



Date: 17th May 2024

WCS Project Reference: P5090
Bury MBC Listed Building Consent Reference: 70507

Plant Farm, Cross Lane, Ramsbottom, Bury BL8 4LY

Further submission following application for Listed Building Consent for internal refurbishment works

1. Appointment and project context

- 1.1 The following report has been prepared by Matthew Williams of Williams Conservation Surveying Limited (WCS) on behalf of the applicant, Mrs Julie Ormerod. The report is based upon surveying fieldwork completed during a visit to the property which took place on Tuesday 8th May 2024, accompanied by the applicant's husband and the appointed building contractor.
- 1.2 This summary report should be read alongside the existing submission documents attached to the application for Listed Building Consent (LBC) reference 70507. This was submitted to Bury Metropolitan Borough Council as Local Planning Authority (LPA) for internal refurbishment of the above referenced Grade II listed property. The building is an early 18th century farmstead as detailed in the Heritage Assessment from Gary Miller Heritage Consultancy dated February 2024.
- 1.3 The purpose of the present report is to address specific queries raised by the LPA in respect of the application, as explained to us by the applicant. It is understood that these queries have arisen from the consultee response to the proposals dated 7th March 2024 provided by Historic Buildings and Places (HB&P, formerly the Ancient Monuments Society) in their role as statutory consultee to the LPA. The present report is limited to providing responses to these queries only and therefore does not constitute a wider building survey or assessment of the structure.
- 1.4 We understand from the applicant that the queries raised by the LPA comprise: The extent of the proposed works to repair chimneys and roofing items to prevent water ingress; The design approach to the new lintel forming an opening within an original wall at ground floor level; The approach to damp proofing work (if any) and internal plastering works. These are each addressed in turn below.

2. Proposed approach to minor chimney stack and roofing repairs

- 2.1 The property has three chimney stacks which are of replacement modern construction comprising Staffordshire Blue engineering brick laid in cement mortar. For the avoidance of doubt, no historic fabric is present, and the chimney stacks are not considered to be of any heritage significance.
- 2.2 The chimney stacks are in acceptable structural condition with no major structural defects evident. Significant water ingress is however visible internally beneath the south chimney stack, and this appears to correspond to a defective lead flashing directly above the affected area (Photographs 5.1, 5.2).
- 2.3 There are a range of more minor defects visible to the central and northern chimney stacks including moss growth indicative of mortar deterioration, and partial loss of the mortar flaunchings at the apex

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of the structures. In addition, the chimney pots are not capped and there is a risk of direct water ingress into the flues beneath (Photographs 5.3 and 5.4).

2.4 The roof coverings comprise traditional stone flag coverings of local natural stone with a traditional stone ridge capping bedded in cement mortar. Although of traditional appearance, internal evidence confirms that the timber roof structure has been entirely replaced during earlier works. It is possible that the present roof coverings include some re-use of original stone flags.

2.5 The roof coverings are in acceptable structural condition with no major defects evident. There is however evidence of moss growth and mortar deterioration to the stone ridge capping and there is potential for water ingress as a result (Photograph 5.5).

2.6 The proposed approach to the minor repairs required to the chimney stacks and roof coverings to address these defects is as follows:

- Provision of scaffold access using capped scaffold poles to avoid accidental damage to original stonework.
- Capping of redundant chimney flues to prevent water ingress using a suitable traditional red terracotta capping detail.
- Removal of moss and replacement of damaged mortar pointing and flaunching to all chimney stacks, using cement-based mortar. Note: cement-based mortar is proposed in this area as the chimney stack materials are modern replacements not suited to the use of lime-based mortars. Staffordshire blue engineering brick is an exceptionally hard material and would not be suitable to receive a soft lime-based mortar.
- Careful lifting of adjacent stone flags around chimney stack bases and replacement of all lead flashings, replacement of modern breathable roofing membrane where damaged. Replacement of all lead flashings in Code 4 lead, suitably detailed and treated with patination oil, pointed into the chimney stack brickwork using a cement-based mortar as detailed above.
- Careful lifting of stone ridge cappings, removal of moss and cement-based mortar. Careful cleaning (at ground level) of cement-based mortar residue from stone ridge cappings using handheld tools only to avoid damage.
- Re-setting of stone ridge cappings, bedded and pointed in a traditional lime-based mortar, not gauged with cement or other additives. Lime-based mortar to have a gently brushed finish to expose the aggregate and give a suitable appearance, to avoid a smooth over-finished pointing style. Lime-based mortar to be allowed to dry carefully over three to four days covered with wet hessian matting, to prevent excessively rapid drying and consequent failure.

3. Proposed approach to making good of new structural opening and lintel within ground floor

3.1 The existing conditions at the time of the present survey comprise an 18th century solid stone wall, identified within the Heritage Assessment as formerly the outside wall of the first phase of the property dated to 1739. As part of the present works this wall has been opened up to form a new structural opening to facilitate an open plan ground floor room. A new structural steel lintel has been

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provided and at the time of the survey the remaining wall sections to either side of the lintel remain of exposed unfinished natural stone.

- 3.2 The statutory consultee response from HB&P and the subsequent LPA officer comments indicate a concern regarding the legibility of the remaining sections of the former external wall to either side of the newly formed structural opening. The advice provided encourages the retention of clear visual evidence of the wall's age and previous function following the refurbishment works.
- 3.3 It is proposed to plaster and redecorate the remaining sections of the wall, using Limelite plaster as set out within the general approach to plastering and damp proofing proposed in Section 4 below. In order to ensure the desired legibility, however, it is proposed that sections of suitably well-dressed stone should be left exposed and visible as shown within the mark up below (Photograph 5.6, 5.7).
- 3.4 The plaster will be finished neatly around the exposed stone sections, with a plain chamfered plaster reveal detail between the plaster surface and recessed stone surfaces.
- 3.5 To the newly installed structural lintel it is proposed to enclose the lintel in plasterboard to accept Limelite plaster. This approach is proposed both to ensure the integrity of the lintel in reaction to fire, as required by the Building Regulations, and considering the modern nature of the lintel which is not suited to receiving traditional materials.

4. Proposed approach to damp proofing and plastering works

- 4.1 The existing above ground external wall conditions at the time of the present survey comprise 18th century solid natural stone walls. It is likely that the core of these walls includes some rubble and rough lime mortar infill typical of vernacular buildings of this period.
- 4.2 Traditional solid masonry walls of this type were commonly used for building until the advent of cavity wall construction and damp proof membranes in the late 19th and early 20th centuries. Solid masonry walls operate on a principle of "breathability". This means that whilst driven rain will enter the outer parts of the structure, the materials used are permeable to water vapour. This enables the resultant moisture to evaporate over time when weather conditions allow.
- 4.3 As such, water cannot be fully excluded from structures of this type but must instead be managed using vapour permeable materials such as lime-based mortars and renders. The use of non-vapour permeable products such as cement or chemical injected damp proof courses is unsuitable as these products trap moisture within the structure and prevent water vapour from escaping.
- 4.4 Based upon a visual inspection at the time of the survey, in this case the condition of the above ground external walls following removal of earlier cement-based plaster applications appears to be relatively good for their age and type. There is no significant visual evidence of water ingress through the external walls and the stonework appears to have dried well over time (Photograph 5.8).
- 4.5 To the partially below-ground walls of the cellar to the rear of the property, there is significant water ingress and the walls are wet to the touch. At ground level within the cellar there is considerable water ingress, and standing water was observed at the time of the survey (Photograph 5.9).

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- 4.6 As identified within the Heritage Assessment, parts of the cellar construction appear to be of 20th century date and this is confirmed by the use of modern stone setts to the roof structure which is visible externally (Photograph 5.10).
- 4.7 A number of defects were identified externally to the cellar roof and walls including moss and vegetation growth and loss of pointing, all of which will contribute to the water ingress seen internally. The design of the roof also allows water to pool between the stone setts due to the recessed pointing style used (Photograph 5.11).
- 4.8 Notwithstanding the modern roof construction of the cellar, the lower parts of the internal walls appear to be of considerable age when viewed internally. The walls have been constructed of hand tooled stonework, although this may be partially reconstructed. The central table to the cellar may also be of historic interest. There is however a further niche to the north cellar wall which is of reclaimed stone and is of modern construction and no historic interest (Photograph 5.12).
- 4.9 As a result, at least part of the interior of the cellar is of potential heritage interest and this limits the range of suitable options for managing the water ingress identified. In particular, tanking and similar approaches would not be suitable for use on a stone wall of this age and type.
- 4.10 The garden area adjoining the rear of the building and the cellar is steep and narrow, with a considerable depth of soil between the ground level and the floor level of the cellar. As a result, installation of a French drain in this area would have significant technical challenges. A French Drain would require excavation by hand as the area would not be accessible for mechanical plant. In addition, structural propping would be required to prevent collapse of the slope above, at considerable risk to the contractors completing the work. It is therefore unlikely that a French drain would be practicable or effective in this context.
- 4.11 Cellar and basement areas within historic buildings were not designed or expected to be dry and as such a degree of management of water ingress is required. It is not likely that the cellar area will be suitable for occupation (for which separate Building Control consents would be required) nor for storage of any items which could be damaged by water vapour and condensation. As a result of these constraints, the water ingress within the cellar will need to be actively and continuously managed.
- 4.12 In light of the above observations, the following approach is proposed to plastering and damp proofing works within the property, addressing both the main ground level external walls and the partially below-ground cellar walls:
- Plastering internally throughout to the main above ground external walls using Limelite plaster. This is a proprietary lime-based plastering system comprising Easy Bond (primer and keying aid), Limelite Renovating Plaster (undercoat) and Limelite High Impact Finishing Plaster (topcoat). The system provides a suitable level of workability and reliability whilst allowing for breathability to protect the fabric of the building.
 - Provision of ongoing maintenance to the main above ground external walls to minimise the risk of water ingress, including but not limited to prompt repair of any defects to rainwater goods and weathering details, removal of moss and algal growth to the main walls, re-pointing as required in lime based mortar and control of ground level vegetation.

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- Repair and ongoing maintenance of the partially below-ground walls and roof of the cellar structure, including control of vegetation throughout the area, removal of moss growth, re-pointing in cement mortar to damaged areas, and completion of additional pointing to the stone setts to a flush pointing profile to prevent water pooling between the setts. Note that cement-based mortar is suitable for use in this instance as the external structure and roofing setts of the cellar are of later 20th century date and modern construction.
- Provision of a new sump pump to the cellar to continuously extract standing water from the floor level of the cellar, and provision of continuous mechanical extract ventilation in order to reduce the level of water vapour and condensation within the cellar. It is proposed that the mechanical and electrical equipment required for the sump pump and continuous mechanical extract ventilation may be installed within the modern niche to the north wall of the cellar without causing any damage to the possible historic interest of the area.

5. Site Photographs



5.1 Saturated brickwork beneath southern chimney caused by defective flashing.



5.2 Evidence of defective flashing to exterior of southern chimney stack.



5.3 Uncapped chimney pot and moss growth visible to central chimney stack.

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5.4 Incomplete mortar flaunching and moss growth to northern chimney stack.



5.5 Damaged pointing and moss growth to stone ridge capping.

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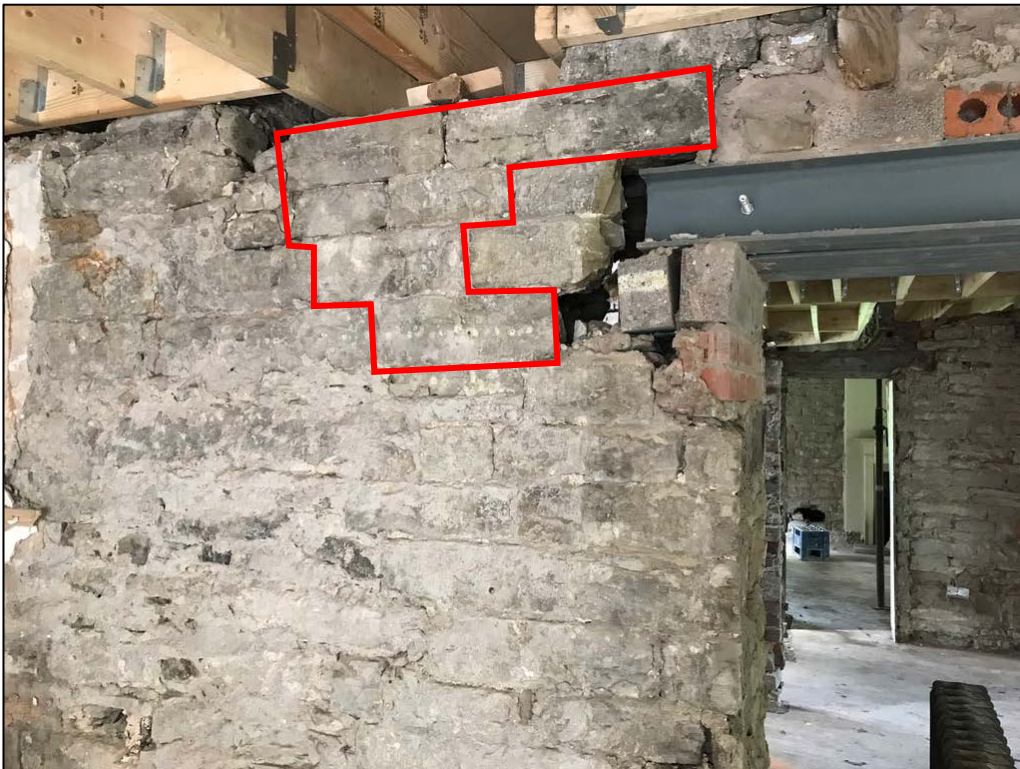
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5.6 Proposed exposed stone section to remain visible within former external wall of c. 1739.



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5.8 Natural stone faces of external walls generally dry with no major water ingress above ground.



5.9 Significant water ingress to cellar area with standing water visible at ground level.

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5.10 Modern stone setts to cellar roof. Defects including moss and vegetation growth, pointing loss.



5.11 Recessed pointing style to modern stone setts allows water to pool between setts.

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5.12 Modern niche within cellar suitable for housing M&E equipment for pump / ventilation.