



Equipment/System Schedules for the Mechanical, Electrical and Public Health Services

at

Fargro New Head Quarters
The Vinery
Arundel Road
Poling
Arundel
West Sussex
BN18 9PY

for

Fargro Limited

3742/JS/PR/AH/JJR
Tender Issue T1
16 July 2014

Appendix 1

Mechanical Equipment/System Schedules

Author

Date 16.7.14

Checked

Date 16-7-14

1. Designed System Pressures

1. Pipework and Fittings

<u>System</u>	<u>Working Pressure bar</u>	<u>Test Pressure bar</u>
Mains Water	Unknown – consult with local water authority (southern Water) or Contractor to test water supply.	1.5 bar x working pressure or greater as detailed within the specification
LTHW Heating Systems	2.0 bar	6 bar

2. Pipework Materials

The Contractor shall base the pipework materials on the following:-

<u>Service</u>	<u>Location</u>	<u>Material</u>
Mains Cold Water and Cold Water Services	General Internal	Copper to BS EN 1057 - R220 and R250.
Mains Cold Water Services	External Underground Between utilities site meter and Warehouse	MDPE Pipe.
LPHW Heating	Throughout building	Copper to BS EN 1057-R220/250

Note: All pipework is to be hidden from view. To be mounted in floor/ceiling voids, risers or sleeved and chased into walls to ensure it is not visible.

3. Thermal Insulation

To be read in conjunction with Section 4.6 of the Specification. All insulation must have a Global Warming Potential (GWP) of less than 5.

Service	Location	Insulation Type	Vapour Barrier	Finish
Cold Water Mains, Down and Hot Water Services	Internal concealed	Kingspan Kooltherm Phenolic Foam	Factory Fitted Aluminium foil	Factory Fitted Aluminium foil
	Plantroom below 2.2m from FFL			Hammerclad casing.
	Plantroom above 2.2m from FFL			Factory Fitted Aluminium foil
	In non heated areas			Factory Fitted Aluminium foil
	External			Factory Fitted Aluminium foil and Butyl Rubber wrap and vapour seal.
Above Ground LTHW Heating Systems	Internal concealed	Kingspan Kooltherm Phenolic Foam	Factory Fitted Aluminium foil	Factory Fitted Aluminium foil
	Plantroom below 2.2m from FFL			Hammerclad casing.
	Plantroom above 2.2m from FFL			Factory Fitted Aluminium foil
	In non heated areas			Factory Fitted Aluminium foil and Butyl Rubber wrap.
	External			Factory Fitted Aluminium foil and Butyl Rubber wrap and vapour seal.
Refrigerant Systems	Internal and External Areas	Armoflex Self Seal Duo Solar Class O (19 mon) – UV Resistant		

3. Thermal Insulation cont'd.

Service	Location	Insulation Type	Vapour Barrier	Finish
Ductwork	Internal	Mineral Wool	Factory Fitted Aluminium foil	Factory Fitted Aluminium foil
				Factory Fitted Aluminium foil and black Butyl Rubber wrap and vapour seal.
				Factory Fitted Aluminium foil and Butyl Rubber wrap and vapour seal.

All thermal insulation is to comply with TIMSA requirements and the Non Domestic Heating Compliance Guide and BS 5422. Services to be identified in accordance with BS 1710.

4. LTHW Heating Pumps

Ref	System/Location	Pump Manufacturer	Model	Pump Type	Required Duty (kg/s @ kPa)	Motor Power (kW)	Electrical Supply
P1	LPHW Heating 620/28	Grundfos	Magna/ D32-60	Twin Duty/Standby	0.254 @ 40.7	0.111	23/230/1/50
P2	LPHW Heating/G17	Grundfos	Magna/ D32-100	Twin Duty/Standby	1.271 @ 63.4	0.175	23/230/1/50

Notes:

1. All pumps to be as manufactured by Grundfos
2. All pumps to be inverter controlled.
3. * Spare pump head to be provided on site.
4. Complete with flexible connections.

5. Underfloor Heating System

Underfloor Systems	Zones/Manifold	Power Supply	Notes
Main Offices	M1-5	230/1/50	Complete with local pump, 3 port valve, control valve and manual valved bypass.
Warehouse Offices and Workshop	M6-7	230/1/50	Complete with local pump, 3 port valve, control valve and manual valved bypass.

1. Systems shall be designed and installed by Kestrin (01403 756777) or WMS (01707 649922).
2. Manifolds shall be of the pumped type. Pumps shall be as manufactured by Grundfos or equal and approved.
3. Systems shall be designed to operate at 45°C/35°C.
4. All controls as described in the mechanical specification shall be included.
5. System to be designed to be compatible with building floor construction and include thermal insulation.
6. Indicative Quotation – Kestrin Q8682B

6. Heat Pump Systems

Ref	Location	Description/Type	No.	Manufacturer and Reference	Dimension HxWxD mm (inc. grille)	Unit Cooling/Heating Output (UK Conditions)	Power Data (V/Ø/kW)	Controls And Notes
HP1 and 2	External Hard Standing	ASHP – Main Offices	2	Daikin Altherma Outdoor Units High Temperature EMRQ10A	1630x1300x765	2 No. x 28kW	415/3/50 Hz	Complete installation including all interconnecting joints, water and refrigerant pipework R410A ref net joints, low velocity header, thermal insulation, galvanised tray covers and solar painting of external cladding. All control functions and PCB (demand) hydrobox supported on galvanised tubular frames and all on TICO pads.
H1-4	Plantroom G17	ASHP – Main Offices	4	Daikin Altherma Hydrobox EKHB RD016ACV1	705x600x695	4 No. 16kW		
HP3	External Hard Standing	ASHP – Warehouse Offices and Workshop	1	Daikin Altherma Outdoor Unit – High Temperature EKHB RD011ACV1	1345x900x320	11kW	230/1/50	
H5	Plant Area G20/28	ASHP – Warehouse Offices and Workshop		Daikin Altherma Hydrobox ERSQ011AV1		11kW		Complete installation including all interconnecting joints, water and refrigerant pipework R410A ref net joints, low velocity header, thermal insulation, galvanised tray covers and solar painting of external cladding. All control functions and PCB (demand) hydrobox supported on galvanised tubular frames and all on TICO pads.

1. Daikin units shall be commissioned by the manufacturer
2. Equipment to operate to -20°C ambient temperature (as per manufacturers specification).
3. Equipment complete with all controls functions/component for local and remote control operations.
4. Indicative quotation Daikin – 123245 (Contact P Kitchenner – 07813 195241)

Equipment/Systems Schedules for the Mechanical and Public Health Services at Fargo New Headquarters, The Vinery, Arundel Road, Poling, Arundel, West Sussex, BN18 9PY

3742/JS/JJR
Tender Issue T1
16 July 2014

7. Pressurisation Units

Location	Ref	Manufacturer	Model	Estimated System Water Content (L)	System Operating Temperatures	Expansion Vessel Volume (L)	Electrical Supply	Dimensions (mm)	Comments
Plantroom G17	PS1	KGN Pillinger	SE200 E	TBC	45°C/35°C	2 x 100	240V/1ph/50Hz	450 x 400 x750	Packaged Pressurisation Pump (run/standby) unit c/w control panel and high and low level pressure alarm to be supplied on plinth. To be supplied complete with suitably sized expansion vessel. Zelio controls and pressure regulating valve.
Plant Area			Mains Feed	TBC	45°C/35°C	1 x 100			

8. Split DX Comfort Cooling Systems

Ref	Location	Description/Type	No.	Manufacturer and Reference	Dimension HxWxD mm (inc. grille)	Unit Cooling/Heating Output (UK Conditions)	Power Data (V/Ø/kW)	Controls And Notes
AC1 and ACC1	F16 and External Hard Standing	DX wall mounted A/C Equipment	1	Daikin FAQ 100 C and RZQG100L8V1	300x1200x240 1430x940x320	10.8 kW (Total) / 7.44kW (sensible) (0.38 – 0.53m³/s)	230/1/50 Hz	Complete with all refrigerant pipework, insulation, galvanised tray/cover power and control cabling controller (BRC1E52A)
AC2 and ACC2	F03 and G20	DX, fan coil systems	1	Daikin: Sky FBQ100C8 and R2QG100L8V1	300x1400x700 1430x940x320	10.8 kW (Total) / 7.44kW (sensible) (0.38 – 0.53m³/s)	230/1/50 Hz	Mounted on 25mm plywood base (3x2m) and TICO pads. Complete with all refrigerant pipework, insulation, galvanised tray, power/control cabling. Unit controlled by BRC1E52A controller complete with plenum boxes filter and condense pipework. Fan coil mounted on 3x2m 25 plywood base.

1. Daikin units shall be commissioned by the manufacturer
2. Equipment to operate to -20°C ambient temperature (as per manufacturers specification).
3. Equipment complete with all controls functions/component for local and remote control operations.
4. Indicative quotation Daikin – 123245 (Contact P Kitchenner – 07813 195241)

Equipment/Systems Schedules for the Mechanical and Public Health Services at Fargro New Headquarters,
The Vinery, Arundel Road, Poling, Arundel, West Sussex, BN18 9PY

3742/JS/JJR
Tender Issue T1
16 July 2014

9. Fans

Fan Reference	Qty	Room	Manufacturer	Type	Air Volume (m³/s)	P.D. (Pa)	Electrical Supply	Notes
F1	1	G05, 7 & 9	Nuaire	XBC15-H-EES	0.125	120 (e)	230/1/50	Heat recovery unit complete with ES Smart controls x 3 No. PIR and 3kW electric heater battery.
F2	1	G01	Nuaire	XBC15	0.12	110 (e)	230/1/50	Heat recovery unit complete with Ecosmart controls, controller and 3kW electric heater battery complete with speed controller on/off switch (ES-LCD and 3 No. x ES-PIR2).
F3	1	G01	Air Flow Developments	Aventa Silent AVS 200	0.218	100 (e)	230/1/50	Heat recovery unit complete with ES Smart controls x 3 No. PIR and 3kW electric heater battery.
F4	1	G10	Nuaire	AVT1 Twin Fan	0.10	80 (e)		Heat recovery unit complete with Ecosmart controls, controller and 3kW electric heater battery complete with speed controller on/off switch.
F5	1	F03	Nuaire	XBC15-H-EES	0.123	130 (e)		Complete with supports, flexible connections and wall speed on / off controller.
F6	1	G30	Air Flow Developments	Aventa Silent AVS200	0.163	120(e)	230/1/50	Complete with multi-position Eco-smart control module - wall touchscreen controller, 12hr auto duty/ share changeover.
								Heat recovery unit complete with ES Smart controls x 3 No. PIR and 3kW electric heater battery.
								Heat recovery unit complete with Ecosmart controls, controller and 3kW electric heater battery complete with speed controller on/off switch (ES-LCD and 1 No. x ES-PIR2).
								Complete with supports, flexible connections and wall speed on / off controller.

1. All fans complete with anti-vibration kits, supports and flexible duct connections.
2. PIR sensor to be recessed ceiling models.
3. Bi-fabricated fans F10 and F14 to be installed within acoustic enclosures as manufactured by EEC Limited (01932 230940), model ref: BIFFE/50/VP
4. Indicative quotation: Nuaire H1092270CP (Steve Welsh 07767 298250).

Equipment/Systems Schedules for the Mechanical and Public Health Services at Fargro New Headquarters,
The Vinery, Arundel Road, Poling, Arundel, West Sussex, BN18 9PY

3742/JS/JJR
Tender Issue T1
16 July 2014

9. Fans Cont'd.

Fan Reference	Qty	Room	Manufacturer	Type	Air Volume (m³/s)	P.D. (Pa)	Electrical Supply	Notes
F7	1	F09	Nuaire	AVT1 Twin Fan	0.10	30(e)	230/1/50	Complete with multi-position Eco-smart control module - wall touchscreen controller, 12hr auto duty/ share changeover.
F8	1	F08	Nuaire	XBC15	0.1	130(e)	230/1/50	Heat recovery unit complete with ES Smart controls x 3 No. PIR and 3kW electric heater battery.
F9	1	F01	Nuaire	Genie-MS	0.013	80(e)	230/1/50	Heat recovery unit complete with Ecosmart controls, controller and 3kW electric heater battery complete with speed controller on/off switch (ES-LCD and 3 No. x ES-PIR2).
F10	1	G26 G18	Nuaire	Bifurcated 230°C AXB35M-253A4	>0.88	120(e)	4/5/3/50	In line fan controlled by light switch with adjustable run on timer.
F11	1	G23	Nuaire	Genie-MS	0.13	TBC	230/1/50	Complete with support brackets flexible connections, Ecosmart controls and touch screen (ES-ISCZ4A/ES-LCD) refer to note 3, fan to be acoustically encased.
F12	1	G24	Nuaire	Genie-MS	0.13	TBC	230/1/50	In line fan controlled by light switch with adjustable run on timer.
F13	1	G26	Nuaire	XBC15-H-EES	0.161	120(e)	230/1/50	In line fan controlled by light switch with adjustable run on timer.
F14	1	G29	Nuaire	Bifurcated AXB40M-223A4)	>0.575	120(e)	415/3/50	Heat recovery unit complete with ES Smart controls x 3 No. PIR and 3kW electric heater battery.
								Heat recovery unit complete with Ecosmart controls, controller and 3kW electric heater battery complete with speed controller on/off switch (ES-LCD and 2 No. x ES-PIR2).
								Complete with support brackets flexible connections, Ecosmart controls and touch screen (ES-ISCZ4A/ES-LCD) refer to note 3, fan to be acoustically encased.

1. All fans complete with anti-vibration kits, supports and flexible duct connections.
2. PIR sensor to be recessed ceiling models.
3. Bi-fabricated fans F10 and F14 to be installed within acoustic enclosures as manufactured by EEC Limited (01932 230940), model ref: BIFFE/50/VP
4. Indicative quotation: Nuaire H1092270CP (Steve Welsh 07767 298250).

Equipment/Systems Schedules for the Mechanical and Public Health Services at Fargro New Headquarters,
The Vinery, Arundel Road, Poling, Arundel, West Sussex, BN18 9PY

3742/JS/JJR
Tender Issue T1
16 July 2014

10. Grilles & Louvre's

Supply

Grille Reference	QTY	Room	Manufacturer	Type	Air Volume (M ³ /s)	Size (mm)	Notes
SG1	1	GO5	Gilberts	Series DG Model DG2	0.054	150 x 150	Front and side configuration complete with plenum box.
SG2	1	GO7	Gilberts	Series DG Model DG2	0.048	150 x 150	Front and side configuration complete with plenum box.
SG3	1	G03	Gilberts	Series DG Model DG3	0.12	300 x 300	Complete with plenum box and control damper.
SG4	1	F03	Gilberts	Series DG Model DG4	0.265	375 x 375	Complete with plenum box and control damper.
SG5	1	F03	Gilberts	Series DG Model DG4	0.265	375 x 375	Complete with plenum box and control damper.
SG6	1	F03	Gilberts	Series DG Model DG3	0.123	225 x 225	Complete with plenum box and control damper.
SG7	1	FO5	Gilberts	Series DG Model DG2	0.047	150 x 150	Front and side configuration complete with plenum box.
SG8	1	F06	Gilberts	Series DG Model DG2	0.053	150 x 150	Front and side configuration complete with plenum box.
SG9	1	G22	Gilberts	Series DG Model DG4	0.078	225 x 225	Complete with plenum box and control damper.
SG10	1	G21	Gilberts	Series DG Model DG4	0.083	225 x 225	Complete with plenum box and control damper.

1. Unless detailed otherwise louvres shall be finished in accordance with Architects requirements
2. All louvres shall be as manufactured by Gilberts (Blackpool) Limited (01253 766911)

10. Grilles & Louvre's cont'd

Extract

Grille Reference	QTY	Room	Manufacturer	Type	Air Volume (M ³ /s)	Size (mm)	Notes
EG1	1	G05	Gilberts	Series DG Model DG4	0.018	100 x 100	Complete with control damper.
EG2	1	G05	Gilberts	Series DG Model DG4	0.018	100 x 100	Complete with control damper.
EG3	1	G05	Gilberts	Series DG Model DG4	0.018	100 x 100	Complete with control damper.
EG4	1	G07	Gilberts	Series DG Model DG4	0.018	100 x 100	Complete with control damper.
EG5	1	G07	Gilberts	Series DG Model DG4	0.018	TBC	Complete with control damper.
EG6	1	G07	Gilberts	Series DG Model DG4	0.018	TBC	Complete with control damper.
EG7	1	G09	Gilberts	Series DG Model DG4	0.023	TBC	Complete with control damper.
EG8	1	G03	Gilberts	Series DG Model DG4	0.12	300 x 300	Complete with volume control damper
EG9	1	G01	Gilberts	Series DG Model DG4	0.108	225 x 225	Complete with plenum box and volume control damper.
EG10	1	G01	Gilberts	Series DG Model DG4	0.108	225 x 225	Complete with plenum box and volume control damper.
EG11	1	G10	Gilberts	Series DG Model DG4	0.1	225 x 225	Complete with plenum box and volume control damper.
EG12	1	F03	Gilberts	Series DG Model DG4	0.53	525 x 525	Complete with volume control damper.

1. Unless detailed otherwise louvres shall be finished in accordance with Architects requirements
2. All louvres shall be as manufactured by Gilberts (Blackpool) Limited (01253 766911)

10. Grilles & Louvre's cont'd

Extract

Grille Reference	QTY	Room	Manufacturer	Type	Air Volume (M ³ /s)	Size (mm)	Notes
EG13	1	F03	Gilberts	Series DG Model DG4	0.123	375 x 375	Complete with plenum box and control damper.
EG14	1	F09	Gilberts	Series DG Model DG4	0.1	225 x 225	Complete with plenum box and control damper.
EG15	1	F01	Gilberts	Eggcrate GECA	0.013	100 x 100	Complete with volume control damper.
EG16	1	F05	Gilberts	Series DG Model DG4	0.016	TBC	Complete with volume control damper.
EG17	1	F05	Gilberts	Series DG Model DG4	0.016	TBC	Complete with volume control damper.
EG18	1	F05	Gilberts	Series DG Model DG4	0.016	TBC	Complete with volume control damper.
EG19	1	F06	Gilberts	Series DG Model DG4	0.018	TBC	Complete with volume control damper.
EG20	1	F06	Gilberts	Series DG Model DG4	0.018	TBC	Complete with volume control damper.
EG21	1	F06	Gilberts	Series DG Model DG4	0.018	TBC	Complete with volume control damper.
EG22	1	G18	Gilberts	Series DG Model DG4	0.88	TBC	
EG23	1	G22	Gilberts	Series DG Model DG4	0.078	225 x 225	Complete with volume control damper.

1. Unless detailed otherwise louvres shall be finished in accordance with Architects requirements
2. All louvres shall be as manufactured by Gilberts (Blackpool) Limited (01253 766911)

10. Grilles & Louvre's cont'd

Extract

Grille Reference	QTY	Room	Manufacturer	Type	Air Volume (M ³ /s)	Size (mm)	Notes
EG24	1	G21	Gilberts	Series DG Model DG4	0.083	225 X 225	Complete with volume control damper.
EG25	1	G247	Gilberts	Eggcrate GECA	0.013	TBC	
EG26	1	G25	Gilberts	Eggcrate GECA	0.013	TBC	
EG27	1	G30	Gilberts	Series DG Model DG4	0.082	225 x 225	Complete with volume control damper.
EG28	1	G30	Gilberts	Series DG Model DG4	0.082	225 x 225	Complete with volume control damper.
EG29	1	G18	Gilberts	Eggcrate GECA	0.88	TBC	
EG30	1	G29	Gilberts	Eggcrate GECA	0.575	TBC	Complete with plenum box.
EG31	1	G29	Gilberts	Eggcrate GECA	0.575	TBC	Complete with plenum box.

1. Unless detailed otherwise louvres shall be finished in accordance with Architects requirements
2. All louvres shall be as manufactured by Gilberts (Blackpool) Limited (01253 766911)

10. Grilles & Louvre's cont'd

Louvres

Grille Reference	QTY	Room	Manufacturer	Type	Air Volume (M ³ /s)	P.D. (Pa)	Size (mm)	Notes
L1	1	G01	Gilberts	WGF-38	0.463	18-20	900 x 400	Complete with plenum box and insect screen. Flanged model.
L2	1	G01	Gilberts	WGF-38	0.245	18-20	500 x 400	Complete with plenum box and insect screen. Flanged model.
L3	1	G10	Gilberts	WGF-38	0.1	18-20	300 x 300	Complete with plenum box and insect screen. Flanged model.
L4	1	G01	Gilberts	WGF-38	0.013	18-20	150 x 150	Stainless steel model with insect screen.
L5	1	F04	Gilberts	SSK	0.123	18-20	300 x 300	Complete with plenum box and insect screen. Flanged model.
L6	1	F04	Gilberts	SSK	0.123	18-20	300 x 300	Complete with plenum box and insect screen. Flanged model.
L7	1	F04	Gilberts	SSK	0.1	18-20	300 x 300	Complete with plenum box and insect screen. Flanged model.
L8	1	F09	Gilberts	WGF-38	0.1	18-20	300 x 300	Complete with plenum box and insect screen. Flanged model.
L9	1	F09	Gilberts	WGF-38	0.1	18-20	300 x 300	Complete with plenum box and insect screen. Flanged model.
L10	1	G17	Gilberts	WGF-38	-	-	300 x 200	Complete with plenum box and insect screen. Flanged model.
L11	1	G17	Gilberts	WGF-38	-	-	300 x 200	Complete with plenum box and insect screen. Flanged model.
L12	1	G18	Gilberts	WGF-38	0.88	18-20	800 x 800	Complete with plenum box and insect screen. Flanged model.

1. Unless detailed otherwise louvres shall be finished in accordance with Architects requirements
2. All louvres shall be as manufactured by Gilberts (Blackpool) Limited (01253 766911)
3. Contractor to include for infill behind louvre flange to match cladding profile.

Equipment/Systems Schedules for the Mechanical and Public Health Services at Fargro New Headquarters, The Vinery, Arundel Road, Poling, Arundel, West Sussex, BN18 9PY

3742/JS/JJR
Tender Issue T1
16 July 2014

10. Grilles & Louvre's cont'd

Louvres

Grille Reference	QTY	Room	Manufacturer	Type	Air Volume (M ³ /s)	P.D. (Pa)	Size (mm)	Notes
L13	1	G22	Gilberts	SSK	0.026	18-20	150 x 150	Complete with plenum box and insect screen. Flanged model.
L14	1	G27	Gilberts	WGF-38	0.163	18-20	300 x 300	Complete with plenum box and insect screen. Flanged model.
L15	1	G27	Gilberts	WGF-38	0.161	30	300 x 300	Complete with plenum box and insect screen. Flanged model.
L16	1	G29	Gilberts	WGF-38	0.575	18-20	800 x 600	Complete with plenum box and insect screen. Flanged model.
L17	1	G29	Gilberts	WGF-38	0.575	18-20	800 x 600	Complete with plenum box and insect screen. Flanged model.
L18	1	G30	Gilberts	WGF-38	0.163	30	300 x 300	Complete with plenum box and insect screen. Flanged model.
L19	1	G30	Gilberts	WGF-38	0.163	30	300 x 300	Complete with plenum box and insect screen. Flanged model.
L20	1	G18	Gilberts	WGF-38	0.88	18-20	800 x 800	Complete with plenum box and insect screen. Flanged model.

1. Unless detailed otherwise louvres shall be finished in accordance with Architects requirements
2. All louvres shall be as manufactured by Gilberts (Blackpool) Limited (01253 766911)
3. Contractor to include for infic behind louvre flange to match cladding profile.

11. Attenuator

Item	Location	Model	Design Criteria	Vol m³/s	PD Pa	Dimensions mm		
						W or Internal Dia	H or Ext Dia	L
A1	G02/F1 return	AC 4D	NR 38	0.13	neg	200 Ø	300 Ø	800
A2	G02/F1 supply	AS 33/10	NR 38	0.13	10	250	250	1000
A3	G07/F1 cross talk	AC 4D	NR 38	0.07	neg	150 Ø	250 Ø	600
A4	G07/F1 cross talk	AC 4D	NR 38	0.07	neg	150 Ø	250 Ø	600
A5	G09/F1 cross talk	AC 5D	NR 38	0.02	neg	100 Ø	200 Ø	500
A6	G01/F2 supply	AS 25/12	NR 35	0.12	12	300	250	1200
A7	G01/F2 return	AC 5D	NR 35	0.12	neg	200 Ø	300 Ø	1000
A8	G01/F3 extract	AS 40/10	NR 40	0.22	27	250	200	1000
A9	G10/F4 Extract	AC 5D	NR 38	0.10	neg	175 Ø	275 Ø	875
A10	F03/AC2 supply	AS 33/10	NR 33	0.53	17	700	300	1000
A11	F03/AC2 return	AS 33/10	NR 33	0.53	17	700	300	1000
A12	F03/F5 extract	AS 33/10	NR 33	0.12	16	250	200	1000
A13	F03/F5 supply	AS 25/12	NR 33	0.12	19	300	200	1200
A14	F08/F8 cross talk	AC 5D	NR 33	0.05	neg	125 Ø	225 Ø	625
A15	F08/F8 cross talk	AC 5D	NR 33	0.05	neg	125 Ø	225 Ø	625
A16	F08/F8 supply	AS 33/10	NR 38	0.10	16	200	200	1000
A17	F08/F8 return	AS 33/06	NR 38	0.10	15	200	200	600
A18	F09/F7 extract	AC 4D	NR 38	0.10	neg	150 Ø	250 Ø	600
A19	F09/F7 extract	AC 5D	NR 38	0.01	neg	100 Ø	200 Ø	500
A20	G18/F10 extract	AS 40/21	NR 45	0.88	35	500	400	2100
A21	G18/F10 exhaust	AS 40/15	dBA 40	0.88	31	500	400	1500
A22	G26/F13 return	AC 5D	NR 38	0.16	neg	200 Ø	300 Ø	1000
A23	G26/F13 supply	AS 33/10	NR 38	0.16	17	250	250	1000
A24	G29/F14 exhaust	AS 40/18	dBA 40	0.58	31	450	300	1800
A25	G29/F14 extract	AS 40/24	NR 45	0.58	35	450	300	2400
A26	G30/F6 extract	AS 40/10	NR 40	0.16	22	250	200	1000

1: Attenuators manufactured by EEC Limited (01932 230940)

12. Fire Dampers

Reference	Qty	Room	Manufacturer	Type	Air Volume (M ³ /s)	Notes
FD1	1	G03	Gilberts	Duct Guard Model 5A/C	0.12	
FD2	1	G03	Gilberts	Duct Guard Model 5A/C	0.12	
FD3	1	F03	Gilberts	Duct Guard Model 5A/S	0.123	
FD4	1	F03	Gilberts	Duct Guard Model 5A/S	0.123	
FD5	1	F8	Gilberts	Duct Guard Model 5A/S	0.1	
FD6	1	F8	Gilberts	Duct Guard Model 5A/S	0.1	
FD7	1	G22	Gilberts	Duct Guard Model 5A/C	0.163	
FD8	1	G22	Gilberts	Duct Guard Model 5A/C	0.163	
FD9	1	F03	Gilberts	Duct Guard Model 5A/S	0.53	AC2
FD10	1	F03	Gilberts	Duct Guard Model 5A/S	0.53	AC2

1. Fire dampers complete with adjacent duct access panels.
2. Fire dampers to be manufactured by Gilberts (Blackpool) Limited (01253 766911)

13. Electric Water Heaters

Reference	Qty	Room	Manufacturer	Model	Capacity (Litres)	Size (mm)	Electrical Supply	Notes
EW1	1	G02	Heatrae Sadia	Multipoint	75	729 x 430 x 911 H	230/1/50	3 kW complete with tundish, temperature/pressure relief valves expansion vessel, pressure reducing valve and stop valve.
EW2	1	F07 (Cupboard)	Heatrae Sadia	Multipoint	75	729 x 430 x 911 H	230/1/50	3 kW complete with tundish, temperature/pressure relief valves expansion vessel, pressure reducing valve and stop valve.
EW3	1	F09	Heatrae Sadia	Hotco	15	252 x 267 x 656 H	230/1/50	2.2 kW. Complete with pressure relief valve, tundish and stop cock.
EW4	1	G10	Heatrae Sadia	Hotco	15	252 x 267 x 656 H	230/1/50	2.2 kW. Complete with pressure relief valve, tundish and stop cock.
EW6	1	F01	Heatrae Sadia	Hotco	15	252 x 267 x 656 H	230/1/50	2.2 kW. Complete with pressure relief valve, tundish and stop cock.
EW7	1	G21	Heatrae Sadia	Hotco	15	252 x 267 x 656 H	230/1/50	2.2 kW. Complete with pressure relief valve, tundish and stop cock.
EW8	1	G22	Heatrae Sadia	Hotco	15	252 x 267 x 656 H	230/1/50	2.2 kW. Complete with pressure relief valve, tundish and stop cock.
EW9	1	G30	Heatrae Sadia	Hotco	15	252 x 267 x 656 H	230/1/50	2.2 kW. Complete with pressure relief valve, tundish and stop cock.

(Note: EWH5 reference not used)

1. All equipment to be provided with all necessary components to provide and complete operating installation.
2. Final location to be established on site.
3. Water heaters manufactured by Heatrae Sadia Heating (01603 420100)

Equipment/Systems Schedules for the Mechanical and Public Health Services at Fargro New Headquarters, The Vinery, Arundel Road, Poling, Arundel, West Sussex, BN18 9PY

3742JS/JJR
Tender Issue T1
16 July 2014

14. Water Boilers

Reference	Qty	Room	Manufacturer	Model	Capacity (Litres)	Size (mm)	Electrical Supply	Notes
WB1	1	G10	Zip Heaters (UK) Limited	HS 505	5.0	318W x 180 D x 431 H	230/1/50	2.4 kW. Complete with drip tray, stop cock, tundish and vent pipe.
WB2	1	F01	Zip Heaters (UK) Limited	HS 505	5.0	318W x 180 D x 431 H	230/1/50	2.4 kW. Complete with drip tray, stop cock, tundish and vent pipe.
WB3	1	F09	Zip Heaters (UK) Limited	HS 505	5.0	318W x 180 D x 431 H	230/1/50	2.4 kW. Complete with drip tray, stop cock, tundish and vent pipe.
WB4	1	G22	Zip Heaters (UK) Limited	HS 505	5.0	318W x 180 D x 431 H	230/1/50	2.4 kW. Complete with drip tray, stop cock, tundish and vent pipe.

1. All equipment to be provided with all necessary components to provide and complete operating installation.
2. Final location to be established on site.
3. Water heaters manufactured by Zip Heaters (UK) Limited (0845 600 5005)

15. Showers

Reference	Qty	Room	Manufacturer	Type	Power	Rating	Notes
ES1	1	G09	Triton Showers (02476 344441)	Touch Electric Shower	230/1/50	8.5kW	Temperature stabilised control complete with on / off switch, rail fixings and stop cock connection.
EMS1	1	G23	Appoint Safety (0845 2024535)	S1200	N/A	N/A	Complete with handle and high level support/fixings 28mm cold water connection.

16. Blending Valve

Reference	Qty	Room	Manufacturer	Model Size	Size (mm)	Notes
-	1	F09	Reliance Water Controls	Heatguard DC3 to TMV3 Heat 170005	15	Complete with local isolating valves and strainer.

17. Radiant Heater Panels

Reference	Qty	Room	Manufacturer	Type	Output (kW)	Electrical Supply	Size (mm)	Notes
ERP1/2	2	G01	Frenger	Energoship EE20	2	230/1/50	1630 x 290 x 50	Complete with support wires brackets, wall mounted on / off controller and isolator.
ERP7-10	4	G29	Frenger	Energoship EE20	2	230/1/50	1630 x 290 x 50	Complete with support wires brackets, wall mounted on / off controller and isolator. Heating to be controlled by room thermostat to maintain room above freezing.
ERP7-10	4	G30	Frenger	Energoship EE20	2	230/1/50	1630 x 290 x 50	Complete with support wires brackets, wall mounted on / off controller and isolator.

18. Trace Heating / Background Heater

Reference	Qty	Room	Manufacturer	Model	Electric Supply	Notes
MCW (Warehouse)	1	G20	Raychem Commercial	FSA/2X (16A)	230/1/50	Cables to be covered with a minimum of 25mm rockwool insulation.
Heating and F&R Pipes	1	G20	Raychem Commercial	FSC (10A)	230/1/50	Cables to be covered with a minimum of 25mm rockwool insulation.
MCW/HWS	1	G09/G20 and 28	Raychem Commercial	FSC (10A)	230/1/50	Cables to be covered with a minimum of 25mm rockwool insulation, protect pipes running outside room G09.
Plant Area	1	G20 and 28/ ASHP Plantroom	Dimplex	T-Range – T120W	230/1/50	Frost protection – complete with adjustable thermostat and electrical connection.

Appendix 2

Electrical Equipment/System Schedules

Author

Date 16.7.14

Checked

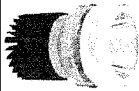
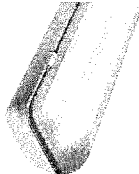
Date 16/7/14

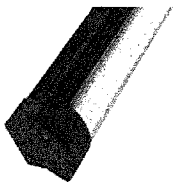
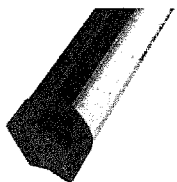
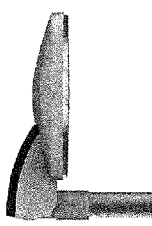
1. Schedule of Luminaires

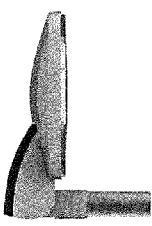
Notes: All fluorescent luminaires shall be fitted with high frequency electronic ballasts.
All lamps shall be colour temperature 4000K with a colour rendering of group 1B (>RA80) unless stated otherwise.
Any luminaire reference may be suffixed with the letter 'E'. This denotes a maintained 3 hour emergency version of the luminaire as described.
The description of any luminaire shall be deemed to include any additional fixing items required to suit the mounting of the luminaire.
All catalogue references given are for guidance only, Contractor to confirm before placing orders.

Reference	Manufacturer	Range	Description	Lamp	Image
A	Thorlux Lighting	XL-20 Cat Ref: XL15569D	Offices – 600 X 600 recessed LED luminaire. Fitting to incorporate correct dimming and smart control gear.	LED 4000K, 20W	
B	Thorlux Lighting	XL-20 Cat Ref: XL15572D	Offices – 600 X 600 recessed LED luminaire. Fitting to incorporate correct dimming and smart control gear.	LED 4000K, 30W	
C	Thorlux Lighting	XL-20 Cat Ref: XL15391D	Offices – 600 X 600 recessed LED luminaire. Fitting to incorporate correct dimming and smart control gear.	LED 4000K, 40W	

Reference	Manufacturer	Range	Description	Lamp	Image
D	Thorlux Lighting	G3 LED Cat Ref: GT15071L	Corridors / Common Parts– Recessed circular downlight with no attachments/bezel. Fitting to incorporate correct control gear.	LED 4000K, 24W	
F	Thorlux Lighting	XL-20 Cat Ref: XL15390D	Offices – 600 X 600 recessed LED luminaire. Fitting to incorporate correct dimming and smart control gear.	LED 4000K, 29W	
G	Thorlux Lighting	G3 LED Cat Ref: GT15089L	WC – Recessed circular downlight with IP65 frosted glass. Fitting to incorporate correct control gear.	LED 4000K, 24W	
H	Projection Lighting	70 Series Imp Cat Ref: IM07408MW	Reception - 70mm diameter cut out recessed LED downlight with 700lm engine 40° beam angle. Fitting to incorporate correct control gear	700 lumen 4000K LED	

Reference	Manufacturer	Range	Description	Lamp	Image
I	Thorlux Lighting	A-Line Cat Ref: AL15213L	Plantroom – Surface fitting with IP65 diffuser. Fitting to incorporate correct control gear.	LED 4000K, 58W	
K	TBC	TBC	Meeting Room – Decorative pendants Provisional Sum Allocation		
L	Projection Lighting	70 Series Imp Cat Ref: IM10408MW/DA	Meeting - 70mm diameter cut out recessed LED downlight with 1000lm engine 40° beam angle. Fitting to incorporate correct control gear for Analogue dimming with graphic eye.	1000 lumen 4000K LED	
M	Thorlux Lighting	Thoroproof LED Cat Ref: TP15907	Warehouse / storage– Surface fitting with IP65 diffuser. Fitting to incorporate correct control gear.	LED 4000K, 60W	
N	Thorlux Lighting		Please see details for luminaire G.		

Reference	Manufacturer	Range	Description	Lamp	Image
O	Thorlux Lighting	Solow LED Cat Ref: SW16271	Warehouse – Surface fitting with IP40 diffuser. Fitting to incorporate correct control gear.	LED 4000K, 275W	
P	Thorlux Lighting	Scanlight Cat Ref: SLA14154	Warehouse – Surface emergency fitting only with area lens.	LED, 3W	
Q	Thorlux Lighting	Solow LED Cat Ref: EWL15377	Warehouse – Surface fitting with IP40 diffuser – Emergency only. Fitting to incorporate correct control gear.	LED, 8W	
R	Thorlux Lighting	Starbeam Cat Ref: SB15802LPC	External Areas – Area distribution light spread. Fitting to incorporate correct control gear and fixings/poles to suit installation requirements. Fittings to include integral photocells.	LED, 62W	

Reference	Manufacturer	Range	Description	Lamp	Image
S	Thorlux Lighting	Starbeam Cat Ref: SB15803LPC	External Areas – Roadway distribution light spread. Fitting to incorporate correct control gear and fixings/poles to suit installation requirements. Fittings to include integral photocells.	LED , 62W	
T	Thorlux Lighting	Scanlight Cat Ref: SLA14153	Warehouse – Surface emergency fitting only with corridor lens.	LED, 3W	

2. Distribution Board Schedules

See attached

RHB Partnership LLP The Old Vicarage, Popham, Hampshire SO21 3BJ T: 01256 398222 E: info@rhbpartnership.co.uk					Distribution Board Schedule		
Board Ref:LP1					Isolator: 100A TP&N		
Designation: Lighting and Power					Sub - Main Cable:		
Location: Trade Store – Ground Floor					Protective Device: 100A MCCB		
Circuit Ref:		MCB/ RCBO Rating	Type	Points Served	Circuit Designation	Way No.	Cable Size & Type
1	L1	16A	B	-	Radiant Heater (2.4kW) - Trade Counter – Radial Circuit	1	4.0mm² 62491B
	L2	32A	B	-	2No Hand Dryers Gents – Ring Circuit	2	4.0mm² 62491B
	L3	32A/30	B	-	Small Power Outlets Office – Ring Circuit	3	4.0mm² 62491B
2	L1	16A	B	-	Radiant Heater (2.4kW) - Trade Counter – Radial Circuit	4	4.0mm² 62491B
	L2	32A	B	-	2No Hand Dryers Ladies – Ring Circuit	5	4.0mm² 62491B
	L3	32A/30	B	-	Small Power Outlets Office – Ring Circuit	6	4.0mm² 62491B
3	L1	32A/30	B	-	Trade Counter – Small Power Ring Circuit	7	4.0mm² 62491B
	L2	16A	B	-	Disabled WC Hand Dryer – Radial Circuit	8	4.0mm² 62491B
	L3	16A	B	-	AHU (3kW) Welfare Facilities – Radial Circuit	9	4.0mm² 62491B
4	L1				Spare	10	
	L2	16A	B	-	AHU (3kW) Reception – Radial Circuit	11	4.0mm² 62491B
	L3	16A	B	-	EWH2 (3kW) – Radial Circuit	12	4.0mm² 62491B
5	L1				Spare	13	
	L2	32A/30	B	-	Small Power Outlets – Ring Circuit	14	4.0mm² 62491B
	L3	16A	B	-	EWH1 (3kW) – Radial Circuit	15	4.0mm² 62491B
6	L1				Spare	16	
	L2	20A	B	-	AHU (3kW) Ground – Radial Circuit	17	4.0mm² 62491B
	L3	20A	B	-	Security Panel – Radial Circuit	18	4.0mm² 62491B
7	L1	50A	B	-	Shower Heater (9.8kW) heater – Radial Circuit	19	16.0mm² 62491B
	L2				Spare	20	
	L3				Spare	21	
8	L1				Spare	22	
	L2				Spare	23	
	L3				Spare	24	
SUB-METERED SECTION 2 LIGHTING							
9	L1	10A	C	-	Trade Counter Lighting – Radial Circuit	25	1.5mm² 62491B
	L2	10A	C	-	Entrance Lobby Lighting – Radial Circuit	26	1.5mm² 62491B
	L3	10A	C	-	Post and Meeting Room Lighting – Radial Circuit	27	1.5mm² 62491B
10	L1	10A	C	-	Trade Store & Counter Lighting – Radial Circuit	28	1.5mm² 62491B
	L2	10A	C	-	Toilets Lighting – Radial Circuit	29	1.5mm² 62491B
	L3	10A	C	-	Office and Corridor Lighting – Radial Circuit	30	1.5mm² 62491B
11	L1				Spare	31	
	L2				Spare	32	
	L3				Spare	33	
12	L1				Spare	34	
	L2				Spare	35	
	L3				Spare	36	
13	L1				Spare	37	
	L2				Spare	38	
	L3				Spare	39	
14	L1				Spare	40	
	L2				Spare	41	
	L3				Spare	42	

WARNING: ALL CIRCUITS MARKED * SUPPLY FIXED EQUIPMENT VULNERABLE TO INSULATION RESISTANCE TESTS. BOARD TO BE PROVIDED WITH SURGE PROTECTION.

RHB Partnership LLP The Old Vicarage, Popham, Hampshire SO21 3BJ T: 01256 398222 E: info@rhbpartnership.co.uk					Distribution Board Schedule		
Board Ref:LP2					Isolator: 100A TP&N		
Designation: Lighting and Power					Sub - Main Cable:		
Location: Electrical Intake – Ground Floor					Protective Device: 100A MCCB		
Circuit Ref:	MCB/RCBO Rating	Type	Points Served	Circuit Designation		Way No.	Cable Size & Type
1	L1	32A/30	B	-	Small Power Outlets Office – Ring Circuit	1	4.0mm ² 62491B
	L2	32A/30	B	-	Small Power Outlets Office – Ring Circuit	2	4.0mm ² 62491B
	L3	32A/30	B	-	Small Power Outlets Office – Ring Circuit	3	4.0mm ² 62491B
2	L1	32A/30	B	-	Small Power Outlets Office – Ring Circuit	4	4.0mm ² 62491B
	L2	32A/30	B	-	Small Power Outlets Office – Ring Circuit	7	4.0mm ² 62491B
	L3				Spare	8	
3	L1	)				9	
	L2	TP&N 16A	C	1	Hydrobox No. H1	10	4.0mm ² 4c XLPE/SWA/LSF
	L3	)				11	
4	L1	)				12	
	L2	TP&N 16A	C	1	Hydrobox No. H2	13	4.0mm ² 4c XLPE/SWA/LSF
	L3	)				14	
5	L1	)				15	
	L2	TP&N 16A	C	1	Hydrobox No. H3	16	4.0mm ² 4c XLPE/SWA/LSF
	L3	)				17	
6	L1	)				18	
	L2	TP&N 16A	C	1	Hydrobox No. H4	19	4.0mm ² 4c XLPE/SWA/LSF
6a	L1				Spare	20	
	L2				Spare	21	
	L3				Spare	22	
6b	L1				Spare	20	
	L2				Spare	21	
	L3				Spare	22	
SUB-METERED SECTION 2 LIGHTING							
7	L1	10A	C	-	Tech Sales Lighting – Radial Circuit	19	1.5mm ² 62491B
	L2	10A	C	-	Offices & Corridor Lighting – Radial Circuit	20	1.5mm ² 62491B
	L3	10A	C	-	Intake Room Lighting – Radial Circuit	21	1.5mm ² 62491B
8	L1	10A	C	-	Tech Sales Lighting – Radial Circuit	22	1.5mm ² 62491B
	L2	10A	C	-	External Lighting – Radial Circuit	23	4.0mm ² XLPE/SWA/LSF
	L3	10A	C	-	External Lighting – Radial Circuit	24	4.0mm ² XLPE/SWA/LSF
9	L1				Spare	25	
	L2				Spare	26	
	L3				Spare	27	
10	L1				Spare	28	
	L2				Spare	29	
	L3				Spare	30	

WARNING: ALL CIRCUITS MARKED * SUPPLY FIXED EQUIPMENT VULNERABLE TO INSULATION RESISTANCE TESTS. BOARD TO BE PROVIDED WITH SURGE PROTECTION.

RHB Partnership LLP The Old Vicarage, Popham, Hampshire SO21 3BJ T: 01256 398222 E: info@rhbpartnership.co.uk					Distribution Board Schedule		
Board Ref: LP3					Isolator: 100A TP&N		
Designation: Lighting and Power					Sub - Main Cable:		
Location: Kitchenette – First Floor					Protective Device: 100A MCCB		
Circuit Ref:	MCB/RCBO Rating	Type	Points Served	Circuit Designation		Way No.	Cable Size & Type
1	L1	32A/30	B	-	Small Power Outlets Office – Ring Circuit	1	4.0mm ² 62491B
	L2	32A	B	-	2No Hand Dryers Ladies – Ring Circuit	2	4.0mm ² 62491B
	L3	32A/30	B	-	Small Power Outlets Meeting Room – Ring Circuit	3	4.0mm ² 62491B
2	L1	32A/30	B	-	Small Power Outlets Office – Ring Circuit	4	4.0mm ² 62491B
	L2	32A	B	-	2No Hand Dryers Gents – Ring Circuit	5	4.0mm ² 62491B
	L3				Spare	6	
3	L1	32A/30	B	-	Small Power Outlets Office – Ring Circuit	7	4.0mm ² 62491B
	L2	32A/30	B	-	Small Power Outlets/Appliances – Ring Circuit	8	4.0mm ² 62491B
	L3				Spare	9	
4	L1	20A	B	-	Water heater (3kW) – Radial Circuit	10	4.0mm ² 62491B
	L2	20A	B	-	Zip Water heater (1.5kW) – Radial Circuit	11	4.0mm ² 62491B
	L3				Spare	12	
5	L1	20A	B	-	EWB 3 (3kW) – Radial Circuit	13	4.0mm ² 62491B
	L2	20A	B	-	EWB 5 (3kW) – Radial Circuit	14	4.0mm ² 62491B
	L3				Spare	15	
6	L1				Spare	16	
	L2				Spare	17	
	L3				Spare	18	
SUB-METERED SECTION 2 LIGHTING							
7	L1	10A	C	-	Stairs & Corridor Lighting – Radial Circuit	19	1.5mm ² 62491B
	L2	10A	C	-	Male & Female WC Lighting – Radial Circuit	20	1.5mm ² 62491B
	L3	10A	C	-	Meeting Graphik Eye Lighting – Radial Circuit	21	1.5mm ² 62491B
8	L1	10A	C	-	Offices Lighting – Radial Circuit	22	1.5mm ² 62491B
	L2				Spare	23	
	L3				Spare	24	
9	L1	10A	C	-	Offices Lighting – Radial Circuit	25	1.5mm ² 62491B
	L2				Spare	26	
	L3				Spare	27	
10	L1				Spare	28	
	L2				Spare	29	
	L3				Spare	30	

WARNING: ALL CIRCUITS MARKED * SUPPLY FIXED EQUIPMENT VULNERABLE TO INSULATION RESISTANCE TESTS.

RHB Partnership LLP The Old Vicarage, Popham, Hampshire SO21 3BJ T: 01256 398222 E: info@rhbpartnership.co.uk					Distribution Board Schedule		
Board Ref: LP4					Isolator: 100A TP&N		
Designation: Lighting and Power					Sub - Main Cable:		
Location: Server Room – First Floor					Protective Device: 100A MCCB		
Circuit Ref:	MCB/RCBO Rating	Type	Points Served	Circuit Designation		Way No.	Cable Size & Type
1	L1	32A/30	B	-	Small Power Outlets Office – Ring Circuit	1	4.0mm ² 62491B
	L2	32A/30	B	-	Small Power Outlets Office – Ring Circuit	2	4.0mm ² 62491B
	L3	32A/30	B	-	Small Power Outlets Office – Ring Circuit	3	4.0mm ² 62491B
2	L1	32A/30	B	-	Small Power Outlets Server Room – Ring Circuit	4	4.0mm ² 62491B
	L2				Spare	5	
	L3				Spare	6	
3	L1				Spare	6	
	L2				Spare	8	
	L3				Spare	9	
4	L1				Spare	10	
	L2				Spare	11	
	L3				Spare	12	
5	L1				Spare	13	
	L2				Spare	14	
	L3				Spare	15	
6	L1				Spare	16	
	L2				Spare	17	
	L3				Spare	18	
SUB-METERED SECTION 2 LIGHTING							
7	L1	10A	C	-	Stairs & Offices Lighting – Radial Circuit	19	1.5mm ² 62491B
	L2	10A	C	-	Offices Lighting – Radial Circuit	20	1.5mm ² 62491B
	L3	10A	C	-	Corridor & MD Offices Lighting – Radial Circuit	21	1.5mm ² 62491B
8	L1	10A	C	-	Office and Store Room Lighting – Radial Circuit	22	1.5mm ² 62491B
	L2				Spare	23	
	L3				Spare	24	
9	L1	10A	C	-	External Lighting – Radial Circuit	25	2.5mm ² XLPE/SWA/LSF
	L2				Spare	26	
	L3				Spare	27	
10	L1				Spare	28	
	L2				Spare	29	
	L3				Spare	30	

WARNING: ALL CIRCUITS MARKED * SUPPLY FIXED EQUIPMENT VUNERABLE TO INSULATION RESISTANCE TESTS. BOARD TO BE PROVIDED WITH SURGE PROTECTION.

RHB Partnership LLP The Old Vicarage, Popham, Hampshire SO21 3BJ T: 01256 398222 E: info@rhbpартnership.co.uk					Distribution Board Schedule		
Board Ref:LP5					Isolator: 100A TP&N		
Designation: Lighting and Power					Sub - Main Cable:		
Location: Workshop – Warehouse Ground Floor					Protective Device: 100A MCCB		
Circuit Ref:	MCB/RCBO Rating	Type	Points Served	Circuit Designation		Way No.	Cable Size & Type
1	L1	32A	B	-	Radiant Heaters (4.8kW) - Workshop – Ring Circuit	1	4.0mm ² 62491B
	L2				Spare	2	
	L3	32A/30	B	-	Small Power Outlets Workshop – Ring Circuit	3	4.0mm ² 62491B
2	L1	16A	B	-	Radiant Heater (2.4kW) - Workshop – Radial Circuit	4	4.0mm ² 62491B
	L2				Spare	5	
	L3	32A/30	B	-	Workshop Commando Outlet – Radial Circuit	6	4.0mm ² 62491B
3	L1	-			-	7	
	L2	20A	B		TP&N Coldroom (3kw) Control Unit – Radial Circuit	8	4.0mm ² 62491B
	L3	-			-	9	
4	L1	-			-	10	
	L2	25A	B		TP&N AC1 (9kW) Condensor – Radial Circuit	11	6.0mm ² 62491B
	L3	-			-	12	
5	L1	-			-	13	
	L2	25A	B		TP&N AC2 (9kW) Condensor – Radial Circuit	14	6.0mm ² 62491B
	L3	-			-	15	
6	L1				Spare	16	
	L2	32A	B	-	Radiant Heaters (4.8kW) - Workshop – Ring Circuit	17	4.0mm ² 62491B
	L3	20A	B	-	Workshop Water Heater (3kW)– Radial Circuit	18	4.0mm ² 62491B
7	L1	-			-	19	
	L2	16A	B		TP&N F14 Fan – Radial Circuit	20	6.0mm ² 62491B
	L3	-			-	21	
8	L1				Spare	22	
	L2				Spare	23	
	L3				Spare	24	
SUB-METERED SECTION 2 LIGHTING							
9	L1	10A	C	-	Chemical Store Lighting – Radial Circuit	25	1.5mm ² 62491B
	L2	10A	C	-	Cold Room Lighting – Radial Circuit	26	1.5mm ² 62491B
	L3	10A	C	-	Workshop Lighting – Radial Circuit	27	1.5mm ² 62491B
10	L1	10A	C	-	External Lighting – Radial Circuit	25	2.5mm ² XLPE/SWA/LSF
	L2				Spare	31	
	L3				Spare	31	
11	L1				Spare	31	
	L2				Spare	32	
	L3				Spare	33	
12	L1				Spare	34	
	L2				Spare	35	
	L3				Spare	36	
13	L1				Spare	37	
	L2				Spare	38	
	L3				Spare	39	
14	L1				Spare	40	
	L2				Spare	41	
	L3				Spare	42	

WARNING: ALL CIRCUITS MARKED * SUPPLY FIXED EQUIPMENT VUNERABLE TO INSULATION RESISTANCE TESTS. BOARD TO BE PROVIDED WITH SURGE PROTECTION.

RHB Partnership LLP The Old Vicarage, Popham, Hampshire SO21 3BJ T: 01256 398222 E: info@rhbpartnership.co.uk					Distribution Board Schedule		
Board Ref:LP6					Isolator: 100A TP&N		
Designation: Lighting and Power					Sub - Main Cable:		
Location: Outside Chemical Store - Warehouse					Protective Device: 100A MCCB		
Circuit Ref:	MCB/RCBO Rating	Type	Points Served	Circuit Designation	Way No.	Cable Size & Type	
1	L1	32A	B	-	ACC1 (2.5kW)– Radial Circuit	1	6.0mm ² XLPE/SWA/LSF
	L2	32A/30	B	-	Small Power Outlets Warehouse – Ring Circuit	2	4.0mm ² 62491B
	L3	10A	B	-	Remote Klargestes– Radial Circuit	3	2.5mm ² XLPE/SWA/LSF
2	L1	-		-	-	4	
	L2	16A	B		TP&N F10 Fan – Radial Circuit	5	6.0mm ² 62491B
	L3	-			-	6	
3	L1				Spare	7	
	L2				Spare	8	
	L3				Spare	9	
4	L1				Spare	10	
	L2				Spare	11	
	L3				Spare	12	
5	L1				Spare	13	
	L2				Spare	14	
	L3				Spare	15	
6	L1				Spare	16	
	L2				Spare	17	
	L3				Spare	18	
SUB-METERED SECTION 2 LIGHTING							
7	L1	10A	C	-	Chemical Store Lighting – Radial Circuit	19	1.5mm ² 62491B
	L2	10A	C	-	Warehouse Lighting high level – Radial Circuit	20	1.5mm ² 62491B
	L3	10A	C	-	Warehouse Lighting high level – Radial Circuit	21	1.5mm ² 62491B
8	L1	10A	C	-	Warehouse Lighting high level – Radial Circuit	22	1.5mm ² 62491B
	L2	10A	C	-	Warehouse Lighting high level – Radial Circuit	23	1.5mm ² 62491B
	L3	10A	C	-	Warehouse Lighting high level – Radial Circuit	24	1.5mm ² 62491B
9	L1				Spare	25	
	L2				Spare	26	
	L3				Spare	27	
10	L1				Spare	28	
	L2				Spare	29	
	L3				Spare	30	

WARNING: ALL CIRCUITS MARKED * SUPPLY FIXED EQUIPMENT VUNERABLE TO INSULATION RESISTANCE TESTS. BOARD TO BE PROVIDED WITH SURGE PROTECTION.

RHB Partnership LLP The Old Vicarage, Popham, Hampshire SO21 3BJ T: 01256 398222 E: info@rhbpartnership.co.uk					Distribution Board Schedule		
Board Ref:LP7					Isolator: 100A TP&N		
Designation: Lighting and Power					Sub - Main Cable:		
Location: Outside Warehouse Offices – Warehouse Ground Floor					Protective Device: 100A MCCB		
Circuit Ref:		MCB/RCBO Rating	Type	Points Served	Circuit Designation	Way No.	Cable Size & Type
1	L1	-			-	1	
	L2	32A	B		TP&N Compressor – Radial Circuit	2	6.0mm² 62491B
	L3	-			-	3	
2	L1	-			-	4	
	L2	32A	B		TP&N Compactor – Radial Circuit	5	6.0mm² 62491B
	L3	-			-	6	
3	L1				Spare	7	
	L2				Spare	8	
	L3				Spare	9	
4	L1	32A/30	B	-	Small Power Outlets Warehouse – Ring Circuit	10	4.0mm² 62491B
	L2	20A	B	-	F10 Fan (3kW) heater – Radial Circuit	11	4.0mm² 62491B
	L3	32A/30	B	-	Small Power Outlets Warehouse – Ring Circuit	12	4.0mm² 62491B
5	L1	32A/30	B	-	Small Power Outlets Warehouse – Ring Circuit	13	4.0mm² 62491B
	L2	32A	B		Heat Pump 2 – Radial Circuit	14	6.0mm² 62491B
	L3	10A	B	-	Remote Klargester– Radial Circuit	15	2.5mm² XLPE/SWA/LSF
6	L1	20A	B	-	Zip Heater (1.5kW) heater – Radial Circuit	16	4.0mm² 62491B
	L2	50A	B	-	Shower Heater (9.8kW) heater – Radial Circuit	17	16.0mm² 62491B
	L3	32A	B	-	Radiant Heaters (4.8kW) - Workshop – Ring Circuit	18	4.0mm² 62491B
7	L1	20A	B	-	Water Heater (3kW) – Radial Circuit	19	4.0mm² 62491B
	L2	32A	B	-	Radiant Heaters (4.8kW) - Workshop – Ring Circuit	20	4.0mm² 62491B
	L3				Spare	21	
8	L1	20A	B	-	Water Heater (3kW) – Radial Circuit	22	4.0mm² 62491B
	L2				Spare	23	
	L3				Spare	24	
SUB-METERED SECTION 2 LIGHTING							
9	L1	10A	C	-	Warehouse Office Lighting – Radial Circuit	20	1.5mm² 62491B
	L2	10A/30	C	-	Warehouse Office Lighting – Radial Circuit	20	1.5mm² 62491B
	L3	10A	C	-	Warehouse Lighting high level – Radial Circuit	20	1.5mm² 62491B
10	L1	10A	C	-	Warehouse Lighting high level – Radial Circuit	20	1.5mm² 62491B
	L2	10A	C	-	Warehouse Lighting high level – Radial Circuit	20	1.5mm² 62491B
	L3	10A	C	-	Warehouse Lighting high level – Radial Circuit	20	1.5mm² 62491B
11	L1				Spare	31	
	L2				Spare	32	
	L3				Spare	33	
12	L1				Spare	34	
	L2				Spare	35	
	L3				Spare	36	
13	L1				Spare	37	
	L2				Spare	38	
	L3				Spare	39	
14	L1				Spare	40	
	L2				Spare	41	
	L3				Spare	42	

WARNING: ALL CIRCUITS MARKED * SUPPLY FIXED EQUIPMENT VULNERABLE TO INSULATION RESISTANCE TESTS. BOARD TO BE PROVIDED WITH SURGE PROTECTION.

RHB Partnership LLP The Old Vicarage, Popham, Hampshire SO21 3BJ T: 01256 398222 E: info@rhbpartnership.co.uk					Distribution Board Schedule		
Board Ref:LP8					Isolator: 100A TP&N		
Designation: Lighting and Power					Sub - Main Cable:		
Location: Under Mezzanine - Warehouse					Protective Device: 100A MCCB		
Circuit Ref:		MCB/ RCBO Rating	Type	Points Served	Circuit Designation	Way No.	Cable Size & Type
1	L1				Spare	1	
	L2	32A/30	B	-	Small Power Outlets Warehouse under Mezzanine – Ring Circuit	2	4.0mm² 62491B
	L3				Spare	3	
2	L1	-			-	4	
	L2	32A	B		TP&N Goods Escalator – Radial Circuit	5	6.0mm² 62491B
	L3	-			-	6	
3	L1	20A	B	-	Goods Escalator – Radial Circuit	7	4.0mm² 62491B
	L2				Spare	8	
	L3				Spare	9	
4	L1				Spare	10	
	L2				Spare	11	
	L3				Spare	12	
5	L1				Spare	13	
	L2				Spare	14	
	L3				Spare	15	
6	L1				Spare	16	
	L2				Spare	17	
	L3				Spare	18	
SUB-METERED SECTION 2 LIGHTING							
7	L1	10A	C	-	Under mezzanine Lighting – Radial Circuit	19	1.5mm² 62491B
	L2	10A	C	-	Under mezzanine Lighting – Radial Circuit	20	1.5mm² 62491B
	L3	10A	C	-	Under mezzanine Lighting – Radial Circuit	21	1.5mm² 62491B
8	L1	10A	C	-	Under mezzanine Lighting – Radial Circuit	22	1.5mm² 62491B
	L2	10A	C	-	Under mezzanine Lighting – Radial Circuit	23	1.5mm² 62491B
	L3	10A	C	-	Under mezzanine Lighting – Radial Circuit	24	1.5mm² 62491B
9	L1	10A	C	-	Under mezzanine Lighting – Radial Circuit	25	1.5mm² 62491B
	L2	10A	C	-	External Lighting – Radial Circuit	26	4.0mm² XLPE/SWA/LSF
	L3				Spare	27	
10	L1				Spare	28	
	L2				Spare	29	
	L3				Spare	30	

WARNING: ALL CIRCUITS MARKED * SUPPLY FIXED EQUIPMENT VUNERABLE TO INSULATION RESISTANCE TESTS. BOARD TO BE PROVIDED WITH SURGE PROTECTION.

RHB Partnership LLP The Old Vicarage, Popham, Hampshire SO21 3BJ T: 01256 398222 E: info@rhbpartnership.co.uk					Distribution Board Schedule		
Board Ref:LP9					Isolator: 100A TP&N		
Designation: Lighting and Power					Sub - Main Cable:		
Location: Under Mezzanine - Warehouse					Protective Device: 100A MCCB		
Circuit Ref:		MCB/RCBO Rating	Type	Points Served	Circuit Designation	Way No.	Cable Size & Type
1	L1				Spare	1	
	L2	32A/30	B	-	Small Power Outlets Warehouse under Mezzanine – Ring Circuit	2	4.0mm² 62491B
	L3				Spare	3	
2	L1	-			-	4	
	L2	32A	B		TP&N Goods Escalator – Radial Circuit	5	6.0mm² 62491B
	L3	-			-	6	
3	L1	20A	B	-	Goods Escalator – Radial Circuit	7	4.0mm² 62491B
	L2				Spare	8	
	L3				Spare	9	
4	L1				Spare	10	
	L2				Spare	11	
	L3				Spare	12	
5	L1				Spare	13	
	L2				Spare	14	
	L3				Spare	15	
6	L1				Spare	16	
	L2				Spare	17	
	L3				Spare	18	
SUB-METERED SECTION 2 LIGHTING							
7	L1				Spare	19	
	L2	10A	C	-	Mezzanine Lighting – Radial Circuit	20	1.5mm² 62491B
	L3	10A	C	-	Mezzanine Lighting – Radial Circuit	21	1.5mm² 62491B
8	L1				Spare	22	
	L2	10A	C	-	Mezzanine Lighting – Radial Circuit	23	1.5mm² 62491B
	L3	10A	C	-	Mezzanine Lighting – Radial Circuit	24	1.5mm² 62491B
9	L1	10A	C	-	External Lighting – Radial Circuit	25	1.5mm² 62491B
	L2				Spare	26	
	L3	10A	C	-	Mezzanine Lighting – Radial Circuit	27	1.5mm² 62491B
10	L1				Spare	28	
	L2				Spare	29	
	L3				Spare	30	

WARNING: ALL CIRCUITS MARKED * SUPPLY FIXED EQUIPMENT VULNERABLE TO INSULATION RESISTANCE TESTS. BOARD TO BE PROVIDED WITH SURGE PROTECTION.

RHB Partnership LLP The Old Vicarage, Popham, Hampshire SO21 3BJ T: 01256 398222 E: info@rhbpartnership.co.uk					Distribution Board Schedule		
Board Ref: LP10					Isolator: 100A TP&N		
Designation: Lighting and Power					Sub - Main Cable:		
Location: Mezzanine - Warehouse					Protective Device: 100A MCCB		
Circuit Ref:	MCB/RCBO Rating	Type	Points Served	Circuit Designation		Way No.	Cable Size & Type
1	L1	32A/30	B	-	Small Power Outlets Warehouse Mezzanine – Ring Circuit	1	4.0mm² 62491B
	L2				Spare	3	
	L3				Spare	3	
2	L1				Spare	4	
	L2				Spare	5	
	L3				Spare	6	
3	L1				Spare	6	
	L2				Spare	8	
	L3				Spare	9	
4	L1				Spare	10	
	L2				Spare	11	
	L3				Spare	12	
5	L1				Spare	13	
	L2				Spare	14	
	L3				Spare	15	
6	L1				Spare	16	
	L2				Spare	17	
	L3				Spare	18	
SUB-METERED SECTION 2 LIGHTING							
7	L1	10A	C	-	Mezzanine Lighting – Radial Circuit	19	1.5mm² 62491B
	L2	10A	C	-	Mezzanine Lighting – Radial Circuit	20	1.5mm² 62491B
	L3	10A	C	-	Mezzanine Lighting – Radial Circuit	21	1.5mm² 62491B
8	L1	10A	C	-	Mezzanine Lighting – Radial Circuit	22	1.5mm² 62491B
	L2	10A	C	-	Mezzanine Lighting – Radial Circuit	23	1.5mm² 62491B
	L3				Spare	24	
9	L1				Spare	25	
	L2				Spare	26	
	L3				Spare	27	
10	L1				Spare	28	
	L2				Spare	29	
	L3				Spare	30	

WARNING: ALL CIRCUITS MARKED * SUPPLY FIXED EQUIPMENT VUNERABLE TO INSULATION RESISTANCE TESTS.

RHB Partnership LLP The Old Vicarage, Popham, Hampshire SO21 3BJ T: 01256 398222 E: info@rhbpartnership.co.uk					Distribution Board Schedule		
Board Ref:LP11					Isolator: 100A TP&N		
Designation: Lighting and Power					Sub - Main Cable:		
Location: Mezzanine - Warehouse					Protective Device: 100A MCCB		
Circuit Ref:	MCB/RCBO Rating	Type	Points Served	Circuit Designation		Way No.	Cable Size & Type
1	L1	20A	B	-	F5 Fan (3kW) heater – Radial Circuit	1	4.0mm ² 62491B
	L2				Spare	2	
	L3	32A/30	B	-	Small Power Outlets Warehouse Mezzanine – Ring Circuit	3	4.0mm ² 62491B
2	L1	-			-	4	
	L2	20A	B		TP&N ACC2 (6kW) – Radial Circuit	5	4.0mm ² 62491B
	L3	-			-	6	
3	L1				Spare	7	
	L2	20A	B	-	F1 Fan (3kW) heater – Radial Circuit	8	4.0mm ² 62491B
	L3				Spare	9	
4	L1				Spare	10	
	L2				Spare	11	
	L3				Spare	12	
5	L1				Spare	13	
	L2				Spare	14	
	L3				Spare	15	
6	L1				Spare	16	
	L2				Spare	17	
	L3				Spare	18	
SUB-METERED SECTION 2 LIGHTING							
7	L1	10A	C	-	Mezzanine Lighting – Radial Circuit	19	1.5mm ² 62491B
	L2	10A	C	-	Mezzanine Lighting – Radial Circuit	20	1.5mm ² 62491B
	L3	10A	C	-	Mezzanine Lighting – Radial Circuit	21	1.5mm ² 62491B
8	L1	10A	C	-	Mezzanine Lighting – Radial Circuit	22	1.5mm ² 62491B
	L2	10A	C	-	Mezzanine Lighting – Radial Circuit	23	1.5mm ² 62491B
	L3				Spare	24	
9	L1	10A	C	-	Above Trade Counter Lighting – Radial Circuit	25	1.5mm ² 62491B
	L2	10A	C	-	Above 1 st Floor Offices Lighting – Radial Circuit	26	1.5mm ² 62491B
	L3				Spare	27	
10	L1				Spare	28	
	L2				Spare	29	
	L3				Spare	30	

WARNING: ALL CIRCUITS MARKED * SUPPLY FIXED EQUIPMENT VUNERABLE TO INSULATION RESISTANCE TESTS.

RHB Partnership LLP The Old Vicarage, Popham, Hampshire SO21 3BJ T: 01256 398222 E: info@rhbpartnership.co.uk					Distribution Board Schedule		
Board Ref: LP12					Isolator: 100A TP&N		
Designation: Lighting					Sub - Main Cable:		
Location: Covered Storage					Protective Device: 100A MCCB		
Circuit Ref:	MCB Rating	Type	Points Served	Circuit Designation		Way No.	Cable Size & Type
1	L1	10A	C	-	Covered Storage Lighting – Radial Circuit	1	2.5mm ² 62491B
	L2	10A	C	-	Covered Storage Lighting – Radial Circuit	2	1.5mm ² 62491B
	L3	10A	C	-	Covered Storage Lighting – Radial Circuit	3	2.5mm ² 62491B
2	L1	10A	C	-	Covered Storage Lighting – Radial Circuit	4	1.5mm ² 62491B
	L2	10A	C	-	Covered Storage Lighting – Radial Circuit	5	2.5mm ² 62491B
	L3	10A	C	-	Covered Storage Lighting – Radial Circuit	6	1.5mm ² 62491B
3	L1	10A	C	-	Covered Storage Lighting – Radial Circuit	7	2.5mm ² 62491B
	L2	10A	C	-	Covered Storage Lighting – Radial Circuit	8	1.5mm ² 62491B
	L3	10A	C	-	Covered Storage Lighting – Radial Circuit	9	2.5mm ² 62491B
4	L1	10A	C	-	Covered Storage Lighting – Radial Circuit	10	1.5mm ² 62491B
	L2	10A	C	-	External Lighting – Radial Circuit	11	4.0mm ² XLPE/SWA/LSF
	L3	10A	C	-	External Lighting – Radial Circuit	12	4.0mm ² XLPE/SWA/LSF
5	L1				Spare	13	
	L2				Spare	14	
	L3				Spare	15	
6	L1				Spare	16	
	L2				Spare	17	
	L3				Spare	18	
7	L1				Spare	19	
	L2				Spare	20	
	L3				Spare	21	
8	L1				Spare	22	
	L2				Spare	23	
	L3				Spare	24	

WARNING: ALL CIRCUITS MARKED * SUPPLY FIXED EQUIPMENT VULNERABLE TO INSULATION RESISTANCE TESTS. BOARD TO BE PROVIDED WITH SURGE PROTECTION.