189 Camden High Street ref: 2021/3329/P

LONDON PLAN COOLING HIERARCHY STATEMENT

1. This cooling hierarchy statement is submitted in support of an application for external changes and A/C as well as ventilation infrastructure at the above address to facilitate the occupation of the unit by Wendys Restaurants of the UK Limited: the application was submitted via the planning portal on the 8th Jul, 2021

2. An extract from the covering letter prepared at that stage stated as follows:

> **We submit an application in respect of the above site for development described as follows:**
>
> **"Kitchen extract infrastructure to include supply fan, air handling unit and condensers, removal of existing ATMs on each elevation and make good, new door and new red ACM fascia strip".**
>
> **The property lies at the junction of Parkway and Camden High Street opposite the tube station in a central town centre location.**
>
> **It is currently vacant albeit its previous use was by RBS Bank: it is understood that it has been vacant for well over a year (perhaps even longer) at the time of submitting this application.**
>
> **The proposal is for a new restaurant with customer dining at ground floor and first floor.**
>
> **This use falls within Class E of the Use Class Order so a change of use is not required or applied for.**
>
> **The application is for operational works in order to facilitate the new restaurant use.**

3. The application is also supported by a noise assessment prepared by Sound Solutions.

4. The long delay with validation has culminated in a request for a colling hierarchy statement as per the email from the local planning authority of the 21/09/2021 as follows:

> **Policy CC2 Adapting to Climate Change, (p.258) of the Local Plan states that "...All development should adopt appropriate climate change adaptation measures such as: ...measures to reduce the impact of urban and dwelling overheating, including application of the cooling hierarchy." . Supporting para's 8.39, 'The Council will discourage the use of air conditioning and excessive mechanical plant' 8.42, 'Active cooling (air conditioning) will only be permitted where dynamic thermal modelling demonstrates there is a clear need for it after all of the preferred measures are incorporated in line with the cooling hierarchy.', and 8.43 The cooling hierarchy.**
>
> **Section 10.7 of the CPG sets out the cooling hierarchy CPG Energy efficiency and adaptation, this can be used as a basis for a brief sustainability statement. Section 10 key messages that 'Active cooling (air conditioning) will only be permitted where its need is demonstrated and the steps in the cooling hierarchy are followed (Local Plan policy CC2).**
>
> **This is a requirement for all applications that include active cooling measures, such as AC units, therefore, a statement should therefore be included to show how the hierarchy has been addressed and why cooling cannot be introduced through other measures. As this is a local validation requirements, and we cannot progress with the application it has been received.**

5. This is set out below:

6. The building for the proposed restaurant is on the corner of Parkway and Camden High Street, which is a very busy, high vehicular and pedestrian traffic location, with high background noise levels.

High Solar gain

7. The building is predominantly south facing and has a high proportion of glazing on both the south and east elevation, across the ground and first floor front of house restaurant areas. With a high proportion of glazing, these areas experience high solar gain and without controlling the environment, these areas will become uncomfortable for occupants, with high resultant air temperatures, during high solar activity periods.

8. A solar film could applied to the glazing to help reduce the solar gain to these spaces, but this will not suffice to overcome the overheating risk. Due to the with regards to the façade

in this prominent location, it was thought that providing shading through means of a brise solei on the external face of the building for example would not be acceptable.

Ventilation Strategy

9. The existing windows at ground floor level are large fixed single glazed shop front windows, with small opening vents at high level. The small opening vents are approximately 3000mm above the finished floor level and manually operated.

10. The height of the openable windows makes it impractical to use these to provide natural ventilation to the ground floor areas via manual operation. The opening vents (9 in total) are only approximately 0.1m2 each, with no openings at low level a naturally ventilated solution would not be affective in overcoming the overheating risk with these openings alone. There is also high external background noise levels, which need to be considered when using openable windows and whether the noise levels would be acceptable internally.

11. The windows at first floor are openable, however the cill heights are very low and would not be deemed a safe height to be used in a public environment without appropriate guard rails and therefore the windows cannot be considered openable to provide a natural ventilation strategy.

Air Quality

12. Although an air quality assessment has not been carried out, it can be accepted that the air quality immediately outside the front of the unit will likely have high nitrogen dioxide levels, fine particulates, carbon monoxide, 1,3-butadiene and benzene, as well as carbon dioxide levels and therefore a natural ventilated solution would not be recommended.

Kitchen Ventilation and heat gains from cooking equipment

13. The kitchen cooking area is open to the restaurant. There is a high heat gains from the cooking equipment, which can not be offset without providing sufficient cooling to the space.

Air-Conditioning

14. Taking into account the high solar gains that will be experienced in this building and with the limited options to reduce this, coupled with the fact that a natural ventilation solution is neither viable or practical, high efficiency heat recovery air conditioning has been proposed to maintain a comfortable environment for the customers and a safe and comfortable working environment for the staff.