0.00
	2 x 36W flourescent luminaire c/w aluminium reflector , louvers, etc. (recessed type)				
	a) Aras Bawah	No	97		0.00
	b) Aras 1	No	98		0.00
4.7	1 x 26W PLC recessed mounting down light fitting c/w white polyester epoxy powder coating aluminium ceiling ring, Die cast aluminium PLC holder and holder housing with heat sink, remote control gear, hammered and faceted aluminium silver reflector (Vacuum Metalised Treated), bulb etc.				
	a) Aras Bawah	No	8		0.00
4.8	2 x 13 W PLC decorative wall light c/w PLC bulbs etc. (Tenderer shall submit catalogue for approval.)				
	a) Aras Bawah	No	3		0.00
4.9	b) Aras 1	No	5		0.00
	Self contained rechargeable Emergency Light Luminaire c/w clear prismatic diffuser, 1 X 8W flourescent tube, charger, nonmaintained sealed Ni-Cad battery of minimum 3 hours rating etc. (Recessed type)				
	a) Aras Bawah	No	33		0.00
	b) Aras 1	No	26		0.00
4.10.	Self contained rechargeable Emergency Light Luminaire c/w clear prismatic diffuser, 1 X 8W flourescent tube, charger, nonmaintained sealed Ni-Cad battery of minimum 3 hours rating and etc. (Surface type)				
	a) Aras Bawah	No	2		0.00
4.11	b) Aras 1	No	1		0.00
	Self contained emergency ' KELUAR ' sign slim line design c/w 2 X 8W flourescent tubes, 3 hour backup time Ni-Cad battery, charger and etc. (Directional Type)				
4.12	a) Aras Bawah	No	1		0.00
	Self contained emergency "KELUAR' sign slimline				

	design c/w 2 X 8W flourescent tubes, 3 hour backup time Ni-Cad battery, charger and etc. (Non-Directional Type)				
	a) Aras Bawah	No	6		0.00
	b) Aras 1	No	5		0.00
5	OTHERS				
5.1	Flush Lights & Buzzer c/w other accessories. (Tenderer shall submit catalogue for approval.)				
	a) Aras Bawah	Set	1		0.00
5.2	Hand dryer unit c/w accessories. (Tenderer shall submit catalogue for approval.)				
	a) Aras Bawah	Set	3		0.00
	b) Aras 1	Set	2		0.00
6	DISTRIBUTION BOARDS				
	To supply and install the following DB(s) as per drawing and specification The following DB(s) shall be install c/w ELR (Adjustable type) MCB(s), MCCB(s), RCCB(s) and flush galvanised metalclad adaptable back box behind DB(s) as per drawing and specification.				
6.1	8 way SPN c/w 40A DP MCCB, RCCB, MCBs etc.				
	a) DB 'GP' , DB 'EGP' , at Aras Bawah	Lot	2		0.00
	b) DB 'E1P', DB '1P' at Aras 1	Lot	2		0.00
6.2	8 way SPN c/w 40A DP MCCB, SPD RCCB, MCBs etc.				
	a) DB 'GPU1' at Aras Bawah, DB '1P' at Aras 1	Lot	2		0.00
6.3	8 way TPN c/w 40A TPN MCCB, SPD RCCB, MCBs etc.				
	a) DB '1PU' , at Aras 1	Lot	1		0.00
6.4	10 way SPN c/w 60A DP MCCB, SPD RCCB, MCBs etc.				
	a) DB 'GPU2' at Aras Bawah	Lot	1		0.00
6.5	14 way SPN c/w 40A DP MCCB, RCCB, MCBs etc.				
	a) DB 'EGL' , at Aras Bawah	Lot	1		0.00
	b) DB 'E1L' , at Aras 1	Lot	1		0.00

6.6	8 way TPN c/w 40A TPN MCCB, RCCB, MCBs etc.				
	a) DB 'GL' , at Aras Bawah	Lot	1		0.00
	b) DB '1L' at Aras 1	Lot	1		0.00
6.7	8 way TPN c/w 60A TPN MCCB, RCCBs, MCBs etc.				
	a) DB 'GM' at Aras Bawah	Lot	1		0.00
	b) DB '1M' at Aras 1	Lot	1		0.00
7	SUBMAIN / RISING MAIN				
7.1	4 C 50 mm sq XLPE/PVC on H.D.G. Cable Tray c/w protective earth conductor from :				
	a) SSB 'NGP' to SSB 'N1P'	mtr	12		0.00
7.2	4 X 16 mm sq PVC in galvanised sheet steel trunking c/w protective earth conductor from :				
	a) SSB 'NGP' to DB 'GM'	mtr	6		0.00
	b) SSB 'N1P' to DB '1M'	mtr	6		0.00
7.3	4 X 10 mm sq PVC in galvanised sheet steel trunking c/w protective earth conductor from :				
	a) SSB 'N1P' to DB '1PU'	mtr	6		0.00
	b) SSB 'NGP' to DB 'GL'	mtr	6		0.00
	c) SSB 'N1P' to DB '1L'	mtr	6		0.00
7.4	2 X 16 mm sq PVC in galvanised sheet steel trunking c/w protective earth conductor from :				
	a) SSB 'NGP' to DB 'GPU2'	mtr	6		0.00
	b) SSB 'N1P' to DB '1P'	mtr	6		0.00
7.5	2 X 10 mm sq PVC in galvanised sheet steel trunking c/w protective earth conductor from :				
	a) SSB 'EP' to DB 'EGL'	mtr	6		0.00
	b) SSB 'EP' to DB 'E1L'	mtr	12		0.00
	c) SSB 'NGP' to DB 'GP'	mtr	6		0.00
	d) SSB 'EP' to DB 'EGP'	mtr	6		0.00
	e) SSB 'NGP' to DB 'GPU1'	mtr	6		0.00
	f) SSB 'EP' to DB 'E1P'	mtr	12		0.00
8	SUB SWITCH BOARD				
	To supply, install, testing and commissioning				

	the wall mounted and floor mounted Sub Switch Board (25kA) as per drawing and specification. The Sub Switch Boards shall c/w: a) Incoming MCCB c/w ELR (Adjustable type) or incoming MCCB c/w E/F & O/C b) SPD as per drawing & specification c) Outgoing MCCBs d) Indicator Light for phase R,Y & B e) Push Switch & Fuse f) Measuring Instruments etc. g) KWH meter (Check meter) c/w loop in-loop out wire etc.				
8.1	SUB SWITCH BOARD SSB NGP (Floor Mounted Type)	-	Lump Sum	Lump Sum	
8.2	SUB SWITCH BOARD SSB N1P (Wall Mounted Type)	-	Lump Sum	Lump Sum	
8.3	SUB SWITCH BOARD SSB EP (Wall Mounted Type)	-	Lump Sum	Lump Sum	
9	EARTHING SYSTEM				
9.1	To supply, install and test the complete earthing system for the SSBs above to earth less than 1 ohm, using 30mm x 6mm copper busbar, copper jacketed steel core rods with 16mm dia. x 3000mm length, 16 sq. mm PVC earthing conductor, heavy duty inspection chamber and accessories as per drawing and specification	-	Lump Sum	Lump Sum	
10	Any other work which are not mentioned above but required to complete the work as per drawing and specification	-	Lump Sum	Lump Sum	
	1. _____ _____ 2. _____ _____				
SUB TOTAL B : (CARRIED TO SUMMARY OF PRICES)					0.00