Design and Access Statement

5 Elm Row, London NW3 1AA

Revision A
15 September 2021

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Figure 1 Front elevation of no 5, Elm row

1 Introduction

5 Elm row is a Grade 2 listed building situated in the heart of Camden's Hampstead conservation area. It is a handsome Georgian building of some importance, but has suffered from a typical accretion of unsympathetic modern services and a series of 20th century and earlier refurbishments have removed most of the original internal fabric. It has a poor energy rating (F).

The building has recently changed hands after being empty for some years. The new owners are applying to do works which can be summarised under four main categories:

1. General repair work as recommended by the specialist conservation surveyors' report

2. Work to re-organise the internal services so that the building works efficiently and is prepared for a sustainable future.

3. Insulation and fire-proofing work to the main fabric of the building

4. Minor Internal layout changes and changes to the external envelope

2 Methodology

The new owners are keen to restore the building, but are aware that a sensitive and holistic approach is needed with historic buildings. To that end, they have commissioned the following specialists and reports to help them in developing their proposals.

1. A specialist has been appointed to produce the Historical Assessment, and this document has been used in determining how proposals will affect the historic fabric

2. A specialist historical survey of the building fabric by Janus to RICS level 3 +. This survey is submitted as an auxiliary document in the planning application.

3. They have also commissioned a separate survey of the state of the building services, also submitted in this application.

4. They have commissioned a laser dimensional survey. This has been invaluable in re-planning service routes between floors, and is the basis for the submitted plans in this application.

5. A specialist Sustainable energy consultant, Green Square, have been commissioned to produce a detailed thermal survey of the building. This was commissioned so that

heating and cooling proposals can be developed in a room-by-room basis.

6. An architect (the writer) with experience of work on listed buildings and sustainable energy has been engaged to make proposals and co-ordinate the work.

3 Proposals section 1: General repair work

The Specialist survey suggests work that is necessary to preserve the fabric of the building. These are listed below along with the Justifications for the work

3.1 Work to exiting brickwork pointing.

It is proposed to remove inappropriate cementitious pointing to the existing brickwork and its replacement with an appropriately specified lime mortar. The work is to be done by a specialist subcontractor.

Justification

This will allow the masonry to breathe and will preserve the historic fabric.

3.2 Minor roof repairs

Replacement of slipped tiles, solar reflective paint to asphalt roof areas; repair to flaunching to chimney stacks

Justification

These works are proposed solely to extend the life of the building fabric

3.3 Removal of cementitious render to parapet wall

It is proposed to remove cementitious render to the parapet wall (party wall with no 3.) and - if required by poor quality brickwork beneath - re-rendering with an appropriate render.

Justification

The specialist surveyors' report has pointed to this area of weakness that is showing signs of failure. Allowing a non-breathing render may in the long term cause harm to the historic fabric.

3.4 Work to existing rainwater goods:

This is the replacement of uPVC downpipe additions and repair of the original lead hopper and downpipe at the front of the building by a specialist lead worker.

Justification

The replacement of uPVC is proposed solely as it detracts from the external appearance of the building. The lead downpipe at the front has failed in at least one place and has caused water damage to the internal linings: the repairs are to preserve the general building fabric and the life of the item itself.

3.5 Principle windows to the front elevation are draught sealed

It is proposed that these sash windows are draught sealed, using general repairs to sash frames and a system that closes the gaps between sashes and the window frames

Justification

Although single glazing has poor insulation qualities, it was judged that the visual impact of modifying the windows to accommodate double glazing on the principle elevation would not be justified. The employers do not wish to install secondary internal glazing, but refurbishment involving draughts sealing around the existing will have a benefit to the thermal performance at no cost to the visual appearance.

3.6 Installation of a rainwater harvesting tank in the garden

It is proposed to install a 4800 litre rainwater harvesting tank in the front garden. The approximate position and size is shown on drawing 02.

Justification

This is a measure in line with the applicants' intention to make the building as sustainable as possible. On completion, all surfaces will be returned to their original state and there will be no change to the current state.

4 Proposals section 2: Works to internal services

Overview

The services within and without the building are haphazard and un-coordinated. They are inefficient (the services survey questions whether the existing space heating can cope in cold days) and detract from the internal and external appearance. Figures 2 to 4 give a flavour of the current state; see also photos in the appendices of the two survey reports. This application seeks permission to rationalise the services so that they work efficiently and so that bulkheads, boxing in and other detractions from the appearance of the rooms are removed.

Figure 2 Typical services beneath the floorboards

Figure 3 Typical surface mounted cabling on the outside of the building

Figure 4: internal heating pipework and boxed in radiators on the main stairs

4.1 Works to the electrical system

It is proposed that a comprehensive re-wire of the entire system is made. This will include removal of all surface mounted wiring inside and outside the building, the removal of the TV aerials on the roof and satellite dish on the front elevation (see figure 3) removal of all downlights and pendant light fittings from the principal front rooms except at lower ground floor level, the repositioning and replacement of sockets and switches generally. The exact positioning of sockets and switches is not yet known but can be confirmed in due course if required. The specification of these items has not been confirmed, but it is the intention to specify units with the minimal visual impact.

Justification The services survey indicates that the current system is severely outdated and is due for a comprehensive re-wire. The photographs in the appendix to the services survey by SPS will help to justify this. Removal of surface mounted wiring will have a positive contribution to the visual appearance of the rooms.

Removal of ceiling downlights in general will also have a positive effect on the appearance of the building. When viewed from the outside, only the ceiling of the lower ground floor is not visible, and as these rooms have a lower ceiling height and higher light requirements (the kitchen is on this level) it is proposed that downlights in these rooms are maintained. It is proposed that lighting in the other principal rooms (those flanking the main stairs) will be via a new 5a circuit and in some places retention of wall sconces.

4.2 Works to the central heating on all floors except the lower ground floor.

It is proposed that all radiators are removed and replaced with a wet underfloor heating system. The proposed system uses flat metal panels placed directly over joists, with the final floor finish laid over this to the same level as the current floor. The installation of this will necessitate removal of the current coverings and floor boards, although the latter will be assessed for quality and re-instated wherever possible.

Justification

The building has a collection of pressed metal radiators and cast iron radiators. These have been placed in various positions, including inside built-in joinery, in window bays

(with boxing in, covering the existing panelling) and on stair landings, where they have been boxed in and constrict the limited space available. This proposal effectively returns the rooms to a state close their original appearance and additionally removes unsightly bulkheads and visible pipework. The work by the energy consultants have shown that – if the proposed improvements to insulation and ventilation are made - underfloor heating will work in these rooms, despite its general lower output than traditional radiators.

The work to the existing floorboards is justified as the Historical appraisal indicates that little of the internal linings of the building are original, so there is not expected to be any loss of original historical fabric. The existing floors show signs of previous damage having been made to access the floor structure beneath, and the proposed comprehensive electrical re-wire will inevitably contribute to this damage. It is proposed that - due to the comprehensive works being proposed generally – that this is an appropriate time to replace the floorboards. This will also afford an opportunity to inspect the floor joists for damage from decay at the ends of the joists and loss of herringbone strutting and services notching from previous installations.

4.3 Central heating on the lower ground floor

On the lower ground floor, it is proposed that the existing tiled and concrete floor is removed and replaced with a fully insulated floor with a wet underfloor system placed in a screed on top. The final floor finish is proposed as stone, the exact specification to be confirmed. Works will take particular care by way of temporary propping to avoid damage to the existing timber stairs. See drawings 10, 11 and 100 for details

Justification

The Historical assessment points to this floor not being original. The proposal will have no effect on the visual appearance of the rooms except for the change of the final finish, and the benefit will be a significant improvement in the energy performance of the building.

4.4 New services riser

It is proposed that a new service riser for electrical and water-based services is made up the wall to the rear of the main stairs. This will allow access to all floors without the need for bulkheads or other boxing in. It is proposed that the services are placed flat against the rear wall directly against the masonry, with the current panelling reinstated over in the form of a concealed access door . See drawing 03The line of face of this panelled door may be up to 50mm further out that present. As part of this work, it is proposed that an unvented tank and associated services are placed between the half landing from the ground to first floor and an alcove to the side of the first floor rear bathroom. See drawing 102

Justification

The removal of the various areas of boxing in will have a positive visual benefit to the building, and the re-organisation of the services generally will have a great benefit to their efficiency. Careful analysis of the laser survey from floor to floor has shown that this is the only position that a vertical riser can be placed without the creation of visible risers and loss of historic fabric.

The gap between the back of the existing panelling and the masonry is not known, but from the laser survey and knowledge of typical brick sizes it would appear to be

approximately 50mm. The additional 50mm proposed is to accommodate pipework crossovers at mid-floor levels and possible joists at landing levels. If this turns out not to be required, it need not be taken. The change in the line of the panelling is justified on the basis of the clear benefits outweighing the small visual change. Inspection of the panelling in the building generally shows that the panelling isn't consistently regular, and the Historical assessment points to it not being original.

The unvented tank is proposed in the position described as a central position is beneficial to sustainability: water is not wasted waiting for taps to run hot if the tank is close to bathrooms and kitchens. The proposed position is almost at the centre of the house, and utilises two spaces that currently contribute little: the cupboard in the half landing is unused, and the alcove off the first floor bathroom contains the WC, but inspection of this space shows it to be a poorly resolved oddity and the half-height separation between these spaces is clearly not original. The first floor bathroom is re-planned as part of the proposals in section 4.

4.5 Air source heat pumps on roof

It is proposed that the current cold water tanks on the roof are re-built as housings for a pair of air source heat pumps. The housings will be 200mm higher than current and will be open at the top. Finish will be to match the current patinated lead. There will be some provision for air transfer at the sides, but the final design can be presented as a reserved matter.

Justification

The specialist energy consultants have proposed these as a significant contribution to the sustainability of the proposed works, contributing to up to 85% of the heat energy provision in cold weather and all of it at other times. They have performed calculations to prove that this position is suitable for acoustic separation from the neighbour's property. Visually, the existing rooftop water tanks make almost no impact on the appearance of the building: from the front, they are not visible at all. Figure 5 shows the view from the far side of Elm row, which is the only public viewing position from the front, and Figure 1 shows the view from inside the building curtilage, indicating that even the chimneys behind the tanks are not visible from the front of the building. Figure 6 shows the only view where they are visible from the steps in Stanford close behind: the minor change to the visual appearance will be outweighed by the sustainable benefits of a low carbon heat source, and removal of the television aerials. (see electrical proposals above and figure 3)

Figure 5 View of the front elevation from Elm row

Figure 6 View of the water tank from Stanford Close

4.6 Installation of mechanical ventilation to parts of the building

It is proposed that two mechanical ventilation Heat recovery(MVHR) units are placed in the buidling: one at lower ground floor in a storage space at the back (see drawing 11 and one in the pitched roof above the second floor bathroom (the only visual impact of this is shown on drawing 31) These will draw stale air from vents in the ceilings of the bathrooms and kitchen and supply fresh air at skirting level in the principle front rooms except the ground floor rooms, where it is not proposed as there is currently no route for ducts without requiring boxing in

Justification

Air leakage in old buildings is an issue that is very difficult to resolve satisfactorily. The proposed insulation works (see section 3) and sealing of windows (section 1) will move the building away from the traditional breathing type of construction, but the reduction in air leakage will introduce problems with ventilation and potentially condensation. MVHR units will deal with this in the most sustailable way, but ducting from large centralised units can create problems with boxing in.

This proposal deals with this by avoiding a centralised unit and uses two smaller units that can be more easily acommodated without visually detracting from the rooms. Extract vents will be in the ceilings of the bathrooms and kitchen and will be specified to have minimal visual impact. As none of these are principle rooms, the visial impact is thorugh to be outweighed by the benefits. Fresh air will be provided to the front rooms by vents at or just above skirting level, where they will have minimal visial impact. The total visual impact of this proposal is therefore minimal, and the benefits should outweigh this.

5 Proposals Section 3: Insulation and fireproofing

5.1 Addition of insulation and fire stopping to external walls

It is proposed that certain areas of the external wall are insulated on the inside. For a detailed explanation of the proposals, please refer to plans 10 to 19 and detailed drawings 200 to 204.
Installation of this will result in the loss of some linings, although none that are earlier than 20th Century. Fire stopping will be introduced between floors.

Justification

The building's poor energy rating (F) is expected to lead to annual energy bills in excess of £3500. This is a rare opportunity to prepare the building for a necessarily sustainable future.

The proposals concentrate on the easiest wins, and avoid problematic areas such as insulating behind the timber panelling of the principle front rooms. The designers recognise that the process of insulating buildings with traditionally breathing fabric needs to be done with great care. Where insulation is proposed, even approximating to current targets will inevitably result in high grade insulation on the inside of the walls, rendering the external masonry cold and an interstitial condensation risk. This in turn can potentially lead to decay in the ends of the timber joists and mould.

It is proposed that this situation is mitigated by careful detailing of the vapour barrier on the inside of the insulation, and careful monitoring of its installation. The detailed drawings 200 to 204 indicate the level of detail anticipated, but it is proposed that the designers attend site on at least a weekly basis to monitor work and provide guidance where opening up of works indicates that variations to the design are required.

The proposals require minimal loss of the existing fabric, being mostly addition to inner layers or loss of clearly 20th C plasterboard finishes. On the second floor where the wall lining changes slightly, the cornice is minimal on the LH principle room and non-existent on the RH room, so there is no issue there. Rooms to the rear of the building all have modern cornices, and these will be changed as part of the proposals in part 4.

An added advantage of the proposed insulating work is that it will give an opportunity to install fire breaks between floors. At present there is a continuous gap between the ground floor and top floor behind panelling and other floor linings. Any fire starting on the lower floors will have an unobstructed passage to all other floors and will take hold easily. This work is therefore expected to provide a valuable benefit in protecting the building from catastrophic fire.

6 Proposals section 4: Minor Internal layout changes and changes to the external envelope

6.1 Removal of fire surrounds and inserts

It is proposed that the fireplaces and fire surrounds are replaced with historically appropriate ones. At this stage the applicants are not able to confirm exactly what will be proposed as replacements, so they request that if this is approved, that the exact specification are a reserved matter and dealt with on a room-by-room basis. In addition, it is proposed that the blocked-up fireplace thought to exist on the ground floor rear room is re-instated.

Justification

The historical assessment points to none of the fireplaces being original. In most cases they are not visually attractive. The installation of historically appropriate fireplaces and surrounds will greatly benefit the visual appearance of the principle rooms.

6.2 Repair and repainting of panelling on first floor room

It is proposed that the panelling on this room, which is currently bare wood, is repaired and painted. Repair work will involve replacement of the doors to some cupboards either side of the chimney breast which currently enclose radiators. Additionally, the existing timber shutters to the front of this room do not join together and it is proposed that these are restored to their original condition

Justification

The Historical assessment points to none of this panelling being truly original historic fabric. Although later than the original 1720 construction date, it is still classed as historic fabric. The proposals will restore this lining to a state closer to the condition when it was installed, and will remove some of the more modern alternations necessitated by central heating. The historical assessment indicates that the timber panelling would originally have been painted, which is a Justification for painting it.

6.3 Rooftop ventilation

It is proposed to install an openable glazed rooflight at the top of the stairwell. This is indicated on drawings 21 and33.

Justification

The proposal is to facilitate cooling in warmer months via the stack effect. It is a sustainable solution to an anticipated overheating issue. The rooflight will be flat, so will not be visible from any external point lower than the roof. The part of the building that it directly affects is the top floor, which is an addition to the original building and is completely separated from it by the fire door at the base of the top flight of stairs. The visual impact is therefore contained in the top of the house, but the cooling benefit will affect the whole building.

6.4 Remodelling the First floor bathroom

It is proposed that the existing built in shower enclosure is removed and that the inner lining of this room is lined as per section 3. An amended layout is proposed that also accommodates the moved WC, necessitated by the proposal to enclose its current position. See drawings 14 and 15. It is proposed to keep the existing floor boards if possible, as these have some merit.

Justification

It can be seen from inspection that none of the linings or fittings in this room are anything other than 20th Century additions; Figure 7 indicates this. The proposals provide a much better layout at no cost of damage to original historic fabric

Figure 7 First floor bathroom, showing WC alcove and built-in shower

6.5 New layout to the second floor rear bathroom and dressing room

It is proposed that the current dressing room is converted into a bathroom and that there are alterations to the internal stud wall. See drawings 16 and 17

Justification

The layout of these rooms, with a partly angled stud wall between, is clearly a 20th C intervention and not well resolved in plan. The proposed rooms have a more regular layout that facilitates a more functional and elegant layout. The only loss of historic fabric will be recent 20th C additions and the benefits to the layout outweigh this.

6.6 Door to the external terrace on the third floor

It is proposed that the existing small access door is replaced with a larger timber door with a glazed panel, allowing regular use of the terrace. A detailed proposal can be dealt with as a reserved matter.

Justification

The existing terrace is unused except for maintenance access. The applicants wish to make this into a small roof terrace adjoining the study on the top floor. The current door is too small for regular use and is a significant break in the external insulation. The new door will be practical and will give the study an aspect onto a small terrace which the applicants intend to enhance with planting in containers, creating a secluded green space.

6.7 Installation of a dumb waiter to connect the lower ground floor kitchen with the ground floor dining room above.

The applicants propose to remove the built-in joinery to the right of the ground floor dining room chimney breast and replace it with a new piece of joinery which will accommodate a dumb waiter. These proposals are outlined in drawings 100 and 101.

Justification

The kitchens are on the lower ground floor whilst the formal dining spaces are on the ground floor. Whilst originally there may not have been kitchens on the lower ground floor at all, for a long part of the building's existence they would have been sited there, and servants would have carried food between the floors. The new owners would like to maintain this established functional arrangement between the floors, addressing the servant issue by installing a dumb waiter between these floors.

The Drawings show that this can be installed with no damage to the plan from of the ground floor rooms or the kitchen below. There will potentially be some minor loss to the historic fabric of the floor structure, but the footprint of the dumb waiter is less than $0.5m^2$ so this will be minimal. The massing of the proposed installation is smaller than the current storage. On balance, it is felt that retention of the functional layout and the improvement to the design of the joinery enclosure will be an overall benefit.

6.8 Replacement of glazing to windows at the rear of the building

It is proposed that casement and sash windows to the rear of the building are fitted with double glazing without the current 20^{th} century translucent glass

Justification

Single glazed windows are a significant break in the insulation of a building. The windows to the front would be noticeably different were double glazed panels introduced, to the detriment of the appearance of the building. The windows to the back are in an informal jumble of sizes and positions and do not present a regular elevation demanding preservation. Frames will be retained and spacers between the double glazed panes will not be silver so that they are not as visually different as other windows. Where existing glazing bars prevent installation of double glazing, the single glazing will be retained. Overall, it is felt that here the benefits to sustainability justify the proposals.

6.9 Enlargement of the lower ground floor kitchen window

It is proposed that the existing kitchen window is replaced with a new, larger window to match the other windows at this level, and that the existing uPVC rainwater pipework is hidden beneath re-modelled concrete steps

Justification

This window is smaller than the other windows at this level to accommodate the external steps to the basement – see drawing 103 and figure 8 below. The result of this is that the kitchen is noticeably darker than the other lower ground floor rooms. It is proposed that the steps are remodelled so that the rainwater pipework can be hidden and that they do not touch the building to the current extent. Loss of the uPVC pipework will be a visual benefit to the external appearance, and modification of the

stairs will help to resolve a current water penetration issue at this point, as is evidenced by the Doulton ventilation tubes directly above the steps.

The loss of the existing window is not greatly significant as it appears to be from 20th century: the replacement would be made from hardwood and could conceivably be of higher quality than the present unit.

Although the main change is to the height of the base of the window, and therefore not visible except when viewed directly above the front area, this change clearly involves the loss of some historic material. The applicants hope that the benefits will outweigh this loss.

Figure 8 plastic rainwater pipe with Doulton tubes above

Figure 9 Elevation of steps from front area

7 Conclusion

This is a rare opportunity to work on a building where the owners' intentions towards restoring the historic fabric and sustainability are aligned.

The design team have sought to find a balanced approach to restoring this beautiful building and making improvements in the services to better prepare it for a sustainable future.

The proposals have almost no impact on the conservation area and there is minimal loss of historic fabric.

8 Access statement

The proposals are almost entirely internal, and have no impact on the accessibility of this listed building.

All relevant Building regulations regarding accessibility will be adhered to.

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