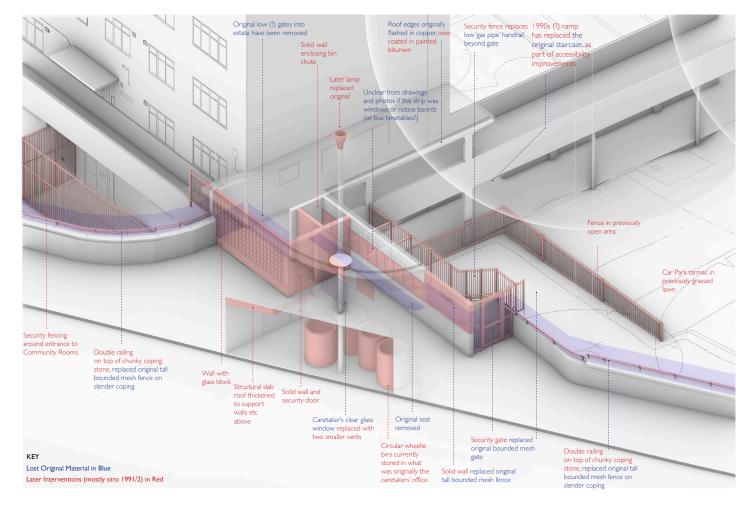
# Conserving a Modenrist Community Space

# KENSAL HOUSE COMMUNITY ROOMS

Sam Causer - Dossier I/I - March 2023 Application for Re-Accreditation as a Conservation Architect



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#### Entrance Shelter Isometric

SC's drawing illustrating historic changes to the original entrance shelter (a, c, g, l, h)

# INTRODUCTION

This project was directed by Sam Causer, as Conservation Architect working for the SPID Theatre Company who have occupied the neglected lower ground floor of the East Block of the Kensal House estate since 2005

The grade II\* listed estate is an important Modernist example of Social Housing, designed by architect Edwin Maxwell Fry with social reformer Elizabeth Denby, completed in 1937.

This £2.4m publicly-funded project is to bring the Community Rooms up to a standard that is suitable for community use today, which involves repair, as well as some alterations to improve access and servicing.

The images and documents in this dossier were directed by, put together, and sometimes produced by Sam Causer personally in 2020, in preparation for an application for Planning Permission, Listed Building Consent and Freeholder Consent. The project is currently on site, due for completion in July 2023.

The project comprises (as detailed on the plan image to the right):

- Complete refurbishment of the Community Rooms, including new M&E services;
- Reinstatement of many of the lost historic features, including the fenestration;
- A discreet new lift and improved access;
- A new corridor to the east facade to provide independent access to all rooms, ramped to allow wheelchairs to access all areas for the first time.
- A more discreet new entrance to the bin room:
- Aesthetic improvements to the Community Rooms' entrance and servicing.

Following consultation, the view I shared with Historic England is that some degree of change to the original building is required to ensure the long term viability of this important early social housing estate and its previously derelict, yet significant, community theatre [n]

The most significant change is led by the need to improve access from street level down into the Community Rooms, which has resulted in a new lift, staircase and ramped access corridor along the east facade of the building at lower ground floor level. This design was produced in collaboration with Heritage Specialist Access Consultant Jane Toplis Associates Ltd, and the detailed options demonstrating benefit vs harm are shown on the back page of this dossier. [c, g, i, j, k, m, n]

In order to demonstarte my experience covers all aspects of the Unesco and ICOMOS guidelines in some depth, I have chosen to focus in some detail on one particiular aspect of this project, which is the fenestration. I will contextualise this work with a general exploration of our approach to research and material proposal. [h]

In August 2020, I wrote the Heritage Statement, detailing the background to the project and site context, the history of the building and the assessment of the significance. [a, b, c, d, h, i, k, g,]

The Heritage Statement summarises the full Conservation Management Plan which had been prepared in 2019 under my direction by Specialist Conservation Architect Fiona Raley, whom I employed at that time [j], prior to my own accrediation as a Consrvation Architect later in 2019.

The key points of the Heritage Statement are as follows:
The Estate is listed in its entirety, under a single designation
covering all buildings. It was constructed in 1937 and is the
work of Maxwell Fry as executive architect working with the
Housing Consultant Elizabeth Denby. The estate replaced the
previous gas works and was developed privately by the Gas
Light and Coke Company to house families displaced by local
slum clearances.

Today the majority of flats are managed under the local authority as social housing. The ancillary amenity spaces on the estate, which include the shops, community rooms and the nursery are today fulfilling their respective original functions, with the nursery now a school catering especially for those with special needs. [c]

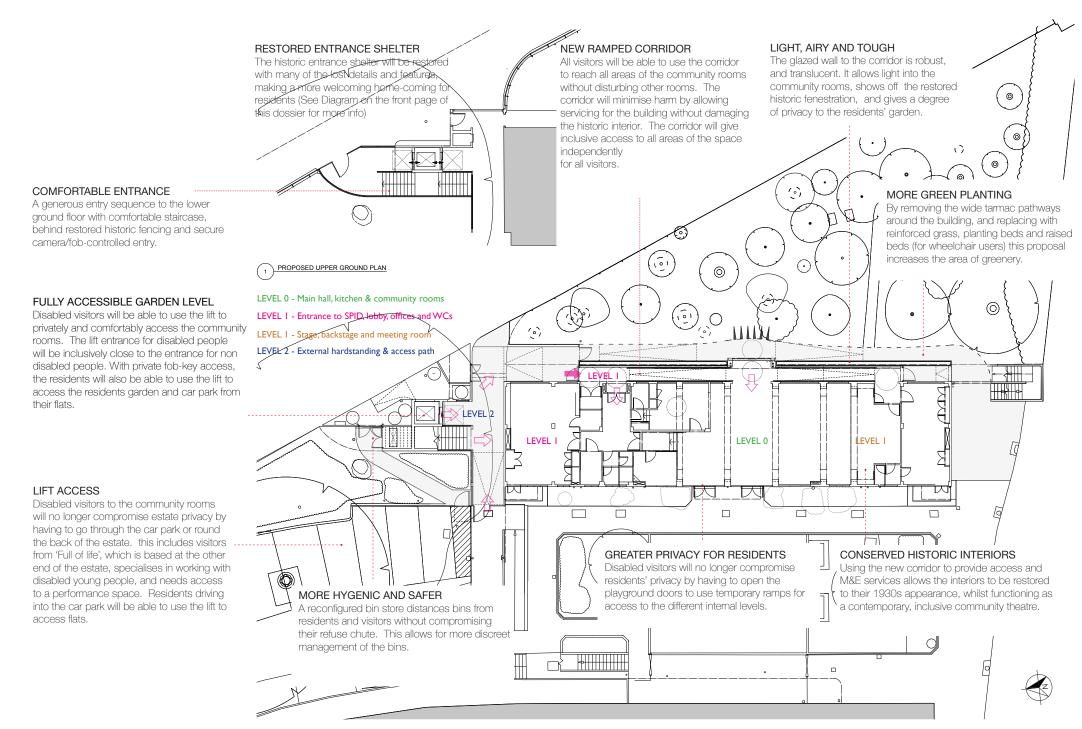
The principal conservation issue in this project is for the Community Rooms in the East Block of the estate to have a viable future; key to this is their refurbishment to cater for 21st century use and enabling the building fabric to be repaired and maintained for use by the SPID Theatre Company, local residents and the wider community. [c, i, k, n]

Many of the drawings and documents in this dossier were produced by me, or under my direction, in order to understand the heritage and its significance, and to explain our proposals for the repair and refurbishment based on a thorough understanding of those heritage values. [g]

This research comprised desktop and archival research, including films, photographs, historic publications and the original architects' drawings, many of whihc are reproduced here. [d]

The new text written for the purposes of this RIBA Re-Accreditation dossier is in italics, to differentiate it from text taken from documents used as evidence of compliance.

INTRODUCTION C 2023 STUDIO SAM CAUSER



In assessing and defining the significance of Kensal House, we used the heritage values as defined by Historic England [a, b, c, d]. The summary on this page, used in the Heritage Statement, was an edited version I put together in 2020 of a longer text written by a Specialist Conservation Architect I employed and was learning from in my office at that time (2019) [j]. I since became familiar with this categorisation and have incorporated it into everyday use.

Historical Value (Illustrative): Kensal House is included in the statutory list of buildings of special architectural or historic interest at Grade II\* putting it in the top 6% of all listed buildings in England. It is illustrative of interwar Modernism as an experimental model for a social housing scheme. In particular the inclusion of the Community Rooms below the east and west blocks, the nursery and use of the adjacent land as allotments led to the project being referred to as an 'urban village'.

Historical Value (Associative): Kensal House and its community rooms have Associative Historical Value as the work of Maxwell Fry and consultant Elizabeth Denby. Maxwell Fry practiced in London from 1934-37 with the influential former direction of the Bauhaus Walter Gropius, before Gropius moved to the U.S, though according to Alan Powers, their projects were individually attributable rather than fully collaborative.

Evidential Value: Kensal House as an estate has evidential value and today largely represents the fabric of one period with alterations to the fenestration being the most significant change in the later part of the twentieth century. Internally there have been ad hoc changes to the Community Rooms; the evidence for which is recorded in the historic record drawings and photographs available in various archives and from paint analysis.

Aesthetic Value: Kensal House has aesthetic value as representative of early Modernism and the influences in design and technology that were emanating from Europe prior to the Second World War.

Communal Value: Kensal House has communal value both in terms of its historical associations with the locality and also the wider context of urban regeneration of housing for the less affluent following slum clearances. Significantly, it is still largely in use for social housing today and the presence of SPID Theatre and their work has re-established contact with people who live or have lived in the building or the neighbourhood and were part of the community who have or still do benefit from its wider social and cultural links.

Social Value: Kensal House represents historical social values in terms of social housing in the twentieth century. It also represents changing political and social awareness as well as attitudes to domesticity and recreation, amenities, self-sufficiency within the genre of an estate.

**Technology:** Kensal House represents a pre-war example of technological advances post First World War and influences from European architects. This is evident in the use of a reinforced concrete frame construction and standard factory-made prefabricated components.

As a building it was innovative in the design of the residential units and the provision of heating and hot water systems to benefit the comfort and well-being of the social housing tenants.

**Tangible cultural significance:** Kensal House has tangible cultural significance in terms of its architecture and design. It stands today as representative of past social and political changing attitudes and is notable as still in use for its original purpose.

Intangible cultural significance: Kensal House and particularly the Community Rooms have intangible cultural significance to people who have historically lived and worked here. The SPID Community Theatre group seeks to re-establish these links for those who live and use the building today and for the future use as a community theatre.

To determine the qualities of the existing and original materials and techniques used on the site, the following specialist surveys were commisioned, and the findings incorporated into the proposal. At that time (2019), I employed and had the support of a Specialist Conservation Architect to put this list together, [i]

- Point cloud measured survey of interior and exterior (including existing above-ground services):
- Topographical Survey
- Utilities Search
- Buried Services and CCTV Survey
- Drainage Survey
- Asbestos Survey
- Building Condition Survey (included in the Conservation Management Plan)
- Flood Risk Assessment
- Internal Acoustic Survey
- Trial pits
- Borehole tests
- Paint Analysis
- Non-invasive opening up report
- Concrete condition survey
  - Laboratory analysis of the concrete
  - Carbon testing of the concrete soffit to establish the degree of
  - Ferroscan testing to establish the locations of reinforcement and cover
  - Investigating corrosion
- Recording and measuring any cracks
- Schmidt testing to establish the strength of the concrete
- An assessment of the repairs required to the original concrete construction.



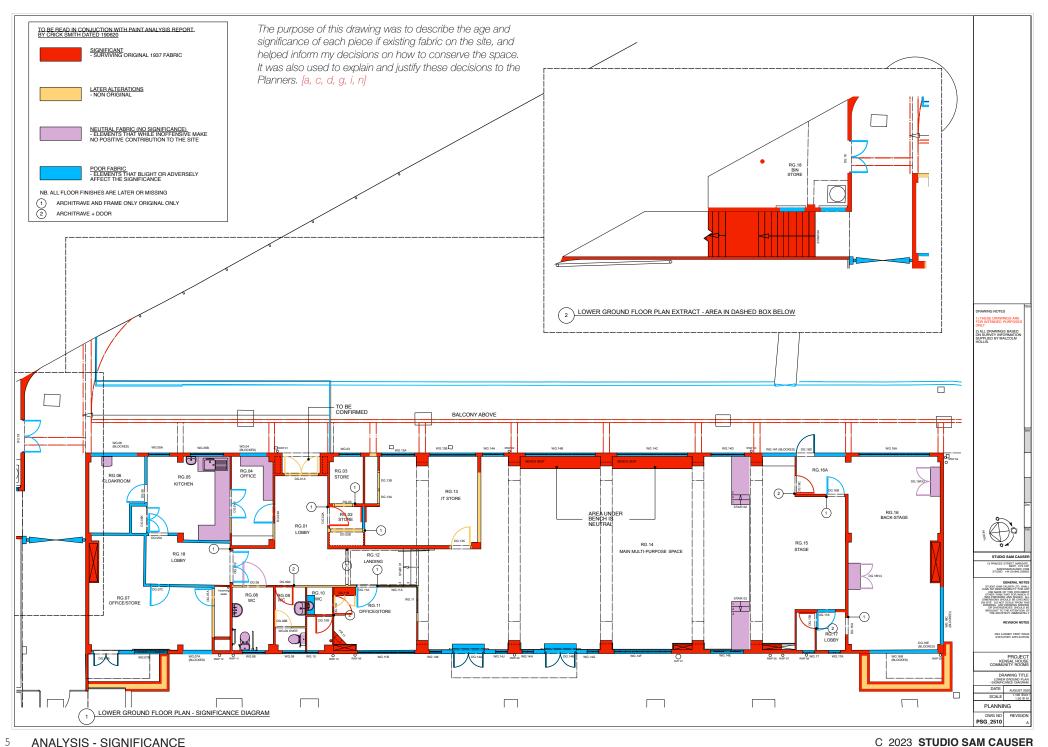
Garden looking north



Internal view, ground floor towards stage



Full west elevation view



ANALYSIS - SIGNIFICANCE C 2023 STUDIO SAM CAUSER This page exploring the existing and proposed materials of the buildling was taken from my Heritage Statement document. [b, c, d, e, f, i, k]

### The Existing Building

We know from an article written about the construction of Kensal House in the April 1936 edition of Concrete and Constructional Engineering magazine some of the techniques and materials used to construct the original buildings. The concrete, for example, was 1:1:2 reinforced concrete, by Messers L.G. Mouchel & Partners, working under main contractor Messers Bovis, I td.

The main outside walls are 4-inch thick, lined internally with 1-inch cork, and 1/4-inch plaster. The concrete was shuttered with Masonite Tempered Presdwood, chosen for its smooth surface. Where necessary, the surface was sanded with carborundum to give a seamless appearance. In order to maintain good alignment of the walls when being poured, the outer edges of the floor slabs were cast with a small upstanding portion against which the shuttering panels were pulled tight. The panels consisted of horizontal sheeting with vertical soldiers held by walings bolted together through the wall. Small pre-cast concrete spacing blocks containing loops of tying wire fastened to the wall reinforcement to secure the necessary cover. The degree of consolidation obtained by vibrating the concrete was such that these blocks were not discernible from the surrounding concrete when the shuttering was stripped.

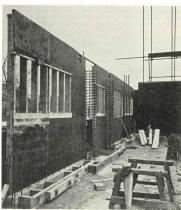
The concrete and plaster were painted in a light cream colour to give a smooth, monolithic appearance.

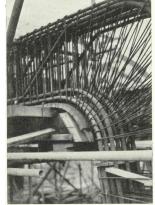
Internal walls were formed of 2-inch pumice concrete, with painted plaster finish. The walls between flats were the same but 4 inches thick.

The footbridge has four 16-ft spans and a width of 8 ft between the parapets. The latter are 4-inches thick and 3 ft 1 1/2 inch high above the level of the deck, giving a total height of 4 ft. 3-inch diameter steel columns carry the parapet girders. The deck is a hollow-tile floor with 8-inch tiles, cambered by reducing the thickness of the flanges from 4-inch at the centre to 3-inch at the sides.

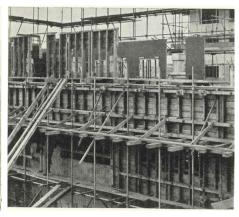
Nine feet below the footbridge is a 6-inch slab at lower ground floor level, and 15 ft below that are the reinforced concrete footings of the columns. The steel reinforcement was supplied and fixed by United Strip & Bar Co, Ltd.

MATERIALS - CONCRETE









Photographs of the original construction process, published in C & CE Magazine, April 1936. O

From Left to Right: Masonite smooth shuttering panels; Steel reinforcement of one of the Community Rooms portal frames; Inside the shuttering panels; Outside of the shuttering.



Site Photograph, 2019

The surface of the concrete is visible in the raking sunlight. You can discern the individual shuttering panels, and the smooth surface under the paintwork.

### **Proposed Materials**

[a, b, c, d, e, f]

For all repair work we propose to use like-for-like materials, which we can discern from on-site analysis, combined with contemporaneous evidence, such as the C & CE Magazine article referred to earlier. Furthermore, as our design proposal for the amendments to the Entrance Shelter adopts the original architectural language and extends it into new forms to serve today's requirements, we consider it appropriate

to use complementary materials, gently discernable from the original: [i, k]

- Reinforced concrete for 'primary' structural walls and slabs, with a natural through-colour cream, with surface jet-blasted off to reveal the aggregate, similar to that used at contemporaneous Dudley Zoo (see right);
- Painted, plastered concrete block for internal and 'secondary' walls;
- Hollow-tile for slab infill:
- Steel for columns:
- Screed, bitumen with copper flashing for roofing.
- Profilit glazing panels to replace the 1990s glass blocks, matching the approved new glazing to the corridor at lower ground floor.

There is no need to insulate the lift shaft or bin store, but it may be prudent to tank the interior to mitigate against the inevitable cracks and consequent leaks through the concrete. The interior face of visible surfaces could then be plastered to present a similar finish to the existing.

None of these finishes would require specific protection from vandals or graffiti as they can be jetted clean and seamlessly and repaired at low cost, but it would be prudent to apply an effective anti-grafiti coating. We would also consider using fibre reinforcement, instead of steel, in order to meet contemporary standards of cover, mitigating the effect of rusting which has been a cause of failure of some early reinforced concrete. [b, e, f]

Fibre reinforcement would allow us to copy exactly the thin proportions of the small canopies over the existing doorways in the design of the services shroud around the doorway to the garden in the east facade.



Photographs of concrete repairs

Above: 1935 Meerkat enclosure at Dudley Zoo, with 2015 patch repairs.

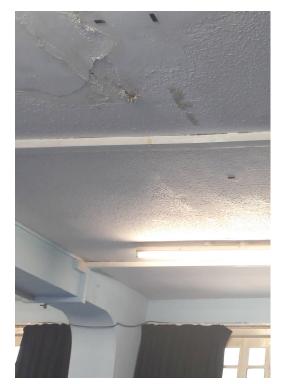
**Left:** Bush-hammered concrete with patch repair at the Barbican (1982, Architects Chamberlin, Powel & Bon).

Both projects repaired by structural engineer and historic concrete specialist Stuart Tappin of Stand Consulting Structural Engineers, the engineer for this project too. [j]





Water damage to existing ceilings



Water damage to existing ceilings

This page exploring the interiors of the building was taken from my Heritage Statement document. [b, c, d, e, f, i, k]

#### The Interiors

The interiors have been neglected and mistreated over the years, but paint analysis has revealed the original colour schemes and finishes, which we propose to reinstate.

The existing (original) suspended paster ceilings on metal laths are in a poor condition, following a history of water leaks from the flats above the Community Rooms, a common feature of multi-occupancy, high-rise concrete buildings.

These leaks are likely caused by the services to the flats and the broader building, as well as poorly maintained waterproofing to the indented balconies.

We propose to remove all redundant services serving the Community Rooms. However there will be a need for RBKC to trace and address the cause of the leaks from the Landlord's demise.

It has been agreed that RBKC will carry out these remedial works to upgrade / replace leaking pipework and repair all holes from the flat and their balconies above to avoid water ingress.

Following the completion of these remedial works by RBKC, this project will monitor the situation over the construction period before carrying out repairs to the ceiling.

The entire floor of the Community Rooms is proposed to be Linoleum, to closely match the original finish based on historic photographs. Where additional kinetic comfort is required on the stage and main hall, we propose the same linoleum finish but mounted into a 'sport' system of recycled foam and plywood, to give a bit of bounce to absorb performers' movement.

For the interior decorative scheme to the walls and joinery, we propose to use the extensive paint analysis carried out by Crick Smith to restore the original.







(ABOVE) Paint layers sampled for analysis

(LEFT) Sample of wallpaper found in the original "Women's Room"



Club Room looking North West in 1937 Kensal House:A contribution to the new London (RIBA Collections), p.18



View of the Hall – looking towards the serving hatch Kensal House: a contribution to the new London, p.20, Image: Edith Tudor Hart (RIBA Collections)



Kensal House. East Block, West Facade. Photograph by Edith Tudor Hart, 1937 (RIBA Collections).

This following four pages exploring the (lost) historic and proposed fenestration have been takend (and edited down) from my Heritage Statement document. The existing windows can be seen on Page 4 of this dossier, and were examined carefully elsewhere in the Heriutage Statement and proven to be modern replacements harmful to the significance of the building.

## [a, b, c, d, e, f, g, i, j, k, l, m, n]

We propose to reinstate the lost historic fenestration to the whole of the lower ground floor, except for isolated and well-justified exceptions where wheelchair access is rerquired.

Except for two windows in the west facade of the western block, all of the metal-framed windows to the Kensal House estate have previously been replaced as part of earlier refurbishments led by the local Authority. Evidence has been sought from archival drawings, photos and films to understand and replicate the original window details. [a, b, c, d]

The paint analysis of the remaining original metal window framesin the West Block has highlighted that they were not painted white originally. [b,j]

Our proposed replacements will be as close to the original windows as possible, based on available evidence and manufactured systems. Where required, the new windows will be double glazed to provide appropriate environmental conditions and improved energy performance. As a community space, run by a charity, the cost of heating and cooling the space are a significant factor, as is the risk of condensation forming on the glass from groups of high-energy people exercising indoors on a cold day. The whole estate has already been double-glazed by the Local Authority, and it is not approipriate for the Community Rooms to have a lower efficiency in a period of Climate Crisis. The arguments would of course be different if the original single glass windows remained intact, but they were removed in the 1960s. [i, k]

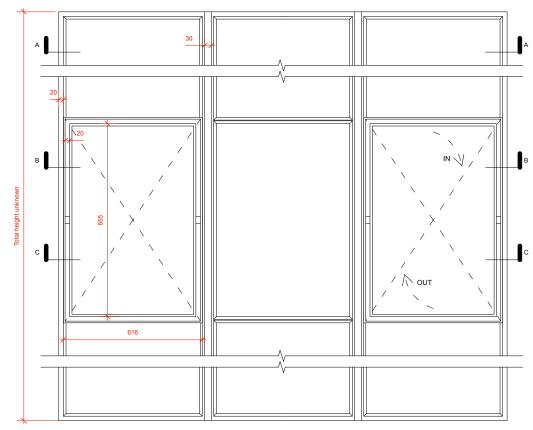


Eastern Facade to Eastern Block, showing Allotments and original fenestration. Kensal House: A Model Housing Estate, 1937 film (National Grid Archive)

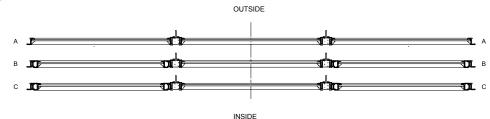


Western Facade to Eastern Block, showing original fenestration. Kensal House: A Model Housing Estate, 1937 film (National Grid Archive)

MATERIALS - FENESTRATION C 2023 STUDIO SAM CAUSER 8



1 EXISTING WINDOW INTERNAL ELEVATION

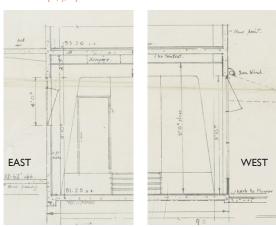


2 EXISTING WINDOW PLAN DETAILS (PROFILES ASSUMED FROM SITE SURVEY)

Paint analysis has shown us that two of the existing windows on the western facade of the West Block are likely to be original. These windows are of a slightly different design to those originally installed in the East Block (as shown on the historic record drawing) - they incorporate a pivoting middle vent with fixed lights to the top and bottom. Crittall Windows advised this is likely to be their now discontinued 'Universal' system. [a, b, c, d, n, j]

We surveyed the original window as accurately as existing obstructions allowed. The windows are internally glazed with putty. Externally a projecting glazing bar mullion is visible, connecting vertical window panels. The drawing to the left uses surveyed information together with record drawings of the historic 'Universal' profiles to create an assumed window assembly. [d, g]

We have gathered historic information from drawings and photographs to understand the likely configuration and opening styles of the original windows. Crittall note that due to changes in Building Regulations and the regularisation of window profiles in 1964, it would not be possible to install these windows today. However we have investigated the various options which are available. The following pages detail possible options for suitable profiles for reinstating original windows. [d. j. n]

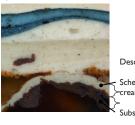


Extracts from Historic Section drawing



Photo of original window in Western Block

Figure 1: Interior window

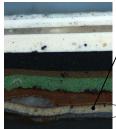


Description of Layers

Scheme I pale greyed cream zinc oilpaint

Substrate metal

Figure 2: Exterior window



Description of Layers

Scheme I mid grey / cream zinc oilpaint with a dark grey undercoat

Substrate metal (not shown)

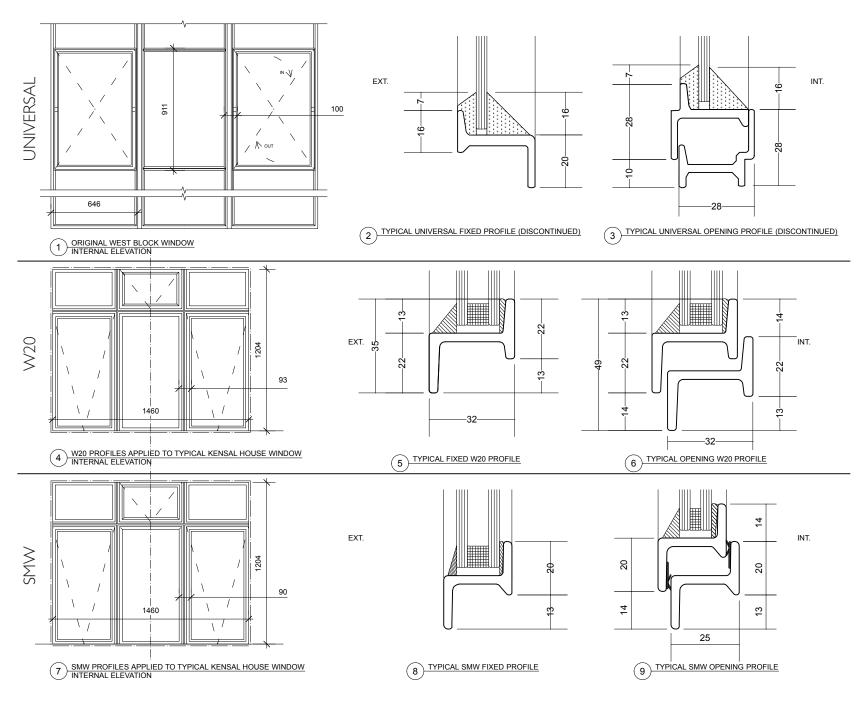


This is just an indication and not an exact representation

Existing window paint analysis

MATERIALS - FENESTRATION

C 2023 STUDIO SAM CAUSER



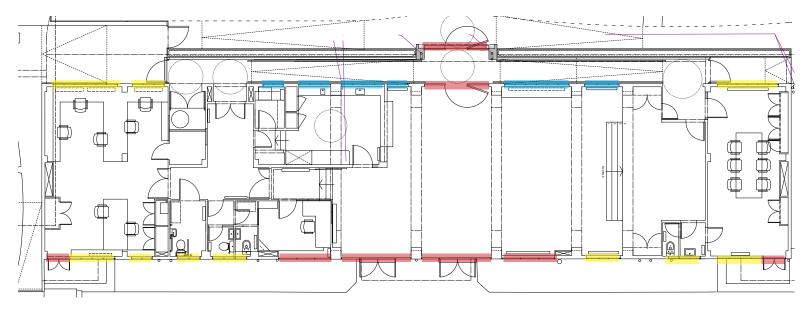
We have approached the Steel Window Association along with a number of steel window manufacturers including Crittall, Fabco and Jansen. We have evaluated various systems and window assemblies currently available to best suit installation at Kensal House. While the majority of steel window manufacturers use similar profiles, assemblies and glazing methods vary from company to company. Double glazing is seen as a necessity to ensure adequate thermal and acoustic insulation. Double glazed windows have previously been installed throughout the Kensal House Flats and internal common areas as replacement windows. [c, d, j, m]

Following a period of research the selection of window system was narrowed down to either SVM or W20 steel profiles. SMW profiles were commonly used in the first half of the 20th century and offer slim slight lines. However the narrow profiles restrict the thickness of double glazing units that can be accommodated restricting the thermal performance of the windows. It is not possible to fabricate doors or inward opening windows with SMW profiles. [c, d, j, m, k]

Steel window manufacturers Fabco can manufacture W20 profile windows with very similar sight lines to SMW profiles, however as they are deeper they can accommodate thicker double glazing units. All glazed screens that incorporate doors should be fabricated from W20 profiles to ensure strength and stability. Given the slim sight lines achievable with W20 profiles and to ensure consistency across the Lower Ground Floor W20 profiles have been selected for our proposals, with silicone beading to closely replicate original putty as we're advised that linseed putty is harmful to the seals of double glazed units. [c, d, e, j, m, k]

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MATERIALS - FENESTRATION C 2023 STUDIO SAM CAUSER



W20 OUTWARD-OPENING WINDOW

W20 INWARD-OPENING WINDOW (FLIPPED OUTWARD-OPENING)

W20 LARGE FORMAT WINDOW / DOOR PROFILE

Strategy for placement of different types of new windows SC drawing [q]



appear to have been outward opening or fixed.

[d]

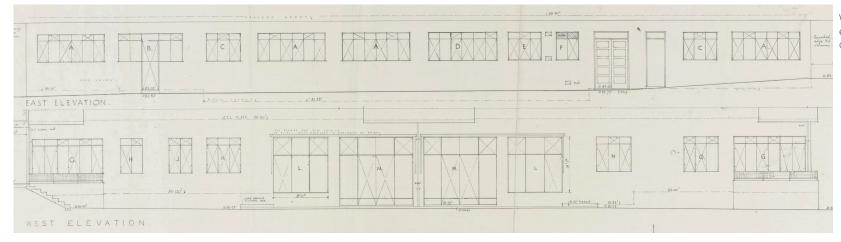
A historic section drawing shows the lower vents of the eastern elevation windows as bottom hung, inward opening. The upper vents are

We have referred to historic sections, elevations and photographs to determine which windows would have been opening and which fixed. All windows and doors on the western elevation

of the eastern elevation windows as bottom hung, inward opening. The upper vents are shown as opening however it is not clear if they were inward or outward opening.

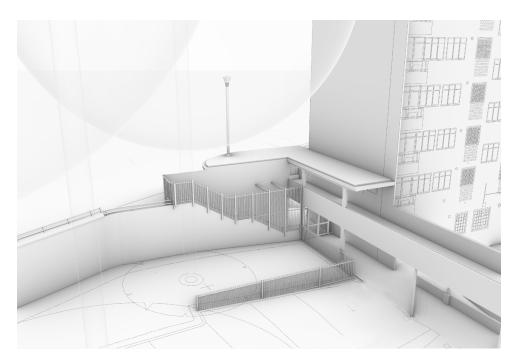
Inward opening slimline profiles are no longer manufactured. Larger inward-opening profiles are generally not recommended due to their poor waterproofing resistance. However where windows are to be made internal by the new glazed corridor below the existing balcony walkway, we are able to install inward-opening windows as per the original lower vents. Inward opening windows will match the details of the outward opening windows, however they will be reversed in the opening. Ironmongery will be located on the existing internal side of the window. This ensures windows along the new enclosed corridor do not form an obstruction in the narrow corridor and can be opened to allow fresh air from the corridor into the Main Multi-Purpose Space. [a, b, c, d, e, f, i, j, k, l, m, n]

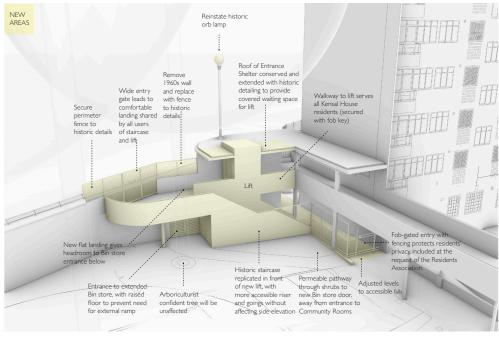
Where windows form part of the external envelope we propose outward opening vents only to ensure weather tightness is maintained.



Extracts from Historic Elevation drawing (London Metropolitan Archives) [d]

□ MATERIALS - FENESTRATION C 2023 STUDIO SAM CAUSER





One of the main changes to the original building is led by order to demonstrate that we had carefully considered everyBelow is a selection of some of the alternative options I the need to allow those in wheelchairs, with pushchairs, or possible means of access for those with limited mobility with limited mobility to access their Community Space on from uper ground (street) level down to the Community the lower ground floor. The building does not have a lift, Rooms. [a, b, c, d, g, i, j, k, m, n]. but the original design did allow level access to many of

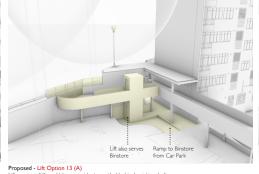
the flats at raised ground level. These diagrams were part Most options included a lift, in various locations, and of a series drawn and labelled by me, based over the 3D other options were for a ramp. The diagram above left is CAD model produced by an assistant under my direction, in the existing condition, and above right is the proposed.

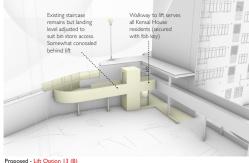
considered. Alongside the diagrams I outlined why each of the alternatives would not be possible, either because they significantly disregarded important regulations and guidelines to do with access, inclusivity or health & safety, or there was a physical reason the proposal could not work, beneifical and least harmful way to allow access for all such as a vital root of large, Grade A historic tree in the way. to the Community Rooms [g, n]. [a, b, c, d, g, h, i, j, k, l, m, n].

Through these diagrams, I was able to demonstrate to Historic England and the Twentieth Century Society, as well as the RBKC Planners and Conservation Officer that demolition of the historic staircase, and replacement with a new lift and stair was the most



New fence in design 1990s wall Reinstate historic Ramp to 1:15 Adjusted levels Rooms Entrance falls to lift Proposed - Lift Option 16 (B) As I.6A, but without excavation for relocated entrance to Bin store





Lift serving all Kensal House residents, nestled behind existing shelter

As I3A, but without excavation for relocated entrance to Bin store.