

15th November 2025

To Whom it May Concern,

**REPLACEMENT OF FENESTRATION WITH INSTALLATION OF NEW HEAT PUMP, AC UNITS
& SOLAR PV PANELS.
PROPERTY: 54 DENMARK STREET.**

RE: Planning Application for 54 Denmark Street.

Presently, the fenestration at the building known as 54 Denmark Street, Wokingham, RG40 2BB is made up of powder-coated, double-glazed aluminium window and door units. As evidenced within the drawings and supporting documents prepared for this application, these window and glazed door units have reached the end of their typical lifespan and require replacement. We are proposing that windows and glazed doors are replaced with brand new double-glazed units featuring trickle vents, in the colour Mouse Grey (RAL 7005).

Double-glazed windows that have exceeded an average of 25 years in use are prone to defects such as misting or failed seals; these issues can be incredibly inefficient in relation to heat loss and gain. All replacement windows and glazed doors are to feature two panes of glass with a void containing either vacuumed air or in our case, engineered gas, for improved insulation properties. Furthermore, by introducing trickle vent detailing within these new units, a continuous background supply of fresh air is delivered to the building. Trickle vents are small, adjustable openings built into window and door frames that allow outside air to pass through the unit into the internal space. This technology helps to control indoor humidity levels, reduce condensation and improve overall air quality by allowing stale air to be refreshed whilst also limiting heat loss when compared to leaving a window ajar.

The primary benefit of renewing double-glazed windows is visible through an increase in thermal efficiency, making it easier to reach a desired temperature inside the building. Additional benefits include the following:

- Improved sustainability and environmentally impact. This is because you require less heating to maintain a constant temperature.
- Increase in sound insulation. Properly sealed double-glazed windows reduce the transmission of mid-to-high range frequencies, such as human voices or dogs barking.
- Decrease in window condensation. Condensation occurs when moist air meets cooler objects. The two window surfaces are each closer to the facing temperature, reducing the build-up of condensation and subsequently, mould. This aids in retaining healthy, low maintenance living conditions.

Along with the enhanced ventilation performance delivered by incorporating trickle vents within each unit, we are also proposing a colour change from red (existing) to RAL 7005 (mouse grey). Recent new-build regeneration projects led by Wokingham Borough Council in the town centre have utilised this particular colour for fenestration throughout 2017 to 2020. The Peach Place and Elms Field projects share close proximity to 54 Denmark Street and both feature RAL 7005 amongst external windows and glazed doors. With this in mind,

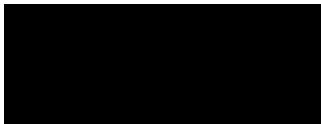


we wish to improve visual cohesion in the area through updating these colours to a more neutral, modern standard that harmonises the old library premises with newer buildings within the same scene.

As part of the wider works planned at the site, all building services have been assessed against the requirements of the proposed post-16 SEND hub provision across the first floor of the premises. This review highlighted the need for new, sustainability-focused equipment to support a whole-building approach to energy efficiency. In order to achieve this, we propose the installation of a new heat pump system, designed to deliver 130kW of heating capacity. This system will be positioned as discreetly as possible to minimise both noise pollution and visual impact. Additionally, the current solar PV array will be expanded upon by increasing the number of panels installed on the roof, further enhancing renewable energy generation. Finally, existing rooftop AC units will be replaced as part of these improvement works to ensure compliance with the operational standards required for the new provision.

Overall, to support the newly proposed post-16 SEND hub and ensure the space is both comfortable and functional for its intended use, significant consideration has been given to the building's overall performance. As existing windows and glazed doors have exceeded their typical lifespan rendering repair uneconomical, we propose a full replacement with double-glazed aluminium units. In doing so, environmental benefits can be delivered through the introduction of trickle vents and will enable compliance with UK Building Regulations by improving thermal performance and energy efficiency.

Yours sincerely,



Harvey Lee BSc (Hons) ACIAT
Assistant Architectural Technologist – London