Notes to Tendering Contractors

Design Responsibility

The Drawings indicate the design intent and it is the Contractors responsibility to adopt, modify and develop the design to provide a final working scheme, which shall be fully compliant with local and statuary regulations including the EMAQ technical guidance, Besa - DW172 specifications for kitchens, TR19 maintenance. The tendering contractors should visit site and familiarise themselves with the site constraints and structure. No claim for additional costs shall be accepted, resulting from lack of knowledge of site conditions.

The contractor shall establish the design requirements for the system however a typical system shall require in the extract airflow rates in the region of

4, 5, or 6 Grillers – 2 deep fat fryers & chip scuttle – Electric appliances 1.9 m3/s 2.2 m3/s, 2.5 m3/s respectively

4,5, or 6 Grillers – 2 deep fat fryers & chip scuttle – Gas appliances 2.4 m3/s 2.9 m3/s, 3.3 m3/s respectively

VALUE BASED ON CANOPY CLOSED BOTH ENDS AND THE BACK, adjust calculation to changes in configuration

Existing Services

Contractor to confirm what the extent of the strip out of existing is and to allow for these works

Structural

The location and selection of plant shall be co-ordinated with other services, the Contractor shall check details of plant support with structural engineer before commencement of works. The structural engineer shall provide detail design of supports where required. Openings through floors and walls shall also be approved.

Acoustics

The scheme should be submitted to the clients acoustic engineer to ensure with any required constraints imposed by the planning authority.

Builders work

The main contractor shall provide all builders work openings through structural walls and floors, to include modifications of windows.

Access and maintenance

Due allowance shall be made within the design by the client for special access required for cleaning and maintenance. The Contractor shall advise where access panels and locations are required for servicing and cleaning and shall agree with the Clients project manager access panel locations, locations where equipment or seating is required to be re- movable for safe access.

Edge protection shall be provided to the roof areas, additionally safe access ladder shall be designed and installed to access the roof areas. The contractor shall provide a maintenance method statement for changing

Fire rated ductwork & fire strategy

Kitchen exhaust ductwork shall be suitably fire rated. The specification shall be fully compliant, approved and agreed with building control. The installation shall be certificated on completion.

The kitchen supply and extract fans shall be interlocked with the Cookline operation and shall shut down the cookline operation in the event of fan failure.

The gas supply shall be provided with a gas prove system (by others) and shall be disabled in the event of fan failure.

The extract canopy shall be provided with a suitable, regulation compliant, fire suppression system, designed by a specialist supplier and approved by the building control. In the event of fire or activation of the suppression system all equipment shall shut down.

A local CO2 sensor within the Kitchen shall be installed to shut off the gas supply in the event of activation.

The contractor shall confirm with the Project Manager the building fire strategy and shall check and amend the design accordingly.

A central control panel shall be provided to facilitate the above.

Ductwork

All ductwork shall be constructed and installed in accordance with Besa specifications DW172 for Kitchen extract duct and DW144 for all other ductwork. Ductwork shall be complete with access panels for maintenance and cleaning, fire dampers, smoke dampers or volume control dampers as required to protect escape routes and compartments, where agreed with the Project Manager and building control. Note the kitchen extract duct should contain no fire dampers or smoke dampers. Volume control dampers shall be installed to facilitate balancing.

NOTE drawing text

AD – Denotes Access Door

FD denotes Fire damper

VCD denotes volume control damper

Thermal insulation

Fresh air inlet ductwork and supply ductwork shall be thermally insulated with "Ductwrap" or slab section, foil faced, and shall have joints taped, all secured with loce wiring. Id bands shall be applied upon completion. Insulation thickness to be as building regulations.

Odour Control Equipment

The equipment shall consist of Electrostatic Precipitator, with integral oil and grease collector. ESP shall work to 98% efficiency through a single pass This shall be piped back into the canopy drain. Typically A UV Filtration system or Activated Carbon Filters are to also be installed onto the kitchen extract system, depending on the site requirements.

Air Conditioning equipment

Preferred equipment suppliers Daikin range or Mitsubishi Electric, units shall be inverter driven heat pumps suitable for the respective pipe runs and shall be ECA approved. Units shall be complete with individual controller for offices and single rooms, Dining area units shall be connected to a single controller. Units shall be interlocked with the fire alarm to shut down on activation, additionally interlocked with a last man out switch to disable when the building not occupied. The installers shall be part of the manufacturers partner schemes i.e. Daikin D1 installer or Mitsubishi Electric Business Partner.

All pipework shall be copper refrigerant grade pipe work and installed on cable tray or proprietary hangers indoors and cable tray outdoors. Any external tray shall be over trayed to protect from vandalism and UV rays.

Tendering Contractor to provide option costs for Cooling to the Kitchen and back of house areas.

Extract fan

The extract fan shall be suitable sized for the required exhaust volume additionally selected for high temperature operation, the fan shall be provided with Inverter control unless supplied with EC motor. The fan shall be supplied with acoustic jacket and matching attenuators. Where located externally the assembly shall be fully weatherproof.

Air handling unit / Air handling equipment

The air handling unit shall be supplied complete with supply air fan either "plug" type or centrifugal fan, disposable panel pre-filters "vee formation" and electric air heater battery. The air handling unit shall where possible be contained in a double skin panelled unit, with access doors positioned to suit the location arrangement. The fan shall be mounted on anti-vibration mounts. The fan motor shall be EC rated or supplied with inverter control – separate components are acceptable.

Where located externally the assembly shall be fully weatherproof.

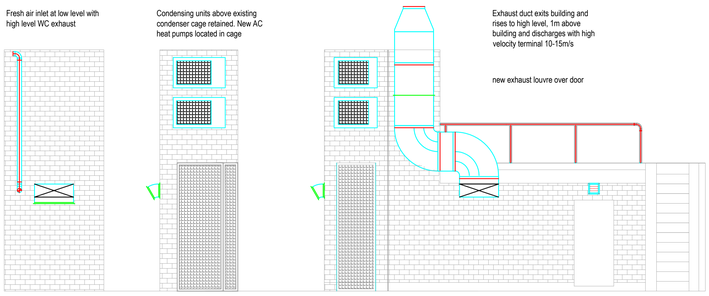
Controls

A control panel shall be supplied with switching, run & fault indication for the supply fan and inverter control for the extract. Output voltage control shall be available to alter the fan speed where inverters not provided or required. The control panel shall provide interlocks of all safety equipment to shut down the cookline and or equipment on alarm condition.

A central on / off system switch shall be provided for the user to provide simple operation, the panel shall have fault indication and alarm indication, suitably labelled

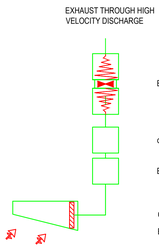
It is envisaged that the supply ahu will be complete with integral controls, however it is acceptable to incorporate these within the main panel.

The panel shall be complete with door interlocking isolator.



Rear Elevation 1 Rear Elevation 2 Rear Elevation 3

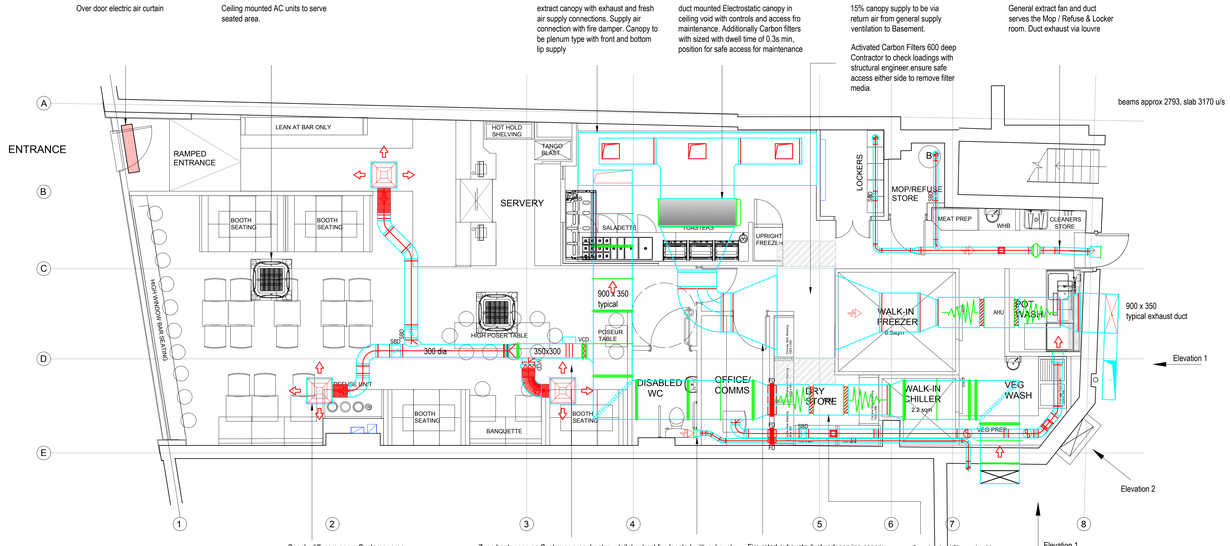
Existing Rear building Photos



Typical Schematic

KEY

REF	DESCRIPTION
VCD	Volume Control Damper
FD	Fire Damper
AD	Access Door
SBD	Single Blade Damper



PLAN AS PROPOSED
Scale 1:100 @ A3

Rear of Building

NOTES & REVISIONS

- Exposed supply and extract ductwork to be neatly installed and co-ordinated with lighting.
- Fire insulation to extract duct, if the duct is to be painted, check fire rating is suitable to accept paint finish.
- HVAC contractor to inspect plant area and coordinate installation of equipment to allow adequate space for access and maintenance.
- Installer to confirm locations of required FD's prior to installation.

Rev.	Date.	Amendment

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Drawn By: - SP	Checked By: -
Scale: - 1:50 @ A0	Date: - 31/07/2020
Drawing No: - E20020-1	Rev: -