

NOTES:

- This drawing is to be read in conjunction with all relevant drawings, documents & specification.
- Dimensions not to be scaled.
- To be read in conjunction with ventilation schematics for sizing and flow rate.
- To be read in conjunction with all relevant M&E drawings, spec.s and reports
- Ducts passing through unheated spaces to be insulated to prevent condensation.
- All ductwork passing fire/smoke protected zone to have fire damper.

LEGEND

- Exhaust Air - (EXH)
- Extract Air - (EXT)
- Return Air - (RET)
- Fresh Air - (FRH)
- Supply Air - (EXH)
- Smoke Extract - (SMOKE)

- Motorised Fire Smoke Damper
- Fire Damper (fusible link)
- Volume Control Damper
- Extract Fan
- Smoke Extract Fan

Ductwork Annotation

- System Abbreviation
- Duct Size [mm]
- @ Middle Elevation from FFL [mm]

P01	07/09/2022	170	G.B	PRELIMINARY ISSUE
Rev.	Date	Seq.	BY	Description

Client:
SH Reading (phase 1) Limited

Project:
Station Hill, Reading

Drawing area:
BLOCK E — GROUND FLOOR

Drawing Title:
**VENTILATION LAYOUT SHEET 2
OF 3 - AMENITY AREA**

Approved By: **Paul Titley** Date: **09/01/22**
Checked By: **Adam Davies** Scale: **1 : 50**
Drawn By: **George Bond** Size: **A1**

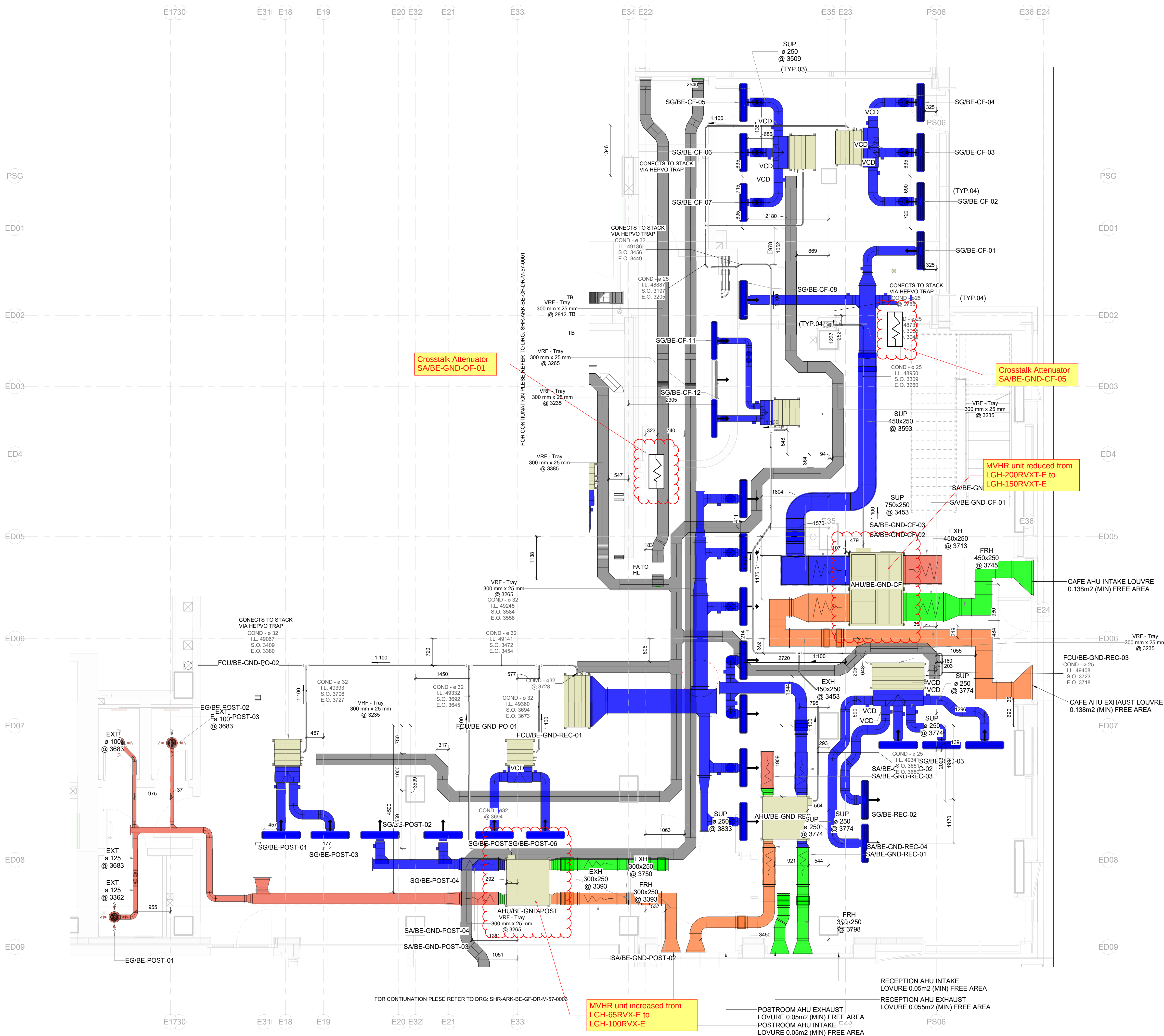
Status:
PRELIMINARY

Drawing No.
Project - Originator - Role - Volume - Type - Number
SHR-ARK-BE-GF-DR-M-57-0002

Rev.
P01

Print Date: 24/10/2022 10:55:44

File Name: SHR-ARK-ZZ-ZZ-CM-V-80-0001



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LEGEND

Exhaust Air - (EXH)

Extract Air - (EXT)

Return Air - (RET)

Fresh Air - (FRH)

Supply Air - (EXH)

Smoke Extract - (SMOKE)

Flue Pipe - (FLUE)

Motorised Fire Smoke Damper

Fire Damper (fusible link)

Volume Control Damper

Extract Fan

Smoke Extract Fan

Fire Damper

Motorized Smoke Fire Damper

Extract Via Bellmouth

Exhaust Louvre

Smoke Extract Louvre

Smoke Extract Via Bellmouth

Attenuator

Ductwork Annotation

System Abbreviation

Duct Size (mm)

@ Middle Elevation from FFL (mm)

P01 07/05/2022 170 G B PRELIMINARY ISSUE

Rev. Date Seq. BY Description

Client: SH Reading (phase 1) Limited

Project: Station Hill, Reading

Drawing area BLOCK E

Drawing Title VENTILATION LAYOUT SHEET 1 OF 3 - AMENITY AREA

Approved By Paul Tiley 23/05/2022

Checked By Adam Davies 15/05/2022

Drawn By George Bend 15/05/2022

Status: PRELIMINARY

Drawing No. SHR-ARK-ZZ-ZZ-DM-V-8-000

Project Originator Name - Type - Role - Number

Rev. P01

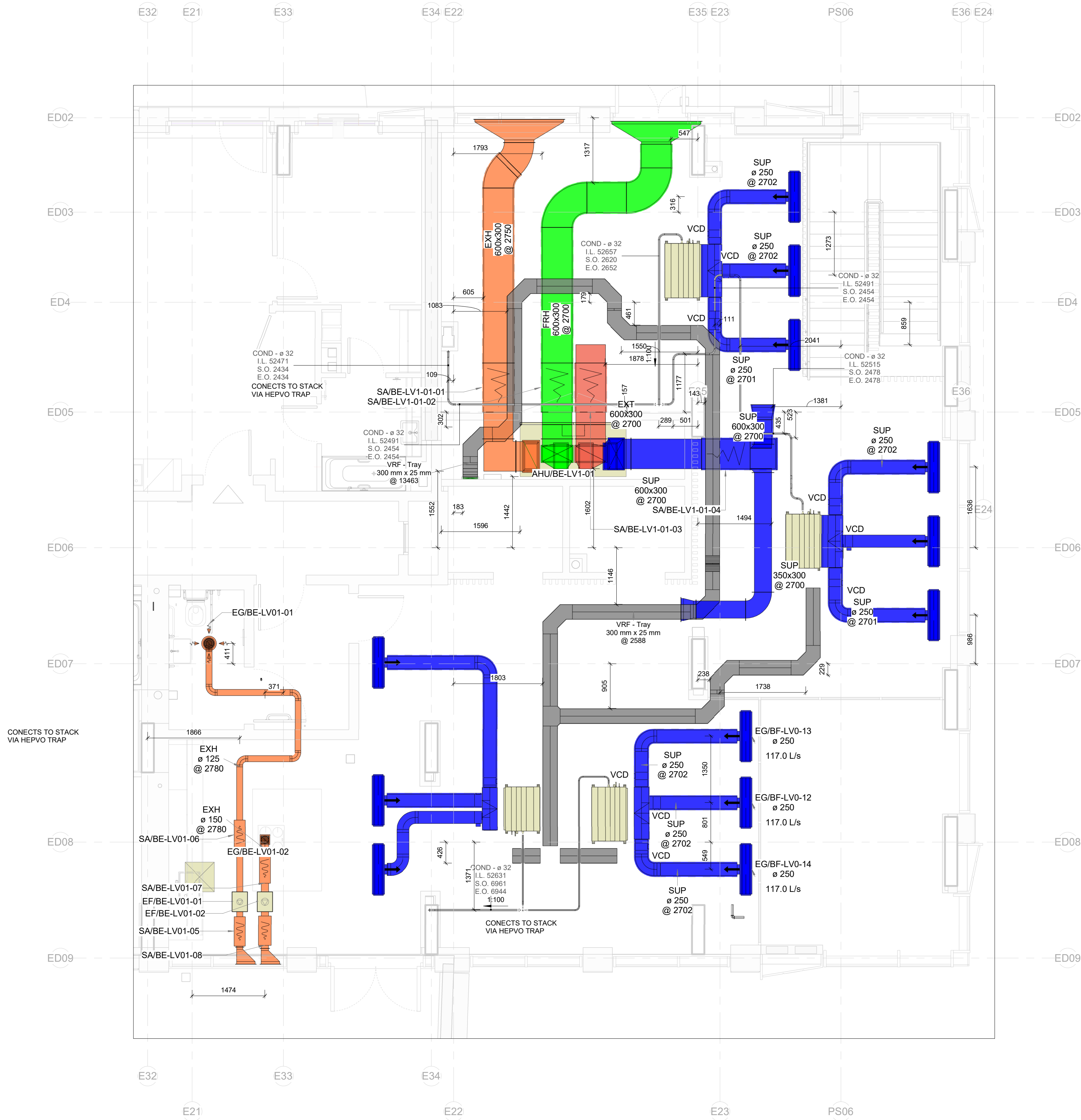
File Name: SHR-ARK-ZZ-ZZ-DM-V-8-000

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- Ducts passing through unheated spaces to be insulated to prevent condensation.
- All ductwork passing fire/smoke protected zone to have fire damper.

LEGEND

	Exhaust Air - (EXH)
	Extract Air - (EXT)
	Return Air - (RET)
	Fresh Air - (FRH)
	Supply Air - (EXH)
	Smoke Extract - (SMOKE)
	Flue Pipe - (FLUE)
	Motorised Fire Smoke Damper
	Fire Damper (fusible link)
	Volume Control Damper
	Extract Fan
	Smoke Extract Fan
	Fire Damper
	Motorized Smoke Fire Damper
	Extract Via Bellmouth
	Exhaust Louvre
	Smoke Extract Louvre
	Smoke Extract Via Bellmouth
	Attenuator
	Ductwork Annotation
	System Abbreviation
	Duct Size [mm]
	@ Middle Elevation from FFL [mm]



P01	23/09/2022	175	G B	PRELIMINARY ISSUE
Rev.	Date	Seq.	BY	Description

Client:
SH Reading (phase 1) Limited

Project:
Station Hill, Reading

Drawing area:
BLOCK E — LEVEL 01

Drawing Title:
VENTILATION LAYOUT - AMENITY
AREA

Approved By:	PAUL TITLEY	Date:	23/05/2022
Checked By:	ADAM DAVIES	Scale:	1 : 50
Drawn By:	GEORGE BOND	Scale:	A1

Status:
PRELIMINARY

Drawing No.	Rev.
Project - Originator - Volume - Type - Role - Number	P01
SHR-ARK-BE-01-DR-M-57-0001	

Project: STATION HILL - READING (AMENITY AREAS)

Date:	21-Oct-22
Revision:	P01
Job No.	21024

EQUIPMENT SCHEDULE

MVHR Units

Reference	AHU/BE-LV01-01																				
LOCATION / SYSTEM	Block E, First Floor, Residents Lounge - Mechanical Ventilation with Heat Recovery																				
CONSTRUCTION		ELECTRIC HEATING COIL										EXTRACT AIR FAN									
Panel Thickness	25mm Double Skinned	Air On (°C)				0.0°C						Design Air Flow Rate (l/s)				534 l/s					
Weatherproof Construction	No	Air Off (°C)				0.0°C						System Air Leakage (%)				6 %					
Double Stacked	n/a	Output Duty (kW)				0.0 kW						Operating Air Flow Rate (l/s)				566 l/s					
Casing Breakout Noise (@2.0 metres)	45.0 dB(A)	Full Load Current (Amps)				0.0 Amps						External Static Pressure (Pa)				150 Pa					
Air Leak Test Requirements	None	Control Type/ Capacity Steps				Burst Fired Temp Control						Selected Air Flow Rate (l/s)				608 l/s					
MAXIMUM DIMENSIONS & WEIGHTS		Electrical Supply (V,PH,Hz)				230V / 1 PH / 50 Hz						Selected External Pressure (Pa)				174 Pa					
Length (mm)	2150 mm	SUPPLY AIR FAN										Impeller/ Motor Type				Backward Curved Impeller/ EC Motor					
Width (mm)	1100 mm	Design Air Flow Rate (l/s)				534 l/s						Fan Speed Setting				2470 rpm					
Height (mm)	1800 mm	System Air Leakage (%)				6 %						Motor Rating (kW)				0.83 kW					
Weight (kg)	518 kg	Operating Air Flow Rate (l/s)				566 l/s						Motor Power Input (kW)				0.38 kW					
INTAKE FILTER SECTION		External Static Pressure (Pa)				150 Pa						Full Load Current (Amps)				4.0 Amps					
Filter Grade	F7 (BS EN799)	Selected Air Flow Rate (l/s)				608 l/s						Electrical Supply (V,PH,Hz)				230V / 1 PH / 50 Hz					
Filter Type	Panel	Selected External Pressure (Pa)				174 Pa						SOUND POWER LEVEL (re 1 pWatts)									
EXTRACT FILTER SECTION		Impeller/ Motor Type				Backward Curved Impeller/ EC Motor						Hz	63	125	250	500	1k	2k	4k	8k	dBA
Filter Grade	M5 (BS EN799)	Fan Speed Setting				SP4						Exhaust	52	58	80	71	67	64	58	52	81
Filter Type	Panel	Motor Rating (kW)				2470 rpm						Extract	37	36	54	43	45	34	26	25	55
HEAT RECOVERY SECTION		Motor Power Input (kW)				0.83 kW						UNIT ENERGY EFFICIENCY									
Type	Counterflow Plate Heat Exchanger	Full Load Current (Amps)				0.38 kW						Combined Specific Fan Power (W/l/s)				1.20 W/l/s					
Temp Efficiency (%)	87 %	Electrical Supply (V,PH,Hz)				4.0 Amps						SUPPLIER DETAILS									
Summer Bypass	100% (Automatic)	SOUND POWER LEVEL (re 1 pWatts)										Manufacturer / Type				AIRFLOW DUPLEXVENT					
Intake Air On (°C)	-4.0°C	Hz	63	125	250	500	1k	2k	4k	8k	dBA	Model / Size				FLEXI-V DV2800-V (RD5)					
Supply Air Off (°C)	17.0°C	Intake	37	36	53	43	45	35	26	25	54	Controls				Local + Interface with BMS					
Extract Air On (°C)	20.0°C	Supply	52	59	79	71	68	64	58	52	80	Accessories									

- Notes:
- 1) Manufacturer: Airflow Developments
 - 2) Units to be selected with Specific Fan Power in accordance with Table 6.9 within Building Regulations Approved Document L - Conservation of Fuel & Power
 - 3) Units to be compliant with EcoDesign Directive ErP 2016 & 2018
 - 4) Unit selection shall be capable of meeting the selected air flow and external pressure which includes a 7.5% increase in air flow and 16% increase in external pressure over the design air flow and pressure
 - 5) Units to be speed controlled to meet required design duty
 - 6) Duct mounted sound attenuation (both system and atmospheric side) shall be provided to meet stated room noise criteria
 - 7) Provide local wall mounted control, integrated to master group controller
 - 8) Provide integrated ModBus connection to (third party) BMS

Project: STATION HILL - READING (AMENITY AREAS)

Date:	21-Oct-22
Revision:	P01
Job No.	21024

EQUIPMENT SCHEDULE

MVHR Units

Reference	AHU/BE-LV01-01																				
LOCATION / SYSTEM	Block E, First Floor, Residents Lounge - Mechanical Ventilation with Heat Recovery																				
CONSTRUCTION		ELECTRIC HEATING COIL										EXTRACT AIR FAN									
Panel Thickness	25mm Double Skinned	Air On (°C)				0.0°C						Design Air Flow Rate (l/s)				534 l/s					
Weatherproof Construction	No	Air Off (°C)				0.0°C						System Air Leakage (%)				6 %					
Double Stacked	n/a	Output Duty (kW)				0.0 kW						Operating Air Flow Rate (l/s)				566 l/s					
Casing Breakout Noise (@2.0 metres)	45.0 dB(A)	Full Load Current (Amps)				0.0 Amps						External Static Pressure (Pa)				150 Pa					
Air Leak Test Requirements	None	Control Type/ Capacity Steps				Burst Fired Temp Control						Selected Air Flow Rate (l/s)				608 l/s					
MAXIMUM DIMENSIONS & WEIGHTS		Electrical Supply (V,PH,Hz)				230V / 1 PH / 50 Hz						Selected External Pressure (Pa)				174 Pa					
Length (mm)	2150 mm	SUPPLY AIR FAN										Impeller/ Motor Type				Backward Curved Impeller/ EC Motor					
Width (mm)	1100 mm	Design Air Flow Rate (l/s)				534 l/s						Fan Speed Setting				2470 rpm					
Height (mm)	1800 mm	System Air Leakage (%)				6 %						Motor Rating (kW)				0.83 kW					
Weight (kg)	518 kg	Operating Air Flow Rate (l/s)				566 l/s						Motor Power Input (kW)				0.38 kW					
INTAKE FILTER SECTION		External Static Pressure (Pa)				150 Pa						Full Load Current (Amps)				4.0 Amps					
Filter Grade	F7 (BS EN799)	Selected Air Flow Rate (l/s)				608 l/s						Electrical Supply (V,PH,Hz)				230V / 1 PH / 50 Hz					
Filter Type	Panel	Selected External Pressure (Pa)				174 Pa						SOUND POWER LEVEL (re 1 pWatts)									
EXTRACT FILTER SECTION		Impeller/ Motor Type				Backward Curved Impeller/ EC Motor						Hz	63	125	250	500	1k	2k	4k	8k	dBA
Filter Grade	M5 (BS EN799)	Fan Speed Setting				SP4						Exhaust	52	58	80	71	67	64	58	52	81
Filter Type	Panel	Motor Rating (kW)				2470 rpm						Extract	37	36	54	43	45	34	26	25	55
HEAT RECOVERY SECTION		Motor Power Input (kW)				0.83 kW						UNIT ENERGY EFFICIENCY									
Type	Counterflow Plate Heat Exchanger	Full Load Current (Amps)				0.38 kW						Combined Specific Fan Power (W/l/s)				1.20 W/l/s					
Temp Efficiency (%)	87 %	Electrical Supply (V,PH,Hz)				4.0 Amps						SUPPLIER DETAILS									
Summer Bypass	100% (Automatic)	SOUND POWER LEVEL (re 1 pWatts)										Manufacturer / Type				AIRFLOW DUPLEXVENT					
Intake Air On (°C)	-4.0°C	Hz	63	125	250	500	1k	2k	4k	8k	dBA	Model / Size				FLEXI-V DV2800-V (RD5)					
Supply Air Off (°C)	17.0°C	Intake	37	36	53	43	45	35	26	25	54	Controls				Local + Interface with BMS					
Extract Air On (°C)	20.0°C	Supply	52	59	79	71	68	64	58	52	80	Accessories									

- Notes:
- 1) Manufacturer: Airflow Developments
 - 2) Units to be selected with Specific Fan Power in accordance with Table 6.9 within Building Regulations Approved Document L - Conservation of Fuel & Power
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 - 4) Unit selection shall be capable of meeting the selected air flow and external pressure which includes a 7.5% increase in air flow and 16% increase in external pressure over the design air flow and pressure
 - 5) Units to be speed controlled to meet required design duty
 - 6) Duct mounted sound attenuation (both system and atmospheric side) shall be provided to meet stated room noise criteria
 - 7) Provide local wall mounted control, integrated to master group controller
 - 8) Provide integrated ModBus connection to (third party) BMS

EQUIPMENT SCHEDULE

MVHR Units

Reference	AHU/BE-GND-POS																			
LOCATION / SYSTEM	Block E, Ground Floor, Post Lounge - Mechanical Ventilation with Heat Recovery																			
CONSTRUCTION		ELECTRIC HEATING COIL										EXTRACT AIR FAN								
Panel Thickness	25mm Double Skinned	Air On (°C)	0.0°C								Design Air Flow Rate (l/s)		225 l/s							
Weatherproof Construction	No	Air Off (°C)	0.0°C								System Air Leakage (%)		6 %							
Double Stacked	n/a	Output Duty (kW)	0.0 kW								Operating Air Flow Rate (l/s)		239 l/s							
Casing Breakout Noise (@3 metres)	34.5 dB(A)	Full Load Current (Amps)	0.0 Amps								External Static Pressure (Pa)		100 Pa							
Air Leak Test Requirements	None	Control Type/ Capacity Steps	Burst Fired Temp Control								Selected Air Flow Rate (l/s)		257 l/s							
MAXIMUM DIMENSIONS & WEIGHTS		Electrical Supply (V,PH,Hz)	230V / 1 PH / 50 Hz								Selected External Pressure (Pa)		115 Pa							
Length (mm)	954 mm	SUPPLY AIR FAN										Impeller/ Motor Type		Backward Curved Impeller/ EC Motor						
Width (mm)	908 mm	Design Air Flow Rate (l/s)	225 l/s								Fan Speed Setting		SP4							
Height (mm)	404 mm	System Air Leakage (%)	6 %								Motor Rating (kW)		0.00 kW							
Weight (kg)	38 kg	Operating Air Flow Rate (l/s)	239 l/s								Motor Power Input (kW)		0.42 kW							
INTAKE FILTER SECTION		External Static Pressure (Pa)	159 Pa								Full Load Current (Amps)		2.5 Amps							
Filter Grade	G3 (BS EN799)	Selected Air Flow Rate (l/s)	257 l/s								Electrical Supply (V,PH,Hz)		230V / 1 PH / 50 Hz							
Filter Type	Panel	Selected External Pressure (Pa)	185 Pa								SOUND PRESSURE LEVEL (dBA @ 1m)									
EXTRACT FILTER SECTION		Impeller/ Motor Type	Backward Curved Impeller/ EC Motor								Hz	63	125	250	500	1k	2k	4k	8k	dBA
Filter Grade	G3 (BS EN799)	Fan Speed Setting	SP4								Exhaust	72	73	68	69	67	67	63	52	0
Filter Type	Panel	Motor Rating (kW)	0.00 kW								Extract	72	73	68	67	67	63	52	0	0
HEAT RECOVERY SECTION		Motor Power Input (kW)	0.42 kW								UNIT ENERGY EFFICIENCY									
Type	Crossflow Plate Heat Exchanger	Full Load Current (Amps)	2.5 Amps								Combined Specific Fan Power (W/l/s)		1.80 W/l/s							
Temp Efficiency (%)	78 %	Electrical Supply (V,PH,Hz)	230V / 1 PH / 50 Hz								SUPPLIER DETAILS									
Summer Bypass	100% (Automatic)	SOUND PRESSURE LEVEL (dBA @ 1m)										Manufacturer / Type		MITSUBISHI ELECTRIC - LOSSNAY						
Intake Air On (°C)	-4.0°C	Hz	63	125	250	500	1k	2k	4k	8k	dBA	Model / Size		LGH-100RVX-E						
Supply Air Off (°C)	tbc	Intake	72	73	68	69	67	67	63	52	0	Controls		PZ-61DR-E LOSSNAY REMOTE CONTROL						
Extract Air On (°C)	20.0°C	Supply	72	73	68	67	67	63	52	0	0	Accessories								

- Notes:
- 1) Manufacturer: Mitsubishi Electric
 - 2) Units to be selected with Specific Fan Power in accordance with Table 6.9 within Building Regulations Approved Document L - Conservation of Fuel & Power
 - 3) Units to be compliant with EcoDesign Directive ErP 2016 & 2018
 - 4) Unit selection shall be capable of meeting the selected air flow and external pressure which includes a 7.5% increase in air flow and 16% increase in external pressure over the design air flow and pressure
 - 5) Units to be speed controlled to meet required design duty
 - 6) Duct mounted sound attenuation (both system and atmospheric side) shall be provided to meet stated room noise criteria
 - 7) Provide local wall mounted control, integrated to master group controller
 - 8) Provide integrated ModBus connection to (third party) BMS

EQUIPMENT SCHEDULE

MVHR Units

Reference	AHU/BE-GND-POS																				
LOCATION / SYSTEM	Block E, Ground Floor, Post Lounge - Mechanical Ventilation with Heat Recovery																				
CONSTRUCTION		ELECTRIC HEATING COIL										EXTRACT AIR FAN									
Panel Thickness	25mm Double Skinned	Air On (°C)			0.0°C							Design Air Flow Rate (l/s)			225 l/s						
Weatherproof Construction	No	Air Off (°C)			0.0°C							System Air Leakage (%)			6 %						
Double Stacked	n/a	Output Duty (kW)			0.0 kW							Operating Air Flow Rate (l/s)			239 l/s						
Casing Breakout Noise (@3 metres)	34.5 dB(A)	Full Load Current (Amps)			0.0 Amps							External Static Pressure (Pa)			100 Pa						
Air Leak Test Requirements	None	Control Type/ Capacity Steps			Burst Fired Temp Control							Selected Air Flow Rate (l/s)			257 l/s						
MAXIMUM DIMENSIONS & WEIGHTS		Electrical Supply (V,PH,Hz)			230V / 1 PH / 50 Hz							Selected External Pressure (Pa)			115 Pa						
Length (mm)	954 mm	SUPPLY AIR FAN										Impeller/ Motor Type			Backward Curved Impeller/ EC Motor						
Width (mm)	908 mm	Design Air Flow Rate (l/s)			225 l/s							Fan Speed Setting			SP4						
Height (mm)	404 mm	System Air Leakage (%)			6 %							Motor Rating (kW)			0.00 kW						
Weight (kg)	38 kg	Operating Air Flow Rate (l/s)			239 l/s							Motor Power Input (kW)			0.42 kW						
INTAKE FILTER SECTION		External Static Pressure (Pa)			159 Pa							Full Load Current (Amps)			2.5 Amps						
Filter Grade	G3 (BS EN799)	Selected Air Flow Rate (l/s)			257 l/s							Electrical Supply (V,PH,Hz)			230V / 1 PH / 50 Hz						
Filter Type	Panel	Selected External Pressure (Pa)			185 Pa							SOUND PRESSURE LEVEL (dBA @ 1m)									
EXTRACT FILTER SECTION		Impeller/ Motor Type			Backward Curved Impeller/ EC Motor							Hz	63	125	250	500	1k	2k	4k	8k	dBA
Filter Grade	G3 (BS EN799)	Fan Speed Setting			SP4							Exhaust	72	73	68	69	67	67	63	52	0
Filter Type	Panel	Motor Rating (kW)			0.00 kW							Extract	72	73	68	67	67	63	52	0	0
HEAT RECOVERY SECTION		Motor Power Input (kW)			0.42 kW							UNIT ENERGY EFFICIENCY									
Type	Crossflow Plate Heat Exchanger	Full Load Current (Amps)			2.5 Amps							Combined Specific Fan Power (W/l/s)			1.80 W/l/s						
Temp Efficiency (%)	78 %	Electrical Supply (V,PH,Hz)			230V / 1 PH / 50 Hz							SUPPLIER DETAILS									
Summer Bypass	100% (Automatic)	SOUND PRESSURE LEVEL (dBA @ 1m)										Manufacturer / Type			MITSUBISHI ELECTRIC - LOSSNAY						
Intake Air On (°C)	-4.0°C	Hz	63	125	250	500	1k	2k	4k	8k	dBA	Model / Size			LGH-100RVX-E						
Supply Air Off (°C)	tbc	Intake	72	73	68	69	67	67	63	52	0	Controls			PZ-61DR-E LOSSNAY REMOTE CONTROL						
Extract Air On (°C)	20.0°C	Supply	72	73	68	67	67	63	52	0	0	Accessories									

- Notes:
- 1) Manufacturer: Mitsubishi Electric
 - 2) Units to be selected with Specific Fan Power in accordance with Table 6.9 within Building Regulations Approved Document L - Conservation of Fuel & Power
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 - 8) Provide integrated ModBus connection to (third party) BMS

EQUIPMENT SCHEDULE

MVHR Units

Reference	AHU/BE-GND-CF																				
LOCATION / SYSTEM	Block E, Ground Floor, Café - Mechanical Ventilation with Heat Recovery																				
CONSTRUCTION		ELECTRIC HEATING COIL										EXTRACT AIR FAN									
Panel Thickness	25mm Double Skinned	Air On (°C)	0.0°C								Design Air Flow Rate (l/s)			350 l/s							
Weatherproof Construction	No	Air Off (°C)	0.0°C								System Air Leakage (%)			6 %							
Double Stacked	n/a	Output Duty (kW)	0.0 kW								Operating Air Flow Rate (l/s)			371 l/s							
Casing Breakout Noise (@1,5 metres)	39.5 dB(A)	Full Load Current (Amps)	0.0 Amps								External Static Pressure (Pa)			100 Pa							
Air Leak Test Requirements	None	Control Type/ Capacity Steps	Burst Fired Temp Control								Selected Air Flow Rate (l/s)			399 l/s							
MAXIMUM DIMENSIONS & WEIGHTS		Electrical Supply (V,PH,Hz)	230V / 1 PH / 50 Hz								Selected External Pressure (Pa)			115 Pa							
Length (mm)	1500 mm	SUPPLY AIR FAN										Impeller/ Motor Type			Backward Curved Impeller/ EC Motor						
Width (mm)	1980 mm	Design Air Flow Rate (l/s)			350 l/s							Fan Speed Setting			SP4						
Height (mm)	500 mm	System Air Leakage (%)			6 %							Motor Rating (kW)			0.00 kW						
Weight (kg)	159 kg	Operating Air Flow Rate (l/s)			371 l/s							Motor Power Input (kW)			0.79 kW						
INTAKE FILTER SECTION		External Static Pressure (Pa)			160 Pa							Full Load Current (Amps)			4.3 Amps						
Filter Grade	G3 (BS EN799)	Selected Air Flow Rate (l/s)			399 l/s							Electrical Supply (V,PH,Hz)			230V / 1 PH / 50 Hz						
Filter Type	Panel	Selected External Pressure (Pa)			185 Pa							SOUND PRESSURE LEVEL (dBA @ 1m)									
EXTRACT FILTER SECTION		Impeller/ Motor Type			Backward Curved Impeller/ EC Motor							Hz	63	125	250	500	1k	2k	4k	8k	dBA
Filter Grade	G3 (BS EN799)	Fan Speed Setting			SP4							Exhaust	75	74	69	64	57	45	47	41	0
Filter Type	Panel	Motor Rating (kW)			0.00 kW							Extract	75	74	69	64	57	45	47	41	0
HEAT RECOVERY SECTION		Motor Power Input (kW)			0.79 kW							UNIT ENERGY EFFICIENCY									
Type	Counterflow Plate Heat Exchanger	Full Load Current (Amps)			4.3 Amps							Combined Specific Fan Power (W/l/s)			1.90 W/l/s						
Temp Efficiency (%)	80 %	Electrical Supply (V,PH,Hz)			230V / 1 PH / 50 Hz							SUPPLIER DETAILS									
Summer Bypass	100% (Automatic)	SOUND PRESSURE LEVEL (dBA @ 1m)										Manufacturer / Type			MITSUBISHI ELECTRIC - LOSSNAY						
Intake Air On (°C)	-4.0°C	Hz	63	125	250	500	1k	2k	4k	8k	dBA	Model / Size			LGH-150RVXT-E						
Supply Air Off (°C)	tbc	Intake	75	74	69	64	57	45	47	41	0	Controls			PZ-61DR-E LOSSNAY REMOTE CONTROL						
Extract Air On (°C)	20.0°C	Supply	75	74	69	64	57	45	47	41	0	Accessories									

- Notes:
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 - 2) Units to be selected with Specific Fan Power in accordance with Table 6.9 within Building Regulations Approved Document L - Conservation of Fuel & Power
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 - 5) Units to be speed controlled to meet required design duty
 - 6) Duct mounted sound attenuation (both system and atmospheric side) shall be provided to meet stated room noise criteria
 - 7) Provide local wall mounted control, integrated to master group controller
 - 8) Provide integrated ModBus connection to (third party) BMS

EQUIPMENT SCHEDULE

MVHR Units

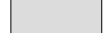
Reference	AHU/BE-GND-CF																				
LOCATION / SYSTEM	Block E, Ground Floor, Café - Mechanical Ventilation with Heat Recovery																				
CONSTRUCTION		ELECTRIC HEATING COIL										EXTRACT AIR FAN									
Panel Thickness	25mm Double Skinned	Air On (°C)	0.0°C								Design Air Flow Rate (l/s)			350 l/s							
Weatherproof Construction	No	Air Off (°C)	0.0°C								System Air Leakage (%)			6 %							
Double Stacked	n/a	Output Duty (kW)	0.0 kW								Operating Air Flow Rate (l/s)			371 l/s							
Casing Breakout Noise (@1,5 metres)	39.5 dB(A)	Full Load Current (Amps)	0.0 Amps								External Static Pressure (Pa)			100 Pa							
Air Leak Test Requirements	None	Control Type/ Capacity Steps	Burst Fired Temp Control								Selected Air Flow Rate (l/s)			399 l/s							
MAXIMUM DIMENSIONS & WEIGHTS		Electrical Supply (V,PH,Hz)	230V / 1 PH / 50 Hz								Selected External Pressure (Pa)			115 Pa							
Length (mm)	1500 mm	SUPPLY AIR FAN										Impeller/ Motor Type			Backward Curved Impeller/ EC Motor						
Width (mm)	1980 mm	Design Air Flow Rate (l/s)			350 l/s							Fan Speed Setting			SP4						
Height (mm)	500 mm	System Air Leakage (%)			6 %							Motor Rating (kW)			0.00 kW						
Weight (kg)	159 kg	Operating Air Flow Rate (l/s)			371 l/s							Motor Power Input (kW)			0.79 kW						
INTAKE FILTER SECTION		External Static Pressure (Pa)			160 Pa							Full Load Current (Amps)			4.3 Amps						
Filter Grade	G3 (BS EN799)	Selected Air Flow Rate (l/s)			399 l/s							Electrical Supply (V,PH,Hz)			230V / 1 PH / 50 Hz						
Filter Type	Panel	Selected External Pressure (Pa)			185 Pa							SOUND PRESSURE LEVEL (dBA @ 1m)									
EXTRACT FILTER SECTION		Impeller/ Motor Type			Backward Curved Impeller/ EC Motor							Hz	63	125	250	500	1k	2k	4k	8k	dBA
Filter Grade	G3 (BS EN799)	Fan Speed Setting			SP4							Exhaust	75	74	69	64	57	45	47	41	0
Filter Type	Panel	Motor Rating (kW)			0.00 kW							Extract	75	74	69	64	57	45	47	41	0
HEAT RECOVERY SECTION		Motor Power Input (kW)			0.79 kW							UNIT ENERGY EFFICIENCY									
Type	Counterflow Plate Heat Exchanger	Full Load Current (Amps)			4.3 Amps							Combined Specific Fan Power (W/l/s)			1.90 W/l/s						
Temp Efficiency (%)	80 %	Electrical Supply (V,PH,Hz)			230V / 1 PH / 50 Hz							SUPPLIER DETAILS									
Summer Bypass	100% (Automatic)	SOUND PRESSURE LEVEL (dBA @ 1m)										Manufacturer / Type			MITSUBISHI ELECTRIC - LOSSNAY						
Intake Air On (°C)	-4.0°C	Hz	63	125	250	500	1k	2k	4k	8k	dBA	Model / Size			LGH-150RVXT-E						
Supply Air Off (°C)	tbc	Intake	75	74	69	64	57	45	47	41	0	Controls			PZ-61DR-E LOSSNAY REMOTE CONTROL						
Extract Air On (°C)	20.0°C	Supply	75	74	69	64	57	45	47	41	0	Accessories									

- Notes:
- 1) Manufacturer: Mitsubishi Electric
 - 2) Units to be selected with Specific Fan Power in accordance with Table 6.9 within Building Regulations Approved Document L - Conservation of Fuel & Power
 - 3) Units to be compliant with EcoDesign Directive ErP 2016 & 2018
 - 4) Unit selection shall be capable of meeting the selected air flow and external pressure which includes a 7.5% increase in air flow and 16% increase in external pressure over the design air flow and pressure
 - 5) Units to be speed controlled to meet required design duty
 - 6) Duct mounted sound attenuation (both system and atmospheric side) shall be provided to meet stated room noise criteria
 - 7) Provide local wall mounted control, integrated to master group controller
 - 8) Provide integrated ModBus connection to (third party) BMS

NOTES:

- This drawing is to be read in conjunction with all relevant drawings, documents & specification.
- Dimensions not to be scaled.
- To be read in conjunction with ventilation schematics for sizing and flow rate.
- To be read in conjunction with all relevant M&E drawings, spec.s and reports
- Ducts passing through unheated spaces to be insulated to prevent condensation.
- All ductwork passing fire/smoke protected zone to have fire damper.

LEGEND

	Exhaust Air - (EXH)
	Extract Air - (EXT)
	Return Air - (RET)
	Fresh Air - (FRH)
	Supply Air - (EXH)
	Smoke Extract - (SMOKE)
	Flue Pipe - (FLUE)
	Motorised Fire Smoke Damper
	Fire Damper (fusible link)
	Volume Control Damper
	Extract Fan
	Smoke Extract Fan
	Fire Damper
	Motorized Smoke Fire Damper
	Extract Via Bellmouth
	Exhaust Louvre
	Smoke Extract Louvre
	Smoke Extract Via Bellmouth
	Attenuator
Ductwork Annotation	
	System Abbreviation
Duct Size [mm]	
@ Middle Elevation from FFL [mm]	

C03	27/10/2022	188	M.Z.	Comments Incorporated
C02	07/07/2022	136	O.S.	Ductwork Type Defined
C01	22/06/2022	131	M.Z.	CONSTRUCTION ISSUE
P01	04/05/2022	106	O.S.	Preliminary Issue

Rev.	Date	Seq.	BY	Description
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Client:
SH Reading (phase 1) Limited

Project:
Station Hill, Reading

Drawing area:
BLOCK F — LOWER GROUND

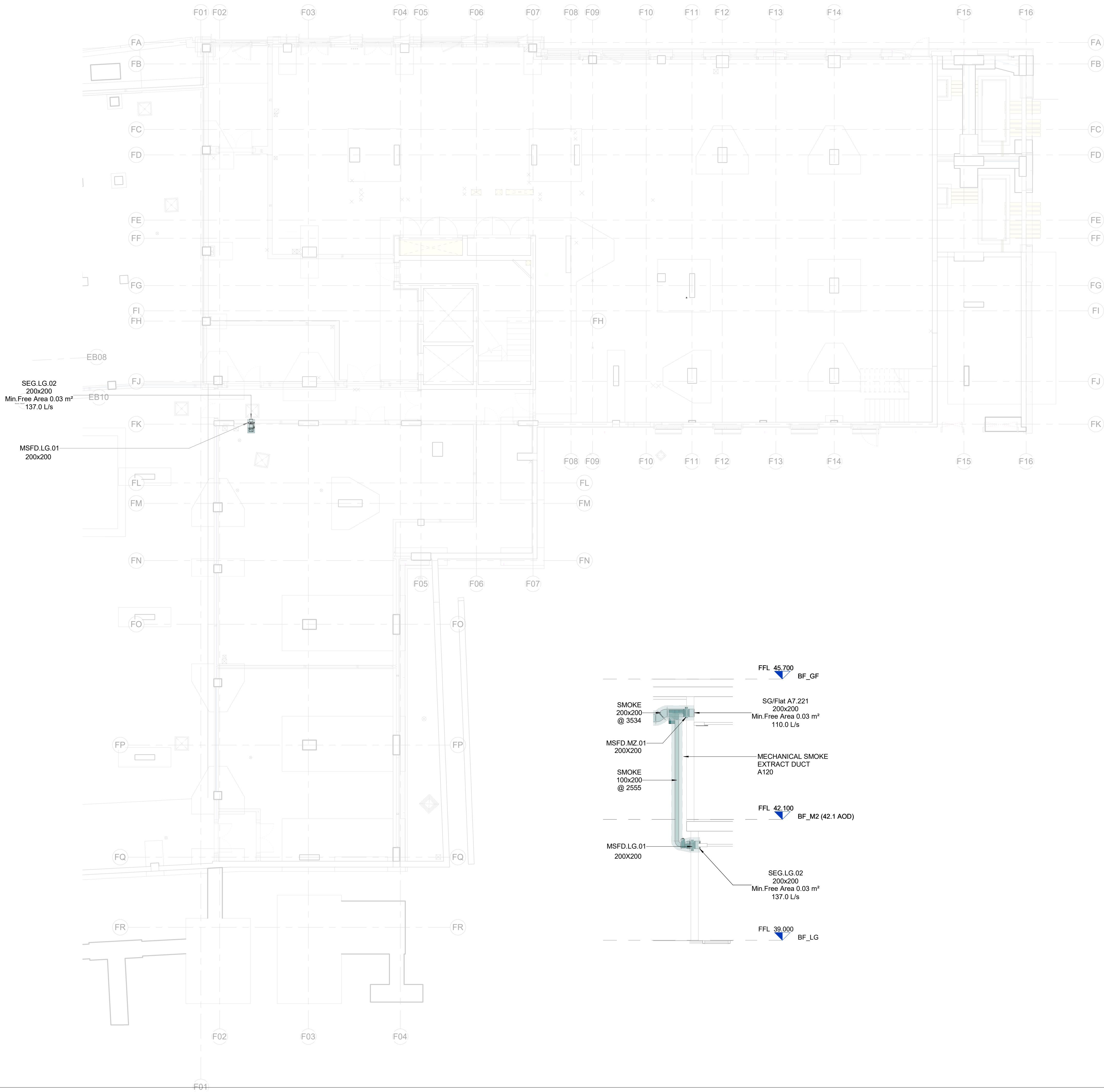
Drawing Title:
VENTILATION LAYOUT

Approved By: A. Sinclair	Date: 03/05/2022
Checked By: O. Soykuvvet	Scale: As indicated
Drawn By: M.Zalucki	Scale: A1

Status:
FOR CONSTRUCTION

Drawing No.	Rev.
Project - Originator - Volume - Type - Role - Number SHR-ARK-BF-LG-DR-M-57-0159	C03

File Name: SHR-ARK-ZZ-ZZ-CM-V-80-0001 Print Date: 27/10/2022 11:29:36



Key Plan

