Ref: MM/NGS Man 01
Date: 01st June 2026

Skyline Architect
Unit 26
Vulcan House Vulcan Road
Leicester
LE5 3EF

For the attention of Ahmed

Dear Mr. Ahmed,

Re: SPAR, 4 New George Street, Manchester, M4 4AE

Further to our recent discussions we have pleasure in confirming the following items, to be incorporated within the proposed new Kitchen Catering / Canopy extract / ventilation system at the above site.

The following based upon the following catering equipment as advised by yourselves as provided on the following drawing:

"260409 - 4 George Street - Existing and proposed plans"

The ventilation system shall be as designed and illustrated on Drawing number – BSE M100 series drawings.

1) Extract fan, interlocks and attenuator:

The new fan would be a MUB T-S 100 630 EC, Acoustically and thermally lined (30mm insulation), with EC motor outside airstream, complete with drip pan and drain plug, medium temperature of 120 deg C resistant at continuous operation, as manufactured by System Air Ltd.

The Extract fan shall be installed on the roof, external to the building envelope, complete with 2 no. KKS 062 attenuator (splitter section with Potentiometer included).

The Fan will be a 3 phase version, complete with an interlock with Fire Alarm Panel, Ansul suppression system and Medem's SEC-KE ventilation proving system. The kitchen supply & extract fan shall be interlocked with a Step switch S-5EC-2 controller as supplied by System Air Ltd. No inverters required as both supply & Extract fans shall have EC fan motors.

This fan will affect a maximum extract air volume rate of 2.38m³/s @ 575Pa external

pressure when running on full speed.

The whole assembly to be mounted SD-MUB Vibration pad set, which shall be further supported from proprietary support system (to spread structural load).

2) Kitchen supply/Fresh air makeup Fan, interlocks and attenuator:

The new fan would be a MUB 100 630EC Multibox, Acoustically and thermally lined (30mm insulation), with EC motor outside airstream, with G4 grade panel filter as manufactured by System Air Ltd.

The supply fan shall be installed at back office storage space at high level, internal to the building envelope, complete with 1 no. KKS 062 attenuator (splitter section with Potentiometer included).

The Fan will be a 3 phase version, complete with an interlock with Fire Alarm Panel and Medem's SEC-KE ventilation proving system. The kitchen supply & extract fan shall be interlocked with a Step switch S-5EC-2 controller as supplied by System Air Ltd.

This fan will affect a maximum extract air volume rate of 2.15m³/s @ 250 Pa external pressure when running on full speed, to intake from bellmouth type opening with mesh located at the room.

The supply fan shall come with a duct mounted RB 100-50/80-5 400V/3 duct mounted electrical heater 80kW immersion heater designed to supply constant 20°C off coil temperature and should self-regulate in relation to outside temperature.

2), Canopy and Ductwork.

1 No. fully welded, compensated type, stainless steel canopy to be installed, to be high overhead wall type, c/w full width rear plenum containing Stainless steel, baffle type grease filters, each nominal 394 mm x 394 mmx 50 mm thick, c/w lights in roof of canopy, for wiring by others.

Canopy, high side wall compensated type, with overall dimensions to be not less than 5.2 m wide x 1.35 m deep x 0.6 m high, (all to be confirmed on site).
All catering equipment to be positioned minimum 250 mm inside of the canopy edges, all in accordance with the HVCA Specification DW 172.
Canopy to be of fully welded construction, from minimum 20g fine grain finish, 304 grade stainless steel, all sides to be vertical, complete with full condensate drain channel all round. Full width stainless steel wall plates would also be provided.
Total Exhaust Air Volume; 2.33 m³/s

1 no. rectangular spigot shall connect extract ductwork from top of canopy with 1600x400 plenum at the centre. However, final connection points and sizes shall be determined on site.

Rigid ductwork shall be carried out in accordance with the HVCA Specifications DW 144 and 172, regarding the installation of access / cleaning doors, reference HVCA Document TR17 refers.

The canopy shall be installed such that the line of extraction is 2000mm from FFL.

The ductwork extract system would be installed complete with all necessary access doors, provided and installed in accordance with the HVCA Specification DW 172 to enable the ductwork to be cleaned internally, all in accordance with the HVCA Specification TR 19.

The ductwork shall rise up a dedicated riser where there is galvanised grid mesh floor at each floor level. Access hatch shall be provided on every level such that it sits at a reasonable height to be opened and cleaned and doesn't clash with the floors. There are 2 No. grid floors. The ductwork shall be positioned such that only 1 grid will need cutting to accommodate the duct riser yet providing access to the full riser.

The system discharge would be at roof level as shown on the drawings, painted matt black, (as required) to blend with surroundings and comprise a vertical discharge stack, terminating in a high velocity taper discharge cowl, this is to extend a minimum of 2000 mm above roof line, and be sized to achieve a minimum design efflux velocity of 15.0 m/s.

3) Odour, Smoke and Grease Control

The ventilation system shall be installed with grease baffle filters Within the canopy, and additionally an Air Clean Kitchavent2000 2 stage grease and odour control **Odour Control Casing (OCC)** will be located in the ceiling void of the office. Due to the dimensions, a bulkhead will need to be installed. The Airclean OCC Shall be manufactured from 1.5mm Galvanised Steel and finished with an Epoxy Powder Coat.

- Approx Dimensions : 688H x 1575W x 1182Dmm (Including 40mm External Flanges)
- Access Both Sides
- Welded Construction
- Painted Finish
- Internally mounted in the building

Air Filters Required:
- 5x General Purpose Bag Filter, F5 to EN779 (1410624)
- 5x Extra Duty Activated Carbon Filter, Gr50 (1620606)

Approx Unit Weight (incl. Filters) = 340kg

The OCC comes with active carbon discarb cells to capture odour. Activated Carbon Discarb Cells , Grade 50 EXTRA DUTY , Size: 595H x 292W x 595Dmm ACTUAL , Rating: 0.53m3/s @ 225 Pa

A drainage for grease collection shall be provided as per design drawings (connected to the grease trap inlet).

4) Interlocks and fan controls

The supply and the kitchen fan shall be installed with a Step switch S-5EC-2 controller allowing local user speed control of the fan speed. Final location TBC on site

A Medem SEC-KE ventilation interlock shall be provided to ensure the ventilation is functioning prior to the cooking operation. Final Location TBC on site.

An Ansul chemical suppression system shall be installed within the canopy and interlinked to the fire alarm panel and ventilation system, which in the event of activation shall switch off both supply and extract fan from operation.

5) Thermal Insulation

Thermal insulation shall be provided for the following services etc:
Unheated Fresh Air Supply Ventilation Ductwork internal to building, running in the Roof void.

Thermal insulation shall be provided for all new fresh air intake ductwork between the fresh air intake and the canopy supply air spigot connections, where running internal to the building.

Internal ductwork insulation shall be minimum 25mm thick foil-faced Rockwool "Ductwrap" securely taped with 75mm wide Idenden type T303 self-adhesive aluminium tape. The whole shall be further wrapped with 19-22 swg x 50mm mesh galvanised wire netting, (if required), pulled tight with no exposed ends of wire, taking care not to damage the aluminium foil.

Self-adhesive direction / service / flow arrows, service and colour identification bands shall be fitted to all insulated ductwork in the ceiling spaces etc. in accordance with BS1710.

The whole of the thermal insulation shall be carried out by an approved specialist subcontractor appointed by the Sub-Contractor, and shall comply with TIMSA Compliance

Guidance 2006 Tables 6.2.1 and 6.2.2, BS5422:2001 and BS5970.

6) Cleaning and maintenance.

A full cleaning and maintenance schedule should be adopted to ensure that the cooking range and extract system operates correctly, to reduce the potential for adverse odour impacts on neighbouring properties.

Based on anticipated operating times an expected minimum frequency of maintenance and / or replacement air filters etc would be all as shown below.

a), Ventilation system to be visually inspected once a week
b), Grease baffle filters cleaned on a weekly basis
c), Extraction canopy cleaned on a monthly basis
d), Drain ports cleaned on a weekly basis
e), Grease drain collector inspected and cleaned on a weekly basis
f), Disposable air / pre-filters etc to be inspected quarterly and replaced as necessary.
g), Extract ductwork cleaned minimum, annually
h), Carbon panels, checked every three months, replaced every 12 months minimum.
i), Extract fan and attenuator, cleaned every 12 months.

7) Odour Risk Assessment.

The above measures allow for Odour Score of 19 with Low/Medium level risk.

8) Equipment Warranty and Maintenance Contract.

The Mechanical Contractor shall supply all the specified equipment complete with the manufacturer's warranty on both materials and labour commencing on satisfactory hand-over of the complete systems.

The Contractor shall include for a one-year maintenance contract on the complete installation, with guaranteed maximum 24-hour response time.

The maintenance contract, which must be in place within three months of project completion, shall include for all works necessary to ensure that the equipment warranty underwritten by the manufacturer is not invalidated, and shall provide documentary evidence to this effect.

9) Risks

Although a high level study has been carried out for the current electrical load and available capacity of the SPAR, an electrical contractor/designer shall carryout load assessment to ensure the proposed plant item (3 phase supply) specially fresh air heater battery load can be accommodated.

We trust that the above meets with your requirements and approval, but should you have any queries or require further information please do not hesitate to contact me personally.

Yours sincerely faithfully



Mohiuddin Mir
BEng (HONS) in Mechanical Engineering
Director