

28/06/24

Client Name - Capital 38
Job No. 4677

21 Bloomsbury St

Condition 4 Update

June 2024

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Historic England - Point 5

The double glazing units are proposed with surface mounted glazing bars and inline internal spacer bars to appear as single glazed lights. Consideration has been given to balancing the historic architectural elevation and environmental considerations alongside wider environmental factors to meet Part L. A case study has been undertaken to review any potential double-reflections created by the arrangements in a similar instance which are negligible from street level using the same Sash window arrangements as proposed at 21 Bloomsbury St.



Existing Site Image



Elevation



Detail

Case Study Building in Westminster

Crittal Windows



Existing Site Image

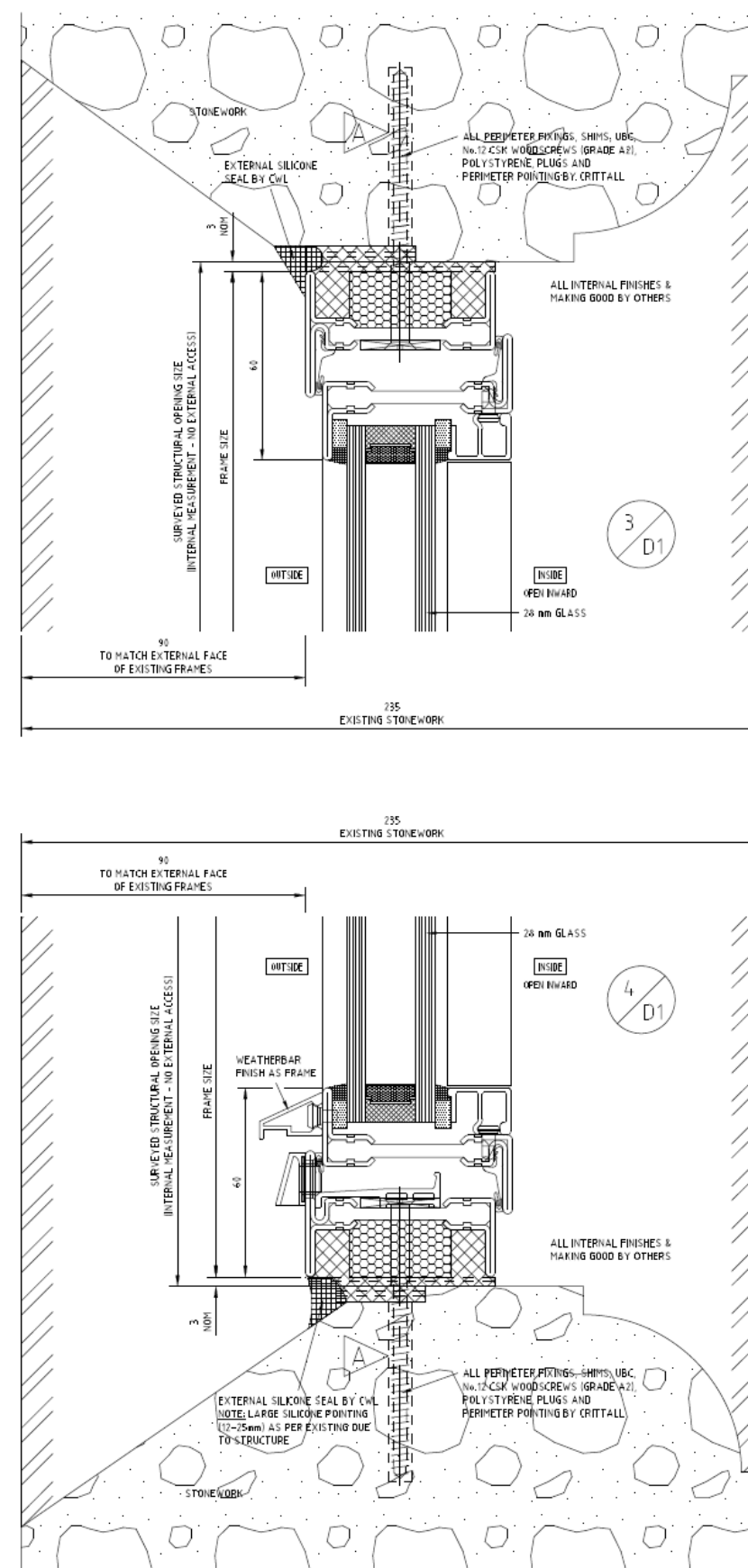
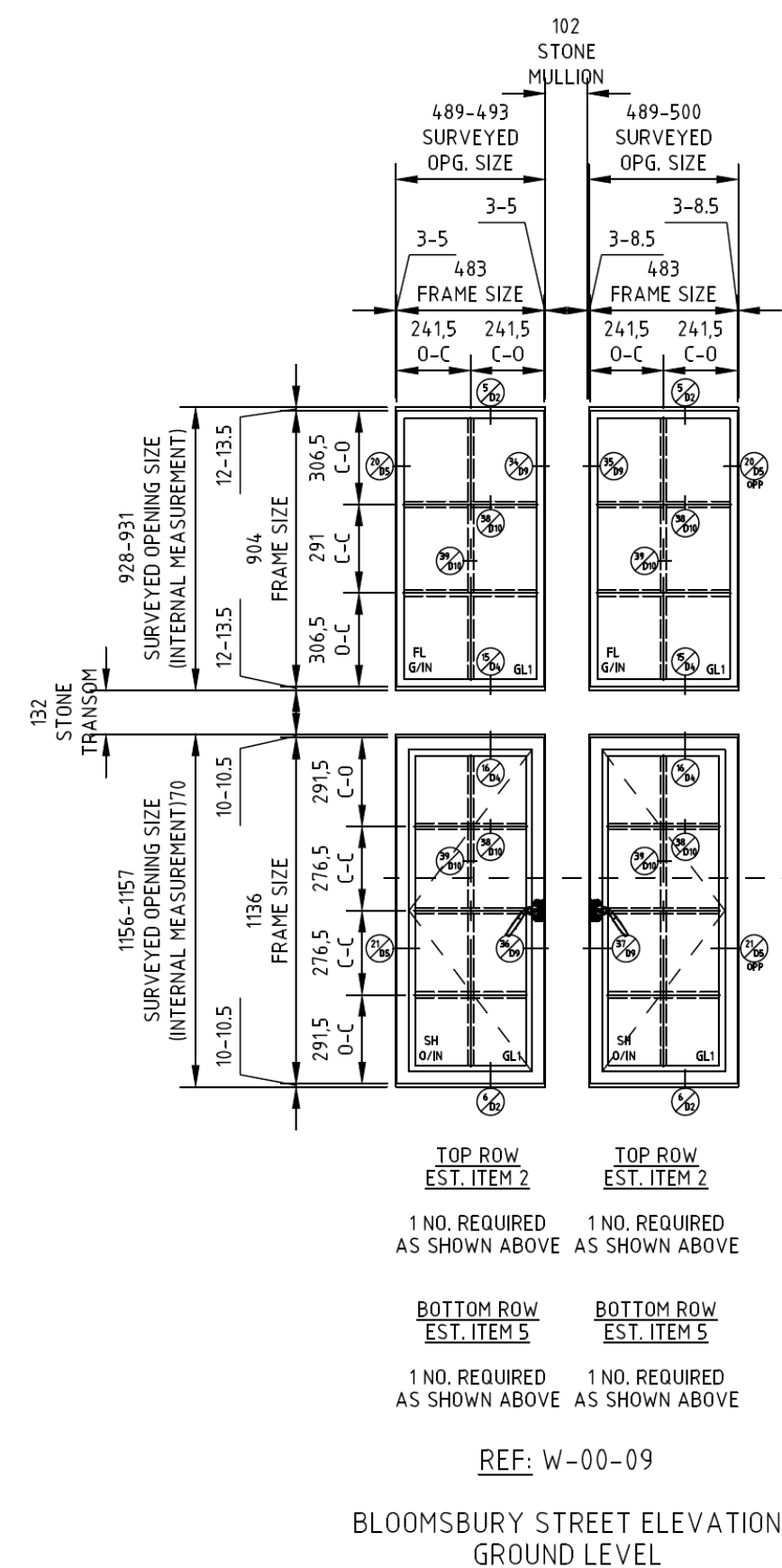


Existing Site Image

Existing Condition:

This clarifies the base case of the existing metal framed DGU's all to be replaced illustrating the lower quality plant on beading externally that is not reflective of the typical assembly of these windows historically and which does not for any part of the glazing proposals. These windows will have formed part of the development during the early 1990's.

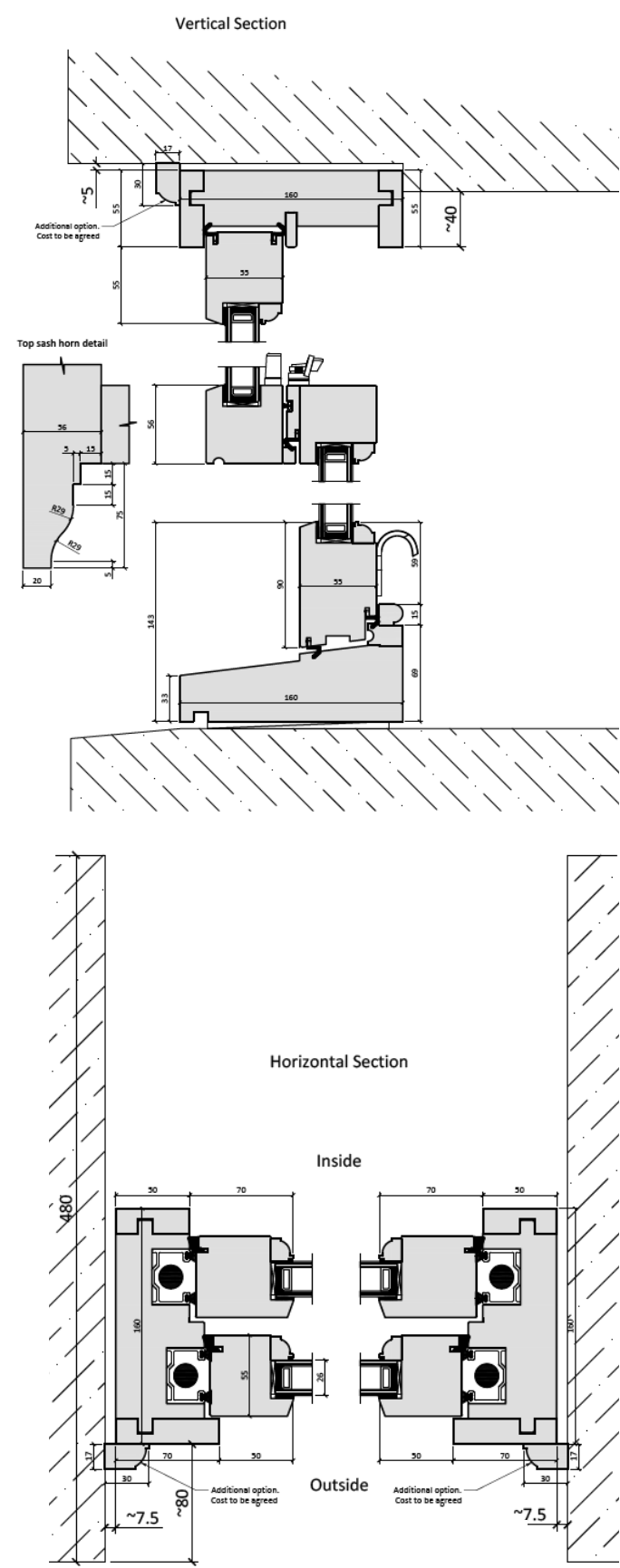
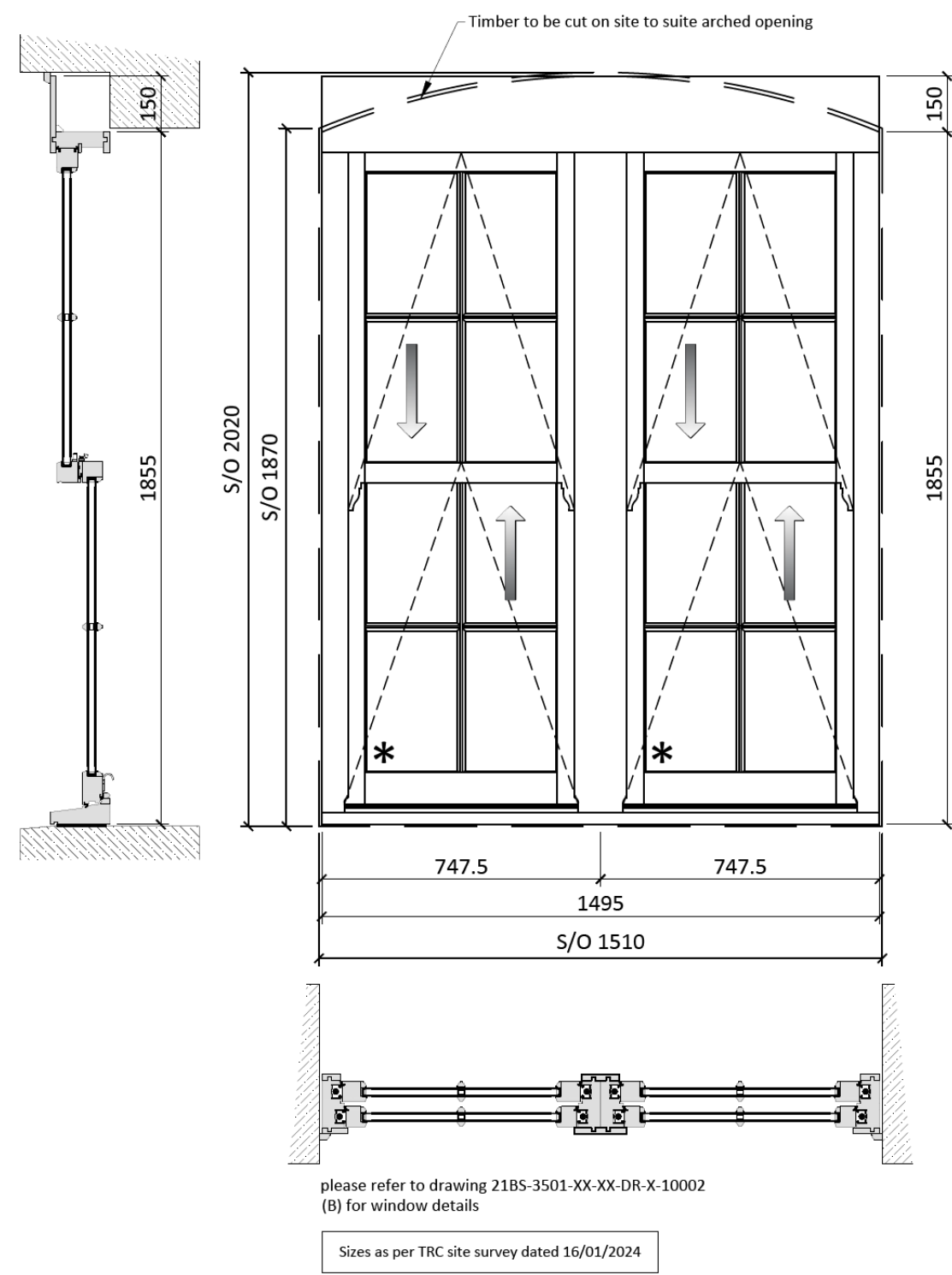
Crittall Windows



Crittall Proposed:

It is very important that the building performs both thermally and from an air tightness perspective. As metal windows have high thermal transfer they need to be broken to mitigate condensation build up internally. This as a general rule thickens the profile width + depth to accommodate. The original glazing would have had poorly performing small single glazed panes only required lighter profiles in their general construction to hold them in pace and due to the volume of beading (often putty) these would also leak air. To sub divide the overall window pane into smaller (leaded light) panes would in result in the glazing bars becoming much fatter and visually would move away from the generally slender nature of leaded lights imposing inadequate proportions in replicating a more traditional steel window of this type. The manufactures are some of the original manufacturers of these early steel windows and have gone to long lengths to offer a technically high performing specification that visually carries the look and proportions of its predecessors. The early steel framed windows were single glazed and unbroken thermally resulting in poor U-Values (heat transmission and increase energy use) or G-Values (solar control increasing energy use). This design is required to take consideration given to a broader view on the elevation as whole and the original visual appearance of steel windows. Given the stringent thermal performance of regulations the approach taken to sub divide the pane with internal spacer bars which read through external plant on sections as though singular panes is the only way to achieve the proportions and balance all the requirements on these windows.

Sash Windows

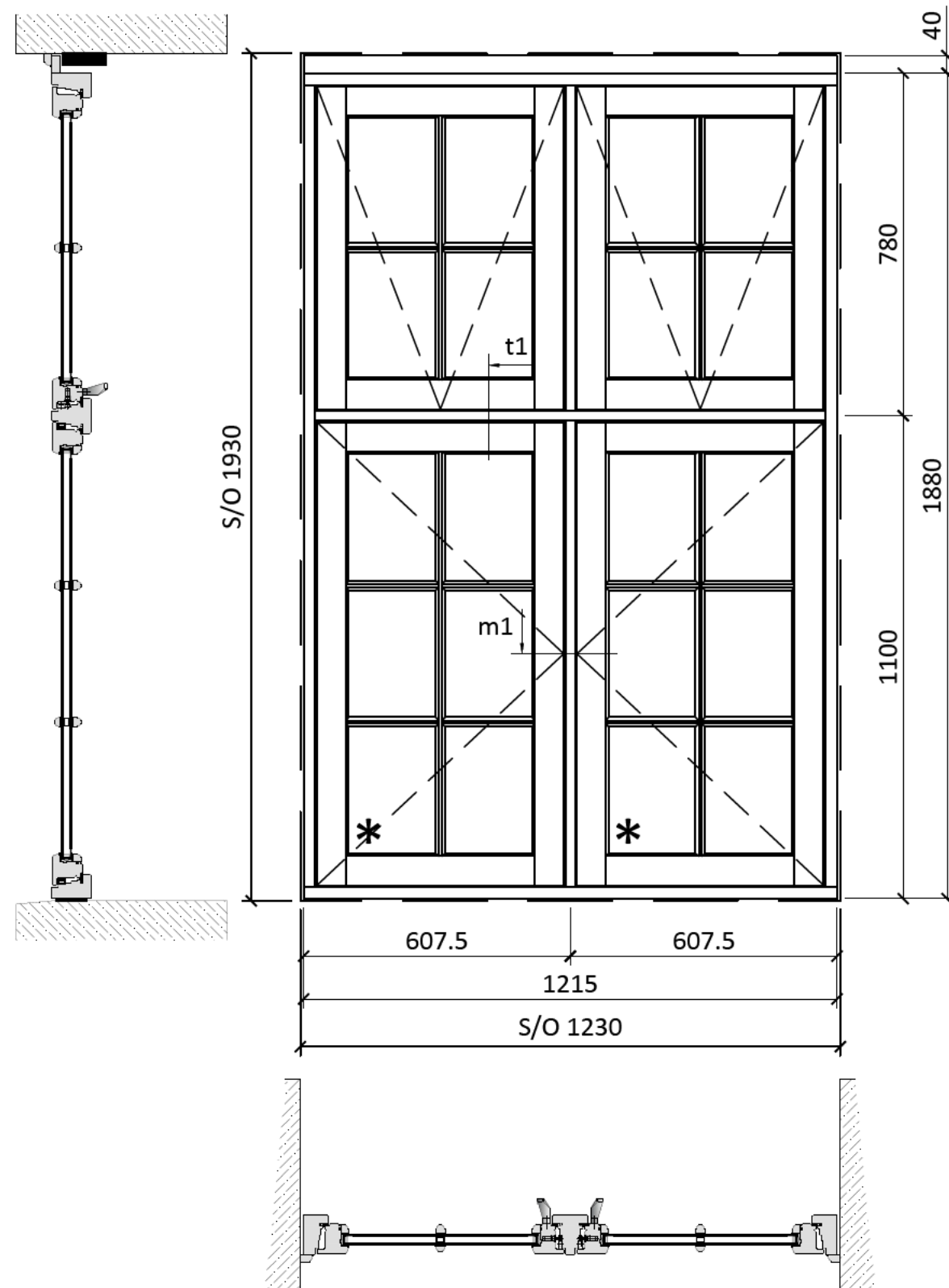


Timber Sash:

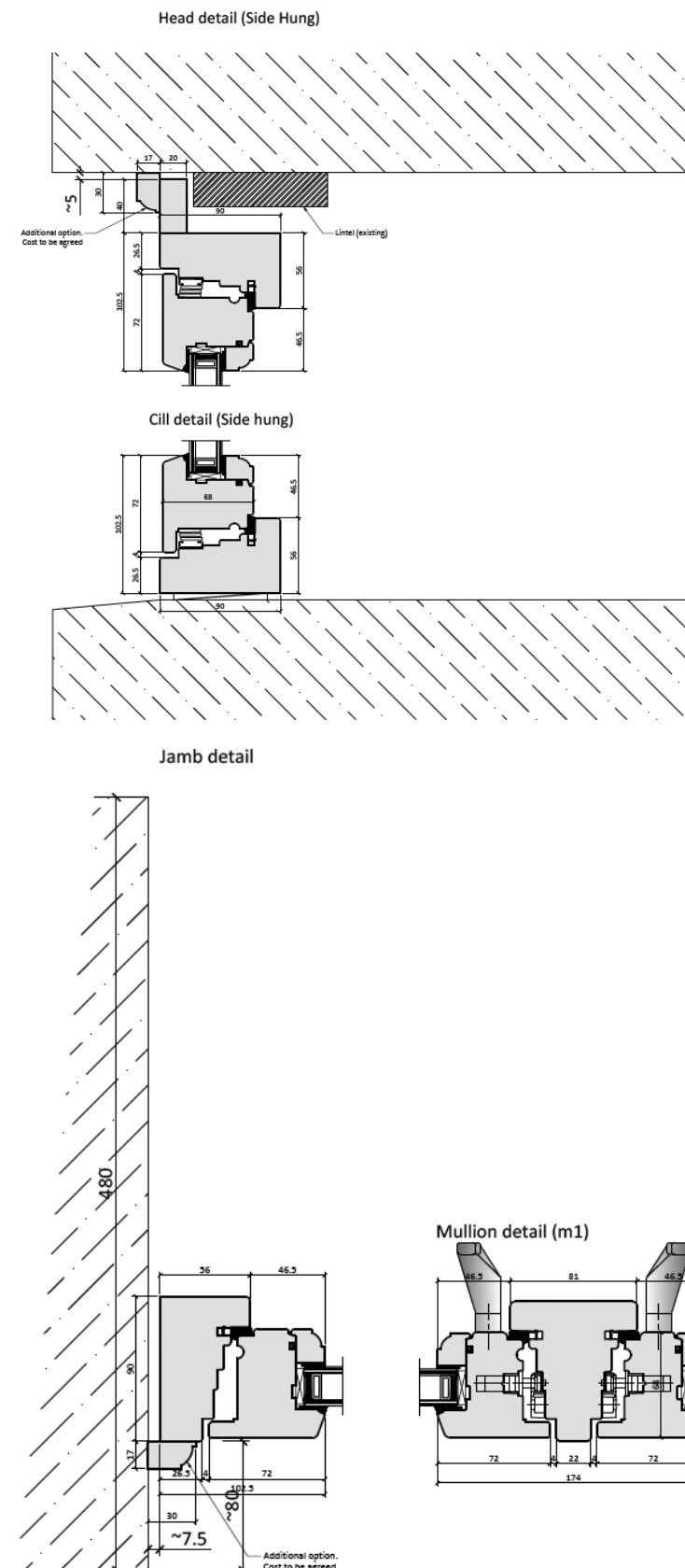
Reviewing the criteria on these windows the same conclusions on the balance is required to meet the visual heritage requirements from a materiality, geometry and proportion perspective whilst delivering the technical requirement demanded of current regulations. The Case study illustrates the overall appearance and trust that whilst using DGU's and breaking the pane down with internal spacer bars married with external sub divisions to replicate the singular pane appearance there is no perceptible double reflection occurring in the DGU and the elevation holistically in keeping (historically) by employing this approach.

The proposed elevation shown demonstrates an overall balance to the geometry of the windows that is in keeping with the existing overall aesthetic of the facade.

Casement Windows



please refer to drawing 21BS-3501-XX-XX-DR-X-10001
for window details



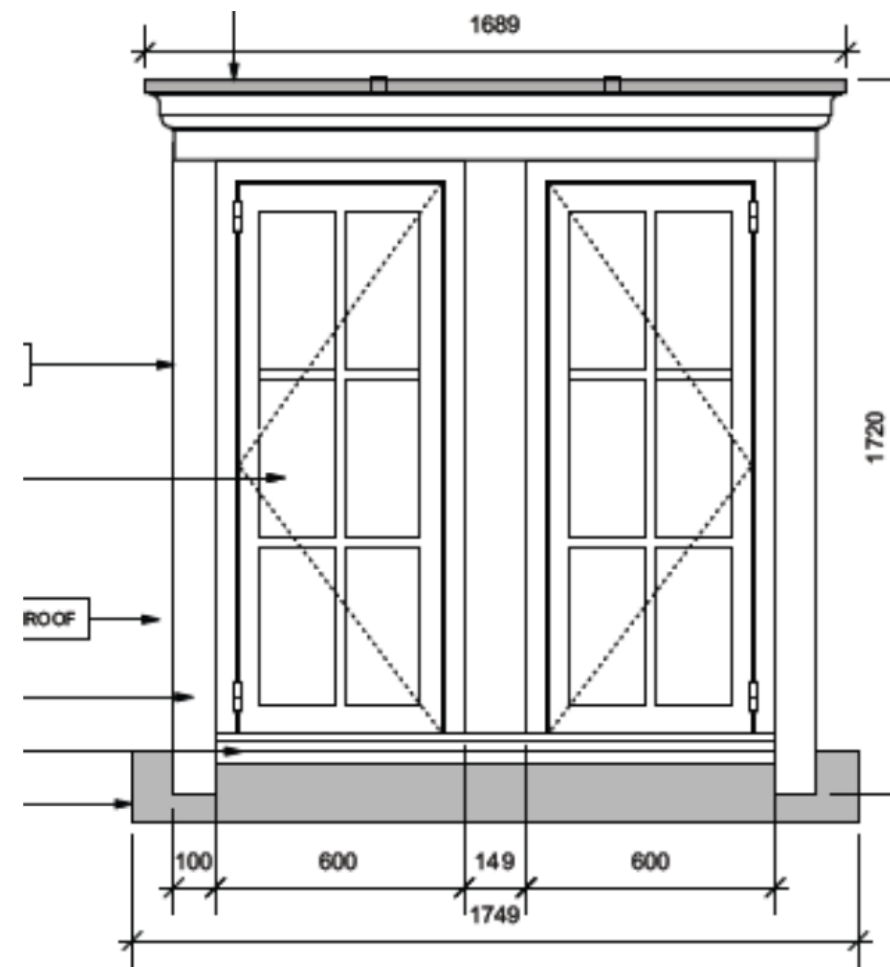
Casement Sash:

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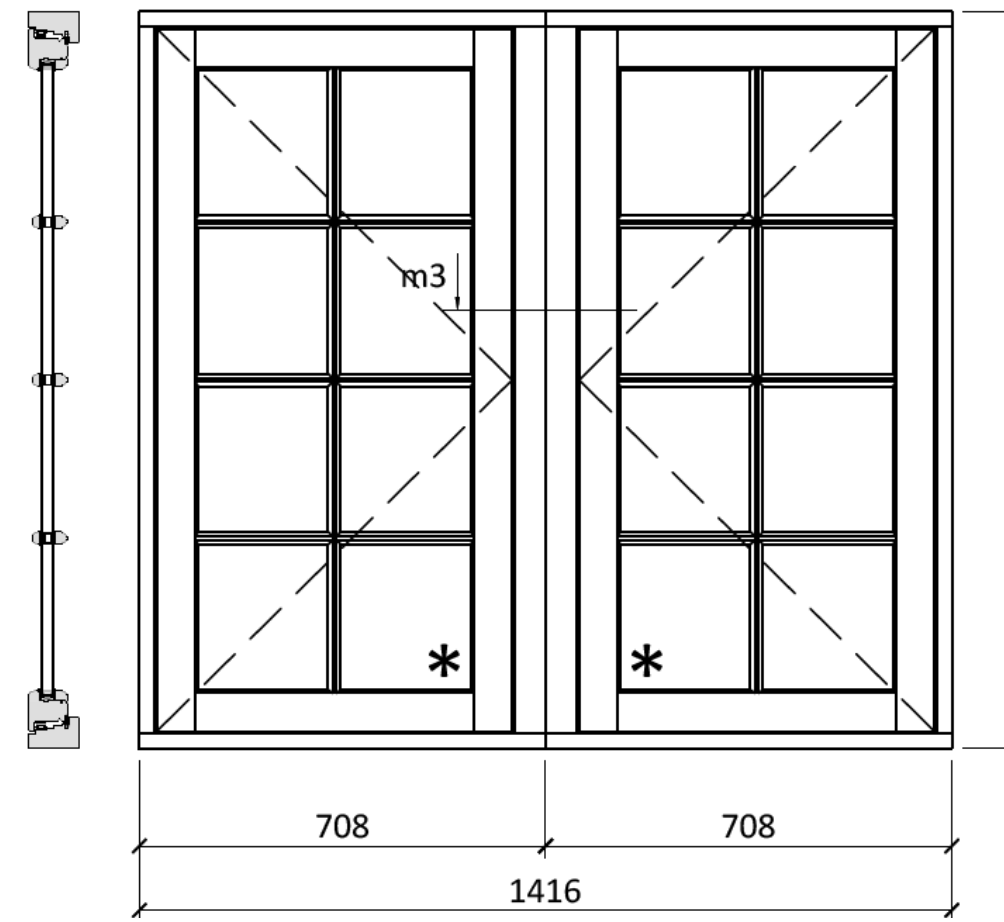
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Dormer Windows

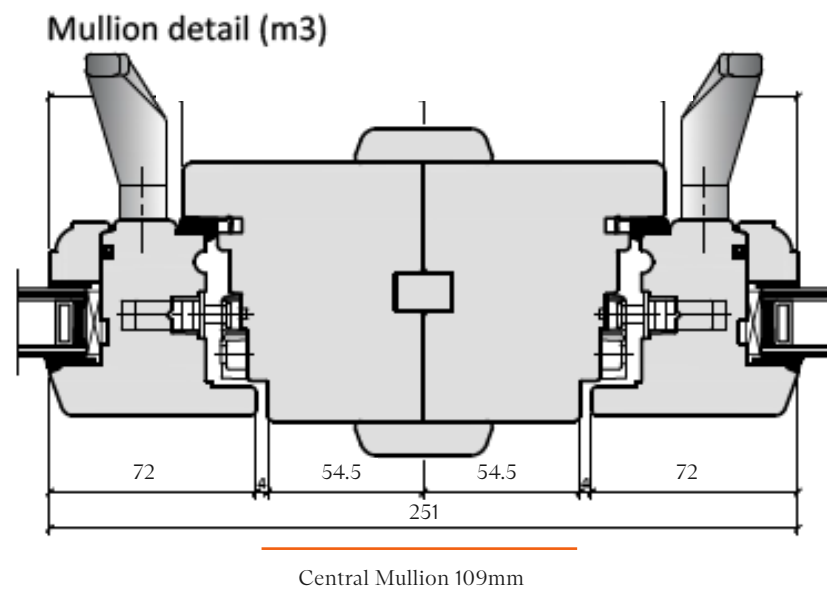
Initial Proposal (149mm Mullion)



Current Proposal (109mm Mullion)



The central timber mullion details to the dormers have been reviewed and require a back to back frame for stability and robustness in their assembly. The mullion now achieves an overall thickness of 109mm when viewed from the exterior face of the building. This is in comparison to the previously submitted detail which proposed a central mullion of 149mm. With this in mind we believe we are improving the overall balance of the Dormer's aesthetic and in so doing, conforming to the latest guidance from Historic England with regard to exterior glazing.



Chimmney - Brick Specification and References

Proposed Brick to match those existing where the replacement of fibreglass chimmneys is approved



Existing Site Image



Existing Elevation + Ibstock Sample



Ibstock Sample - Handmade Light Red Multi - A4303A

S + T

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