

Date: 31/08/2023

HVAC specification – description on items as per equipment schedule

- **Overdoor heater** by front door
- **Comfort cooling** to the FOH and ducted fan coil units specified for FOH. Condensers positioned within rear delivery bay.
- **Restaurant supply/extract** using mechanical ventilation through open pass and restaurant supply linear diffusers to FOH space on bulkhead wall.
- **BOH supply/extract** using mechanical ventilation terminated discharge within rear delivery bay.
- **WC extraction** using inline and duct fan for contaminated air to terminate via kitchen extraction louver.
- **Kitchen extraction** system to suit Blacksheep drawing <<TBR001_A211>>
 - The kitchen extraction system is scored as requiring heavy filtration via a EMAQ assessment.
 - High efficiency KSA filters are specified with secondary coalescer filters within canopy to remove up to 85% of grease prior to leaving the canopy.
 - We have designed the system to have graduated filtration where the bulk of the VOCs are removed just after canopy level by UV-O ozone injection units.
 - The extracted air will then pass through ESP units to remove particulate, including VOCs and hydrocarbons before passing through a series of filter media units within the pollustop to tidy the airstream prior to discharge. The carbon filters are activated carbon designed to remove excess ozone.
 - **Filtration – UV + ESP + filter media – 8 Level filtration**
 - Level 1 - UV installed at header via Purified Air UVO-1000 Units
 - Level 2 – Halton KSA filters within canopy
 - Level 3 – Halton coalescer filters within canopy
 - Level 4 – ESP via Purified Air ESP 4500 units
 - Level 5 – G4 panel filters – Halton Pollustop
 - Level 6 - F7 bag filters – Halton
 - Level 7 – Hepa filters - Halton Pollustop
 - Level 8 – Carbon filters to remove access ozone - Halton Pollustop
 - Temination via 1200x2000 louvre @ 50% free Area. To provide 3m3/s @ 2.5m/s

- **Kitchen supply** air system to suit Blacksheep drawing <<TBR001_A211>>
 - Medium attenuation provision subject to planning + plant layout accordance with ACA acoustic report <<TBC>>

Maintenance Schedule	-	Frequency
○ Kitchen extraction		
▪ UV	-	12m
▪ ESP	-	1m
▪ G4 Panel	-	1m
▪ F7 Bag	-	2m
▪ H14 Hepa	-	6m
▪ Carbon	-	12m
○ Supply filters	-	3m
○ AC FCUs	-	4m
○ WC + GE + KE fans	-	12m
○ Controls	-	12m