

Date: 02.12.2024 Reference: 40RH-DET

# STRUCTURAL GLASS DESIGN STATEMENT

Project: 40 Richmond Hill, Richmond TW10 6QX

## INTRODUCTION

A previous application submitted for 40 Richmond Hill, (22/3743/FUL and 22/3744/LBC), was refused approval for two reasons. The second of these was due to insufficient information in relation to the proposed glazed structure. This document was subsequently prepared in support of the resubmitted application 23/3377/LBC which was granted approval. This document provides further design and detail addressing the comments made within the refusal letter and associated officers report as outlined below and has been included within this application due to its relevance in relation to the proposed glass structure.

## U0150296 Refusal - Insufficient Information

By reason of insufficient information submitted, it cannot be determined whether the connection of the proposed glazed structure to the right of the closet wing to the listed building would preserve the original fabric of the listed building, and whether an exceptional case can be made for its construction. As such, the scheme fails to address the aims and objectives of the NPPF and in particular, policies LP1 and LP3 of the Local Plan (2018), the Supplementary Planning Documents 'House Extensions and External Alterations' and 'Listed Buildings', and the Richmond and Richmond Hill Conservation Area Statement and Study.

## RESPONSE TO REASON FOR REFUSAL

Details have been provided within this application to show how the glazed structure is proposed to be constructed and how the new structure would connect back to the existing listed building. Please refer to drawing 0219-03-602.

DKN | JAMM have been working with Cantifix glaziers, specialists in sympathetic frameless glass structures, to ensure that any fixings back to the existing structure are kept minimal in order to not cause any detrimental impact to the existing listed building.

The glazed structure itself is frameless, with exception only to the boundary wall (Detail 01), with the vertical glazed panel constructed as one single panel and the roof being divided into only four panels. Dividing the roof into four panels allows the joints between each panel to be just silicone (Detail 04). Keeping the design to using minimal panels and only silicone joints maintains the visual appearance of a void space adjacent to the closet wing, preserving the solid/void relationship between closet wing and courtyard.

COMPANY REGISTRATION: 12027420

ARB REGISTRATION: 086481A

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T/ 07399 394 703 T/ 07877 607 166 E/ info@dknjamm.com



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Where the glazed structure meets the boundary wall, a new inner wall is proposed to be built to support the structural glass (Detail 03). This is in order to minimise any impact to the existing party wall (refer to Structural Impact Assessment for further details).

The glazed structure on the boundary is proposed to have a frame (Details 01 and 03) as this will provide fire protection at this point along the party wall, reducing fire spread. As it will be sat on a solid boundary wall, this frame will be read as part of the solid wall rather than void space and therefore will not impact on the clear void zone between the closet wing and the boundary.

The way in which the structure is fixed back to the existing walls is by use of metal brackets (Detail 02). These brackets would have fixings approximately every 250-300mm and would be evenly spaced. The glass is then supported on the brackets. Whilst the bracket will be visible, it is minimal in size (an angle bracket, only approximately 50mm wide by 100mm high) and will be a more sympathetic approach than to chase into the brickwork to conceal the fixing. This approach also ensures that the proposed structure could be removed at a later date without compromise to the existing building.

Through consultation with Blue Engineering, their recommendation would be to install steel bearing plates within the mortar joint along the line of the bracket fixing which itself would be tied to the wall with 5mm dia screw and plug fixings. This approach will preserve the structural integrity of the masonry wall in consideration to the addition of the glazed structure and, if removed at a later date, is fully reversible back to its previous appearance through careful infilling of raked mortar joints and screw holes (using a brick dust and resin mixture). (refer to the Structural Impact Assessment for further details)

The pitch of the roof (approximately 9 degrees) has been designed to avoid existing features so not to have any impact on these. The glazing is positioned so that it remains below the closet wing parapet and above the lintel to the window on the main house as well as being set back from the rear wall of the closet wing.

## BRIEF INTRODUCTION TO CANTIFIX

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T/ 07399 394 703 T/ 07877 607 166 E/ info@dknjamm.com Cantifix was founded in 1986 and claim to have invented structural glass in 1991. They have worked with many technically challenging designs and specialise in sympathetic glass structures. They have constructed similar structures as the one proposed in this application, including those to listed buildings. Please refer to the design and access statement for examples of previous projects they have constructed.