

MECHANICAL SERVICES EQUIPMENT SCHEDULES

Project Name:	17 Quay Street, Manchester
Project No:	22_010
Document Revision	T01
Date	26/09/2022
Engineer	A.P.
Asite Reference:	X-MEP-G590-Sc-XX-001

MEP Schedule Ref.	Title	Individual Schedule Revision	Last Updated
1	Extract Fans	T01	26/09/2022
2	Attenuators	T01	26/09/2022
3	Air Handling Unit	T01	26/09/2022
4	ACU	T01	26/09/2022
5	Grilles and Diffusers	T01	26/09/2022
6	Pumps / Booster Sets	T01	26/09/2022
7	Water Storage tank	T01	26/09/2022
8	Hot Water Storage	T01	26/09/2022
9	Over Door Heaters	T01	26/09/2022
10	Radiators	T01	26/09/2022
11	Radiant Panels	T01	26/09/2022
12	Air Source Heat Pump	T01	26/09/2022
13	External Louvre	T01	26/09/2022

Revision Summary		
Description	Document Revision	Date
Tender Issue	T01	26/09/2022

Project Name	17 Quay Street, Manchester
Schedule Title	Extract Fan
Schedule Ref	MEP-SCH-01
Revision	T01
Date	26/09/2022

Drawing Ref	EF-01
Location	Roof
System	Toilet Extract
Volume (m ³ /s)	1.562
External Resistance (Pa)	300
Type	MUB 042 500EC Multibox
SFP	0.5
Voltage (V) / R.C (A)	400
Motor	EC
Inverter	n/a
Control	Electronic speed controller and Fused spur only. Designed to be on 24/7

Drawing Ref	EF-02
Location	Basement Plant Room
System	Car Park Smoke Vent
Volume (m ³ /s)	TBC BY SPECIALIST SUB-CONTRACTOR
External Resistance (Pa)	
Type	
SFP	
Voltage (V) / R.C (A)	
Motor	
Inverter	
Control	

Drawing Ref	EF-03
Location	Basement Plant Room
System	Plant Room Extract
Volume (m ³ /s)	133
External Resistance (Pa)	N/A - Wall Fan
Type	Lo-carbon T series Wall Fan
SFP	0.3
Voltage (V) / R.C (A)	220-240V / 1Ph / 50Hz
Motor	EC
Inverter	N/a
Control	On/off via fused spur only

Project Name	17 Quay Street, Manchester
Schedule Title	Attenuators
Schedule Ref	MEP-SCH-02
Revision	T01
Date	26/09/2022

Ref	Location	Duct Size (mm)	Dimensions (mm)			Volume (m³/s)	Pressure Loss (Pa)	Noise Rating
			W	H/Dia	L			
ATT 01	Roof - INTAKE	800 x 600	TBC BY ATTENUATOR MANUFACTURER			2.800	>35	NR40
ATT 02	Roof - EXHAUST	700 x 700	TBC BY ATTENUATOR MANUFACTURER			2.500	>35	NR40
ATT 03	Roof - SUPPLY	800 x 600	TBC BY ATTENUATOR MANUFACTURER			2.800	>35	NR40
ATT 04	Roof - EXTRACT	700 x 700	TBC BY ATTENUATOR MANUFACTURER			2.500	>35	NR40
ATT 05	Roof - EXHAUST	500 x 500	TBC BY ATTENUATOR MANUFACTURER			1.560	>35	NR40
ATT 06	Roof - EXTRACT	500 x 500	TBC BY ATTENUATOR MANUFACTURER			1.560	>35	NR40
ATT 07	Roof - INTAKE	900 x 600	TBC BY ATTENUATOR MANUFACTURER			3.200	>35	NR40
ATT 08	Roof - EXHAUST	900 x 600	TBC BY ATTENUATOR MANUFACTURER			3.000	>35	NR40
ATT 09	Roof - SUPPLY	900 x 600	TBC BY ATTENUATOR MANUFACTURER			3.200	>35	NR40
ATT 10	Roof - EXTRACT	900 x 600	TBC BY ATTENUATOR MANUFACTURER			3.000	>35	NR40
ATT 11	GF Meeting Room - Supply	200ø	TBC BY ATTENUATOR MANUFACTURER			0.200	>35	NR40
ATT 12	Basement - EXHAUST	1000 x 600	TBC BY SPECIALST SUB-CONTRACTOR				>35	NR40
ATT 13	Basement - EXTRACT	1000 x 600					>35	NR40
ATT 14	AHU 03 - INTAKE	250 x 250	TBC BY ATTENUATOR MANUFACTURER			0.187	>35	NR40
ATT 15	AHU 03 - EXHAUST	200 x 200	TBC BY ATTENUATOR MANUFACTURER			0.187	>35	NR40
ATT 16	AHU 03 - SUPPLY	250 x 250	TBC BY ATTENUATOR MANUFACTURER			0.187	>35	NR40
ATT 17	AHU 03 - EXTRACT	200 x 200	TBC BY ATTENUATOR MANUFACTURER			0.187	>35	NR40

Notes

- 1.0 The attenuator supplier shall undertake acoustic calculations to ensure that the attenuators achieve the specified noise criteria as defined within CIBSE Guidance.
- 2.0 If an alternative attenuator supplier is proposed then the Contractor shall allow for them to undertake witnessed tests to prove their claimed insertion loss performance in a UKAS accredited BS EN ISO 7235: 2009 test facility, for two sample units. This shall be undertaken prior to order.
- 4.0 Unless stated otherwise all attenuators shall be constructed as follows: Galvanised sheet steel casings with 30mm profile flanges that are fully compliant with DW/TM1 at a high pressure rating (+2000/-750Pa). Profile flanges shall be compatible with Doby, Mez & Metu flanging systems. Elements shall be installed in the vertical plane, with side elements provided as standard, and all elements shall have aerodynamic inlet and outlet fairings. Element facings shall be constructed from expanded galvanised steel mesh with fibre glass tissue bonded to the inner face. Mineral wool infill shall be overpacked to minimise voids due to settlement. Attenuator ends shall be protectively wrapped, and all attenuators shall be delivered to site on pallets and individually labelled.

Project Name	17 Quay Street, Manchester
Schedule Title	MVHR UNITS
Schedule Ref	MEP-SCH-03
Revision	T01
Date	26/09/2022

Ref	Room Name	Manufactures Reference	Design Volume (L/s)	External Resistance (Pa)	Electrical Supply		Dimensions (L x W x H)mm	Weight (kg)
					V x P x Hz x kW	Electric Heater Battery Rating (kW)		
AHU 01	Roof	Geniox 16	2834 S 2509 E	300	400V x 3P x 50Hz	52.4kW	3982 x 1682 x 1902	1763
AHU 02	Roof	Geniox 18	3181 S 3022 E	300	400V x 3P x 50Hz	52.4kW	3982 x 1682 x 1902	1763
AHU 03	Roof serving Ground Floor Café	TBC	187	210	400V x 3P x 50Hz	N/A	2282 x 1082 x 1082	900

Notes:

- 1.0 Performance criteria supplied. Contractor shall submit data sheets of preferred manufacturer to MEP for review.
- 2.0 The equipment shall be installed to the manufacturers recommendations.
- 3.0 Each MVR unit shall be supplied with manufacturers CO2 sensor.
- 4.0 This schedule shall be read in conjunction with the Project Specification.
- 5.0 Units to be Eurovent Certified Energy Efficiency Class A.
- 6.0 Units to be fitted with stepless EC motors.
- 7.0 Units to have a temperature efficiency dry of no less than 82%
- 8.0 Unit selection based on Systemair. Contact Graham Priestley 07779 152766 (Graham.Priestley@systemair.co.uk). All selections are open to equal and approved selection.

Project Name	17 Quay Street, Manchester
Schedule Title	ACU Schedule
Schedule Ref	MEP-SCH-04
Revision	T01
Date	26/09/2022

INDOOR UNITS															
Area	No. Of FCU's	Ref	Rooms	Total Duty Required	Indoor Unit Type	Total Cooling	Heating	Electrical Supply	Running Current (A)	Running Current (A)	Fuse Rating	Dimensions	Weight (Kg)	Noise (dBA)	Airflow (l/s)
				(kW)		UK (kW)	(kW)		Heating	Cooling	(Amps)	(W x D x H)			
Ground Floor	2	-	F&B / Café Unit	5.0	PEFY-M25VMA-A	2.5	3.2	220-240v, 50Hz	0.25	0.25	6	700x732x250	21	21-25-27	
	1	-	Reception	5.0	PEFY-M50VMA-A	5	6.3	220-240v, 50Hz	0.51	0.51	6	900x732x250	25	24-31-34	
	1	-	Buisness Lounge	2.5	PEFY-M32VMA-A	3.2	4	220-240v, 50Hz	0.34	0.34	6	700x732x250	21	23-27-30	
	1	-	Buisness Lounge	2.5	PEFY-M32VMA-A	3.2	4	220-240v, 50Hz	0.34	0.34	6	700x732x250	21	23-27-30	
	1	-	Meeting Room	2.7	PEFY-M32VMA-A	3.2	4	220-240v, 50Hz	0.34	0.34	6	700x732x250	21	23-27-30	
	1	-	Meeting Room	1.7	PEFY-M20VMA-A	2	2.5	220-240v, 50Hz	0.25	0.25	6	700x732x250	21	21-25-27	
First Floor (North)	15	-	Open Office	2	PEFY-M25VMA-A	2.5	3.2	220-240v, 50Hz	0.25	0.25	6	700x732x250	21	21-25-27	
First Floor (South)	16	-	Open Office	2	PEFY-M25VMA-A	2.5	3.2	220-240v, 50Hz	0.25	0.25	6	700x732x250	21	21-25-27	
Second Floor (North)	12	-	Open Office	2.5	PEFY-M32VMA-A	3.2	4	220-240v, 50Hz	0.34	0.34	6	700x732x250	21	23-27-30	
Second Floor (South)	16	-	Open Office	2	PEFY-M25VMA-A	2.5	3.2	220-240v, 50Hz	0.25	0.25	6	700x732x250	21	21-25-27	
Third Floor (North)	15	-	Open Office	2	PEFY-M25VMA-A	2.5	3.2	220-240v, 50Hz	0.25	0.25	6	700x732x250	21	21-25-27	
Third Floor (South)	16	-	Open Office	2	PEFY-M25VMA-A	2.5	3.2	220-240v, 50Hz	0.25	0.25	6	700x732x250	21	21-25-27	
Fourth Floor (North)	10	-	Open Office	3	PEFY-M32VMA-A	3.2	4	220-240v, 50Hz	0.34	0.34	6	700x732x250	21	23-27-30	
Fourth Floor (South)	16	-	Open Office	2	PEFY-M25VMA-A	2.5	3.2	220-240v, 50Hz	0.25	0.25	6	700x732x250	21	21-25-27	
Fifth Floor (North)	10	-	Open Office	3.7	PEFY-M40VMA-A	4.1	5	220-240v, 50Hz	0.51	0.51	6	900x732x250	25	23-28-31	
Fifth Floor (South)	16	-	Open Office	2.5	PEFY-M32VMA-A	3.2	4	220-240v, 50Hz	0.34	0.34	6	700x732x250	21	23-27-30	
Basement	1	FCU 99	Comms Room	2	PUZ-ZM35VKA	2	2.5	From outdoor unit				898 x 249 x 295	15	36-40-43	
Basement	1	FCU 98	Plant room	2	PUZ-ZM35VKA	2	2.5	From outdoor unit				898 x 249 x 295	15	36-40-43	

Project Name	17 Quay Street, Manchester
Schedule Title	ACU Schedule
Schedule Ref	MEP-SCH-04
Revision	T01
Date	26/09/2022

OUTDOOR UNIT			BC Box
Outdoor Unit Ref	Electrical Voltage / RC (A) / SC (A) / Power (W)	SYSTEM SCOP / SEER. In accordance with approved document L	
TBC			
PKA-M3SLA2	240v / 20A / 2400W	4.82 / 4.93 / 4.0 / 8.4	n/a
PKA-M3SLA2	240v / 20A / 2400W	4.82 / 4.93 / 4.0 / 8.4	n/a

- Notes:
- 1.0

Selections are based on Mitsubishi by Pac-air or equal and approved. Please contact Stuart Law on 07875195572.
- 2.0

All equipment to use refrigerant R410A or R32.
- 3.0

Outdoor units selected to give 51dBA.
- 4.0

All pipework and control wiring to be run on cable tray and/or basket.
- 5.0

Units shall operate on a timed basis to suit the occupancy profile of the individual rooms.
- 6.0

Each indoor unit shall be complete with cleanable and/or washable filter.
- 7.0

Each indoor unit shall be complete with a condensate pump and level switch to alarm on high level and switch off the indoor unit.
- 8.0

Each indoor unit shall be capable of delivering 50 Pa external resistance at mid speed.
- 9.0

Each indoor unit shall be temperature controlled by a return air sensor located at ceiling level within the space.
- 10.0

Each Fan Coil unit to be supplied with manufacturers discreet temperature sensor.

Project Name	17 Quay Street, Manchester
Schedule Title	Grilles and Diffusers
Schedule Ref	MEP-SCH-05
Revision	T01
Date	26/09/2022

Ref	Room Name	Volume (l/s)	Throw to 0.25 m/s (m)	Direction (Heating / Cooling)	Type	Max Pressure Drop (Pa)	Noise Rating	Min Duct Conn Size (mm A)	Face Size (mm)	Notes
EXTRACT GRILLES										
EG01	Car Park	TBC BY SPECIALIST SUB-CONTRACTOR								
EG02	Car Park									
EG03	Car Park									
EG04	Female Showers	112	N/A	N/A	Air Valve	<15	NR25		TBC	
EG05	Female Showers	112	N/A	N/A	Air Valve	<15	NR25		TBC	
EG06	Male Showers	112	N/A	N/A	Air Valve	<15	NR25		TBC	
EG07	Male Showers	112	N/A	N/A	Air Valve	<15	NR25		TBC	
EG08	Drying Room	94	N/A	N/A	Air Valve	<15	NR25		TBC	
EG09	GF Access WC	20	N/A	N/A	Air Valve	<15	NR25		TBC	
EG10	GF Unisex WC	20	N/A	N/A	Air Valve	<15	NR25		TBC	
EG11	GF Unisex WC	20	N/A	N/A	Air Valve	<15	NR25		TBC	
EG12	GF Unisex WC	20	N/A	N/A	Air Valve	<15	NR25		TBC	
EG13	First Floor Unisex WC	20	N/A	N/A	Air Valve	<15	NR25		TBC	
EG14	Second Floor Unisex WC	20	N/A	N/A	Air Valve	<15	NR25		TBC	
EG15	Third Floor Unisex WC	20	N/A	N/A	Air Valve	<15	NR25		TBC	
EG16	Fourth Floor Unisex WC	20	N/A	N/A	Air Valve	<15	NR25		TBC	
EG17	Fifth Floor Unisex WC	20	N/A	N/A	Air Valve	<15	NR25		TBC	
EG18	Reception	162	N/A	N/A	4-Way	<15	NR25		TBC	Non-Ducted
EG19	Buisness Lounge	162	N/A	N/A	4-Way	<15	NR25		TBC	Non-Ducted
EG20	Buisness Lounge	162	N/A	N/A	4-Way	<15	NR25		TBC	Non-Ducted
EG21	Meeting Room	150	N/A	N/A	4-Way	<15	NR25		TBC	Non-Ducted
EG22	Meeting Room	125	N/A	N/A	4-Way	<15	NR25		TBC	Non-Ducted
EG23	Offuce Unit 4 - Lvl 01	226	N/A	N/A	Duct Mounted Side Wall	< 25	NR35		TBC	Duct Mounted c/w VCD
EG24	Offuce Unit 4 - Lvl 02	227	N/A	N/A	Duct Mounted Side Wall	< 26	NR36		TBC	Duct Mounted c/w VCD

Project Name	17 Quay Street, Manchester
Schedule Title	Grilles and Diffusers
Schedule Ref	MEP-SCH-05
Revision	T01
Date	26/09/2022

Ref	Room Name	Volume (l/s)	Throw to 0.25 m/s (m)	Direction (Heating / Cooling)	Type	Max Pressure Drop (Pa)	Noise Rating	Min Duct Conn Size (mm A)	Face Size (mm)	Notes
SUPPLY GRILLES										
SG01	Reception	121	N/A	N/A	4-Way	<15	NR25		TBC	
SG02	Reception	121	N/A	N/A	4-Way	<15	NR25		TBC	
SG03	Buisness Lounge	121	N/A	N/A	4-Way	<15	NR25		TBC	
SG04	Buisness Lounge	121	N/A	N/A	4-Way	<15	NR25		TBC	
SG05	Meeting Room	75	N/A	N/A	4-Way	<15	NR25		TBC	
SG06	Meeting Room	75	N/A	N/A	4-Way	<15	NR25		TBC	
SG07	Meeting Room	63	N/A	N/A	4-Way	<15	NR25		TBC	
SG08	Meeting Room	63	N/A	N/A	4-Way	<15	NR25		TBC	

Notes:

- 1.0 Selections based on advanced air flow solutions or equal and approved. Contact Ian Lees @ il@advancedairflowsolutions.com or on 07860617261.
- 2.0 All grilles and diffusers shall be complete with opposed blade volume control damper.
- 3.0 All supply diffusers shall have four way Louvre faced blanked to give actual throw required with four way appearance.
- 4.0 All extract grilles shall be four way Louvred Faced – The larger volumes must be 525x525 Active neck size to achieve the correct performance for the duty.
- 5.0 All grilles and diffusers shall be finished in polyester powder paint to 20% gloss.
- 6.0 All grilles and diffusers shall be complete with acoustically lined plenum box to give duct connection and neck size as shown. Orientation of duct spigot (side/top/angled) determined by Mechanical Contractor subject to his co-ordinated working drawings.
- 7.0 Mechanical Contractor to confirm direction and distance of throw once he has produced co-ordinated drawings and offer diffuser selections for comment.
- 8.0 Contractor to confirm RAL colour with interior designer prior to placing any orders.

Project Name	17 Quay Street, Manchester
Schedule Title	Pump / Booster Sets
Schedule Ref.	MEP-SCH-06
Revision	T01
Date	26/09/2022

Reference	BS-01 Low pressure
System	Boosted cold water
Location	Basement
Model	GHV40/22SV10R110T/4
Total Set Duty	1.584 l/s @ 3.24 bar
No. of pumps	4
Control Method	D/A/A/S
Elec requirements	415v / 50Hz / 3p
Starter Motor	Soft Start VSD
Manufacturer	Lowara UK Limited
Pressure Vessel	4 x 25 Litre

Reference	CAT 5-01
System	Roof Wash Down
Location	Roof
Model	Resvari Plus 250 3-3
Total Set Duty	1.0 l/s @ 2.0 Bar
No. of pumps	Duel Pump
Control Method	Variable Speed
Elec requirements	230v / 50Hz / 1p
Manufacturer	Lowara UK Limited
Pressure Vessel	Intergrated within unit

Reference	CAT 5-02
System	Car Park Wash Down
Location	Basement Plantroom
Model	Resvari Plus 250 3-3
Total Set Duty	1.0 l/s @ 2.0 Bar
No. of pumps	Duel Pump
Control Method	Variable Speed
Elec requirements	230v / 50Hz / 1p
Manufacturer	Lowara UK Limited
Pressure Vessel	Intergrated within unit

Project Name	17 Quay Street, Manchester
Schedule Title	Pump / Booster Sets
Schedule Ref.	MEP-SCH-06
Revision	T01
Date	26/09/2022

Reference	PUMP-01
System	Heating Return Circulator
Location	Roof Plantroom
Model	Grundfos MAGNA3 50-180F
Volume (Kg/s)	2.67
External resistance (Kpa)	130.7
Elec requirements	230V, 1P, 764W, 3.6A
Sound Pressure Level (dBA)	N/A
Type	Inline Circulator
Control	Constant Pressure

Reference	PUMP-02
Location	Roof Plant Room
System	Domestic Hot Water Return
Total Set Duty	0.15 l/s @ 3.43 Bar
External Resistance (kPa)	
Sound Pressure Level (dB _A)	
Inverter	Not required
Type	Hot water circulator
Electrical Requirement	
Control	
Manufacturer	Grundfos

Notes:

- 1.0 Each set shall operate on a stand alone basis from their own integral control panel to control to a constant discharge pressure irrespective of flow rate.
- 2.0 Each individual pump shall be complete with suction and discharge isolating valves, delivery non return valve and suction strainer.
- 3.0 Sets shall be interlocked with supply tank level to shut the set down on low water level danger.
- 4.0 Set controls shall change duty pump every 100 hours of pump run to allow equal run times.
- 5.0 Sets shall be base frame mounted and be complete with isolation supports, frames etc to mount and fix all individual items of each set.
- 6.0 The main booster sets are as provided by Xylem Water Solutions. Quotation reference J20020589452-5. Contact phil.dunphy@xylem.com / 07825715287.

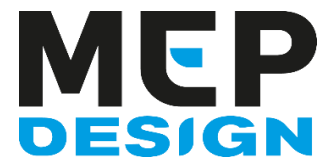
Project Name	17 Quay Street, Manchester
Schedule Title	Water Storage Tanks
Schedule Ref.	MEP-SCH-07
Revision	T01
Date	26/09/2022

Reference	Description	Location	Serving	Actual Water Storage Capacity (L)	Nominal Capacity (L)	Size (mm) (External) (L x W x H)	Design Full Weight (KG)
CWT-01	Cold Water Storage	Basement	All Floors	See details on drawing 22_010-X-MEP-G501-PL-B1-001			

Notes:

- 1.0 This selection is based on equipment manufactured by Deway Waters
- 3.0 The equipment shall be installed to the manufacturers recommendations and mounted on a manufacturers approved flat level base. Tank to have externally flanged sides and internally flanged base and lid.
- 4.0 The tanks shall be WRC approved and comply with BS7491 Pt3 and BSEN ISO9001.
- 5.0 The tanks shall be complete 50mm thick low density p/u CFC free foam insulation.
- 6.0 Each tanks shall be lockable man access panel, ball valve chamber manhole and lid.
- 7.0 Each tank shall have in each partition 35mm ball valve inlet, 108mm outlet connections, 22mm screened warning pipe, 76mm screen overflow, 42mm drain, 15mm test point.
- 8.0 The tank shall have control able to provide high level tank monitoring, low level tank monitoring and tank temperature monitoring. The control shall interface with the building Fire Alarm Panel.
- 9.0 Tank shall be complete with galvanised handrails, mid rails and toe boards to enable safe access onto the top of the tank.
- 10.0 Wet Riser tank to have side inlet access box
- 11.0 The tanks shall sit on a 50mm steel box plinth

Project Name	17 Quay Street, Manchester
Schedule Title	Hot Water Storage
Schedule Ref.	MEP-SCH-08
Revision	T01
Date	26/09/2022



Drawing Reference	HWS 01 & 02
Location	Roof
Manufacturer	OSO Hot Water
Description	Hot Water Calorifier
Storage (l)	534
Primary Heat Exchangers	LTHW
Primary Operating Conditions	53-50
Final Hot Water Connections	42mm
Max Chilled water pressure drop	N/A
Operating Pressures	3 Bar
Total Weight Full (KG)	694

Notes:

- 1.0 Equipment based on OSO Water Heaters or equal and approved.
- 2.0 Packaged system to be complete with safety pressure and temperature relief valves
- 3.0 Packaged system to be complete with unvented kit
- 4.0 Schedule to be read in conjunction with the project specification
- 5.0 Calorifier shall be constructed in accordance with BS853 and BS3274
- 6.0 5kW electrical immersion heater required in each cylinder for pasteurization

Project Name	17 Quay Street, Manchester
Schedule Title	Over Door Heaters
Schedule Ref.	MEP-SCH-09
Revision	T01
Date	26/09/2022



Ref.	Dimensions			Manufacturer Reference	Weight (kg)	Heating medium	Throw (mm) FFL to Air Curtain	Electrical Requirements	Aperture Size in ceiling (mm)
	Length (mm)	Width (mm)	Height (mm)						
ODU-01	1560	345	230	PAF251W	26	LTHW	2900	230v, 1P, 0.6A, 140W	Not Required, models sits below ceiling

Notes:

- 1.0 Equipment based on Systemair or equal and approved. Please contact Graham Priestley graham.priestley@systemair.co.uk
- 2.0 This schedule to be read in conjunction with the Project Specification.
- 3.0 Description of Control
 - 3.1 Unit to be supplied with local controller.
 - 3.2 Controller position TBC with interior designer.
 - 3.3 Units to be complete with high temperature cut out.
 - 3.4 Unit controlled locally via hard-wire fused spur.
 - 3.5 System linked to external temperature by Remote Thermostat to automatically modulate heat output of unit.

Project Name	17 Quay Street, Manchester
Schedule Title	Radiators
Schedule Ref.	MEP-SCH-10
Revision	T01
Date	26/09/2022

RADIATOR SCHEDULE									
Drawing Reference	Quantity	Temperature (°C)		Radiator Output (Watts)	Size			Floor	Room
		Flow	Return		Length (mm)	Height (mm)	Depth (mm)		
RAD 01	5	53	50	1050	1800	60	129	Basement	Drying Room / Shower Room

Notes:

- 1.0 Equipment based on Stelrad or equal and approved.
- 2.0 All radiators shall be supplied with TRVs and LSVs.

Project Name	17 Quay Street, Manchester
Schedule Title	Radiant Panels
Schedule Ref.	MEP-SCH-11
Revision	T01
Date	26/09/2022



Drawing Reference	Room	Panel Size (mm)		Min Output \\(w)	LTHW Flow Rate (Kg/s)	Type	Heating F/R Temperature	Room Temp (°c)
		Length	Width					
PHB-01	Basement Lift Lobby	1200	600	227	0.018	Ceiling Mounted Radiant Panel	53 / 50	20
PH0-01	Ground Floor Stairs	1200	600	227	0.018	Ceiling Mounted Radiant Panel	53 / 50	20
PH0-02	Ground Floor Stairs	1200	600	227	0.018	Ceiling Mounted Radiant Panel	53 / 50	20
PH0-03	Ground Floor Unisex WCs	1200	600	227	0.018	Ceiling Mounted Radiant Panel	53 / 50	20
PH0-04	Ground Floor Lobby	1200	600	227	0.018	Ceiling Mounted Radiant Panel	53 / 50	20
PH0-05	Ground Floor Stairs	1200	600	227	0.018	Ceiling Mounted Radiant Panel	53 / 50	20
PH1-01	First Floor Unisex WCs	1800	600	344	0.0274	Ceiling Mounted Radiant Panel	53 / 50	20
PH1-02	First Floor Stairs	1200	600	227	0.018	Ceiling Mounted Radiant Panel	53 / 50	20
PH1-03	First Floor Lobby	1200	600	227	0.018	Ceiling Mounted Radiant Panel	53 / 50	20
PH1-04	First Floor Unisex WCs	1800	600	344	0.0274	Ceiling Mounted Radiant Panel	53 / 50	20
PH1-05	First Floor Lobby	1200	600	227	0.018	Ceiling Mounted Radiant Panel	53 / 50	20
PH1-06	First Floor Stairs	1200	600	227	0.018	Ceiling Mounted Radiant Panel	53 / 50	20
PH2-01	Second Floor Unisex WCs	1800	600	344	0.0274	Ceiling Mounted Radiant Panel	53 / 50	20
PH2-02	Second Floor Stairs	1200	600	227	0.018	Ceiling Mounted Radiant Panel	53 / 50	20
PH2-03	Second Floor Lobby	1200	600	227	0.018	Ceiling Mounted Radiant Panel	53 / 50	20
PH2-04	Second Floor Unisex WCs	1800	600	344	0.0274	Ceiling Mounted Radiant Panel	53 / 50	20
PH2-05	Second Floor Lobby	1200	600	227	0.018	Ceiling Mounted Radiant Panel	53 / 50	20
PH2-06	Second Floor Stairs	1200	600	227	0.018	Ceiling Mounted Radiant Panel	53 / 50	20
PH3-01	Third Floor Unisex WCs	1800	600	344	0.0274	Ceiling Mounted Radiant Panel	53 / 50	20
PH3-02	Third Floor Stairs	1200	600	227	0.018	Ceiling Mounted Radiant Panel	53 / 50	20
PH3-03	Third Floor Lobby	1200	600	227	0.018	Ceiling Mounted Radiant Panel	53 / 50	20
PH3-04	Third Floor Unisex WCs	1800	600	344	0.0274	Ceiling Mounted Radiant Panel	53 / 50	20
PH3-05	Third Floor Lobby	1200	600	227	0.018	Ceiling Mounted Radiant Panel	53 / 50	20
PH3-06	Third Floor Stairs	1200	600	227	0.018	Ceiling Mounted Radiant Panel	53 / 50	20
PH4-01	Fourth Floor Unisex WCs	1800	600	344	0.0274	Ceiling Mounted Radiant Panel	53 / 50	20
PH4-02	Fourth Floor Stairs	1200	600	227	0.018	Ceiling Mounted Radiant Panel	53 / 50	20
PH4-03	Fourth Floor Lobby	1200	600	227	0.018	Ceiling Mounted Radiant Panel	53 / 50	20
PH4-04	Fourth Floor Unisex WCs	1800	600	344	0.0274	Ceiling Mounted Radiant Panel	53 / 50	20
PH4-05	Fourth Floor Lobby	1200	600	227	0.018	Ceiling Mounted Radiant Panel	53 / 50	20
PH4-06	Fourth Floor Stairs	1200	600	227	0.018	Ceiling Mounted Radiant Panel	53 / 50	20
PH5-01	Fifth Floor Unisex WCs	1800	600	344	0.0274	Ceiling Mounted Radiant Panel	53 / 50	20
PH5-02	Fifth Floor Stairs	1200	600	227	0.018	Ceiling Mounted Radiant Panel	53 / 50	20
PH5-03	Fourth Floor Lobby	1200	600	227	0.018	Ceiling Mounted Radiant Panel	53 / 50	20
PH5-04	Fourth Floor Unisex WCs	1800	600	344	0.0274	Ceiling Mounted Radiant Panel	53 / 50	20
PH5-05	Fourth Floor Lobby	1200	600	227	0.018	Ceiling Mounted Radiant Panel	53 / 50	20
PH5-06	Fourth Floor Stairs	1200	600	227	0.018	Ceiling Mounted Radiant Panel	53 / 50	20
PH6-01	Roof Stairs	1200	600	227	0.018	Ceiling Mounted Radiant Panel	53 / 50	20
PH6-02	Roof Lobby	1200	600	227	0.018	Ceiling Mounted Radiant Panel	53 / 50	20

Notes:

- 1.0 Equipment based on MerriottUK or equal and approved. Based on Merriott Smart Radiant Panel Tech range.
- 2.0 Refer to accompanying drawings for locations.

Project Name	17 Quay Street, Manchester
Schedule Title	Air Source Heat Pump
Schedule Ref.	MEP-SCH-12
Revision	T01
Date	26/09/2022

AIR SOURCE HEAT PUMP								
Drawing Reference	Room	Indoor Model	Total Duty (kW) Heating / Cooling (Design Values)	Dimensions W x D x H (mm)	Electrical Voltage / Phase / RC (A)	Weight (kg)	Seasonal co- effeciant of performance	Comments
ASHP 01	Roof Mounted	N/A	34.9 / NA (Heating only)	2125 x 2175 x 1330	400V x 3P x 72A	759	3.59	

Notes:

- 1.0 Equipment based on selections by Aquasnap by Carrier UK. Please contact Scott Davies on 07435994689 / scott.davies@carrier.com.
- 2.0 The equipment shall be installed to the manufacturers recommendations.
- 3.0 To be supplied with soft start inverter drive to reduce start up current.
- 4.0 Designed based on a water flow/retur temepratures of 53/50°C.
- 5.0 Design based on external design temperature of = -2°C DB

Project Name	17 Quay Street, Manchester
Schedule Title	External Louvre Schedule
Schedule Ref.	MEP-SCH-13
Revision	T01
Date	26/09/2022

Ref	Vol (m ³ /s)	Width (mm)	Height (mm)	Free Area	Press Drop (Pa)	Bird mesh
LVRE-01	N/A	900	300	> 75%	N/A	NO
LVRE-02	N/A	900	300	> 75%	N/A	NO

Notes:

- 1.0 RAL colour to be approved by architect.
- 2.0 Refer to architects details for fixing arrangements.
- 3.0 Schedule to be read in conjunction with the Project Specification