

**FURNACE MILL AND OASTHOUSE, HOOK GREEN,
LAMBERHURST, KENT, TN3 8LH**

NGR 566138 136172

**HISTORIC BUILDINGS RECORD
& HISTORIC BUILDINGS WATCHING-BRIEF**

Historic England Level 3



**Commissioned by
George Clarke and Partners Ltd**

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SUMMARY

In March 2018 Archaeology South-East (a division of the Centre for Applied Archaeology, UCL) carried out a historic building record of Furnace Mill and Oasthouse, Hook Green, Lamberhurst, Kent (NGR 566138 136172). The work was commissioned by George Clarke & Partners Ltd. on behalf of their client to fulfil conditions placed on planning permission for the conversion of both the mill (planning permission ref. 15.504151/FUL) and the oasthouse (planning permission ref. 15/504155/FUL) into annexe accommodation ancillary to the main house.

The site itself is one of great historical and archaeological importance. Before the Industrial Revolution, Lamberhurst was a centre for the Wealden Iron Industry which had been established during Roman times. Furnace Mill Estate was once part of the Gloucester Furnace where the railings for St Paul's Cathedral were reputedly made. The Gloucester Furnace was the largest iron working furnace and mill in the Weald during the 17th and 18th centuries. There are also earthwork remains in the vicinity and extending down the valley to Peppermills, to the south

The buildings which are the subject of this record comprise an early/mid-18th century watermill with attached mid-19th century cart lodge and stables, and a mid-19th century oasthouse. The mill has lost much of its original machinery including its waterwheel; however, a great deal of the structure remains intact, and it is possible to discern many aspects of its original form, layout and function. The oasthouse is well-preserved, albeit its drying floor has been lost. Together with the nearby farmhouse the buildings represent a well-preserved historic farmstead within the landscape of the Weald.

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1.0 INTRODUCTION

- 1.1 In March 2018 Archaeology South-East (a division of the Centre for Applied Archaeology, UCL) carried out a historic building record of Furnace Mill and Oasthouse, Hook Green, Lamberhurst, Kent (Figs. 1 & 2; NGR 566138 136172).
- 1.2 The work was commissioned by George Clarke & Partners on behalf of Hazel and Robert Boyle to fulfil conditions placed on planning permission for the conversion of both the mill (planning permission ref. 15/504151/FUL) and the oasthouse (planning permission ref. 15/504155/FUL) into annexe accommodation ancillary to the main house. Listed building consent has also been granted for the conversions (planning refs. 15/504152/LBC & 15/504157/LBC respectively).
- 1.3 The conditions attached to both planning permissions are identical and specify:

Condition 4

Prior to the breaking of any ground or any preparatory works being undertaken, the applicant, or their agents or successors in title, shall secure the implementation of a programme of building recording in accordance with a written specification and timetable which has been submitted to and approved by the Local Planning Authority.

Reason: To ensure that historic building features are properly examined and recorded. This is a pre-commencement condition to ensure that such features are not lost or damaged by preparatory works.

Condition 5

Prior to the breaking of any ground or any preparatory works being undertaken, the applicant, or their agents or successors in title, shall secure the implementation of a watching brief to be undertaken by an archaeologist approved by the Local Planning Authority so that the excavation is observed and items of interest and finds are recorded. The watching brief shall be in accordance with a written programme and specification which has been submitted to and approved by the Local Planning Authority.

Reason: To ensure that features of archaeological interest are properly examined and recorded.

- 1.4 Wendy Rogers, senior archaeological advisor to Kent County Council, has requested that the buildings are recorded at Historic England Level 3 in order to fulfil Condition 4. She also noted that further work in the form of a watching-brief concerned with alterations to the standing buildings may be required where these might reveal additional information pertinent to the understanding of its previous form or development, in addition to monitoring any intrusive groundworks on site.

2.0 SCOPE & METHODOLOGY

- 2.1 The recording involved the survey of the mill and oasthouse to Level 3 as defined by Historic England (2016) and as set out in a written scheme of investigation produced for the work (ASE 2018).
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- 2.2 The site was visited by Katya Harrow and Amy Williamson on 12th March 2018 to carry out the initial historic buildings record. A written and photographic record was made of the exterior and interior of the buildings. An index of the digital photography is included as an appendix to this report (Appendix 2).
- 2.3 The written description and photographic record is supplemented by a drawn record, comprising measured floor plans and elevations of the building, provided by the client, which have been verified and augmented with additional features where necessary (Figs. 7-12).
- 2.4 The site was subsequently visited by Susan Chandler in July 2018. This was to observe the excavation of footings within the cart shed, and excavations already undertaken within the oasthouse roundel. The findings from this work are included here as Appendix 4. At the time, it was also anticipated that work would be undertaken to the ground floor within the mill. Since then, works concerning the mill have stalled, but should they recommence, then the findings of any watching-brief will be used to update this report.

3.0 SITE LOCATION

- 3.1 The site is located in the Teise Valley on the Kent and Sussex borders, in the High Weald Area of Outstanding Natural Beauty. The landscape of the area is generally one of undulating ridges and gentle valleys lying between the North and South Downs, with scattered copses with fields and extensive deciduous woodland (TWBC 2002). The village of Lamberhurst sits in the gently undulating land at the north-western edge of Bewl Water. The site is located approximately 1.4km west of the village, with the river passing to the east of the site at a distance of c.88m.
- 3.2 The buildings form part of a complex of buildings associated with Furnace Mill House which is situated at the end of a long private driveway. The oasthouse is situated to the north-east of the house on the north side of Furnace Mill Road, which passes through the site on its eastern side. The mill is located within the site's south-eastern extent, to the west side of the road.

4.0 STATUTORY DESIGNATIONS

- 4.1 Both the mill and oasthouse were granted statutory listing at Grade II on 10th October 1989 (National Heritage List entry nos. 1336941 & 1085303 respectively; Appendix 3). The mill was listed as 'Furnace Mill, Walls and Outbuildings' and the list description ascribes the mill a c.18th century date with early 19th century extensions. The oasthouse was listed as 'Oasthouse about 30 Metres North East of Furnace Mill House' and is ascribed a mid-19th century date. Furnace Mill House was listed on the same date (National Heritage List entry no. 1085302); the listing describes the building as being of early 18th century date or earlier.
- 4.2 The legislative cover not only relates to both the interior and exterior of the buildings, but also extends to any building within the curtilage which predates the 1st July 1948 and was in the same ownership at the date of listing.
- 4.3 The site is situated within the High Weald Area of Outstanding Natural Beauty (ref. 14).
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5.0 HISTORIC BACKGROUND AND CARTOGRAPHIC EVIDENCE

- 5.1 The site itself is one of great historical and archaeological importance. Before the Industrial Revolution, Lamberhurst was a centre for the Wealden Iron Industry which had been established during Roman times. Furnace Mill Estate was once part of the Gloucester Furnace where the railings for St Paul's Cathedral were reputedly made (<http://www.hammerpond.org.uk>). The Gloucester Furnace was the largest iron working furnace and mill in the Weald during the 17th and 18th centuries. There are also earthwork remains in the vicinity and extending down the valley to Peppermills, to the south (National Heritage List for England; Appendix 3).
- 5.2 The Ordnance Survey Draft map of c. 1800 (Fig. 3) identifies the site as 'Furnace Farm'. Although not at a scale to allow for detailed interpretation, three buildings can be identified: two on the western side of what is now Furnace Mill Road, and one to the north-east on the opposite side of the road. The two buildings on the west side are presumably the mill and the farmhouse. 'Pepper Mill' can be identified to the south.
- 5.3 The Lamberhurst tithe map of 1841 (Fig. 4) presents a more detailed picture of the site. The farmhouse can be clearly identified, with the mill to its south-east and two small buildings to the north-east. A mill pond is depicted to the north of the farmhouse, and mill races can be identified to the west and south of the mill; the road is shown bridging the tail race. The mill and buildings to the north-east form part of Plot 1191, identified in the accompanying apportionment as 'Mill, outbuildings and yards', in the ownership of Sir Edmund [sic.] Filmer and occupied by Susanna Prickett. Although a plot number for the house cannot be clearly identified, it was presumably Plot 1192 'House and garden', in the same ownership and occupation, along with adjoining meadows and arable land and Plot 1203 to the north of the house, the latter being identified as 'Floodgate Shaw and Pond' (KRO ref. IR 17/212). In addition to arable land and meadows within Susanna Prickett's occupation, the apportionment records pasture land and orchards. A later 19th century directory describes the Prickett family as a notable family associated with the iron trade (W.T. Pike 1884-1885).
- 5.4 Several documents from the mid-19th century provide useful information about the site at that time. An indenture, dated 1850, between Sir Edmund Filmer of East Sutton Place in Kent and George Charles Marquis Camden of Bayham Abbey in Sussex, details the lease of the mill to Marquis Camden. The document describes *'All that water corn mill called or known by the name of The Furnace Mill...together with the Mill pond or stream water gut flood gates or sluice gates and embankments thereunto belonging. And also the Van shed, stable and cart lodge adjoining thereto all which premises are now in the tenancy or occupation of Nicholas Arnold and George Arnold.'* The indenture also provides a schedule of the mill's contents: *'Water wheel, complete. Water wheel shaft, bonds and gudgeons, pit wheel and cogs, upright shaft bonds and gudgeons, spur wheel and cogs, crown wheel and cogs, machine nut shaft and rigger sack nut and shaft, bolter and reel complete, machine, case cylinder, spindle and rigger, one pair of four feet two inch French stones, hoops, horse, hopper and bin to ditto, one pair of four feet French stones, hoops, horse, hopper and bin to ditto, one pair of four feet peak stones, hoops, horse, hopper, and bin to ditto, one old Peak stone three wheat scrys, one joggling scry, counter shaft and rigger.'* (KRO ref. U840/T267)
- 5.5 A letter from R. Summerfield to Mr Arnold, dated 1859, grants the latter permission to 'break up Mill Plat Field, and to plant the same with Hops' (KRO ref. U840/T267).
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Kelly's Directory of Kent for the same year identifies Nicholas Arnold as a miller at Furnace Mill in the commercial listings for Lamberhurst. It is feasible that the construction of the oast occurred c.1859, coinciding with the planting of Mill Plat Field with hops as described in R. Summerfield's letter. An oasthouse is first depicted on the first edition Ordnance Survey map of 1890 (Fig. 5) to the north of the farmhouse and mill. To the south-west of the oasthouse, on the opposite side of the road, is a narrow linear range, while to the east are two buildings: the western of the two can be identified as pigsties with characteristic small attached yards, while that to the east is possibly an animal shelter shed with enclosed yards on its southern side. At this date, the mill is depicted with additions on its northern side, comprising the stables and cart shed described in the indenture of 1850.

- 5.6 The second edition Ordnance Survey map of 1898 (Fig. 6) shows no significant alteration to the mill or oasthouse. An additional building had been constructed to the west of the oast on the opposite side of the road, and the pigsties and shelter sheds to the east appear to have been rebuilt as one new linear range. The subsequent maps of 1909 and 1938 and the smaller scale map of 1961 show no discernible changes to the mill or oasthouse; the linear range to the north-east was extended on its northern side between 1909 and 1938 (Fig. 6). In the early 20th century Furnace Mill was recorded in trade directories as a farm, occupied by William Lambert, farmer, in 1903 and Thomas Playfoot, farmer and hop grower, in 1913 & 1914 (Kelly's Directory of Kent, 1903, 1913 & 1914).

6.0 DESCRIPTION OF THE BUILDINGS

The Mill - exterior

- 6.1 The mill overlooks the track through the site and is the first building encountered when approaching from the south from Furnace Lane. Mills were typically located to allow for good access from well-used roads and sometimes where a number of tracks and roads met (Watts 2006); historic Ordnance Survey maps show that the mill is sited at the convergence of the road with footpaths to the east and west (Figs. 5 & 6). The form and details of construction of the building indicate that it is of 18th century date, although, given the history of industry at the site, it is possible that it may have replaced an earlier building. Many mill buildings were sited on the footprint of or close to the site of earlier structures, to make use of established water supply systems (Watts 2006).
- 6.2 The building is a three-storey watermill aligned north – south, with a later, mid-19th century stable block attached to its northern side (Figs. 7-9). The ground floor of the mill is of brick construction, comprising dark red brick with occasional vitrified headers, laid in English bond, with the exception of the principal east elevation, where the bricks are laid in Flemish bond. The upper floors are of timber-framed construction and are clad with painted weatherboarding. The roof is of mansard form with half-hipped terminals and is covered with clay tiles; it contains the upper storey of the building.
- 6.3 The principal elevation of the mill faces east, overlooking the lane (Plate 1). At first floor level, it has a symmetrical arrangement with a window to either side of a central loading door. The loading door has tapered round-ended strap hinges, hung on pintles, and has been rehung: it bears scars for earlier hinges on the opposite side. The windows are three-light casements which have been modified (see Section 6.15). An undated historic photograph of the building (Mills Archive ref. KMGC-
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18767, not reproduced; via <https://catalogue.millsarchive.org/furnace-mill-lamberhurst-2>) shows that a *lucum* – a projecting feature housing a hoist for lifting sacks of grain directly to the top floor for storage – was situated above the loading door, projecting from the mansard roof. It was faced with weather-boarding and had a clay-tiled roof.

- 6.4 At ground floor level, the elevation comprises a three-light timber casement window with diamond-leaded lights, with two modified/inserted double-width door openings to its north. The southern of the two openings has probably been widened from an earlier door opening, centrally situated beneath the loading door, while that to the north can be identified as an original window opening which has been widened: queen closers (half-headers) neatly finish the brickwork forming the upper half of its southern jamb. This suggests the symmetrical arrangement of the first floor was replicated at ground floor level. Both pairs of doors are of ledged-and-braced construction with thumb latches. The southern doors are of better quality and are of late 19th or, perhaps more likely, early 20th century date; they are hung on simple tapering strap hinges to the interior. The northern doors are of more modern 'hit-and-miss' construction and are hung on interior bull-nosed strap hinges.
- 6.5 The rear (west elevation) is effectively of two storeys, as the ground level is considerably higher to the west of the building (Plate 2). It contains a single three-light casement with an off-centre, single-width door to the north. The door is of boarded and ledged construction with an upright reel-moulded handle, and is hung on tapered round-ended strap hinges to its interior. A millstone formed of a single piece of stone has been reused as a step up to the door, the threshold of which is slightly raised.
- 6.6 The south elevation of the building overlooks the pit for the waterwheel (Plate 3). A three-light casement is situated at first floor level and a two-light casement at second floor level, within the gable of the half-hipped roof terminal. Both are modern replacements although an undated historic photograph shows they occupy pre-existing openings (Mills Archive ref. JSPB-24379, not reproduced; via <https://catalogue.millsarchive.org/view-from-road-furnace-mill-lamberhurst>). The water wheel itself has been lost; however, the massive timber wheelshaft which connected the waterwheel to the internal gearing for the millstones, remains *in situ*, albeit much-decayed. It enters the building through a square opening with timber lintel (Plate 4). The mill had an overshot waterwheel, driven by water entering at the top and turning it by the weight of the water in its buckets (Mills Archive). This is reflected in the higher ground on the western side of the wheel pit, where there is evidence for low brick walls which channelled the water to the wheel pit (Plate 5). Historic maps suggest that the water came to the mill via a leat from the River Teise to the north, seemingly terminating in a mill pond to the north of the farm. Water from the pond was channelled below ground along the eastern side of the farmhouse, before appearing as the head race on the western side of the mill (Figs. 4 & 5). Once it had entered the wheel pit the water flowed into a tail race running beneath the track to the farm before bearing south to run perpendicular to the track, then east to discharge into the River Teise.
- 6.7 The east, west and south sides of the wheel pit are constructed in brick similar to the ground floor brickwork. An arched opening in the east wall served as the entrance to the tail race. Although overgrown, some coursed stonework is visible at the south-west corner of the mill building, and at the base of the west return wall of the wheel pit, which may relate to an earlier structure (Plate 4).
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- 6.8 The north elevation is abutted by the later 19th century additions to this side of the building (Plates 6 & 7). A two-light casement occupies the gable of the half-hipped roof, lighting the second floor.

Cart shed and stables attached to north of the mill - exterior

- 6.9 Abutting the north elevation of the mill is a tall lean-to addition, constructed of red brick with vitrified headers laid in Flemish bond, with alternate quoins of stone and brick, and some coursed stone to the base of its west wall. It has a clay-tiled roof with weatherboarding to the east and west gables; historic photos show that the roof was once covered with slate. The lean-to is open to the track to the west and probably served as a wagon shed. Attached to the north of the lean-to is a lower, single storey stable block, of very similar, Flemish-bonded brick construction with alternate quoins of stone and brick, and a clay-tiled roof which is gabled to the north. Three stable doors with external strap hinges are situated on the east elevation (Plate 6). The only original opening is the southern doorway, which can be identified by the queen closers neatly finishing the brickwork of its jambs, and which has a historic stable door. The central doorway has been inserted, albeit the door frame appears to be reasonably historic, with a redundant pintle for an earlier door. The northernmost door occupies what was once an open bay, flanked by two stone and brick piers, which has been infilled with stretcher-bonded brickwork; it is notable that the indenture of 1850 notes the presence of a stable, cart lodge *and* van shed. The remaining elevations of the stable block are blank.

The Mill – interior

- 6.10 The mill is of three structural bays. The ground floor (meal floor) housed the gearing required to drive the millstones, and this was situated in the southernmost bay of the building. Although the gearing has been removed, the bottom stones of two pairs of millstones remain in place on the northern side of the bay at the level of the first floor (Plate 8). These are carried on a substantial timber frame, known as a hurst, formed of timber posts and additional timber girders below the first floor structure, strengthened with iron bolts and diagonal struts (Plate 9). Curved recesses in the girders provide evidence for two further pairs of millstones to the south of the remaining two (Plate 10). Iron brackets close to the sites of the millstones *possibly* relate to a fork and jacking arrangement for lifting and engaging/disengaging the small pinions, known as stone nuts, which drove the millstones (Plate 8). At ground floor level the meal would have been collected having been processed by the millstones above.
- 6.11 The window lighting the southern bay has diamond-section vertical iron stanchions to the interior, to provide additional security to the building. Along the western side of the hurst is a passageway which leads to the wheelshaft. This is formed by a timber rail, with brickwork below and modern plasterboard above. Access to the wheelshaft is through an inserted opening in the brickwork. The present floor beneath the hurst has been inserted, as it spans the space where the pit wheel would have been located (Plate 11). The undersides of the timber joists bear evidence of nails and stripes characteristic of having been clad with a lath and plaster finish which suggests the floor was inserted no later than the early/mid-20th century, by/at which date the gearing would have been at least partially removed. It is possible, however, that the floor joists have been reused and this alteration occurred later. From the passage, the truncated northern end of the wheelshaft can be seen to be faceted, being octagonal in section.
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- 6.12 The remainder of the ground floor comprises two open bays which would have served as the millwright's working area (Plate 12). The floor is covered with modern concrete slabs, and the walls are faced with reasonably modern plasterboard. The ceiling comprises deep-section joists with simple chamfers, carried on chamfered girders with straight-cut stops; all components have been painted. The girder between the central and northern bay is supported by a chamfered post, which bears the initials 'J W L', carved into its southern face. Within the central bay is a centrally-placed trap hatch, the trimmers for which are pegged to the joists (Plate 13). This is replicated directly above at first floor level, and served a hoist for lifting grain up to the top floor. Within the northern bay on the eastern side is a chamfered timber bolted to one of the joists. Its purpose is unknown; however, it may have provided additional support for machinery on the first floor.
- 6.13 The first floor is accessed via a staircase on the western side of the central bay. The stair itself is a replacement straight flight of simple softwood tread and riser construction but is nevertheless historic. It occupies the original stair trap; however, whether it replaced a stair of similar form or a steeper ladder stair is unknown. The first floor itself is known as the stone floor. It is of three open bays, and the stationary bedstones of two of the pairs of millstones remain visible within the southern bay; the turning upper stones, known as runner stones, have been removed (Plate 14). Both the remaining stones are 'French' stones, that is, they are formed of blocks of stone bound with an iron hoop (Plate 15).
- 6.14 The walls at first floor level are of timber-framed construction. The posts to each truss are chamfered and their jowls have rounded bowls (Plate 16); the wallplates are also chamfered. The wall framing incorporates primary bracing, i.e. long, slender diagonal braces which interrupt the studs. The studs themselves are generally nailed except where they form window or door jambs, where they are jointed and pegged to the wallplates. A further pegged stud is situated centrally on the west wall of the northern bay.
- 6.15 The windows are of three lights with chamfered timber mullions. Each originally had a central opening light with fixed lights to either side. All now have either plain glazing or flat metal glazing bars which are a later alteration; redundant small rectangular sockets for earlier lead comes or saddle bars are visible in the timber window frames. The window on the western side of the southern bay retains a central opening iron casement with a spiral catch and tulip leaf handle; it too has been modified with later glazing bars (Plate 17). This window is furnished with a series of diamond-section iron stanchions nailed to the frame: due to the change in ground level the first floor is effectively at ground level on the western side of the building and the stanchions demonstrate that security was a concern. The window on the southern wall of the building appears to occupy an original opening; however, the window itself is later and comprises casements with moulded frames and rectangular panes, set within a reasonably modern timber surround with modern window furniture. The north wall accommodates a blocked window in the framing of the wall, with jointed-and-pegged studs forming its jambs, between which is a sill which is also jointed-and-pegged (Plate 18).
- 6.16 On the western side of the building, north of the staircase is an exterior doorway, the ground level here being at first floor level. A blocked opening, for a loading door, is situated centrally on the eastern side of the building (Plate 19). The studs forming its jambs are pegged to the wallplate and rebated to house the door, and the iron housing for a bolt remains *in situ*.
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- 6.17 The first floor ceiling is similar to that of the ground floor, with chamfered, deep-section joists being carried by chamfered crossbeams with straight-cut stops (Plate 14). The southern crossbeam is supported by an off-centre, chamfered post. As at ground floor level, the ceiling above the central bay contains a framed-in trap hatch for a hoist. Within the southern bay, some of the joists are notched and the last joist on the eastern side is truncated; these features may relate to the positions of hoppers or chutes feeding grain to the millstones, or relate to additional machinery such as the sack hoist or machines for cleaning grain or flour dressing (removing bran from the flour) (Plate 20). The schedule in the indenture of 1850 includes a crown wheel: a further gear at the top of the shaft of the spurwheel which powered the millstones. This would have been positioned close to the first floor ceiling and powered the sack hoist and other machinery. Several timber blocks and iron hooks and brackets, nailed the studs and joists, no doubt relate to the historic function of the mill although their original function is not readily interpreted in the absence of the mill gearing and machinery.
- 6.18 The original staircase to the second floor survives on the western side of the central bay (Plate 21). It has winders at its base and head and comprises oak treads and risers which are nailed together. A projecting curtail step with rounded corners is situated at its base, below a doorway with iron hinge pintles fixed to its northern jamb for a removed door. The stairwell is enclosed at second floor level by simple timber uprights and rails, nailed together.
- 6.19 The upper floor of the mill would have served as the bin floor, where grain was stored prior to processing through the mill machinery below. The grain would have been emptied into grain bins from where it made its way to the millstones via chutes and hoppers. Although the bins have been removed, remnants of tightly-jointed horizontal boarding on the eastern side of the central bay, and to the north of the stair, are likely to be related to grain storage (Plate 22).
- 6.20 The second floor is housed within the half-hipped mansard roof, the principal components of which are jointed-and-pegged (Plate 23). To both roof slopes the rafters are notched over the back of a plate supporting the shallower, upper pitch of the mansard roof; the plate is set square. The upper rafters are jointed at a ridgeboard at the apex of the roof, and are supported on both sides by an upper purlin. The rafters are fairly slender and some bear evidence of reuse in the form of redundant mortices unrelated to their present position. Long, straight diagonal braces are nailed to the rafters of the lower pitches only, and are possibly a later addition. At the bases of the lower rafters are timber ashlar pieces which retain iron nails and presumably carried horizontal boarding like the remnant which survives on the eastern side. The trusses between the bays comprise tall queen studs pegged to collars; the studs are joggled at the top to accommodate a downward raking strut to the tiebeams (Plate 24). Above the collars are two raking struts to purlins; the collars are notched to house these struts. They are also notched centrally to carry a girder which spans the end bays only; these girders in turn carry raking struts supporting the ends of the upper purlins at their junctions with the hip rafters. The central bay has an intermediate collar, notched around the purlins and nailed to the rafters. The plates supporting the upper pitch of the roof are laid in level assembly and reinforced with dragon ties at their junction with the half-hipped roof terminals.
- 6.21 Above the central bay is a pair of raised planks bolted together and carried on blocks nailed to the collars of the trusses, with additional support from short raking struts. The two planks house an iron wheel which is centrally placed above the trap hatch, for the sack hoist which lifted grain through trap hatches from the ground floor
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(Plates 25 & 26). The queen studs framing the central bay have redundant mortices suggesting that the area around the central trap was enclosed by rails; the absence of such a mortice on the northern face of the south-west post suggests the possible position of an opening to the hoist area. Similar redundant mortices on the outer faces of the posts may relate to former partitions for grain bins.

- 6.22 The north and south walls, below the half-hipped roof terminals, are of primary-braced construction with studs housed in mortices. The north wall contains an original high-level window opening, its cill being pegged to the studs which form its jambs although the window itself is a late 19th/early 20th century casement with diamond-pattern glazing, set in a modern nailed frame. The window at the southern side is a modern casement, but appears to occupy an earlier opening, with a pegged cill set at a lower height suggesting the window may once have been lower or comprised a larger opening.
- 6.23 Of interest are a number of marks which can be identified on the queen studs. One of these appears to be an inverted W mark, formed by overlapping Vs (Plate 27). Such marks are thought to be 'apotropaic' or ritual marks, which were used to protect a building from evil spirits, witches or their animal familiars. Openings such as doorways, windows and particularly fireplaces were seen as danger points that needed protection (Hall 2005). In addition, several clear flame-shaped burn marks are visible. Such marks are now thought to be deliberate, possibly ritual marks rather than accidental damage (Dean and Hill 2012). Together, these marks suggest that superstition concerning the protection of the building and the grain processed there, was alive and well during the course of the building's use as a mill.

Cart shed and stables attached to north of the mill - interior

- 6.24 The mid-19th century additions to the north of the mill comprise a cart shed with stables on its northern side. The cart shed directly abuts the mill buildings and partially encloses its formerly external north wall, which comprises brickwork with weatherboarding above. The remainder of the interior walls are of unpainted brick. The roof is essentially of lean-to construction and has been largely rebuilt, with all the rafters and the purlin being of modern softwood construction; however, a single waney tiebeam and raking strut, notched to the purlin, remain *in situ* (Plate 28). The western gable is of timber-framed construction comprising closely spaced, waney-edged studs.
- 6.25 There are presently three stables to the north; however, the central and southern stables are separated by a breezeblock partition and appear to have originally formed one large room (Plate 29). A Flemish-bonded brick partition with weatherboarding above, fixed to fairly sizeable timber studs, separates the central and northern stable; it contains a doorway with a ledged door with spear-ended strap hinges, which has been fixed shut (Plate 30). The floor throughout is of concrete with a drainage channel aligned north – south. The roof consists of slender softwood rafters jointed at a ridge board and supported by side purlins. The trusses comprise simple tiebeams with raking struts notched for the purlins, which are nailed to the rafters.
- 6.26 The northern stable retains a small galvanised water trough to its west wall, embossed with 'JAS. W. Glover & Sons, Warwick' (Plate 31). This appears to be of late 19th/early 20th century date, which suggests the former opening to the east was enclosed to form a stable around this time: the name likely refers to James W. Glover, who was recorded as the manager of William Glover & Sons of Eagle Works,
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Warwick, from 1901. The census of the same year records James Glover as an *'Implement and Waggon Manufacturer, Employer'* (Grace's Guide website). Each stable is provided with a butler's sink supported on a breezeblock structure.
The Oasthouse - exterior

- 6.27 The oasthouse was constructed in the mid-19th century: it does not appear on the Lamberhurst tithe map of 1841, but is depicted on the Ordnance Survey map of 1890. The building comprises a linear two-storey stowage range aligned north-west – south-east, with an integral circular kiln (roundel) at its north-western end (Figs. 10-12). With the exception of the south-east end elevation, it is constructed in orange-red brick with vitrified headers laid in English bond; the brickwork of the stowage runs continuously into that of the roundel. At its base is a projecting brick plinth, only visible to the north-east elevation and part of the roundel due to the change in levels across the site, and the roundel has a projecting eaves cornice of a single brick course. The roof of the stowage is half-hipped at its south-eastern end, and is covered with clay tiles. The roundel has a clay-tiled conical roof and retains its pivoting timber cowl, whose purpose was to swing around against the wind to improve the draught through the drying floor within.
- 6.28 The principal elevation of the building faces south-west, onto the lane running through the site (Plates 32 & 33). Here is the entrance to the building, which comprises an original single-width ground floor door opening with segmental-arched head formed by two courses of brick headers. The door itself is a ledged door of bead-moulded planks, with bull-nosed iron strap hinges to its interior face. It is arranged in the manner of a stable door, being split horizontally into two leaves. The upper leaf is lockable and opened by a brass door knob, whilst the lower leaf has an iron upright handle with back plate and thumb latch. Above the doorway is a contemporaneous window opening with stone cill; one half of the opening is occupied by a fixed cast iron casement of twelve panes while the other comprises an opening timber shutter with round-ended strap hinges.
- 6.29 The north-east elevation has a matching first floor window, and two small openings at ground floor level with segmental arched heads (Plate 34). Both the openings, which likely served as ventilation, have a recessed plain timber frame and are contemporaneous with the brickwork. Both are blocked with boarding to their interior face. Scars in the brickwork and remnants of lead flashing mark the position of a small structure which formerly abutted the stowage range towards its north-western end. This was a presumably a later addition; however, it is not depicted on historic maps and its function is unknown.
- 6.30 The south-eastern end elevation of the stowage range is clad with weatherboarding at first floor level, which presumably obscures timber framing (Plate 35). At ground floor level, there appears to have originally been two open bays separated by a central timber post and flanked by brick piers. The list description for the oasthouse notes that double cart doors once closed the open bays; they have latterly been infilled with fixed panels of timber planks, ledged-and-braced to the interior, and with an external horizontal mid-height moulding. At first floor level there is a two-light metal casement window with diamond-shaped leaded lights.
- 6.31 The roundel to the north-west has a variety of small openings (Plate 36). Directly north-west is an opening at ground floor level with segmental-arched brick head which would have served as a stoking hole to the kiln hearth. The opening appears to have been enlarged or inserted as the surrounding brickwork shows signs of modification. It has a recessed timber frame and is closed with a shutter of bead-
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moulded planks with a lead apron at its base, and has a brick threshold with concrete repairs. Above it at first floor level is a small, inserted opening, blocked from the interior with hardboard. Its purpose is unknown but it may have provided draught, or lit the drying floor during loading/unloading. The brickwork between the two openings and above the first floor opening shows signs of reworking, and the brick eaves cornice is truncated here. This is not fully understood but may simply represent repairs/repointing.

- 6.32 To either side of the central opening at ground floor level is a small, rectangular vent opening which would have provided draught to the kiln. These two openings are more convincingly accounted for within the surrounding brickwork and appear to be original. Both have recessed timber frames and are closed with timber shutters to the interior. At mid-height above the northern of these two openings is an inserted opening with a shutter formed of bead-moulded planks, hung on plain tapering strap hinges, which was presumably added to provide light to the kiln area.

The Oasthouse – interior

- 6.33 The oasthouse is entered on its south-western side, although, as noted above, access was also afforded historically from the south-eastern elevation. The ground floor of the stowage has painted brick walls and a floor of modern concrete slabs (Plate 37). The construction of the ground floor ceiling/first floor comprises deep section softwood joists aligned north-east – south-west and carried at the outer walls on slender horizontal girts built into the brickwork. The arrises of the joists are finished with a tiny chamfer. At the south-eastern end of the building only, two chamfered timbers are bolted to the underside of the joists (Plate 38). Between the two timbers, one of the joists has been truncated, and the resulting gap latterly infilled with modern softwood; it is possible that the timbers were added when the joist was truncated, to give additional support. Fixed to the joist to the south of the truncated joist is a brush formed of reed or corn stubble attached to a timber batten, below which the joist has been hacked back to form a concave recess (Plate 39). The purpose of this feature is unknown, although it may be related to some form of inserted trap door which has latterly been removed. Within the southern corner of the building the ceiling structure accommodates a hatch, probably for a treading hole, where the dried and cooled hops would have been packed into long sacks known as ‘pockets’. The trimmers forming the hatch are jointed to the joists with long tenons and are secured with large timber pegs (Plate 40). The hatch has latterly been blocked with a piece of reused timber. The floor joists are overlaid with a combination of modern and reused floor boards, some of which have a white-washed finish.
- 6.34 The curved brick walls of the roundel at the north-western end project into the stowage and are painted at ground floor level (Plate 41). A central doorway with a segmental-arched brick head provides access to the kiln. The door itself is a ledged door of bead-moulded planks, set in a modern timber frame and hung on modern strap hinges, with a brass door knob. Scars for earlier strap hinges are visible to its interior face: one round-ended and the other with a spearhead-shaped end. The walls of the kiln have evidence of a patchy whitewash finish. Its floor was largely obscured with a timber covering and stored items at the time of the survey, concealing any surviving evidence for the kiln hearth(s) which would have provided the hot air to the drying floor above. However, around the probable stoking hole/fuel door opening to the north-west of the roundel are scars for an arched shaped structure/tunnel to prevent loss of heat from the kiln (Plate 42). The timber shutter to the opening slides vertically, being housed in grooved timbers to either side, to
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control draught to the kiln (Plate 43). The small draught holes to either side also have vertically-sliding timber shutters. The drying floor which would once have been situated above the kiln has been removed and replaced although the twin girders carrying the existing floor are chamfered and may be contemporaneous with the construction of the oast. The joists themselves are staggered and incorporate reused material including whitewashed joists and some with nail holes and stripes characteristic of once having been clad with a lath and plaster finish (Plate 44). The girders and the ends of the joists are set into the external brickwork of the roundel with a modern mortar of cementitious appearance. The joists are overlaid with a mixture of modern and reused boards with a whitewash finish, with unpainted stripes from the position of joists in their original setting. Originally, the drying floor would have comprised joists overlaid with timber or metal slats and covered with a coarse horsehair cloth, or possibly perforated tiles (Jones & Bell 1992).

- 6.35 The first floor of the building is accessed by a stair on the south-western side of the stowage, to the north-west of the pedestrian doorway. The trimmers forming the stair trap are jointed and pegged in a similar way to those forming the hatch in the southern corner of the range (Plate 45). Curiously, there is a series of redundant joist mortices within the brickwork on the south-western side of the stair trap, suggesting that at some stage it was reduced in size or blocked; however, there is no corresponding evidence on the stair trimmers, suggesting that the existing stair trap is original. The stair itself is a softwood ladder stair of reasonably modern date. At first floor level it is enclosed by timber uprights and rails fixed with wire nails and has a small storage mezzanine above formed by softwood planks.
- 6.36 At first floor level, the north-eastern wall of the stowage and the south-eastern end of the south-western wall, up to the stair trap, have a plastered finish; the remainder of the latter is of painted brick. The south-eastern wall is clad with wide, painted timber boards laid horizontally below the level of the tiebeam; above this, the gable of the half-hipped roof terminal is visible and is of primary-braced construction, with slender diagonal braces interrupting the studs, to which they are nailed (Plate 46). The projecting wall of the roundel within the stowage is predominantly of unpainted brick, with the exception of the small section adjoining the stair trap, which is painted (Plate 47) The unpainted brickwork has a patchy appearance redolent of having once been faced with plaster or render. The conical roof of the roundel is also partially enclosed by the stowage; the space between the rafters is infilled with daub. The use of plaster/render, boarding and daub might be measures of 'hop hygiene', serving to prevent hop residues from collecting in cracks and becoming a source of contamination during the pressing (Jones and Bell 1992).
- 6.37 The roof over the stowage is of three bays, with chamfered tiebeams and intermediate collars which are notched to clasp the side purlins. The rafters ride over the backs of the purlins and are jointed at a ridge board at their apex. The wallplates are laid in level assembly. On the south-western roof slope in the southern corner of the range, a pair of horizontal timbers are nailed across the rafters, the purpose of which is unknown, but they may be associated with the treading-hole hatch below (Plate 48).
- 6.38 The windows to the north-east and south-western sides of the stowage are identical, each comprising an opening shutter and cast iron fixed light. Each is set in a pegged timber frame with chamfered jambs and a chamfered central mullion (Plate 49). The shutter is ledged and formed of bead-moulded planks, with a simple iron catch and fixings for a stay. The window to the south-east wall is a later addition or
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replacement. Its casements are metal-framed with simple drop-handle catches and are of probable early 20th century date.

- 6.39 The drying floor in the upper part of the roundel is accessed from the first floor of the stowage via a raised doorway reached by a short timber ladder stair (Plate 50). The stair is fixed to the timber threshold of the doorway with iron hooks. The treads are worn to both sides and scars for fixings at the base of the stair suggests it has been turned upside-down. The threshold and the head of the doorway on the interior side are curved to match the shape of the roundel. The door itself is ledged and formed by bead-moulded planks, with an upright iron handle with expanded ends, and tapered round-ended strap hinges. Remnants of a hessian seal are nailed to the door and frame. 'BAGS TO BE PUT IN' is scratched onto the door on the stowage side (Plate 51).
- 6.40 The conical roof of the roundel is formed by rafters resting on a curved wallplate above the brickwork. A number of rafters on the western side have been replaced with modern softwood; the remainder are faced with a lath-and-plaster finish. The roof is braced with two intersecting timbers forming a cross-piece supporting the cylindrical pivot of the cowl (Plate 52). The latter is seemingly of timber; however, due to the height of the pivot, it was not possible to confirm this with certainty. The top of the roof, beneath the cowl, is flat and covered with lead, and the pivot exits this covering through a circular hole framed by two slender timbers.

7.0 DISCUSSION

- 7.1 Furnace Mill provides a good example of an isolated farmstead within the landscape of the Weald. The mill itself is one of a number of mills situated close to the River Teise, and as is typical, it forms part of a group with the attached stable and cart shed range, the former miller's house/farmhouse to the north, the oasthouse and the later farm buildings to the north-east.
- 7.2 Until the second half of the 18th century, mills were effectively vernacular buildings in terms of their form and materials (Martin Watts, pers. comm.). Its constructional details and the materials employed, which are typical of the local vernacular, accords with this and suggest an early/mid-18th century date for its construction. The oak timber-framing with chamfered details indicates the mill is of quality construction and is likely to have been a building of some status. Despite the loss of much of the mill's machinery, its historic function can be discerned through the survival of two of the millstones, the timber hurst which supported them, the hatch and wheel for the sack hoist and the wheel pit. Earthworks relating to the mill's water supply, and remnants of the brick walls of the head race, provide evidence for how the mill was used, the understanding of which is enhanced by examination of historic maps.
- 7.3 Documentary sources and historic maps indicate that from at least the mid-19th century the building was in use as a corn mill. Whether the mill was in fact associated with metalworking at its inception (e.g. powering cams for crushing metallic ores or driving hammers for forging iron), cannot be told, but it seems more likely that its name relates to the long history of ironworking in the vicinity of the site. Mills often occupied earlier mill sites, making use of established water supply systems, and this may well be the case at this site: it is tempting to interpret the incorporation of some stonework to the south wall of the mill and within the wheel pit as remnants of an earlier structure. Early 20th century trade directory entries record a farm at Furnace Mill, with no specific mention of milling, which suggests that the emphasis had
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shifted away from milling by this date. This reflects a general trend, with the production of flour being taken over by large purpose-built roller mills towards the end of the nineteenth century (Watts 2006).

- 7.4 The oasthouse with its circular roundel is typical of a mid-19th century building of this type. The circular kiln form was developed in the early/mid-19th century and offered strength, space and economy, as fewer materials were required for its construction (Jones & Bell 1992). The oast therefore illustrates developments in hop-processing technology, and its presence on the farmstead echoes a widespread increase in hop production. Historic maps indicate that the building was constructed between 1841 and 1890. However, in 1841, the tithe apportionment for Lamberhurst records no land occupied by the tenant of the mill at that time, Susanna Prickett, as producing hops, and documentary evidence for land being turned over to hops in 1859 perhaps provides a more precise indication of the oasthouse's date of construction. The oast has lost its drying floor and original staircase; however, it otherwise survives remarkably intact, with features remaining such as the cowl, treading hole, stoking holes and draught vents complete with timber shutters. Any future works to the ground floor of the roundel might reveal evidence as to the form of the kiln(s) which provided heat to the drying floor.

8.0 DEPOSITION OF THE ARCHIVE

- 8.1 The project archive will be deposited with Kent History and Library Centre, pending discussion, under the site code FMI18. The archive will be prepared according to the principles of Management of Research Projects in the Historic Environment (MoRPHE) (Historic England 2015) and the requirements of the recipient museum. A copy of the report will also be supplied to the Kent Historic Environment Record on CD-ROM in a .pdf format.

9.0 ACKNOWLEDGEMENTS

- 9.1 Archaeology South-East would like to thank George Clarke & Partners Ltd for commissioning this record on behalf of Hazel and Robert Boyle.

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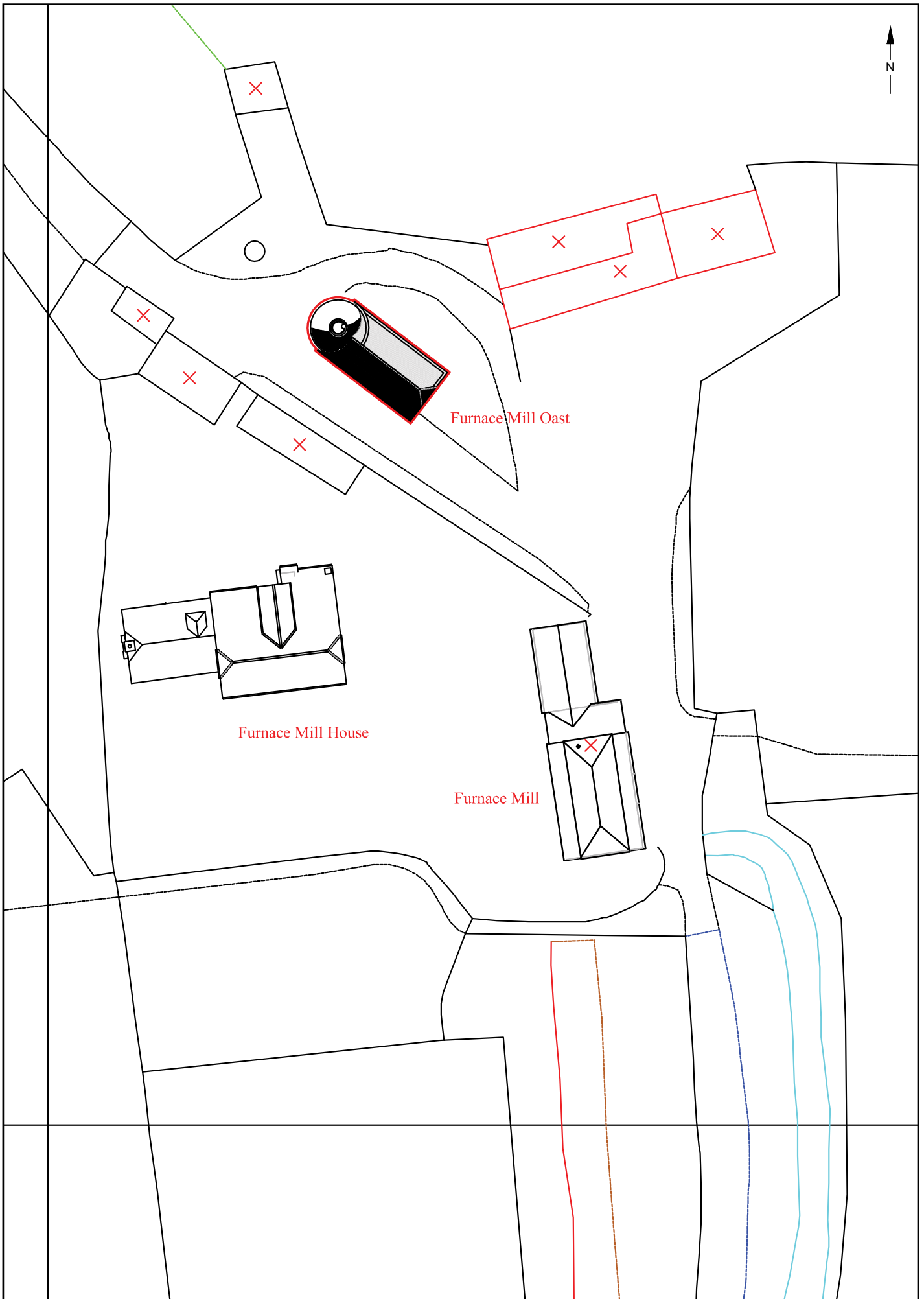
IR 17/212 Tithe Award – Lamberhurst, 20th February 1841

U840/T267 Title Deed: Hoathley Farm (349a), Furnace Farm (14a) and Furnace Mill

Kelly's Directory of Kent, 1859



© Archaeology South-East		Furnace Mill and Oasthouse, Lamberhurst, Kent		Fig. 1
Project Ref: 180066	April 2018	Site Location		
Report Ref: 2018110	Drawn by: RHC			

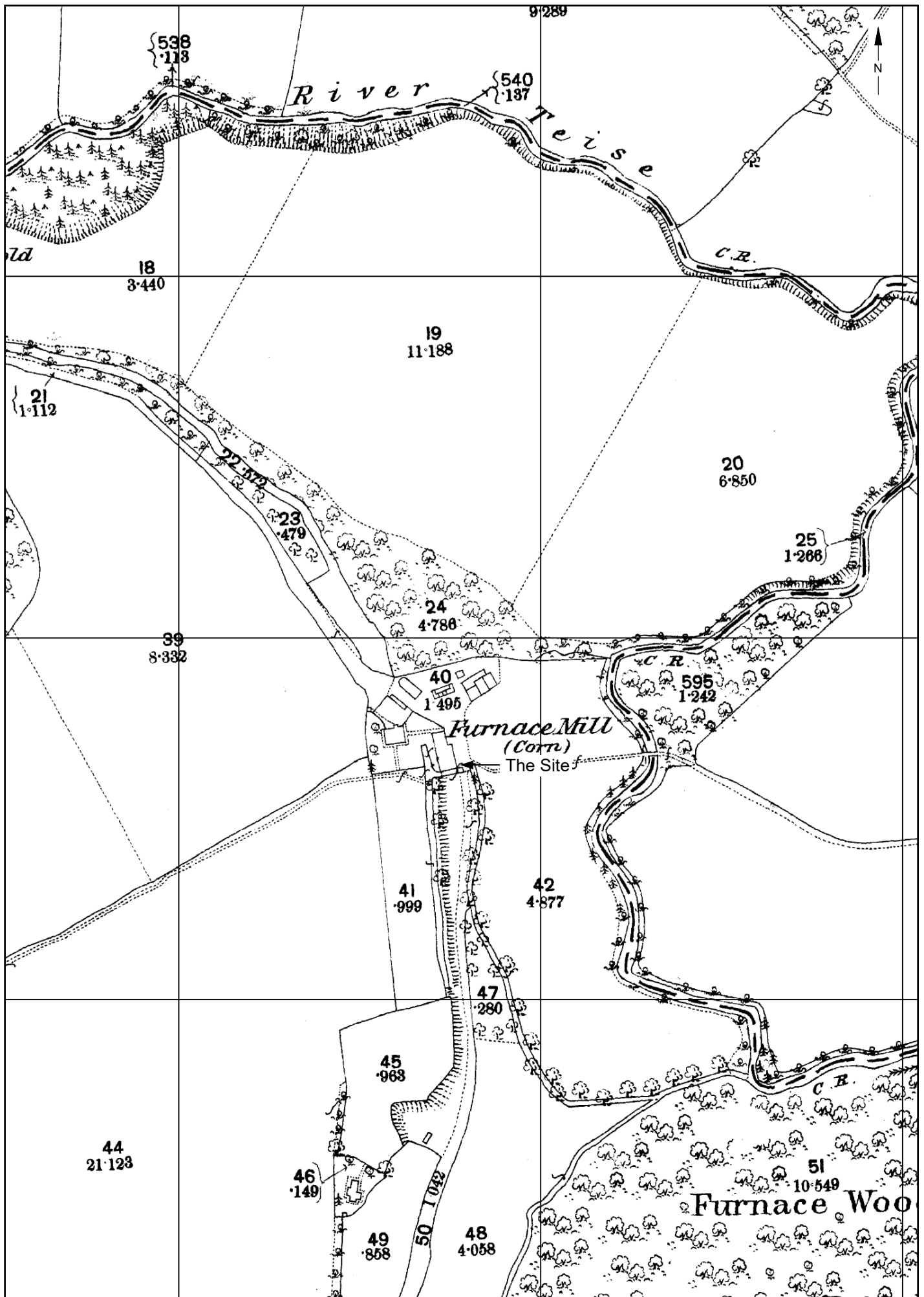




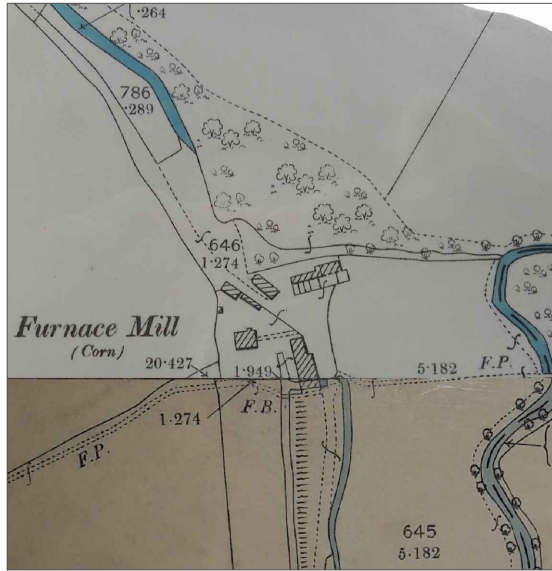
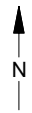
© Archaeology South-East		Furnace Mill and Oasthouse, Lamberhurst, Kent	Fig. 3
Project Ref: 180066	April 2018	Ordnance Surveyor's Draft, c.1800	
Report Ref: 2018110	Drawn by: KRH		



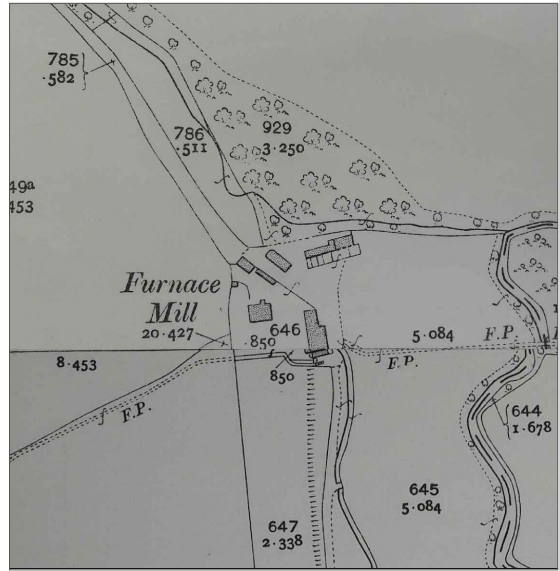
© Archaeology South-East		Furnace Mill and Oasthouse, Lamberhurst, Kent	Fig. 4
Project Ref: 180066	April 2018	Lamberhurst Tithe Map, 1841	
Report Ref: 2018110	Drawn by: KRH		



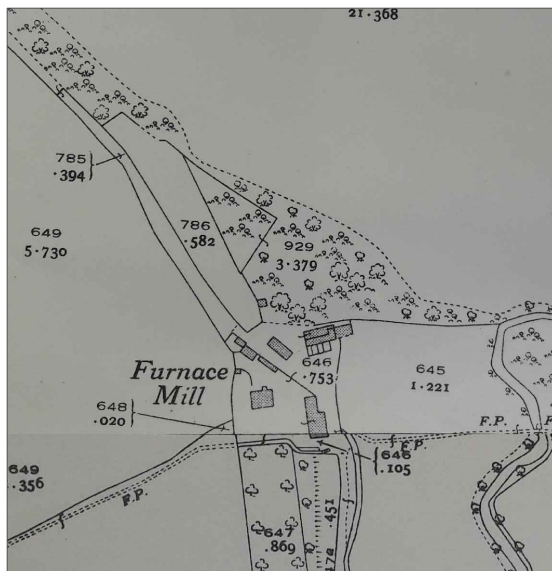
© Archaeology South-East		Furnace Mill and Oasthouse, Lamberhurst, Kent	Fig. 5
Project Ref: 180066	April 2018	Ordnance Survey, 1890	
Report Ref: 2018110	Drawn by: KRH		



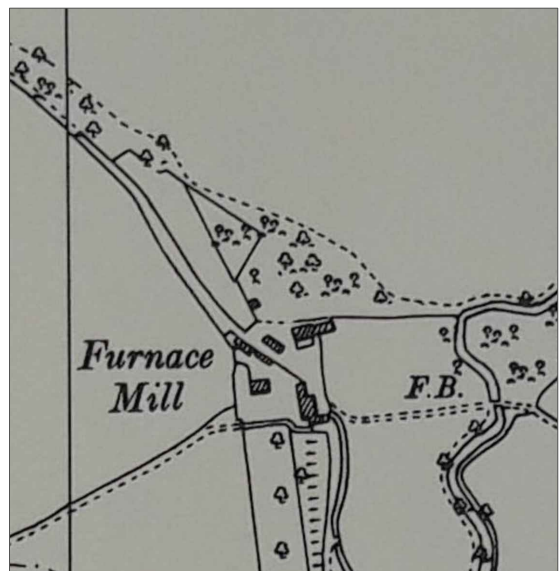
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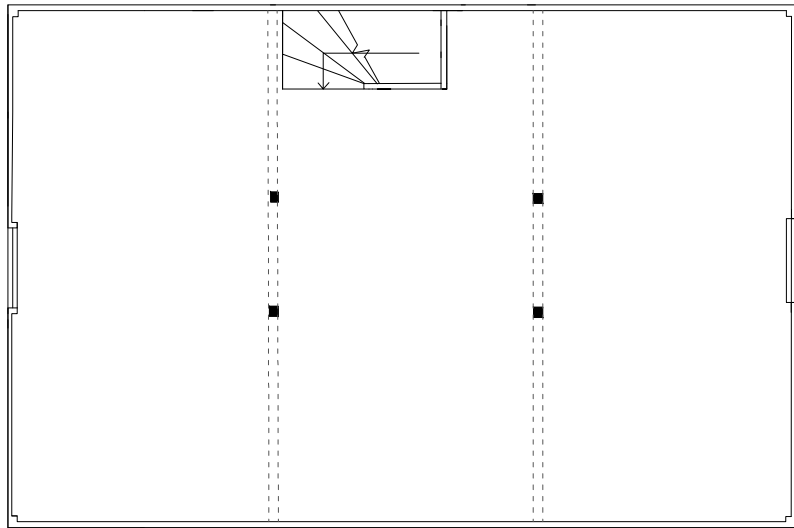
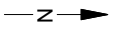


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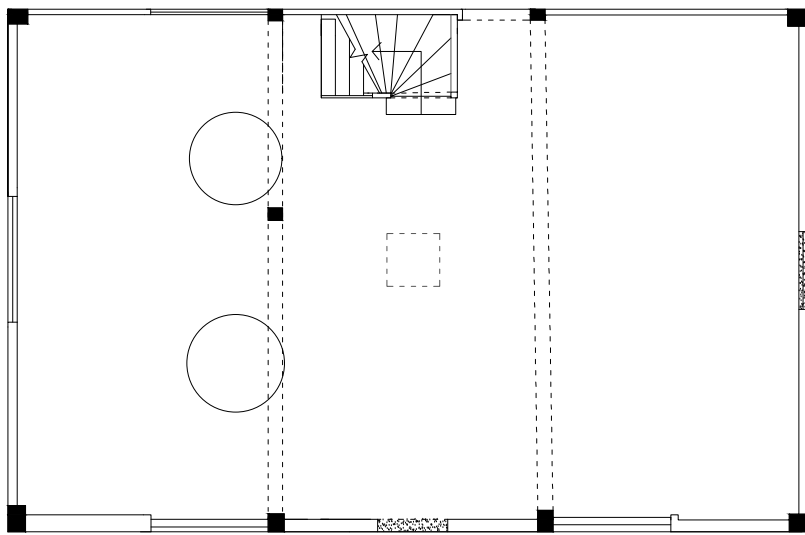


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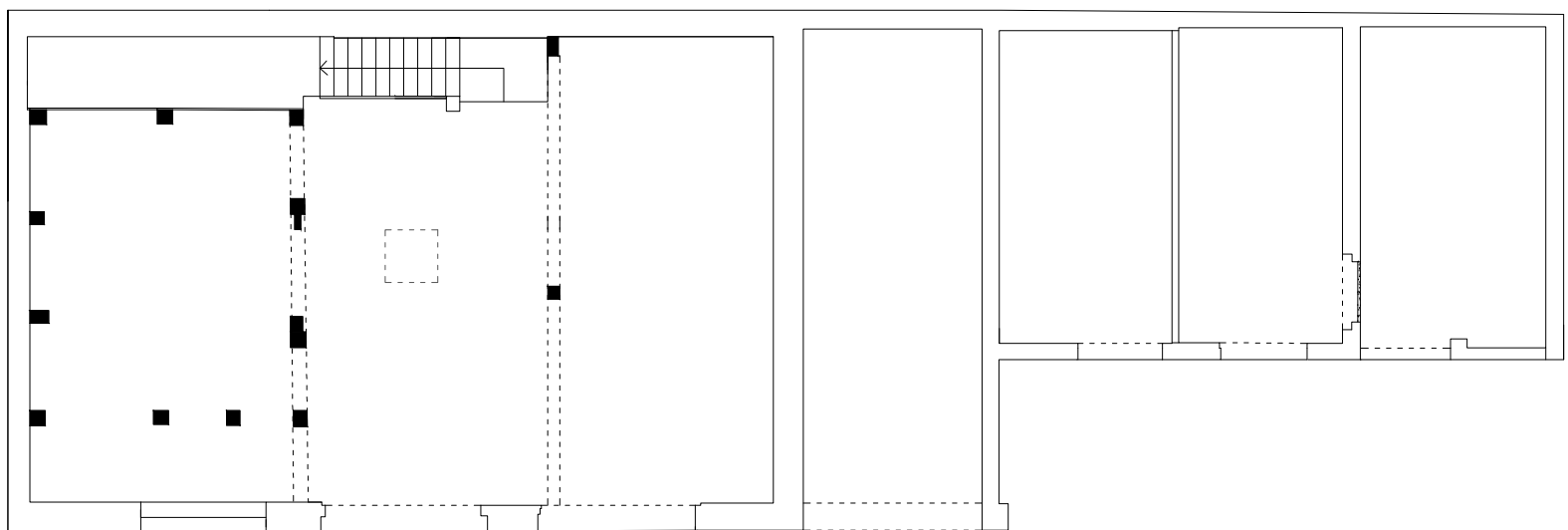
© Archaeology South-East		Furnace Mill and Oasthouse, Lamberhurst, Kent		Fig. 6
Project Ref: 180066	April 2018	Ordnance Survey, 1898-1961		
Report Ref: 2018110	Drawn by: KRH			



EXISTING SECOND FLOOR

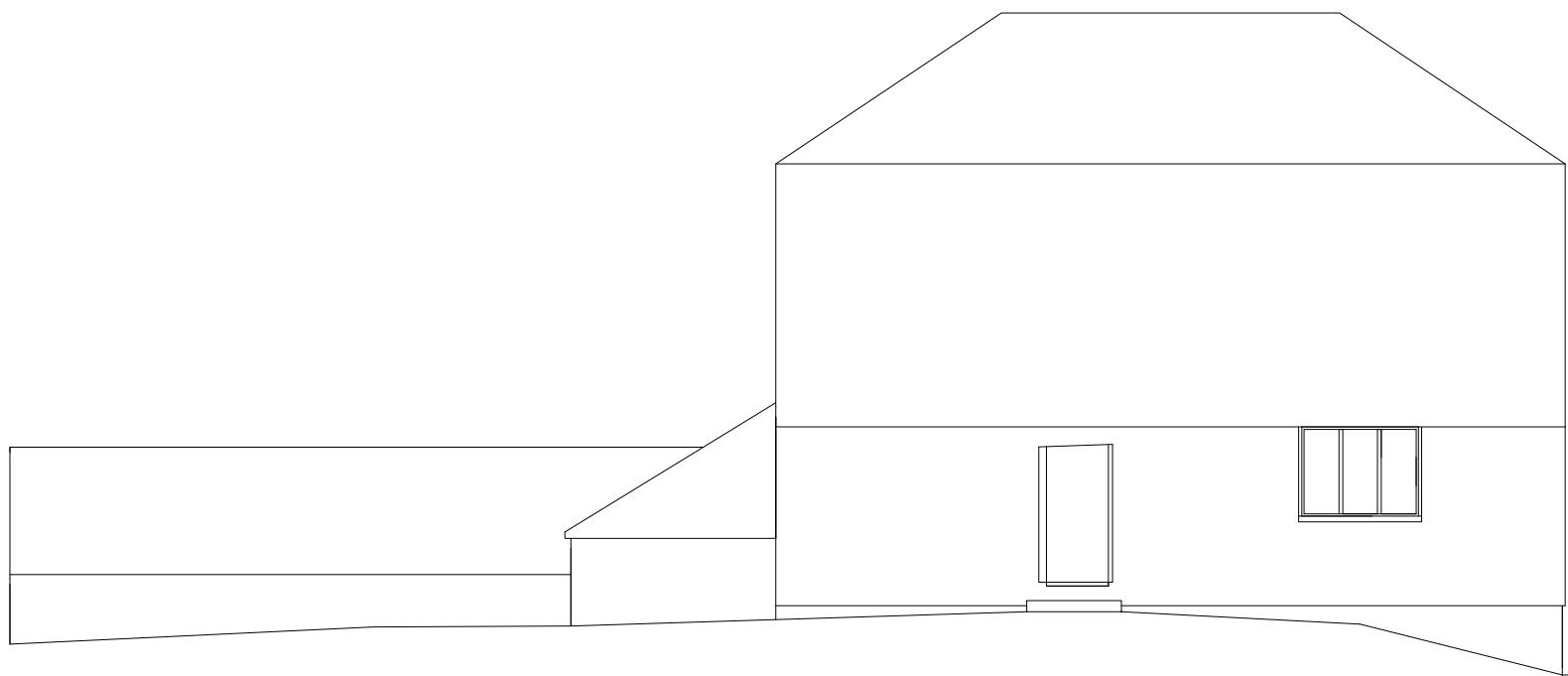


EXISTING FIRST FLOOR



EXISTING GROUND FLOOR





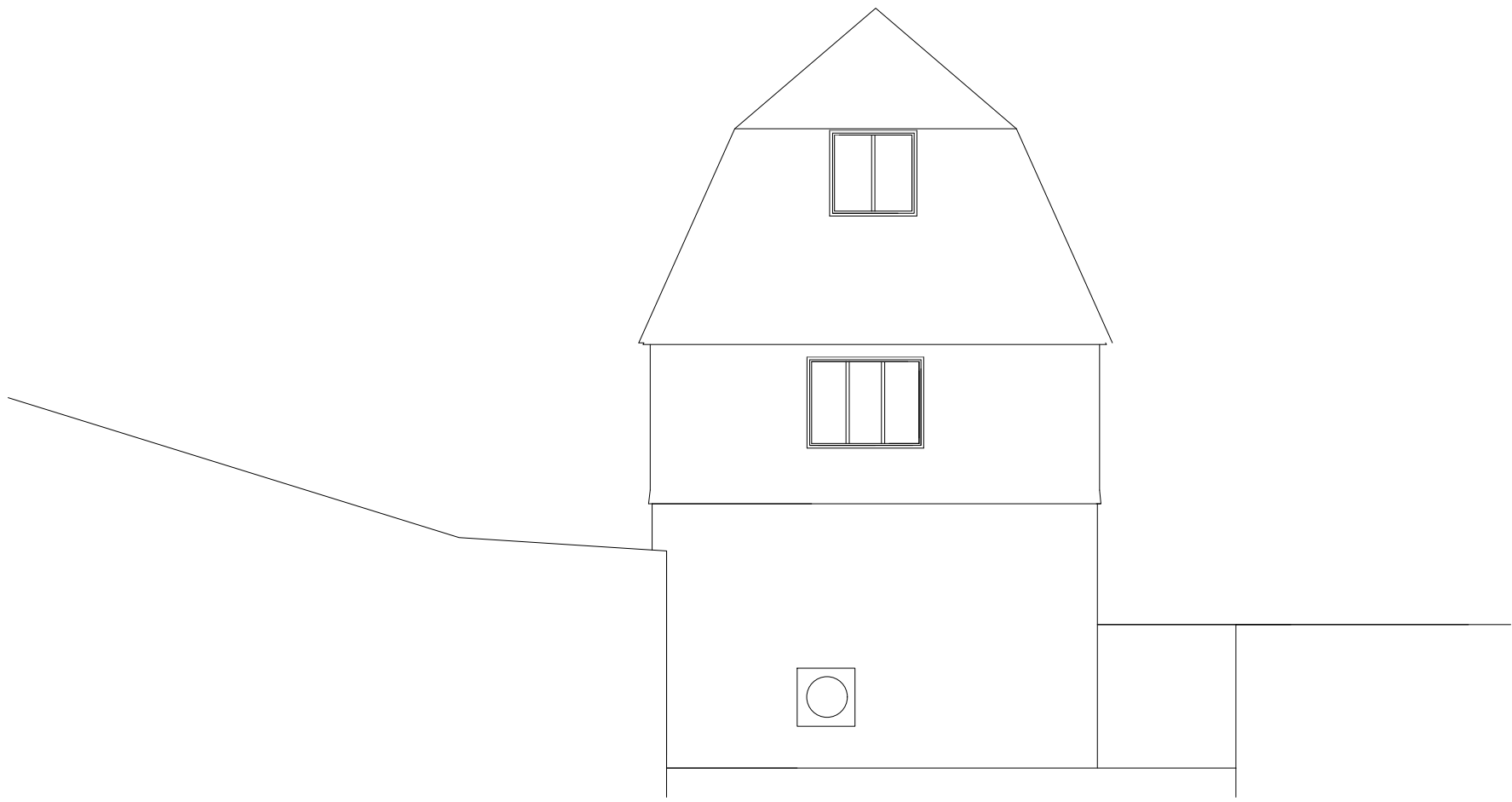
WEST ELEVATION

current mill pond level

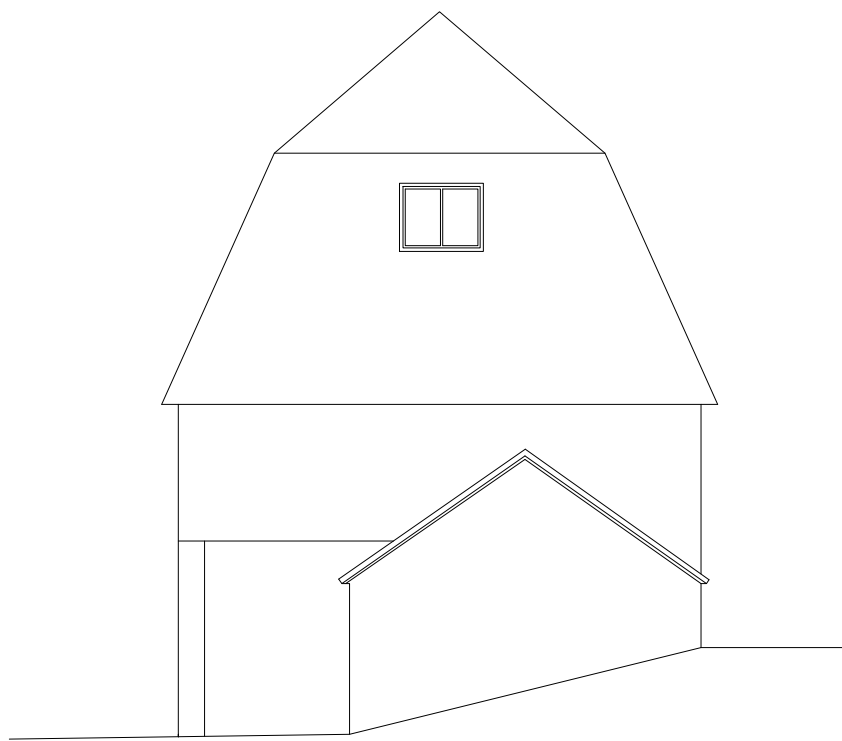


EAST ELEVATION

0 2m

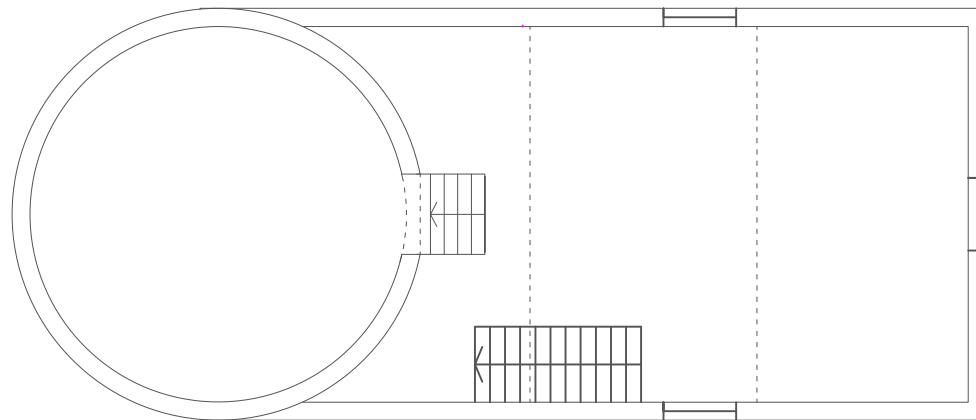


SOUTH ELEVATION

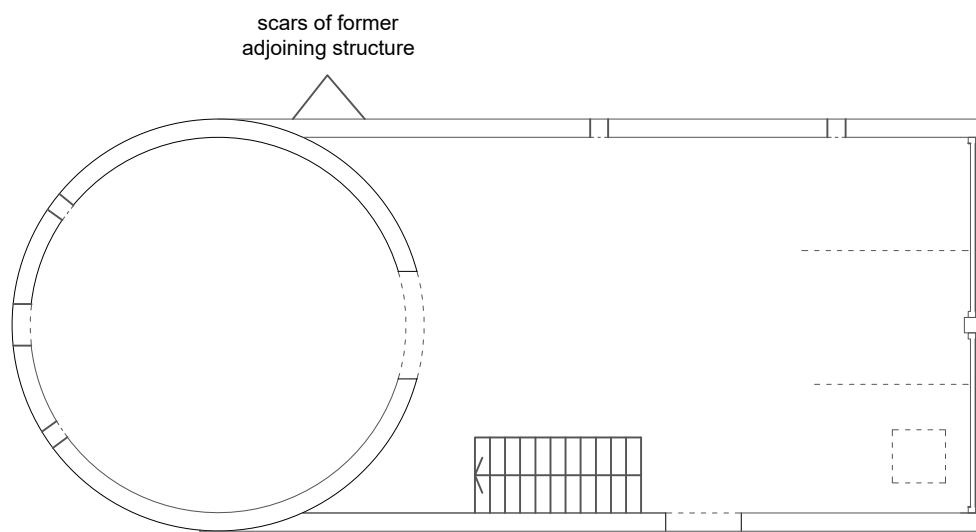


NORTH ELEVATION



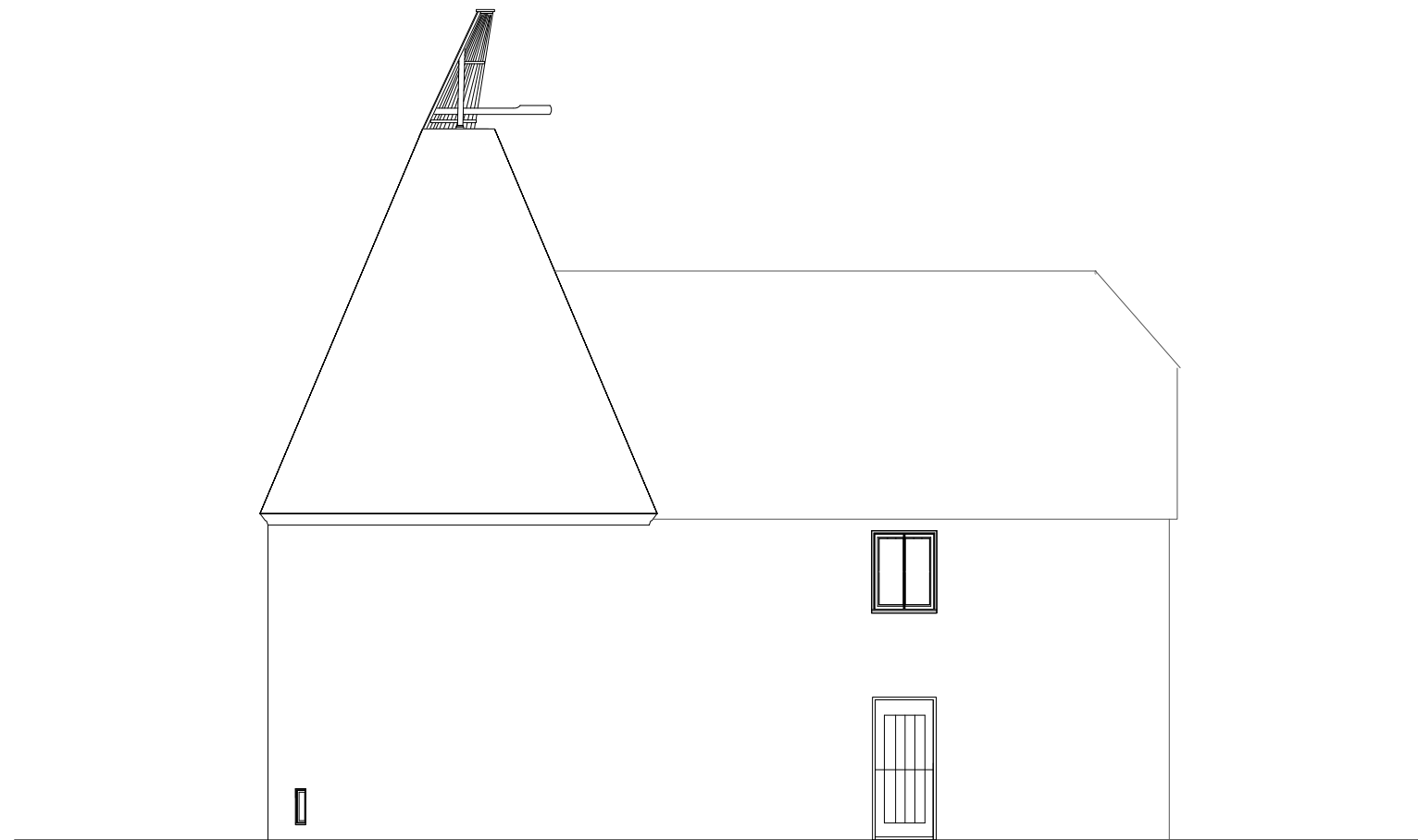


EXISTING FIRST FLOOR PLAN

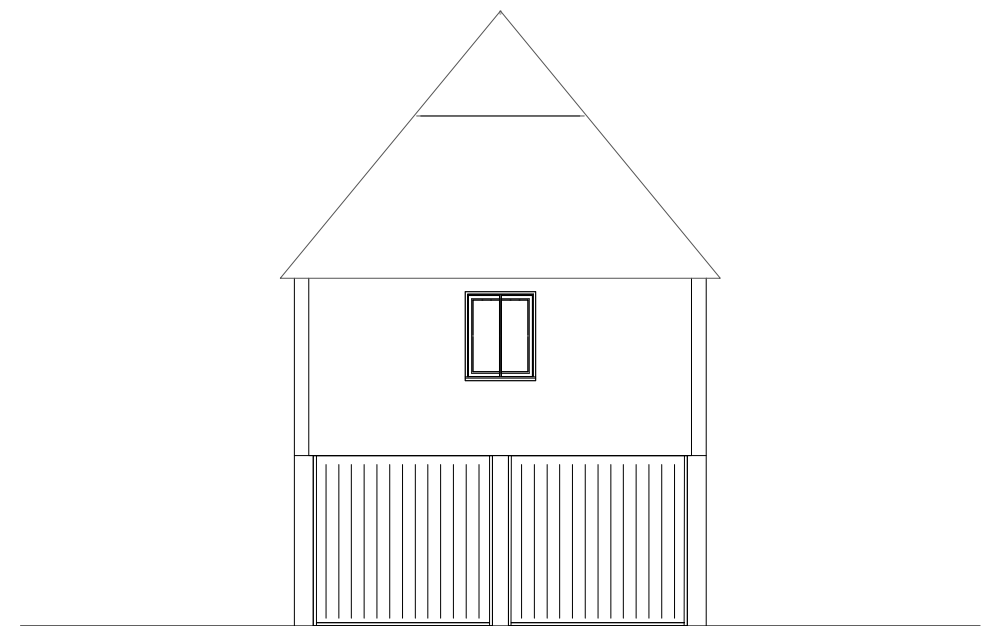


EXISTING GROUND FLOOR PLAN





SOUTH-WEST ELEVATION



SOUTH-EAST ELEVATION



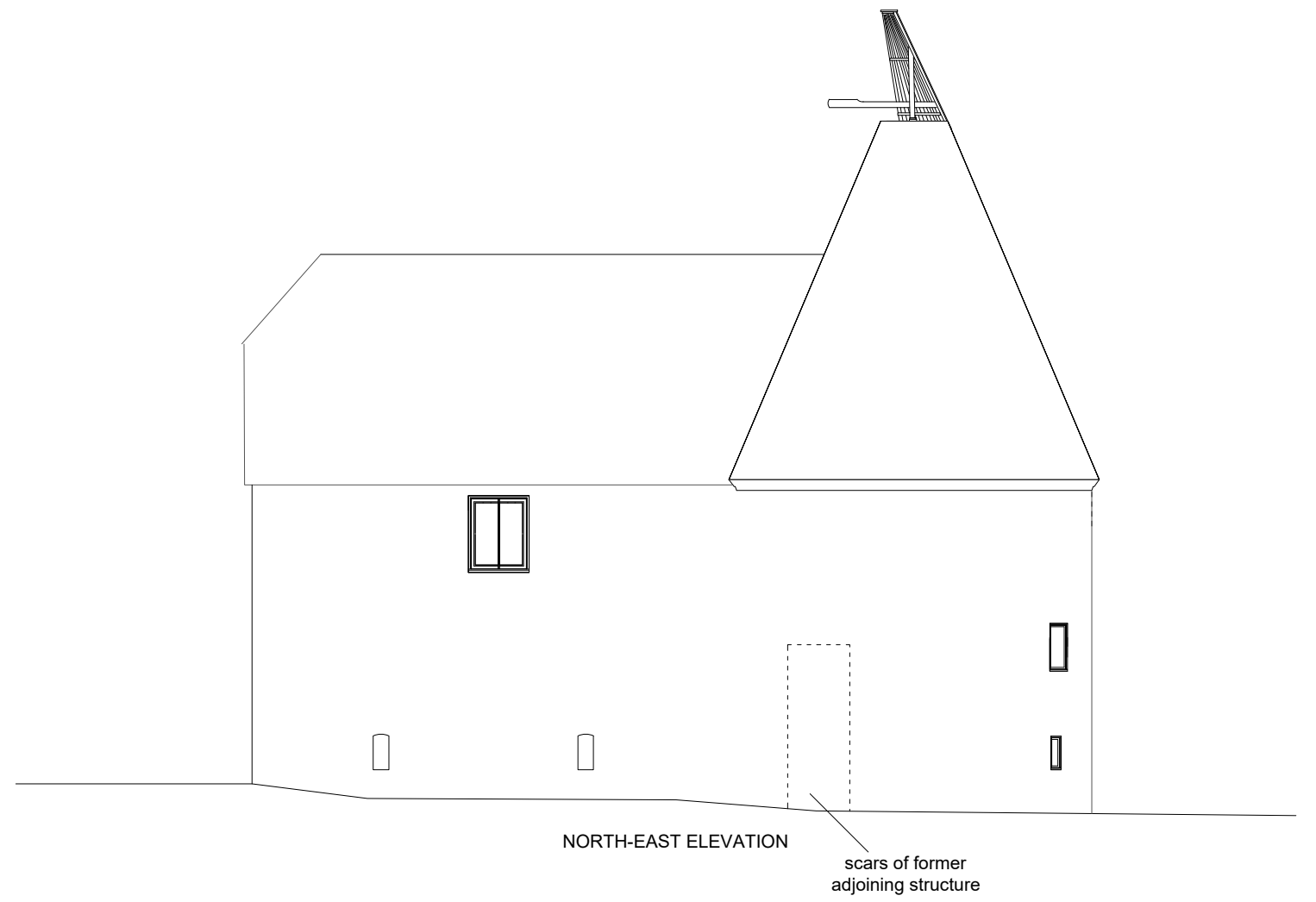
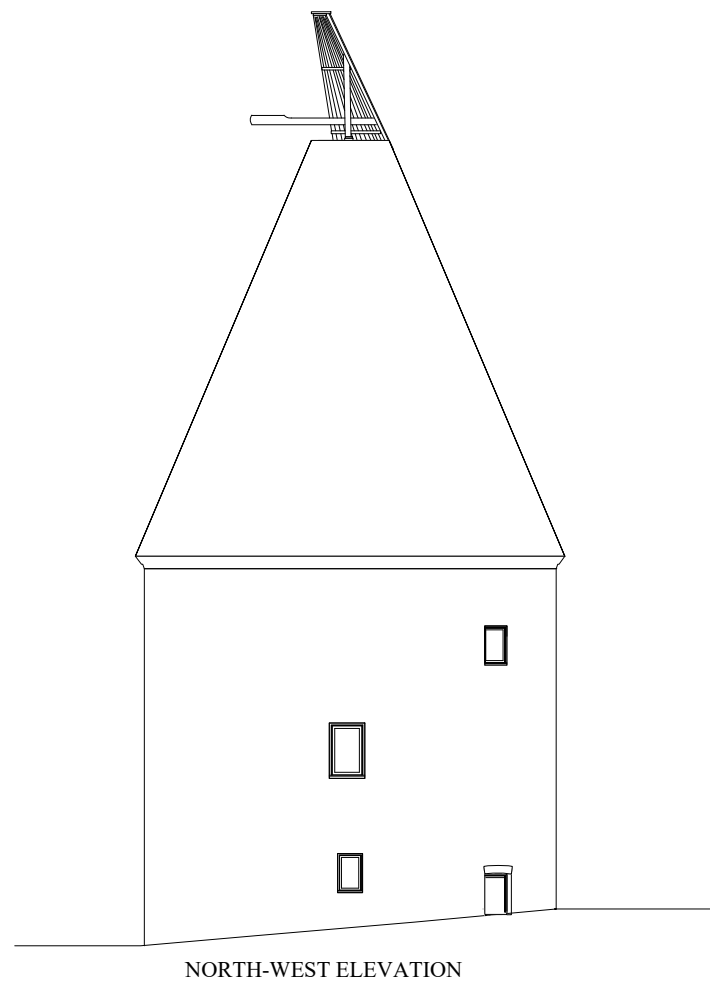




Plate 1 The principal east-facing elevation of the mill (FMI18-0002)



Plate 2 The west elevation of the mill (FMI18-0006)



Plate 3 The south elevation of the mill (FMI18-0015)



Plate 4 Detail of the timber wheelshaft. Note the coursed stone to the left-hand side (FMI18-0014)



Plate 5 Remnants of brick walls which channelled water to the wheel pit, facing south-east (FMI18-0007)



Plate 6 The north elevation of the mill, and the mid-19th century additions, facing south-west (FMI18-0003)



Plate 7 The mill and the mid-19th century additions, facing east (FMI18-0005)



Plate 8 The underside of one of the millstones which remains *in situ* within the southern bay of the mill. Note the adjoining iron fixture (FMI18-0109)



Plate 9 Ground floor of the mill, facing south, showing the hurst which supports the millstones (FMI18-0101)



Plate 10 Curved recesses in the girders of the hurst indicating the site of one of the removed pairs of millstones (FMI18-0154)



Plate 11 View of the wheelshaft and inserted timber floor, viewed from the passage along the western side of the hurst (FMI18-0123)



Plate 12 Central and northern ground floor bays, facing north (FMI18-0104)



Plate 13 The central trap hatch in the ground floor ceiling, facing south-west (FMI18-0107)



Plate 14 The first floor of the mill, facing south, showing the bedstones which remain *in situ* (FMI18-0074)



Plate 15 Detail of the two surviving bedstones (FMI18-0080)



Plate 16 Detail of one of the jowled posts (FMI18-0098)



Plate 17 Western first floor window with iron stanchions (FMI18-0090)



Plate 18 Blocked first floor window within north wall (FMI18-0097)



Plate 19 Blocked first floor loading door within east wall (FMI18-0094)



Plate 20 Truncated first floor ceiling joist on the east side of the southern bay (FMI18-0088)



Plate 21 The stair between the first and second floors on the western side of the central bay (FMI18-0071)



Plate 22 Remnant of horizontal boarding relating to grain bins, on the east side of the central bay at second floor level (FMI18-0066)



Plate 23 The roof structure/second floor, facing north-west (FMI18-0057)



Plate 24 Detail of the truss on the northern side of the central bay, facing north (FMI18-0061)



Plate 25 Detail of the arrangement of the support for the sack hoist wheel. Note the timber pulley fixing attached to the rafter (FMI18-0125)



Plate 26 Iron wheel for the sack hoist (FMI18-0124)



Plate 27 Possible apotropaic mark, formed by two inverted, overlapping Vs, with flame-shaped burn mark below (FMI18-0126)



Plate 28 Interior of the cart shed on the north side of the mill, facing west (FMI18-0140)



Plate 29 Interior of the stables on the north side of the mill, facing west, showing inserted breezeblock partition between the central and southern stables. Note the drainage channel in the floor (FMI18-0142)



Plate 30 Interior of the stables on the north side of the mill, facing west/north-west, showing the original brick and stud partition between the central and north stables (FMI18-0143)



Plate 31 Detail of the water trough on the western wall of the north stable (FMI18-0146)



Plate 32 The oasthouse, facing east (FMI18-0028)



Plate 33 Oblique view of principal elevation of oasthouse, facing north (FMI18-0029)



Plate 34 North-east elevation of oasthouse (FMI18-0022)



Plate 35 The oasthouse, facing west (FMI18-0021)



Plate 36 The roundel, facing south-east (FMI18-0025)



Plate 37 The interior of the stowage at ground floor level, facing south (FMI18-0051)



Plate 38 Detail of the ground floor ceiling at the south-eastern end of the stowage (FMI18-0052)



Plate 39 Detail of the modified joists and 'brush' (FMI18-0053)



Plate 40 Hatch for probable treading hole (FMI18-0055)



Plate 41 The roundel, viewed from within the stowage at ground floor level (FMI18-0044)



Plate 42 Scars around the probable stoking hole/fuel door to the north-west of the roundel (FMI18-0048)



Plate 43 Vertically-sliding timber shutter to the probable stoking hole/fuel door (FMI18-0049)



Plate 44 Detail of the construction of the existing first floor structure in the roundel (FMI18-0047)



Plate 45 The existing stair to the first floor, which occupies the original stair trap. Redundant joist mortices appear to be for a later alteration. (FMI18-0056)



Plate 46 The first floor of the stowage, facing south-east (FMI18-0032)



Plate 47 The roundel, viewed from within the storage at first floor level (FMI18-0036)



Plate 48 Detail of the half-hipped roof terminal to the south-east of the storage. Note the pair of horizontal timbers nailed to the rafters, to the right-hand side (FMI18-0035)



Plate 49 The north-east first floor window in the stowage (FMI18-0033)



Plate 50 The ladder stair to the drying floor of the roundel (FMI18-0037)



Plate 51 The first floor door to the roundel (FMI18-0038)



Plate 52 The interior of the conical roof of the roundel, showing the cross-piece and the cylindrical pivot of the cowl (FMI18-0042)

APPENDIX 1: OASIS FORM

OASIS ID: archaeol6-313801

Project details

Project name FURNACE MILL AND OASTHOUSE, LAMBERHURST, KENT

Short description of the project In March 2017 Archaeology South-East (a division of the Centre for Applied Archaeology, UCL) carried out a historic building record of Furnace Mill and Oasthouse, Hook Green, Lamberhurst, Kent (NGR 566138 136172). The work was commissioned by George Clarke and Partners Ltd. on behalf of their client to fulfil conditions placed on planning permission for the conversion of both the mill (planning permission ref. 15.504151/FUL) and the oasthouse (planning permission ref. 15/504155/FUL) into annexe accommodation ancillary to the main house. The site itself is one of great historical and archaeological importance. Before the Industrial Revolution, Lamberhurst was a centre for the Wealden Iron Industry which had been established during Roman times. Furnace Mill Estate was once part of the Gloucester Furnace where the railings for St Paul's Cathedral were made. The Gloucester Furnace was the largest iron working furnace and mill in the Weald during the 17th and 18th centuries. There are also earthwork remains in the vicinity and extending down the valley to Peppermills, to the south. The buildings which are the subject of this record comprise an early-mid 18th century watermill with attached mid-19th century cart lodge and stables, and a mid-19th century oasthouse. The mill has lost much of its original machinery including its waterwheel; however, much of the structure remains intact, and it is possible to discern many aspects of its original form, layout and function. The oasthouse is well-preserved, albeit its drying floor has been lost. Together with the nearby farmhouse the buildings form a well-preserved historic farmstead within the landscape of the Weald.

Project dates Start: 12-03-2018 End: 10-04-2018

Previous/future work Yes / Yes

Any associated project reference codes 180066 - Contracting Unit No.

Type of project Building Recording

Site status Listed Building

Site status Area of Outstanding Natural Beauty (AONB)

Current Land use Other 2 - In use as a building

Monument type WATERMILL Post Medieval

Monument type OASTHOUSE Post Medieval

Significant Finds NONE None

Significant Finds NONE None

Methods & techniques "Annotated Sketch", "Photographic Survey", "Survey/Recording Of Fabric/Structure"

Prompt National Planning Policy Framework - NPPF

Project location

Country England

Site location KENT TUNBRIDGE WELLS LAMBERHURST FURNACE MILL AND OASTHOUSE, HOOK GREEN, LAMBERHURST, KENT

Postcode TN3 8LH

Study area 3400 Square metres

Site coordinates TQ 566138 136172 50.900181332327 0.227487173927 50 54 00 N 000 13 38 E Point

Project creators

Name of Organisation Archaeology South-East

Project brief originator Kent County Council

Project design originator	Archaeology South-East
Project director/manager	Amy Williamson
Project supervisor	Katya Harrow
Type of sponsor/funding body	private client
Project archives	
Physical Archive Exists?	No
Digital Archive recipient	Kent History and Library Centre
Digital Archive ID	FMI18
Digital Media available	"Images raster / digital photography","Survey","Text"
Paper Archive recipient	Kent History and Library Centre
Paper Archive ID	FMI18
Paper Media available	"Notebook - Excavation',' Research',' General Notes',"Photograph","Plan","Report"
Project bibliography	
1	
Publication type	Grey literature (unpublished document/manuscript)
Title	FURNACE MILL AND OASTHOUSE, HOOK GREEN, LAMBERHURST, KENT, TN3 8LH: HISTORIC BUILDING RECORD (Historic England Level 3)
Author(s)/Editor(s)	Harrow, K.
Other bibliographic details	2018110
Date	2018
Issuer or publisher	Archaeology South-East
Place of issue or publication	Archaeology South-East
Entered by	Katya Harrow (k.harrow@ucl.ac.uk)
Entered on	10 April 2018

APPENDIX 2: INDEX OF DIGITAL PHOTOGRAPHS



FMI18-0001



FMI18-0002



FMI18-0003



FMI18-0004



FMI18-0005



FMI18-0006



FMI18-0007



FMI18-0008



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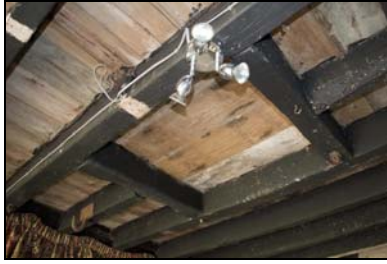
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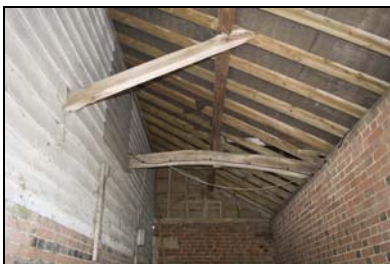
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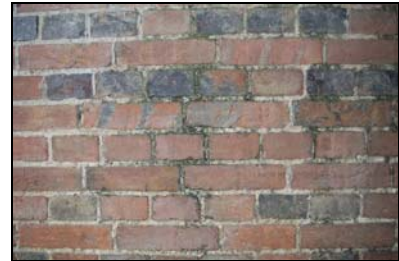
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FMI18-0159



FMI18-0160

APPENDIX 3: BUILDING LIST DESCRIPTIONS

FURNACE MILL, WALLS AND OUTBUILDINGS

List Entry Summary

This building is listed under the Planning (Listed Buildings and Conservation Areas) Act 1990 as amended for its special architectural or historic interest.

Name: FURNACE MILL, WALLS AND OUTBUILDINGS

List entry Number: 1336941

Location: FURNACE MILL, WALLS AND OUTBUILDINGS, FURNACE LANE

The building may lie within the boundary of more than one authority.

County: Kent

District: Tunbridge Wells

District Type: District Authority

Parish: Lamberhurst

National Park: Not applicable to this List entry.

Grade: II

Date first listed: 10-Oct-1989

Date of most recent amendment: Not applicable to this List entry.

List entry Description

LAMBERHURST FURNACE LANE TQ 6636-6736 (north side) 8/159 Furnace Mill, walls and outbuildings attached GV II

Mill, wall and outbuildings. C18, extended early C19. Timber framed and weather boarded with red brick on ground floor and with plain tiled roof, and extended with red brick. Two storey and garret mill building with half-hipped gambrel roof. Two 3 light wooden casements on first floor and central boarded loft door and 3 light casement to left on ground floor and 2 doubled cart doors to centre and to right. Lean-to outshot to right. Projecting from low in the left return side is the wheel axle, now in a dry wheel pit. The internal flooring and fittings for machinery survive, as do some elements of the machinery itself. Attached to right a single storey stable block with 3 strap hinged half-doors, and beyond that a red brick wall, about 6 feet in height and extending some 30 metres with a gateway, and linking to a red brick and tiled outhouse to the north of the main house. The site is one of great historical and archaeological importance, the Gloucester Furnace, the largest iron working furnace and mill in the Weald C17/C18 was located here; there are also earthwork remains in the vicinity and extending down the valley to Peppermills.

Listing NGR: TQ6614536131

OASTHOUSE ABOUT 30 METRES NORTH EAST OF FURNACE MILL HOUSE

List Entry Summary

This building is listed under the Planning (Listed Buildings and Conservation Areas) Act 1990 as amended for its special architectural or historic interest.

Name: OASTHOUSE ABOUT 30 METRES NORTH EAST OF FURNACE MILL HOUSE

List entry Number: 1085303

Location: OASTHOUSE ABOUT 30 METRES NORTH EAST OF FURNACE MILL HOUSE,
FURNACE LANE

The building may lie within the boundary of more than one authority.

County: Kent

District: Tunbridge Wells

District Type: District Authority

Parish: Lamberhurst

National Park: Not applicable to this List entry.

Grade: II

Date first listed: 10-Oct-1989

Date of most recent amendment: Not applicable to this List entry.

LAMBERHURST FURNACE LANE TQ 6636-6736 (north side) 8/160 Oasthouse about 30 metres north-east of Furnace Will Farmhouse GV II

Oasthouse. Mid C19. Red brick stowage with weather boarded gable end. Plain tiled roof. Two storey stowage with half-hipped roof and leaded wooden casement on each first floor elevation, boarded door to left ground floor, and double cart doors to ground floor of gable end. Integral kiln at northern end with rounded external wall and conical roof and with cowl and winding vane intact.

Listing NGR: TQ6665235606

APPENDIX 4: WATCHING-BRIEF REPORT, JULY 2018

1.0 INTRODUCTION

1.1 This appendix presents the results of the archaeological watching-brief undertaken at the site during groundworks associated with the conversion of the cart-shed and oasthouse to residential use.

1.2 The watching brief was undertaken by Susan Chandler in July 2018. It encompassed the following works:

- Excavation of footings within the cart shed.
- Observation of excavations undertaken in the oasthouse roundel

2.0 RESULTS OF THE BELOW-GROUND WATCHING-BRIEF

2.1 The observed excavations comprised a single trench at the entrance to the cart shed, 2.4m square. The excavation was undertaken with a mini-digger using an 0.8m ditching bucket to a depth of 1m.

Context	Type	Interpretation	Max. Thickness (m)
001	Layer	Earthen flooring	0.10
002	Cut	Foundation trench	-
003	Fill	Made ground	0.45
004	Deposit	Made ground	0.50+
005	Layer	Natural	0.40
006	Structure	Brick foundation	0.50
007	Structure	Stone foundation	0.20
008	Structure	Stone foundation	0.50

Table 1: List of recorded contexts

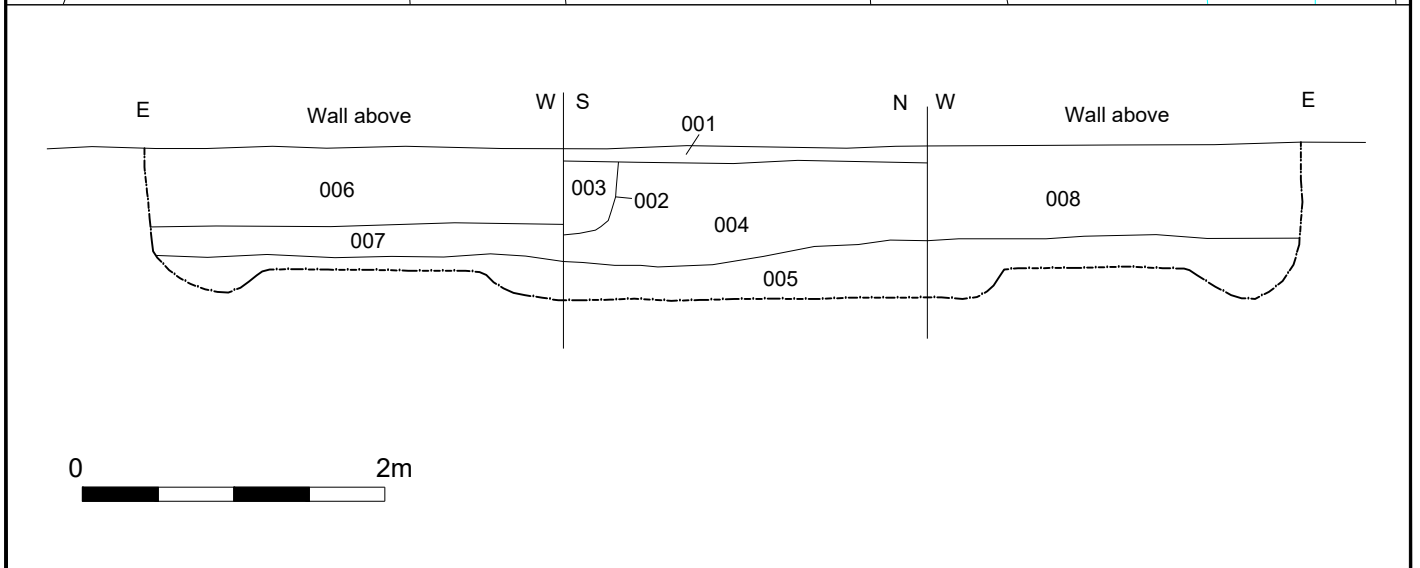
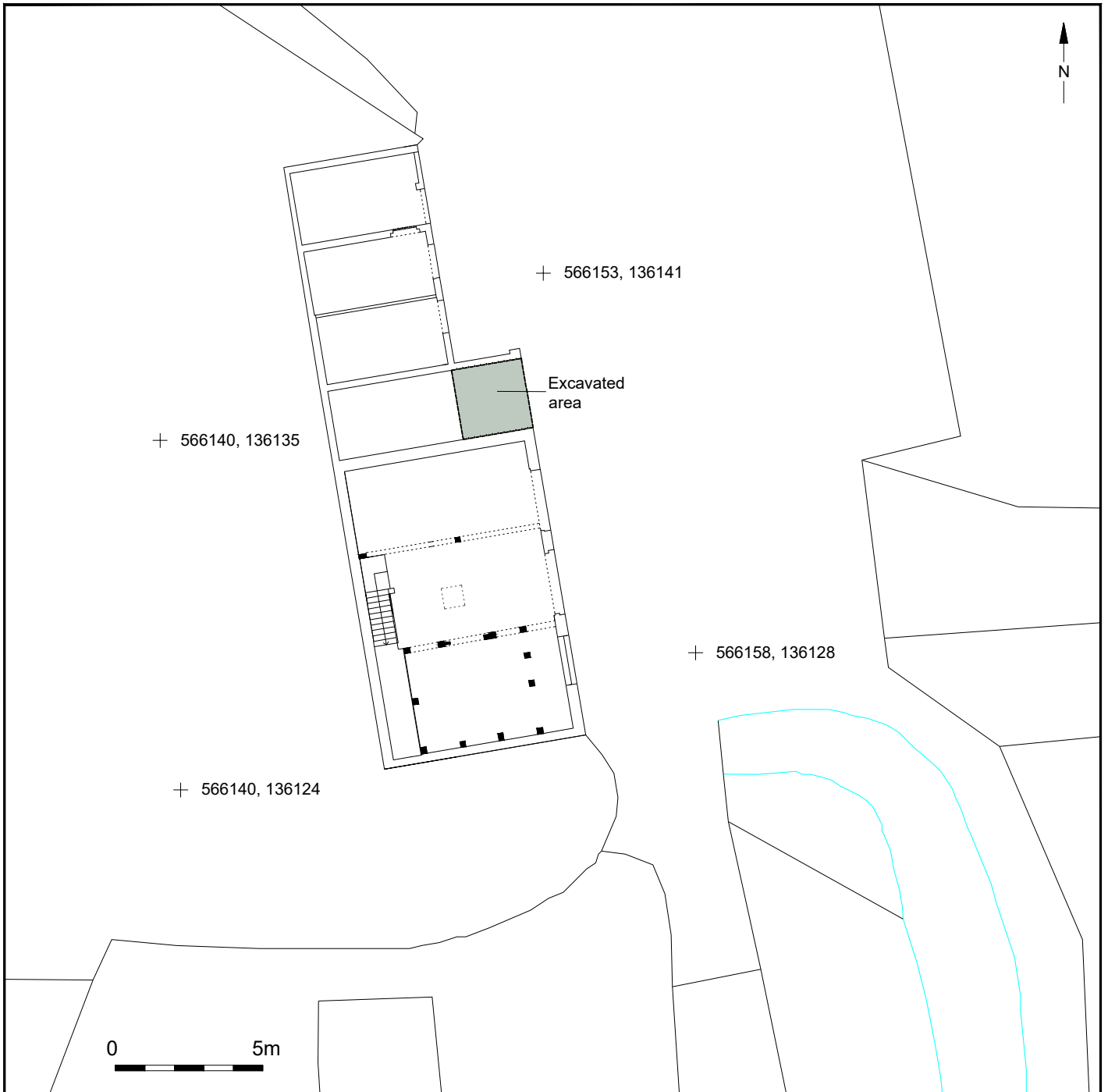
The cart shed excavation (Figure A4.1)

2.2 Natural [005] deposits of sandy clay with sandstone consistent with the Tunbridge Wells Sand Formation were uncovered at a depth of 0.6m and excavated by a further 0.5m to reach the depth required by the foundation. Above this, made ground deposits [004] including mixed CBM and infrequent pottery and clay pipe fragments were observed, consistent with the mid-19th century date of the cart shed. The wall of the mill, on the southern side of the excavation has a foundation consisting of a single course of sandstone blockwork [007] with lime mortar at its base and six courses of brickwork [006] consistent with the wall above. The cart shed wall, to the northern side of the excavation has a foundation of three courses of sandstone blockwork [008] with lime mortar. It is possible these blocks ([007] and [008]) are reused from an earlier structure. A foundation trench [002] from the mill wall was observed running east – west, to the depth of the brickwork. This was filled with redeposited made ground

[003]. The beaten earth flooring [001] which sealed all deposits below is consistent with the shed's agricultural use.

The oasthouse roundel

- 2.3 Excavations within the roundel were carried out prior to the visit by ASE. The excavated area had also been prepared for the pouring of new concrete flooring, with a layer of sand and plastic sheeting, preventing the viewing of any archaeological remains.



© Archaeology South-East		Furnace Mill and Oasthouse, Lamberhurst, Kent	Fig.A4.1
Project Ref: 180066	June 2019	Watching Brief- excavated footings in cart shed	
Report Ref: 2018110	Drawn by: SC		

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