Heritage, Design and Access Statement

For outbuildings at Troutsdale Mill, Snainton, North Yorkshire, for Mr & Mrs M. Milner

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This Statement has been prepared in support of an application for listed building consent for alterations to unused former agricultural buildings at Troutsdale Mill, Snainton, for Mr and Mrs M.Milner. The property was visited on 11th February 2016, a fair winter day, and the agricultural buildings only were inspected.

Location and History

Troutsdale Mill lies about twelve kilometres west of Scarborough, just within the southern boundary of the North York Moors National Park. The mill and associated house and buildings stand near the head of Troutsdale Beck, which runs north east into the River Derwent.

A mill has been recorded on this site since the early seventeenth century, although the existing buildings appear to be later, of eighteenth and nineteenth century date. Milling here ended in 1938, although the water wheel survived until the 1970s.

The existing buildings on the site comprise the one and a half storey mill attached to the rear of an eighteenth century house, with a nineteenth century wing attached at right angles. To the east of the house and mill are an attached 'L' shaped range of single storey disused agricultural buildings, the subject of this heritage statement.

The Ordnance Survey 6" map of 1854 shows a single range attached to the east end of the house and running roughly west-east. The 1894 edition shows that by then, the range at the eastern end had been added, giving the 'L' plan that survives, while the southern wing of the mill house had also been added by this date. The overall plan of the whole group of buildings has remained unaltered since then.

Description of the Buildings

The mill, miller's house and attached outbuildings were listed grade II on 14th April 1987. The list description focuses on the exterior of the mill and miller's house. The listed building description describes the whole group of buildings as being "of early nineteenth century date with twentieth century modernisation". The attached farm buildings are described as "small walled yard with ranges of byre, cartshed and stables".

The farm buildings form an 'L' shaped group, attached to the eastern end of the house. In a clockwise direction from the house, these buildings comprise a cartshed, byre, milking parlour, byre and further cartshed with its gable abutting the road. A stone wall encloses the yard within the angle of the 'L'.

The buildings are constructed of coursed squared sandstone blocks with scutched tooling. The roof is covered with clay pantiles, with blue clay ridge tiles, and with a half hip roof over the milking parlour.

The north elevation onto the mill leat, has no openings. The single eaves course of stonework is corbelled out slightly, and there is a plinth two courses deep. Some of the walling has herringbone tooling, but mostly it has scutched tooling.

The east elevation is gabled to the roadside, and half-hipped at the north-east end. There is a stone plinth along the full length of the building, and a single eaves course of corbelled stone.

Reading from south to north, there is a wide cartshed opening (store 5 on plan), followed by a row of four feeding holes, all under deep stone lintels with scutched tooling. A plank battened door with beaded edges to the planks and wrought iron strap hinges under a deep stone lintel follows, giving access to store 3. The lintel has herringbone tooling and narrow plain margins. To the immediate right of this door is stone blocking and a vertical joint showing the former position of a door and lintel.

The yard elevations face south and west. Moving clockwise from the house, the cartshed (store 1) is fronted by a pair of timber ledged, braced and battened double doors; in the angle formed by the two ranges is a wide plank stable type door of four planks, with two halved stable type doors into the end of the adjoining range (store 4). All three of these doors have a thin (140mm deep) lintel over, with diagonal tooling within a plain margin band. The doors are hung on strap hinges from iron pintles. There is a visible plinth on the yard elevation of this southern range.

The south gable end abutting the road has a plinth, and a small square opening in the gable apex, possibly an owl hole.

Internal details

The roof of the cartshed next to the house is of purlin rafter construction, with round timber poles used as purlins and sawn or split poles used as rafters, these being reinforced by modern sawn rafters. There is a thin modern timber ridge. The wall separating the cartshed from the byre has four square alcoves (30x32x35cm deep) at 1.3 metres above the floor, purpose unknown.

The byre follows, with a concrete floor with a central east – west mucking out passage and a wooden hayrack against the north wall. The roof is supported by two round timber poles used as purlins, with rafters above.

The milking parlour has a concrete floor, with a concrete feeding trough along the north end, with a single concrete dividing wall forming two stalls. There is a simple roof truss in this half hip end, formed from halved and shaped poles, with the blades tenoned into the beam and at the apex. Rafters are mostly modern sawn timbers. The south wall of the milking parlour has three feeding holes, similar to those in the external elevation.

Store 4 at the northern end of the attached wing has two split doors on the courtyard side, and a central drain channel separating the two doors. The roof is carried by fir pole purlins, underdrawn with split lathing beneath the tiles.

Roof structure

The roof structure is of crude construction, being largely of timber poles acting as purlins to carry modern rafters. The only truss is situated at the half-hipped angle where the two wings join. It is a simple "A" truss, formed from roughly dressed principals, overlapped or tenoned into the ridge and into the tie beam, with a single purlin to each roof pitch fixed to the back of each blade and not trenched or slotted through. The purlins support modern rafters and a slender modern ridge timber.

A half truss of similar construction supports the half-hipped north corner of the roof.

The roof structure to Store 5, the cart shed next to the road, has two round fir poles which form purlins to each roof pitch, with a further pole acting as a plate above the opening. The ridge piece is formed from a thin timber, the rafters are formed from split fir poles, with split lathing over, and tiles over the laths. Store 4 has a roof of similar construction, with two round purlins to each pitch but carrying sawn rafters with split laths over.

roof over store 3, the former milking parlour has a pole purlin roof with mainly modern sawn rafters, with roofing felt over and a thin timber ridge.

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Assessment of Heritage Significance

This "L" shaped group of single storey buildings of traditional design and materials make a visible contribution to the character and appearance of this locality, within the North York Moors National Park. Although of relatively recent date, these modest stone and pantile buildings have a simple vernacular character and form an attractive feature in the landscape.

The buildings provide evidence of change, with the addition of store 4 and 5 in an attached wing to the south. The older part attached to the house (stores 1 to 3) appears to have been originally a cart shed, a byre or possibly a stable and a pig sty, later used as a milking parlour. The south wing was originally a pig sty, later a byre, with an attached cart shed.

In the North York Moors, the early type of cow housing was in a byre attached to the house, the long house form. From the seventeenth century, there was an increased separation of the house from the animal housing, although the linear plan of house with byre (separated from the house at Troutsdale Mill by a cartshed) continued.

In the North York Moors region, cattle were usually stalled with their heads facing a wall, so they had to be fed from behind. The simplest arrangement, often found on smallholdings, is similar to a loose box on a larger farm, with a single door in a side wall near to a cross-wall. If it was part of a range of farm buildings, there might be a connecting door in the cross-wall.

Many byres had no other openings in the walls other than the doors, which were split to allow the upper half to be opened for ventilation. Further ventilation might be provided by slits, while windows were not normally provided until after the mid-nineteenth century. There is no evidence that either ventilation slits and windows were ever used at Troutsdale Mill.

Pigs have long been an important source of household meat in rural areas, but specialist buildings for pigs do not appear until the early nineteenth century, when pig rearing became a commercial rather than a domestic activity.

The feeding trough was usually the only opening in the walls of the pig sty, apart from the door. In order to separate the pigs from the person pouring in the feed, the trough was built into the wall, with an inclined stone slab above it acting as a baffle. The feeding troughs at Troutsdale Mill are a very good example of this arrangement.

Many millers in rural areas combined milling with farming a small holding, and Troutsdale Mill may have operated this type of "dual economy" until milling ceased and farming became the sole activity.

With buildings of such a simple traditional form, there are a limited number of features of heritage significance, but the following are significant:

- (i) the feeding holes in the east elevation;
- (ii) the tooled door lintels;
- (iii) the "A" truss at the half-hipped corner of the roof.

These features are discussed below.

F. Jding Holes

The buildings have three sets of feeding holes, a set of four feeders in the east elevation, a set of three in the wall between store 3 (the former milking parlour) and store 4 (former byre), and a set of two in the yard wall.

Each set of feeders is constructed from dressed sandstone blocks with scutched tooling, with a single squared and tooled lintel over each opening. An angled sandstone baffle sits over each feed trough. The three feeders between stores 3 and 4 are in poor condition, with two of the troughs removed.

Door Lintels

The doorway in the east elevation has a deep stone lintel made from a single piece of dressed and squared stone, with a plain margin to each edge, with diagonal tooling to each side of a centre line forming a herringbone pattern.

The three doorways in the inner angle of the buildings (the yard side) are topped by narrow lintels each 140mm deep. These are made from a single dressed and squared stone with a narrow plain margin and a central panel with diagonal tooling.

The Roof Truss

The hip end roof is formed from a single "A" frame truss, comprising a tie beam with the principal rafters jointed into it and jointed at the ridge. A half "A" truss joins the main truss at right angles, the tie beam resting on the tie beam of the full truss. Although the truss members are roughly finished the tie beams are well bedded into the walls and well jointed.

Assessment of Impact

(i) Impact on openings

The conversion scheme proposes that existing external openings will be retained, with full height glazing or a combination of vertical timber boarding and glazing, to allow the buildings to continue to be read as a group of agricultural buildings.

(ii) Impact on the east wing (Stores 3, 4 and 5)

Parts of the east wing and much of the roof will require rebuilding. Localised areas of the walls, namely the upper courses of the west wall and the east wall above the four feeders of the east wing are bowing and will require partial rebuilding. It is proposed to retain the feed hoppers in the east elevation as part of the rebuilding, so that this feature will still be visible externally

(iii) Impact on interior of Stores 3 and 4.

Store 3 was latterly used as a milking parlour and retains a modern concrete central wall, creating two stalls, with a central drain channel in the concrete floor. Store 4 was used as a byre, with a central drainage channel in the concrete floor. The wall between these two rooms has extensive vertical cracking and will require remedial work. This wall has three feed hoppers, two of which have lost their feed troughs.

It is proposed to convert store 3 into a kitchen and shower room, with a through passage along the south side from the back door. Clearly, this is a fairly radical change from its former use as a milking parlour. However, it may be possible to retain the "A" frame full and half trusses within the rebuilt roof structure in order to keep an important element of the agrarian character of these buildings.

It may be possible to retain the group of three feed hoppers between stores three and four (proposed kitchen and bedroom), as a feature in the wall of the kitchen, although they may need to be hidden behind the proposed corridor wall linings. The proposed corridor linking bedrooms 1 and 2 (Stores 4 and 5) will require the making of new doorways in the north walls of these rooms. These works will not require

alterations to the feed hoppers in the crosswall between stores 3 and 4.

(iv) Impact on east elevation of east wing (Stores 3,4,5).

It is proposed to add a timber porch under an extended pantile roof to the east elevation. This will be of vertical boarding with an opening facing south. This modest extension is the only enlargement proposed to the buildings, and it will have a limited impact on the character and appearance of the buildings. The open cartshed doorway to store 5 (proposed bedroom 2) will be replaced by fully glazed central French windows, flanked by vertical timber boarding to each side. This feature will be set back into a deep (450 mm) reveal, allowing this feature to read as a void.

(v) Impact on north elevation of north wing (Stores 1,2,3).

The north elevation has no openings. Because of the low levels of daylighting to parts of this cellular building, it is proposed to insert four rooflights to the north roof pitch of the north wing. This is the least visible roof pitch, facing away from the road and open to limited public view only.

(vi) Impact on south elevation of north wing (Stores 1,2,3), gable end of store 5 and yard wall. The existing double doors to the entrance of store 1 will be replaced by a pair of central French windows flanked by vertical timber boarding to each side. The board door into store 2 is to be replaced by a fully glazed door. Internally, a new doorway will be formed between stores 1 and 2 (the proposed living and dining rooms). This will have limited impact.

The south gable onto the road has a small high level opening which will be repaired and glazed. The yard wall is in poor condition and will be rebuilt, retaining the feed hoppers at the eastern end.

Statement of Justification for Alterations

The main issue with this scheme of conversion to residential use is the need to ensure the maximum amount of natural light without compromising the simple vernacular character of the buildings.

To this end, the proposal is to make the maximum use of existing door openings by fully glazing the narrow door openings and using a mixture of vertical boarding and glazing to the cart shed openings.

The north elevation has no existing openings, and in order to provide an adequate level of daylighting, it has been necessary to insert four roof lights to the proposed living and dining rooms, kitchen and shower room.

Parts of the building are in poor structural condition, notably the walls in the eastern wing (store 4), and the crosswall between stores 3 and 4. This wall has extensive vertical cracking in need of repair. Much of the roof has been crudely built from timber poles with split pole rafters, plated up or reinforced with modern sawn rafters. The roof structure is in poor condition, although the trusses at the hip end may be capable of reuse.

Mitigation Strategy

A number of impacts could be mitigated by measures set out below, as these impacts are likely to be of most concern to the local planning authority.

These areas of likely concern are:

- (i) The construction of an external porch;
- (ii) The insertion of rooflights
- (iii) The replacement of timber external doors with fully glazed doors.

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L .ernal porch

The proposed porch is of vertical timber boarding under a swept extension to the existing pantile roof. The porch is open to the south and covers the rear door, which will be fully glazed.

Although of lightweight construction and thus easily removed, it is the only extension to the existing buildings.

Rooflights

The north elevation of the north wing faces onto a tree covered bank which rises northwards. The low levels of daylight due to a northerly aspect are further reduced through the impact of trees. The gains in natural lighting through the use of rooflights are likely to be modest, and an alternative would be to combine the living and dining rooms into a single room by removing most of the crosswall and by fully glazing the cartshed opening with glazing set back 450mm into the doorway. This would obviate the need for rooflights to these rooms.

To mitigate the impact of the large glazed opening, full height fold back doors could be added, to act as shutters. This would allow the opening to continue to read as a cartshed.

The shower room in the north east corner can be electrically ventilated and lighted, removing the need for a rooflight for which there is no regulatory need. If these measures are adopted, the number of rooflights is reduced to one, to light the kitchen, which has no other direct source of daylight.

Doors and door openings

The building has six external doors and door openings. There is a set of modern double doors to store1, stable type halved doors to stores 2 and 4, and a plank door in the north elevation to store 3. These timber doors add to the character and appearance of these agricultural buildings, although they are mostly in poor condition.

It is proposed to replace the existing timber doors with fully glazed doors, or in the case of the cart openings, timber screens and French windows. These alterations will amount to a significant "domestication" of the group of buildings and a loss of agricultural character.

This could be mitigated by using timber doors with external strap hinges (as at present) to form external fold-back shutters to most of the openings. In this regard, the courtyard elevations (south and west) are the most significant as these are read in conjunction with the Miller's house and mill.

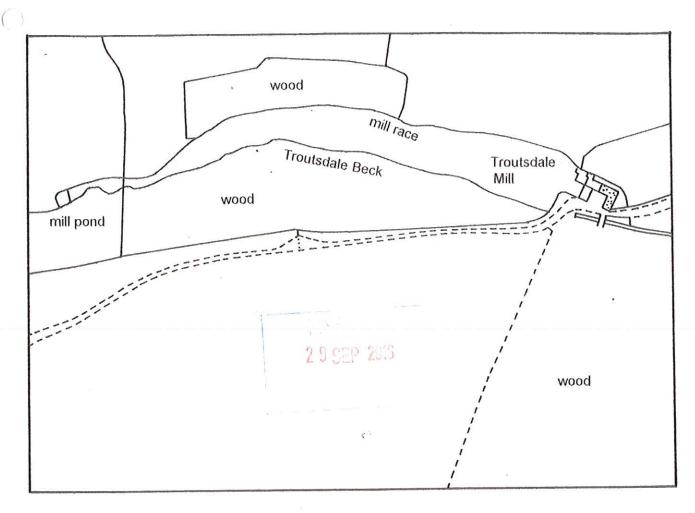
References

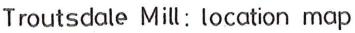
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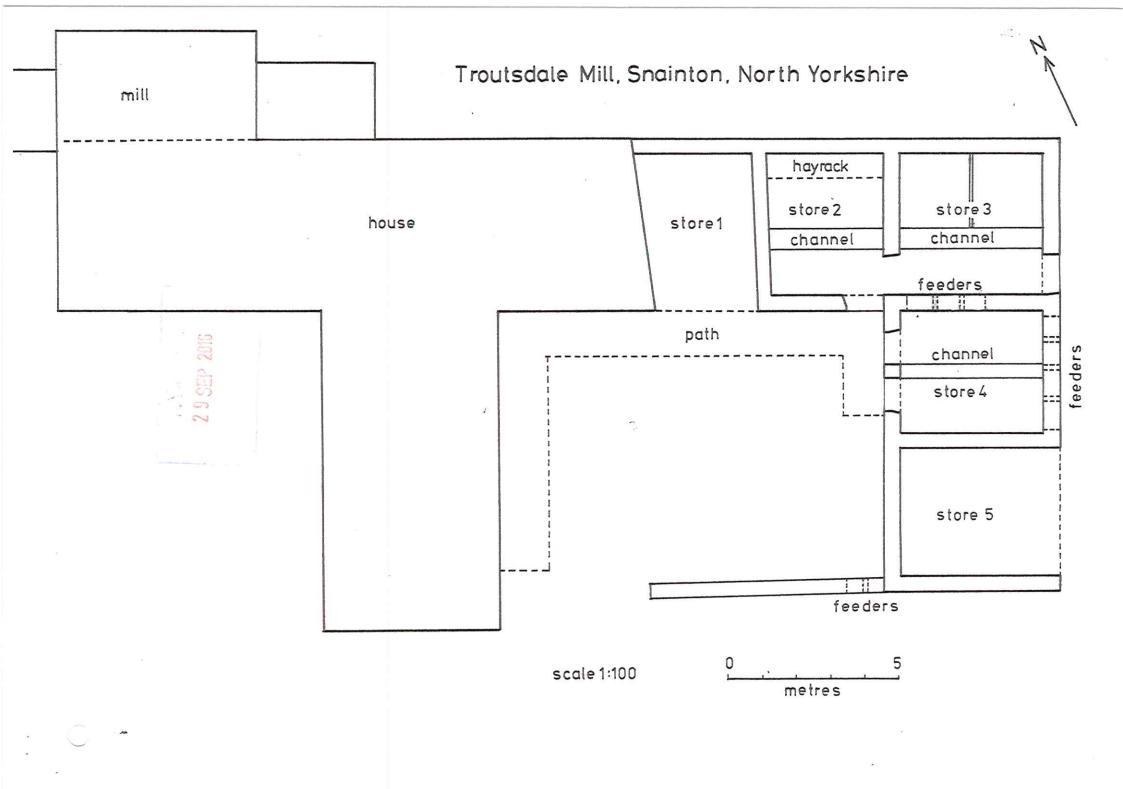


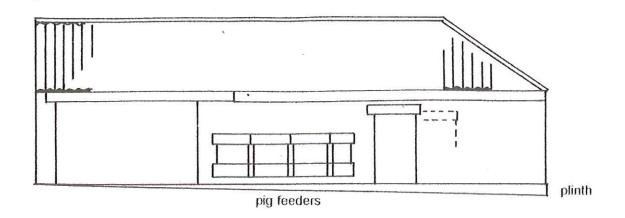
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Troutsdale Mill Outbuildings: East Elevation

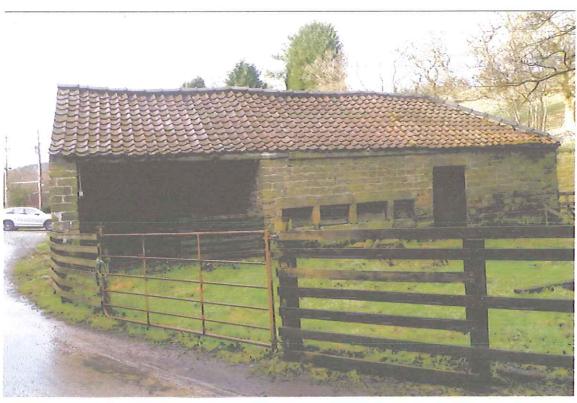
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Troutsdale Mill. View of attached farm buildings from south west.





Troutsdale Mill. South-east elevation of south wing of farm buildings, showing cart shed and pig sty feeders.



 Troutsdale Mill. North-east elevation of the mill house, with mill to the right. The stonework which supported the leat which fed the overshot wheel is to the right.



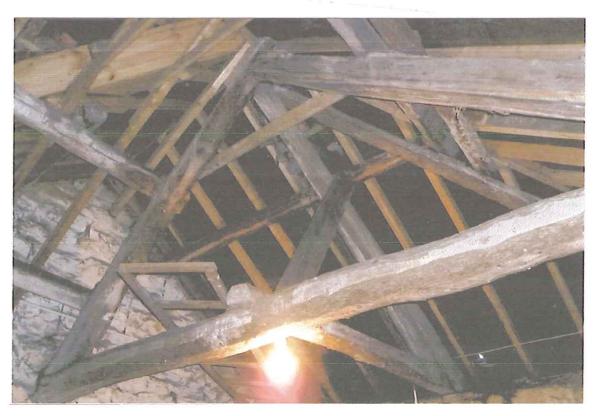


 Troutsdale Mill. North-east elevation of attached farm buildings.

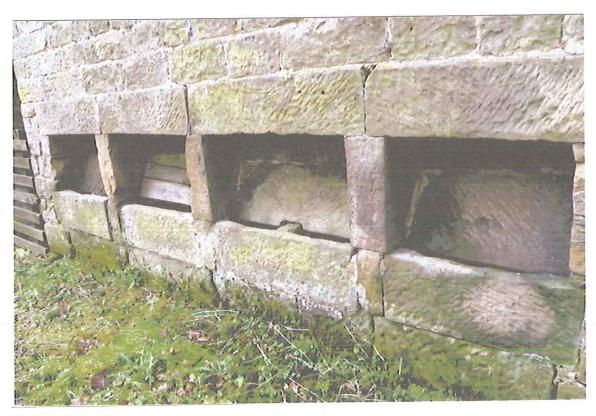


Troutsdale Mill. South gable end showing probable owl hole.

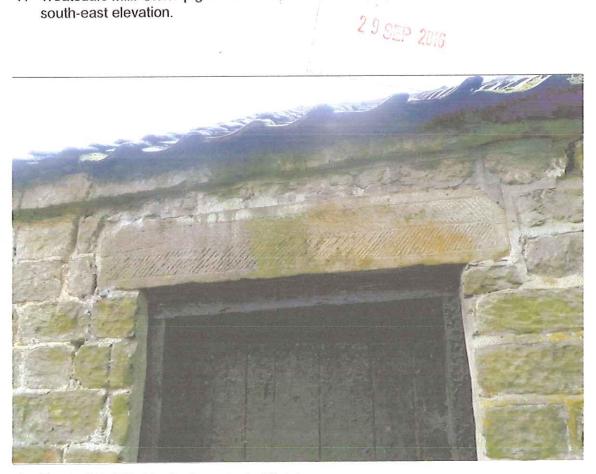
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Troutsdale Mill. Collared roof truss in the half-hipped roof over Store 3, the old milking parlour.



7. Troutsdale Mill. Stone pig feeders in the south-east elevation.



8. Troutsdale Mill. Herringbone tooled lintel over door in south-east elevation.



Troutsdale Mill. Stone pig feeders in the south wall of Store 3, the old milking parlour.

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Troutsdale Mill. Niches in the south-east wall of Store 1, cart shed.