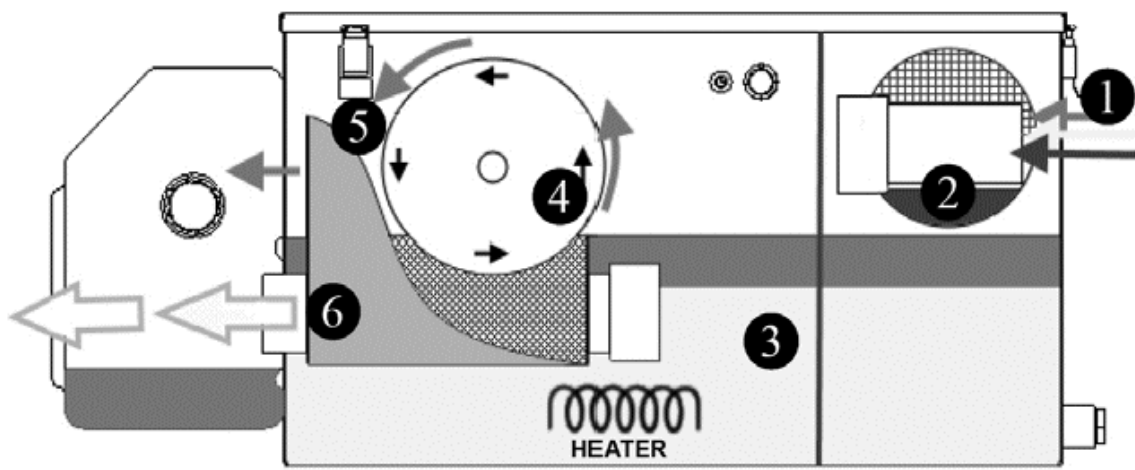


How it Works



Rear view cutaway

- 1 Grease, solids and wastewater from the kitchen enters the Grease Guardian.
- 2 Solid food waste is caught in a removable cylindrical strainer.
- 3 A skimming cycle is set. The grease passes into the middle chamber through slots in the baffle wall where it remains trapped. With the assistance of a heater the grease rises to the surface forming a separated layer.
- 4 The liquefied grease adheres to the rotating skimming drum.
- 5 The grease passes down a scraper blade into a collection container where it can be removed and disposed hygienically.
- 6 The treated water exits under a baffle wall and through the outlet to drain.

PLUMBING And MECHANICAL INSTALLATION

lifting/Handling:

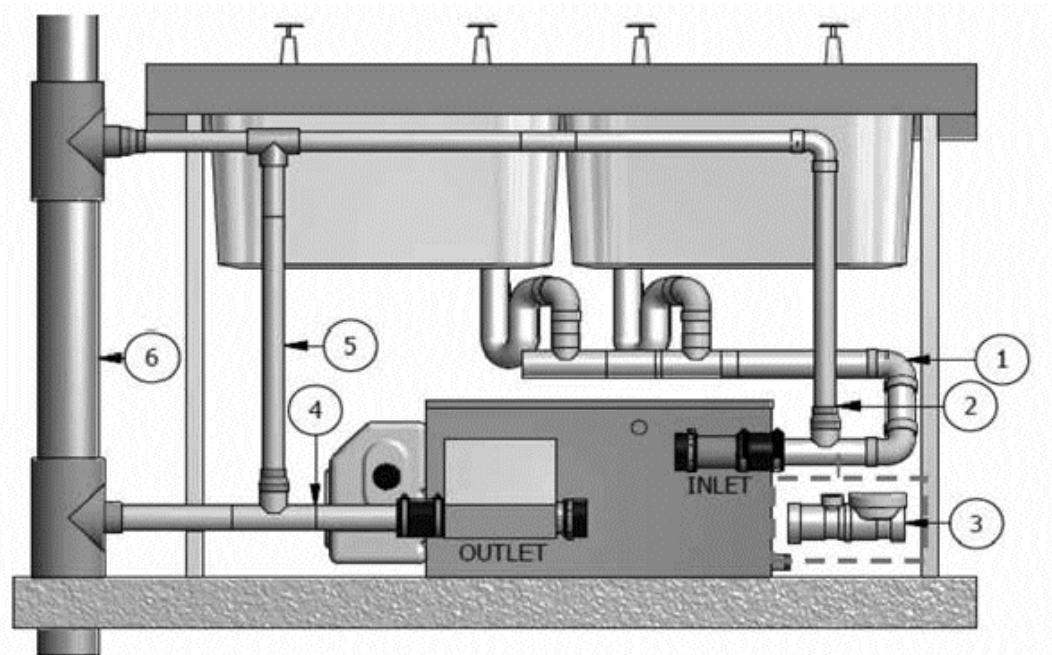
This product is classed as a heavy item that should not be handled alone. There is a requirement for 2 people to manually lift all models described in this manual. Steel tipped toe capped shoes and handling gloves should also be worn.



install these products models only at ambient room temperature, either under or adjacent to the fixtures being served. Do not repurpose the system or add to the number of fixtures specified for connection at time of sale.

Undersink example

ReAR view

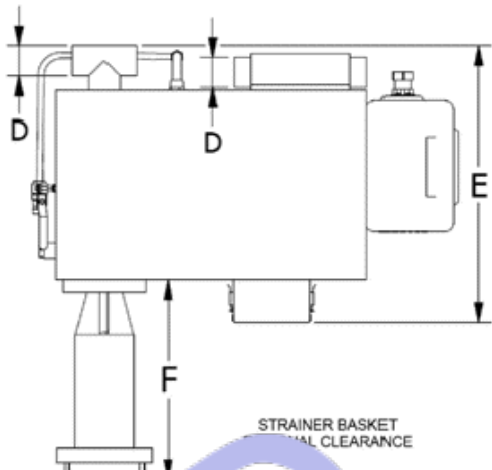


Check all required clearances in reference to the "Product Dimensions and Specification" page in this manual.

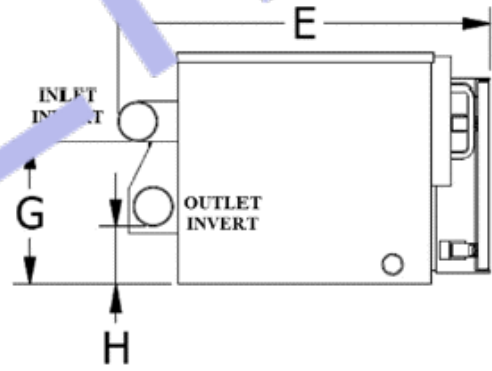
Product Dimensions & Specifications (230v AC)

Model	G & H are heights to pipe base (mm)							
	A	B	C	D	E	F	G	H
X7s	662	443	444	48	516	405	321	251
X7c	662	443	390	48	539	405	221	151
X15/15c	842	623	346	60	557	405	215	87
X25	870	657	423	60	570	405	298	170
X35	1092	873	422	89	577	405	281	170

front view



top view



side view outlet end

Model	X15				
	X7s	X7c	X15c	X25	X35
Hydraulic Flow l/second	0.5	0.5	1	1.58	2.21
Skim Rate l/hr	5	5	5	5	5
Strainer Basket vol, kg	2.99	2.99	2.99	2.99	2.99
Grease Collector vol, litres	7	7	7	7	7

Motor (all units)	25 Watt, 230VAC, 50 Hz
Heater X7 - X15	600 Watt, 230VAC, Thermal cut-out inc.
Heater x25 - x35	1000 Watt, 230VAC, Thermal cut-out inc.
controller (all units)	Logic Controller: Backlit display Inputs 230VAC Outputs 230VAC Battery back up

plumbing sequence

- 1 Plumbing work. Install 2 inch (50mm) diameter wide pipes. Ensure a slight fall is provided in all pipe-work entering unit. The Grease Guardian includes quick connect rubber couplings and blanking caps. Note that the fixtures pipe can enter the Grease Guardian inlet from left or right. (above rear view shows from right) If multiple pipes are being plumbed from opposite directions, under normal plumbing codes these must all combine to enter via one pipe via one direction only and should not be plumbed from both directions.
- 2 Ventilation Tee and branch pipe. (Recommended) to prevent odours escaping from the Grease Guardian into kitchen area. Ventilation should be terminated at the building's stack vent. If ventilation is not provided at inlet, the pump/clean out frequency of the system may have to be increased to reduce potential waste odours.
- 3 UsA. flow control with Air intake. For those installations requiring Plumbing Drainage Institute of America compliance, a certified flow control (with air intake) must replace the inlet ventilation Tee. The relevant control required from www.canplas.com is listed:
 - GGX7, part reference: Canplas 3922107A
 - GGX15, part reference: Canplas 3922115A
 - GGX20, part reference: Canplas 3922120A
 - GGX25, part reference: Canplas 3922125A
 - GGX35, part reference: Canplas 3933135A(The air intake riser of the flow control is to be connected to the inlet side ventilation pipe as described in point (2))
- 4 Wastewater pipework. WARNING To avoid reduced flow or backflows issues, the site outlet pipework must be connected as detailed below for all GGX systems.
 - pipe diameter must be minimally of 2 inch diameter (50mm)
 - pipe must be installed at a gravity fall of 1:10 minimally, but preferably 1:40.
 - pipe must contain no more than 2 x 90 degree pipe bends between Grease Guardian outlet and final waste point in floor.
- 5 Outlet vent pipe. Required to:
 - a. prevent sewer back odours entering Grease Guardian
 - b. to prevent any siphonage of the system under peak flows. The pipework should be terminated at final stack vent.
- 6 Final vent stack to atmosphere. Failure to connect ventilation points of Grease Guardian to the final stack can result in odour issues internally.



ENGINEER'S TEAM LTD
Web site: www.engrteam.com
Email: support@engrteam.com

CLIENT: MR AND MRS ANDERTON

ADDRESS: 25 WILBURY AVENUE, HOVE, BN3 6HS

CONFIDENTIALITY STATEMENT:
ALL DRAWINGS AND WRITTEN MATERIALS APPEARING HEREIN CONSTITUTE THE ORIGINAL AND UNPUBLISHED WORK OF THE DESIGNER AND THE SAME MAY NOT BE DUPLICATED, USED OR DISCLOSED WITHOUT CONSENT OF THE DESIGNER.

NOTES:
1. ALL DIMENSIONS HEREIN ARE IN IMPERIAL UNITS UNLESS STATED OTHERWISE.
2. THESE DRAWINGS ARE TO BE READ IN CONJUNCTION WITH ALL RELEVANT DESIGNER, ENGINEER OR SPECIALIST DRAWINGS AND SPECIFICATIONS.
3. THE CONTRACTOR MUST CHECK ALL DIMENSION AT SITE BEFORE COMMENCING WORK.
4. THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING ALL NECESSARY TEMPORARY SUPPORT TO THE BUILDING AND ANY ADJACENT STRUCTURES.

REFERENCE:

REV. NO.	DESCRIPTION	DATE	BY
01	Add Grease Trap & update the plumbing plans	03/02/26	AA
02	Create leak detection, Gas & Fire protection etc plans	06/27/26	AA
03	Fix HVAC system and add new system	07/21/26	AA
04	Change VRF system & Fix Ventilation	07/27/26	AA
05	Provide more information about the HVAC system	08/04/26	AA
05	HVAC Elevation Plan & Filtrations Specification.	08/16/26	AA

PROJECT: 25 WILBURY AVENUE

TITLE: GREASE TRAP INSTALLATION

PROJ. NO.	PROJ. ENGR.	SCALE @ 24X36:
		N/A

DATE : September 14, 2026

DRAWING NO.	REV.
M - 6	6

GENERAL SPECIFICATIONS
1. GENERAL (ALL SPECIFICATIONS ON THIS SHEET AS APPLICABLE) A. Work indicated on these drawings is diagrammatic and shall not be scaled. The drawings are intended to convey the scope of work and general arrangement of services. The Contractor shall verify all existing site conditions prior to installation and make all necessary adjustments to complete the works in accordance with the Contract Documents and UK statutory requirements. B. Provide all labour, materials, plant, tools, equipment, and services necessary for the complete execution of the works in accordance with the Contract Documents. All incidental or supplementary items required for a complete, safe, and operational installation shall be deemed included, whether or not specifically shown or described, at no additional cost to the Employer. C. All systems and equipment shall be fully installed, tested, commissioned, and left in a complete operational condition to the satisfaction of the Employer. The term "Provide" shall be interpreted as supply, install, test, and commission. D. All materials and equipment shall be new, of good quality, fit for purpose, and compatible with existing systems where interfaces occur. Installation shall be in accordance with manufacturers' instructions, relevant British Standards, CIBSE guidance, and recognised good engineering practice. E. Where existing services or building elements obstruct new works, the Contractor shall coordinate and rearrange such items as required, subject to approval by the Contract Administrator, and without additional cost. F. Written approval shall be obtained prior to cutting or forming penetrations through slabs, walls, ceilings, roofs, or fire compartments. All disturbed finishes shall be reinstated to match existing. All fire-resisting elements shall be reinstated to maintain required fire resistance in accordance with Approved Document B. G. Maintain the site in a clean and safe condition at all times in accordance with CDM Regulations 2015. Remove waste daily. Upon completion, clear the site of all tools, materials, and debris and leave areas clean and ready for occupation.
2. COORDINATION AND PROGRAMMING A. The Contractor shall fully coordinate all trades and verify existing conditions to prevent clashes in routing, access, or programme. B. The Contractor is responsible for coordination between subcontractors, suppliers, statutory authorities, utility providers, the Client, and the Design Team. C. No installation shall commence until all site dimensions, structural constraints, existing services, and retained fixtures have been verified. D. Works shall be programmed and phased to minimise disruption to occupied areas. A detailed programme shall be submitted for approval. Temporary partitions or protection shall be provided where required. E. Provide a minimum of fourteen (14) days' written notice prior to any planned shutdown of utilities. Written approval shall be obtained before shutdown. F. The Contractor shall be deemed to have inspected the site and fully understood all conditions affecting the works. No claims shall be entertained for failure to do so.
3. STATUTORY COMPLIANCE, PERMITS AND INSPECTIONS (UK) A. All works shall comply with the latest editions of applicable UK legislation and standards, including but not limited to: Building Regulations (England/Wales) Approved Documents A, B, F, G, L, M BS and EN Standards CIBSE Guides Health and Safety at Work Act 1974 CDM Regulations 2015 B. The Contractor shall obtain all required approvals, inspections, and completion certificates from Building Control and relevant Authorities Having Jurisdiction. C. All works shall comply with statutory utility provider requirements and local authority regulations. D. Where Contract Documents exceed statutory minimum requirements, the Contract Documents shall take precedence. Any conflict shall be reported in writing prior to installation. E. The Contractor shall comply with all UK health, safety, and environmental legislation, including COSHH and waste management regulations. F. All works shall comply with the requirements of relevant utility companies and network operators.
4. WARRANTY A. All workmanship and materials shall be warranted for a minimum period of twelve (12) months from the date of Practical Completion. Defects arising during this period shall be remedied at no cost to the Employer.
5. SHOP DRAWINGS A. Submit electronic shop drawings, manufacturers' data sheets, and performance information for all equipment for review and approval prior to installation.
6. RECORD DRAWINGS / AS-BUILT INFORMATION A. Maintain a complete set of marked-up drawings on site recording all changes. Upon completion, provide electronic and hard-copy as-built drawings and manuals in accordance with CIBSE TM31 / Soft Landings principles, if applicable.

DUCTWORK & INSULATION
SHEET METAL DUCTWORK A. All ductwork shall be galvanised steel fabricated and installed in accordance with DW/144 and BS EN 1507 / BS EN 12237. B. All ductwork routes shall be site-verified prior to fabrication. C. Duct leakage classes shall comply with DW/143. Testing shall be carried out where required. D. Turning vanes shall be installed in elbows as recommended by DW/144. E. Flexible duct connections shall be limited in length and installed in accordance with BS EN 13180. F. Exposed ductwork shall be single-skin galvanised steel with approved seams.
DUCT INSULATION & ACOUSTIC LINING Thermal Insulation Insulation thickness shall comply with Approved Document L and CIBSE Guide A. Insulation Materials Insulation shall achieve appropriate fire performance in accordance with BS EN 13501-1. Acoustic Lining Acoustic lining shall comply with BS EN ISO 11654 and be mould-resistant.

PIPING & INSULATION
REFRIGERANT & CONDENSATE PIPEWORK 1. Refrigerant pipework shall comply with BS EN 378 and manufacturer requirements. 1. Pipe identification shall comply with BS 1710. 3. Pipe routing shall not obstruct equipment servicing. 4. Condensate pipework shall be PVC-U or equivalent and installed to falls per Approved Document H. 5. Traps shall be provided where required. 6. Dissimilar metals shall be isolated to prevent corrosion.
PIPE INSULATION 1. Pipe insulation shall comply with Approved Document L. 2. External insulation shall be weather-protected. 3. Fire stopping shall comply with Approved Document B and BS 476 / BS EN 1366.

MECHANICAL CODE NOTES
1. No ductwork or pipework shall be installed above electrical switchgear, distribution boards, or control panels in accordance with BS 7671 and good engineering practice. 2. Materials within air plenums shall be non-combustible or achieve Class 0 or Class A2, s1,d0 protection to fire in accordance with Approved Document B and BS EN 13501-1. 3. Verify roof warranty status prior to works. All roof penetrations shall be carried out by approved contractors. 4. Ductwork and horizontal pipework shall be installed as high as practicable and coordinated to avoid clashes. 5. Provide adequate access for maintenance, filter placement, valves, and electrical isolation in accordance with CIBSE Guide M. 6. Structural approval shall be obtained for equipment loads exceeding manufacturer or structural limits. 7. Motorised dampers shall be provided on all outdoor air and exhaust air ducts where required by Approved Document F. 8. Provide balancing dampers on all main and branch ducts. 9. Fire dampers shall be installed where ductwork penetrates fire compartments in accordance with BS 9999 and BS EN 1366. 10. Provide access panels for fire, smoke, and control dampers. 11. Access panels shall be provided for all concealed valves and dampers. 12. Provide remote volume control where dampers are inaccessible. 13. External vents shall be corrosion-resistant and suitable for UK environmental conditions.

CONTROLS
1. Controls installation and commissioning shall be undertaken by competent specialists. 2. Thermostats shall be insulated from cold bridging on external walls. 3. Thermostats shall be installed at appropriate heights and coordinated with the Design Team. 4. Provide all required interfaces for full system control. 5. Demonstrate and commission all systems prior to handover in accordance with CIBSE Commissioning Codes.

TESTING & BALANCING
1. Scope Testing and balancing shall be carried out by competent commissioning specialists in accordance with CIBSE Commissioning Codes A, B, and M. 2. Pre-conditions All systems shall be complete, clean, and operational prior to commissioning. 3. Documentation Provide commissioning reports demonstrating compliance with design performance. 4. Recorded Data Record airflow rates, temperatures, capacities, and electrical data. 5. Functional Testing Demonstrate heating and cooling operation and record performance results.

ABBREVIATIONS			
(E)	EXISTING TO REMAIN	IN WG	INCHES OF WATER GAUGE
(R)	EXISTING TO BE REMOVED AND RELOCATED	KW	KILOWATTS
(RE)	RELOCATED EQUIPMENT	LAT	LEAVING AIR TEMPERATURE
ACU	AIR CONDITIONING UNIT	LBS	POUNDS
AFF	AS-FINISHED FLOOR	LRA	LOCKED ROTOR AMPS
AHJ	AIR HANDLING UNIT	LWT	LEAVING WATER TEMPERATURE
BAS	BUILDING AUTOMATION SYSTEM	MBH	THOUSAND BRITISH THERMAL UNITS PER HOUR
BTU/H	BRITISH THERMAL UNITS PER HOUR	MCA	MINIMUM CIRCUIT AMPACITY
CFM	CUBIC FEET PER MINUTE	MIN	MINIMUM
CG	CEILING	MOCP	MAX OVER-CURRENT PROTECTION
LA	LEAVING AIR	OA	OUTSIDE AIR
DN	DOWN	PD	PRESSURE DROP
EAT	ENTERING AIR TEMPERATURE	PH	PHASE
F	EXHAUST FAN	PSI	POUNDS PER SQUARE INCH
FF	EFFICIENCY	RA	RETURN AIR
ESP	EXTERNAL STATIC PRESSURE	RH	RELATIVE HUMIDITY
EWB	ENTERING WET BULB TEMPERATURE	RLA	RUNNING LOAD AMPS
EWT	ENTERING WATER TEMPERATURE	RPM	REVOLUTIONS PER MINUTE
°F	DEGREES FAHRENHEIT	SA	SUPPLY AIR
FLA	FULL LOAD AMPS	SL	SOUND LINING
FPB	FAN POWERED BOX	TYP	TYPICAL
FT	FOOT, FEET	TF	TRANSFER FAN
GPM	GALLONS PER MINUTE	V	VOLT, VOLTS
HP	HORSEPOWER	VAV	VARIABLE AIR VOLUME
HZ	HERTZ (CYCLES PER SECOND)	W/	WITH
IN	INCH, INCHES	WB	WET BULB TEMPERATURE
		WG	WATER GAUGE

HVAC SYMBOLS		
SYMBOL		DESCRIPTION
		EXISTING DUCTWORK, EQUIPMENT OR PIPING TO REMAIN
		EXISTING DUCTWORK, EQUIPMENT OR PIPING TO BE REMOVED OR RELOCATED
		NEW OR RELOCATED DUCTWORK, EQUIPMENT OR PIPING
		DUCTWORK WITH SOUNDLINING
		SUPPLY DUCT TURNING UP
		RETURN/EXHAUST DUCT TURNING UP
		SUPPLY DUCT TURNING DOWN
		RETURN/EXHAUST DUCT TURNING DOWN
		TRANSITION IN DUCT, SQUARE TO SQUARE
		TRANSITION IN DUCT, SQUARE TO ROUND
		SQUARE THROAT DUCT ELBOW WITHOUT TURNING VANES
		SQUARE THROAT DUCT ELBOW WITH TURNING VANES
		RADIUS ELBOW
		45 DEGREE TAP
		SPIN-IN RUNOUT FITTING WITH BALANCING DAMPER AND FLEXIBLE DUCT
		CONICAL TAP
		FLEXIBLE DUCT
		FLEXIBLE DUCT CONNECTION
		RECTANGULAR SUPPLY AIR DIFFUSER
		RETURN AIR GRILLE
		HUMIDISTAT, THERMOSTAT, CO2 SENSOR
		EXHAUST FAN
		SIDE WALL/DUCT REGISTER
		CFM DESIGNATION SYMBOL & QUANTITY
		KEYED NOTE, DEMOLITION
		KEYED NOTE, NEW WORK
		POINT OF REMOVAL
		POINT OF CONNECTION TO EXISTING
		DIFFUSER OR GRILLE DESIGNATION SYMBOL
		ACCESS DOOR, SIZE ON FLOOR PLANS
		RECTANGULAR SUPPLY AIR DIFFUSER
		VOLUME DAMPER
		FD: FIRE DAMPER SD: SMOKE DAMPER MD: MOTORIZED DAMPER F/SD: COMBINATION FIRE/SMOKE DAMPER BDD: BACKDRAFT DAMPER
	VAV TAG: TYPE, BOX NUMBER AIRFLOW AND KW	VAV BOX TYPE V-SHUT-OFF TYPE VAV BOX S-SERIES FAN POWERED BOX P-PARALLEL FAN POWERED BOX



ENGINEER'S TEAM LTD
Web site: www.engrteam.com
Email: support@engrteam.com

CLIENT:MR AND MRS ANDERTON

ADDRESS:25 WILBURY AVENUE,
HOVE, BN3 6HS

CONFIDENTIALITY STATEMENT:
ALL DRAWINGS AND WRITTEN MATERIALS
APPEARING HEREIN CONSTITUTE THE
ORIGINAL AND UNPUBLISHED WORK OF THE
DESIGNER AND THE SAME MAY NOT BE
DUPLICATED, USED OR DISCLOSED WITHOUT
CONSENT OF THE DESIGNER.

NOTES:
1. ALL DIMENSIONS HEREIN ARE IN IMPERIAL
UNITS UNLESS STATED OTHERWISE.
2. THESE DRAWINGS ARE TO BE READ IN
CONJUNCTION WITH ALL RELEVANT DESIGNER,
ENGINEER OR SPECIALIST DRAWINGS AND
SPECIFICATIONS.
3. THE CONTRACTOR MUST CHECK ALL
DIMENSION AT SITE BEFORE COMMENCING
WORK.
4. THE CONTRACTOR IS RESPONSIBLE FOR
PROVIDING ALL NECESSARY TEMPORARY
SUPPORT TO THE BUILDING AND ANY ADJACENT
STRUCTURES.

REV. NO.	DESCRIPTION	DATE	BY
01	Add Grease Trap & update the plumbing plans	03/02/26	AA
02	Create leak detection, Gas & Fire protection etc plans	06/27/26	AA
03	Fix HVAC system and add new system	07/21/26	AA
04	Change VRF system & Fix Ventilation	07/27/26	AA
05	Provide more information about the HVAC system	08/04/26	AA
05	HVAC Elevation Plan & Filtrations Specification.	08/16/26	AA

PROJECT:25 WILBURY AVENUE

TITLE:GENERAL NOTE FOR
HVAC PLAN

PROJ. NO.

PROJ. ENGR.

SCALE @ 24X36:
1:100

DATE :September 14, 2026

DRAWING NO.
M - 1 0

REV.
6



ENGINEER'S TEAM LTD
Web site: www.engrteam.com
Email: support@engrteam.com

CLIENT: MR AND MRS ANDERTON

ADDRESS: 25 WILBURY AVENUE,
HOVE, BN3 6HS

CONFIDENTIALITY STATEMENT:
ALL DRAWINGS AND WRITTEN MATERIALS
APPEARING HEREIN CONSTITUTE THE
ORIGINAL AND UNPUBLISHED WORK OF THE
DESIGNER AND THE SAME MAY NOT BE
DUPLICATED, USED OR DISCLOSED WITHOUT
CONSENT OF THE DESIGNER.

NOTES:
1. ALL DIMENSIONS HEREIN ARE IN IMPERIAL
UNITS UNLESS STATED OTHERWISE.
2. THESE DRAWINGS ARE TO BE READ IN
CONJUNCTION WITH ALL RELEVANT DESIGNER,
ENGINEER OR SPECIALIST DRAWINGS AND
SPECIFICATIONS.
3. THE CONTRACTOR MUST CHECK ALL
DIMENSION AT SITE BEFORE COMMENCING
WORK.
4. THE CONTRACTOR IS RESPONSIBLE FOR
PROVIDING ALL NECESSARY TEMPORARY
SUPPORT TO THE BUILDING AND ANY ADJACENT
STRUCTURES.

REV. NO.	DESCRIPTION	DATE	BY
01	Add Grease Trap & update the plumbing plans	03/02/26	AA
02	Create leak detection, Gas & Fire protection etc plans	06/27/26	AA
03	Fix HVAC system and add new system	07/21/26	AA
04	Change VRF system & Fix Ventilation	07/27/26	AA
05	Provide more information about the HVAC system	08/04/26	AA
05	HVAC Elevation Plan & Filtrations Specification.	08/16/26	AA

PROJECT: 25 WILBURY AVENUE

TITLE: PROPOSED HVAC LAYOUT PLAN

PROJ. NO. PROJ. ENGR. SCALE @ 24X36: 1:100

DATE : September 14, 2026

DRAWING NO. REV. M - 11 6

NOTE:

Scope & Compliance
This HVAC Layout Plan has been prepared for the property at 110 Cannon Street, London, EC4N 6EU, United Kingdom. All heating, ventilation, air-conditioning, ductwork, plant, controls, and associated mechanical systems shown on this plan are designed to comply with the applicable and currently adopted national and local building regulations, standards, guidance, performance requirements, and product approval criteria enforced by the UK Government (England) and relevant Authorities Having Jurisdiction.

Applicable Building Regulations & Approved Documents
The HVAC design has been developed in accordance with the Building Regulations 2010 (as amended) and relevant Approved Documents which form the statutory code for building design and construction in England. The principal regulatory provisions applicable to HVAC systems include:
a. Approved Document Part F – Ventilation (requirements for ventilation, indoor air quality, and mechanical systems including mechanical ventilation with heat recovery)
b. Approved Document Part L – Conservation of Fuel and Power (requirements for energy efficiency of fixed building services including heating and cooling plant, controls, and system efficiency, and alignment with national energy performance policy)
c. Building Regulations 2010 and subsequent amendments governing the design and installation of mechanical services to ensure safety, health, environmental quality and compliance
d. Relevant statutory requirements under the Building Safety Act 2022 and associated regulatory framework for design, construction, commissioning, and handover processes where applicable.

Industry Standards, Guidance & Best Practice
To support compliance with the regulatory framework and best design practice, the following professional standards, codes of practice, design guides and commissioning procedures have been referenced:
a. CIBSE (Chartered Institution of Building Services Engineers) Guides – including guidance on ventilation, thermal comfort, energy use and indoor air quality as applicable to HVAC in commercial buildings
b. CIBSE Commissioning Codes – for air distribution, controls, system commissioning, and balancing of HVAC systems
c. British Standards (BS EN / BS) as applicable to HVAC products and system performance, duct testing, airflow measurement (e.g., BS EN 12599, BS EN 16211), smoke control, acoustics and other HVAC-related elements
d. Recognised industry guidance for selection of plant, ductwork, controls, airflow, balancing, control strategies and integration with building systems in the UK context.

Mandatory Design Requirements
a. Ventilation systems (natural, mechanical extract, mechanical supply & extract, or mechanical ventilation with heat recovery) have been sized and configured to meet minimum fresh air supply rates, extraction rates and ventilation performance prescribed in Approved Document Part F
b. Energy performance of heating and cooling services, controls and associated plant has been designed in accordance with the principles and minimum standards of Approved Document Part L
c. All system design, sizing, control sequences and integration with building services consider occupant comfort, air quality, thermal performance, acoustic criteria, maintainability, and compatibility with other building systems and architectural constraints.

Product & Equipment Approval – 110 Cannon Street, London, EC4N 6EU, United Kingdom Product Approval Codes
a. All HVAC equipment and components including but not limited to air handling units, fans, chillers, heat pumps, boilers, terminal devices, heat recovery units, dampers, controls, sensors, filters and accessories must be certified, tested and listed for use in the United Kingdom
b. Products shall carry appropriate conformity markings such as UKCA, CE (where applicable), or recognised third-party certification demonstrating compliance with product performance, safety and environmental standards
c. Manufacturer documentation including performance data, installation instructions, control sequences, service clearances and maintenance requirements must be submitted to the design professional and the Authority Having Jurisdiction as part of product approval and plan checking
d. Any proposed alternate or non-standard product shall be submitted in writing and must be approved by the design professional and the AHJ prior to procurement and installation
e. Products not meeting current UK regulatory or certification requirements shall not be installed.

Permitting, Inspection & Certification
a. Prior to commencing installation, the appropriate building control approval and permits must be obtained from the relevant local authority in London
b. All stages of HVAC installation including ductwork, plant setup, controls, system integration, testing and commissioning shall be inspected, verified and certified as required by the Building Regulations framework and local inspection protocols
c. System commissioning reports, balancing documentation and evidence of compliance with Part F and Part L provisions shall be provided to Building Control for final acceptance

Installation & Coordination Requirements
a. All HVAC components and systems must be installed in accordance with the design documents, manufacturer instructions, relevant standards and health & safety requirements
b. Coordination with other services (electrical, fire protection, plumbing, structural) shall be undertaken to ensure proper clearances, penetration protection, isolation, access for maintenance, vibration isolation and interface with building control systems
c. Penetrations through fire-rated elements and other protective barriers shall be sealed and reinstated in compliance with fire safety requirements

Testing, Commissioning & Documentation
a. All HVAC systems shall be tested, adjusted and balanced (TAB) by qualified personnel and shall deliver the required airflow, heating/cooling capacity and control performance documented on plan
b. Commissioning shall include verification of control sequences, ventilation effectiveness, airflow measurements at terminals, pressure relationships, noise levels, energy performance and safety interlocks
c. As-built drawings, test certificates, commissioning reports, operation & maintenance manuals and warranty documentation shall be provided to the owner and made available to the AHJ as part of project completion documentation

Deviations & Field Changes
Any deviation from this approved layout plan or from applicable codes, standards or product approvals shall be documented and submitted as a formal revision or field change request for review and written approval by the design professional and the AHJ prior to implementation.

Contractor Responsibility & Limitation of Design Liability
This plan and note serve as a design document for permitting and construction coordination. The contractor is responsible for verifying field conditions, means & methods of installation, compliance with design and regulatory requirements, and for safe execution of all work. The design professional's responsibility is limited to the design scope. Final installation must meet all regulatory and statutory requirements as enforced at the time of construction.

HVAC NOTE:

PROJECT: HADO RESTAURANT
SITE ADDRESS: 110 Cannon Street, London EC4N 6EU, United Kingdom

1. GENERAL COMPLIANCE
a. All HVAC works shall comply with the Building Regulations 2010 (as amended), including but not limited to Approved Document Part F (Ventilation), Approved Document Part L (Conservation of Fuel and Power), and all other applicable statutory requirements
b. All works shall be carried out in accordance with the latest editions of relevant CIBSE Guides, CIBSE Commissioning Codes, British Standards, manufacturer's recommendations and recognised industry best practice
c. All equipment shall be UKCA and/or CE marked where applicable and approved for installation within the United Kingdom
d. Contractor shall verify all site dimensions, existing services and installation constraints prior to commencement of works

2. VENTILATION SYSTEM REQUIREMENTS
a. Mechanical ventilation systems shall be designed, installed, tested and commissioned to achieve the ventilation rates required by Approved Document Part F and applicable CIBSE guidance
b. Supply and extract air systems shall be provided as separate ductwork systems. Shared ductwork serving both supply and extract functions shall not be permitted
c. Main ductwork runs shall be rigid spiral galvanneal steel ductwork. Flexible ductwork shall be limited to final connections between rigid ductwork and terminal devices
d. Flexible ductwork may be utilised within restricted ceiling voids beneath the mezzanine structure where rigid ductwork installation is not practical due to headroom limitations
e. All ductwork shall be adequately supported, sealed and insulated in accordance with current standards and manufacturer's recommendations

3. TOILET AND ANCILLARY AREA EXTRACT
a. Toilet extract systems shall be independent of any office, storage, staff or ancillary area ventilation systems
b. Toilet extract ductwork shall discharge independently and shall not be interconnected with general room ventilation systems unless specifically indicated on the approved design drawings
c. Any new wall penetrations required for separation of extract systems shall be coordinated with the architect and structural engineer prior to installation

4. RESTAURANT GENERAL VENTILATION
a. Existing ventilation equipment serving the restaurant shall be upgraded or replaced as required to achieve the design ventilation rates and improve odour control performance
b. Additional extract terminals and/or diffusers shall be installed where required to achieve uniform extraction coverage throughout the restaurant floor area
c. Ventilation distribution shall be balanced to eliminate stagnant air zones and improve air movement within customer seating areas
d. Final air quantities shall be verified through testing, adjusting and balancing (TAB) procedures

5. KITCHEN EXTRACT SYSTEM
a. Existing kitchen canopy and Ansul fire suppression system shall be retained unless otherwise noted
b. Existing kitchen extract fan and associated extract ductwork shall be replaced with a new system sized in accordance with the final kitchen extract calculations
c. Kitchen extract systems shall be designed to minimise cooking odours and prevent migration of contaminants into adjacent tenant spaces
d. Kitchen extract ductwork shall be installed and protected in accordance with applicable fire and ventilation regulations

6. AIR CONDITIONING SYSTEM
a. New air conditioning equipment shall be installed in accordance with approved equipment schedules and manufacturer's requirements
b. Proposed Mitsubishi Electric PUMY-P200YKM4TH outdoor unit and associated indoor cassette units shall be installed subject to final load calculations and equipment selection verification
c. Refrigerant pipework, condensate drainage and controls shall be installed in accordance with manufacturer's recommendations and applicable regulations

7. FIRE AND COMPARTMENTATION REQUIREMENTS
a. All penetrations through fire-rated walls, floors and compartment boundaries shall be fire-stopped using approved fire-rated systems maintaining the required fire resistance rating
b. Fire collars, fire dampers, fire-rated sealants and associated fire stopping products shall be installed where required by regulation and approved details
c. All openings, service penetrations and voids identified during construction shall be sealed to maintain fire, smoke and acoustic compartmentation

8. TESTING, COMMISSIONING AND DOCUMENTATION
a. All HVAC systems shall be tested, adjusted and balanced by competent personnel prior to handover
b. Commissioning shall include airflow measurements, balancing reports, equipment performance verification, controls testing and operational demonstration
c. Copies of commissioning certificates, balancing reports, operation and maintenance manuals, equipment data sheets and warranties shall be provided upon completion

9. CONTRACTOR RESPONSIBILITY
a. Contractor shall verify all existing site conditions prior to fabrication and installation
b. Any discrepancies between site conditions and construction documents shall be reported to the design consultant before proceeding with installation
c. No deviations from the approved design shall be made without written approval from the design consultant and relevant authorities having jurisdiction

FIRE SAFETY & HVAC COORDINATION NOTES

All fire-rated ductwork shall be designed, constructed, tested, and installed in accordance with the requirements of BESA DW144, BESA DW172 (where applicable for kitchen extract systems), BS EN 1366, BS 9999, and the relevant provisions of the Building Regulations (Approved Document B). Where ductwork penetrates fire-resisting walls, floors, ceilings, or compartment lines, the fire resistance of the building element shall be fully maintained by the installation of approved fire-rated duct systems, fire dampers (where permitted), or tested penetration sealing systems as appropriate.

All service penetrations, including ductwork, pipework, cable trays, conduits, and associated supports passing through fire-rated construction, shall be sealed using approved fire-stopping systems, including fire collars, fire batts, intumescent sealants, or other tested products, to provide a fire resistance rating not less than that of the penetrated element.

Kitchen extract ductwork serving grease-producing cooking appliances shall be installed as an independent fire-rated grease extract system in accordance with BESA DW172, with continuous welded construction, suitable access panels for inspection and cleaning, and fire protection measures where required.

The kitchen hood fire suppression system (Ansul or approved equivalent) shall be fully coordinated with the kitchen extract system. Operation of the fire suppression system shall automatically isolate the kitchen gas supply (where applicable), stop the kitchen supply air system, and operate the extract system in accordance with the fire strategy and manufacturer's recommendations.

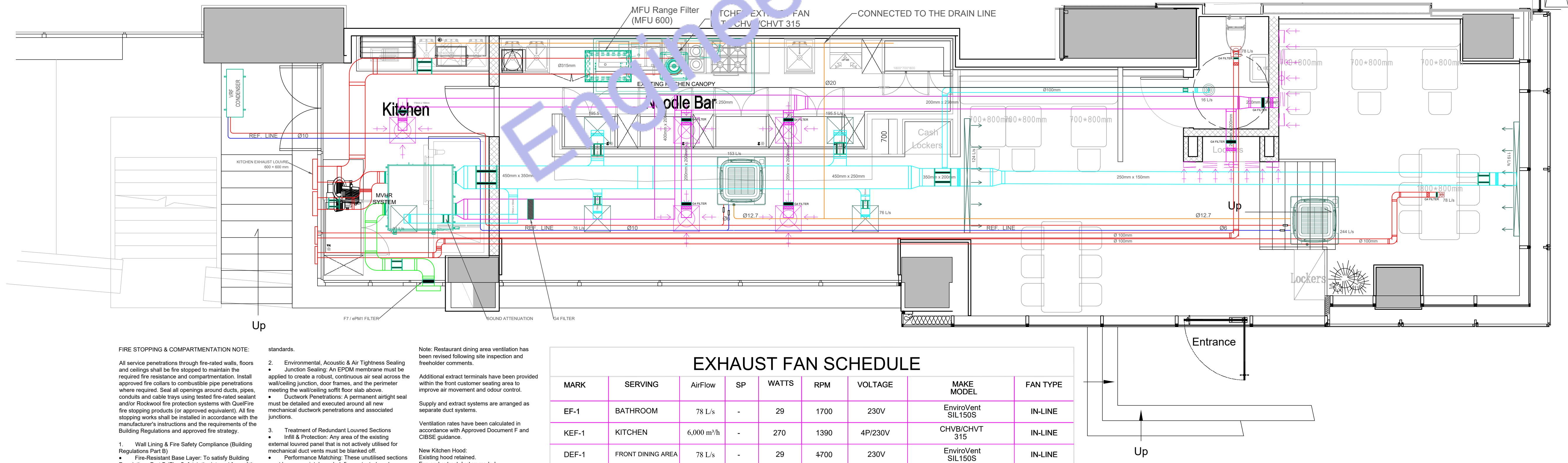
The mechanical ventilation and air conditioning systems shall be interfaced with the building fire alarm system. Upon activation of the fire alarm, HVAC equipment shall operate in accordance with the approved fire strategy, including shutdown of non-essential ventilation systems, operation of smoke control systems where applicable, closure of fire dampers (if installed), and shutdown of the AV system where required by the Employer's Requirements.

Fire dampers, smoke dampers, motorised fire dampers, and associated controls shall be installed, commissioned, labelled, and tested in accordance with the manufacturer's instructions, BS 9999, and all applicable British Standards.

All fire safety systems, interlocks, control sequences, and fire-stopping installations shall be tested, commissioned, and certified before practical completion. Relevant test certificates, commissioning records, and product approvals shall be submitted to the Contract Administrator, Building Control, and the Authority Having Jurisdiction as part of the project handover documentation.

General
The HVAC system is designed as a single-zone constant air volume (SCAV) split-AHU system, fully coordinated with the architectural layout and intended occupancy. All equipment capacities, airflow rates, and system arrangements are subject to detailed coordination and final manufacturer selection at construction stage.

HVAC Attenuator Schedule									
Tag	System / Application	Proposed Brand	Proposed Model	Size / Diameter (mm)	Design Airflow Rate (l/s)	Target Noise Criteria (NC)	Sound Power Level (dB)	Sound Criteria & Review Remarks / Design Duty	
SD-SA	Supply Air Duct (Fresh Air Intake)	Lindab	SLBU 100	250	2	NC 35	18	Main MVHR fan noise down to NC 35 in dining zones. Max pressure drop across the duct must not exceed 25 Pa to maintain MVHR fan efficiency.	
SD-KE	Kitchen Extract Ductwork (Grease Exhaust)	Lindab	SLXU 100	315	1667	NR 45 / NR 50	24	Heavy Grease Extract (DW172 Compliant): Handles high-velocity flow of 1,667 L/s (6,000 m³/h) from KEF-1. Acoustic media must be completely encapsulated in unperforated Mylar film to prevent grease saturation. Max face velocity must stay below 9 m/s to prevent regenerative whistling.	
SD-DI	General / Return Extract (Main Dining Room)	Lindab	SLU 100	315	153	NR 35	18	Dining Extract Branches: Balanced for branch flows up to 153 L/s (e.g., Noodle Bar dining lines). Casting must provide a minimum insertion loss of 12 dB at the critical 250 Hz octave band to cancel ambient background rumble.	
SD-TE	Toilet Extract Duct (Humid Exhaust)	Lindab	DACKA 100	100	78	NR 40	18	Humid Utility Extract: Sized for the 78 L/s EF-1 utility fan. Selection requires fiber-free Acoustic polyester media. Standard mineral wool is prohibited here due to continuous high-humidity extract and moisture degradation risks.	



FIRE STOPPING & COMPARTMENTATION NOTE:

All service penetrations through fire-rated walls, floors and ceilings shall be fire stopped to maintain the required fire resistance and compartmentation. Install approved fire collars to combustible pipe penetrations where required. Seal all openings around ducts, pipes, conduits and cable trays using tested fire-rated sealant and/or Rockwool fire protection systems with QuEfire fire stopping products (or approved equivalent). All fire stopping works shall be installed in accordance with the manufacturer's instructions and the requirements of the Building Regulations and approved fire strategy.

1. Wall Lining & Fire Safety Compliance (Building Regulations Part B)
• Fire-Resistant Base Layer: To satisfy Building Regulations Part B (Fire Safety), the internal face of the rear louvred wall must incorporate an approved fire-rated lining. An A1-rated Cement Particle Board must be affixed as the primary (first) layer of the internal wall lining setup.
• Thermal Performance: The entire internal wall lining configuration must be designed and installed to fully comply with current statutory thermal performance standards.

2. Environmental, Acoustic & Air Tightness Sealing
• Junction Sealing: An EPDM membrane must be applied to create a robust, continuous air seal across the wall/ceiling junction, door frames, and the perimeter meeting the wall/ceiling soffit floor slab above.
• Ductwork Penetrations: A permanent airtight seal must be detailed and executed around all new mechanical ductwork penetrations and associated junctions.

3. Treatment of Redundant Louvred Sections
• Infill & Protection: Any area of the existing external louvred panel that is not actively utilised for mechanical duct vents must be blanked off.
• Performance Matching: These utilised sections must be appropriately sealed, fire-protected, and insulated to meet the same structural fire and thermal performance levels as the surrounding upgraded wall asset.

Note: Restaurant dining area ventilation has been revised following site inspection and fire/hooder comments.

Additional extract terminals have been provided within the front customer seating area to improve air movement and odour control.

Supply and extract systems are arranged as separate duct systems.

Ventilation rates have been calculated in accordance with Approved Document F and CIBSE guidance.

New Kitchen Hood: Fan and extract duct upgraded.

Dining Area: Additional extract diffusers provided. AHU upgraded.

Ductwork: Spiral rigid ductwork for accessible long runs. Flexible duct limited to final connections only.

EXHAUST FAN SCHEDULE

MARK	SERVING	AirFlow	SP	WATTS	RPM	VOLTAGE	MAKE MODEL	FAN TYPE
EF-1	BATHROOM	78 L/s	-	29	1700	230V	EnviroVent SIL150S	IN-LINE
KEF-1	KITCHEN	6,000 m³/h	-	270	1390	4P/230V	CHVB/CHVT 315	IN-LINE
DEF-1	FRONT DINING AREA	78 L/s	-	29	4700	230V	EnviroVent SIL150S	IN-LINE

NOTES
1. COMPLETE W/BACKDRAFT DAMPER.
2. PROVIDE THERMOSTATIC CONTROL DEVICES

3. INTERLOCK TO OPERATE WHENEVER RTU'S OPERATE.
4. MAINTAIN A MINIMUM CLEARANCE OF 10'-0" FROM ALL INTAKE AIR FANS AND ALL ROOF TOP UNITS OUTSIDE AIR INTAKE OPENINGS.



ENGINEER'S TEAM LTD
Web site: www.egrteam.com
Email: support@egrteam.com

CLIENT: MR AND MRS ANDERTON

ADDRESS:
25 WILBURY AVENUE,
HOVE, BN3 6HS

CONFIDENTIALITY STATEMENT:
ALL DRAWINGS AND WRITTEN MATERIALS
APPEARING HEREIN CONSTITUTE THE
ORIGINAL AND UNPUBLISHED WORK OF THE
DESIGNER AND THE SAME MAY NOT BE
DUPLICATED, USED OR DISCLOSED WITHOUT
CONSENT OF THE DESIGNER.

NOTES:
1. ALL DIMENSIONS HEREIN ARE IN IMPERIAL
UNITS UNLESS STATED OTHERWISE.
2. THESE DRAWINGS ARE TO BE READ IN
CONJUNCTION WITH ALL RELEVANT DESIGNER,
ENGINEER OR SPECIALIST DRAWINGS AND
SPECIFICATIONS.
3. THE CONTRACTOR MUST CHECK ALL
DIMENSION AT SITE BEFORE COMMENCING
WORK.
4. THE CONTRACTOR IS RESPONSIBLE FOR
PROVIDING ALL NECESSARY TEMPORARY
SUPPORT TO THE BUILDING AND ANY ADJACENT
STRUCTURES.

REFERENCE:
HAN-GOYA-00-XX-CO-5601

REV. NO.	DESCRIPTION	DATE	BY
01	Add Grease Trap & update the plumbing plans	03/02/26	AA
02	Create leak detection, Gas & Fire protection etc plans	06/27/26	AA
03	Fix HVAC system and add new system	07/21/26	AA
04	Change VRF system & Fix Ventilation	07/27/26	AA
05	Provide more information about the HVAC system	08/04/26	AA
05	HVAC Elevation Plan & Filtrations Specification.	08/16/26	AA

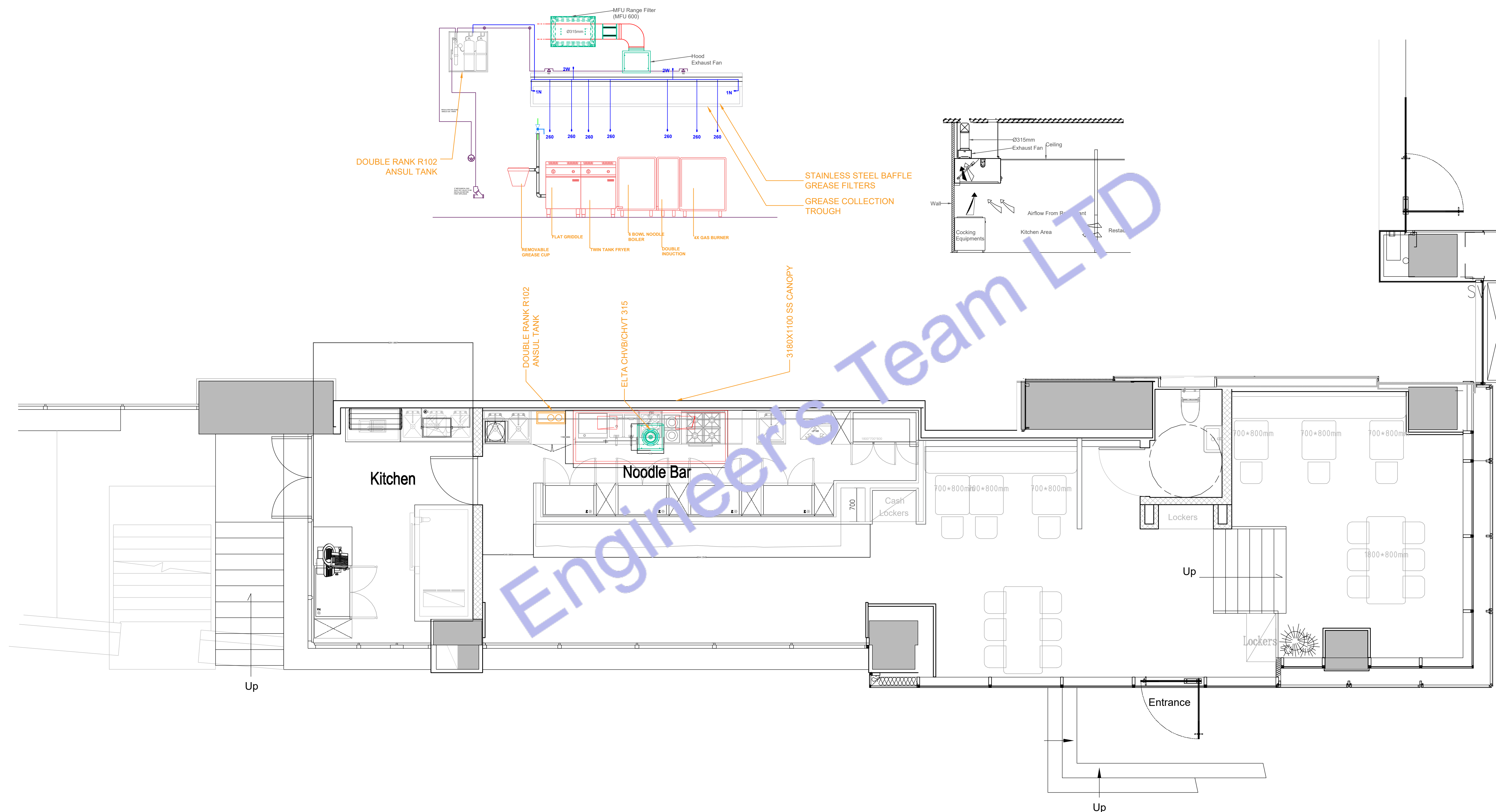
PROJECT:
25 WILBURY AVENUE

TITLE:
**R-102 Restaurant
Fire Suppression Systems**

PROJ. NO.	PROJ. ENGR.	SCALE @ 24X36: 1:100
-----------	-------------	--------------------------------

DATE :
September 14, 2026

DRAWING NO. M - 1 2	REV. 6
-------------------------------	------------------





ENGINEER'S TEAM LTD
Web site: www.engrteam.com
Email: support@engrteam.com

CLIENT: MR AND MRS ANDERTON

ADDRESS:
25 WILBURY AVENUE,
HOVE, BN3 6HS

CONFIDENTIALITY STATEMENT:
ALL DRAWINGS AND WRITTEN MATERIALS
APPEARING HEREIN CONSTITUTE THE
ORIGINAL AND UNPUBLISHED WORK OF THE
DESIGNER AND THE SAME MAY NOT BE
DUPLICATED, USED OR DISCLOSED WITHOUT
CONSENT OF THE DESIGNER.

NOTES:
1. ALL DIMENSIONS HEREIN ARE IN IMPERIAL
UNITS UNLESS STATED OTHERWISE.
2. THESE DRAWINGS ARE TO BE READ IN
CONJUNCTION WITH ALL RELEVANT DESIGNER,
ENGINEER OR SPECIALIST DRAWINGS AND
SPECIFICATIONS.
3. THE CONTRACTOR MUST CHECK ALL
DIMENSION AT SITE BEFORE COMMENCING
WORK.
4. THE CONTRACTOR IS RESPONSIBLE FOR
PROVIDING ALL NECESSARY TEMPORARY
SUPPORT TO THE BUILDING AND ANY ADJACENT
STRUCTURES.

REFERENCE:
HAN-GOYA-00-XX-CO-5601

REV. NO.	DESCRIPTION	DATE	BY
01	Add Grease Trap & update the plumbing plans	03/02/26	AA
02	Create leak detection, Gas & Fire protection etc plans	06/27/26	AA
03	Fix HVAC system and add new system	07/21/26	AA
04	Change VRF system & Fix Ventilation	07/27/26	AA
05	Provide more information about the HVAC system	08/04/26	AA
05	HVAC Elevation Plan & Filtrations Specification.	08/16/26	AA

PROJECT:
25 WILBURY AVENUE

TITLE: HVAC ELEVATION PLAN

PROJ. NO. PROJ. ENGR. SCALE @ 24X36:
1:100

DATE :
September 14, 2026

DRAWING NO. REV.
M - 1 3 6

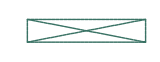
Mechanical Legends



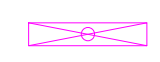
MECHANICAL VENTILATION HEAT RECOVERY



VRF OUTDOOR CONDENSER
950 x 1380 x 330 mm



SUPPLY AIR DIFFUSER



EXHAUST AIR DIFFUSER



KITCHEN CHIMNEY



EXHAUST FAN



SUPPLY AIR DUCT



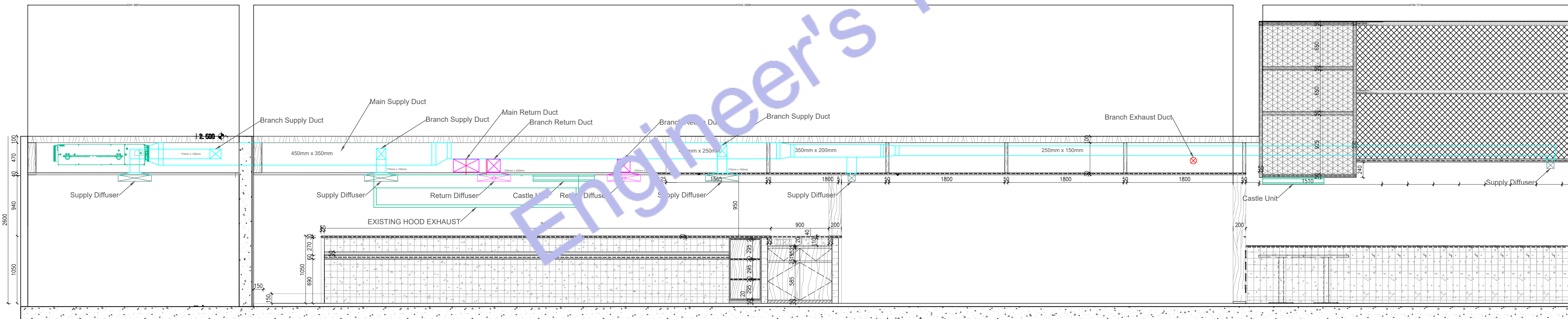
FIRE STOP



SOUND ATTENUATION



AIR FILTRATION





ENGINEER'S TEAM LTD

Web site: www.engrteam.com
Email: support@engrteam.com

CLIENT: MR AND MRS ANDERTON

ADDRESS: 25 WILBURY AVENUE,
HOVE, BN3 6HS

CONFIDENTIALITY STATEMENT:

ALL DRAWINGS AND WRITTEN MATERIALS

APPEARING HEREIN CONSTITUTE THE

ORIGINAL AND UNPUBLISHED WORK OF THE

DESIGNER AND THE SAME MAY NOT BE

DUPLICATED, USED OR DISCLOSED WITHOUT

CONSENT OF THE DESIGNER.

NOTES:

1. ALL DIMENSIONS HEREIN ARE IN IMPERIAL UNITS UNLESS STATED OTHERWISE.
2. THESE DRAWINGS ARE TO BE READ IN CONJUNCTION WITH ALL RELEVANT DESIGNER, ENGINEER OR SPECIALIST DRAWINGS AND SPECIFICATIONS.
3. THE CONTRACTOR MUST CHECK ALL DIMENSION AT SITE BEFORE COMMENCING WORK.
4. THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING ALL NECESSARY TEMPORARY SUPPORT TO THE BUILDING AND ANY ADJACENT STRUCTURES.

REV. NO.	DESCRIPTION	DATE	BY
01	Add Grease Trap & update the plumbing plans	03/02/26	AA
02	Create leak detection, Gas & Fire protection etc plans	06/27/26	AA
03	Fix HVAC system and add new system	07/21/26	AA
04	Change VRF system & Fix Ventilation	07/27/26	AA
05	Provide more information about the HVAC system	08/04/26	AA
05	HVAC Elevation Plan & Filtrations Specification.	08/16/26	AA

PROJECT: 25 WILBURY AVENUE

TITLE: HVAC CALCULATION

PROJ. NO. PROJ. ENGR. SCALE @ 24X36: 1:100

DATE : September 14, 2026

DRAWING NO. M - 1 4 REV. 6

Air System Sizing Summary for HVAC CASTLE SYSTEM

Project Name: 219 Project 07/16/2026
Prepared by: Engineer's Team LTD 03:52PM

Air System Information

Air System Name HVAC CASTLE SYSTEM Number of zones 1
Equipment Class SPLT AHU Floor Area 102.6 m²
Air System Type SZCAV Location London - Kew, United Kingdom

Sizing Calculation Information

Calculation Months Jan to Dec Zone L/s Sizing Sum of space airflow rates
Sizing Data Calculated Space L/s Sizing Individual peak space loads

Central Cooling Coil Sizing Data

Total coil load 14.6 kW Load occurs at Aug 1700
Sensible coil load 10.9 kW OA DB / WB 27.8 / 19.9 °C
Coil L/s at Aug 1700 787 L/s Entering DB / WB 25.5 / 18.8 °C
Max block L/s 787 L/s Leaving DB / WB 14.0 / 13.3 °C
Sum of peak zone L/s 787 L/s Coil ADP 12.4 °C
Sensible heat ratio 0.747 Bypass Factor 0.120
L/s (kW) 53.9 Resulting RH 55 %
m³/kW 7.0 Design supply temp. 12.8 °C
W/m² 142.2 Zone T-stat Check 1 of 1 OK
Water flow @ 5.6 K rise N/A Max zone temperature deviation 0.0 K

Central Heating Coil Sizing Data

Max coil load 10.0 kW Load occurs at Des Htg
Coil L/s at Des Htg 787 L/s W/m² 97.2
Max coil L/s 787 L/s Ent. DB / Lvg DB 13.7 / 24.2 °C
Water flow @ 11.1 K drop N/A

Supply Fan Sizing Data

Actual max L/s 787 L/s Fan motor BHP 0.00 BHP
Standard L/s 786 L/s Fan motor kW 0.00 kW
Actual max L/(s·m²) 7.67 L/(s·m²) Fan static 0 Pa

Outdoor Ventilation Air Data

Design airflow L/s 230 L/s L/s/person 6.07 L/s/person
L/(s·m²) 2.25 L/(s·m²)

Zone Sizing Summary for HVAC CASTLE SYSTEM

Project Name: 219 Project 07/16/2026
Prepared by: Engineer's Team LTD 03:52PM

Air System Information

Air System Name HVAC CASTLE SYSTEM Number of zones 1
Equipment Class SPLT AHU Floor Area 102.6 m²
Air System Type SZCAV Location London - Kew, United Kingdom

Sizing Calculation Information

Calculation Months Jan to Dec Zone L/s Sizing Sum of space airflow rates
Sizing Data Calculated Space L/s Sizing Individual peak space loads

Zone Terminal Sizing Data

Zone Name	Design Supply Airflow (L/s)	Minimum Supply Airflow (L/s)	Sensible Peak Load L/(s·m²)	Reheat Coil Load (kW)	Reheat Coil Load @ 11.1 K (kW)	Zone Htg Unit Coil Load (kW)	Zone Htg Unit Water L/s @ 11.1 K	Mixing Box Fan Airflow (L/s)
Zone 1	787	787	7.67	0.0	-	0.0	-	0

Zone Peak Sensible Loads

Zone Name	Zone Cooling Sensible (kW)	Time of Sensible Peak Cooling Load	Zone Heating Load (kW)	Zone Floor Area (m²)
Zone 1	10.5	Jul 2200	2.9	102.6

Space Loads and Airflows

Zone Name / Space Name	Mult.	Cooling Sensible (kW)	Time of Peak Sensible Load	Air Flow (L/s)	Heating Load (kW)	Floor Area (m²)	Space L/(s·m²)
Zone 1							
Dining Area 1	1	1.7	Jul 2000	124	1.0	31.6	3.92
Dining Area 2	1	1.6	Jul 2200	119	0.8	28.1	4.24
Noodle bar Area	1	5.2	Jul 2200	391	0.5	20.9	18.71
Noodle bar dining	1	2.0	Jul 2200	152	0.6	22.0	

Ventilation Sizing Summary for HVAC CASTLE SYSTEM

Project Name: 219 Project 07/16/2026
Prepared by: Engineer's Team LTD 03:52PM

1. Summary

Ventilation Sizing Method Sum of Space OA Airflows
Design Ventilation Airflow Rate 230 L/s

2. Space Ventilation Analysis

Zone Name / Space Name	Mult.	Floor Area (m²)	Maximum Occupants	Maximum Supply Air (L/s)	Required Outdoor Air (L/s/person)	Required Outdoor Air (L/(s·m²))	Required Outdoor Air (L/s)	Required Outdoor Air (% of supply)	Uncorrected Outdoor Air (L/s)
Zone 1									
Dining Area 1	1	31.6	9.0	123.9	3.80	0.90	0.0	0.0	62.6
Dining Area 2	1	28.1	9.0	119.2	3.80	0.90	0.0	0.0	59.5
Noodle bar Area	1	20.9	5.0	391.1	3.80	0.60	0.0	0.0	31.5
Noodle bar dining	1	22.0	15.0	152.3	3.80	0.90	0.0	0.0	76.8
Totals (incl. Space Multipliers)				786.5					230.5

Dedicated Outdoor Air System (DOAS) Sizing Summary for HVAC DEDICATED OUTDOOR AIR

Project Name: 219 Project 06/20/2026
Prepared by: Engineer's Team LTD 05:32PM

Air System Information

Air System Name HVAC DEDICATED OUTDOOR AIR Number of zones 1
Equipment Class TERM Floor Area 121.4 m²
Air System Type PKG-FC Location London - Kew, United Kingdom

Sizing Calculation Information

Calculation Months Jan to Dec Zone L/s Sizing Sum of space airflow rates
Sizing Data Calculated Space L/s Sizing Individual peak space loads

Ventilation Fan Sizing Data

Actual max L/s 262 L/s Fan motor BHP 0.00 BHP
Standard L/s 262 L/s Fan motor kW 0.00 kW
Actual max L/(s·m²) 2.16 L/(s·m²) Fan static 0 Pa

Outdoor Ventilation Air Data

Design airflow L/s 262 L/s L/s/person 6.09 L/s/person
L/(s·m²) 2.16 L/(s·m²)

Zone Sizing Summary for HVAC DEDICATED OUTDOOR AIR

Project Name: 219 Project 06/20/2026
Prepared by: Engineer's Team LTD 05:32PM

Air System Information

Air System Name HVAC DEDICATED OUTDOOR AIR Number of zones 1
Equipment Class TERM Floor Area 121.4 m²
Air System Type PKG-FC Location London - Kew, United Kingdom

Sizing Calculation Information

Calculation Months Jan to Dec Zone L/s Sizing Sum of space airflow rates
Sizing Data Calculated Space L/s Sizing Individual peak space loads

Terminal Unit Sizing Data - Cooling

Zone Name	Total Coil Load (kW)	Sens Coil Load (kW)	Coil Entering DB / WB (°C)	Coil Leaving DB / WB (°C)	Water Flow @ 5.6 K (L/s)	Time of Peak Coil Load	Zone L/(s·m²)
Zone 1	16.0	11.7	19.6 / 24.3	13.1	-	Jul 1900	7.38

Terminal Unit Sizing Data - Heating, Fan, Ventilation

Zone Name	Heating Coil Load (kW)	Heating Coil Ent/Lvg DB (°C)	Htg Coil Water Flow @11.1 K (L/s)	Fan Design Airflow (L/s)	Fan Motor (BHP)	Fan Motor (kW)	OA Vent Design Airflow (L/s)
Zone 1	5.1	19.6 / 24.3	-	895	0.000	0.000	262

Zone Peak Sensible Loads

Zone Name	Zone Cooling Sensible (kW)	Time of Sensible Peak Cooling Load	Zone Heating Load (kW)	Zone Floor Area (m²)
Zone 1	12.0	Jul 2200	3.3	121.4

Space Loads and Airflows

Zone Name / Space Name	Mult.	Cooling Sensible (kW)	Time of Peak Sensible Load	Air Flow (L/s)	Heating Load (kW)	Floor Area (m²)	Space L/(s·m²)
Zone 1							
Dining Area 1	1	1.7	Jul 2000	124	1.0	31.6	3.93
Dining Area 2	1	1.6	Jul 2200	119	0.8	28.1	4.25
Kitchen	1	1.2	Jul 2000	91	0.3	15.7	5.81
Noodle bar Area	1	5.2	Jul 2200	392	0.5	20.9	18.75
Noodle bar dining	1	2.0	Jul 2200	153	0.6	22.0	6.94
Washroom	1	0.2	Jul 1900	16	0.1	3.1	5.21

According to calculation:

Maximum occupants 43 person

Required outdoor air 10 L/s per person

Total required outdoor air 430 L/s

And the new system supply 430 L/s fresh outdoor air



CLIENT: MR AND MRS ANDERTON

ADDRESS:
25 WILBURY AVENUE,
HOVE, BN3 6HS

CONFIDENTIALITY STATEMENT:
ALL DRAWINGS AND WRITTEN MATERIALS
APPEARING HEREIN CONSTITUTE THE
ORIGINAL AND UNPUBLISHED WORK OF THE
DESIGNER AND THE SAME MAY NOT BE
DUPLICATED, USED OR DISCLOSED WITHOUT
CONSENT OF THE DESIGNER.

NOTES:

1. ALL DIMENSIONS HEREIN ARE IN IMPERIAL UNITS UNLESS STATED OTHERWISE.
2. THESE DRAWINGS ARE TO BE READ IN CONJUNCTION WITH ALL RELEVANT DESIGNER, ENGINEER OR SPECIALIST DRAWINGS AND SPECIFICATIONS.
3. THE CONTRACTOR MUST CHECK ALL DIMENSION AT SITE BEFORE COMMENCING WORK.
4. THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING ALL NECESSARY TEMPORARY SUPPORT TO THE BUILDING AND ANY ADJACENT STRUCTURES.

REV. NO	DESCRIPTION	DATE	BY
01	Add Grease Trap & update the plumbing plans	03/02/26	/
02	Create leak detection, Gas & Fire protection etc details	06/27/26	/
03	Fix HVAC system and add new system	07/21/26	/
04	Change VRF system & Fix Ventilation	07/27/26	/
05	Provide more information about the HVAC system	08/04/26	/
05	HVAC Elevation Plan & Filtrations Specification	08/16/26	/

PROJECT: 25 WILBURY AVENUE

TITLE:

HVAC EQUIPMENT SCHEDULE

PROJ. NO.	PROJ. ENGR.	SCALE @ 24X36: N/A
-----------	-------------	-----------------------

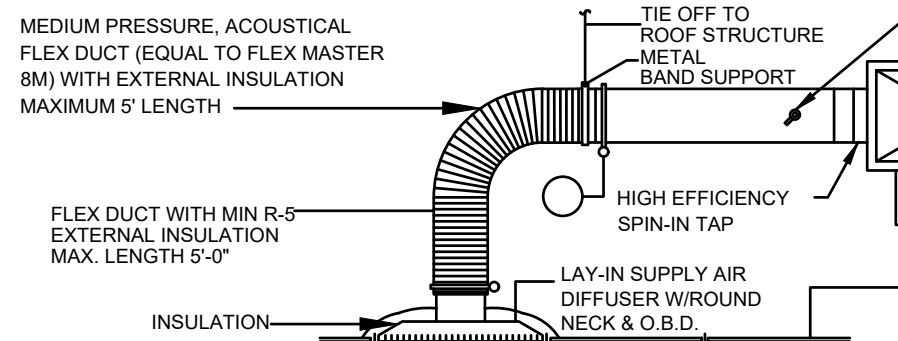
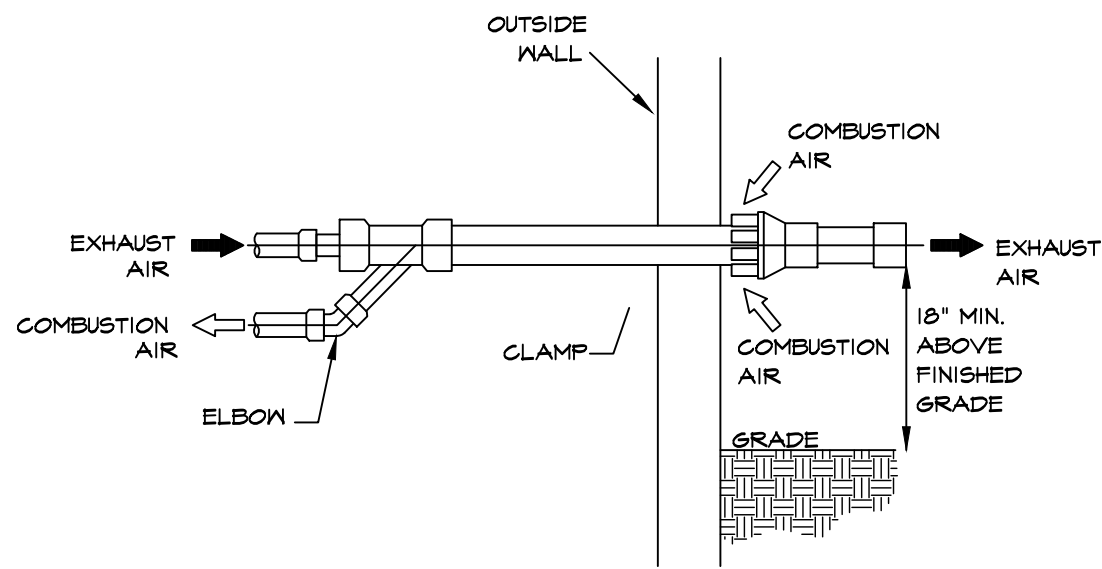
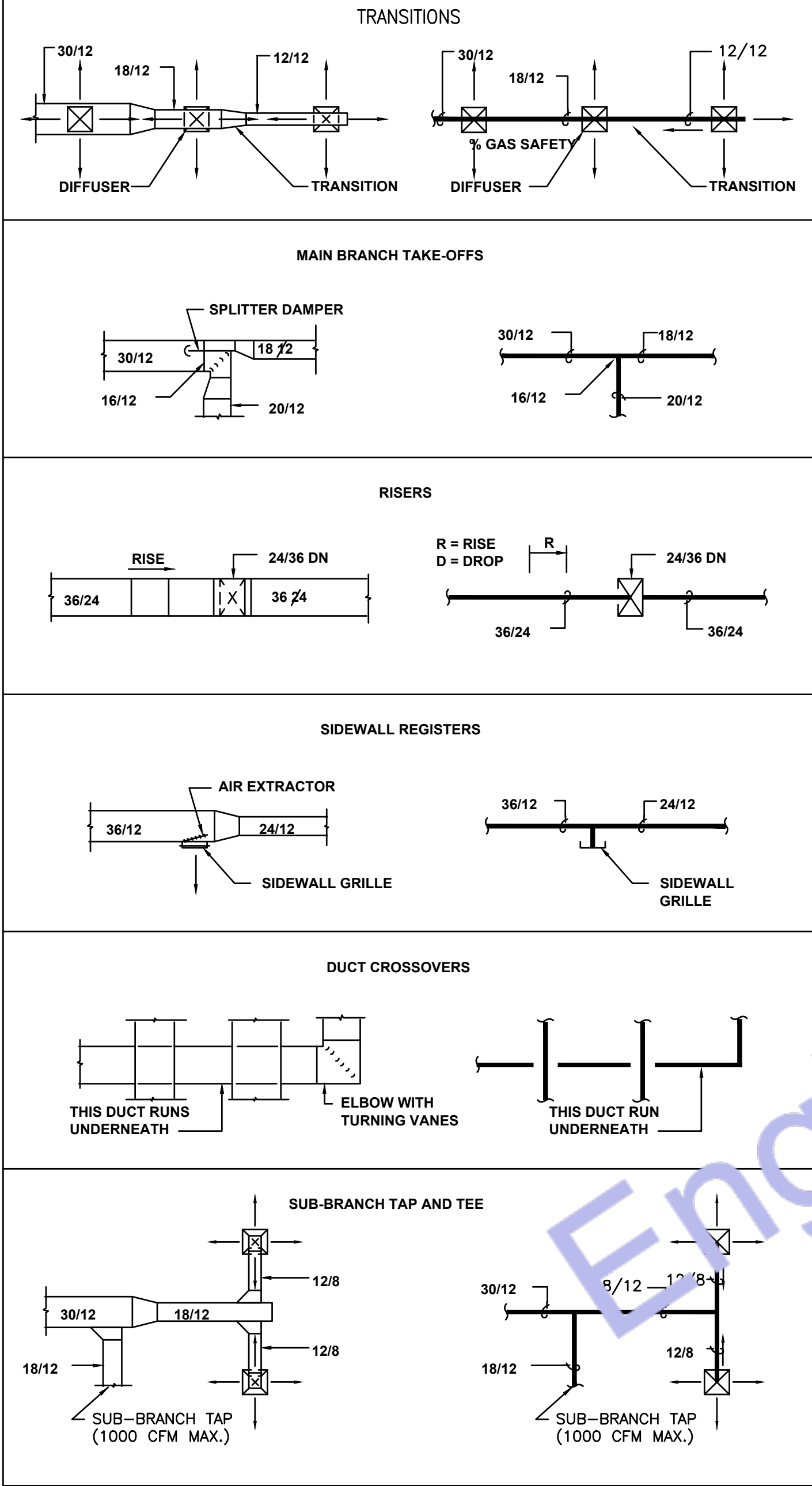
DATE : September 14, 2026

DRAWING NO.	REV.
M - 1 5	6

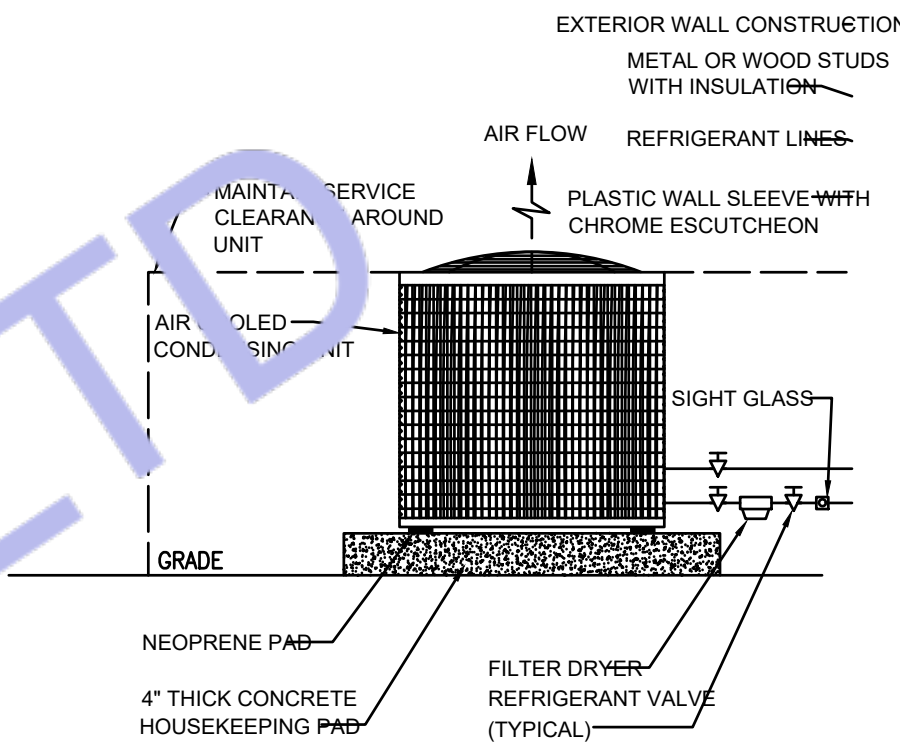
HVAC EQUIPMENT SCHEDULE

Tag	Equipment	Proposed Equipment	New / Existing	Qty	Design Duty	Airflow	Power Supply	Remarks
ODU-1	VRF Outdoor Unit	Fujitsu General AOEG54KRTA	N	1	Capacity: 13.5-15.5 kW	787 L/s	400V, 3Ph, 50Hz	R32 subject is final
IDU-1	4-Way Ceiling Cassette	Fujitsu General cassette AUXG24KVLA R32	N	1	7 kW Cooling	243 L/s	230V, 1Ph	Dining Area
IDU-2	4-Way Ceiling Cassette	Fujitsu General cassette AUXG24KVLA R33	N	1	7 kW Cooling	152 L/s	230V, 1Ph	Noodle Bar Dining
HRU-1	MVHR / DOAS Unit	Blauberg EcoSlim 900	N	1	Heat Recovery $\geq 88\%$	232 L/s Outdoor Air	230V, 1Ph	Fresh air supply to restaurant
KEF-1	Kitchen Extract Fan	Elta CHVB/CHVT 315	E	1	1000 m ³ /h @ 343 Pa	1667 L/s	230V, 1Ph	Heavy-duty grease extract (DW/172)
EF-1	Toilet Extract Fan	EnviroVent SIL150S	N	1	78 L/s	79 L/s	230V	Ground Floor WC
DEF-1	FRONT DINING AREA	EnviroVent SIL150S	N	1	78 L/s	79 L/s	230V	Ground Floor DINING AREA
FD	Fire Damper	CE/UKCA Certified Fire Damper	N	14	2 Hour Fire Rating	—	—	Installed at fire-rated penetrations
SD	Circular Silencer	Lindab / Waterloo	N	As Required	—	—	—	Kitchen extract ductwork
GF	Grease Filters	Stainless Steel Baffle Filters	N	6	DW/172 Compliant	—	—	Removable and washable
WL	Weather Louvres	Aluminium Drainable Weather Louvres	N	As Required	Low Leakage	—	—	Fresh air intake and exhaust discharge

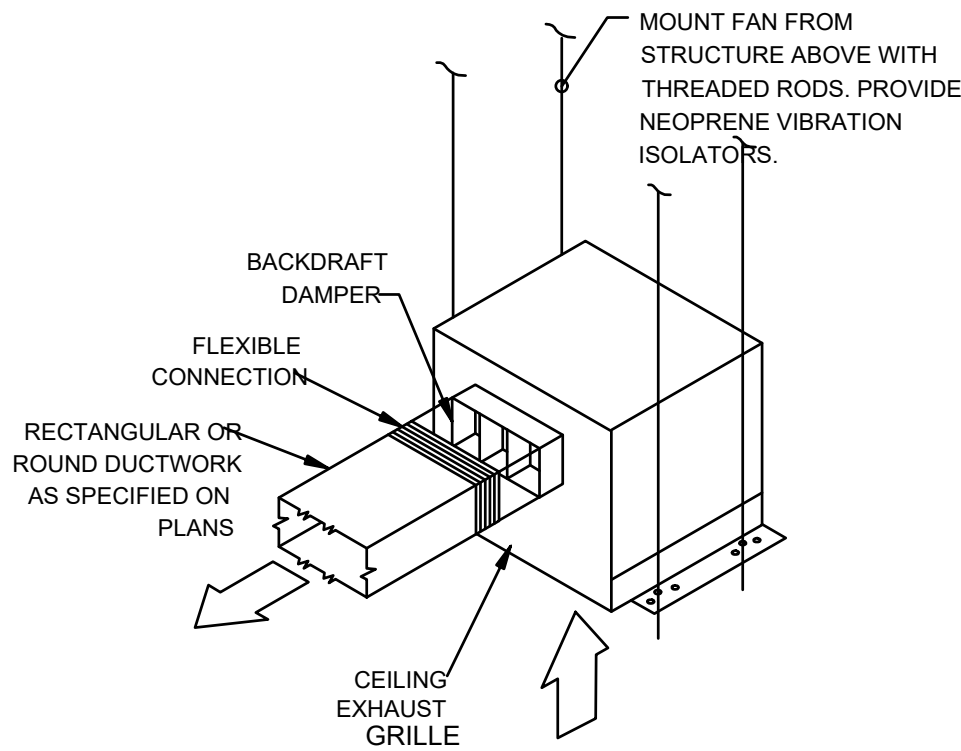
DUCTWORK SYMBOLS LEGEND



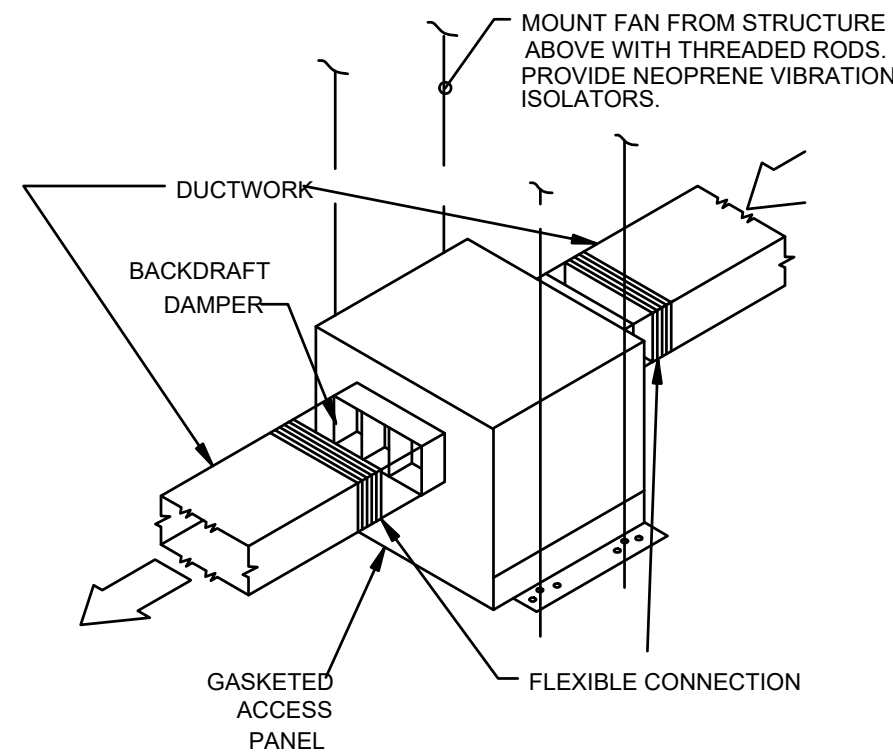
SUPPLY AIR DIFFUSER CONNECTION



OUTSIDE AIR CONDITIONER



CEILING EXHAUST FAN DETAIL



IN-LINE FAN DETAIL

- NOTES:
- ENTRANCE (A) HAS A DIFFUSER FITTING THAT RECOVERS VELOCITY PRESSURES AND PREVENTS SWIRLS (OPTIONAL).
 - STRAIGHT APPROACH (A) AND STRAIGHT EXITS (B).
 - EXITS OPENING ON SIDE (NO TOP OR BOTTOM EXITS).
 - EXIT OPENING AT LEAST TWO FEET MINIMUM.
 - MAKE BOX AS SMALL AS POSSIBLE. CALCULATING AREA L = 2 X D.

- NOTES:
- INTERNALLY LINED SUPPLY AND RETURN SHEET METAL FLEUMS THAT EXTENDS 10 FEET ON EITHER SIDE OF AHU, FULL SIZE OF UNIT OPENING.
 - 3/4\"/>



ENGINEER'S TEAM LTD
Web site: www.engrteam.com
Email: support@engrteam.com

CLIENT: MR AND MRS ANDERTON

ADDRESS: 25 WILBURY AVENUE,
HOVE, BN3 6HS

CONFIDENTIALITY STATEMENT:
ALL DRAWINGS AND WRITTEN MATERIALS
APPEARING HEREIN CONSTITUTE THE
ORIGINAL AND UNPUBLISHED WORK OF THE
DESIGNER AND THE SAME MAY NOT BE
DUPLICATED, USED OR DISCLOSED WITHOUT
CONSENT OF THE DESIGNER.

- NOTES:**
- ALL DIMENSIONS HEREIN ARE IN IMPERIAL UNITS UNLESS STATED OTHERWISE.
 - THESE DRAWINGS ARE TO BE READ IN CONJUNCTION WITH ALL RELEVANT DESIGNER, ENGINEER OR SPECIALIST DRAWINGS AND SPECIFICATIONS.
 - THE CONTRACTOR MUST CHECK ALL DIMENSION AT SITE BEFORE COMMENCING WORK.
 - THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING ALL NECESSARY TEMPORARY SUPPORT TO THE BUILDING AND ANY ADJACENT STRUCTURES.

REV. NO.	DESCRIPTION	DATE	BY
01	Add Grease Trap & update the plumbing plans	03/02/26	AA
02	Create leak detection, Gas & Fire protection etc plans	06/27/26	AA
03	Fix HVAC system and add new system	07/21/26	AA
04	Change VRF system & Fix Ventilation	07/27/26	AA
05	Provide more information about the HVAC system	08/04/26	AA
05	HVAC Elevation Plan & Filtrations Specification.	08/16/26	AA

PROJECT: 25 WILBURY AVENUE

TITLE: HVAC INSTALLATION

PROJ. NO. PROJ. ENGR. SCALE @ 24X36: N/A

DATE : September 14, 2026

DRAWING NO. M - 1 6 REV. 6



Designed By Engr. Al Amin (MEP Engineer | Director - Engineer's Team LTD)

 support@engrteam.com

 <https://engrteam.com>

OUR SERVICES:

- MEP Plan Services
- HVAC Layout Plan
- Electrical Engineering Services
- Plumbing Engineering Services
- Fire protection & Security systems
- Specialized services

INFORMATION:

- Studio
- Contact Us
- Gift cards
- Privacy Policy
- Refund Policy
- Delivery Policy