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23 Gloucester Crescent

Design and Access Statement

Revised May 2021

This supporting statement forms part of a Listed Building Application seeking minor amendments to approval ref. 2020/4735/L (dated 27.01.202) and is accompanied by the following documents:

Existing situation prior to commencement of the approved works:
GC 101A site plan existing 1-50.pdf
GC 102A basement plan existing 1-50.pdf
GC 103A ground floor plan existing 1-50.pdf
GC 103A ground floor plan existing 1-50.pdf
GC 104A first floor plan existing 1-50.pdf
GC 105A second floor plan existing 1-50.pdf
GC 105A second floor plan existing 1-50.pdf
GC 106A roof plan existing 1-50.pdf
GC 107A section AA existing 1-50.pdf
GC 108A north elevation existing 1-50.pdf
GC 109A west elevation existing 1-50.pdf
GC 110A south elevation existing 1-50.pdf
GC 111 kitchen plan existing 1-20.pdf
GC 112 first floor bathroom plan existing 1-20.pdf

Approved drawings and documentation:
GC 301 site plan proposed 1-50.pdf
GC 302A basement plan proposed 1-50.pdf
GC 303A ground floor plan proposed 1-50.pdf
GC 304A first floor plan proposed 1-50.pdf
GC 305A second floor plan proposed 1-50.pdf
GC 306A roof plan proposed 1-50.pdf
GC 307A section AA proposed 1-50.pdf
GC 308A north elevation proposed 1-50.pdf
GC 309A west elevation proposed 1-50.pdf
GC 310A south elevation proposed 1-50.pdf
GC 311 kitchen plan proposed 1-20.pdf
GC 312 kitchen plan proposed 1-20.pdf
GC 313 Second Floor Bathroom proposed 1-20.pdf
GC 314 South external door proposed 1-10.pdf
GC 315 North external door proposed 1-10.pdf
GC 316 Basement kitchen door proposed 1-10.pdf
GC 317 Basement dining room door proposed 1-10.pdf
GC 318 Basement stair door panelling proposed 1-10.pdf
Covering letter, Statement of Significance, Heritage Impact Assessment, Design/Access Statement

Drawing showing Minor Amendments to the approval:
GC 301A site plan proposed 1-50.pdf
GC 302B basement plan proposed 1-50.pdf
GC 303A ground floor plan proposed 1-50.pdf
GC 304B first floor plan proposed 1-50.pdf
GC 305B second floor plan proposed 1-50.pdf
GC 306B roof plan proposed 1-50.pdf
GC 307B section AA proposed 1-50.pdf
GC 309B West elevation proposed 1-50.pdf
GC 311A kitchen plan proposed 1-20.pdf
GC 312A kitchen plan proposed 1-20.pdf
GC 313A Second Floor Bathroom proposed 1-20.pdf
GC 318A Basement stair door panelling proposed 1-10.pdf
GC 320A Hall Roof plan proposed 1-50.pdf
GC 321A basement flooring proposed 1-50.pdf
Covering letter, Design and Access Statement revised, Heritage Impact Assessment revised

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1 Introduction

Purpose of the Design and Access Statement

The Design and Access statement illustrates the process that has led to the development proposal and explains the design. Conservation led design proposals should positively address the following requirements:

- to retain or reveal significance;
- to identify feasible and compatible uses;
- to meet statutory requirements;
- to work within procurable resources;
- to anticipate opportunities and threats;
- To retain original fabric wherever possible.

The Statement draws on statutory guidance from National Planning Policy Framework prepared by HM's Department for Communities and Local Government.

Relationship to the Heritage Impact Assessment

The Design and Access Statement accompanies the Heritage Impact assessment, assessing in detail the impacts upon the features that contribute to the special architectural and historic interest of the listed building.

The priority areas for technical intervention are the roof and second floor, where water ingress and significant structural intervention in 1969 have been detrimental to the original building, and the basement area where historic water issues were evidenced through multiple waterproofing layers applied to the walls, with considerable dampness present in the building fabric at the commencement of our involvement.

Both areas require considered interventions to sustain the building fabric, to secure the roof and its safe maintenance, and to propose solutions to the basement damp that actively resist water ingress where necessary whilst allowing the fabric to regain its traditional vapour permeability. The existing approval contains a detailed strategy for addressing the water related issues in the basement and top floor, however opening up works have made significant insights into the consequences of the historic interventions. In some cases original design features have been revealed that through a lack of understanding had previously been compromised, creating consequences that require amended proposals.

This **Design and Access Statement** clarifies the design intent of the minor amendments being applied for. The **Heritage Impact Assessment** seeks to clarify the impacts of these proposals on the historic significance of the building.

2 Design and Access Statement

Strategic alterations to the consented scheme

The design modifications to the approved scheme (2020/4735/L, dated 27.01.202) generally relate to discoveries within the approved opening up works and are as follows:

Basement floor;
Hall roof;
Amendments to main roof reinstatement and address structural weakness;
Minor alterations to bathrooms and elsewhere.

Basement floor:

The consented scheme proposed a minimal intervention to introduce a vapour permeable perimeter 'lung' to assist in ground borne water evaporation, with the proviso to open up and investigate the outer perimeter plinth of the house as part of lowering external ground levels to assist in reducing water ingress. A Newton vented membrane was proposed and given consent, as the condition below ground level meant that external water penetration would prevent ordinary vapour permeable internal plasters form operating successfully.

During the year between the initial plaster removal and the consented start on site the walls, now exposed brickwork, have significantly dried out. The consented removal of the tiling to the basement floor, and the excavation of the limecrete perimeter 'lung' to facilitate moisture evaporation confirmed the presence of a concrete slab in the dining room, but revealed the original York stone flags of the scullery in situ. In addition, the flags themselves were laid on shall brick 'feet' with a slate DPC creating a continuous 60mm air gap below each slab. Vent openings in the base of the wall below slab level connect through the wall to a full height external cavity that is vented at high level, creating a separation between the structural wall and the external soil, and allowing the moisture in the clay below the stone floor to evaporate through the cavity. The highly unusual design is not referenced in the Historic England guidance notes on early cavity walls (Energy Efficiency and Historic Buildings – Insulating early cavity Walls - Historic England - March 2012, revised April 2016), which assumes a cavity wall to be above ground level and used to protect from driving rain, not raised ground levels.

Of interest is the use of headers to bridge the gap between the two leaves. As with early Victorian cavities, brick ties are used:

> "..the earliest cavity walls were tied together with through stones or brick headers placed at sufficient intervals to give the wall enough strength" (Ibid).

As noted by Historic England, this early form of cavity creates a moisture bridge between the two leaves:

> "Where bricks are used as ties the cavity cannot be continuous as the bricks create direct contact by bridging between the two leaves. Moisture is therefore able to transfer across the cavity and for this reason these walls are analogous to solid wall construction

rather than modern cavity wall construction where metal or plastic ties are used to prevent capillary transfer of moisture across the cavity" (Ibid).

However, the ties here are not bedded into both brick leaves. The ties are bonded as headers into the singe skin outer leaf, the header ties meeting but not bonded into the inner leaf, where is a lime mortar pad that holds a small piece of slate acts as a DPC. The external pressure of the earth outside the outer leaf appears to mean that these 'ties' are in fact 'props' with an integral water separation, allowing the cavity to be a full half brick wide. The cavity is full height, running down to approximately floor level internally.

A fired clay ventilation brick at high level adjacent to a sloped top to the plinth (created by a double layer of creasing tiles rendered in Roman Cement) and to the North area wall provides ventilation to outside, with the external surface of lime based render allowing for vapour permeability in addition to airborne evaporation.

The presence of the cavity, when cleaned and the below slab vents re-opened provides an opportunity to reconsider a vapour open internal plaster to restore vapour equilibrium in the basement. As such, it is proposed to omit the Newton membrane except in the below ground utility space (no original cavity is present in what was a vault), and to use a Roman cement undercoat to a lime plaster finish, with a fully vapour permeable silicate paint finish.

The consented limecrete' lung' is still required, as the concrete slab is largely being retained as a record of the postwar changes to the building and minimize alteration. However recent research into the use of NHL5 or 3.5 lime within standard limecrete flooring shows that over time the carbonation of the limecrete is so effective as to minimize its ability to conduct water vapour. The use of a hot lime within the limecrete would maintain a high level of permeability, but its top surface would not deliver a robust floor. As such it is proposed to lay the limecrete perimeter set below the finished floor level, allowing a cast iron grill to protect the top surface of the limecrete. A gap between the limecrete and the walls allows the original vents to support the ventilation of the moisture through the wall.

A slate tiled finish to the retained slab throughout was part of the consented scheme in January 2021, however within the Scullery, now the kitchen, the York flags are proposed to be retained untouched, allowing the vented underfloor cavity to work as originally designed with the external cavity. As such the slate tiles will be set flush to the York stone flags, all of which will be retained, and the slate only applied to the floor where stone is not present. This change in material demarcates the original planform of the house, revealing the outline of the former larder within the kitchen. An under-tile electric heating mat set within the adhesive layer will run only under the dining room slates.

Summary:

- Newton membrane to the external walls of the Kitchen, Dining room and WC are replaced with Roman cement with lime finish.
- Retained York stone scullery and hallway flagstones are revealed, the slate tiles approved in January 2021 to only be used on the retained concrete sections of the basement floor, set flush to the stone.
- A cast iron grill of traditional design used around the limecrete perimeter to the dining room, WC and utility room to protect the softer, more vapour open limecrete 'lung'.

Hall roof:

The consented scheme allowed for a repair to the existing fibreglass flat roof above the entrance hall, as the SVP that was installed to pass across the roof just above the resin-based waterproofing membrane appeared to prevent the installation of a properly detailed lead roof. This was unsatisfactory in that water ingress through the existing resin membrane was evident, and its materiality neither sustains nor enhances the significance of the historic building.

Following an on-site re-evaluation after scaffolding provided physical access, a roof geometry was found which allowed for a code 5 lead roof that conforms to LSA approved details without altering the existing SVP. A lead roof is appropriate for the age and status of the building, all existing rafters are retained and the current outlet to the hopper/rainwater pipe is re-used.

Summary:

- A detailed drawing GC 320A is submitted to replace the fiberglass roof covering to the entrance hall with a code 5 lead roof covering.

Amendments to main roof reinstatement and address structural weakness:

The consented scheme allows for the renewal of the plasterboard ceiling to the underside of the rafters. Following the removal of the terrace and plasterboard, the extent of intervention in the original timber valley beam and ridge beams became apparent. The extensive notching to the upper face of the valley beam has significantly weakened the load bearing capacity.

The original rafters are 100mm (4”) in depth and are inadequate to sustain the slate roofing load given age and condition. The Morton Partnership Engineer requires 125mm (5”) deep rafters for safe loading, which we proposed to use in between the original rafters, therefore preserving them in-situ. The reinstated purlins mean that the weakened valley beam can remain in situ without reinforcement. The rooflight position as been adjusted to accommodate the reinstated purlin.

The Ridge beams are in poor condition and have inadequate bearing onto the masonry walls, therefore failing to alleviate the roof load from the damaged valley beam. The Morton Partnership requires the use of a steel ‘splint’ to one side of each ridge beam of to allow the ridges to be retained, re-supported and to in turn support the valley beam. The decayed bearing end of the valley beam as it meets the side wall requires intervention to restore bearing capacity if the beam is to be retained. The retention of historic fabric is a priority, so the Morton Partnership have detailed a steel support plate to replace the decayed timber and provide a secure bearing into the wall. No alterations to the wall will be required, however the removal of the decay will be needed, with two 195x10mm steel plates bolted together through original beam, welded to a stiffener plate and bearing plate set within the wall (refer to appendices).

Whilst the use of steel is not an original detail, however it allows the original roof elements to remain in operation and in-situ, and to also remain out of sight following the installation of the already approved wood fibre insulation and lime plaster finish to the underside of the rafters.

Following the approved removal of the roof terrace the original roof form is being reinstated. It was consented for the existing black clay ridge tiles that cover the remnants of the original ridges to be retained and the reinstated ridge sections covered in a similar tile. However, under the terrace parapet a hand planed timber roll specific to a lead ridge remained in place. This detail proves the original ridges to the slate roofs were lead. As the removal of the terrace was to affect the reinstatement of the original roof form, it follows that with the discovery of the lead rolls, that lead ridges are also reinstated. The original sections of timber roll are to be retained in situ, with missing or decayed sections matched with the same profile, with a code 5 lead covering.

Summary:

- Steel plates to reinforce the bearing of the existing valley beam and two ridge beams in order to retain all existing roof fabric in situ, whilst achieving a secure long term structural solution.
- 25mm deeper rafters than the existing are required to achieve the roofspan, these new rafters will be interspersed between the originals and used where the terrace used to be, insulated and lime plastered as per the existing approval.
- Code 5 lead ridges replace clay ridge tiles reinstating the original detail.

Minor alterations to bathrooms and elsewhere:

On the First floor main bathroom the approved free-standing shower tray and curtain are to ne omitted. This allows the original presentation of the room as known to Alan Bennett to be enhanced, with the shower on the top floor to be improved to provide the only shower in the house.

In addition, the re-opening of the doorway to the adjoining bedroom is no longer necessary for the clients, so it is proposed to retain the current infill as made by Alan Bennett, making no change to the current arrangement.

An extract fan has been required by the Building Inspector and is allowed for, utilizing an existing airbrick on the exterior as the exhaust vent with a flat 4” grille to the interior replacing a plaster vent.

An antique Shanks basing with marble top and original taps on a stand has been sourced and purchased, details are included. The marble colour compliments the original Vitrolite splashback being reinstated.

The second floor shower room has a shower tray set up a step to avoid services/pipe penetration to the existing floor structure. This step up is retained, however rather than a tiled section then a short shower tray, a full length shower tray is proposed to minimize the potential for water penetration through the tiling, and to give a longer showering space for what will be greater usage as the first floor shower is being omitted. A recessed tiled shelf within a new end wall is included, as well as two additional electrical points for an illuminated mirror and toothbrush charger. Refer to drawings GC 305A and GC 312A.

In the ground floor cloakroom the joists supporting a redundant galvanized water tank (pre-dating Alan Bennett’s occupation but evidently post-war) are decayed. As the redundant water tank has no historical significance and impacts on an original space of the house, albeit the cloakroom, it is proposed to remove the water tank and supporting

timbers. The lime plaster will be repaired up to the soffit under the hall roof reinstating the full height of the space.

An existing double socket to the stair wall within the Study is to be retained.

The existing doorbell will be retained and re-used.

CCTV and PIR activated lighting will be fitted to the North and South areas as evidence of drug abuse and anti social behavior during the start of the works on site has required additional security measures to be incorporated into the works. The fittings are not visible form the street and are only visible within the areas, se discretely into the corners of the spaces with no visible conduit or electrical supply cabling.

Summary:

- Omission of the free-standing shower tray to the first floor bathroom.
- maintain the closed doorway between the first floor bathroom and the master bedroom.
- Change the shower tray to the second floor shower room, add a recessed shelf and two additional electrical points.
- The redundant water tank above the cloakroom to be removed and the room restored to its original proportion and finishes.
- Minor electrical additions.

Strengthening to roof structure:

Following opening up associated with the approved removal of the roof terrace and reinstatement of the timber roof, engineer calculated steel strengthening plates described in the appendices i - iv are proposed, sitting within the existing roof structure they remain unseen after the approved insulation and finishes are applied. The existing timber rafters are retained but supplemented with new 125mm timbers placed between the existing rafters, the purlins lost though the terrace installation are reinstated.

Summary:

- Addition of steel plates to existing valley beam and ridge beams to retain original structure in situ.
- Supplementing existing rafters (retained in situ) with new C24 timber rafters to Sustain the existing slate roof following engineers calculations.

3 Conclusion and summary table

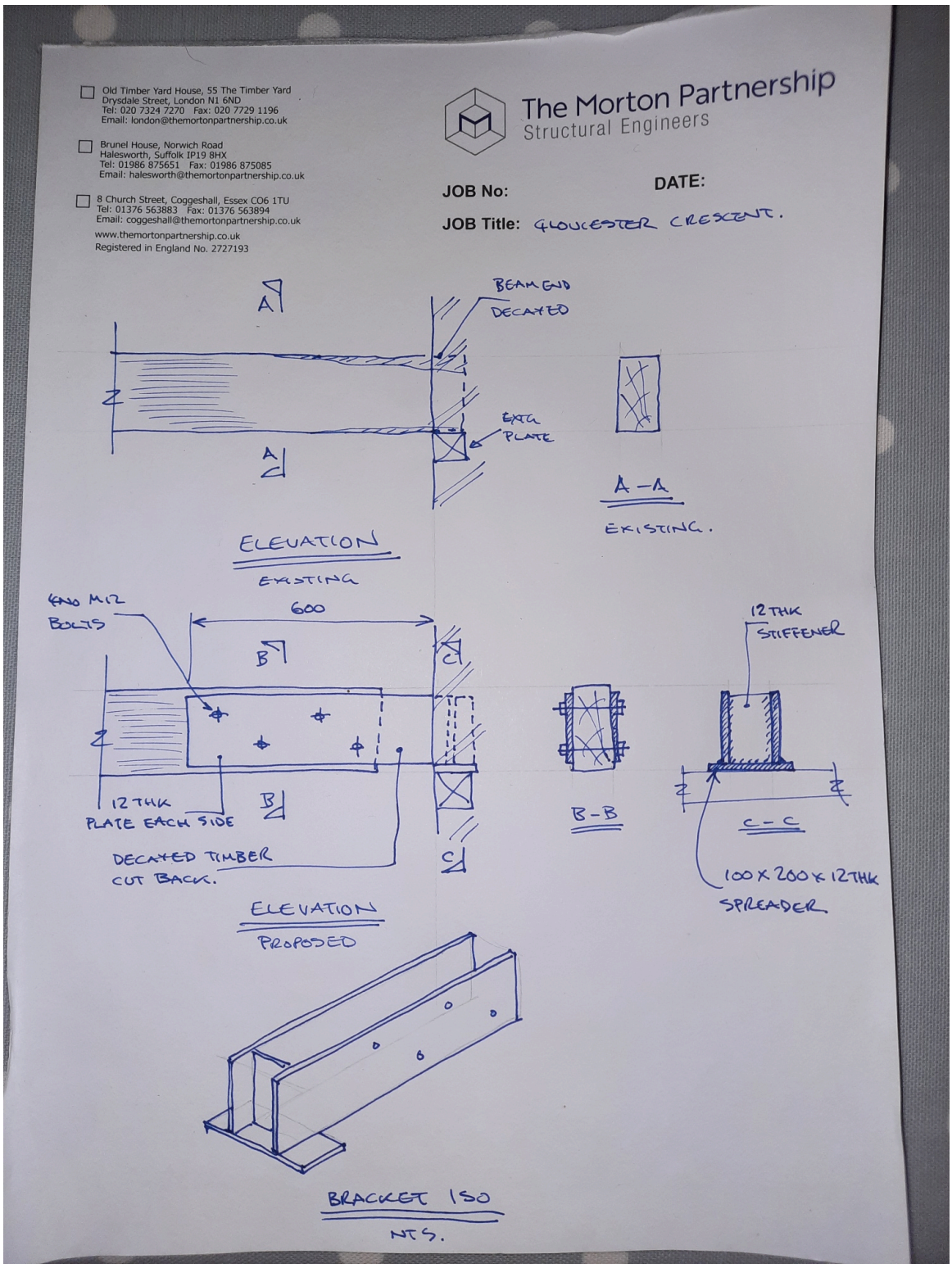
Summary table of actions

Room	Proposals	Justification	Significance	Benefit/mitigation	Assessment
Kitchen basement	Adjust location of kitchen door.	Accommodation of refrigerator.	**Low** The wall and door were consented in January 2021, adjust doorway by 200mm.	**Benefit** Practical benefit to inhabitation. **Mitigation** Unnecessary.	**Neutral** Neither harmful to the presentation of the space nor positively contributing.
Dining room Basement	Amend floor level moisture control	Discovery of under floor ventilation system original to house required minor amendment to moisture control strategy and detail.	**High** A significant early innovation in basement water-resisting construction, rendered ineffective through cumulative unsympathetic alteration, an opportunity to reinstate this design to help secure the fabric.	**Benefit** Return this technically interesting design to working order allows for simplification of the internal floor treatment. **Mitigation** Careful restoration using like-for like materials, deploy limecrete 'lung' only to walls without cavity vent in place.	**Positive** Sympathetic restoration of unique design feature, ability to minimize use of plastic waterproofing and employ traditional lime based surfaces to moderate moisture build-up.
Flooring basement	Original flagstone flooring retained, consented slate flooring used elsewhere with underfloor warm-up matting. To aid vapour permeability at perimeter where cavity not present, cast iron grilles will cover the limecrete already consented in January 2021.	Fine condition of original scullery and hallway floor, significant original fabric reinstated for everyday use. Flags supported on unique raised brick supports to create vented cavity to aid in moisture management. The restored operational cavity requires the consented limecrete 'lung' to be used only on the North and party wall plus vault.	**High** A unique installation working with vented cavity system, the flagstone floor, the stone floor is a visual and historic asset of high significance.	**Benefit** Reinstatement of original floor in good condition, **Mitigation** Re-design pipe runs to avoid underfloor pipework to prevent need for access/intervention.	**Positive** Sympathetic recovery of original fabric.
WC Basement	Add radiator	Omission of Newton membrane and use of lime based plaster reduces insulant value of walls, requiring additional heat input.	**Low** Low significance space.	**Benefit** Practical heating option. **Mitigation** Flow and return pipework fed from understair cupboard to protect flagstone floor.	**Neutral** Neither harmful to the presentation of the space nor positively contributing.
Study/library ground floor	Retain and re-use existing socket outlet .	Retention of bookcases leaves few power outlet locations, outlet previously installed in 2019.	**Low** Existing wireways re-used.	**Benefit** Practical benefit to inhabitation. **Mitigation** Faceplate painted as skirting to minimize visual impact.	**Neutral** Neither harmful to the presentation of the space nor positively contributing.

Cloakroom ground floor	Remove water tank and timber support structure, repair walls in lime plaster.	Redundant, heavy galvanized tank on water affected timber 'ceiling' with signs of decay.	**Low** No practical function or heritage significance, a post-war tank uninstalled when room converted as a WC.	**Benefit** Restore space to original height using heritage materials **Mitigation** Use of lime plaster, retain door, floor and joinery.	**Positive** Remove decaying timber, reinstate lime plaster to improve vapour permeability to external walls.
Bathroom first floor	Omit shower tray, minor lighting position adjustment, fit extract fan.	Retention of original floor and ceiling, use if second floor shower instead. Fan extraction required by Building Inspector to minimize moisture build up.	**Low** New shower where one never previously existed, no detriment to not installing. Lighting is part of Jan 2020 consent, adjust position with no addition of fittings. Fan concealed within existing duct wall, no impact on historic fabric.	**Benefit** Retain more original presentation of room **Mitigation** Install fan within duct wall, utilize existing external airbrick to avoid alteration to external appearance.	**Positive** Original bathroom layout preserved, avoid services openings for shower tray.

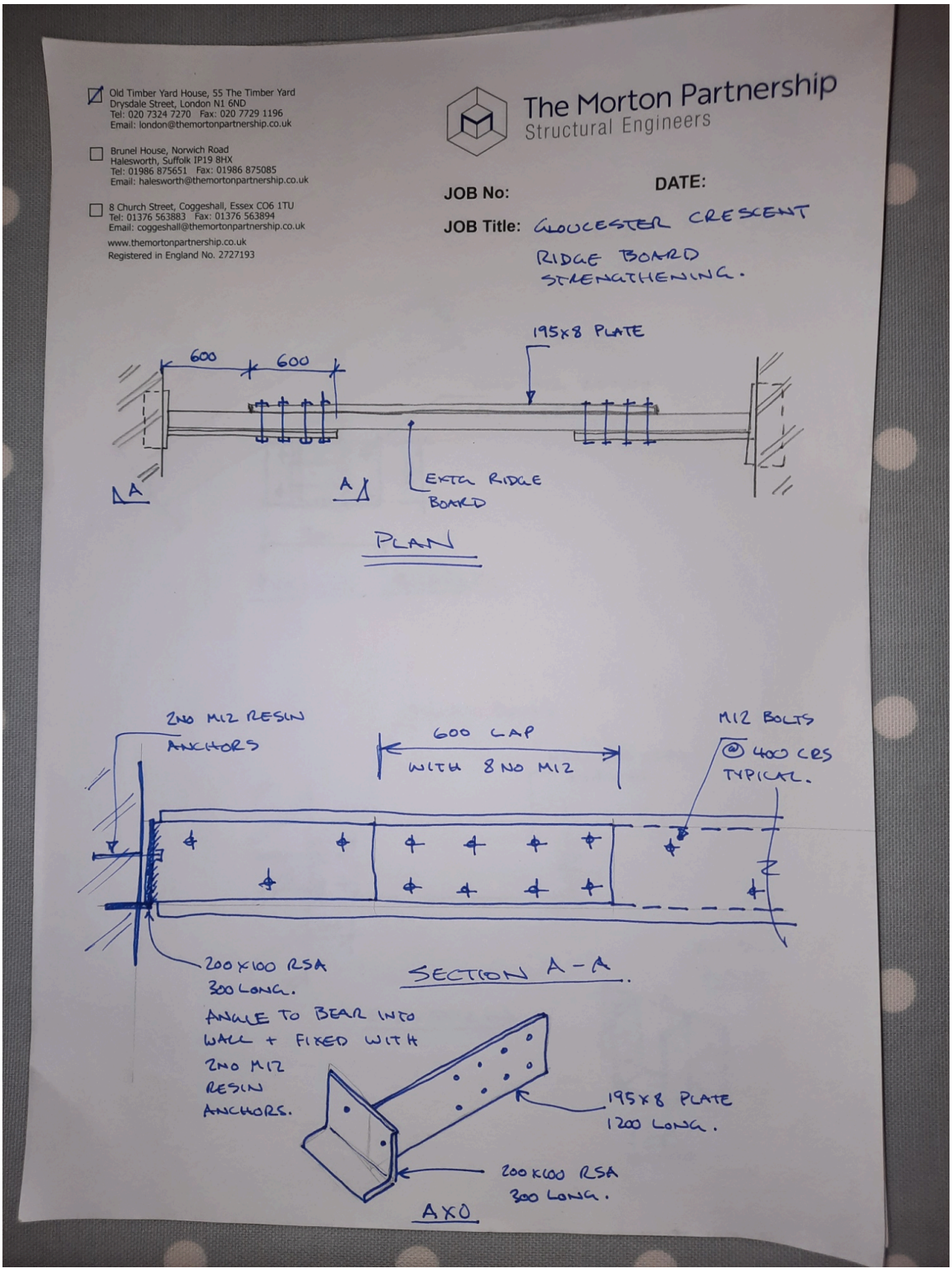
Bedroom first floor	Omit opening up doorway to bathroom.	Access now not needed, no alterations to cupboard proposed.	**Low** Modest alteration now no longer required.	**Benefit** Retain alteration made by Alan Bennett in 1969.	**Positive** Retains existing condition.
Shower room second floor	Single shower tray replaces tray with tiled step, minor electrical location changes	Single tray will improve waterproofing as step at risk over time. Reposition extraction fan and lighting with addition of 110v outlet and illuminated mirror.	**Low** Modest alteration to a space already much altered and of low significance.	**Benefit** Practical water risk management. **Mitigation** Avoid original timbers and finishes within roof and walls with careful services design.	**Positive** Original timbers preserved, relocations minor, tray enhances waterproofing potential.
Roof structure second floor	Addition of steel stiffening/supporting elements to retain active use of timber roof structure	Existing water damage and insensitive adjustment in 1969 requires additional/minimal support designed with a conservation accredited engineer to retain the existing Ridge and valley beams in situ. Steel shoes used to support reinstated timber purlins.	**Low/med** The roof is significant, therefore the repairs /strengthening must have as low an impact with removal of as little material as possible.	**Benefit** Practical minimal interventions to retain use of valley and ridge beams – necessity for deeper ridge beams **Mitigation** Plates designed for minimal impact, none visible when complete.	**Positive** Original timbers preserved in situ.
Rooflight second floor	Adjusted position due to purlin location.	Reinstatement of purlin requires rooflight to shift vertically up the pitch towards the ridge.	**Low** Modest alteration to the space.	**Benefit** Practical mitigation, no benefit or dis-benefit.	**Neutral** No benefit or dis-benefit.
Roof ridge	Lead ridge rather than clay ridge tiles.	Original timber lead rolls discovered under 1969 terrace when removed.	**High** Original fabric allows for the original design to be reinstated, retaining discovered details as a useful part of the house.	**Benefit** Reinstate original detail following clear evidence of original design.	**Positive** Original reinstatement of detail.
Entrance vestibule roof	Lead waterproofing rather than retaining fiberglass flat roof.	The existing SVP running at low level across top of existing roof can accommodate a traditional stepped lead roof following extensive survey an design process once access via a scaffold was available.	**Med** Fibreglass is a water liability and detrimental to the presentation of the house – visible from the stair window. A traditional lead roof is appropriate and durable.	**Benefit** Practical improvement in appropriate materiality and waterproofing longevity.	**Positive** Positive visual contribution, minimizing water ingress.

3 Appendices



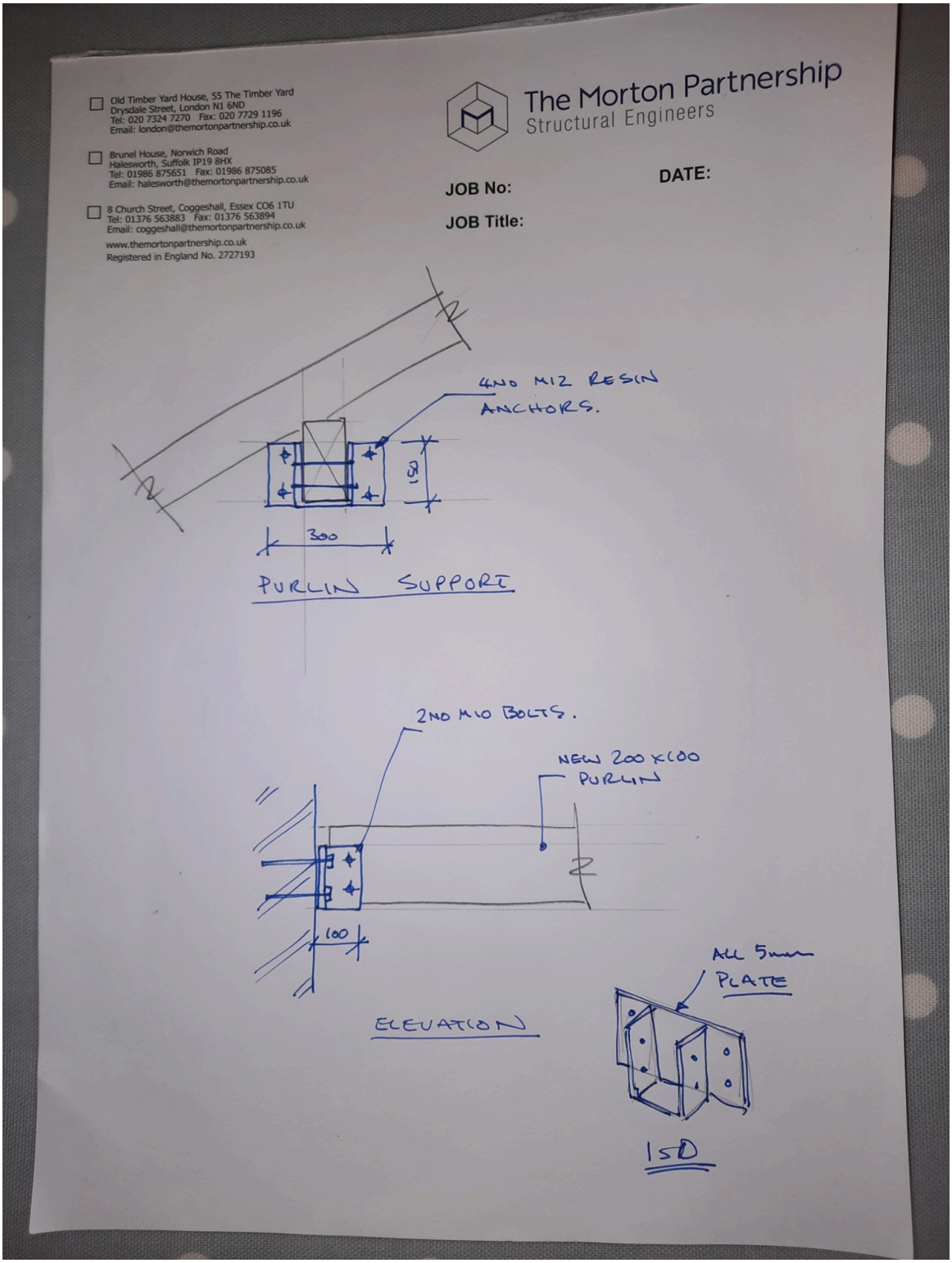
Appendix i

Morton Partnership detail of the steel bearing plates that replaces the decayed bearing end of the valley beam.



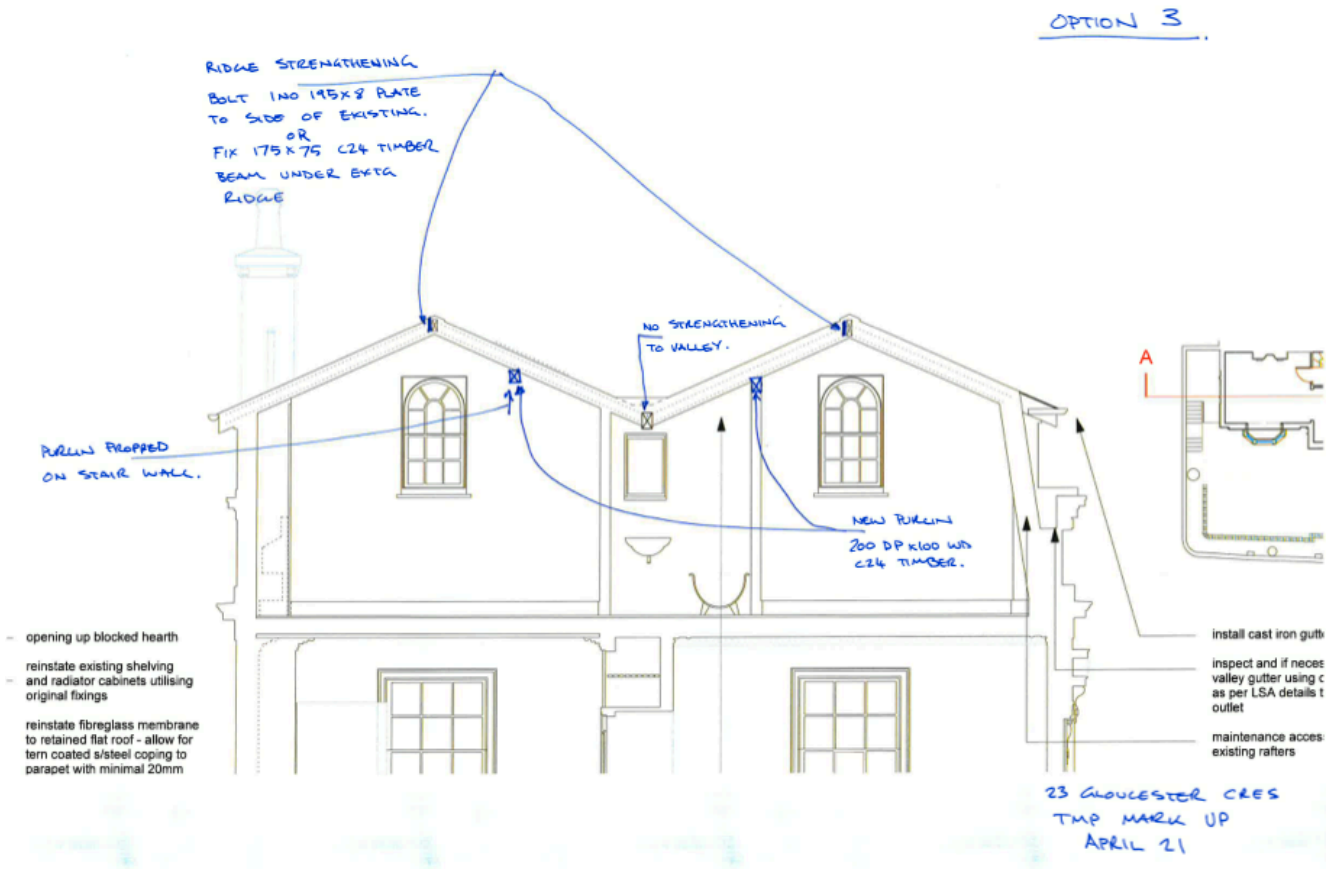
Appendix ii

Morton Partnership specification of structural scheme defining steel plate supports and bearing plates to existing ridge beams.



Appendix iii

Morton Partnership details for purlin connections to masonry walls minimizing intervention to the brickwork.



Appendix iv

Morton Partnership overall sketch of interventions.