

**Replacement Roof in Natural  
Stone Slates and Solar Panels  
Holland Fold Farm  
Long Lane  
Heath Charnock**

Design, Access and Heritage  
Statement  
On behalf of Mr G Berry

April 2024



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# 1. Introduction

- 1.1. This Design, Access and Heritage Statement has been prepared by Plan A (North West) Limited on behalf of Mr G Berry (the Applicant) in support of an application for Listed Building Consent for the installation of a replacement roof covering and associated works at Holland Fold Farm on Long Lane in Heath Charnock.

## Application Site

- 1.2. The application site comprises Holland Fold Farm, which is a Grade II Listed Building (List entry number 1362145). The property previously comprised a farmhouse cottage with an attached hay barn, which was converted into a single dwelling in 2007. Consent has since been granted to erect a leisure suite to the rear of the property and garaging and agricultural buildings to its front.

## Roof Condition

- 1.3. The Applicant undertook a comprehensive scheme of work to renovate the farm house and convert the former barn to living accommodation in 2007. As part of these works, the roof covering over the entire building was replaced with natural stone slates set in diminishing courses, supported by the original roughly-hewn tie-beam and collar trusses with straight wind-braces.
- 1.4. In the 15-year period since these works were undertaken, the roof covering over the former barn has failed. As illustrated by images below, the ridge has dipped and purlins have bowed and cracked. The original plane of the roof has sunk by approximately 300mm.





- 1.5. Engineers have advised that the roof failure is a direct result of the structural integrity of the roof, which is evidently insufficient to effectively support weight of the natural stone slate roof covering and additional loadings placed on it by weather conditions.
- 1.6. This failure, which is apparent on the section of roof that covers the former barn, but not the section covering the original farmhouse, results from the increased weight that has been placed on the former barn roof structure as a result of it being recovered in natural stone in diminishing courses to match the original farm house covering. Whilst the original farmhouse has a suitable sub-structure to support the natural stone slates with two thirds headlap, the slates covering the barn previously had a headlap of one third. By increasing the headlap to two thirds to match the farmhouse, the number of slates required to cover the roof has increased significantly and, therefore, the weight of the roof covering has also increased significantly. It is evident from the failure of the sub-structure within a 15-year period that it is incapable of supporting this additional weight.
- 1.7. Engineers have estimated the weight of the existing stone roof slates to be between 125 and 140kg per square metre. This significant weight has evidently had an adverse impact upon the integrity of the 350 year old roof structure covering the barn.
- 1.8. The Applicant, therefore, has a genuine concern that the existing roof structure will comprehensively fail in the short term, creating an urgency to undertake the works. Wind and snow loadings are typically forecast to impose stresses on a roof that are several times greater than the loading of the roof covering. As the existing structure is unable to support even just the weight of the roof, it is highly likely that the roof structure will decline significantly, or catastrophically fail, if it is subject to a period of harsh weather. There is, therefore, a need to address the situation urgently.

#### **Discussions with Growth Lancashire**

- 1.9. On 20 July 2023, Mr Ian Bond from Growth Lancashire visited the application site in the context of previous applications submitted by the Applicant, with the following consultation comments being subsequently offered:

*'I am not opposed to necessary and justified roof repairs and can understand the concerns re the state of the roof since the extensive alterations to the building (and barn in particular) granted permission in 2006. From my site visit I accept that it seems likely that works will be needed to be carried out to the roof'.*

#### **Proposed Development**

- 1.10. It is proposed to remove the existing external roof covering across the whole building and to undertake localised repairs to the purlins and rafters, which may require installing steel braces and plates. The roof will then be insulated with foil insulation, and a 3mm plywood deck laid to form a wind barrier, above which the natural stone and solar panel covering will be (re)laid. The buildings ridge and eaves height will remain as existing save for a potential 3mm difference to accommodate the wind barrier.
  - 1.11. The solar panel array will comprise a split row of 14 panels positioned on the south east facing roof pitch and a single row of 15 panels positioned on the north west facing elevation. All panels will be roof-integrated and will cover 19.5% of the main roof surface area. The panels are required to be fitted to both roof pitches to ensure that their weight is balanced across the whole roof, with the number of panels proposed being necessary to provide a weight reduction
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## 2. Design and Access Statement

### Design

- 2.1. The development proposals comprise the installation of a replacement roof covering, to include solar panels, and localised works to repair and enhance the integrity of the roof structure. The development will not create any additional floorspace over and above that which currently exists.
- 2.2. The proposed works are necessary to maintain and preserve the building, the roof of which will undoubtedly fail if no action is taken. The works will be undertaken in a sympathetic manner, with the roof being recovered in natural stone slates reclaimed from the existing building or sourced to provide an identical match, together with solar panels. When the works to the proposed building are complete, the character and appearance of the building will be similar to that of the existing appearance, with the only apparent visual change being the additional of the solar panels.

### Access

- 2.3. The application site is accessible by vehicle, on foot and by bicycle. The proposed development will not have any adverse implication upon accessibility.

### Conclusion

- 2.4. The proposed development is acceptable with regard to its design and accessibility credentials.
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### 3. Heritage Statement

- 3.1. The application site comprises Holland Fold Farm, which is a Grade II Listed Building (List entry number 1362145). There are no other Listed Buildings of heritage assets in the vicinity of the site. Further details about the heritage asset are first identified below, followed by an assessment of the impact resulting from the proposed development on that asset.

#### Heritage Assets

- 3.2. Historic England's online records provide the following official list entry for Holland Fold Farm:

*SD 61 NW HEATH CHARNOCK off LONG LANE*

*6/140 Holland Fold Farmhouse and 17.4.1967 attached barn (Formerly listed as Holland Fold - II Farmhouse with adjoining barn)*

*Farmhouse, dated 1680 (internally). Coursed sandstone rubble with large quoins, stone slate roof with brick chimney on ridge, another chimney at corner of outshut (blocked with stone ball). Two-bay baffle-entry house with outshut to rear of 2nd bay and barn under same roof at left end. Two storeys and attic; gabled porch in centre has round-headed arch with voussoirs continued down as jamb stones, small 2-light stone mullioned window over arch; to left, one stone mullioned window on each floor (5 and 4 lights); to right, a 3-light stone mullioned window with straight dripstone, a 2-light cross-glazed casement above, and a single light window above the porch. Right return wall has stone mullioned windows with hoodmoulds: 5 and 3 lights at ground floor, 4 and 2 lights at 1st floor, and 3 lights to attic. Rear has lean-to additions at ground floor, a 2-light sliding sash above. Barn at left end is partitioned from house by timber-framed wall with wattle-and-daub infill; has wagon doorway in rear (east) wall, that in front wall now blocked and replaced by simple doorway. Interior: housepart in 2nd bay has inglenook fireplace with stone cheeks, and carved salt cupboard lettered in relief: H parlour in 1st bay has slightly arched stone cross-corner T : : I ; 1680 fireplace; both have stop-moulded beams. Unusually complete survival of late C17 farmhouse.*

- 3.3. The above describes the building as it stood in in 1967 with the details updated in 1984. However, in 2006 Listed Building Consent was granted (ref: 06/00164/LBC) to undertake a substantial scheme of works to the farmhouse and adjoining barn to create a large dwelling together with works to the adjacent freestanding barn. These works were approved subject to a Level III Building Record Survey being undertaken.
- 3.4. In addition to the residential conversion, the building has subsequently been extended to provide a leisure suite (ref: 12/00237/LBC) and ancillary domestic and agricultural buildings have been erected within its curtilage and adjoining fields.
- 3.5. The building that was present at the time of it being Listed has, therefore, subsequently been substantially altered and adapted over the past 15 years with the Local planning Authority's approval.

#### Impact on Heritage Assets

- 3.6. The proposed development will result in 80% of the roof of the building being recovered in natural stone slates set in diminishing courses to match the existing. Existing slates will be re-used where possible, with any new slates being selected to match the existing. This aspect of the proposal will not cause any harm to the value of the heritage asset and will
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arguably enhance the character and appearance of the building by rectifying the dipped roof plane and gaps in the slates.

- 3.7. The potential requirement to increase the ridge and eaves height by up to 3mm to accommodate the wind barrier is *de minimis* and will not have any material effect upon the value of the heritage asset. Indeed, as illustrated by the photographs below, visual evidence confirms that the ridge and eaves heights have been built up from their original height in mortar by at least one course of stone to fill the gap between the stonework and verge. It is anticipated that the building was originally covered in a thatched roof, and that such works were undertaken when the roof was re-covered in stone slates. In this context, a 3mm difference will be indiscernible.



- 3.8. The introduction of the solar panels has the potential to impact upon the value of the asset.
- 3.9. The existing building has been subject to an extensive scheme of other works, primarily those undertaken 15 years ago when the property was comprehensively renovated and the barn converted to living accommodation, but also more recently through modern
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extension. These existing modern alterations and additions have been deemed to be appropriate in preserving the value of the heritage asset.

- 3.10. Approximately 20% of the roof will be covered with an array of solar panels, which will be installed in a single row of up to 15 panels on each roof pitch. Whilst it is acknowledged that the north-west facing panels may not operate at high efficiency, it is necessary to install panels on both pitches of the roof in order to achieve a balanced weight distribution. If panels were installed on a single pitch of the roof only, the weight applied to each pitch would be different and, therefore, the loading on the structure of the building would be different, which would inevitably have adverse consequences on its structural integrity.
- 3.11. The introduction of the solar panels will result in a change to the character and appearance of the building because they will be externally visually evident. However, weight saving offered by the solar panels will enable the majority of the roof to be covered in natural stone slate without substantial structural enhancements. There is, therefore, a clear structural justification for the solar panels.
- 3.12. Furthermore, the solar panels will be seen as a modern addition to the building, alongside other existing modern additions and alterations to the building. Indeed, solar panels are not an uncommon feature on building roofs, including heritage assets, in principle, so they will not be a discordant feature in principle.
- 3.13. Therefore, whilst the introduction of the panels can be considered to cause harm, that harm is less than substantial.
- 3.14. Furthermore, because the introduction of the solar panels is eminently reversible (the panels can be removed and replaced with an alternative roof covering). The less than substantial harm resulting from the proposals is, therefore, limited.

### **Public Benefits**

- 3.15. When proposals result in '*less than substantial harm*' to the significance of a heritage asset, paragraph 208 of the NPPG requires that harm to be balanced against the public benefits derived from the development proposal. Accordingly, the public benefits derived from the proposed development are set out below.
  - 3.16. The proposed scheme of works will address the existing failure of the roof structure, which has occurred within just 15 years of being refurbished. This high speed of failure demonstrates that there are significant issues with the roof structure that place the future of the building at risk. Without any work being undertaken, it is inevitable that the roof will fail, which is likely to cause catastrophic damage to the building. Indeed, intervention is urgently required before the roof structure descends into an even more parlous state. The proposed works will, therefore, offer a significant public benefit by addressing the existing urgent structural issue, removing the risk that it presents, and securing the long term preservation of the building.
  - 3.17. The proposed works will support the continued occupation of the building in its optimum viable use, which is in the public interest.
  - 3.18. The introduction of the solar panels will achieve a reduction in the weight of the roof structure, which will then minimise the scope of structural works required to preserve and enhance the integrity of the roof. If no weight saving is made, it is highly likely that a more extensive scheme of works would be required that would necessitate more significant interventions and alterations to the historic fabric of the building, such as the removal of the internal ceiling fabric and/or increasing the height of the eaves and ridge in order to accommodate structural strengthening works. It is in the public interest to support and facilitate the more minimal scope of works, as proposed, to assist the greater level of preservation of the historic asset.
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- 3.19. The introduction of the solar panels will also make a meaningful contribution towards addressing the climate change emergency, which is unquestionably within the public interest. Historic England has confirmed in emerging guidance that historic buildings must adapt and evolve so that they contribute towards a low carbon economy. Historic England recognise that buildings are one of the main sources of carbon emissions in the UK and, therefore, appropriate adaptations to historic buildings are directly encouraged as part of the nations drive towards Net Zero.
- 3.20. The works to insulate the roof structure and accommodate a wind barrier will further support a reduction in carbon emissions from the property, with the proposals as a whole completing a whole house approach towards reducing energy demands, which are currently being undermined by the deteriorating roof structure. Whilst *de minimis* in terms of their impact, this element of the proposed works will make a further valid contribution response to the climate emergency.
- 3.21. It is also in the public interest for the Applicant to deliver the proposed scheme of works, as zero cost to the public purse.
- 3.22. The proposed development will, therefore, deliver public benefits that, on balance, clearly and convincingly outweigh the very limited '*less than substantial harm*' to the heritage asset. NPPF paragraph 208, therefore, offers inherent support to the proposed development.

### **Conclusion**

- 3.23. The proposed development essentially comprises the re-roofing of the existing Listed Building predominantly in natural stone slates, but to also include a row of photovoltaic solar panels on each roof pitch in order to achieve a weight reduction. In addition, a modest package of unseen works in the roof void, to include localised repairs to the existing roof structure, the installation of foil insulation and a thin wind barrier. The scope of works as a whole are considered to be the minimum necessary to address the existing structural issues and deliver a material benefit by reducing carbon emissions.
- 3.24. The proposed works have been assessed to cause less than substantial harm to the heritage asset. It has been demonstrated that this level of harm is necessary in order to secure the long term integrity of the building. Without works, the roof will fail, which can be expected to result in substantial damage to the building.
- 3.25. It has also been demonstrated that the less than substantial harm caused by the proposed works is outweighed by the public benefit that it will deliver. The proposal, therefore, aligns with the aims and objectives of heritage policy.
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## 4. Conclusions

- 4.1. Holland Fold Farm comprises a Grade II Listed Building. The property originally comprised a farmhouse and an attached barn. The barn was converted to living accommodation as part of a comprehensive renovation of the property in 2007, with the scheme of works including the relaying of the roof covering over the barn in natural stone slates set in diminishing courses to match the farmhouse.
  - 4.2. In the 15-year period since the renovation works were undertaken, the roof covering the former barn has structurally failed. Evidence suggests that this failure results from the weight of the roof covering, with the increase in the headlap of the slates covering the barn to match the farmhouse placing significant additional stress on the 350 year old timber roof structure to the point of failure. Urgent attention is now required to prevent further failure.
  - 4.3. The Applicant proposes to address the structural issues with the roof in a manner that seeks to minimise the scope of alterations to the building, whilst also making a material contribution towards reducing the buildings carbon emissions. Instead of significant strengthening the roof sub-structure, as has previously been proposed by the Applicant, it is now proposed to adopt a more lightweight approach that requires fewer and less significant alterations and adaptations to the building.
  - 4.4. The overall weight of the roof will be reduced through the introduction of a solar array, with the use of foil insulation and a thin wind barrier ensuring that the works can be delivered in a manner that minimises the need for alterations to the significance of the heritage asset. Whilst the proposals are considered to result in '*less than significant harm*' to the heritage asset, it has been demonstrated that this harm is clearly and convincingly outweighed by the public benefits of the proposal.
  - 4.5. The proposal, therefore, is fully compliant with the requirements of heritage policy and Listed Building Consent should be granted.
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