

Friends & Drayton House – Roofing and External Refurbishment Works

Supporting Information

1. Overlaying the existing asphalt gutter on the main cornice, located at third floor level, with a cold applied liquid waterproofing system.

The specification allows for renewing the existing asphalt gutter on the main cornices; however, we are seeking listed building consent to overlay the asphalt with a cold liquid applied system. This will eliminate having to remove the existing asphalt and gutter detail, potentially damaging the stonework underneath. The liquid system allows for a drip detail at the edge of the cornice which will protect the stonework by stopping excess water from running down the elevation and saturating and staining the stonework. See supporting photographs below:

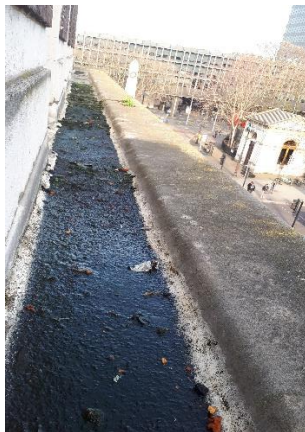
Existing cornice



Front and rear elevations (Endsleigh Gardens) showing cornices at third floor level.



Euston Road elevation showing cornices at third floor level.



Existing asphalt finish on main cornice to external elevations showing gutter detail.



Existing asphalt finish on main cornice to external elevations showing gutter detail.



Existing asphalt finish on cornice above portico on garden elevation.



Existing asphalt finish on cornice above portico on Euston road elevation.



Existing asphalt finish to brick edge detail below semi-circular window within the courtyard.



Existing asphalt finish to brick edge detail at third floor level to south-west elevation within the courtyard.



Photo showing thickness of existing asphalt to be removed and stonework under (if the liquid system is not supported).

Samples of overlay with the cold applied liquid system.



Sample of overlay on existing asphalt cornice with a cold applied liquid system.



Sample drip detail to edge of cornice fixed into existing asphalt. The colour of the drip detail is Portland Stone.



Sample drip detail to edge of cornice fixed into existing asphalt. Alternative colour sample in light stone colour.



Photograph showing the profile of the proposed drip detail to the edge of the cornice.



Photograph showing profile of drip edge detail from underside of cornice and colour match to stonework.



Close up of profile to drip edge detail from underside of cornice.

Note: the liquid system is a 2-component high performance, PMMA based resin built up with a coat of primer, reinforcement fleece and waterproofing layer. It is a seamless application that will be applied over the exiting asphalt cornices. We believe this system will be less invasive than renewing the existing asphalt.

2. Repointing stonework and brickwork – We have taken care to ensure the mortar mixes are appropriate and match the existing fines, method, colour etc. The pointing has been applied with care. There are no oversized joints or weather struck detail. See below photographs for re-pointing works and stone repairs undertaken.



Existing defective pointing to external elevation.



New pointing to external elevation.



Existing pointing to external elevation.



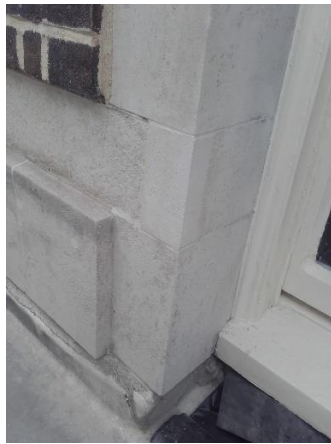
New pointing to external elevation.



Existing pointing to external elevation.



New pointing to external elevation.



Repair and repointing to stone window reveal.



Repair and repointing to corner of stone cornice.

3. Cleaning of brickwork and stonework – The Therma Tech system has been used. It uses hot water only; it does not involve cleaning with abrasive particles. Poultice has only been used in a small number of localised areas under the main cornice where heavy staining was present. See photographs below:



Cleaning to stonework at roof level. Photograph shows the difference between the soiled and clean stone.



Cleaned stonework to front face of main cornice.

4. Structural repairs to corroded steel frame – Due to water ingress from the main roof, the steel frame behind a small number of brick panels below roof level had become corroded resulting in damage to brickwork and stone. The steel frame had expanded due to the corrosion and had pushed the brickwork out. The top four rows of bricks were removed from 5no. panels to expose the steel frame behind. The corrosion was removed, the steel work treated, and the existing bricks reinstated on the affected panels. See photographs below:



Evidence of brickwork being pushed out due to the corroded steel frame behind.



Evidence of cracked brickwork and movement due to the corroded steel frame behind.



Corroded steel frame behind brick panel.



Treated steelwork behind brick panel.



Repaired panel.

5. Cutting out of decayed timber to sash windows – decayed timber mainly affected a small number of windows located on the third floor (top floor) and lower ground. The sashes and surrounding framework are constructed of pine wood and the sills oak. Where timber was decayed excessively, we have undertaken splice repairs using the same type of wood as the existing. We have taken care to ensure the existing profiles have been reproduced and the repairs invisible once decorated. Where minor conservation repairs have been undertaken to sash joints, this has been done using an epoxy resin to avoid having to cut out original timbers thereby retaining as much of the original material as possible. See photographs below showing the extent of timber decay and repairs undertaken:



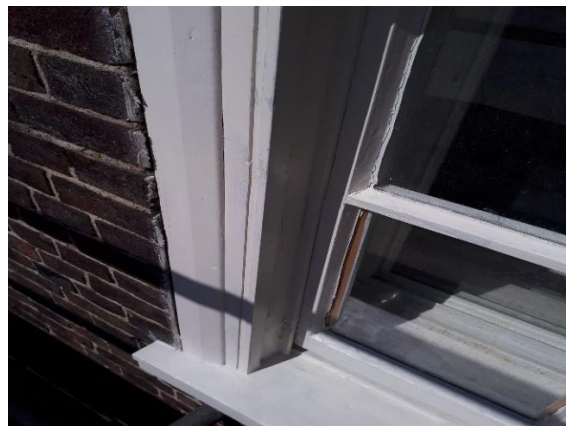
Example of extent of timer decay to sash windows at third floor level.



Splice to softwood frame surrounding sash window to remove decayed timber.



Replacement of decayed bottom rail on sash window with pine timber.



Completed repair to softwood frame on sash window.



Replacement of softwood architraves to sash window.



Epoxy resin repair to decayed conservation joint.



Splice repair to window sill with oak timber to lower ground window.



Example of putty repairs to sash windows.

6. Repairs to timber door sets within internal courtyard – the joints to the oak door sets are beginning to open up and require repair. We propose to re-glue the existing timbers where opened up. If localised splice repairs are required, we will match the existing timber taking care to ensure the existing profiles are reproduced. The doors will be revarnished on completion. Additional work includes removing the existing hinges, cleaning them, and re-hanging the doors to ensure fully operational. Where defective ironmongery is to be replaced, door handles for example, this will be on a like for like basis.



Example of open joint to existing oak door set within the internal courtyard.



Photograph showing the configuration of door sets within the internal courtyard.

7. Repairs to timber door sets at roof level – There are 2no. timber door sets serving the building at roof level and 2no. door sets serving the roof top plant rooms. These doors are rotten and would benefit from complete replacement. See photographs below:



Existing rotten timber door set and single glazed side panels. Propose to replace with new double-glazed powder coated aluminium type double door set.



Existing rotten timber door set to roof top plant area. Propose to replace door set with new hardwood fire door. Configuration of glazing to match existing.



Existing rotten timber double door set to plant room at roof level. Propose to replace with new fire rated steel powder coated double door set.



Existing rotten timber door set to plant room at roof level. Propose to replace with new fire rated steel powder coated single door set.



Existing fire rated steel door set installed at roof level. We propose to replace the timber doors to the plant rooms to match this.

8. The existing roof lights are Georgian wired glazed roof lanterns. We are seeking approval to remove the roof lights within Roof 1, infill the openings with structural plywood and overlay with the proposed liquid applied waterproofing system. Internally, the roof lights are concealed by ceiling finishes and therefore removing them will not affect the internal appearance within the building. We propose to replace the existing lantern roof light within Roof 4 with a new modern roof light to match those already installed. Internally this roof light serves a t-point. See photographs below:



Proposal to remove 3no. roof lights within Roof 1, infill openings and overlay with a liquid waterproof covering.



Close up view of roof lights to be removed within Roof 1.



Proposal to remove 1no. roof light within Roof 4 and replace with a new modern roof light.



Modern roof lights within Roof 4. We propose to replace the lantern roof light to match.

9. Where bird netting and wires already exist, the new installations have been fitted to the existing eye hooks and posts. Where bird spikes are adhered to the stone and asphalt cornices, we are seeking approval to install new bird wires to match those already installed. See photographs below:



New bird netting installed above main entrance fixed to existing eye hook fixings.



New bird wire to column ledges fixed to existing posts.

10. The window surrounds to the mansard roof within the internal courtyard are covered with asphalt and a solar reflective paint applied. We propose to re-apply the solar reflective paint, which will be white in colour. See photographs below:



View of window surrounds to mansard roof within internal courtyard.



Close up of window surround to mansard roof within internal courtyard.

11. Structural coating to walls – The specification allows for a structural coating to be applied, however, on further investigation the panels located within Roof 1 (as identified in the photographs below) are rendered with a painted finish. We propose to hack off all defective and de-bonded render, re-rendering isolated areas and infilling any cracks. The panels will be painted with Dulux Weathershield masonry paint to match the existing colour. The brick elevations serving Roof 13 have a painted finish, which is deteriorating. We propose to prepare and redecorate with Dulux Weathershield masonry paint.



View of rendered panels to the brickwork wall within Roof 1.



Close up showing cracked and defective render to the panels within Roof 1.



Paint finish to roof 13 deteriorating. We propose to prepare and redecorate.