MOULTON MILL LINCOLNSHIRE

REPLACEMENT FANTAIL









Design and Access and Heritage Statement

Anderson and Glenn, February 2017.

MOULTON MILL FANTAIL PROJECT

DESIGN AND ACCESS STATEMENT; HERITAGE STATEMENT

1.0 SITE APPRAISAL

1.01 ASSESSMENT

a. Physical Context

(i) The parish of Moulton has a population of about 3,500 and includes two subsidiary settlements at Seas End to the north and Moulton Chapel to the south. It is located some 3 miles east of Spalding and is in the South Holland District Council part of Lincolnshire. The narrow parish is about seventeen miles long from north to south with outlying smaller settlements. The main village has a distinctive centre and is set just south of the A151 road between Spalding and Holbeach.

(ii) At the centre of the village are a small village green and the fine parish church of All Saints (listed Grade I) which stands on the east side. Adjacent to this on the south side of the churchyard, is a small row of shops and beyond those is the narrow road which gives access to the Moulton Mill. The mill is about in line with the east end of the parish church.

(iii) The original site for the mill was larger, but part of the site has now been developed for an elderly persons care home which was built in the 1990s. To the south is an industrial site occupied by an agricultural engineering firm. A small water course, Moulton River, bounds the east side of the site and beyond is open arable land

(iv) The mill complex comprises a brick tower of nine floors and a low basement. Attached to the east is a two storey granary with basement.

b. Historical Context

(i) The first documentary evidence for windmills in England dates from the mid twelfth century. Early representations in documents, such as the Luttrell Psalter (1340), from Irnham, Lincolnshire, and on church monuments, show mills of a similar design. This showed a large vertical post supporting a wooden box containing a single pair of millstones. At the top of the box are four sails. In order to turn the sails to face the wind the whole of the box had to be moved by means of a tail-pole. This design is known as the 'post mill'. The basic design of post mills changed very little over the centuries and many survive into the 20th century. Peter Dolman asserts that all of the earlier mills in Lincolnshire would have been of this type. An old postcard shows the fine post mill at nearby Weston Hills in 1914 and several survive in East Anglia, though the example at Wrawby, near Brigg is the only one remaining in the historic county of Lincolnshire.

(ii) Dolman estimates that there may have been as many as five hundred windmills in the county in the early nineteenth century when the windmill was at its peak. This would

have included drainage as well as corn mills. Rex Wailes suggests that only three hundred and fifty tower corn-mills were recorded. The windmill began to decline from the 1850s when steam power was applied to milling. In the 1880s, the more efficient steel roller mill took over much of the flour trade. Many windmills fell into disuse whilst those surviving tended to focus more on animal feed than flour for human consumption. Despite the increasing competition from other forms of power, a surprising number of windmills continued working into the early 20th century, albeit often using auxiliary power. By the time of the 1926 Kelley's Directory, the number of working corn-mills listed was two hundred and five. Some of these in the larger towns would have been roller mills. The total can be broken down by method of power as follows:

water only	31
wind only	60
steam only	32
other (gas, oil, diesel, electricity)	50
wind and water	1
wind and steam	27
steam and water	4

(iii) By the interwar period there were eighty seven mills capable of turning by wind. This figure did not include Moulton, which by then was using a 25hp Ruston Hornsby single cylinder oil engine to power the machinery. This total would have included post and tower mills. That so many windmills survived well into the twentieth century in Lincolnshire was due to the fact that the more durable masonry tower mill had become common here. Also the rural character of the area meant that more country mills had survived to serve the local population.

(iv) At the time of Dolman's survey (1977 - 85), which was published in 1986, he had identified the remains of one hundred and thirty six windmills in the old county area of Lincolnshire. Only six tower mills and one post mill survived in a restored or preserved condition. The majority of those that remained up to their corbel course were listed in the listed building resurvey of the mid 1980s. Many of these have now been converted to dwellings. The following mills in the County are now in working order and most are open to the public:

Alford, (1837) 5 sails (East Lindsey) (County Council) leased to private individual who runs it as a business

Burgh Le Marsh (1813) - 5 sails (East Lindsey) (County Council) operated by a Friends Group.

Ellis' Mill Lincoln (1798)- 4 sails (City of Lincoln) (County Council) operated by a Friends Group

Heckington (1830)- 8 sails (North Kesteven) (County Council) operated by a Friends Group

Maud Foster, (1819)- 5 sails (Boston) (privately owned), run as a business

Moulton Mill, (1824) Owned by Moulton Mill Project Ltd. run as a working mill, visitor attraction and café.

Mount Pleasant (1875) -4 sails (North Lincolnshire) (privately owned), run as a business.

Trader Mill, Sibsey (1877) - 6 sails (East Lindsey) (English Heritage)

Waltham Mill (1879)- 6 sails (North East Lincolnshire) (operated by Trust)

Wrawby post mill (late C18) - 4 sails (North Lincolnshire) (owned and operated by a Trust).

c. Historical Development of Moulton and its Mills

(i) The settlement of Moulton is mentioned twice in the Domesday Survey of 1086. It is in the wapentake of Elloe and the hundred of Weston and under the land of Ivo Taillebois (Tallboys) in Westune and Multune :

> there is soke, 10 carucates and 1 bovate of land to the geld. There is land for as many teams an oxen. 26 sokemen and 31 villeins and 20 bordars have 20 teams there. (*a jurisdiction, 10 carucates of land and 1 bovate taxable. Land for as many ploughs and oxen. 26 freemen, 31 villagers and 20 smallholders have 20 ploughs)*
>
> Under the land of Guy Craon (Credon) in Westune and Multune :
>
> 15 bovates of land to the geld. Land for 15 teams. 6 villeins have half a team there. *(15 bovates of taxable land. Land for 15 ploughs. 6 villagers have half plough)*

(ii) There is no mention of a church or of any mills. It is generally accepted that where mills are referred to in the Domesday Book these are water mills. The Historical Atlas of Lincolnshire shows that only one water mill in the Fens was recorded in Domesday, at Fishtoft. We are not aware of any surviving water mill remains in this area. It is unlikely that water mills featured here, because the low-lying land and slow flowing rivers would not have provided suitable conditions for waterpower.

(iii) The fact that Moulton already existed as a named settlement by 1086 indicates fairly conclusively that the place name of Moulton as meaning Milltown (as stated in a number of locally published histories of the settlement) is unlikely to be correct. The picture given from the Domesday entries is of a small agriculturally based settlement.

(iv) The origins of the name of the village are, according to the Dictionary of Lincolnshire Place-names either from the Old English 'Mula' (personal name) and 'tun', a farmstead/village or from 'Mul' meaning mule. It is thought that the first option is most likely.

(v) Cole's manuscripts in the British Museum deal with monastic history of South Lincolnshire.[1] W.E.Foster obtained a translation of these in 1869 from Simms of the British Museum and extracts that relate to Moulton were published in Fenland Notes and Queries.

[1] William Cole, 1714-1782, antiquary who deposited over one hundred handwritten manuscripts at the British Museum was apparently connected, by the marriage of his half sister, to the Rev. John Chapman of Moulton.

Coles MS 43 relates to a meeting in 1252 between the Prior of Spalding and the Vicar of Moulton. Tithes were due on the five mills in the parish, of which it was agreed that two would be received by the Prior and three by the vicar. It is possible though not certain, that these were five early post mills.

(vi) The nineteenth century directories record that Moulton 'village' originated early in the twelfth century and Thomas de Multon was the first baron of Multon. According to Pevsner a document shows that the church was under construction in the 1180s and this tallies with the Early English internal details. The village had an early grammar school foundation in 1561, but the majority of the houses now standing in the centre of the village appear to date from the eighteenth and nineteenth centuries.

(vii) The King family who built the present mill were already milling in Moulton before the construction of the tower. Robert King, (1760-1820) a farmer from Weston is recorded in the 1803 Moulton enclosure award as owning two distinct sites in the parish. One plot of three fields comprising about fifteen acres in total was to the north of the turnpike road, (The A151) and in 'the north meadow with a windmill therein'. The map accompanying the award shows precisely where this was located, near to the Bell Lane junction. In her article on Moulton in Lincolnshire Life, Ruby Hunt states that an old smock mill stood near to Bell Lane, formerly known as Elloe Mill Lane. The other plot of land owned by King, which was of one acre, one rod and ten perches was 'In the town lands near Moulton Church, boarded on the west by Moulton Street, on the east by Moulton River, on the South by lands of St. Johns College and on the north by land of John Copeland.' This is the present site of Mill House and the tower mill.

(viii) Rex Wailes states that the mill tower at Moulton was erected in 1826 on the site of a smock mill. Peter Dolman suggests a date of about 1822. The Ordnance Survey one inch scale map of 1824 does not show a mill on the site of the present tower mill but does indicate the mill on a site near Bell Lane. The field survey for this map was commenced in 1812 and by 1818 the majority of the area had been covered. However before the map was published in March 1824 a rigorous revision was undertaken. This map was later updated onto electrotypes in the 1860s to show railway lines and a few other minor changes but a full revision does not seem to have been included. Bryant's map of 1828 shows both mills - 'Kings new mill' close by the church, and 'new mill' beside the earlier site.[2] The date of building is thus likely to be between 1824 and 1826. An advertisement was apparently placed in the local press for the sale and removal of the old smock mill in 1828, provided it was taken at least ten miles away.

(ix) The chronology on the following page sets out the key dates as far as they are known relating to the development of the mill at Moulton.

[2] Bryant carried out his survey between 1825-1827. Bryant's maps were noted for their quality and detail.

Late 18th century	King family were milling in Moulton.
1824-6	Mill tower erected by Robert King (1786-1848)
1841	Robert King retires and James Measure King (1821-1879) takes over.
1876	Photograph taken from church tower shows the mill tower without attached granary.
1882	Mill leased to A.W.Tindell who also used a steam driven roller mill. It was powered by an external steam engine. The single storey granary was probably built at this time.
1890	J.T.Biggadyke started milling at Whaplode, the village adjacent to Moulton.
1895	December 12th sails badly damaged in storm. Wind power ceases at the mill.
1908	Granary raised to two storey following removal of gallery.
1924	J.T.Biggadike Jn. rents Moulton mill from the King family, and insalls oil engine to power the mill.
1928	Original cap partly removed, extensive roof repairs carried out and cap reformed with flat top.
1950	Biggadikes purchased mill from the King Family.
1967	Mill tower is listed.
1970	Moulton village centre becomes Conservation Area.
1995	Mr Biggadike retires and ends three generations of the family at Moulton Mill.
1998	Moulton Windmill Restoration Project Ltd. established.
2001	Two hundred year lease granted to MWPL.
2004	Moullton Mill repaired and new sails and fantail erected. Granary converted to tearoom and visitor centre.
2016	A sag which has gradually developed in the cantilevered beam which supports fantail means that mill can no longer safely operate.

c. Social Context

(i) The operating mill with the granary acting as a tearoom, meeting place and visitor centre has brought new life to the village and provided a venue where meetings, wedding receptions and other events take place.

(ii) It is likely that this new centre in the village has helped the village shops and public houses to remain open when others in similar small settlements have had to close.

(iii) Many of those who give their time to guide visitors around the mill are from this locality.

d. Economic Context

(i) Without the fantail the mill cannot operate as a working windmill and this could eventually result in significant loss of income to the Moulton Mill Company.

(ii) This could have a knock on effect to the businesses in the area and to tourism within the wider context of South Lincolnshire.

e. Planning Policy Context

(i) The South Holland Local Plan (July 2006) recognises that listed buildings make an important contribution to the character of the District as well as being important buildings in their own right.

(ii) It also acknowledges the importance of the historic environment for the positive contribution it makes to the quality of life for inhabitants and its ability to attract visitors to the area. Moulton Mill in its active state fulfils this objective.

(iii) The listed building application is required because a small change to the design of the mill machinery is required. The overall impact on the visual context of the mill tower will be minimal.

(iv) The mill tower was listed before the sails and the cap were recreated. The proposed changes will not harm the visual, historic or architectural merit of the building and the work is being offered a grant by Historic England. The proposed change will not damage any historic fabric, nor adversely affect the special character of the building or its setting. The only element which is being altered is part of the workings of the mill which was reconstructed in the 2004 restoration works.

1.02 INVOLVEMENT

The fantail has had to be removed for safety reasons and the friends of Moulton Mill are aware that remedial work is required.

Historic England has also been informed and has offered a grant towards the cost of the work.

A local millwrighting company has given advice as to the best way to proceed. It was originally thought that the beam supporting the fantail could remain with its existing projection and simply be levelled up to correct the sag. Plans to that effect were originally drawn up.

1.03 EVALUATION

Further engineering advice has been sought and it has become clear that the projection of the fantail has to be limited to a shorter projection to reduce the extent of the cantilever. This is what is now proposed and is submitted as part of this application.

1.04 DESIGN

Because it involves a change in the design and appearance of the mill, a listed building application is required. Although it does result in a change in the appearance of the mill, it will not be one of great visual significance given the height and scale of the existing structure.

It will allow the mill to continue as a working machine, and not just remain as a tall tower in the fens.

The presence of a fully operational mill is an important part of the heritage of the county of Lincolnshire. The nearest similar operational mill is in Boston.

2.0 THE DESIGN COMPONENT

2.01 LAYOUT

The layout of the mill complex will not be affected by this work.

2.02 SCALE

The scale of the mill complex will not be affected.

2.03 APPEARANCE

The only significant change in appearance is that the fantail will have a smaller platform than the one which was erected in the former restoration project.

3.0 THE ACCESS COMPONENT

3.01 When the granary was adapted to form a visitor centre and tea room, provision was made to allow access for all by means of a chair platform on the steps up to the raised ground floor, and a lift inside the granary to reach the upper floor.

3.02 These elements will not be altered, and the changes to the fantail do not affect the access arrangements that are already in place.

4.0 LISTED BUILDING JUSTIFICATION

4.01 Current listed building description

First listed 07-02-1967

Most recent amendment 07-12-1987.

(taken from Historic England web site)

Tower mill, c.1822, by Robert King, 1895, 1928. Brown brick. Corrugated shallow pointed roof of 1928, with finial and dentillated brick eaves. 8 storeys plus basement, a total of 80 feet height to the curb. 18 feet, 9 inches in diameter at ground level; 12 feet in diameter at curb. 3 round basement openings, one each to the south- east, south -west and north-west. To the north is a large drive wheel, part of steam engine fearing inserted after 1895 after the sails had been damaged by gales. West side with flanking flights of 8 stone steps on each side that lead up to doorway with cambered head and panelled door.7 glazing bar casements, one above the other, above; that on the third floor inserted into blocked doorway that originally gave access to reefing stage. North and south sides each with glazing bar casements, one above the other. East side with a 2 storey granary attached masking the lower 3 storeys, the ground floor of early C19 and rendered, the upper floors of 1895 and in red brick. Both storeys with pivotal glazing bar casements. 5 glazing bar casements rise one above the other, above the roof of the granary. All the windows with cambered heads.

Almost all of the internal machinery survives intact. The basement contains the engine drive gearing of c.1895 which originally powered the subsidiary shaft rising up to the great spur wheel.

The first floor contains an electrically powered Turner Inkoos Mill, a Kibbler and a Hunt's roller mill.

The second floor contains storage bins and the third, originally the spent floor with bridge trees and now missing the governor. 2 pairs of French stones remain in place on the fourth floor, one inscribed: 'WJ & T Child.Maker.Hill 1853.' Pair of grey stones lean against wall. Spur wheel with iron nuts and morticed wooden cogs, iron hub and rib, with wooden radiating spokes. Small iron nut engages the subsidiary drive shaft.

Fifth and sixth floors with bins intact. Upper two floors are empty. Above, the wallower with chamfered and stopped wooden shaft with upper iron section and an exceptional wooden clasp arm bevel wheel with wooden cogs. Endless chain sack hoist formerly driven from a friction rim on the underside of the wheel. Hexagonal wooden curb frame built into the brickwork, with iron track, inward facing tooth ring and centring wheels running below. The win shaft no longer exists but the tall bearing housing remains. This is the tallest windmill in the country (not including the tallest complete windmill, including the cap, at Sutton in Norfolk) Source : Dolman, p.23. Building at entrance to road now demolished.

4.02 Comments

a. As can be seen above, the fantail and the sails are not mentioned on the current listed building description because there has not been an update of the description since the restoration of the mill to form a working windmill.

b. The fantail is a later addition and by comparison with other Lincolnshire mills it was given a much larger platform than is the norm. This was part of the design produced by the mill wrighting firm who undertook the restoration of the mill workings.

c. This element has sagged due to the weight of the fantail and the length of the cantilever. Engineering advice indicates that the projection of the fantail has to be reduced.

d. The replacement fantail will be manufactured and installed by a traditional millwrighting firm, and will be in oak for the structural elements and douglas fir for the non structural elements.

e. Detailed drawings are provided a part of this listed building application.

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