

Design and Access Statement

Bratton House, Melbourne Street, Bratton, Wiltshire

August 2026

Proposed Works to the Eastern Boundary Retaining Wall



1. Introduction

This Design and Access Statement has been prepared in support of an application for Listed Building Consent relating to remedial works to the historic retaining wall within the grounds of Bratton House, Bratton, Wiltshire, and the garden of 1. Flowers Mead, Bratton.

The proposal involves the careful taking down and reconstruction of the defective section of the existing retaining wall, together with the introduction of appropriate structural strengthening and drainage measures. The works are necessary to address significant structural movement within the existing stone masonry section and to secure the long-term stability and continued use of the garden and associated land.

The proposals have been informed by a structural inspection undertaken by Conley Structural Engineers, together with detailed repair and strengthening proposals prepared by Mesh Engineering Ltd.

The Conley Structural Engineers report, dated April 2026, records that the retaining wall is of traditional masonry construction and retains approximately 2.9m of soil, with a further approximately 0.5m of wall projecting above the retained ground level. The wall comprises a mixture of stone and brickwork.

The engineering evidence demonstrates that the principal structural concern is concentrated within the stone masonry section, which is exhibiting significant outward lean and horizontal bowing. The

report concludes that the defective section is structurally deficient and that localised repairs would not provide a sufficiently reliable or durable solution. Partial reconstruction is therefore recommended.

The proposed works seek to achieve the necessary structural repair whilst retaining the character, appearance and traditional constructional qualities of the existing wall.

2. The Site and Existing Retaining Wall

Bratton House is a historic property within Bratton, Wiltshire. The application relates specifically to the existing retaining wall within the grounds of the property and does not propose alterations to the principal dwelling.

The retaining wall forms part of the landscaped gardens of Bratton House, but also to 1 Flowers Mead and performs an important functional role by retaining the difference in ground levels between the garden areas.

The structural report identifies the wall as traditional masonry construction, with approximately 2.9m of retained soil and approximately 0.5m of wall above the retained ground level. At its upper section the wall is approximately 440mm thick, with the wall understood to increase in thickness with depth.

The existing construction is mixed, comprising:

- natural rubble/stone masonry;
- brickwork;
- historic areas of brick infill and repair;
- traditional masonry joints;
- an upper brickwork section with coping.

The Mesh Engineering existing elevation identifies an approximately 13.5m section of rotated wall, with the existing abutting wall sections to be retained.

The existing section drawing further identifies that the rotation is predominantly isolated to the upper approximately one-third of the wall height. The engineering interpretation is that the observed failure mechanism is principally flexural rather than a general foundation failure caused by rotation or sliding. The proposed repair therefore seeks to make use of the existing foundation and reconstruct the defective upper section.

3. Existing Condition and Structural Assessment

A detailed visual inspection was undertaken by Conley Structural Engineers on 29 March 2026.

The inspection established a significant difference in performance between the various sections of the wall.

The upper approximately 0.5m brickwork section was found to be generally in good condition, with relatively uniform brick courses, no significant distortion or structural cracking, and generally intact mortar joints. The coping was also found to be largely continuous and undisturbed.

Similarly, the main brickwork retaining section was considered to be comparatively sound and did not exhibit the same degree of bowing or structural movement as the stonework. Localised mortar deterioration was identified but was considered relatively minor.

In contrast, the stone masonry section was found to exhibit:

- significant outward lean towards the neighbouring property;
- pronounced horizontal bowing;
- loose and displaced masonry;
- deteriorated or missing mortar joints;
- evidence of historic brick infilling and repairs;
- progressive movement;
- localised instability; and
- vegetation growing within the masonry.

The report notes that the absence of major cracking does not demonstrate that the wall is structurally stable, as movement in traditional mass masonry can occur through deformation of joints and internal rearrangement of the masonry.

The structural assessment considers that the condition is likely to have been influenced by a combination of factors, including the age and traditional construction of the wall, inadequate drainage, hydrostatic pressure, the local clay and greensand ground conditions, and vegetation close to the wall.

In particular, no obvious drainage provisions such as weep holes were identified during the inspection. The lack of effective drainage is considered likely to have contributed to the build-up of hydrostatic pressure behind the wall.

The structural report concludes that the stone section is structurally deficient and that localised repair, ground anchors or intermediate buttresses would not provide a sufficiently reliable long-term solution. The affected section is therefore considered beyond economical repair and replacement by partial reconstruction is recommended.

The proposed works are therefore not being undertaken for aesthetic enhancement or alteration of the historic wall. They are a necessary response to an identified structural defect and are intended to prevent further deterioration and potential failure.

4. Proposed Development

The proposal is for the careful dismantling and reconstruction of approximately 13.5m of the defective section of retaining wall, whilst retaining the sound sections of the existing wall.

The Mesh Engineering proposals provide for the defective section to be carefully taken down and reconstructed with a new structural backing wall and natural stone facing.

The principle of the works is to:

1. retain the sound sections of the existing wall;
2. provide temporary support to the retained wall during the works;
3. carefully dismantle the defective section;
4. salvage and catalogue suitable existing stone and brickwork;
5. retain and reuse original materials wherever reasonably practicable;
6. reconstruct the structural retaining element;
7. reinstate the natural stone facing to match the existing;
8. introduce concealed structural strengthening;
9. provide effective drainage behind the wall;
10. reinstate the coping; and
11. ensure the completed work visually integrates with the retained historic wall.

The Mesh Engineering specification identifies the defective section as approximately 13.5m and requires the existing stone retaining wall to be carefully taken down and rebuilt with strengthening works.

The intention is therefore one of repair and reconstruction rather than wholesale replacement.

5. Structural Reconstruction

The reconstructed wall will incorporate a structural blockwork backing wall behind a traditional natural stone facing.

The backing wall is specified to comprise dense concrete blockwork with a minimum density of 1800kg/m³ and minimum compressive strength of 7.3N/mm², laid in M6 mortar. Movement joints are to be incorporated at maximum 6m centres.

The engineering detail also provides for the introduction of horizontal reinforcement within the blockwork and specialist heli-pile/anchor connections to provide structural continuity and resistance to the retained ground pressures.

The Mesh Engineering section drawing identifies the proposed backing retaining wall as approximately 440mm wide, reducing to approximately 215mm at the upper section, with stainless steel ties connecting the stone facing to the backing construction.

The structural strengthening is intended to remain substantially concealed behind the stone facing so that the completed wall retains the visual character of the existing historic construction.

The proposed anchors are to be confirmed by the specialist installer, with the engineering detail allowing for heli-piles at approximately 1000mm horizontal and vertical centres and a minimum anchor capacity of 20kN.

This approach provides a significantly more robust structural solution whilst avoiding an exposed modern engineering treatment.

6. Natural Stone Facing and Heritage Approach

Particular importance is placed upon the appearance and traditional character of the existing stone wall.

The Mesh Engineering specification requires the original masonry style and appearance to be carefully observed and matched. The rebuilding is to be undertaken by a suitably experienced stonemason with proven experience in historic wall repair and the use of lime mortars.

Where practicable, stone recovered from the dismantled wall will be reused, particularly for the visible face of the reconstructed wall.

Any new stone required will be selected to match the existing stone in:

- type;
- size;
- colour;
- texture; and
- general appearance.

New and reclaimed stone will be mixed and blended to avoid creating an obvious demarcation between old and new construction. The stones will be laid in an appropriate natural bed and the existing masonry character will be replicated.

The engineering specification also requires the larger stones found towards the base of the existing wall to be replicated as part of the rebuilding process, maintaining the established visual hierarchy of the wall.

The stone facing will be tied to the structural backing using stainless steel Type 1 wall ties at maximum 450mm vertical and horizontal centres. The wall core will be fully packed with mortar and packing stones, with no loose rubble fill permitted.

This ensures that the new construction retains the visual qualities of the historic wall whilst providing the structural performance required of a modern retaining structure.

7. Mortar and Pointing

The use of appropriate lime mortar is an important element of the conservation approach.

The Mesh Engineering specification requires the natural stonework to be rebuilt using an NHL 3.5 lime mortar. The specified mix is:

2 parts NHL 3.5 natural hydraulic lime : 5 parts sand

with the sand selected as a balanced mixture of soft and coarse sands to provide an appropriate texture and colour.

The mortar is to be mixed in small batches, with the joints dampened before pointing and the finished pointing brushed/tapped back to provide a texture and colour compatible with the surrounding original work.

The specification also requires appropriate curing and protection of the newly pointed areas, including protection from rapid drying, frost and rain for a minimum period of 3-7 days.

These measures are intended to ensure that the new work is compatible in appearance and performance with the existing traditional masonry.

8. Reuse of Existing Materials

The proposal seeks to maximise the retention and reuse of historic fabric.

Prior to dismantling, the existing wall will be photographed and, where necessary, individual stones will be numbered to facilitate their reinstatement.

The Mesh Engineering construction sequence specifically requires the existing stone, brickwork and coping to be carefully salvaged for reuse.

The existing coping stones will be carefully salvaged and reused wherever their condition permits. Where replacement is unavoidable, new coping stones will be selected to match the existing.

Similarly, salvaged brickwork within the upper section will be reused wherever possible, with supplementary bricks only introduced where required and subject to agreement with the conservation officer. These will be laid in NHL 3.5 lime and sand mortar, colour matched to the existing.

The approach therefore seeks to preserve as much original material as possible while recognising that some material will necessarily be lost as a consequence of the structural failure and safe dismantling of the defective section.

9. Drainage and Water Management

A significant improvement arising from the proposed reconstruction will be the introduction of effective drainage behind the wall.

The Conley Structural Engineers inspection identified an absence of obvious drainage provisions and considers the resulting hydrostatic pressure to be a likely contributing factor to the observed movement.

The Mesh Engineering proposals therefore incorporate:

- 75mm diameter weep holes;
- weep holes at approximately 1m centres;
- clean angular crushed rock/gravel behind the wall;
- a minimum 600mm depth of free-draining material behind the wall;
- non-woven geotextile to contain the drainage material; and
- appropriate surface water management.

The proposed drainage arrangement will substantially reduce the potential for water to accumulate behind the retaining wall and thereby reduce hydrostatic pressure.

The Conley report additionally recommends ensuring that surface water is directed away from the wall and that vegetation immediately behind the wall is appropriately managed.

These measures form an important part of ensuring that the underlying causes contributing to the deterioration are addressed rather than simply replacing the defective masonry.

10. Construction Methodology and Temporary Works

Given the current condition of the wall, the works will require careful sequencing.

The Mesh Engineering drawings identify the requirement for temporary shoring to retained sections of the wall prior to demolition. The temporary works will be designed to maintain stability during dismantling and reconstruction.

The proposed sequence includes:

1. undertaking a pre-commencement condition survey and photographic record;
2. establishing suitable site protection and access arrangements;
3. providing temporary shoring and support to the retained sections;
4. carefully dismantling the defective section;
5. salvaging suitable stone, brickwork and coping;
6. excavating from the high level using a long-reach excavator positioned to avoid surcharging the wall;
7. constructing the structural blockwork backing;
8. installing the required structural ties and reinforcement;
9. reconstructing the natural stone facing;
10. installing drainage and weep holes;
11. backfilling with suitable free-draining material;
12. reinstating coping;
13. allowing the masonry and lime mortar to cure appropriately; and
14. removing temporary works once the reconstructed wall has achieved the necessary stability.

The Mesh Engineering specification specifically requires the work to be undertaken in four separate phases/lifts where necessary, with scaffolding designed to provide support to the wall during construction.

Temporary works and contractor methodology will be finalised by the appointed contractor and temporary works designer prior to commencement.

Particular care will be taken to avoid undermining adjacent structures, boundary walls, foundations or neighbouring property.

11. Protection of the Historic Fabric and Surroundings

The proposed works will be undertaken with appropriate protection measures to minimise the impact upon the surrounding historic environment.

The engineering information identifies the following measures:

- condition survey prior to demolition;
- photographic recording;
- protection of existing planters;
- track mats across grassed areas;
- controlled access to the upper level;
- no unnecessary storage of materials at high level;
- scaffolding positioned outside the potential collapse zone unless specifically designed to support the wall;
- suitable edge protection; and
- temporary shoring and back-propping as required.

The existing wall is currently considered vulnerable, and the engineering drawings specifically caution against the storage of materials or equipment at high level.

The works will therefore be carefully managed to minimise risk to the retained historic fabric and neighbouring property.

12. Impact on the Listed Building and Historic Character

The principal consideration in respect of the proposed works is the effect upon the historic character and appearance of the listed building and its associated landscape setting.

The proposal does result in the loss of a section of existing historic masonry. However, this loss is unavoidable if the structural defect is to be addressed satisfactorily.

The Conley Structural Engineers report confirms that the affected stone section is subject to significant outward movement and bowing, with loose and displaced masonry and an increased risk of localised collapse. The report concludes that repair alone would not provide a reliable or durable solution.

The proposal consequently represents a necessary conservation-led intervention.

Importantly, the proposal does not seek to replace the wall with a visually modern retaining structure. Instead, the structural engineering solution will be concealed behind a natural stone facing which will replicate the existing wall.

The use of reclaimed stone, matching new stone, lime mortar, traditional coursing and reinstated coping will ensure that the reconstructed section remains visually consistent with the retained historic wall.

The proposal therefore seeks to achieve the appropriate balance between:

- retaining historic fabric wherever it remains structurally viable;
- removing only the defective section;
- preventing further deterioration and potential collapse;
- incorporating modern structural engineering where necessary;
- improving drainage;
- reusing original materials; and
- maintaining the traditional appearance and character of the wall.

13. Landscaping and Vegetation

The existing wall forms part of the landscaped garden setting of Bratton House, as well as 1 Flowers Mead.

The structural report identifies vegetation as one of the factors potentially contributing to the ongoing deterioration of the wall. Roots can disturb retained soil, introduce pressure into masonry joints and contribute to moisture variation within the clay soils.

The report recommends the removal or management of vegetation directly behind the wall with the removal of a number of moderately sized trees located approximately within 4m behind the wall.

The proposal also seeks the removal of established vegetation, as indicated on the Proposed Block Plan. No Tree Preservation Orders are currently in place, although the site is within a Conservation Area. The vegetation management proposed will be limited to that which is necessary to facilitate the safe repair of the wall and to address vegetation directly contributing to its deterioration.

Existing garden areas will be protected during construction and reinstated following completion.

14. Access

The proposal does not alter the existing access arrangements to Bratton House or introduce any new permanent access.

Access requirements relate solely to the temporary construction works.

Due to the location and condition of the retaining wall, access for contractors and machinery will be carefully controlled. The Mesh Engineering drawings identify restricted access and the need for suitable scaffolding and access arrangements.

The construction methodology will be designed to avoid placing excessive surcharge loads adjacent to the defective wall. The excavator will operate from the higher level and will be positioned so as not to surcharge the wall.

Temporary access arrangements, scaffolding, shoring and edge protection will be designed by appropriately competent persons and agreed through the contractor's construction methodology and Risk Assessment and Method Statement.

Short term access will be required via side access into the garden of 1 Flowers Mead, from Melbourne Street. Any dismantled boundary conditions will be re-instated in their current state once the main works are complete.

Site welfare unit to be placed on the verge adjacent 1 Flowers Mead, for access during the construction work, by site operatives.

15. Sustainability and Longevity

The proposal provides a sustainable approach to the repair of the retaining wall by retaining the substantial sections that remain structurally sound and reusing original masonry wherever possible.

Rather than replacing the entire wall, the defective section alone will be reconstructed.

The introduction of effective drainage is also intended to reduce future deterioration by preventing the accumulation of hydrostatic pressure behind the wall.

The use of traditional lime mortar will allow the historic masonry to retain appropriate breathability and compatibility, while the concealed structural backing and reinforcement will provide the additional structural capacity necessary for the wall's retaining function.

The works are therefore intended to provide a durable long-term solution while respecting the traditional character and material qualities of the existing wall.

16. Conclusion

The proposed works are considered necessary to safeguard the structural stability and long-term condition of the retaining wall at Bratton House.

The works will involve the careful dismantling of approximately 13.5m of defective wall, retention of the sound sections, salvage and reuse of original materials, reconstruction using an appropriately engineered backing wall, reinstatement of natural stone facing, use of NHL 3.5 lime mortar, introduction of concealed structural reinforcement and installation of effective drainage.

The proposal therefore represents a necessary and proportionate intervention to a structurally defective historic structure, rather than an opportunity to alter or modernise the appearance of the listed wall.

Subject to appropriate Listed Building Consent and implementation in accordance with the submitted engineering and architectural details, the proposed works will secure the retaining wall for the future while preserving its established character and contribution to the setting of Bratton House, as well as the future safety to the garden space of 1 Flowers Mead.

For these reasons, the proposed works are considered to represent an appropriate, proportionate and necessary intervention to safeguard the historic retaining wall and the wider setting of Bratton House.

I therefore request you to consider the application for approval.

Yours

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