

# Extract and Ventilation Strategy Report

PROJECT: **4076 - Bauer Media**  
TITLE: **Extract and Ventilation Strategy Report**  
REVISION: P03  
PREPARED BY: Sam C Date: 11 August 2023  
APPROVED BY: Sam C Date: **11 August 2023**

## 1 Introduction

The new ventilation system proposed as part of the façade changes is exclusively for the generator system located in the basement. The system shall provide the required combustion air for the generator to operate correctly and also prevent overheating. The air flow requirements have been calculated by the Generator supplier, and issued to us to allow for grille selection.

The design requirements are as follows:

Requirement	Supply Air System	Extract Air System
Air Flow (M <sup>3</sup> /S)	4.03	3.9

Due to the limitations of louvre depth for the supply air (250mm) the required louvre width will be 4.8m which constitutes the available width of louvres above 1 glazing panel in the retail unit.

## 2 Grille Selection – Supply Air

### 2.1 Non-Weatherproof Grille with High Free Area – 50dBA

To reduce noise to a minimum a high free area louvre would be required of circa 80%, this would result in 50dBA of noise emission at the façade during operation. But this Louvre would have to be of a non-weatherproof type therefore allowing potential water ingress as well as pest. The pest ingress can be mitigated by a mesh behind the grille, but this will not remove issues with water ingress that will instead be mitigated by the creation of gully within the ceiling void which leads to a drainage point in the retail unit.

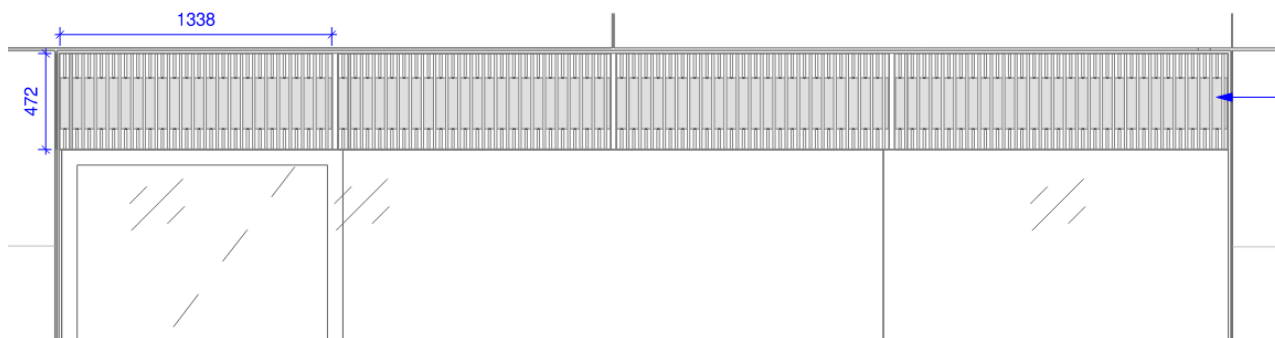


Figure 1 – High Free Area Grille on Architects Elevations

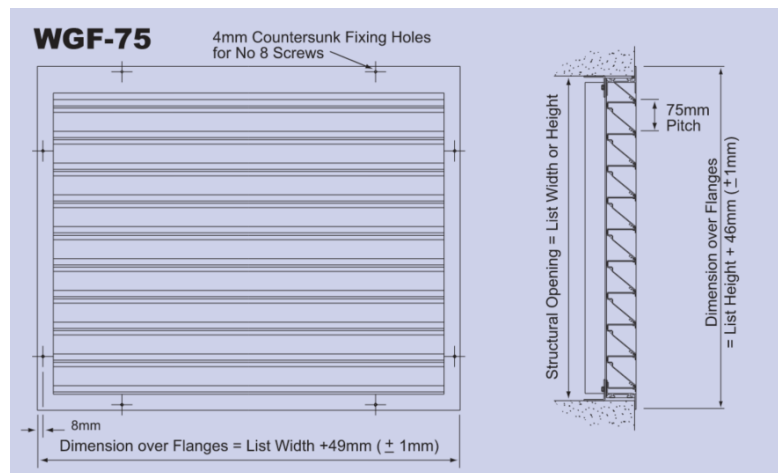
### 3 Grille Selection – Extract Air

The proposal for the extract air is to replace the existing door with a new louvred door to match the existing plant room doors, image below:



**Figure 3 – Existing Plant Room Door to be Replicated**

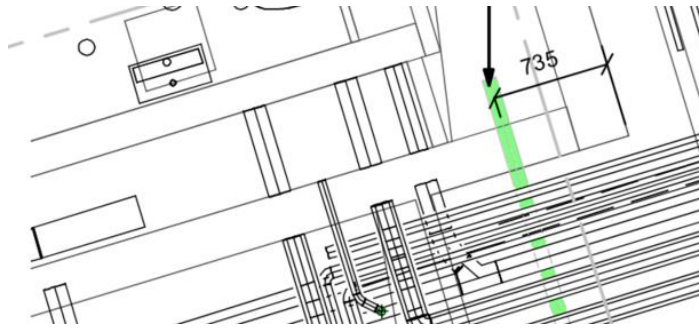
Behind the door shown above we shall install a weatherproof duct opening which will then be connected to the rear of the door to ensure a seal is maintained with the remaining free area of the door blanked off to prevent weather ingress.



**Figure 4 – Weatherproof Extract Grille to be Installed Behind Door.**

### 4 Pollutant Extraction via Flue

The pollutants issued from the generator shall be extracted to atmosphere via a flue which routes up the building risers to roof level, terminating 3 metres above the waterproof membrane at roof level.



**Figure 5 – Route of Flue to Atmosphere**