

Design Statement

Replacement windows Carnegie House, 1 – 9 and 10 – 24 NW3 1JE

Design Requirements

We have looked at many variables in providing our design: -

The requirement for slim profiles

The requirement for Secure by Design at Ground Floor and Vulnerable areas (balconies on upper floors)

The requirement for no maintenance

The requirement for adequate ventilation without the need to re-open air bricks which may well not meet current Building Regulations.

Final Design

We have proposed to use the smallest profile provided by SAPA, the world's largest manufacturer of Aluminium window profile.

Unfortunately this is externally beaded and will not meet the requirements of Secure by Design and to facilitate this we have proposed the use of dummy sashes. This means a sash fixed to the frame to enable internal beading to be installed. This does not in any way stop the windows from being opened.

Secure by Design was introduced in **1989** to design out crime.

Whilst some areas of the upper floors do not require Secure by Design, changing these would make the building look extremely odd with differing window designs in each vertical, hence we have proposed all windows being the same.

We have provided for white polyester powder coated frames that require no maintenance.

We have looked carefully at the ventilation both current and proposed and have designed this in accordance with approved Document F of the Building Regulations 2006 which states that all windows should be fitted with ventilation. The current air bricks typically allow a free area of 2304mm², so this would provide totally insufficient ventilation. We must also bear in mind the remainder of the residents, air bricks in this age of property tend to be draughty. From our experience most are now blocked up, covered up or covered by furniture. This trend led to the Building Regulations being very specific regarding ventilation.



Air bricks hamper the placing of furniture and in any event, even if they provided adequate ventilation we do not think every resident would want their decorations spoiled to uncover existing air bricks or being told that they cannot place furniture in front of them. Ventilation in windows was specifically developed to ensure ventilation as very few people place furniture in front of their windows.

To meet the requirements of the Building Regulations we have carefully sized the ventilators required. By using over glass vents we can meet the requirements. By going through the frame we can only use much smaller vents due the construction of the aluminium frame and cannot meet the Building Regulations. The only other alternative is to put an extension to the head or cill and put the vents through these. This would mean losing an additional 50mm of glass in every window, not just the ones with vents.

Proper ventilation is essential to prevent condensation, mould growth, respiratory problems and subsequent health issues.

Modern, well-insulated homes with central heating suffer air pollution up to 10 times worse than outside, according to a "Which" report. Poor ventilation leads to an increased risk of in the atmosphere of allergens, bacteria, viruses, smoke, mould, mildew, fungus and gases, all of which are injurious to health and depress personal performance.

Carbon dioxide levels are often at dangerous health levels too as a result of which, current building regulations require extractor fans in wet areas (kitchen, bathroom, utility, en-suite) with trickle vents in windows, to allow air back in.

