MINOR WORKS: Repair Works & Light Touch Alterations to 39 Russell Square and the Science Block for SWEC Programme Enabling Works

BRIEF & OUTLINE SCHEDULE OF WORKS AND SPECIFICATION

Please note this document is to be read in conjunction with drawings and Design & Access Statement issued, as listed in the Drawing Issue Sheet *WW British Museum 39RS & SB Drawing Issue Sheet.*

I PROJECT BRIEF

This document describes the project brief and Outline Schedule of Works & Specification of the likely demolitions, repairs, and new works that are required to put the exterior and interior of the buildings in good order to secure a habitable condition and preserve building fabric for the coming 5 years for 39 Russell Square (RS) and Science Block (SB). The scope of much of the works is reliant on the completion of opening up investigative surveys yet to be completed at the time of writing and further inspection of the condition of existing fabric that it is currently not safe to access (these are predominantly located at roof level), which locations and methodologies are to be agreed with the local authority.

The brief for the project is to provide the following accommodation on a temporary basis:

Science Block Proposed Accommodations:

- LGF: Welfare, comprised of lockers, showers, and WCs
- GF: Carpentry and Locksmiths workshops and an office

39 Russell Square Proposed Accommodations:

- Basement: Welfare, comprised of a kitchen, mess & WCs, storage areas, including conditioned stores accommodating the photographic negatives archive and plant
- Ground Floor: Office space, associated WCs, and storage areas
- First to Fifth Floors: Offices (Occupancy 1:6), project spaces and mess facilities (including Kitchenettes)

General notes regarding this document:

- This document is to be read in conjunction with Design & Access Statement and other documents and drawings submitted
- The requirements in terms of security are to meet the requirements set out in the British Museum's CDM Security Standards document
- Stace is the appointed Principal Designer for the project

II BACKGROUND INFORMATION

Two on-site inspections carried out on 6th October 2022 and on 16th February 2023 enabled the record of dilapidations to a number of isolated areas throughout the property which seem to have increased between the two visits. These indicated that there have been issues with the west terrace and East parapet gutter/roofing waterproofing and/or rainwater goods. Water ingress was identified to the south eastern corner of the property on the 5th, 4th, 3rd and 1st levels where new services were installed in existing risers in 2017. Decayed brickwork is visible at the same location on the historic main elevation overlooking Russell Square, as well as isolated areas to the main terrace West elevation and parapet upstands and to the elevations and exposed structure of the Science Block. A set of existing drawings with dilapidations and photographic record has been provided recording the dilapidations observed.

At the time of writing, approvals for undertaking investigative opening up works to areas that are safe to access has been approved by LB Camden via exchange of letters and undertaken on site. Further investigative works will need to take place once safe access is provided to previously inaccessible areas, which is intended to only occur during the main works.

III GENERAL SCOPE AND CLASSIFICATION OF PRIORITIES

The Museum wishes to undertake remedial works to repair existing dilapidations and prevent further damage to the fabric of the listed building as well as carry out light-touch alterations such as the installation of kitchenettes in 39RS (connecting to capped services installed in the 2017 works) to make the accommodation suitable for use as office and project space accommodation and associated storage and welfare. Works generally have been kept to a minimum as the building was recently refurbished in 2017, with new flooring provided only to areas such as Mess spaces to ensure ease of cleaning and maintenance. Lightweight stud partitions and doors are provided in a few locations to improve security and division of functions. Throughout, existing lockers, desking, chairs and filing furniture that currently exists elsewhere on the estate is assumed as being decanted into the proposed spaces, with existing power and data services being utilised. There are some minor works associated with services to the newly proposed kitchenettes, but these have been located in areas of capped services delivered as part of the 2017 works. Some BWIC is required to alter and provide new mechanical servicing to conditioned stores located on Level 01 and a plant room on Level 02, which can be referred to in the submitted proposed drawings for further information.

Comparatively to the main terrace block, the Science Block annex is currently in a state of vacancy and disrepair. The Museum wishes to undertake remedial works to repair existing dilapidations and prevent further damage to the fabric of the listed building as well as carry out light-touch alterations in order to support workshop accommodation on the upper level and changing, showers, and WC facilities on the lower level. The scope of works, in addition to repairs, essentially involves the strip out of all existing half height stud partitions, fittings, fixtures and services leaving the main physical fabric/structure of the building untouched. New showers, WCs and internal partitions will be installed at the lower level, partly on a raised floor to accommodate drainage runs to existing underground drainage run under the building. As this area is below ground level, an allowance has been made to provide tanking water proofing to improve internal conditions and resistance to water ingress. Finishes proposed are hard wearing vinyl and tiling suitable for use in wet areas. Some BWIC will be required to service mechanical ventilation for the workshops and changing/WC/Shower areas. It is intended to use existing elevation fenestration where possible, which will need to be inspected following strip out of existing services, however some new BWIC is required to achieve required intake/exhaust, as illustrated in the submitted proposed drawings for further information.

The structural layouts of both buildings will predominantly remain unchanged, and external elevations repaired only where necessary and on a like-for-like basis. At roof level, new or overclad waterproofing has been allowed to areas suspected of leading to water ingress/damp or where the existing finishes have been observed to be damaged or degraded. As part of roof works, associated flashings will need to be replaced on a like-for-like basis. There may be further repair works required associated with areas at roof level that have not yet been able to be safely accessed and inspected. Other alterations include the creation of an opening at ground floor (Level 02) and basement (Level 01) levels to connect the Science Block to 39RS and the replacement of the terrace decayed timber decking with new anti-slip paving. New principal single leaf entrance doors with swipe card access are also to be provided to the Science block at levels 01 and 02.

The project brief is to carry out repair works categorised as priority 1 & 2 in the below table in order that it is suitable for temporary occupation (5 years). Priority 6 items are also be carried out to internal areas to remediate dilapidations observed. This will mostly involve redecoration of areas of damp or cracked plaster, peeling paint, and the like.

Section V Appendix at the end of this document outlines additional lower priority items, priorities 3 & 4, that are based on general cleaning, maintenance and like-for-like repairs, for which approval is also sought and might have some benefit to the building's longevity.

Priority	Criteria
1	Essential repairs which should be carried out urgently to prevent risks to health and safety
2	Essential repairs which should be carried out to prevent ongoing accelerated decay or significant loss of architectural fabric AND; Essential works required to enable the building to be temporarily occupied for the proposed function
3	Desirable repairs which should be carried out within 10 years to prevent decay and loss AND; Desirable works required to be leased commercially and permanently occupied
4	Major elements of work where replacement is expected within 10 to 20 years
5	Desirable repairs to reinstate missing or heavily decayed architectural detail
6	Cosmetic defects that do not adversely affect durability

IV OUTLINE SCHEDULE OF WORKS & SPECIFICATION

DEMOLITIONS

1.0 DECONSTRUCTION/DEMOLITION AND PROTECTION – PRIORITY 2

Subject to retention requirements specified elsewhere, deconstruct/demolish structures down to as shown on Architect's and Structural Engineer's demolitions drawings in accordance with BS 6187.

Overview of works:

- Refer to WW demolition drawings from 1077J-WW-RS-01-DR-A-1510 to 1077J-WW-RS-01-DR-A-1712
- Refer to R&D Survey for extent of known asbestos. To be removed by contractor licensed by the Health and Safety Executive, and prior to other works starting in these locations. Give notice immediately of discovery of suspected asbestos containing materials when discovered during deconstruction/demolition work. Avoid distributing such materials. Submit statutory risk assessments and details of proposed methods for safe removal
- Locate and mark positions of service runs affected by demolition
- Temporarily protect all points of likely water or abrasive ingress with water proof masking tape. Mask all glazing and other susceptible surfaces and finishes, such as doors, windows and all metal decorative features with heavy duty polythene and water proof masking tape

STRUCTURES

Structural repairs to be confirmed following opening up works and structural engineers design information development.

2.0 MASONRY REPAIRS

2.1 BRICKWORK Repairs and Repointing to Eastern Elevation (39RS) – PRIORITY 2

Location: East Elevation at high level at Level 05, and 04. Refer to Proposed East Elevation.

Note: Scoped areas of eastern elevation to be inspected from the roof by architect before work is agreed and carried out. Work will be limited to repointing and the replacement of like-for-like individual bricks or small areas of brickwork, where bricks have been damaged due to prolonged exposure to damp. Prolonged water damage (likely a result of a blocked downpipes) has saturated the brickwork which appears to have led to decay of the brickwork and mortar and internal decoration.

Proposed schedule of works:

- Works should follow best practice guidance published by Historic England in *Repointing Brick and Stone Walls (2017)*
- Inspect, assess and record extent of decay to existing brickwork and mortar and agree extent of repairs to be undertaken. Replacement of bricks should be kept to a minimum and mortar re-pointed only where it is evident the existing joint has weathered to the extent that the bricks are vulnerable to damage, or that water can penetrate, or that support is inadequate.
- Carefully remove decayed bricks and rake out mortar to min depth of 25mm and prepare joint for new mortar.
- Rebuild utilising salvaged London stock bricks where possible, and reclaimed counterparts to match the existing in every respect (where practicable) laid to bond.
- Repoint with a suitable lime mortar mix to match exiting pointing adjacent.
- As this is the front elevation of historic significance of the building and to avoid any patchy appearance on completion allow for replacement mortar and bricks to be tinted to match adjoining areas. After the first set a weathered appearance is to be given to the mortar by finishing via hitting with a bristle churn brush. Benchmarking and sampling on site will be required.

2.2 BRICKWORK Repairs to Western Elevation (39RS) – PRIORITY 2

Location: West Elevation at low level at Level 02. Refer to Proposed West Elevation.

Note: The brickwork at low level where a historic opening has been bricked up appears waterlogged.

Proposed schedule of works:

- Works should follow best practice guidance published by Historic England in *Repointing Brick and Stone Walls (2017)*
- Inspect, assess and record extent of decay to existing brickwork and mortar and agree extent of repairs to be undertaken. Replacement of bricks should be kept to a minimum and mortar re-pointed only where it is evident the existing joint has weathered to the extent that the bricks are vulnerable to damage, or that water can penetrate, or that support is inadequate.
- Carefully remove decayed bricks and rake out mortar to min depth of 25mm and prepare joint for new mortar.
- Rebuild utilising salvaged London stock bricks where possible, and reclaimed counterparts to match the existing in every respect (where practicable) laid to bond.
- Repoint with a suitable lime mortar mix to match exiting pointing adjacent.
- As this is the front elevation of historic significance of the building and to avoid any patchy appearance on completion allow for replacement mortar and bricks will be tinted to match adjoining areas. After the first set a weathered appearance is to be given to the mortar by finishing via hitting with a bristle churn brush. Benchmarking and sampling on site will be required.

2.3 BRICKWORK Repairs to Western Elevation (39RS) – PRIORITY 2
Location: Level 05 external terrace parapet upstand elevation. Refer to Proposed Level 05 Plan.

Note: The brickwork to the terrace parapet upstand is generally in working order, but some mortar joints may be contributing to water ingress and dilapidations observed to the soffit at Level 04 below.

Proposed schedule of works:

- Works should follow best practice guidance published by Historic England in *Repointing Brick and Stone Walls (2017)*
- Inspect, assess and record extent of decay to existing brickwork and mortar and agree extent of repairs to be undertaken. Replacement of bricks should be kept to a minimum and mortar re-pointed only where it is evident the existing joint has weathered to the extent that the bricks are vulnerable to damage, or that water can penetrate, or that support is inadequate.
- Carefully remove decayed bricks and rake out mortar to min depth of 25mm and prepare joint for new mortar.
- Rebuild utilising salvaged London stock bricks where possible, and reclaimed counterparts to match the existing in every respect (where practicable) laid to bond.
- Repoint with a suitable lime mortar mix to match exiting pointing adjacent.
- As this is the front elevation of historic significance of the building and to avoid any patchy appearance on completion allow for replacement mortar and bricks will be tinted to match adjoining areas. After the first set a weathered appearance is to be given to the mortar by finishing via hitting with a bristle churn brush. Benchmarking and sampling on site will be required.

2.4 BRICKWORK Repairs to Upper Roof Chimney Stacks/Parapets (39RS) – PRIORITY 2
Location: Upper Roof Level Chimneys

Note: This area is currently inaccessible and therefore the scope of works is to be confirmed once safe access can be provided and chimneys can be inspected from the roof by architect before work is agreed and carried out. Some areas of internal damp are suspected of being contributed to by water ingress from the chimney stacks. Works will be limited to repairs and replacement on like-for-like basis.

Proposed schedule of works:

- Works should follow best practice guidance published by Historic England in *Repointing Brick and Stone Walls (2017)*
- Inspect, assess and record extent of decay to existing brickwork and mortar and agree extent of repairs to be undertaken. Replacement of bricks should be kept to a minimum and mortar re-pointed only where it is evident the existing joint has weathered to the extent that the bricks are vulnerable to damage, or that water can penetrate, or that support is inadequate.
- Carefully remove decayed bricks and rake out mortar to min depth of 25mm and prepare joint for new mortar.
- Rebuild utilising salvaged London stock bricks where possible, and reclaimed counterparts to match the existing in every respect (where practicable) laid to bond.
- Repoint with a suitable lime mortar mix to match exiting pointing adjacent.
- As this is the front elevation of historic significance of the building and to avoid any patchy appearance on completion allow for replacement mortar and bricks will be tinted to match adjoining areas. After the first set a weathered appearance is to be given to the mortar by finishing via hitting with a bristle churn brush. Benchmarking and sampling on site will be required.

2.5 STONEWORK – Repairs to Eastern Parapet (39RS) – PRIORITY 2
Location: East Elevation Parapet Copings

Note: This area is currently inaccessible and therefore the scope of works is to be confirmed once safe access can be provided and the parapet can be inspected from the roof by architect before work is agreed and carried out. Works will be limited to the repointing of joints and replacement of individual coping stones where stones are decayed and delaminated due to prolonged exposure to damp. Where possible, spalling and defective coping stones to be cut to sound stone and indented with matching stone to minimise the loss of the historic fabric.

Proposed schedule of works:
- Works should follow best practice guidance published by Historic England in *Repointing Brick and Stone Walls (2017)*
- Inspect, assess and record extent of decay to existing coping stones and mortar and agree extent of repairs to be undertaken. Replacement of stones should be kept to a minimum and mortar re-pointed only where it is evident the existing joint has weathered to the extent that the bricks are vulnerable to damage, or that water can penetrate, or that support is inadequate.
- Carefully lift and remove decayed and delaminated coping stones to be replaced or re-laid.
- Provide new stone coping to parapet where required. Stone to match existing in type and profile. Identify stone and source of new stone through petrological report. New coping stone approx. 350 wide x 100 deep with drip edge and bedded on lime mortar. Each stone held in position on 3nos 600 long 12mm diameter SS dowels set in resin into brickwork to rake and inserted to bedding face of stone.
- Cut out delaminated and defective stones and piece in new stone indent. Small stone indents to be fixed using with 10mm stainless steel pins and Akemi resin or as otherwise agreed with the Structural Engineer and Akemi.
- Rake out decayed mortar joints and repoint with suitable lime mortar. Benchmarking and sampling on site will be required.

2.6 STONEWORK – Repairs to Western Parapet (39RS) – PRIORITY 2
Location: West Elevation Terrace Parapet Copings

Note: The condition of coping stones and pointing in this location may be contributing to damp issues observed to the soffit of Level 05. Works will be limited to the repointing of joints and cleaning of coping stones.

Proposed schedule of works:
- Works should follow best practice guidance published by Historic England in *Repointing Brick and Stone Walls (2017)*
- Inspect, assess and record extent of decay to existing coping stones and mortar and agree extent of repairs to be undertaken. Replacement of stones should be kept to a minimum and mortar re-pointed only where it is evident the existing joint has weathered to the extent that the bricks/coping are vulnerable to damage, or that water can penetrate, or that support is inadequate.
- Organic growth to be removed with appropriate biocide.
- Carefully rake out cement pointing to west elevation parapet concrete coping to a minimum depth of 25mm.
- Repoint in suitable lime mortar.

2.7 LIME RENDER – Repairs to Eastern Basement Wall (39RS) – PRIORITY 2
Location: Ground and Lower Ground East Elevation. Refer to Proposed East Elevation.

Note: Areas of render of external wall at basement and first floor level have been damaged by the dampness cause by water run-off from stairs and balconies above. In order to prevent water ingress

and further damage of the building fabric, defective render should be removed and replaced on a like-for-like basis. As much of the historic fabric should be retained as possible.

Proposed schedule of works:

- All live, overly saturated or loose render is to be hacked off the external elevation and the masonry behind checked for further damage. Note potential need to replace brickwork behind render on a like-for-like basis following removal of render.
- Substrate to be prepared to receive new render.
- Re-apply suitable lime render mix to repairs area ensuring seamless blend with the existing retained surface with a suitable lime based render mix on a like-for-like basis.
- Decorate with breathable silicate based mineral paint to match the existing colour.
- Allow for a minimum of 3 coats of paint samples on boards/in situ.

2.8 LIME RENDER - to Western Ground Floor Wall of 39RS & Science Block – PRIORITY 2
Location: Ground Floor above bricked up opening on West Elevation of 39 Russell Square and first bay at eastern end of North Elevation of Science block. Refer to SB Proposed North Elevation.

Note: An area of render to a suspected lintel above a bricked up opening to the West Elevation at ground level, and to the entrance door bay to the science block is severely damaged. In order to prevent water ingress and further damage of the building fabric, defective render should be removed and replaced on a like-for-like basis. As much of the historic fabric should be retained as possible.

Proposed schedule of works:

- Hack off gypsum plaster and check the masonry behind for further damage (note potential need to replace brickwork behind render on a like-for-like basis following removal of render).
- Substrate to be prepared accordingly. Let the wall dry out.
- Apply suitable lime render mix to external ground floor wall previously finished with gypsum plaster.
- Original details used for East Elevation of 39RS to be replicated with new render.
- Decorate with breathable silicate based mineral paint to match the existing colour of 39RS East elevation basement level.
- Allow for a minimum of 3 coats of paint samples on boards/in situ.

3.0 ROOF & TERRACE REPAIRS

3.1 LEADWORK – Repairs to Eastern Parapet Gutter, Southern Party Wall & Chimney Abutments (39RS) – PRIORITY 2
Locations: East Elevation Parapet Gutter (particularly southern end), Flashings to Southern Roof and Chimney/Party Wall Abutment, Flashings to Level 05 Terrace Gutter

Note: This area is currently inaccessible and therefore the scope of works is to be confirmed once safe access can be provided and area can be inspected by architect before work is agreed and carried out. It is suspected that dilapidations observed on the East Elevation and Level 05 soffit are being caused by defects in the parapet gutter, outlets, or rainwater goods. Works will be limited to repairs and replacement on like-for-like basis.

Proposed schedule of works:

- Inspect, assess and record existing leadwork for areas of dilapidation and defects to assess locations of water ingress and damp and agree extent of repair works to be undertaken
- Carefully lift and remove existing lead finishes to be replaced to parapet gutter and southern corner of East elevation of 39RS to expose gutter boarding around assumed blocked rainwater outlet/rain water pipe/lead gutter. If gutter bearers sound leave in position. Retain outlet and RWP in position to maintain roof drainage during the works.
- Lift and remove rotten gutter boards and rotten roof boards.

- Reinstate removed roof boarding with 125x25mm dense SW boards with penny gaps between boards, all to match existing.
- Apply timbers to gutter bearers to adjust gutter to increase step in gutter 75mm and improve fall. Fall to be in line with the Lead Sheet Training Academy drawings and specifications.
- Gutter board and lay boards to be 125x 25 dense SW boarding with penny joints.
- New section of parapet gutter to be lined in Code 6 lead. Details to be in line with the Lead Sheet Training Academy drawings and specifications.
- Existing leadwork: replace damaged, missing and defective leadwork to parapets and chimney abutments on a like-for-like basis.
- Code 6 lead abutment cover flashing – max 1.5m long with min 150mm laps to be dressed into new raggle, min 25mm deep, and secured with lead wedges. Existing lead saddle to be inspected.
- Raggle to be repainted with hydraulic lime mortar isolated from lead by masking tape or bituminous paint or lead pointing sealant.
- Allow for flood and spray testing to ensure integrity of repaired/new waterproofing.

3.2 CHIMNEY POTS – Repairs to Southern Chimney Pots at Roof Level (39RS) – PRIORITY 2
Location: Roof Level Chimneys

Note: This area is currently inaccessible and therefore the scope of works is to be confirmed once safe access can be provided and area can be inspected by architect before work is agreed and carried out. Damp patches near historic chimney flues (now blocked up) is potentially being caused by water tracking down chimney flues. It is suspected chimney pots may be leaking into flues or pointing might be missing. Works will be limited to repairs and replacement on like-for-like basis.

Proposed schedule of works:

- Inspect, assess and record existing fabric for areas of dilapidation and defects to assess locations of water ingress and damp and agree extent of repair works to be undertaken
- Replacement of pots and mortar should be kept to a minimum and mortar re-pointed only where the existing joint has weathered to the extent that the face of adjacent bricks/pots are vulnerable to damage, or that water can penetrate, or that support is inadequate.
- Rake out decayed pointing to joints of chimney stacks and repoint in lime mortar matching existing.
- Replace defective chimney pots and re-haunch pots. Carefully chip away decayed mortar down to its housing and remove chimney pots where required.
- Inspect internal face of chimney stack where flues have been fitted with flue liner. Where brickwork and jointing is found to be defective, carefully repair surrounding brickwork to named area so that all new brickwork can be correctly bonded to existing. Cut out damaged and affected brickwork. Replace with matching fire rated bricks. Repoint in lime mortar.
- Place hydraulic mortar into the recessed housing and mount chimney pots in place to replace existing removed.
- Repoint using hydraulic lime mortar. Profile mortar to encourage water run-off. Provide sufficient protection such that the mortar does not dry out for the first 72 hours, or be disrupted by rainfall. Benchmarking and sampling on site will be required.
- Fit ventilated chimney caps to disused chimneys.
- Allow for flood and spray testing to ensure integrity of repaired/new waterproofing.

3.3 VAULTED ROOF – Repairs to Science Block Roof (SB) – PRIORITY 2
Location: Science Block Roof

Note: Damp and dilapidations observed to internal soffit of Science Block, suspected cause is defects in the existing roof waterproofing system.

Proposed schedule of works:

- Organic growth to be removed with appropriate biocide.

- Currently it is scoped for the existing roof waterproofing to be removed, but it may be possible to lay the new waterproofing as an overlay on the existing. TBC upon inspection of the existing roof.
- Existing substrate to be brushed, cleaned, and prepared for laying of new roof.
- Apply Bauder LiquiTOP cold applied liquid waterproofing system with integrated glass fibre matt layer or acceptable equivalent to manufacturers specification and recommendations.
- Existing flashings to be replaced on a like-for-like basis.
- Allow for flood and spray testing to ensure integrity of repaired/new waterproofing.

3.4 FLAT ROOF – Repairs to Flat Roof around Skylight 39RS – PRIORITY 2
Location: Upper Level Flat Roof Above Stair Core.

Note: This area has been accessed and the top finish observed but the condition of the waterproofing below is currently unknown.

Proposed schedule of works:
- Organic growth to be removed from existing flat roof pavers/waterproofing around skylight using biocide. Removal of Algae: Treat all moss and algae with an appropriate biocide as per the manufacturer's recommendation.
- Remove and store existing cleaned concrete pavers.
- Scrape off dead moss and algae using hand held scraper or using biocide.
- Currently it is scoped for the existing roof waterproofing to be removed, but it may be possible to lay the new waterproofing as an overlay on the existing. TBC upon inspection of the existing roof membrane.
- Existing substrate to be brushed, cleaned, and prepared for laying of new roof.
- Apply Bauder LiquiTOP cold applied liquid waterproofing system with integrated glass fibre matt layer or acceptable equivalent to manufacturers specification and recommendations.
- Reinstate existing cleaned and retained concrete pavers
- Allow for flood and spray testing to ensure integrity of repaired/new waterproofing.

3.5 FLAT ROOF – Repairs to Fifth Floor Terrace of 39RS – PRIORITY 2
Location: Level 05 West Terrace

Note: Terrace deck to be inspected by architect before work is agreed and carried out. Water ingress/ damp is visible to the soffit of the floor located below the terrace. The source of the water ingress needs to be investigated and the issue resolved to prevent further decay. Suspected ingress coming from defective flashing, missing pointing, decayed brickworks, rainwater goods or roofing membrane.

Proposed schedule of works:
- Remove full extent of terrace timber decking and existing lead flashings.
- Inspect roof outlets, remove silt and debris. Check that guard and wire balloons are in place to roof outlets. Install wire mesh to outlets if possible.
- Remove existing waterproofing finish and insulation above structural desk if present.
- Inspect structural deck for any dilapidations to be repaired.
- Install Bauder Inverted Hot Melt waterproofing, JFRI PREMIUM+ Inverted Insulation system or acceptable equivalent. Minimum 150mm upstand depth above FFL of terrace.
- Install Bauder JFRI PREMIUM+ Inverted insulation or acceptable equivalent as void above structural deck allows. If possible, taper insulation to encourage water flow to outlets.
- Install Marshalls Standard Pimple Concrete Paving in natural finish or acceptable equivalent anti-slip paving tile on pedestals.
- Install new lead flashing with ventilators to abutments around perimeter of terrace. Point chase lead flashing cut into existing brickwork around the totality of the terrace.
- Allow for flood and spray testing to ensure integrity of repaired/new waterproofing.

3.6 FLAT ROOF – Repairs to Fifth Floor Raised Flat Roof above Western Risers at Level 05 Terrace of 39RS – PRIORITY 2
Location: Level 05 West Terrace raised flat roof section

Note: Water ingress/damp is visible to the soffit of the floor located below the roof. Suspected ingress may be coming from defect in existing roofing membrane.

Proposed schedule of works:
- Organic growth to be removed with appropriate biocide.
- Currently it is scoped for the existing roof waterproofing to be removed, but it may be possible to lay the new waterproofing as an overlay on the existing. TBD with manufacturer.
- Existing substrate to be brushed, cleaned, and prepared for laying of new roof.
- Apply Bauder LiquiTOP cold applied liquid waterproofing system with integrated glass fibre matt layer or acceptable equivalent to manufacturers specification and recommendations.
- Existing flashings to be replaced on a like-for-like basis

4.0 EXTERNAL WORKS REPAIRS

4.1 ENTRANCE STAIRS – Repairs to External Main Access Stairs and Area Party Wall Capping to 39RS – PRIORITY 2
Location: Coping to main entrance stairs and party wall at East Elevation

Note: Water ingress identified to basement rooms adjacent/below the entrance stairs. The source of water ingress needs to be investigated and the source of the defect made good.

Proposed schedule of works:
- Clean out moss growth from between railing stone plinth and terrazzo floor, steps and stone cornices to the entrance stair and north party wall using biocide.
- Removal of algae: treat all moss and algae with an appropriate biocide as per the manufacturer's recommendation.
- Scrape off dead moss and algae using hand held scraper.
- Rake out existing failed cement pointing and replace with hydraulic lime mortar. Fill decayed area of entrance stairs with patch repairs
- Clean off all paint to coping.
- Take down and set aside decayed and delaminated coping stones.
- Where unsalvageable, provide new coping stone to match exiting stone and profile with weathered top and drip to gutter side approx. 400 wide x 110 deep in Bath stone to match existing. Identify stone and source of new stone through petrological report TBC.
- Re-bed coping on cornice using suitable lime mortar.
- Rake out decayed mortar joints and repoint with lime mortar prior to installation of lead. Code 8 lead sheet welted and clipped weathering to stair cornice – max 1.5m long with 150mm side laps and 1m max between welts, 50mm wide stainless steel clips (LSA fig. 49) to be incorporated in double lock welts formed by turning up the underlap 25mm and the overlap 50mm and then folding (LSA Fig. 61 and b). Clips located every 300mm due to severe exposure (H71/250B).
- Code 6 lead abutment cover flashing – max 1.5m long with min 150mm laps to be dressed into new raggle, min 25mm deep, and secured with lead wedges.
- Raggle to be repainted with hydraulic lime mortar isolated from lead by masking tape or bituminous paint or lead pointing sealant.
- Replace rotten plywood boarding to the underside of the entrance stairs
- Apply Permagard permaSEAL cementitious slurry or acceptable equivalent to underside of the entrance stairs where existing soffit has been removed
- Once dried, redecorate soffit, replacing existing removed ceiling and services on a like-for-like basis

5.0 BALCONY REPAIRS

5.1 BALCONIES – Repairs to First Floor (Level 03) of East Elevation of 39 RS – PRIORITY 2

Locations: East Elevation Level 03

Note: Balcony to be inspected by architect before work is agreed and carried out, the existing finish is heavily mossed and has not been accessed for inspection in detail. Due to its condition, it is suspected there will be some defects in the existing waterproofing. Further investigation is required to identify and to establish extent of decay to stonework of the external elevation.

Proposed schedule of works:

- Remove organic growth to both balconies using appropriate biocide.
- Removal of algae: treat all moss and algae with an appropriate biocide as per the manufacturer's recommendation. Scrape off dead moss and algae using hand held scraper.
- Inspect waterproofing finish and edge detail and undertake patch repair where necessary using appropriate fibre reinforced path repair appropriate for use with the existing finish. Detail to waterproofing edge will be required and to be confirmed with architect. Colour to match existing.
- Redecorate underside of balconies on a like-for-like basis.

6.0 WINDOW REPAIRS

6.1 SASH WINDOWS – Repairs to East Elevation of 39 RS – PRIORITY 2

Location: East Elevation

Note: Many of the sash windows are very difficult to open. They might have swelled due to water absorption. Degradation of the wood surfaces where paint has flaked off is visible. There is inadequate lubrication between the sash and the chain which were painted and not oiled. There is no lime putty around the glazing which drives moisture into the joinery.

Proposed schedule of works:

- Works should follow best practice guidance published by Historic England in *Traditional Windows Their Care, Repair and Upgrading (2017)*
- Inspect and record existing windows' conditions for defects and problems with operation/opening.
- All window repair works is to be undertaken in situ where practicable. For smaller sections, repair works are to be on like-for like basis. For larger areas, replacement sections to be scarfed or pieced in where possible, taking care that the original profile is accurately reproduced and that the same type of timber as the existing is used. If sections or windows are removed for repair in order to remedy the cause of dampness, they should be carefully recorded before works are undertaken.
- If paintwork is allowed to deteriorate on timber windows, it can lead to decay of the timber. The decayed parts of the window should be filled and primed ready for repainting.
- For all windows: lubricate chain, replace defective/missing putties around glass panes, easing sticking sashes, prepare and redecorate previously painted surfaces, paint with linseed oil paint to provide with maximum protection. Rub down existing paintwork, prime bare patches knot stop and prime new wood with paint system recommended primer.
- Install draught proofing to all sash windows that do not currently have secondary glazing fitted.

6.2 CRITTALL WINDOWS – Repairs to West Elevation of 39 RS – PRIORITY 2

Location: West Elevation

Proposed schedule of works:

- Install draughtproofing to all opening lights.
- For all windows, free any jammed casements and remove build-up of paint which interfere

with their effective operation, replacing defective putties, cleaning and repairing ironmongery and replacing missing items, rubbing down areas of superficially corroded steel and treating them with a zinc-rich metal primer before repainting.

7.0 DECORATION REPAIRS

7.1 INTERNAL DECORATION REPAIRS – Dilapidation Remedial Repairs to 39 RS and Science Block – PRIORITY 2

Location: Throughout, refer to existing drawings with dilapidations

Proposed schedule of works:

- Areas of damp and resulting cracks/peeling paint and plaster have been observed internally to walls, soffits/ceilings, skirtings and cornices. These are to be repaired on a like-for-like basis, unless otherwise scheduled/specified within the proposed works.
- Breathable paint finish, where appropriate.

8.0 DRAINAGE AND RAINWATER GOODS

8.0 DRAINAGE – Repairs to 39 RS and Science Block – PRIORITY 2

Location: Throughout

Note: Rainwater outlets, downpipes and gullies to be inspected by architect and MEP Engineer before work is agreed and carried out.

Proposed schedule of works:

- Clean, clear and repair existing gullies.
- All gullies and gratings to be cleared of all silt and debris. Check that water discharges freely to an appropriate drain or soakaway.
- Rainwater goods to be cleared of all leaves and debris. Check that guard and wire balloons are in place to roof outlets.
- Take down, replace any defective pipework/hoppers and outlets and replace on a like-for-like basis.
- Capacity of existing rainwater outlets and down pipes to be checked and replaced if required.

9.0 PROPOSED WORKS

9.1 WATERPROOFING – to Basement of the Science Block – PRIORITY 2

Location: Inner Face of External Basement (Level 01) Wall of Science Block

Note: Areas of damp have been observed in the Science Block Basement. It is suspected this is being caused or exacerbated by insufficient tanking.

Preliminary proposed schedule of works:

- Remove flaking paint and finishes to internal line of external basement wall.
- Repairs existing blockwork/plasterwork with gypsum plaster to match existing where required.
- Apply Permagard PermaSEAL cementitious tanking or acceptable equivalent waterproofing to internal face of external walls.
- Once dried, install British Gypsum Drilyner Dab direct lining system or acceptable equivalent comprised of Gyproc 12.5mm plasterboard fixed with dabs of Gyproc DriWall Adhesive.
- Allow for ventilation panel at high and low level, where required and appropriate.
- Finish with 3mm skim coat and moisture resistant white paint finish, specification TBC

9.1 WATERPROOFING – to 39RS Vaults – PRIORITY 2
Location: Vaults of 39 Russell Square 39RS/1/023 – 024 – 025

Preliminary proposed schedule of works:
TO VAULTS' WALLS:

- Repair existing internal face of vaults with like-for-like construction to provide consistent substrate for waterproofing application.
- Apply Permagard PermaSEAL cementitious tanking or acceptable equivalent waterproofing to internal face of external walls.
- Once dried, finish with 3mm skim coat and moisture resistant white paint finish.

TO VAULTS' DOORS:

- Replace the existing door vents with adequately sized new door vents to provide adequate ventilation to vaults.

9.2 NEW LIGHTWEIGHT STUD PARTITIONS AND TIMBER DOORS – to 39 RS & Science Block – PRIORITY 2
Location: Levels 01 and 02 within the Science Block and Level 03 in 39 Russell Square

Note: New lightweight partitions and timber doors to create new proposed room volumes. Refer to GA plans and 7000 series detail drawings.

Proposed schedule of works:

- Form new internal lightweight partitions with acoustic requirements as per Architects GA and 7000 series type drawings
- Install new timber doorsets as per architects GA and 7000 series type drawings. New doors to be provided in keeping with existing timber internal doors and to achieve FD60 fire rating. Fire rating to be confirmed with Fire Engineer and appointed building inspector.
- Prepare new plasterboard for plaster skim coat finish including all necessary dubbing to ensure a good line at all ceiling junctions. Finish in paint to match existing adjacent in Russell Square and white in Science Block. Allow for paint samples in situ before work is carried out.
- New partitions and access doors connecting 39 Russell Square and the Science Block at Levels 01 and 02

9.3 INTERNAL FINISHES, FF&E & FURNITURE – to 39 RS & Science Block – PRIORITY 2
Location: Various/throughout

Note: New finishes and fittings are to be installed as illustrated in proposed drawings.

Proposed schedule of works:

- Install new finishes as indicated on architect's drawings
- Install new kitchenettes to Levels 01, 03, 04. Refer to GA drawings and 3000 series Kitchenette drawings for details and specification. Kitchenettes to connect to existing capped services.
- Furniture based on re-use of existing furniture from decanted accommodation throughout unless otherwise stated. Note these are shown dashed on the proposed plans.
- New timber raised floor to basement science block to facilitate new drainage connections
- New wet area fittings & fixtures including showers, WCs, cubicles, washbasins as indicated on proposed drawings.

9.4 OTHER PROPOSED WORKS – to 39 RS & Science Block – PRIORITY 2
Location: Various/throughout

Proposed schedule of works:

- Install new outward-opening, single leaf entrance doors to the Science Block and Levels 01

and 02, allowing for swipe card security access
- Reutilise existing and form new BWIC to serve new mechanical ventilation services as indicated in the submitted proposed drawings.
- Upgrades to electrical supply to be made.
- Provide new fixed companionway ladder and Mansafe fall arrest system at roof level of Science Block and 39RS to provide a safe access for maintenance.

10.0 SERVICES INSTALLATION – to 39 RS & Science Block – PRIORITY 2

A summary of proposed MEPH works is summarised as following:

10.1 39 RUSSELL SQUARE

Proposed schedule of works summary:
- Generally existing services are to be utilised throughout with only limited services works required associated with the:
  - Newly installed kitchens (drainage and small power)
  - Installation of comms/IT services to serve the new buildings
  - Power capacity upgrades
  - Relocation of existing and provision of new cooling to the proposed environmentally controlled store rooms on Level 01 and comms room on Level 02.

10.2 SCIENCE BLOCK

Proposed schedule of works summary:
- Generally new services including electrical, mechanical, public health, and lighting is to be provided throughout the Science Block connecting into capped services following strip out/demolition works.
- Connect new installed showers, washbasins, and WCs at basement level to the existing underground drainage run underneath the science block
- Provide new mechanical ventilation to changing areas at basement level and workshops at ground floor level
- Provide for specialist equipment extract for both Locksmith and Carpenters Workshops

11.0 STRUCTURAL WORKS – to 39 RS & Science Block – PRIORITY 2

Structural works will be undertaken as required on a like-for-like basis, which will be limited to:
- Structural concrete repairs to Science Block's external columns, where existing concrete has spalled, exposing existing rebar.
- Formation of new openings between 39RS and Science Block at Levels 01 and 02 through existing walls, BWIC and new doors.

12.0 CLEAN SITE – PRIORITY 1

The contractor is to comply with all the requirements of the Control of Pollution Act 1974 concerning the disposal of waste materials, especially those containing lead and treat all such materials as a fire hazard.

V APPENDIX

ADDITIONAL LOWER PRIORITY ITEMS FOR CONSIDERATION

This section highlights additional priorities 3 & 4 works, that are based on general cleaning, maintenance and like-for-like repairs, for which approval is also sought and might have some benefit to the building's longevity.

1.0 CLEANING

1.1 CLEANING – to 39RS Eastern & Western Basement and Ground Floor Elevations – PRIORITY 4

Location: Eastern and Western Elevations

Preliminary proposed schedule of works:

- Allow for general light brush down to entire East Elevation and to Basement and Ground Floor Levels of West Elevation. Light cleaning with minimal water to brickwork areas identified as damp on the drawings to be provided in due course.
- Prior to carrying out cleaning ensure that all drainage systems including hoppers, rainwater disposal system are protected against the ingress of spent abrasive. Ensure that protection is removed at the end of each working day to enable proper operation of the rainwater system overnight. During heavy rains ensure that alternative rainwater disposal systems are in place such that rainwater does not collect in roofs and gutters to the detriment of the building.
- Cleaning trial: carry out an exploratory cleaning trial at a location and by method specified by the architect. Provide a schedule of all chemical types and strengths, contract times, nozzle sizes, air pressures, abrasives and water flow rates. All operatives carrying out brick cleaning are to have suitable qualifications. A low level sample of $1m^2$ is to be carried out for the architect's approval and the pressure levels and aggregate size to be employed on the cleaning are to be agreed.
- Method statement: all method statements for cleaning of brickwork to be agreed with architect prior to carrying out the works.
- Removal of algae: treat all moss and algae with an appropriate biocide as per the manufacturer's recommendation.
- Scrape off dead moss and algae using hand held scraper.

1.2 CLEANING - to 39RS Western Terrace Parapets Upstands – PRIORITY 4

Location: Western Terrace Parapets Upstands

Preliminary proposed schedule of works:

- Allow for nebulous cleaning to terrace parapet brickwork.

2.0 ROOF & TERRACE WORKS

2.1 SLATE ROOF – Repairs to Main Pitched Roof and Roofs Adjacent to Flat Lead Roof – PRIORITY 3

Note: Roof to be inspected by architect before work is agreed and carried out.

Preliminary proposed schedule of works:

- Removal of broken slates keeping all intact Welsh slates in good repair.
- Replace broken and missing slates with reclaimed Welsh slates similar in size to existing slates; new slates re-laid on new tanalised SW battens where previously rotten or missing.
- Existing slates to be protected during the works to parapet gutter and chimney stack.

3.0 EXTERNAL FEATURES AND DECORATIONS

3.1 RAILING – Repairs to Front Railing and Balcony Railing – PRIORITY 4

Preliminary proposed schedule of works:

- The corroded metal front railings (1 no) to be replaced with cut railing, where practical (or similar new wrought iron rod) where plinth stone has cracked.
- The Portland stone plinth will be reused, where possible, or replaced in profile to match existing. The plinth stone will be taken down and the top of the lightwell wall consolidated and the plinth stone re-bedded. Supply and fit a new stone to replace the damaged one. Stone to match existing exactly in colour and quality.
- The run of railing will then be reset in repaired and replaced plinth stone which has cracks to the expansion of the corroded railing. Each railing will be set in resin with the top of the stone hole for each railing cut square and traditionally lead poured.

3.2 EXTERNAL DECORATION REPAIRS – Remedial Repairs to 39 RS and Science Block – PRIORITY 3

Preliminary proposed schedule of works:

- The metal railings to be redecorated in-situ. Existing railings paint layers to be retained to preserve historic finishes. Redecorate railing with zinc oxide undercoat, where bare metal is visible and 2 topcoats of gloss. Ensure all loose and flaking paint is rubbed down and all raised paint layers are feathered down before applying the topcoats to produce as even a finish as possible.
- The rainwater pipes, hoppers and spigots will need to be taken down to be cleaned and redecorated, where defective. Existing paint layers to be retained to preserve historic finishes. Prepare and redecorate rainwater pipes, hoppers and spigots with zinc oxide undercoat, where bear metal visible and 2 topcoats of gloss. Ensure all loose and flaking paint is rubbed down and all raised paint layers are feathered down before applying the topcoats to produce as even a finish as possible.