Design and Access Statement

Window Replacement, National Hospital for Neurology and Neurosurgery, Queen Square, London

Document Control

Client: University College London Hospitals NHS Foundation Trust

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Cover image: existing Queen Mary Wing façade, with Albany Wing main entrance to hospital in foreground

Introduction

Summary of Proposal

University College London Hospitals NHS Foundation Trust (UCLH) seeks planning permission for the replacement of windows to the 5th floor of the Queen Mary Wing, National Hospital for Neurology and Neurosurgery (NHNN), Queen Square.

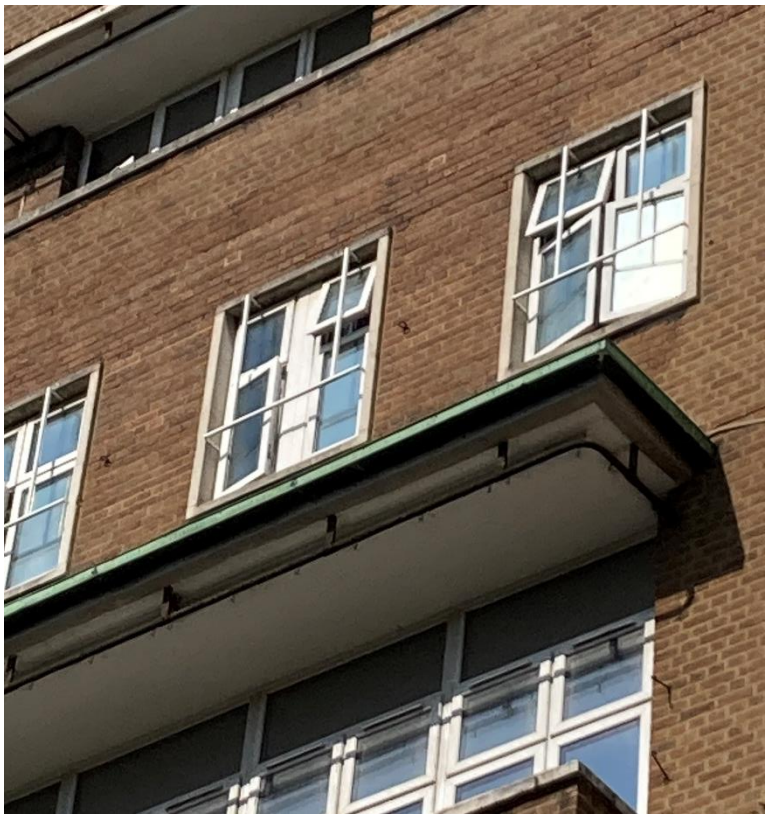
The proposed window replacement is to the street elevation (southwest) and lightwell/courtyard elevation (northeast) of the Queen Mary Wing. The proposed window replacement will be the part of an ongoing project to refurbish the Hughlings Jackson Ward on the 5th floor to improve patient safety and wellbeing.

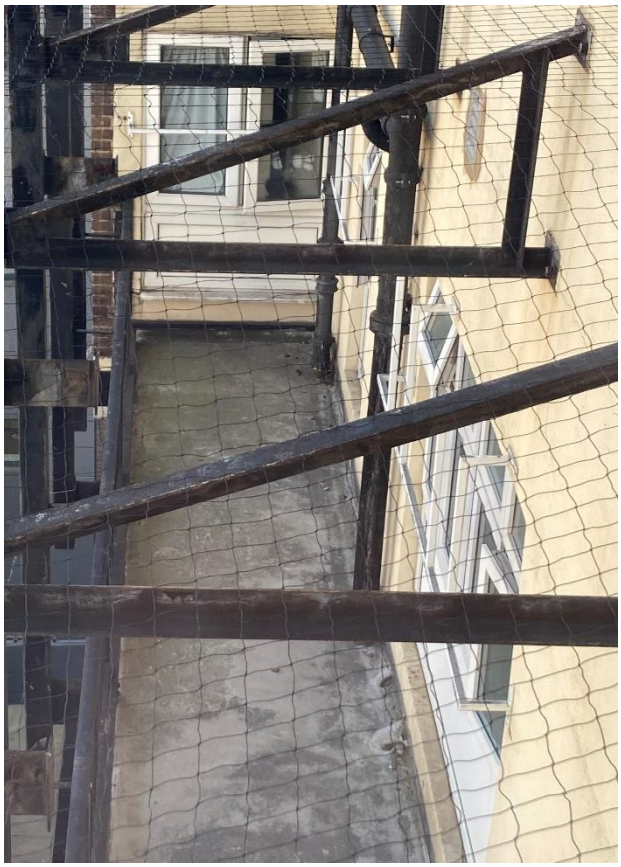
Project Need

The Hughlings Jackson Ward accommodates Neuropsychiatry inpatient services. Patients have both acute and mental health conditions and have an increased propensity to self-harm and diminished sense of danger. UCLH have a duty of care to ensure patients are not exposed to the risk of self-harm during their admission. One catastrophic risk is that a patient might fall from a significant height.

The 5th floor windows are not the buildings' original 1930's windows, which have been replaced since. The existing windows are in poor condition and are not designed for mental health services. The existing hinged windows have their openings restricted by metal guarding fixed to the external façade. These are not understood to be original features and appear to have been installed to ensure a patient cannot put themselves in danger. However, this limits window opening and natural ventilation, and ward staff have described the discomfort of overheating in the Summer and the detrimental effect this has on patient recovery and staff morale. Even with restrictors in place, UCLH consider the windows still pose a risk that patients might force their way out. The purpose of the proposal is to improve security, safety and ventilation to the 5th Floor: Hughlings Jackson Ward.

Above: Queen Mary Wing existing façade to Queen Square, 5th Floor identified





Top: Existing 5th floor windows, inside / outside, Southwest elevation facing Queen Square

Bottom: Existing 5th floor windows, outside / inside, Northeast elevation facing Lightwell to rear of building

New window replacement

The proposed proprietary windows are purpose-built for a mental health environment, with enhanced robustness, safety and security integrated into their design. The window replacement includes a change of material from uPVC to aluminium, change in window sash arrangement, and removal of metal guarding in front of the window. While this may improve the safety, quality and thermal performance, it will subtly change the appearance.

The new windows will have an integrated security mesh to the openable areas to keep patients safe and prevent patients attempting to climb out of open windows, while allowing a window to be opened wide from the inside. Most of the proposed window replacements will be horizontal sliding sash, with some smaller openings to be replaced with fixed frame. The colour of the proposed window replacements is to be white to match the building's existing windows.

Above: example of horizontal sliding window designed for mental health environments, internal and external view, illustrating transparency of steel mesh. N.B. Proposed colour is whtie

Accessibility

The new windows will enable a patient safe access to open windows without exposing them to self-harm. Without first needing to ask a member of staff for permission, this will provide patients with greater autonomy and to take control of their environment, supporting their path to recovery.

Conservation

The Queen Mary Wing is located in Bloomsbury Conservation Area and adjacent to a Grade II listed building. Camden Council's Planning website advises that changes to a domestic property's window will require Planning Permission if made of a different material to the existing window or replacing a sash window with a casement window. We therefore believe it was appropriate to seek planning permission as guidance on commercial/healthcare properties was not specified.

Following engagement with the Local Planning Authority, the Conservation Officer accepted the principle of the window replacement however made comments that the design of the new windows should respect that of the existing fenestration. The Conservation Officer requested that additional options needed to be investigated so the design of the new windows have a balanced window encasement and equal areas of glazing within each side of the frame.

Response to Consultation

To address the Conservation Officer's comments, early engagement with a specialist mental health window manufacturer, PolarNE, has been undertaken to explore how their proprietary window could be potentially adapted to reflect the appearance of the existing fenestration, and address the Conservations Officer's initial comments. PolarNE are one of a limited range of manufacturers in the UK that supply windows compliant for use in mental health environments with the required enhanced robustness, safety and security aspects integrated into their design, that have passed physical testing [1]. Engagement was also undertaken with other suppliers of compliant windows. However, these solutions were less favourable in response to the comments received by the Conservation Officer and UCLH's maintenance requirements. These were excluded from consideration.

A series of workshops were arranged with the proposed window manufacturer, including physical mock-ups to visually test design options. It has been concluded that the opportunities to deviate from the manufacturer's tested window product is limited, due to the stringent mental health environment requirements and very limited supply chain. It is therefore proposed to proceed with the manufacturer's standard proprietary window design.

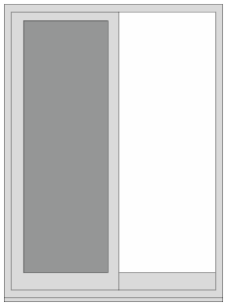
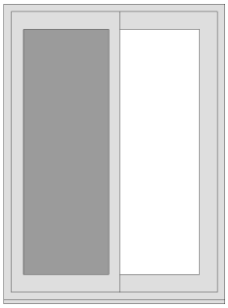
Additional options were explored that incorporated a horizontal transom into the design that responded to the Conservation Officer's comments. Following engagement with PolarNE, the options to incorporate a horizontal transom into the design were for an adhesive transom and an applied vinyl film transom. The adhesive transom solution only has a 4-year guarantee indicating its durability will be compromised and could present a safety risk to the public if the adhesive fails and the transom falls from height to the pavement below. The vinyl will not have 3-dimensional properties to give a true appearance of a transom and only has a 10-year guarantee, which may have a poor quality appearance if it peels in the future and presents a maintenance issue when damaged or requires replacement. As a result, these options have been discounted.

Above: Mock-ups were developed by PolarNE to test what could be achieved regarding appearance. However, this solutuon is not certified and the manufacturer have conerns this will not meet the required robustness, safety and security for use in a mental health environment.

Options Appraisal

A summary table has been compiled overleaf to summarise the engagement undertaken, identifying viable and non-viable options when considering robustness, durability, safety and maintenance factors.

[1] Annex B Testing Levels, Environmental Design Guide: Adult Medium Secure Services, Department of Health

Summary Options Appraisal Table				
Option	Description	Advantage	Disadvantage	Conclusion
1	Sliding window with no transom and no frame thickness alterations. 	This is a tested solution. The required robustness, safety and security for use in mental health environments can be certified by the manufacturer.	Window encasements will have an unbalanced appearance. However, visual impact should be minimised due to the replacement being on the 5th floor. Window will not have a transom.	Fully tested solution. Viable solution. 
2	Sliding window with no transom and asymmetrical alterations to the frame thickness. 	Window encasement will have an 'almost' balanced appearance.	This is an un-tested solution. The required robustness, safety and security for use in mental health environments is not certified by the manufacturer will require expensive testing. Manufacturer has concerns it will not pass. Window will not have a transom.	Further robustness testing required. Passing not guaranteed. Non-viable solution. 

Visualisations

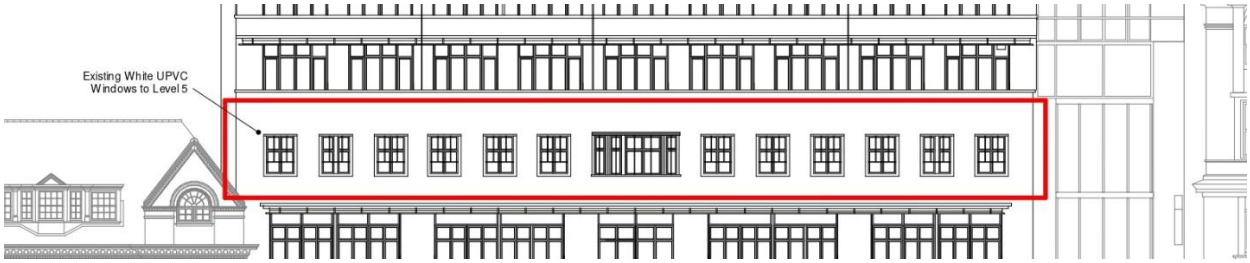
Existing Façade, view from Queen Square

Note: each floor of Queen Mary Wing has a different window pattern; the 5th Floor windows are uniquely framed by a stone surround

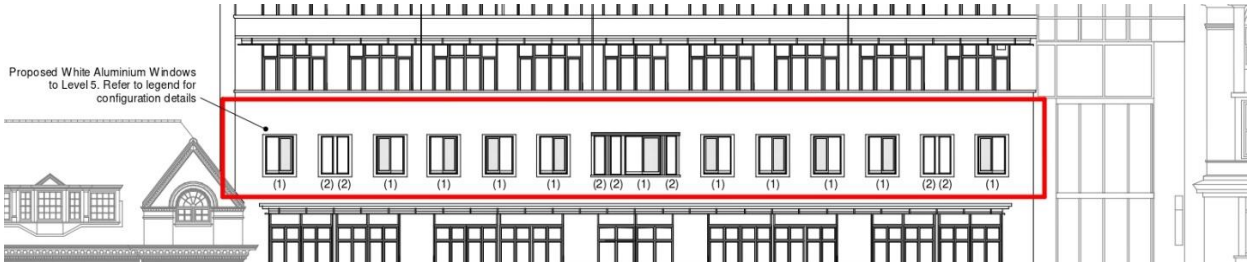
The metal guarding is a later addition to the existing façade, and its removal will revert this area of the façade to how it was originally. The change to the window sash arranagement will have a low impact on the building's appearance due to the fenestration differing on each floor. Symmetry will be maintained.

Proposed window replacement.

Proposed Elevations



Existing Elevation



New Proposed Elevation

Conclusion

This report demonstrates the following:

- The proposed window replacement to Queen Mary Wing's 5th Floor improves patient safety.
- There is limited range of options for a window design that passes speciific requirements for mental health environments from a limited range of specialist manufacturers. Alternative window design options that address the Conservation Officer's comments and still meet the Hosptials' requirments have been exhaused.
- This proposal removes the existing unsightly metal guarding, uses high quality materials and maintains an overall symmetry across Queen Mary Wing's façade.
- The proposed 5th floor windows slightly differ in their appearance compared to the floors above and below. However, the visualisation demonstrates that this difference is marginal, and that each floor already has a unique fenestration pattern.

Appended Documents

Drawing Title	Drawing Number
Site Location Plan	6120-MAA-ZZ-ZZ-PL-A-0001
Site Plan	6120-MAA-ZZ-ZZ-PL-A-0002
Existing Elevation - Street	6120-MAA-ZZ-ZZ-PL-A-0003
Existing Elevation - Courtyard	6120-MAA-ZZ-ZZ-PL-A-0004
Proposed Elevation – Street	6120-MAA-ZZ-ZZ-PL-A-0005
Proposed Elevation - Courtyard	6120-MAA-ZZ-ZZ-PL-A-0006
Existing Section	6120-MAA-ZZ-ZZ-PL-A-0007
Existing Elevation - North	6120-MAA-ZZ-ZZ-PL-A-0009
Proposed Elevation - North	6120-MAA-ZZ-ZZ-PL-A-0010
Proposed Section	6120-MAA-ZZ-ZZ-PL-A-0011