RUSSELL HOTEL
EXTERNAL FAÇADE
CONDITION SURVEY
COVERING;

RUSSELL SQUARE
BERNARD STREET
GUILFORD STREET

Report prepared by
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INDEX

1 SUMMARY

1.1 The three elevations are in a reasonable condition given the age of the building. There have been previous repairs and cleaning of the building over the years.

1.2 The front elevation appears to have been robustly and possibly unsuitably cleaned and this looks to have damaged the protective *Fire Skin* surface. The result is a slightly lighter tone to the front elevation terracotta.

1.3 No obvious structural issues were identified.

1.4 There are many decayed, damaged, broken, cracked and chipped terracotta pieces. These have been identified in the report, annotated on to the attached layout drawings and listed on the attached defects spread sheet. Specific items identified in this report for remedial work should be repaired/replaced in accordance with the relevant specifications.

2 BRIEF

2.1 We were instructed by EPR Architects and Tower 8 to carry out a visual condition survey on the external façade using binoculars.
2.2 Relevant defects are to be identified and annotated on the elevation layout drawings.
2.3 We are to produce a photographic report on the findings.
2.4 A spread sheet of defects is to be produce to identify costs associated with potential repair, restoration or replacement of the terracotta.
2.5 Repair specifications are to be produced.
2.6 A cleaning specification is to be produced.
2.7 The central lightwell was also viewed but no close inspection is required. A general note on the condition will be noted.

3 DESCRIPTION

3.1 Constructed in 1898 and designed by Charles Fitzroy Doll, the building is a terracotta and masonry construction incorporation steel and cast iron structural members. The terracotta and brickwork façade is to three elevations:- Russell Square, Guildford Street & Bernard Street. The forth elevation to Herbrand Street is predominately brickwork.

3.2 The Russell Hotel is a Grade 11 listed building.

Russell Square Elevation

3.3 We understand that the building underwent significant renovation in the 1980's. There are many old "stitch" repairs to the terracotta façade. It is noticeable that the Russell Square elevation has been cleaned in isolation to the other three elevations. It is a little lighter and the finish surface has altered in many areas. This clean to the front elevation has caused some surface damage to the terracotta. The protective surface *Fire Skin* in many areas has been removed (probably by unsuitable abrasion cleaning). Overall however the front façade is in a good condition given the age of the building.

3.4 No obvious structural issues were identified.

3.5 The following facade issues were identified (See accompanying façade condition spread sheet) ;

Poor repairs
Chips
Sockets & Socket holes
Cracks
Open joints (missing mortar)
Cracked joints
Surface damage
Marks and stains
Plugs and small holes in the façade
Poor replacement terracotta features
1st floor balcony soffits damaged

3.6 The elevation would benefit from a sympathetic clean.

3.7 The two side elevations, Bernard Street and Guildford Street were generally dirtier.

Bernard Street Elevation

3.8 Unlike the Russell Square elevation this façade has not been cleaned for some time or had been cleaned using a different method or non-abrasion cleaned. Whilst the elevation is dirty, marked, stained and has some facade issues, generally it is in a good condition for the age of the building.

3.9 The following facade issues were identified (See accompanying façade condition spread sheet) ;

Poor repairs
Chips
Sockets & Socket holes
Cracks
Open joints (missing mortar)
Cracked joints
Surface damage
Marks and stains
1st floor balcony soffits damaged
Algae

3.10

Guildford Street Elevation

Generally the issues are the same as Bernard Street elevation

3.11 The rear elevation to Herbrand Street is mainly brickwork. The lower areas are particularly dirty, stained and marked. The sloping and horizontal surfaces are heavily marked and covered in algae.

3.12 It is understood that in the late 1990's some infill works were carried out. This is clearly identifiable in the new and lighter brickwork section of the wall.

Herbrand Elevation

3.13 There are a few movement cracks around three windows, many holes and water stain marks from leaking pipework.

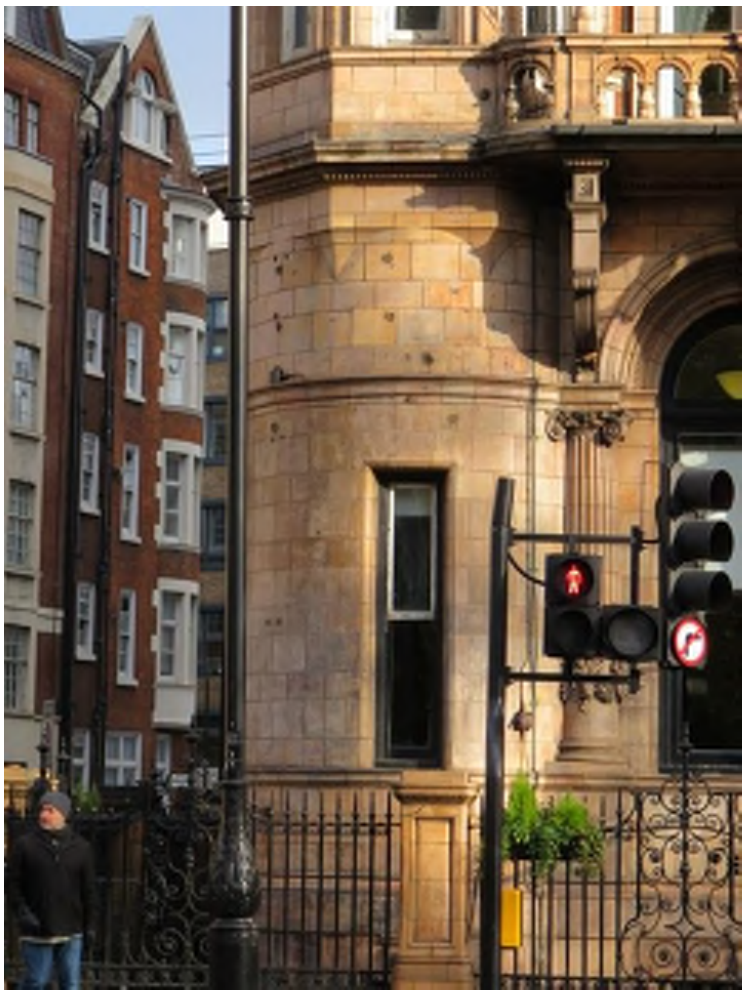
4 **DISCUSSION**

4.1 All relevant issues and defects we annotated onto the four layout drawings. This report is to be read in conjunction with the four annotate layout drawings. The issues and defects are also noted on the accompanying Defects & Repair Schedule spread sheet. As required by the project the area of issues and defects has been put into two categories;

A-Façade clean & general restoration
B-Essential restoration only

4.2 RUSSELL SQUARE ELEVATION-See in conjunction with attached annotated drawing C5181-A0-1001

P1



Cement spots or poor previous repairs, holes & scaffold sockets and scaffold socket holes, all occur to this corner area. All holes should be filled to prevent the ingress of water. Aesthetically this area could be improved.

4.3 **P2**

There has been some previous stitch repairs to the terracotta roof. The surface of an area has broken down and is failing. This will allow water into the building. It is possible that small pieces of terracotta could fall from this damaged area creating a risk to health and safety. It is recommended that this terracotta is repaired.

4.4 **P3**

Water from above seeping through to stain the soffit. The clean should remove the

water stain mark but investigation should be carried out to determine the condition of the water protection on the balcony.

4.5 **P4**

This light cement stain is probably an attempt to repair surface damage to the terracotta. This will need to be removed. A more aggressive cleaning regime is likely to be applied and the surface of the terracotta more sympathetically repaired to match the surrounding colour.

4.6 **P5**

The crack to the balcony edge is significant and should be repaired.

4.7 **P6**

The “8” of the 1898 is damaged. This can be repaired if required by the client, although its location is category “B”.

4.8 **P7**

This area of the terracotta has failed and must be replaced.

4.9 **P8**

This is a poor repiar which is starting to fail. This should be cut out and repaired.

4.10 **P9**

There has been some previous stitch repairs to the terracotta roof. The surface of an area has broken down and is failing. This will allow water into the building. It is possible that small pieces of terracotta could fall from this damaged area creating a risk to health and safety. It is recommended that this terracotta is repaired.

4.11 **P10**

A very poor previous repair. The terracotta is clearly showing signs of damage and is cracking. It is recommended that this terracotta piece is repaired or replaced.

4.12 **P11**

The soffit render is failing and is badly stained and cracked. This will need to be removed and replaced. It is very likely that all of the soffit balcony areas are damaged and all should be closely inspected.

4.13 **P12**

The soffit has been extensively repaired. A close inspection of all of the soffit areas should be carried out.

4.14 **P13**

This terracotta support feature has been replaced with a poor imitation of the original support. Aesthetically it is out of place with the façade. This could be carefully removed and a new support installed to match the original detail.

4.15 **P14**

Several hole and nylon plugs in the façade. As they are new an exist they can be repaired.

4.16 **P15**

Surface damage. Can be repaired or left as character of the building.

4.17 P16

Significant cracks and failure of the terracotta here. Further failure is likely to occur. We recommend that the terracotta is cut out and replaced.

4.18 **P17**

Old and corroding scaffold sockets. These are at ground level. They can be removed and the holes repaired. These are typical of the 39No. identified on this elevation (some of this number includes holes left by previously removed sockets).

4.19 **P18**

An old corroded socket has badly cracked the terracotta. Water ingress will further damage the façade. This piece should be cut out and replaced.

4.20 **P19**

A previous very poor repair. This should be cut out and a new sympathetic repair made.

4.21 **P20**

This chip is to the main entrance balustrade and part of an old repair still remains. The old repair can be cut out and a new repair made.

4.22 **P21**

The left front façade to the main entrance has been extensively repaired. These can be improved by installing new terracotta or left as an historic feature of the building.

4.23 **P22**

The right front façade to the main entrance has been extensively repaired. These can be improved by installing new terracotta or left as an historic feature of the building.

4.24 **P23**

An old corroded scaffold socket has badly cracked the terracotta. Water ingress will further damage the façade. This piece could be cut out and replaced or the socket removed and the terracotta repaired.

4.25 **P24**

Typical of surface damage to the terracotta façade. Generally this can remain as the historic character of the building. However it is also evidence of the lack of the protective *fire skin* (removed during pervious aggressive cleaning and erosion over time). All surface damage should be monitored to ensure full surface decay is not occurring. Once cracked or decayed, the ingress of water will quickly exacerbate the failure and pieces of terracotta may fall causing a risk to health and safety.

4.26 Generally there are cosmetic issues to the lower lightwell areas. It should be noted that we did not have access to the lower lightwell and only observations from street level were possible.

4.27 Minor chips and blemishes are not covered by this report and not annotated of the attached layout drawings.

4.28 All of the soffits to the balcony areas appear to be rendered. This render in areas is failing (see P11 & P12). Once cleaned they should be closely inspected to determine if they require repairing or replacing.

4.29 Not all open, mortar missing and cracked joints are identified on the layout drawing. Once cleaned the jointing can be reviewed and joints repaired as agreed with the design team.

4.30 GUILDFORD STREET ELEVATION (See in conjunction with attached annotated drawing C5181-A0-1002)

4.31 **P25**

Some surface decay, although not server. This could be monitored. Foliage is growing out of some damaged joints. This will attract and hold water, which will cause further damage. All foliage should be removed and the joints cleaned or repaired.

4.32 **P26**

Surface damage to the brickwork. These three bricks should be repaired.

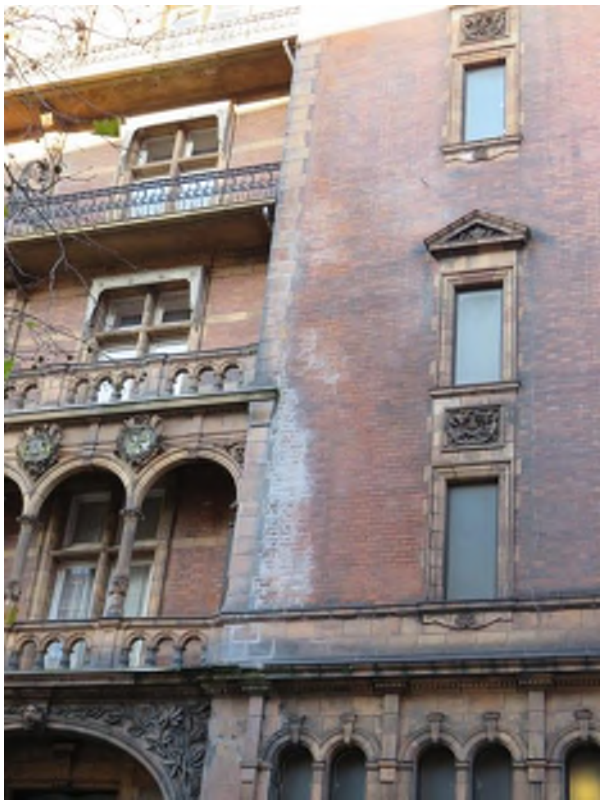
4.33 **P27**

After cleaning it is likely that some of the joints will be open and in need of repair. All moss and other growth should be removed.

4.34 **P28**

There is significant water staining to the brickwork and terracotta in this area and both are being damaged.

P29



The water is still continuing to leak from a broken pipe or gutter at a higher level. This water leak should be stopped at the earliest opportunity. The area will require concentrated cleaning and may require special attention. Repairs to joints and surface are likely and should be reviewed after cleaning.

4.35 **P30**

Terracotta corroded & missing, joints open and damaged, white stains and algae all due to water leakage.

4.36 **P31**

Cracks in the terracotta faience. These could be repaired.

4.37 **P32**

Concentrated algae growth, where water has been directed and contained by obstructions on the cornice. This should be cleaned and any obstruction removed.

4.38 **P33**

There is a very large space between two balustrade copings. Some movement or displacement has occurred. The coping should be reset and the joint repaired.

4.39 **P34**

This is a typical detail of damage (albeit the worst case) caused by the metal railing retaining steel tie. The terracotta should be repaired.

4.40 **P35**

Historic water stain marks. No obvious damage appears on the terracotta. Clean the areas and review the condition. There may be the need for concentrated cleaning in this area.

4.41 **P36**

Sever damage to the terracotta cornice caused by water leakage over a long period of time. Once cleaned it is suggested that this whole area is replaced and restored.

4.42 **P37**

Really poor repair to the side entrance balustrade. This can be significantly improved by cutting out the unsightly mortar and repairing using suitably coloured mortar.

4.43 **P38**

Poorly repaired balustrade and broken cap. Replace poor mortar and repair broken terracotta corner cap.

4.44 Generally there are cosmetic issues to the lower lightwell areas. It should be noted that we did not have access to the lower lightwell and only observations from street level were possible

4.45 Minor chips and blemishes are not covered by this report and not annotated of the attached layout drawings.

4.46 Not all open, mortar missing and cracked joints are identified on the layout drawing. Once cleaned the jointing can be reviewed and joints repaired as agreed with the design team.

4.47 This elevation was much dirtier than the front elevation and has not been cleaned or attend for some time. Only two scaffold holes or sockets were observed on this elevation.

4.48 There is significant algae/moss growth on the 1st floor balcony area.

4.49 <u>BERNARD STREET ELEVATION (see in conjunction with annotated drawing C5181-1003)</u>

4.50 **P39**

There is a lot of damage to the terracotta which appears unstable. This area should be dismantled and new terracotta installed. It may be prudent to stop the new terracotta short of the pipes as this will smarten the detail plus will be far simpler to install.

4.51 **P40**

There has been some moment here in the past. The joints should be repaired and we may need to pin the terracotta. A close inspection is recommended.

4.52 **P41**

These joints are damaged and in need or repair. The black markings may need some special attention in order to remove them.

4.53 **P42 & P43**

This terracotta piece is terminally damaged and should be replaced as it represents a risk to health and safety.

4.54 **P44**

There is a lot of damage to the terracotta all along the edge of the 1st floor balcony on this elevation. After cleaning a close inspection of the areas is recommended. All loose and damaged terracotta should be replaced, repaired or restored.

4.55 **P45**

More damage along the 1st floor balcony. There is a potential for the terracotta to fall which is a risk to health and safety. After cleaning a close inspection of the areas is recommended. All loose and damaged terracotta should be replaced, repaired or restored.

4.56 **P46**

The front edge is cracked along the 1st floor balcony. This must be repaired

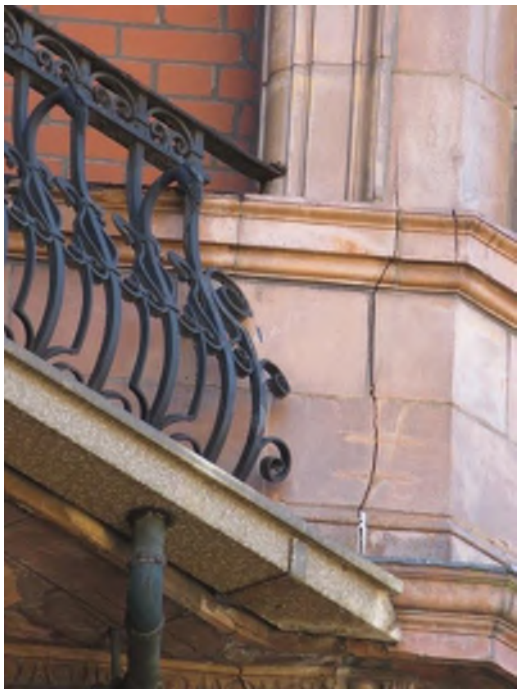
4.57 **P47**

There is damage to the terracotta roof piece which is likely to allow the ingress of water. This should be repaired or replaced.

4.58 **P48**

There is a significant crack in the terracotta. This should be repaired to prevent the ingress of water. The cracks above the top corner head area should be further investigated. Repairs are likely here.

4.59 **P49**



There is a significant crack in the terracotta. This should be repaired to prevent the ingress of water

4.60 **P50**

A large chip missing from the base of the column. Piece-in a new repair.

4.61 **P51**

This is a typical detail of damage caused by the metal railing retaining steel tie. The terracotta should be repaired.

4.62 This elevation appears to have been cleaned at some time (probably at the same time as the front elevation), but only up to the 1st floor level.

4.63 Generally there are cosmetic issues to the lower lightwell areas. It should be noted that we did not have access to the lower lightwell and only observations from street level were possible.

4.64 Minor chips and blemishes are not covered by this report and not annotated on the attached layout drawings.

Not all open, mortar missing and cracked joints are identified on the layout drawing. Once cleaned the jointing can be reviewed and joints repaired as agreed with the design team.

5 CONCLUSION

5.1 Overall the three elevations are in a reasonably good condition given the age of the building. The *Fire Skin* (a hard thin vitreous unglazed skin formed of a surface concentration of fine colloidal clay particles), which forms a protective surface on the terracotta, has been widely damaged or removed on the Russell Square elevation due to previous robust or unsuitable cleaning.

The result is a slightly lighter tone to the Russell Square elevation.

5.2 The three elevations require a thorough but sympathetic clean. The cleaning process may reveal additional issues that require remedial action. Following the clean it is suggested that the elevations are reviewed to determine if additional restoration work is required. This is most likely to be to be issues such as open and damage joints.

It is important that the joints are in a reasonable condition in order to prevent the ingress of water and to provide a durable and long lasting façade.

Cleaning is to be carried out in accordance with the attached specifications, BS8221-1:2000 and to specific method statements to be prepared by the appointed specialist terracotta cleaning company.

5.3 The identified items specifically noted for remedial work should be carried out. This is to protect the building from further damage and to prevent potential failures in the future which could be a risk to health and safety. See with the attached spread sheet of defects.

Repairs are to be carried out in accordance with the attached specifications, BS8221-2:2000 and to specific method statements to be prepared by the appointed specialist terracotta restorer.

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C5181
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