



Method Statement

47 Mecklenburgh Square - Balcony

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Quality Assurance

This document has been prepared and checked in accordance with CBP Architects IMS (ISO9001:2015)

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1. Introduction

- 47 Mecklenburgh Square is a Grade II listed building.
- The balcony is formed with existing Portland stone slabs, supported on cast iron brackets, with a perimeter ornate cast iron handrail. The current surface of the balcony comprised mastic asphalt applied to the stone slabs, which has been totally removed.
- The handrail is grouted into the stone slabs and into the brickwork, as this returns on the balcony.
- The balcony is currently supported by temporary scaffolding and supports.
- There is evidence of plant and vegetation growth, stone spalling and paint deterioration to the structure.
- There is evidence of previous concrete repairs to the surface of the stone slabs.
- There is evidence of fissures and cracks within the stonework slabs in random locations, which have been exposed by the recent removal of the mastic asphalt covering.

2. Strategy for Works

2.1 Strategy to be adopted for proposed Portland Stone replacement works to balcony

- Additional Site investigations and Structural Reports have been carried out to review the existing balcony, its structural stability and proposals to remedy.
- The information is contained in the following report and detail drawings which should be read in conjunction with this method statement.
- 17023-CBP-XX-XX-RP-A-0001- 47 Mecklenburgh Square - Balcony Report
- 17023-CBP-00-XX-DR-A-0001 – Existing Overall Elevations A1 Landscape
- 17023-A-0003-Site Location Plan
- RU075 - 47 Mecklenburgh Square, London - Heritage Assessment V2 - 15.01.19
- 17023-CBP-XX-XX-RP-A-0002 - P01 Method Statement

2.2 Cast Iron Bracket Stabilisation

- The existing 3 no stone balcony slabs are supported on six existing cast iron cantilever brackets built into the front wall. The brackets project approximately 780mm out from the wall and are built up to 50-60mm approx. back from the inner face of the brick wall and will be stabilised with grout within the internal floor void.
- Carry out load test of each individual bracket once stabilised.

2.3 Proposed Stone Slab Replacement Works

- The existing Mastic Asphalt has been removed by hand, to expose the stone slab/ existing historic concrete repairs exposing structural cracks and issues where repairs would increase damage to the structure.
- The existing handrail is to be carefully removed and stored on site for re-installation in the existing locations.
- Take a mould of the existing perimeter of the stone slabs to allow replication on the new Portland like for like perimeter balcony slab.

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- Thickness of the new Portland Slabs (approx. 100mm) are to match existing and have a slight fall away from the building to shed surface water.
- Carefully remove in sequence – slab 1, slab 2 and slab 3 - the 3 defective and damaged balcony slabs.
- Inspect and prepare the upper surface of the existing brackets to receive the new slabs.
- Install 3 no Portland Stone balcony slabs in agreed sequence and bed on the existing brackets. Stone to match existing. Refer to the Structural Engineers drawings and specifications.

Like for like replacement – new Portland Slabs to replace existing:

The application is for like replacement of the 3 damaged Portland slabs. The sequence of removal of the existing stone slabs is shown on CHG drawing F249 – 0003 -P02. This drawing describes the sequence of removal and replacement identified on the 1:20 proposed balcony plan. Existing slab 1 will be carefully removed and a new slab replaced before slab 2 is carefully removed and the sequence continues to slab 3.

The existing stone balcony slabs are embedded some distance into the existing brickwork (225mm approx). In order to gain a like for like replacement it is our intention to remove the existing embedded stone within the depth of the existing external wall.

It may be necessary to carefully remove sequentially one course of brickwork directly above the existing stone slab balcony sections, in parallel with carefully removing the stone slabs. This is to allow limited access in removing the stone slabs from the external wall abutment. The existing brickwork will be replaced in its original location once the new stone slabs have been installed.

Our priority is to remove the stone slabs in sequence, and to the full depth of the external wall construction.

If, after onsite exploratory works, the stone slabs cannot be removed from within the depth of the existing external wall construction, it is proposed to leave a minimum 50mm recess for the new stone to slot and be secret dowel fixed into the retained stone to the depth of the external brickwork. The secret dowelled detail into the remaining embedded stone set in the external brickwork is as shown on CHG drawings attached to this application.

Secret dowelling is a standard non visual industry practice to tie elements of materials together.

This method statement, CHG drawings and report describe the careful removal of the existing stone slabs, and details the new stone recessed into the existing brickwork to maintain the structural integrity of the brickwork, in conjunction with the new stonework balcony installation.

Existing railings re -installed into new formed pockets in stone:

The existing railings are to be replaced into the new stone slabs. The existing vertical and restraints sections will be fitted into new core drilled sockets – diameter to suit the size of the existing upright. The balustrade supports will then be resin bonded into the pre formed cored holes to ensure structural stability is achieved.

The existing formed holes in the brickwork facade will be re-utilised to re-install the existing handrail, as the handrail height/ location will not change.

2.4 Stonework Installation – making good

- Once the 3 no slabs have been laid and levelled, the joints/ abutments are to be filled using non leaching Portland Stone colour silicone/ mastic with Portland Stone dust added.

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2.5 Choice of Materials and Specification

- The new stonework slabs will be carefully matched and blended with the existing so as not to detract from the appearance of the building, replacement stone will not be distressed to match the finish of the existing.
- Decorative replacement stonework to the perimeter will be moulded to match the original form.

2.6 Repointing Stonework and Brickwork

- Repointing of stonework and brickwork will be limited only to work that is necessary to prevent damp and water ingress.

2.7 Choice of Materials and Specification

- Re-pointing of stonework and brickwork should be kept to the absolute minimum necessary and comprehensive re-pointing for cosmetic reasons is not acceptable. If inappropriate cement-based mortar is identified, this should only be removed, by hand (i.e. no mechanical tools), if loose.
- Joints should be carefully raked out by hand to a depth of at least two times their width or a maximum of 18-25mm. No mechanical tools should be used for raking out: this must be undertaken with hand tools only.
- Joints should be flushed out and saturated with clean water, to limit suction.
- Stonework or brickwork should be re-pointed or bedded in an appropriate mortar mix (that is weaker and more porous than the adjacent masonry and usually a lime-based mortar).
- Mortar mixes should be designed to suit each individual building, location and exposure. The material, texture and colour of the existing or original construction mortar should be determined and matched.
- New mortar should be well pressed into joints and struck to match existing.
- A sample of the proposed mortar mix should be approved by the local planning authority prior to the commencement of re-pointing works.
- Joints should be finished to match any specific original feature (for example, lined out or tuck-pointed mortar joints in brickwork).
- The use of putty lime, rather than hydrated lime, is preferred, as is the preparation of coarse joints. Samples of mortar mixes, finishing and surface texture should be agreed on site before undertaking the work. Where large areas of repointing are proposed, the local planning authority may require a sample panel or panels be undertaken using the proposed mortar prior to repointing. The agreed sample should be kept on site for reference until the works are complete and approved.
- The specification for repointing should take into consideration the time of year, provision of skilled crafts-persons, aftercare needed and be detailed enough on items such as placing, compaction and protection of mortars to ensure high quality work.
- Where stone is being pointed, joints should be filled with new appropriate mix as far back as possible and finished flush, then brushed back with a bristle brush to expose both the aggregate and the edges of adjacent stone, compacting the joint and promoting carbonation.
- Joints should on no account be struck or finished proud of the masonry to form 'strap' or 'ribbon' pointing or feathered over the edge of eroded blocks. Care should be taken to finish the joints to match the surrounding work and the width of the original joints should not be increased.
- Where existing masonry is generally eroded, the face of the mortar should be kept back to the point at which the joint remains the original width. Repointing should not increase the width of the original joints.

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2.8 Render Repairs

There is existing historical damage to the existing 3 courses of bricks above the stone balcony where the existing asphalt was adhered and has been removed. It is proposed to render this 3-course band of brickwork to protect the damaged brickwork rather than removal which would cause further damage and intrusion that may affect the existing structure.

- Re-rendering or render repairs locally to the damaged brickwork should be carried out in a mix that matches the original/existing historical render or a mix approved by local planning authority. The material, texture and colour of the existing or original render should be determined and matched.
- This strategy is identified on the attached CHG drawing F249 – 0003 -P02

2.9 Choice of Materials and Specification

- The mix should match the strength of the original/existing render and new render should be generally applied in three coats.
- No metal beads or stops should be used externally: arises and angles should be formed in the traditional manner.
- Cracks in existing render or areas of loose render should be cut back to sound surrounding render and the masonry face. The surrounding render should then be undercut to provide a key except to the bottom of the area, where the sound render should be cut square.
- Sample panels of new render may be required for agreement by the local planning authority where extensive re-rendering is undertaken. The agreed sample should be kept on site for reference until the works are complete and approved.
- Redecoration of rendered areas must be appropriate to the render used. Therefore, lime wash and/or silicate paints will normally be appropriate. Smooth, water-based masonry paint systems may be an alternative.
- Textured or impermeable spray coatings may not be acceptable.

2.10 Paintwork

- The careful specification of paint type and colour to the existing replaced handrails is essential to maintain the unity of the whole.

2.11 Choice of Materials and Specification

- Previously unpainted surfaces should not normally be painted over.
- Painted stucco walls should be repainted every three to five years to preserve their appearance and to stop water from entering the fabric via paint flakes.
- When repainting stucco, brilliant white should never be used as that is a twentieth century development.
- All paint colours and specifications should be agreed by the local planning authority.
- Advice should be sought from the paint manufacturer prior to commencement of work.
- The removal of existing paint, by hand and Stonehealth Doff system, should ensure the metal handrail is not damaged.
- A paint system for metalwork/ stonework must be compatible with the ironwork/ stone, and act as a protective barrier to the elements, including inhibiting corrosion.
- In general, it is advisable to use an oil-based paint system on cast iron, both for new castings and on existing ironwork. As oil-based primers are slowing-drying, the corrosion inhibitors are better able to penetrate the small particles of rust or scale which will inevitably exist on the surface of historic ironwork. COSHH guidance sheets are to be reviewed.

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- The optimum technique for applying paint to ironwork in situ is using traditional bristle brushes. Narrow rollers may be suitable for long, flat sections, but other systems such as spray guns do not compare with the effectiveness of brush application on intricate decorative patterns.
- Colour - the existing and adjoining cast iron is finished with black paint; therefore, this colour should be used.

2.12 Sample of Materials, Applications:

Covering systems to:

- Render
- Cast iron brackets/ new steelwork/ existing handrails
- Stonework

Pointing to, including repairs:

- Stonework
- Brickwork

New Portland Stone slabs to:

- Balcony Slabs

Reuse of existing Historic fabric/ materials:

- Where possible, any existing historic fabric if/ when removed is to be re-used within the overall refurbishment strategy.

Works Contractor:

The works will be carried out by Restore London who have a qualified and experienced track record of working on Listed Buildings. In particular in the replacement of stone works in exact similar circumstances, as demonstrated by achieving consent for like for like Portland Stone replacement balconies in the W1H 7BS area.

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