

Planning Committee

26 May 2023

Agenda item number 7.2

BA/2023/0158/LBC Halvergate- Muttons Mill, Stone Road- lightning conductors

Report by Heritage Planning Officer

Proposal

The installation of lightning protection

Applicant

Andrew Farrell (Broads Authority Programme Manager- Water, Mills and Marshes (WMM))

Recommendation

Approve subject to conditions

Reason for referral to committee

The Broads Authority is a partner in the WMM project

Application target date

14th June 2023

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1. Description of site and proposals

- 1.1. Situated to the east of Halvergate on the Halvergate Marshes and within the Halvergate Marshes Conservation Area, Mutton’s Mill (also known as Manor Farm Mill) was built in the early 1830s, replacing an earlier mill on a nearby site. It was rebuilt or remodelled later in its working life, possibly by the millwright responsible for the construction of Berney Arms Mill in 1865 (Hutchinson 2013). The mill had ceased work by 1946 and soon became derelict.
- 1.2. By the early 1970s the mill had lost its cap and fantail, although parts of the sails remained in position. In 1974/75 the mill was acquired by a pair of boatbuilders, who remain as the owners of the mill today. The tower, internal machinery, floors, cap base frame, cap roof and fan stage were gradually repaired. A new six-bladed fantail was fitted in 1984 and a single pair of sails without shutters, using parts of the last working set, was installed in 1998. The mill stands in a gated enclosure which contains a low, open-sided shed in which materials are stored. The mill sits in an isolated location with agricultural land surrounding the site.
- 1.3. Mutton’s Mill was listed on 26 February 1987 and is Grade II*. It is therefore a designated heritage asset. The List Description is as follows: Windpump, mid C19, restored c.1980. Tared brick tower and boat shaped weather- boarded cap. Tapering circular tower of 4 storeys. 2 ground floor doors, 1 window at first floor and 1 window at second floor level with segmental brick arches. Complete cap frame, fan and machinery. Cap gallery added c.1980. Wooden clasp arm brakewheel, cast iron windshaft, wallower, and wooden drive shaft. Cast iron crown wheel and pit wheel to internal scoop wheel. Two stocks, four clamps and remains of four 8 bay patent sails lie on ground near mill. The internal scoop wheel is the only surviving example in the Broads area.
- 1.4. The application is for the installation of lightning protection to the mill including the following elements:
 - Air termination network
- 1.5. Strike plates to be fitted to the end of each sail, comprising white 8mm aluminium cable to run from the strike plates, bend over the end of the sails and down the back of the sails. It will be attached at 1m centres with PVC holdfasts. These will be bonded to

the windshaft, which will be used as a contact point from the sail mounted conductors and the bearing carriage;

- 1.6. The bearing carriage will be bonded to enable a connection to a 25 x 3mm PVC sheathed conductor tape that will run around the perimeter of the cap, which will be bonded to the roller carriages.
- 1.7. The rollers then provide a continuous path to the metal track. The metal track may require welded tabs to ensure continuity (this will be tested). The new track tabs will be bonded to a 25x3mm conductor fixed to the perimeter of the fourth floor adjacent to the wheel track.

Down Conductors / Earth Termination

- 1.8. From the air termination network, 2 no. PVC sheathed aluminium down conductors to be fixed at agreed external positions. These would be fixed with matching non-metallic holdfasts, each changing to copper at low-level, by means of a friction welded bimetal test clamp, before terminating at a 2.4m copper clad earth electrode driven into subsoil close to the building. The PVC sheath is proposed to be white or black depending on the mill substrate.

2. Site history

- 2.1. Planning permission was granted in 2020 for repair works to the mill under the WMM project (BA/2020/0227/FUL and BA/2020/0228/LBC).
- 2.2. These works are now underway and it is now proposed to add lightning protection.

3. Consultations received

Parish Council

- 3.1. No response

Historic England

- 3.2. We refer you to the following published advice which you may find helpful in determining the application: Lightning Protection: Design and Installation for Historic Buildings. We also suggest that you seek the views of your specialist conservation adviser.

Joint Committee of Amenity Societies

- 3.3. No response

District Member

- 3.4. No objection

Society for the Protection of Ancient Buildings

- 3.5. The Society for the Protection of Ancient Buildings Mills Section is supportive of the proposed plans and is assuming that the applicant is aware that the lightning conductors must be inspected and tested annually

4. Representations

- 4.1. None received

5. Policies

- 5.1. The adopted development plan policies for the area are set out in the [Local Plan for the Broads](#) (adopted 2019).
- 5.2. The following policies were used in the determination of the application:
 - SP5- Historic Environment
 - DM11- Heritage Assets
 - DM43- Design

6. Assessment

- 6.1. Both national and local planning policies place great weight on the conservation of the wider historic environment and more specifically individual historic assets. Historic assets are a finite resource and the preservation of them, so they can be enjoyed by future generations, is welcomed.

Principle of development

- 6.2. Mutton's Mill is larger in stature than most of the other Halvergate Fleetⁱ mills and, unusually, its scoop wheel is positioned inside rather than outside the base of the tower. As a consequence, its wide diameter at ground level gives the tower a more pronounced batter or taper than the other mills. With its turning sails and fantail, Mutton's Mill makes a greater visual contribution to the landscape than others in the group. As one of the most carefully preserved and mechanically complete drainage mills in Broadland, Mutton's Mill remains a highly significant example, justifying its Grade II* listing. The protection of such an important heritage asset is therefore supported.
- 6.3. Mutton's Mill sits on the Halvergate Marshes, within a very flat landscape. It is a substantial structure and at approximately 30m high (to sail tip) is the tallest structure within a wide area, making it vulnerable to lightning strike. It is likely that the number and intensity of lightning storms is to increase in the UK due to the impact of climate change, so the risk of lightning strike is likely to increase. Through the WMM project there has been a significant investment in the repair of Mutton's Mill. Due to this, the high heritage significance of the building and its vulnerability due to its height and location, the proposal to install lightning protection is considered reasonable and well justified.
- 6.4. The installation of lightning protection will help protect the mill from fire and damage through lightning strike and ensure it remains for future generations to enjoy. The

development is therefore welcomed in principle, subject to the impact on heritage and design.

Impact upon heritage and design

- 6.5. When considering an application for works to a designated heritage asset, the NPPF requires that an LPA considers the significance of that asset and the harm resulting from the proposed development. It states that “great weight should be given to the asset’s conservation (and the more important the asset, the greater the weight should be). This is irrespective of whether any potential harm amounts to substantial harm, total loss or less than substantial harm to its significance” (paragraph 199). In this case, being Grade II* listed the mill is of a high level of significance so a careful assessment is required.
- 6.6. It is accepted that the lightning protection would be a modern addition to the mill and will be visible on close inspection, however it is noted that the proposal has been designed to minimise the visual impact and damage to the historic fabric of the mill. Fixings are to be kept to a minimum and the cable will be sheathed in either white or black PVC as appropriate to ensure that it matches with the mill’s substrate. It is necessary to have a ‘contact point’ at the end of the sails, as they will be the highest point and as such the strike plates are proposed as an alternative to the 500mm long finials that would normally be required. These are relatively small attachments and should therefore be much less visually intrusive than the regular finials. It is therefore considered that measures are proposed to ensure the development is as visually unobtrusive as possible.
- 6.7. Whilst it is acknowledged that there would be an impact on both the appearance and historic fabric of the mill, it is considered that given the small scale of the additions and efforts to ensure it remains visually unobtrusive there would be a less than substantial harm to the character and integrity of the mill. Given the small scale and nature of the proposals it is not considered there would be an adverse impact on the wider character of the conservation area. The NPPF states that “Where a development proposal will lead to less than substantial harm to the significance of a designated heritage asset, this harm should be weighed against the public benefits of the proposal including, where appropriate, securing its optimum viable use” (paragraph 202). In this case, the public benefit deriving from the development would be to reduce the risk of significant damage or potential loss through fire of the designated heritage asset and this is considered to outweigh any harm arising from the works themselves.

7. Conclusion

- 7.1. Given the small scale of the addition and efforts to ensure it remains visually unobtrusive it is considered there would be a less than substantial harm to the significant of the mill and no adverse impact on the character of the wider conservation area. In this case, the public benefit deriving from the development would be to reduce

the risk of significant damage or potential loss through fire of the designated heritage asset and this is considered to outweigh any harm arising from the works themselves.

7.2. The proposal is therefore considered acceptable and being recommended for approval.

8. Recommendation

8.1. Approve subject to conditions: Time limit, in accordance with plans submitted and any damage to the building undertaken during installation shall be made good.

9. Reason for recommendation

9.1. The development is considered acceptable in terms of impact on heritage and design, in accordance with the NPPF and policies SP5, DM11 and DM43 of the Local Plan (2019) and S66(1) and S72 of the Planning (Listed Buildings and Conservation Areas) Act 1990 has also been considered in the determination of this application.

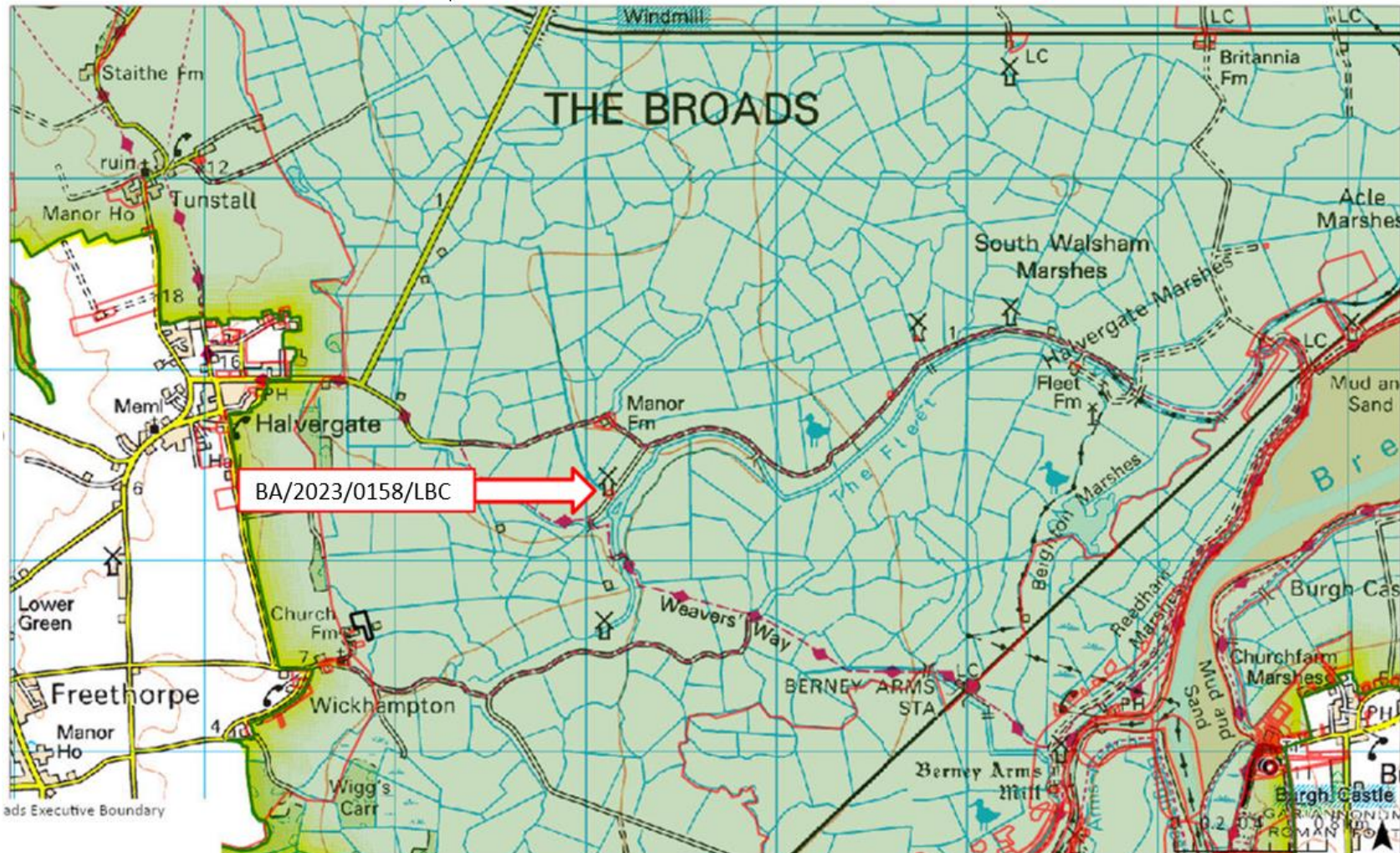
Author: Kayleigh Judson (Heritage Planning Officer)

Date of report: 11 May 2023

Background Papers: Halvergate Marshes Conservation Area Appraisal 2015.

Appendix 1 – Location map

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ⁱHalvergate Fleet- 'By the 18th century, Halvergate Fleet, originally the largest of the salt marsh creeks, was used as a 'washland' for temporary water storage, with 6 wind-powered drainage mills spaced along its length, although only three of the mills drained the Halvergate Marsh levels. The low banks nearest the river were 'summer walls', while the higher 'winter walls', set some 20 metres further back, prevented flood water or high tides from spreading out of the main wash land areas. The area between the two walls, known as the rands or ronds, which are up to 200 metres wide, would flood to a depth of about 600mm in winter. The Fleet was once the most significant natural drainage channel across the marshes, draining Wickhampton, South Walsham and Beighton Marshes into Breydon Water'. Halvergate Marshes Conservation Area Appraisal 2015.