

Barton Engineers

Heritage Statement

Internal Structural and Roof Fabric Repairs, 27 Russell Square

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Introduction

This application for Listed Building Consent concerns the approval of proposed repairs to be carried out to an internal structural spine wall and the roof fabric of a house at 27 Russell Square. The internal structural wall has suffered severe movements as have the supported floors, and the repairs are required to ensure the structural safety of the building in the long term. The proposed works also include replacement of failed asphalt roof gutters with lead work, and also replacement of failed rooflights and access hatches with timber framed rooflights.

The property is Grade Two Listed.

Statement of Significance

Introduction

The internal walls that are in need of structural repair are within the upper two storeys of the central spine of a large terrace house, currently owned by Birkbeck, University of London, and that for much of the Twentieth Century was owned and occupied by the University of London. The upper storeys of the building have been much altered since they were originally constructed, and especially during the period of University of London occupation. It is thought that inappropriate alterations were the original cause of the damage, and it is proposed to insert new lightweight steel beams within the existing walls and floors, and that will be hidden within the existing finishes.

The owners of the building are also proposing to take the opportunity to carry out minor refurbishment and improvements to the roof fabric. These works comprise the replacement of asphalt guttering behind the front and rear parapet walls, as well as the central valley gutter, with new lead work guttering. It is also proposed to replace four failed 1950s rooflights with new, less intrusive timber framed rooflights.

Historical Background

The development of Bloomsbury started in 1661 with the laying out of a residential square, later known as Bloomsbury Square, by the Earl of Southampton, to the south of his house, that had begun before the Restoration. To the west of this square the Duke of Montague erected his own house in 1675-9, known as Montague House, and later the site of the British Museum, and by 1720 Great Russell Street had developed, running east/west between the two sites, with the grounds to the north of these two great houses remaining undeveloped open country until the late 18th Century.

The Southampton Estate passed by marriage to the Russell family, the Dukes of Bedford, and then in 1775-80 Bedford Square was developed, along with Gower Street further north. Then, in 1800, Southampton House was demolished and the fifth Duke of Bedford's builder, James Burton, laid out Russell Square, Bedford Place. Other developments followed, as laid out by Thomas Cubitt, with the area as far north as Euston Road being filled out by terraces and further squares throughout the period from 1800 to 1850.

The area retained much of the original character until the 1930s when, as Pevsner describes it:...

...when University College became a menace to old Bloomsbury. The scale of the buildings grew; they overpowered and occasionally entirely destroyed the squares. Around the new intellectual centres a welter of university institutions, student's clubs and small hotels took

possession of what were once private houses. After 1950 yet more were destroyed. Still more was threatened, but the decision to build the new British Library at St Pancras relieved the area south of Great Russell Street, which benefitted from rehabilitation in the 1980s.

The landscape of Russell Square itself was laid out by Repton with a series of horseshoe paths and a central garden building, and was at the time the largest square in London. The streets of Montague Street and Bedford Place were the first to be developed in 1802-11 by James Burton. The terraces surrounding all sides of the square then followed, although only those to the north end of the west side, including 27 Russell Square, remain in their original state.

The property at 27 Russell Square was constructed by Jame Burton in 1814.

Description

The property comprises a mid terrace five storey house, including a lower ground floor storey. The front facade of the building is generally of London Stock Brick construction with gauged brick flat arches over the windows. A cornice of render or stone extends across the full width of the facade at third floor window cill level, and the upper and lower ground storeys are rendered. A semicircular arch forms a fanlight over the main entrance door and ornate columns and a lintel are set over the entrance door. A continuous stone balcony structure cantilevers from beneath the first floor windows, and extends across most of the width of the house. Iron railings guard the lower ground lightwell, and a lamp holder is set to the south of the front door steps. This iron lamp holder is mentioned in the listing notes, and is clearly of heritage significance.

The interior of the property is much altered, although the upper ground and first floor storeys probably retain the original room layout, and the original stone staircase is still in place between upper ground and second floors, although steel framing repairs have been installed beneath the flights and landings.

The roof profile comprises slate clad pitched roofs, with ridge lines running parallel to the front facade, and hidden behind low parapet walls at front and rear. There is a central valley that can be accessed via a step over the party wall with 28 Russell Square to the south. The party walls extend upwards on both sides of the house to form long chimney stacks with ornate clay pots, that are probably original, although the faces of both chimney breasts have been rendered with a cement mortar that is in poor condition. Also in poor condition are the asphalt lined valley gutters at front, rear, and centre of the roof.

Inserted during the 1950s or 1960s are a number of steel framed Georgian wired glass rooflights. These have now failed and are in need of replacement, as is also a timber clad access door shed inserted into the roof.



Image 1, View of Front Facade.



Image 3, View of Roof.

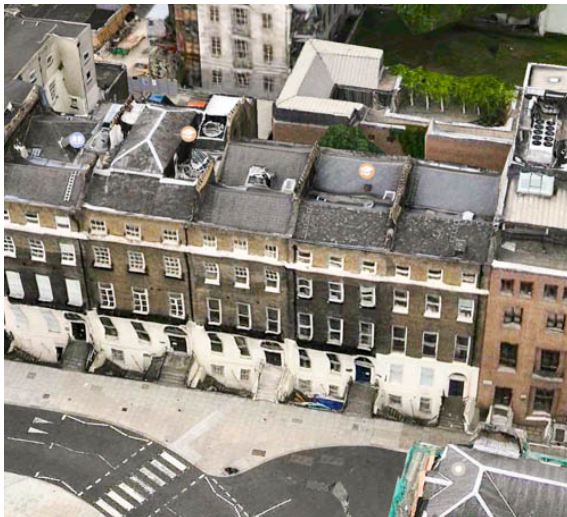


Image 2, View of Terrace.



Image 4, View of Chimney Stacks.

Significance

The building is Grade Two Listed, and the listing notes state;

Terrace of 5 houses. c1814. By James Burton. Multi-coloured stock brick with rusticated stucco ground floors. Round-arched doorways; Nos 25 and 26 with pilaster-jambes, Nos 27-29 with fluted Doric half columns; fanlights and double panelled doors. Gauged brick flat arches to recessed sash windows, some with original glazing bars and No. 28 with 1st floor casements.

10th October 2016

Continuous cast-iron balconies to 1st floor windows except No.25 with window guards. Stucco cornice at 3rd floor sill level. Parapets above attic storey.

INTERIORS: not inspected.

SUBSIDIARY FEATURES: attached cast-iron railings with urn finials to areas, No.27 with lamp-holder.

The listing notes refer only to the front facades of the terrace and, specifically, to the semicircular arched doorways, gauged brick window lintels, recessed sash windows, the continuous stone and ironwork balconies, and the rusticated stucco render to the ground floor storeys. Specific mention is also made to the fluted Doric half columns adjacent to the front door and also the cast iron railings and lamp-holder outside number 27 Russell Square.

It is clear from the listing description that the heritage significance of the property is largely due to the facade, its relationship to the terrace, and its position at the north west corner of Russell Square.

The interior of the property has been much altered since its original construction, although the original stone cantilever staircase is still in place from upper ground to second floor level. However, this stair has suffered significant deformations and has been fully propped by a late Twentieth Century steel support structure comprising steel rolled section stringers, all set beneath the original stone structure.

It seems clear from an assessment of the building, and the Listing Statement, that the heritage significance of the property at 27 Russell Square can be defined by the following;

1. The building forms part of the terrace of five houses, with similar and symmetrically arranged features.
2. These buildings are the last remaining original houses within Russell Square, constructed as one of the earliest phases of development within the Bloomsbury area, and are without alteration to their front facades.
3. The front facade, as part of the group of houses forming the terrace, is of considerable significance, as are the features that define that facade. Specifically, the window arrangement and detailing, the stone balcony, and the render and the detailing of that render.
4. Specific subsidiary features mentioned within the listing statement have considerable significance; the cast iron railings with urn finials, and also the cast iron lamp holder.
5. The stone staircase and its balustrading, despite the inappropriate steel supporting structure added during the 1960s also has some significance.
6. The room layout at upper ground and first floor, and the relationship of these rooms to the staircase is likely to be that of the original with some significance, although with that significance reduced by the intrusive insertion of

doors through party walls on both the north and south sides of the house.

7. The roof profiles, together with the chimney stack masonry and chimney pots, are likely to be original, and to have some significance, although this area has been damaged by inappropriate use of steel framed rooflights, asphalt gutter lining, and cement render to the chimney stacks. It is probable that the roof slates have been replaced more than once during the life of the building, although the current slates appear in good condition and in sympathy with the original form and fabric.

8. The chimney pots themselves are decorative in character, and are likely to be original, and therefore considered to have considerable significance.

The upper storeys of the building have been much altered since the original construction. It is likely that these alterations took place at the ending of the original ninety nine year lease period (in 1910-1913). The style of the glass lay light screen wall behind the original front door, suggests that it is an early Twentieth Century addition. Further alterations were likely to have been carried out later in the Twentieth Century during occupation by the University of London. An archeological study has been made into the upper floor structures (Archeology South East, July 2016), which suggests that the second floor structure is a replacement of the original Georgian floor. It is therefore considered likely that none of the internal room layouts or fabric within the internal floors and walls of the upper storeys where repair works are proposed is original and therefore none of these elements have any significance.

Damage and Approach to Repairs

Damage and Causes

The damage to the internal structure of the upper floors comprises settlements within the third and second floors, and severe deformation of internal walls, also within the third and second floor storeys. A full explanation of the investigations is provided in our structural survey (Barton Engineers, February 2016), although the causes of this damage can be summarised as inappropriate removal of internal structural walls, allowing the roof and upper floors to span clear between party walls, which they were not structurally adequate to do. Also the new second floor was constructed spanning onto the central spine wall that had no structure capable of spanning over the ground floor rooms, and so was supported effectively by floor boards and timber blocking members that eventually failed.

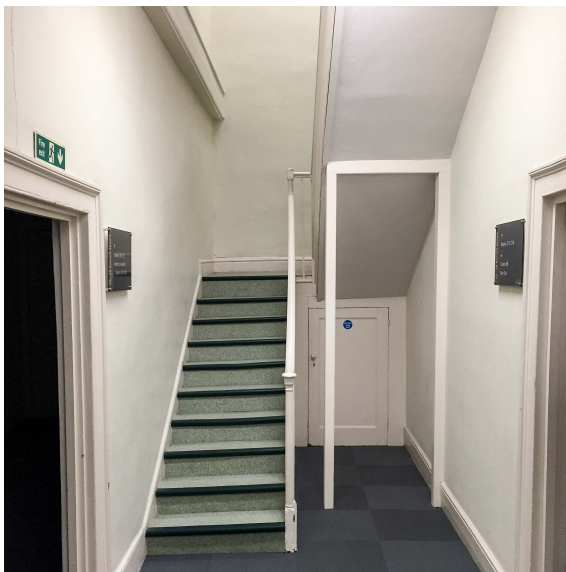


Image 5, View Internal Staircase between Third and Second.



Image 6, View of Failed Blocking Member Within First Floor.

The damage to the roof elements has resulted from short lived and inappropriate materials being used. Specifically a cement render on the chimney breast masonry, and asphalt lining to the gutters.

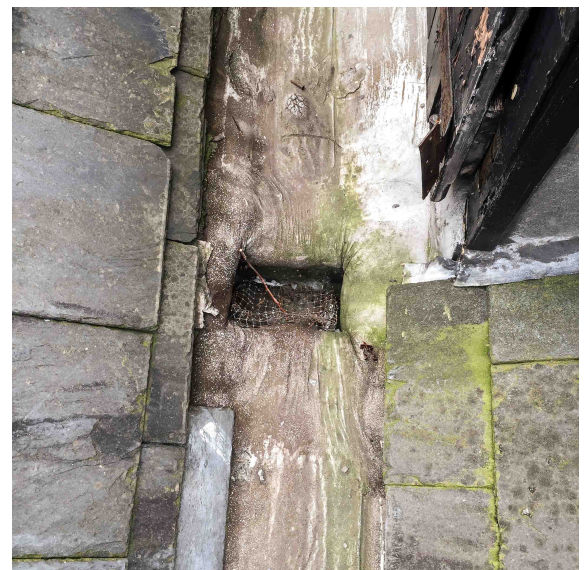


Image 7, View Central Valley Gutter.



Image 8, View Cement Render to Chimney Breast.

been much larger and would have resulted in obtrusive downstands and 'bulkheads' being introduced within the interior rooms and corridors, and so further reducing the significance of the already much altered interior spaces. All of the existing wall fabric in areas to be repaired is contemporary plasterboard construction, often on modern replaced timber studwork framing, and so it is proposed to use plasterboard finishes in all areas of repair.

This report has been prepared and written by Bob Barton (BSc Hons CEng FStructE FICE FConsE GradDiplBldgCons AA), Director of Barton Engineers Ltd.

Approach to Repairs

The proposed repairs are set out in detail on Barton Engineers drawings that accompany this Listed Building Consent Application.

The approach used to the proposed repairs to roof fabric has been to replace the inappropriate materials with more appropriate materials that should allow the structure of the building to behave as intended, and to also provide a much longer design life that is more in keeping with the age of the building and the expected further life of the fabric. Specifically, lead is proposed as the material for the guttering, which should have a design life in excess of 100 years. The lime render proposed as a replacement for the cement mortar to the chimney breasts should also provide a long design life, but just as importantly, should allow the underlying brickwork to become more dimensionally stable by providing reasonable weathering protection and allow drying out through a semipermeable render.

The replacement of the existing steel box rooflight projections with flush finished timber framed higher performing rooflights will provide a less obtrusive solution to roof access and daylighting the upper floors, and should enhance the appearance and significance of the roofscape of the property.

The structural repairs will comprise the insertion of structural support to the upper floors where no effective structure exists at present. The proposed new structure comprises lightweight steel sections inserted within already much modified timber structures, and will be invisible once repairs have been carried out to the wall and floor finishes. The use of an alternative timber framing system was considered; however, the section sizes required would have

References

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No. 25-29 Russell Square and Attached Railings and
Lamp Holder, 1969, Listing Notes - Historic
England, 1246377

Barton Engineers, February 2016, Structural Survey
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Archaeology South-East, July 2016, Assessment of
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