# THE MALTINGS, PRESTONS GINNEL, OFF MAIN STREET, THORNER, WEST YORKSHIRE

# **BUILDING RECORDING**



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#### **EXECUTIVE SUMMARY**

In July 2008 Ed Dennison Archaeological Services Ltd (EDAS) were commissioned by Mr Ben Smith of Park Lane Homes to undertake a programme of building recording at a former floor maltings, located off Main Street, Thorner, West Yorkshire (NGR SE 3781 4033). The project, which involved the detailed recording of the former maltings, was made a condition of planning permission for the demolition of the building and the erection of two new residential dwellings (application 08/00796/FU, condition 18), although the condition was discharged by the Local Planning Authority before the project was concluded.

Cartographic evidence shows that the maltings was built before 1834 and, given that four maltsters were present in the village in 1822, it may have been present by this date. It is it most probably early 19th century rather than late 18th century in date, but as such is still both earlier than the 1850s floor maltings near Boroughbridge which has previously been described as Yorkshire's oldest, and a similar maltings located on a farm in Guiseley in West Yorkshire which is also thought to date to the 1850s. Thorner lay within a district where a significant proportion of land was given over to growing barley and by 1834 there were five other maltings in the village in addition to the surveyed site, although the latter was the only maltings to have a beer house attached, possibly built as a result of the 1830 Beer Act. It has not been possible to establish who owned and operated the maltings during the 19th century, but it was most likely one of a small number of local families who had long-standing associations with the Thorner malting industry.

The site has been subject to a great deal of alteration, and was in a very poor structural condition at the time of the survey. However, by comparison with other floor maltings and relevant 19th century literature, a number of deductions can be made about its overall form and the movement of materials through it. The site most closely resembles the "two-storey type" of floor maltings as defined by a typology proposed in 1996. These date from the 18th to the mid 19th century and are quite widespread, with many examples in the eastern counties such as Essex but also Yorkshire. In this type of maltings, the storage and cleaning of the barley and malt was undertaken on the upper floor. The barley was stored above the "steep", while the kilned malt was thrown off onto the kiln end of the upper floor, and cleaned and stored at this end. There was usually only a single growing floor, always at ground level, with the "steep" and associated "couch" at one end of the long growing floor. The kiln was usually located at the opposite end of the building to the "steep".

At the Thorner site, the "steep" was located at the south end of the ground floor. There was one complete steeping tank and one partially surviving example. The "couching area" would have been located to the immediate north of the steep on the ground floor, and may once have been floored with slabs. The growing floors for the couched barley would have occupied the majority of the ground floor, but their form, most likely cement/mortar screed as survived on the first floor. had been lost. The temperature within would been controlled using the window openings, although a very few of these preserved their original form. They were once shuttered internally, but all of these shutters had been lost prior to survey. Storage would have taken place on the first floor. The barley to be steeped would have been stored at the south end of the first floor, perhaps in wooden bins. The western half of the first floor preserves a cement/mortar screed floor, the only such flooring to survive within the building, but the eastern half is of softwood planking, a later alteration. Although it is possible that structural features, particularly those within the south gable, result from the incorporation of an earlier structure into the building, it is far more likely that they are the result of the demolition of structures once attached to the north and south ends. The kiln was almost certainly located at the northern end of the building. The existing extended queen-strut roof trusses are softwood, and are of a type used in the region to roof textile mills during the early to mid 19th century. The survey uncovered no evidence whatsoever of any mechanisation or the former presence of machinery at the site.

Directory evidence suggests that malting declined in importance in Thorner after c.1880, and all malting had ceased by 1911. It is assumed that the surveyed site went out of use as a maltings in the late 19th or very early 20th century, and that the kiln and any other attached structures were demolished at or soon after this time. It appears that the eastern half of the ground floor was subsequently converted to a cow house, and pencilled graffiti on the south internal first floor wall suggests that the building was still being used partly for agricultural storage into the early 1930s, and perhaps also for stabling. In the mid 20th century, the ground floor was used as a builder's store and the building had largely continued in this usage until the present day.

#### 1 INTRODUCTION

## **Reasons and Circumstances for the Project**

- 1.1 In July 2008 Ed Dennison Archaeological Services Ltd (EDAS) were commissioned by Mr Ben Smith of Park Lane Homes to undertake a programme of building recording at a former floor maltings, located off Main Street in Thorner, West Yorkshire. The project involved an archaeological and architectural survey of the building which was achieved through a drawn and photographic record, augmented by a detailed descriptive record and report.
- 1.2 The building recording was made a condition of planning permission for the demolition of the derelict structure and the erection of two new residential dwellings, approved by Leeds City Council on 28 July 2008 (application 08/00796/FU, condition 18). The scope of the building recording was defined by a specification prepared by the local archaeological curator, the West Yorkshire Archaeology Advisory Service (WYAAS) (see Appendix 2), and the site work was funded by the developer, Park Lane Homes. However, the planning condition requiring the building recording to be undertaken was discharged by Leeds City Council on 27th October 2008 (application 08/04708/COND), prior to the report being completed and submitted. As a result, this report has been produced by EDAS at their own cost.

### **Site Location and Description**

- 1.3 The maltings is located in the northern part of the historic core of Thorner village, on the western side of an unclassified lane (known as Prestons Ginnel) leading south-east from between nos. 21a and 23 on Main Street to Butts Garth, and lies at an elevation of c. 84m AOD (at NGR SE 3781 4033) (see figures 1 and 2). There is a small open yard/garden area attached to the south end of the building, which also forms part of the development site. The north end is butted by a garage belonging to one of the properties fronting onto Main Street, while the western elevation is completely obscured by trees, modern buildings and a scrapyard belonging to a commercial garage on Main Street. The area to the east of Prestons Ginnel is occupied by houses and gardens. The building is not Listed as being of Special Architectural or Historic Interest, but it lies within the Thorner village Conservation Area.
- 1.4 As far as can be established, the maltings has not been the subject of any previous archaeological recording. A topographical survey of the development area was undertaken by CSL Surveys in October 2007, including the footprint of the existing building, at a scale of 1:200, and this was supplied to EDAS by the developer. At the time of building recording in July 2008 (see below), the majority of the building was in poor structural condition and it contained some abandoned material/debris relating to its most recent use in the second half of the 20th century. The southern end of the first floor had collapsed, and the first floor was generally in a poor condition, although it was accessible with care. Sections of the internal wall faces had separated from their outer faces, in particular in the areas between the first floor openings, requiring them to be propped using scaffolding poles and boards. There was however little water ingress or contamination by pigeon guano or other substances.

#### Aims and Objectives of the Project

1.5 The primary aim of the building recording work was to make a photographic, drawn and written record of the maltings as it existed at the time of survey (July 2008), prior to its demolition. This was supplemented by a limited amount of documentary research, and this information was then incorporated into this report which details the history, development, structure and industrial/social/agricultural contexts of the building.

### **Survey Methodology**

1.6 As noted above, the scope of the building recording work was defined by a specification prepared by WYAAS, the local archaeological curators (see Appendix 2). The building recording work comprised four main elements, namely documentary research, and drawn, photographic and written recording. The resulting survey conforms to a Level 3 analytical survey as described by English Heritage (2006, 14). The on-site drawn recording was undertaken during the week of the 7th July 2008, with the photographic record being made in the week of 28th July 2008. The fieldwork records were approved by WYAAS on 14th August 2008.

#### Documentary research

1.7 The majority of the documentary research was undertaken in advance of the fieldwork, in order to inform the building recording. Thorner is well served by a detailed local history written by Brown (1991) which contains a large amount of relevant information, including census data and reproductions of historic maps. In addition, a limited amount of background information, primarily from secondary sources, was obtained from Leeds City Library and the Yorkshire Archaeological Society in Leeds, and this was supplemented by material from 19th and 20th century sources on malting and other sources, including oral evidence from local people.

#### Measured survey

1.8 The drawn record comprised ground and first floor plans of the building at a scale of 1:50, together with a representative cross-section (including a roof truss) also at a scale of 1:50. The plans and sections show all significant detail such as inserted or blocked openings, original fixtures and fittings, and details of items relating to original and subsequent uses. In addition, all existing timber marks noted during the survey were sketched next to the relevant timber on the plans, and a representative selection photographed (see below). Detailed inspections were undertaken behind and around any abandoned/stored material to ensure that all relevant features were noted. The information for the drawn record was captured using both traditional hand-held and also remote measurement techniques. Final inked drawings were then produced by hand to publication standard and are presented as reduced versions of the full sized field drawings using conventions established by English Heritage (2006, 19-21).

#### Photographic survey

1.9 The photographic record was achieved using a Mamiya 645 medium format camera with perspective control and black and white film. Prior to the photography, a large elder bush was removed from the south gable and the long grass in the yard to the south was strimmed. As has already been noted, the west elevation of the building was completely obscured by trees, modern buildings and a

scrapyard belonging to a commercial garage on Main Street, but a number of photographs were taken from this direction in order to show the building in its setting. Internally, abandoned material/debris which obscured any significant detail was removed prior to photography, although in a small number of cases this was not possible due to the poor structural condition of the building. Subject to access, all photographs contain a graduated scale, and artificial lighting was used where necessary, in the form of electronic flash and free-standing Halogen lights.

- 1.10 A total of 60 black and white shots were taken, and the negatives were printed to a size of 5" by 4", with a limited selection printed at 10" by 8". A total of 11 colour 35mm colour slides were also taken. All photographs have been clearly numbered and labelled with the subject, orientation, date taken and photographer's name, and cross referenced to film/negative and plate numbers as required by the WYAAS specification. All photographic film was exposed and processed to ensure high quality definition, and processed to archival standards according to manufacturer's specifications.
- 1.11 The photographic record (see Appendix 1) includes a register detailing the location and direction of each shot, both black and white prints and colour slides. The various plans of the building have also been used to identify each shot, and the position and direction of each shot is marked on these plans. A complete set of good quality copies of the black and white photographs are also reproduced in Appendix 1.

#### **Survey Products**

Survey report

1.12 A detailed written record of the building was subsequently produced from the observations made on site, and cross-referenced to the drawn and photographic record. This describes the surviving structure, and analyses its form, function, history and sequence of development, and places the building in its various contexts, as far as possible using the available documentary and secondary evidence.

Project archive

1.13 A fully indexed project archive has been prepared, ordered and indexed according to the standards set by the National Archaeological Record. The archive comprises primary written documents, field notes, documentary material, photographic contact sheets, a copy of the report, and an index to the archive. This archive has been deposited with the Leeds Office of the West Yorkshire Archive Service, while the photographic prints and negatives, and 35mm colour slides, have been deposited with the WYAAS.

#### 2 HISTORICAL BACKGROUND

#### Introduction

2.1 In one form or another, the manufacture of malt has a history almost as long as brewing itself, extending back to the ancient world. However, for the purposes of this report, only the history and techniques of floor malting as they were undertaken in the 18th and 19th centuries are discussed below, as these are most relevant to the Thorner site.

#### **The Malting Process**

2.2 The purpose of the malting process was to take raw barley, to artificially germinate it and then arrest the chemical changes that take place inside the barley grain as a result of germination, converting it into malt that was then used principally in brewing. Although, as Hunt noted in 1878, the apparatus required for the process of floor malting was relatively simple (Hunt 1878, 183), rather like lime or charcoal burning, each stage of production required a great deal of accumulated knowledge and skill on the part of the workman in order for it to be undertaken successfully. The different stages of the malting process are discussed below, using information from 19th century manuals and dictionaries, and also noting any special requirements they may have had regarding the structure or form of the space in which the processes took place.

#### Steeping

- 2.3 In order for the malting process to commence, barley had first to be brought to the maltings. Barley was harvested in the summer months and then stored on the farm for up to eight months before it arrived at the maltings (Patrick 1996, 182). This was because the germination of the barley would only take place within a relatively limited range of temperatures, and these were not achievable in the summer months using the floor malting system. There was therefore a malting season, which commenced in about the middle of August and ended sometime in May the following year. By the late 19th century, different varieties of barley had been specifically grown for malting; for example, "Goldthorpe" was grown on heavy soils and cultivated principally in Scotland and Yorkshire, although some contemporary sources suggested that the finest barleys were grown in the milder climates of Norfolk and Suffolk (Ross Mackenzie 1921, 3-6; Tomlinson 1860, 112). There was also great importance placed on the selection of the barley to be used in malting; barleys that had got weathered in the field, or had become mow-burnt or musty in the stack would be rejected, as well as those which had been imperfectly threshed so that the beards remained attached (Hunt 1878, 185). Imports of foreign barley also became more common in the early 20th century, and in the period after the Great War, India and America were important exporters to Britain (Ross Mackenzie 1921, 3).
- 2.4 When the barley arrived at the maltings, it was usually taken in at a level above the ground floor for storage and cleaning. The stored barley was usually kept in bins, and fed into the steeping tanks below (see below) through chutes (Patrick 1996, 183-186). Like so many other parts of the malting process, successful storage was dependent on the climate, particularly temperature and humidity, and so if it had been a particularly wet season, British barleys were sometimes "sweated" in the malt kiln (see below) for 24 hours as an artificial ripening process in order to optimise germination (Ross Mackenzie 1921, 5-6).

- 2.5 After storage, the first stage in the malting process was "steeping", the soaking of the barley to give sufficient moisture to ensure regular germination. This took place in a steeping tank or cistern, known as a "steep"; early steeps comprised large troughs constructed of stone and placed on the lowest floor of the maltings (Patrick 1996, 185), but they could also be wooden and later examples were of brick. The steep was normally placed at one end of the maltings (Patrick 1996, 186; Tomlinson 1860, 113), and the steeping process provided the first opportunity for the assessment of excise duty. As a result of legislation enacted in 1827-28 and 1831 (and only eventually repealed in 1880), a duty was paid on malt. The duty was calculated by gauging the weight of the barley grain at various stages in the malting process; what was called the "best gauge" was used or that which gave the greatest bulk of grain (Tomlinson 1860, 114; Hunt 1878, 183). The need to determine the amount of duty payable had an influence on the form of the steep - it had to be situated where the officer gauging it had sufficient light to do his work (or else artificial light had to be provided), and the steep must also be given a clear open space of at least 48 inches above it so it could be easily inspected (Hunt 1878, 183).
- 2.6 The law required that the barley was steeped for at least 40 hours, but in cold weather longer periods were often needed and 60 hours was recommended as a minimum for British barleys; in some cases the steeping period could be as long as 84 hours. The water was introduced into the steep first and this should have been fresh spring water where it was available, used at a temperature of 50 to 55 degrees Fahrenheit. The barley was put into the steep and stirred using rakes; the good barley was heavy, but as a result of the agitation, the bad lighter grains rose to the surface and were skimmed off. More barley was successively introduced until the water level in the steep stood only some five inches above the surface of the barley. The water in the steep was changed several times during steeping, and as the barley grains became whiter and softer, the water took on a yellowish colour and was then let out (Jamieson 1845, 124; Wilson 1849, 287; Tomlinson 1860, 113-114; Hunt 1878, 183-186; Wright 1910, 157; Ross Mackenzie 1921, 8).

#### Couching

- 2.7 After steeping was complete, the next phase of the malting process was "couching", in which the steeped barley was allowed to gain heat so as to encourage germination. The barley was removed from the steep and deposited in a rectangular heap known as a couch. Some sources suggest that couching took place on a floor of stone flags and it appears that the heaps were always contained within a wooden frame known as a couch-frame, a statutory requirement before the repeal of the Malt Tax in 1880. The heaps should be of a depth not less than 2 feet 6 inches and not more than four feet. The barley was assessed for duty again at this point; Hunt, writing in 1878, went so far as to describe couching as "a supplementary apparatus of excise ingenuity and in no way necessary to the success of the malting process", although this seem to have been somewhat exaggerated.
- 2.8 The barley was couched for c.24 hours, by which point the internal temperature of the heap should have reached 54 degrees Fahrenheit, causing the grains to produce rootlets, an action known as "casting" or "throwing out". The germinating barley should smell of apples and feel warm and moist to the touch if a hand were to be thrust into it. After 24 hours, the heaps were broken open using a maltster's wooden shovel (Tomlinson 1860, 114; Hunt 1878, 184-187; Patrick 1996, 182; Ross Mackenzie 1921, 9).

# Growing or flooring

- After couching, the germinating barley was spread out over one or more growing floors, generally made of cement or screed over wooden laths, to a depth of between four to eight inches depending on the weather. The growth of the rootlets was checked by lowering the temperature on the growing floor (a temperature of 55 to 62 degrees Fahrenheit was recommended) and by turning the barley several times a day with a shovel. The turning could be done by one of two methods; in the piece method, the different heaps of barley removed from the couch were moved down the growing floor each day as germination proceeded, whereas in the strip method, the germinating barley was not moved except for turning, so that the age of the barley would be the same at either end of the floor (Wilson 1849, 287; Patrick 1996, 181-183).
- 2.10 As has already been noted, successful malting required skilled judgement and much experience on the part of the workman. This was stressed by Hunt especially with regard to turning:

"The manner of handling the shovel is a matter of great importance, and it is only from careful practice that the required proficiency is attained; the upper stratum of the floor is skimmed off and rolled over, just in the immediate neighbourhood of the workman, step by step, shovelful by shovelful; the under portion is then well cleaned up, flung and spread with an inward turn of the wrists, as the arms are thrown across the front; by this motion, the grains are disposed into a thin, wide-spreading shower, driven through the air and falling evenly on the floor, at a considerable distance from where they were taken up by the shovel, and by the operation are separated and cooled; should any faint smell have been attained, it will afterwards be found to have passed off in a very great measure.

Thus the workman advances, proceeding across and recrossing the floor, taking alternately, first the upper stratum, and then the lower one at every step, throwing it out the further, the more cooling or 'check' he purposes to give it, and also regulating its area accordingly. Sometimes it requires turning over, and lightening up, without being subject to the cooling consequent upon the use of the shovel; and for this purpose the workman uses what is called the 'rake'. This is an iron blade, about 30 inches long, and perhaps 2 inches broad, fixed at each end by holders, to a massive wood head, to which is attached a strong wood shaft, with a cross-head handle. This blade is dragged along the floor, passing under the barley, turning the bottom to the top and lightening it up considerably; but when turning only is required, he uses what is called the 'plough'; this is a long handled tool. in shape very much resembling the scull of a boat, and in using is made to pass through the grain precisely as a scull is made to do in the water. The young floors will generally require some sort of tendance every three or four hours; this must be judged now by the appearance of the radical as a principal indicator; when it is particularly white and vigorous, the floor requires a 'turn', that is, the shovel preceded by the rake; if it requires nursing, and it is thought that a turn would check it too much, the rake alone is used; but if it requires a gentle turn over and careful nursing, then the plough alone is used; and thus these are employed, either alone, in turn or combined, in any way the workman may deem it desirable; but always before leaving his house for the night, he must thoroughly disentangle the corns the one from the other, give the floors a good turning and spreading, thin them out and lay them light. In the old floors, it will most likely be necessary to use all three tools about them." (Hunt 1878, 187-188).

2.11 Writing some 40 years later in 1921, Ross Mackenzie included a detailed account of the actions to be taken on every day of the 10 to 14 day period that it was generally reckoned to take for the barley to reach the correct stage of growth on the growing floor, including turning, ploughing and sprinkling with water (Ross Mackenzie 1921, 17-19). The growing process was stopped when the future stem or acrospire appeared and had grown nearly to the extremity of the barley grain (Tomlinson 1860, 114). At this stage, the barley could be used directly in a distillery as "green malt", as it was called after growing (Wright 1910, 158), but for brewing, a final phase of preparation was required.

### Kilning

- 2.12 The final stage of the malting process was the kilning of the green malt, which was done to arrest germination. The green malt was moved up to the kiln floor, sometimes using baskets and a hand-operated crane (Hunt 1878, 190). The malt kiln was generally located at one end of the maltings building, and it comprised a two-storey structure with the furnace or fire on the ground floor and the drying floor on the upper floor, often with a vented pyramidal roof over. The drying floor should be located some 15 to 25 feet above the fires to allow for a good draught and could be tiled, made of iron plates or even wooden laths, although the latter were recognised as being both inefficient and a fire hazard by the mid 19th century (Jamieson 1845, 560). At this date, coke or charcoal was recommended as a fuel for the fire, although by the early 20th century this had been replaced by anthracite coal.
- 2.13 The depth at which the green malt was spread out over the drying floor and the temperature inside the kiln determined what kind of beer the malt was used for. For example, for malts to be used in the brewing of pale ales, the temperature of the kiln should not rise above 120 degrees Fahrenheit, because this produced a paler malt. When the malt was judged to have reached the correct colour, the kiln fire was withdrawn and the malt was heaped in middle of drying floor for two to three hours while the fire died down (Wilson 1849, 287; Tomlinson 1860, 114; Hunt 1878, 90-91; Ross Mackenzie 1921, 20). Tomlinson, writing in 1860, gives a description of how a good malt could be recognised:

"Good malt should be large, clean, plump, and unshrivelled in the grain; the skin should be thin, and the grain should be lighter than water. The acrospire should be seen to extend scarcely more than three-quarters through the length of the husk. The grains should break without difficulty, and disclose a full, flowery, mellow kernel, which if drawn across a board leaves a chalky trace. No part of the kernel should be hard or horny. The taste should be sweet and mellow. The colour is pale and bright, and the odour agreeable" (Tomlinson 1860, 115).

2.14 Before it could be stored (which some authorities thought was best done while it was still warm), the malt had to be dressed and cleaned to remove the roots and acrospires which had fallen off during kilning. This was done by taking the malt out of the drying floor and putting it through chutes in the floor onto an inclined wire screen; as the malt crossed the screen, the unwanted parts fell through but the malt did not (Tomlinson 1860, 114; Hunt 1878, 190-191). The dried roots and acrospires were known as "malt-dust", "culms" or "coombs", and were used largely as a feedstuff for pigs and cattle; they were especially highly valued as a food for milk cattle. The culms were sometimes also turned into manures, particularly the sort used as a top dressing (Wilson 1849, 290; Wright 1910, 158-159). After cleaning, the malt needed to be stored for at least one month before it was taken to

- the brewery. It was essential that it was kept separate from the unprocessed barley and it was usually stored in sacks (Patrick 1996, 183-186).
- 2.15 Very large quantities of malt were produced in Britain during the 19th century. In the United Kingdom in 1821, some 29,393,441 bushels of malt were charged with duty and by 1845 this had risen to 36,545,990 bushels (Wilson 1849, 288). In 1870, of the over 47 million bushels of malt on which excise duty was paid, some 45,603,577 were retained for home consumption in the United Kingdom (Hunt 1878, 193). As might be expected, in the later 19th century some parts of the malting process began to be mechanised, with the introduction of band or worm conveyors and pneumatic germinating drums (Ross Mackenzie 1921, 22-23). Nevertheless, floor maltings remained an important element of the industry with some, such as those owned by the Bass brewery company in Burton-upon-Trent, being built on a huge scale (Barnard c.1900, 1-77; Cooksey 1984). Many of these floor maltings remained in use into the late 20th century at large breweries, although the germinating barley was turned by machine rather than by hand (Lovett 1981, 3).
- 2.16 Like any other type of historic industrial building, surviving examples of floor maltings have become increasingly scarce. In 1996, as part of a wide-ranging study of the floor malting industry, Patrick proposed a typology of surviving buildings (Patrick 1996), of which the Thorner site most closely resembles the "twostorey maltings" type (see Discussion and Conclusions below). The examples of this type examined by Patrick dated from the 18th to the mid 19th century and had a guite widespread distribution, with examples in many of the eastern counties (Patrick 1996, 194-195); those in Essex were subject to a thematic survey in the late 1990s (Gould 1996; Gould, Crosby & Gibson 1997), with a number of examples being recorded in detail (e.g. Richardson 1998). However, the twostorey type was also present in North Yorkshire (Patrick 1996, 194-195). Floor maltings were once common across the Vale of York (Erik Matthews, local historian, pers. comm.), but most have since been demolished; in 1985, an 1850s maltings at Langthorpe, near Boroughbridge, was described as Yorkshire's oldest (Hatcher 1985, 138). It is assumed that floor maltings were once equally common in the barley growing areas of West Yorkshire, and several examples have been recorded in detail (e.g. Haigh 2000; Haigh 2003). The Thorner example forming the subject of this report has been suggested, on the basis of map evidence, to possibly be the earliest surviving example of its type in West Yorkshire (see Appendix 2).

#### **Malting in Thorner**

- 2.17 By the turn of the 19th century, Thorner lay within a barley-growing area, and in 1801, 193 acres or some 16% of the total acreage in Thorner parish was given over to barley (Brown 1991, 107). It was therefore perhaps natural that malting should become established in the village and, along with farming, lime-burning and small-scale textile production, it was to form a significant local industry for much of the 19th century. Four maltsters, William Ambler, Richard Dalby, John Pawson and Rebecca Upton are listed at Thorner in Baines' 1822 Directory; of these four, John Pawson also appears as a farmer (Brown 1991, 108).
- 2.18 The surveyed site appears on Teal's 1834 map of Thorner, and so it was definitely present by this date (Brown 1991, 110). It is depicted as a long, rectangular building, perhaps slightly longer than that which survives today, running parallel to the adjacent lane; it formed plots 248 and 249 and was described as a "maltkiln and beerhouse" (see figure 3). The beer house may have been a relatively recent

addition to the maltings. In 1830 Parliament passed the Beer Act, allowing any ratepayer to sell beer after paying an annual excise fee of two guineas. This lead to an explosion in the number of what were known as beer houses, which were small premises brewing their own beer, and by the end of 1830, nearly 25,000 new beer sellers had paid their two guineas. Many beer houses were converted from existing buildings such as workers' housing and were small, generally with a bar and parlour at the front, a kitchen to the rear and then a yard with a brewhouse (Brandwood, Davison & Slaughter 2004, 27-29). It is not known how long the beer house at the maltings lasted, but as a drinking location they were long-lived; in 1869 it was estimated that there were still 460 in Bradford borough alone (Jennings 1995, 83).

- 2.19 Teal's 1834 map marks five other maltings in Thorner, three on the north side of Main Street and two to the south (see figure 3); several of these appear to be buildings of a similar size to the surveyed site. None of the buildings marked as maltings in 1834 appear to be shown on the 1777 Thorner Enclosure map (Brown 1991, figure 6.7). Although this might reflect the vagaries of the Enclosure cartographer, he does show enclosures and buildings in some of the plots running back from Main Street, and so it is possible that none of the maltings were present at this date. The 1841 census includes five maltsters (including one farmer and maltster) for Thorner and by 1851 this had risen to six, again including one farmer and maltster (Brown 1991, 112). By 1861, the number had fallen to two (Brown 1991, 113) although this conflicts with a directory entry of the same year which lists Peter Dalby, James Haste, Marmaduke Pawson and William Sadler as maltsters (Kelly & Co 1861, 826). Haste appears again five years later, joined by Faith Dalby and William Brooksbank (White 1866, 273). The site is also depicted on the Ordnance Survey 1849 1st edition 6" map, where it is shown with a slightly wider extension at the south end compared to the 1834 map, with a garden to the south (see figure 4); the slightly wider southern extension may be the beer house.
- 2.20 An 1870 valuation of property in Thorner records four malt kilns on "Street" (i.e. Main Street), owned by Faith Dalby, Sarah Dalby (occupied by James Haste), Mary Watmough and Marmaduke Pawson (Brown 1991, 218-219). The 1871 census returns list four maltsters in Thorner, including one farmer and maltster (Brown 1991, 117); the acreage of barley grown within the township had increased markedly since 1801, rising from 193 acres to 288 acres by 1869, and 363 acres by 1881 (Brown 1991, 117). The farmer and maltster appearing in the census may well have been James Haste, as he is listed as such in an 1871 directory, together with Faith Dalby, Mary Watmough and William Watmough, all maltsters (Kelly & Co 1871, 984). There were three maltsters in 1875 (White 1875, 532) and the same number in 1877 (Kelly & Co 1877, 1133). It can be seen from the directory evidence that several local families had long-standing associations with the malting industry, sometimes undertaken in conjunction with farming; for example, the Pawson family between c.1822 and c.1870, the Dalby family between c.1822 and c.1880, and the Hastes between c.1860 and c.1880.
- 2.21 Although it is possible that the opening of a branch of the North-Eastern Railway through Thorner in 1876 had an influence on the local malting industry, presumably making it easier to transport the finished product to brewing centres, malting in Thorner seems to have declined from the early 1880s onwards. The 1881 census returns list only two retired maltsters (Brown 1991, 130), while a directory of the same date gives Joshua Hormer Robinson as a maltster and Mary Watmough as a maltster and farmer (Kelly & Co 1881, 1380). By 1897, Frank and Thomas Ackroyd appear as maltsters in Thorner (Kelly & Co 1897, 930-931) and in 1901 only the latter is listed (Kelly & Co 1901, 830). The apparent disappearance of

families with long standing local associations with malting after c.1880 and their replacement by "new" names may indicate a decline in the economic viability of malting, with some of the premises perhaps turning to short-term occupancies and finally disuse. No maltsters were present in Thorner after 1911 (Brown 1991, 146). The 1909 edition of the Ordnance Survey 6" map depicts the site as it survived at the time of the survey, with the southern extension having been demolished (see figure 4).

2.22 It has been difficult to trace the detailed history of the surveyed site during the early and mid 20th century. There is some surviving structural evidence (see below) to show that it was partly converted to accommodate cattle and perhaps also horses, and surviving graffiti suggests an agricultural use into the 1930s. The building was occupied by builders for some time in the mid 20th century, one of the former steeping tanks being used to mix lime mortar (Mr George Burnett of Thorner, pers. comm.). By the later 20th century, it was owned by the Mexborough Estate, who used the ground floor as a building/works store, while the first floor was leased to the local undertakers run by the Hartley family. The Hartleys bought the building from the Mexborough Estate in the late 1980s and used the first floor to store timber, with part of the ground floor being occupied by the joiner's workshop of a local man, Mr Ted Maltby (Mr Hartley of Thorner, pers. comm.). The building has been in a poor structural condition since at least the late 1990s, and it seems to have been largely disused for the past ten years.

#### 3 ARCHITECTURAL DESCRIPTION

#### Introduction

- 3.1 The remains of the building subject to the recording project are described below in a logical sequence. The plan form, structure and architectural detailing of the building are described first, followed by the external elevations and a circulation description of the interior, from the lowest to the uppermost floor level. Reference should also be made to the floor plans (figures 5 and 6) and section drawing (figure 7).
- 3.2 As previously noted, Appendix 1 comprises the photographic record, namely a catalogue of all the photographs taken, figures which depict the various photographic location points, and copies of the black and white photographs. These photographs are referred to in the following text as plates.
- 3.3 The building is aligned approximately north-west/south-east but, for ease of description, it is considered to be aligned north-south. Unless otherwise noted, the terms used to describe the roof structures are taken from Alcock *et al* (1996) and Campbell (2000). Where possible, specific architectural terms used in the text are as defined by Curl (1977). Finally, in the following text, "modern" is used to denote features or phasing dating to after c.1945.

#### **Location and Plan Form**

- 3.4 The building stands on the western side of an unclassified unsurfaced track known as Prestons Ginnel which runs south-east from Main Street to Butts Garth (plate 1); on the Main Street frontage this track starts between nos. 21a and 23. The east elevation of the building faces onto the ginnel (plate 2), and this appears always to have been the principal point of access to the building, although its level is now raised some 0.50m above the level of the internal ground floor. The west elevation is completely obscured by a number of modern features, and the north gable is similarly largely hidden by a modern garage building. However, the south gable is completely accessible and faces into a small grassed area attached to the south end of the building and walled from the ginnel (plate 3). To the east of the ginnel, there are 20th century houses and associated gardens.
- 3.5 The building is approximately rectangular in plan, with maximum external dimensions of 29.65m north-south by 10.00m east-west (see figure 5). It is of two storeys, with a pitched roof covered with corrugated sheeting but probably originally slated. Internally, the building has a maximum height of 7.40m from ground floor level to the underside of the roof ridge.

#### **Structure and Materials**

The building has load-bearing external walls built of coursed squared stone, primarily sandstone and gritstone, but also with a small amount of limestone; the stonework has been repointed in several places, but was originally set with a cream lime mortar. Some of the stone is hammer-dressed, whilst other sections bear herringbone or strong diagonal tooling marks; there may be some structural significance to the distribution of these two types, particularly to the south gable. The internal ground floor spine wall, aligned north-south and running almost along the full length of the building, is built of a similar stonework to the external elevations. As has been noted above, in many places the skin of coursed squared stone facing the internal walls has separated from the external wall facing,

revealing a rubble core between. A number of modern timber-partitions survived on the ground floor at the time of survey. The external and internal walls have an average width of 0.45m; the west end of the north gable is somewhat wider due to the addition of a secondary external skin of modern machine-made brickwork. The walls were almost certainly once rendered and whitewashed internally; a limited area of rendering survived at the south end of the first floor, retaining graffiti of apparent 1930s date.

- 3.7 Internally, the ground floor is rather low, measuring only 1.75m to the underside of the floor beams over. The first floor is taller, with a height of 2.25m from the floor to the underside of the roof trusses. The roof trusses are softwood, as are all other structural timbers surviving within the building.
- 3.8 Many of the timbers throughout the building retain either painted or incised marks. The majority of the beams above the area east of the ground floor spine wall bear the numerals "2 0 2" in a rather faint red colour and painted by what would appear to be a 19th century hand. On the majority of the beams, the numerals occur to both faces, but on two beams they are only visible on one (see figure 5). Sometimes they are followed by two or four slanting lines, and on one beam the numerals "2 0 0" are painted in white paint after the lines (plate 4). One beam towards the south end appears to have the name "D Hous(?)" on it, also in a very faint red paint. Only one beam has any incised marks like those to the first floor trusses (see below). The beams to the west of the ground floor spine wall are all blank, with the single exception of one towards the north end which may have "19" incised into it. It is suspected that the painted marks on the beams were made in this country, probably in Yorkshire, and relate to the timber yard or builder who supplied them; they may denote the size of the timbers, or perhaps an order number.
- 3.9 All but three of the first floor trusses retain extensive incised marks to either the sides or the soffit of their tie-beams (plate 5). These marks take the form of rows of characters, some simple slashes, others more complex, and they occur in strings of up to 32 (see figures 6 and 8). They are characteristic of the so-called "Baltic timber marks", relating to the export of softwood from the Baltic into Britain through ports such as Hull. The marks were clearly made after the trees had been squared but before they were quartered or otherwise divided, as some strings are truncated at the top or bottom. They are generally thought to be put onto the timber in Baltic ports by timber merchants there, and may denote the merchant, the port from which they timber was shipped and/or other information.

#### **External Elevations**

#### East elevation

3.10 The principal elevation faces east onto the adjacent ginnel and appears always to have provided the main access into the building, although the form of access has clearly changed throughout the building's lifetime (see below). As might be expected for a minor agricultural/industrial structure in a rural context, the east elevation is of plain functional appearance, with nothing in the way of embellishment or unnecessary detailing. A doorway at the south end of the elevation is a later insertion but it retains a plank and batten door. It is flanked by low window openings which splay outwards slightly to the interior of the building; these are typical of the original window openings of the maltings, although like all other ground floor windows to the east elevation, they have been altered and lack their original fittings (plate 6). There are two similar windows to the north, flanking

a flight of worn external stone steps. These steps lead to a first floor doorway but they are clearly a later addition, as they butt the main body of the east elevation (plate 7). The steps conceal a low flat-headed doorway with a deep stone lintel (plate 8). Beyond the steps, there are a further four windows (plate 9) and a doorway at the far north end of the ground floor; like that at the south end, it is also a later insertion (plate 10).

3.11 There are a total of eight window openings to the first floor, three to the south of the inserted doorway accessed from the external steps and five to the north. As on the ground floor, the majority of the windows have been much altered. However, two examples to the north of the doorway preserve their original fittings, comprising a softwood frame with two diamond-set wrought-iron vertical bars (plate 11). They were originally fitted with a pair of opening internal shutters suspended on small pintles, but these have all been lost. Both the ground and first floor windows are spaced at uneven centres, and although this may in part be due to later alteration, there do appear to be broadly similar groupings to both floor levels; a pair of windows to the southern end, then a wider gap, another pair of windows and a wider gap, and then finally a group of four windows. This arrangement might reflect original internal processes or perhaps even former internal partitions (see Discussion and Conclusions below).

#### South gable

- 3.12 At a glance, the south gable appears largely blank, although a detailed examination reveals a number of features and possible different phases of construction (plate 12). In the centre of the gable, a shallow hole has been grubbed out at the base (presumably to determine the depth of foundations), revealing the stonework beneath the existing ground level to be markedly more neatly dressed than that to the rest of the wall. Above this stonework, there is a shallow band of worn stone, rising to c.1m above ground level, and then the main body of the gable itself. It is noticeable that the west end and central parts of the gable's ground floor are of darker stone than the rest of the wall, and that they contain less of the strong diagonal tooling common to the east and upper parts of This could suggest that they form part of an earlier structure incorporated into the maltings but they may just as easily have been re-used from a demolished structure when the maltings was built. At the west end of the gable, there is a low and narrow opening (0.36m to 1.07m above ground level), the east side of which is formed by a vertical stone, perhaps the remains of a jamb. Above the opening, at 1.36m above ground level, a rectangular recess has been cut into the wall (plate 13), to house a timber or other feature angled to the south-east. Higher up, on the first floor, there is a former window opening here, blocked with machine-made buff red bricks (plate 14).
- 3.13 An iron pintle projects from the centre of the ground floor at a low level, while to the east, there appears to be another blocked opening. This rises to 0.63m above ground level, and may have the fragmentary remains of springing to one side for a shallow arched head (plate 15), similar to those once present internally to either end of the ground floor spine wall. The purpose of any opening in this position is unclear, as it would have been blocked by the stone steeping tank inside the building's south-east corner, which appears to be an original feature (see below). Above the opening, a ragged joint in the stonework rises to a blocked first floor doorway. Finally, at the very east end of the ground floor, there is a shallow scar left where the east yard wall was formerly tied into the gable (plate 16); the edgelaid quoins at the south-east corner are noticeably larger than those to the southwest. The number of alterations undertaken to the south gable strongly suggest

that there were once further structures attached to it (as shown by the historic Ordnance Survey maps, and this is supported by an examination of the west yard wall. The northern 2m of the wall butts the south gable of the building, but both have a continuous coat of render running around as far as one of the blocked gable openings, indicating that there was once a covered structure here.

North gable

3.14 The north gable is almost completely hidden by a garage belonging to one of the houses fronting Main Street (plate 17); this garage is built of a similar stonework to the maltings and, although it is clearly later, it might still be in part early 20th century in date. The small part of the gable apex that projects above the garage roof contains no visible features of interest. At some point during the mid to late 20th century, an external skin of machine-made brick has been added to the west half of the gable.

West elevation

3.15 The west elevation is completely obscured by modern buildings, a scrap yard and trees forming part of a commercial garage on Main Street (plates 18 and 19). However, the position of any openings to the ground and first floors can be measured internally. There are no doorways and there were originally six window openings to each floor, although a seventh was inserted into the ground floor. The majority of the first floor windows are now blocked, but a few to the ground floor retain their original frames and bars as described under the east elevation above. The windows in the west elevation are not set opposite those in the east elevation-they are more evenly spaced but also seem to divide into two groups, with there being a slightly wider gap between the two southernmost windows and the other four.

## **Internal Description and Circulation**

Ground floor (see figure 5)

- 3.16 At the time of the survey, the only access into the interior of the building was through the doorway at the very south end of the east elevation. This led into the south end of the ground floor. The majority of the ground floor was floored with earth, with a few surviving patches of concrete, and any historic floor surfaces had evidently been taken up sometime before. The ground floor is divided into two unequally sized spaces by the north-south aligned spine wall; the space to the east is 5.20m wide (east-west), while that to the west is somewhat narrower at 3.55m. At either end, the spine wall originally terminated in one or more arched openings (plate 20). These had largely collapsed by the time of the survey, and only small sections of the arch springing survived, but it appears most likely that there was once a pair of arches to the wall ends, each arch being c.1.50m high and c.1.50m wide.
- 3.17 The most prominent surviving feature in the space to the east of the spine wall is a complete steeping tank located at the south-east corner of the ground floor, together with a partially surviving example close by. The complete tank is c.1.90m square and 0.70m deep (plates 21 to 24) each side comprises a dressed sandstone slab, mortared to each end where it butts the wall or adjacent slab; the north and south sides project slightly beyond the west side. The incomplete tank is positioned against the south end of the spine wall. Only its west and north sides survive, but these are also formed by dressed sandstone slabs, and it appears that

this tank was originally of a similar depth but slightly larger than the complete example (plate 25). To the north of the partially surviving tank, there are pairs of vertically aligned sockets in the east face of the spine wall (plate 26). The pairs of sockets are set at c.2.70m centres; their height and spacing suggests that there were once a series of double stalls for cattle set against the spine wall's east face.

- 3.18 The majority of the features in the east wall of the space to the east of the spine wall, such as the low doorway with the deep lintel (plate 27), have already been described above as part of the east external elevation. The single exception is what appears to be a blocked doorway, situated between the second and third windows from the south end of the wall (plate 28). This feature is not visible externally, and so it may be that it forms a tall recess rather than a doorway. There is also a blocked window to the east of centre in the north wall (plate 29). The space to the east of the spine wall is crossed by twelve substantial east-west aligned softwood beams, set at 2.80m centres and roughly chamfered to the soffits, supporting joists running between (plates 30 to 33); as has been described above, the beams retain a number of painted marks. To the north of the centre of the space, one of the beams is supported by a re-used slender cast-iron column (plates 34 and 35).
- 3.19 As a result of the erection of the modern garage buildings against the west side of the building, the ground floor space to the west of the spine wall is now dark and dimly lit. Towards the south end, there are several work benches equipped with vices and other tools, together with some wall shelving and other items (plates 36 and 37). These relate to the use of this area as a joiner's workshop by a local man Ted Maltby (Mr Hartley of Thorner, pers. comm.). In order to increase the natural light in this area, a window was inserted into the west wall of the building and fitted with a re-used 9-pane fixed casement frame; the original window immediately to the south was fitted with a re-used 12-pane (8 over 4) opening casement (plate 37). To the north of the joiner's benches, the brick base and flue of a small stove survive against the west wall. This would have been used for tasks associated with the joinery work, such as the preparation and heating of glue (plate 38). To the south of the benches, there are the remains of an inserted timber partition which is probably contemporary with the joinery workshop (plates 39 and 40). The partition incorporates a re-used part-glazed door, of interest because it retains the remains of a poster issued by Wetherby Rural District Council during the Second World War for the "Requisition of Unnecessary Railings" (plate 41). At the south end of this space, the blocked opening visible externally in the west end of the south gable can be seen, although it is substantially wider internally (plate 42).
- 3.20 The space to the west of the spine wall is crossed by twelve east-west aligned softwood beams, with joists running between them (plates 43 to 45). These are set at a slightly lower level than the beams to the east of the spine wall, but given that they support a screed growing floor (see below), they probably represent the original first floor height within the building. The beams are spaced at 1.90m centres, apart from at the north and south ends where the spacing increases to over 3.0m. In the southernmost "bay", a number of the joists are formed by reused timbers, including wooden guttering, while in the northernmost "bay", the joists have been trimmed to accommodate a set of steeply rising wooden stairs or steps leading to the first floor of a structure formerly attached to the north end of the maltings. The steps have since been removed, but the blocked doorway in the north wall remains, now positioned midway between the ground and first floors (plates 46 and 47). To the west of this doorway, there is a large vertical timber buried in the core of the north wall (plate 48).

## First floor (see figure 6)

- 3.21 At the time of the survey, there was no existing access to the first floor, and so it had to be reached using a ladder positioned within the collapsed section at its southern end. There was once external access to the first floor via the steps positioned against the centre of the east elevation but, as has been noted, these are a later addition. It must therefore be assumed that the original access to the first floor was either via an internal stair which has since been removed or, perhaps more likely, through now-demolished structures attached to either the north and/or south ends of the building.
- 3.22 The first floor is formed by a single open space (plate 49). The features in the east (plate 50), west (plate 51) and south (plate 52) walls have already been described under the relevant external elevations above. There is a blocked doorway in the centre of the north wall, flanked by a blocked window to the east and the doorway described above, and now bisected by the floor, to the west (plates 53 to 55). Perhaps the most significant surviving features on the first floor are the floors themselves. The wider eastern part of the floor (equivalent to the space to the east of the ground floor spine wall) comprises east-west aligned softwood boards with an average width of 0.16m (plate 56). However, the narrower western part (equivalent to the space to the west of the ground floor spine wall) preserves what may well be an original floor. The floor is of screed or lime-ash laid over straw, which is held in position by laths running between the joists visible on the ground floor (plate 57). There are no features visible within this floor area, but at the north end, lines of brick surviving to only a single course in height suggest that an area measuring c.5.50m long (north-south) by 3.60m wide (east-west) was once partitioned off as a separate room.
- 3.23 A limited area of surviving whitewashed render to the south wall preserves some graffiti. The majority is formed by columns of figures beneath the initials "FB" and "LB"; the figures are generally small, 12 or less, but there are also some larger numbers rising as high as 87. It was not possible to photograph these figures in detail because of the collapsed floor in this area. Comparisons with graffiti recorded within other agricultural buildings in Yorkshire (e.g. Richardson & Dennison 2010) suggests that such figures often relate to either the number or weight of sacks of agricultural produce, including grain, peas and beans, being taken into or moved from a storage area. Some of the graffiti is dated to 1935 and is accompanied by lewd pencil sketches of horses with prominent erections.
- 3.24 The first floor is crossed by twelve roof trusses, spaced at 2.30m centres. Virtually all of the trusses bear incised marks relating to the timber import/export trade (see above), and all are of the same extended queen-strut form (plates 58 to 60). The feet of the inner struts are through-bolted to the tie-beam and rise to a collar; there was once also a second horizontal timber at a lower level below, but this has been removed. Both the north and south faces of the inner struts retain recesses about three-quarters up their height, apparently for timbers running between the trusses. The raking braces between the inner and outer struts are joined to the struts using notched joints. The outer struts have asymmetric joggles to their feet. Each principal rafter supports four staggered purlins with keyed through-tenons and there is a plank ridge-piece to the roof apex.

#### 4 DISCUSSION AND CONCLUSIONS

- 4.1 Cartographic evidence shows that the surveyed maltings was built before 1834, and given that four maltsters were present in the village in 1822, it may have been present by this date. It is most probably early 19th century rather than late 18th century in date, but as such is still earlier than the 1850s floor maltings near Boroughbridge which were described as being Yorkshire's oldest in 1985 (Hatcher 1985, 138) and a similar maltings located on a farm in Guiseley in West Yorkshire. also thought to be of the 1850s (Haigh 2003). Thorner lay within a district where a significant proportion of the acreage was given over to barley production and by 1834 there were five other maltings in the village in addition to the surveyed site: no attempt has been made to establish if any traces of these other maltings remain today. The surveyed site was the only maltings in Thorner to have a beer house attached, possibly built or converted from an existing structure as a result of the 1830 Beer Act. The presence of the beer house is significant as it suggests that the finished malt, as well as going to wider markets such as Leeds and Tadcaster, was almost certainly also being used very locally. It has not been possible to establish who owned and operated the maltings during the 19th century, but in 1870, it must have been one of the four "malt kilns" listed on Main Street and therefore was owned by either Faith Dalby, Sarah Dalby (and occupied by James Haste). Mary Watmough or Marmaduke Pawson. As such, it is likely to have been in a single ownership for some time, as several of these families had long-standing associations with the local malting industry, sometimes undertaken in conjunction with farming.
- 4.2 The surveyed site has been subject to a great deal of alteration, and was in very poor structural condition. Although little now survives in terms of detailed structural evidence for its former maltings use, through comparison with other floor maltings and relevant 19th century literature, a number of deductions can be made about its overall form and the movement of materials through it.
- 4.3 The study site most closely resembles the "two-storey type" of floor maltings as defined by Patrick in her 1996 typology (Patrick 1996, 194-5). These date from the 18th to the mid 19th century and are quite widespread, with many examples in the eastern counties such as Essex but also in Yorkshire. In this two-storey type, the storage and cleaning of the barley and malt was undertaken on the upper floor. The barley was stored above the steep, while the kilned malt was thrown off onto kiln end of upper floor, and cleaned and stored at this end. There was usually only a single growing floor, always at ground level, with the steep and associated couch at one end of the long growing floor. The kiln was usually located at the opposite end of the building to the steep.
- At the surveyed site, the steep was located at the south end of the ground floor, and there is one complete steeping tank and one partially surviving example. They are both constructed of large sandstone slabs, and are therefore likely to be early surviving examples. The original ground floor access was also through doorways (since blocked) located in this part of the building, at the south end of the east wall. The couching area would have been located to the immediate north of the steep on the ground floor, and may once have been floored with slabs, as recorded at a mid 19th century maltings in Guiseley (Haigh 2003). The growing floors for the couched barley would have occupied the majority of the ground floor, but their form, most likely cement/mortar screed as survives on the first floor, has been lost. At between 3.5m and 5m in width, the growing floors are somewhat narrower than the 30 feet described as convenient by Hunt (1878, 189), although the overall internal width of the ground floor is close to this figure. The former arches at either

end of the ground floor spine wall may have helped to control air flow and temperature around the germinating malt, which would have been worked using either the piece or strip method. The temperature would also have been controlled using the window openings; a very few of these preserve their original form. They were once shuttered internally, but all of these shutters had been lost prior to the survey.

- 4.5 The first floor would have been used for storage. The barley to be steeped would have been stored at the south end of the first floor, perhaps in wooden bins. The western half of the first floor preserves a cement/mortar screed floor, the only such flooring to survive within the building, but the eastern half is of softwood planking, a later alteration.
- 4.6 Although it is possible that structural features, particularly those within the south gable, result from the incorporation of an earlier structure into the building, it is far more likely that they are the result of the demolition of structures once attached to the north and south ends; the 1849 Ordnance Survey map appears to show these structures in place whereas they had been demolished by 1909 (see figure 4). The kiln was almost certainly located at the northern end of the building. The green malt from the ground floor would have been taken here for kilning to arrest germination, and then dressed and stored at this end of the first floor. Malt was usually stored in sacks, rather than loose in bins, and was required to be stored for at least a month before it could be used in brewing. The function of any attached structure at the southern end of the building is unclear, but it might have been the beer house. Access to the first floor, and the loading/unloading of materials, may originally have been through one of these demolished end structures, as the existing external stone steps to the east elevation are a later addition, blocking an original doorway. The existing extended queen-strut roof trusses are of softwood. and of a type used regionally to roof textile mills during the early to mid 19th century (Giles & Goodall 1992, 70-73).
- 4.7 The survey uncovered no evidence whatsoever for any mechanisation or the former presence of machinery at the surveyed site. This is probably typical of this type of floor maltings in a rural location, with the processes remaining labour intensive until the end of the 19th century. As such, it forms an interesting contrast to other buildings in the region where barley was also processed, for example, a provender mill formerly existing at South Elmsall in West Yorkshire. Although only built some ten years after malting finally ceased in Thorner in 1911 (see below), all the processes within it, including grinding, dressing and hoisting, were wholly mechanised (Richardson 1995).
- 4.8 Directory evidence suggests that malting declined in importance in Thorner after c.1880 and, as already noted above, all malting in Thorner had ceased by 1911. It is assumed that the surveyed site went out of use as a maltings in the late 19th or very early 20th century, and that the kiln and any other attached structures were demolished after this time. It appears that the eastern half of the ground floor was subsequently converted to a cow house, with a number of two-bay cattle stalls and a passage along their east side; it is probable that the inserted doors at either end of the east wall are contemporary with this use, as they would have made the movement of cattle through the building easier. The first floor above may have been rebuilt using planks at the same date, perhaps to store hay or feed. Pencilled graffiti to the south internal first floor wall suggests that the building was still being used partly for agricultural storage into the early 1930s, and perhaps also for stabling. In the mid 20th century, the ground floor space was used as a builder's store, and the building had largely continued in this usage until the present day.

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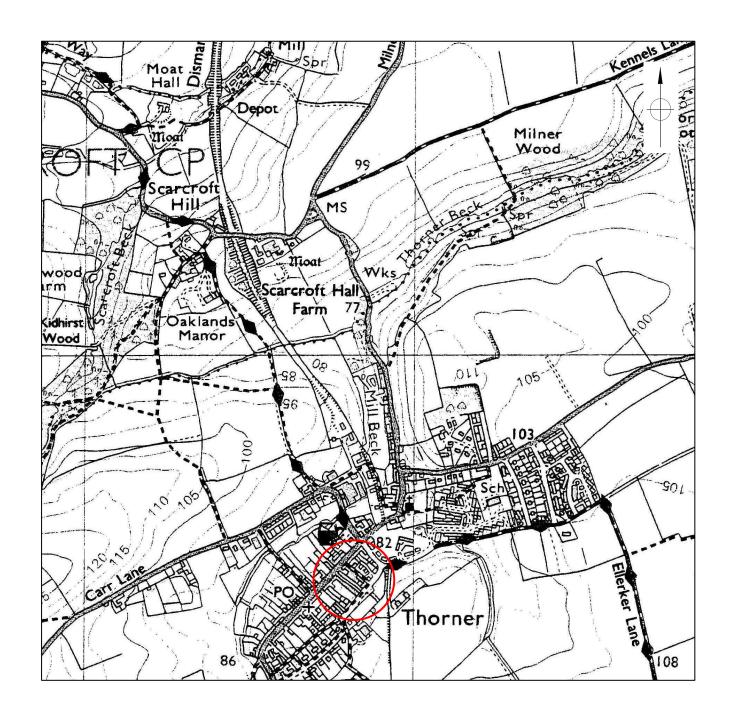
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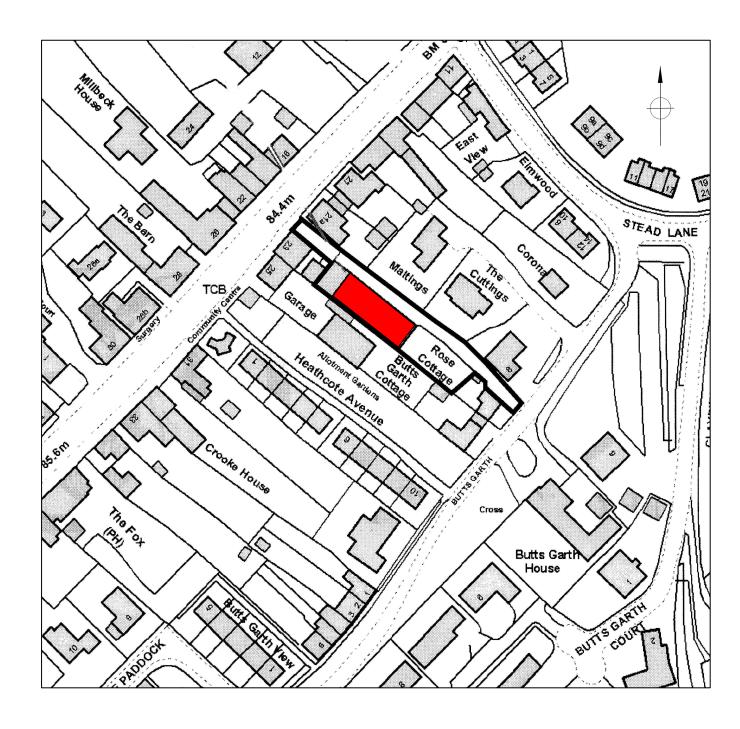
### **6 ACKNOWLEDGEMENTS**

6.1 The building recording project at Main Street, Thorner, was commissioned by Ben Smith of Park Lane Homes who paid for the on-site recording. This on-site work was carried out by Shaun Richardson and Richard Lamb, with assistance from Ed Dennison. The photographs were taken by Stephen Haigh. The documentary research was carried out by Shaun Richardson, who also produced a draft report and site archive. The final report was produced by Ed Dennison, with whom the responsibility for any errors or inconsistencies remains.



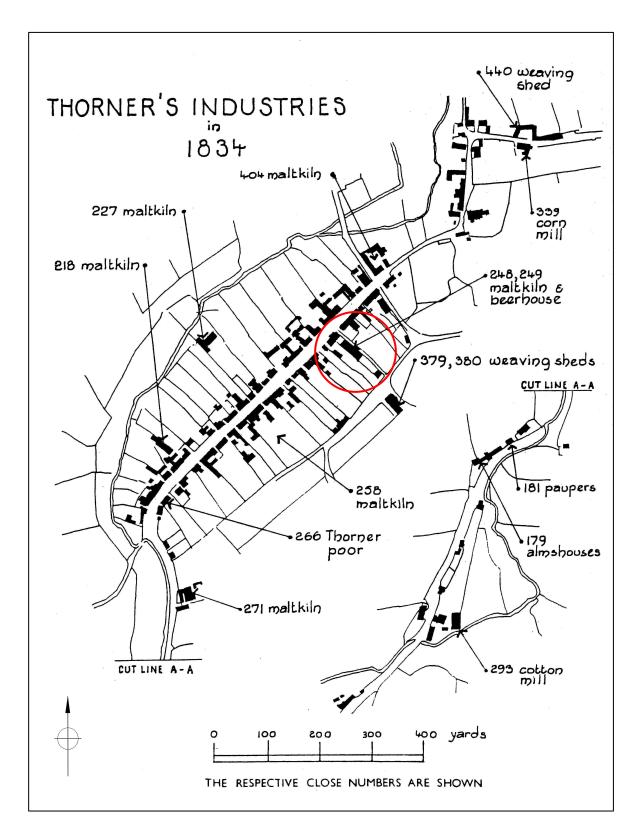
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THORNER MALTINGS	
GENERAL LOCATION	
NTS	MAR 2010
EDAS	FIGURE 1



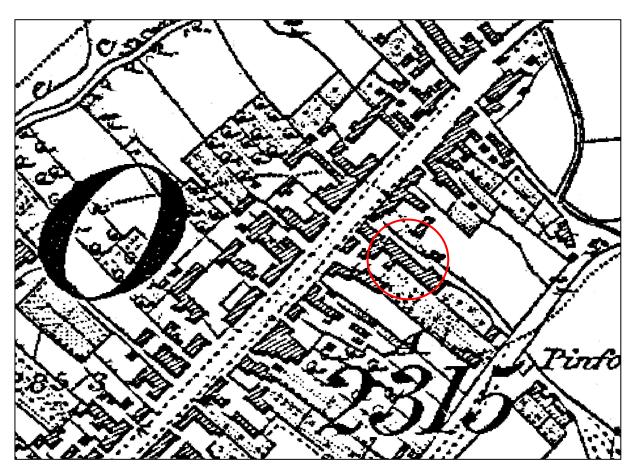
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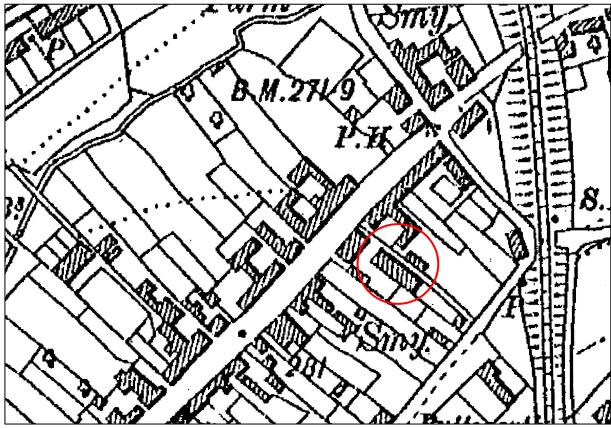
PROJECT THORNER	MALTINGS
SITE LOCATION	
SCALE NTS	MAR 2010
EDAS	FIGURE 2



Source: Brown 1991, 110.

THORNER MALTINGS	
THORNER'S INDUSTRIES IN 1834	
AS SHOWN	MAR 2010
EDAS	FIGURE 3

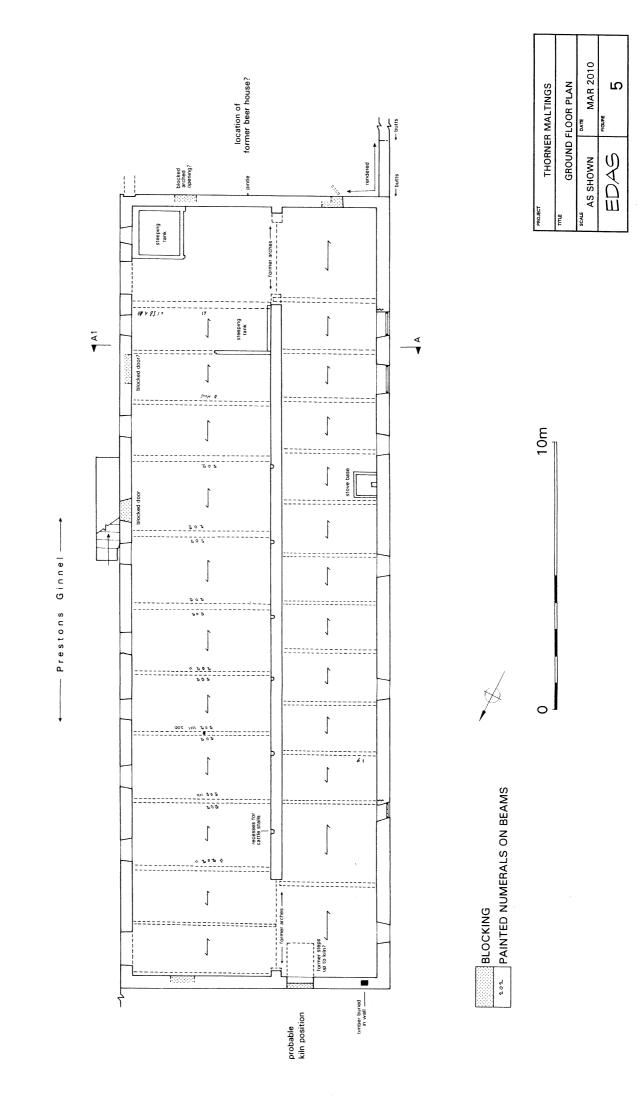


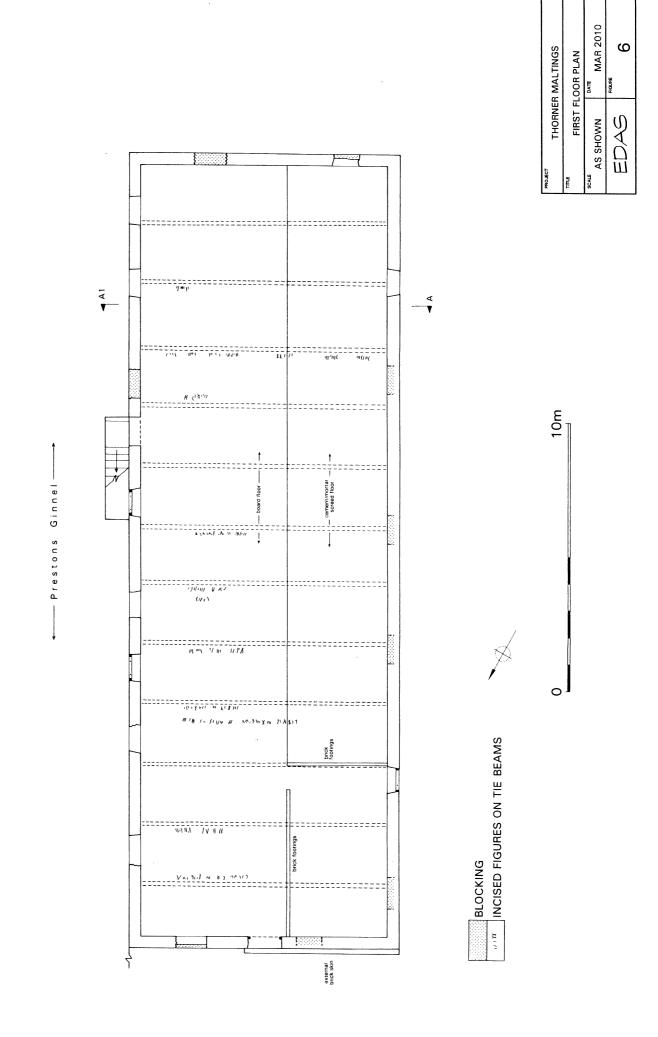


Top: OS 1849 6" map sheet 204. Bottom: OS 1909 6" map sheet 204NW.

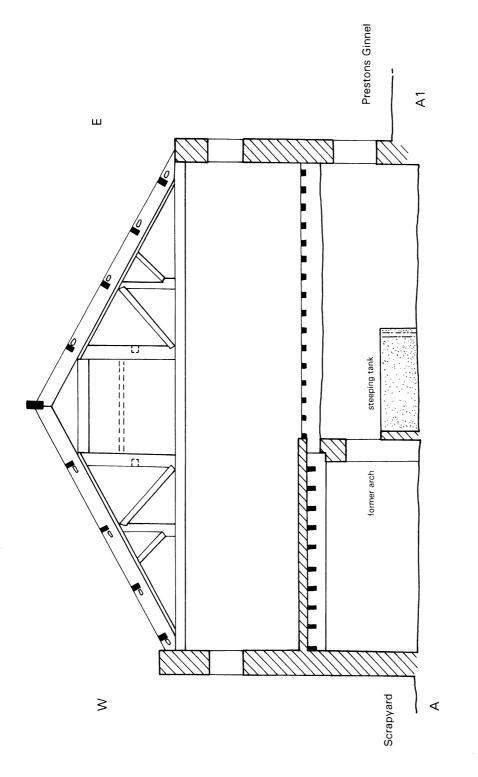


THORNER MALTINGS	
HISTORIC MAPS	
SCALE NTS	MAR 2010
EDAS	FIGURE 4





THORNER THE COMPOSI	THORNER MALTINGS  COMPOSITE SECTION  OWN MAR 2010
EDAG	FIGURE <b>7</b>



3m

Northernmost tie beam

Southernmost tie beam

THORNER MALTINGS	
INCISED MARKS ON TIE BEAMS	
NTS	MAR 2010
EDAS	FIGURE 8

See figure 6 for locations.

## APPENDIX 1 PHOTOGRAPHIC RECORD

# PHOTOGRAPHIC REGISTER: BLACK AND WHITE PHOTOS

Films 1 to 5: Black & white medium format prints taken 28th July 2008 \* = Large print

Print	Subject	Film	Frame	Scale
1	General view, looking NW along Prestons Ginnel	1	18	2m
2	General view, looking S	2	10*	2m
3	General view, looking W	1	16*	2m
4	Typical painted numerals (200), ground floor area E of spine wall, looking NW	4	5	1m
5	Typical incised mark to roof truss tie-beam, looking N	5	5	-
6	S end of E elevation, looking W	2	1	2m
7	Central part of E elevation showing external steps, looking W	2	2	2m
8	E elevation steps and blocked doorway, looking S	2	4	1m
9	N end of E elevation, looking NW	2	5	2m
10	N end of E elevation, looking NW	2	6	2m
11	Fist floor E elevation, window with original fittings, looking SW	2	11	2m
12	S gable, looking NW	1	13	2m
13	Socket at W end of S gable, looking NW	2	13	2m
14	Detail of W end of S gable, looking W	1	14	2m
15	Possible springers, E end of S gable, looking NW	2	14	2m
16	S gable, scar at E end left by removal of yard wall, looking NW	2	12	2m
17	General view, looking SE along Prestons Ginnel	2	8	2m
18	Site viewed from the SW, looking N	2	16	-
19	Site viewed from the NW, looking E	2	17	-
20	Remains of arch/arches, N end of ground floor spine wall, looking W	4	3	1m
21	Complete steeping tank, SE corner of ground floor, looking E	3	1	1m
22	Complete steeping tank, SE corner of ground floor, looking E	3	2	1m
23	Complete steeping tank, SE corner of ground floor, looking NE	3	4	1m
24	Complete steeping tank and ground floor S wall, looking SE	3	5	1m
25	Incomplete steeping tank, SE corner of ground floor, looking W	3	8	1m
26	Recesses for cow stalls, E face of ground floor spine wall, looking S	4	1	1m
27	Blocked doorway, E wall of ground floor area E of spine wall, looking NE	3	12	1m
28	Possible blocked doorway, E wall of ground floor area E of spine wall, looking N	3	11	1m
29	N wall of ground floor area E of spine wall, looking NW	3	18	1m
30	Incomplete steeping tank, SE corner of ground floor, looking NW	3	10	1m
31	Ground floor area (S end), E of spine wall, looking SE	3	14	2m
32	Recesses for cow stalls, E face of ground floor spine wall, looking W	3	16	1m
33	Ground floor area E of spine wall, looking SE	4	2	1m
34	Ground floor area (central part), E of spine wall, looking NW	3	13*	2m
35	Ground floor area (N end), E of spine wall, looking NW	3	17	1m
36	Ground floor area (central area), W of spine wall, looking N	4	12	1m
37	Joiner's bench and casement windows, W wall of ground floor area W of spine wall, looking S	4	7	1m
38	Joiner's bench and stove base, W wall of ground floor area W of spine wall, looking W	4	8	1m
39	Wooden partition at S end of ground floor area W of spine wall, looking SW	3	6	2m
40	Ground floor area (S end), W of spine wall, looking SE	4	10	1m
41	Door with old poster, S end of ground floor area W of spine wall, looking SW	3	7	0.50m

Print	Subject	Film	Frame	Scale
42	Blocked opening in W end of ground floor S wall, looking SE	4	6	1m
43	Ground floor area (N end), W of spine wall, looking NW	4	14	1m
44	Original window, ground floor area W of spine wall, looking SW	4	15	0.50m
45	Ground floor area W of spine wall, looking SE	5	1	1m
46	N wall of ground floor area W of spine wall, looking NW	4	13	1m
47	Doorway and arch in N wall, ground floor area W of spine wall, looking NW	4	17	0.50m
48	Timber buried in N wall of ground floor area W of spine wall, looking W	4	18	0.50m
49	SW corner of first floor, looking S	5	4	1m
50	E wall of first floor (central part), looking N	5	6	-
51	General view of first floor, looking W	5	12	1m
52	S wall of first floor, looking SE	5	2	-
53	General view of first floor, looking NW	5	7	1m
54	General view of first floor, looking N	5	10	1m
55	General view of first floor, looking W	5	11	1m
56	General view of first floor, looking SE	5	8*	-
57	Underside of lath and screed floor over W side of building, looking W	4	11	0.50m
58	Typical roof truss, looking SE	5	13	-
59	Detail of typical roof truss, looking S	5	14	-
60	Detail of typical roof truss, looking NE	5	16	-

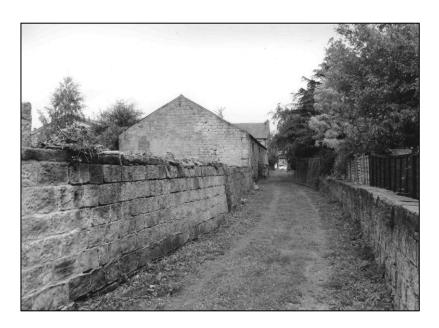


Plate 1: General view, looking NW along Prestons Ginnel (photo 1/18).

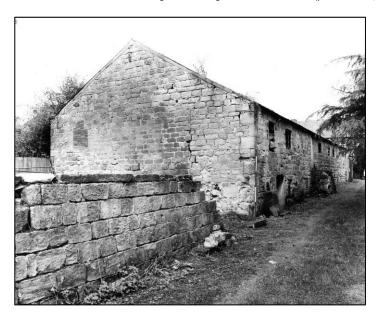


Plate 3: General view, looking W (photo 1/16).



Plate 2: General view, looking S (photo 2/10).

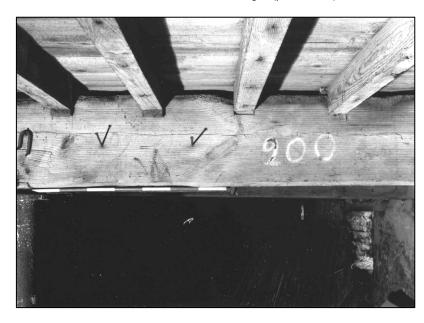


Plate 4: Typical painted numerals (200), ground floor area E of spine wall, looking NW (photo 4/5).



Plate 5: Typical incised mark to roof truss tie-beam, looking N (photo 5/5).

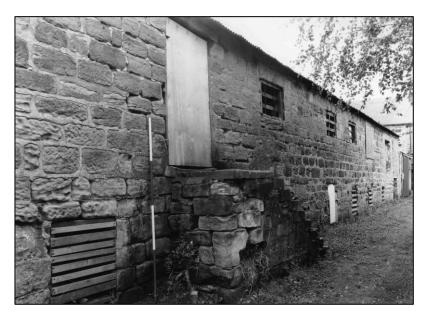


Plate 7: Central part of E elevation showing external steps, looking W (photo 2/2).

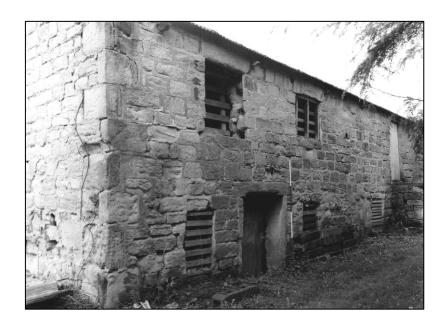


Plate 6: S end of E elevation, looking W (photo 2/1).



Plate 8: E elevation steps and blocked doorway, looking S (photo 2/4).

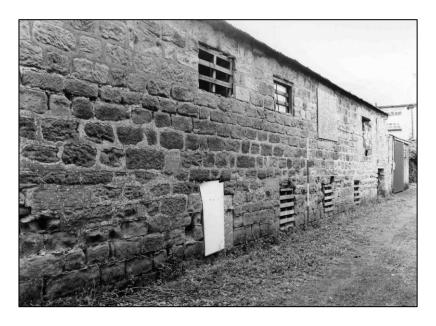


Plate 9: N end of E elevation, looking NW (photo 2/5).



Plate 11: First floor E elevation, window with original fittings, looking SW (photo 2/11).

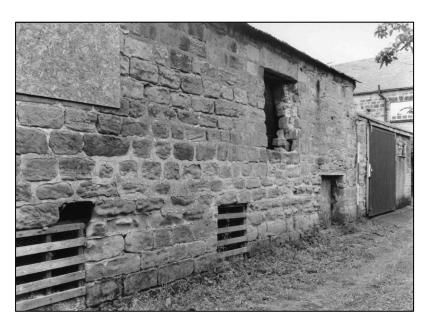


Plate 10: N end of E elevation, looking NW (photo 2/6).

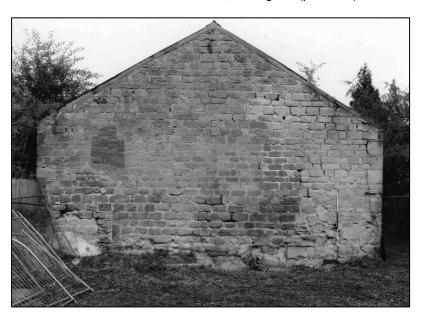


Plate 12: S gable, looking NW (photo 1/13).



Plate 13: Socket at W end of S gable, looking NW (photo 2/13) (top to left).

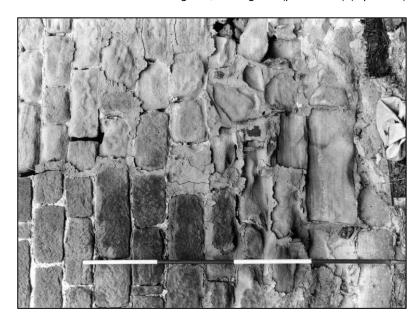


Plate 15: Possible springers, E end of S gable, looking NW (photo 2/14) (top to left).



Plate 14: Detail of W end of S gable, looking W (photo 1/14).



Plate 16: S gable, scar at E end left by removal of yard wall, looking NW (photo 2/12) (top to left).



Plate 17: General view, looking SE along Prestons Ginnel (photo 2/8).



Plate 19: Site viewed from the NW, looking E (photo 2/17).



Plate 18: Site viewed from the SW, looking N (photo 2/16).

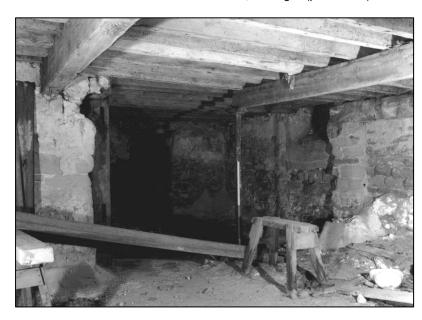


Plate 20: Remains of arch/arches, N end of ground floor spine wall, looking W (photo 4/3).



Plate 21: Complete steeping tank, SE corner of ground floor, looking E (photo 3/1).



Plate 23: Complete steeping tank, SE corner of ground floor, looking NE (photo 3/4).



Plate 22: Complete steeping tank, SE corner of ground floor, looking E (photo 3/2).



Plate 24: Complete steeping tank and ground floor S wall, looking SE (photo 3/5).



Plate 25: Incomplete steeping tank, SE corner of ground floor, looking W (photo 3/8).



Plate 27: Blocked doorway, E wall of ground floor area E of spine wall, looking NE (photo 3/12).



Plate 26: Recesses for cow stalls, E face of ground floor spine wall, looking S (photo 4/1).



Plate 28: Possible blocked doorway, E wall of ground floor area E of spine wall, looking N (photo 3/11) (top to left).



Plate 29: N wall of ground floor area E of spine wall, looking NW (photo 3/18).



Plate 31: Ground floor area (S end), E of spine wall, looking SE (photo 3/14).



Plate 30: Incomplete steeping tank, SE corner of ground floor, looking NW (photo 3/10).



Plate 32: Recesses for cow stalls, E face of ground floor spine wall, looking W (photo 3/16).

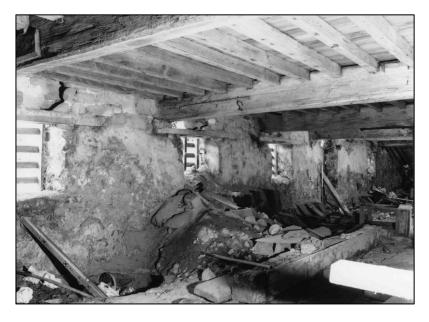


Plate 33: Ground floor area E of spine wall, looking SE (photo 4/2).



Plate 35: Ground floor area (N end), E of spine wall, looking NW (photo 3/17).



Plate 34: Ground floor area (central part), E of spine wall, looking NW (photo 3/13).



Plate 36: Ground floor area (central area), W of spine wall, looking N (photo 4/12).



Plate 37: Joiner's bench and casement windows, W wall of ground floor area W of spine wall, looking S (photo 4/7).



Plate 39: Wooden partition at S end of ground floor area W of spine wall, looking SW (photo 3/6).

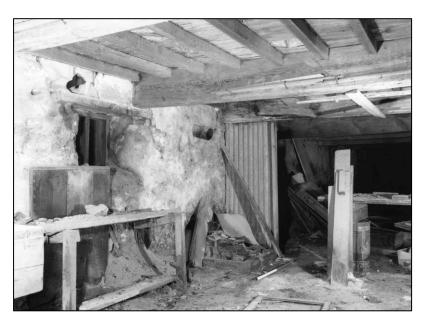


Plate 38: Joiner's bench and stove base, W wall of ground floor area W of spine wall, looking W (photo 4/8).



Plate 40: Ground floor area (S end), W of spine wall, looking SE (photo 4/10).



Plate 41: Door with old poster, S end of ground floor area W of spine wall, looking SW (photo 3/7) (top to left).



Plate 43: Ground floor area (N end), W of spine wall, looking NW (photo 4/14).



Plate 42: Blocked opening in W end of ground floor S wall, looking SE (photo 4/6).



Plate 44: Original window, ground floor area W of spine wall, looking SW (photo 4/15).



Plate 45: Ground floor area W of spine wall, looking SE (photo 5/1).



Plate 47: Doorway and arch in N wall, ground floor area W of spine wall, looking NW (photo 4/17).

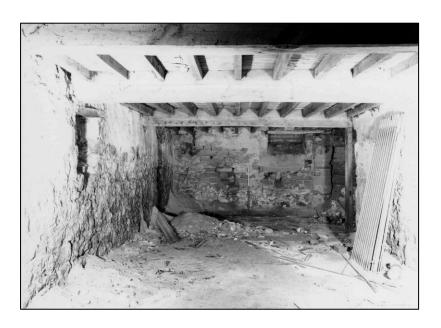


Plate 46: N wall of ground floor area W of spine wall, looking NW (photo 4/13).

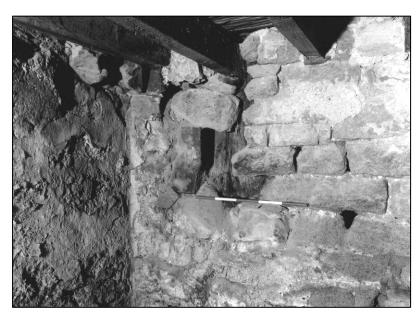


Plate 48: Timber buried in N wall of ground floor area W of spine wall, looking W (photo 4/18).

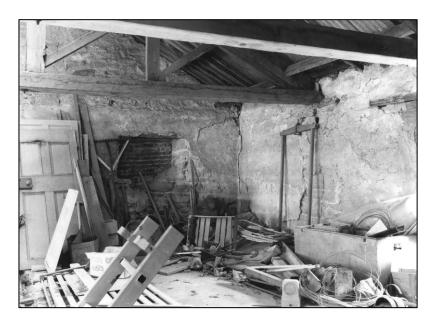


Plate 49: SW corner of first floor, looking S (photo 5/4).



Plate 51: General view of first floor, looking W (photo 5/12).

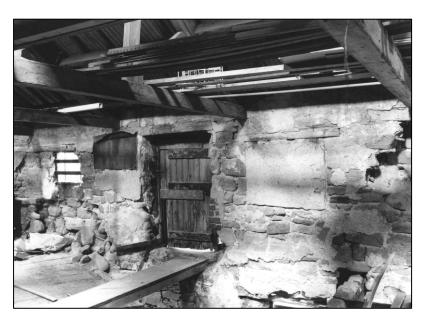


Plate 50: E wall of first floor (central part), looking N (photo 5/6).



Plate 52: S wall of first floor, looking SE (photo 5/2).



Plate 53: General view of first floor, looking NW (photo 5/7).



Plate 55: General view of first floor, looking W (photo 5/11).



Plate 54: General view of first floor, looking N (photo 5/10).

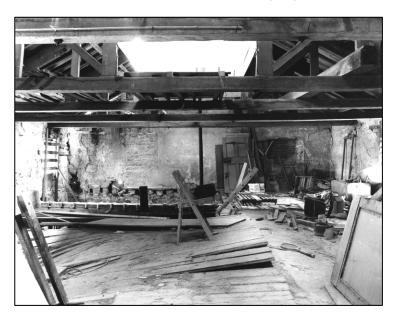


Plate 56: General view of first floor, looking SE (photo 5/8).



Plate 57: Underside of lath and screed floor over W side of building, looking W (photo 4/11).



Plate 59: Detail of typical roof truss, looking S (photo 5/14).



Plate 58: Typical roof truss, looking SE (photo 5/13).

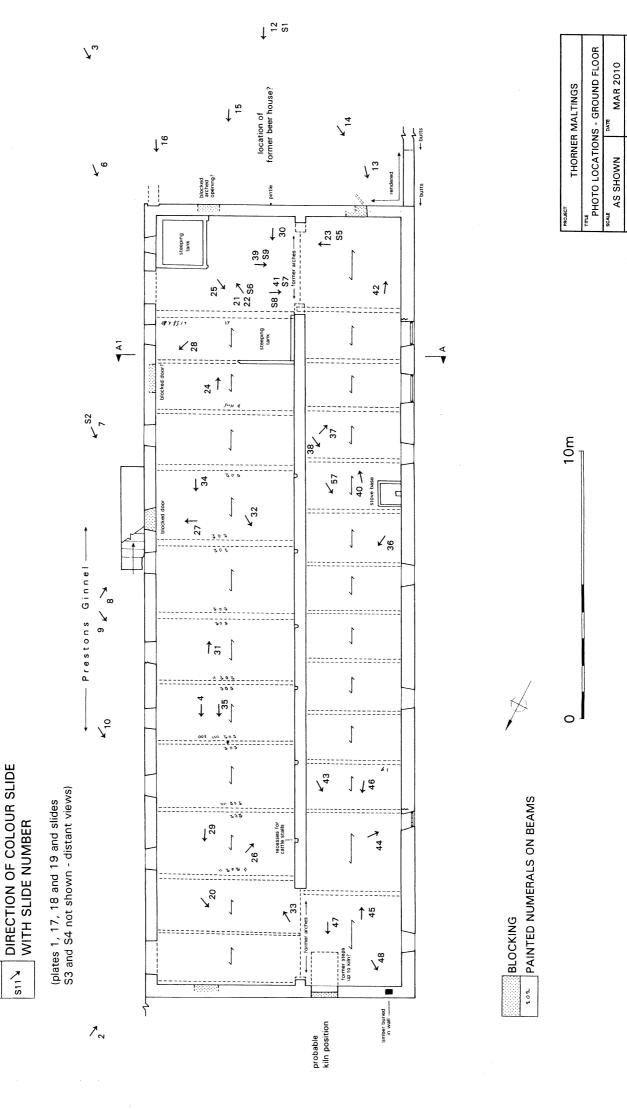


Plate 60: Detail of typical roof truss, looking NE (photo 5/16).

# PHOTOGRAPHIC REGISTER: COLOUR SLIDES

Film 6: Colour 35mm slides taken 28th July 2008

Print	Subject	Film	Frame	Scale
S1	S gable, looking NW	6	1	2m
S2	Central part of E elevation showing external steps, looking W	6	2	2m
S3	General view, looking W	6	3	2m
S4	General view, looking NW along Prestons Ginnel	6	4	2m
S5	Complete steeping tank, SE corner of ground floor, looking NE	6	5	1m
S6	Complete steeping tank, SE corner of ground floor, looking E	6	6	1m
S7	Door with old poster, S end of ground floor area W of spine wall, looking SW	6	7	0.5m
S8	Door with old poster, S end of ground floor area W of spine wall, looking SW	6	8	0.5m
S9	Wooden partition at S end of ground floor area W of spine wall, looking SW	6	9	2m
S10	E wall of first floor (central part), looking N	6	10	-
S11	E wall of first floor (central part), looking N	6	11	-

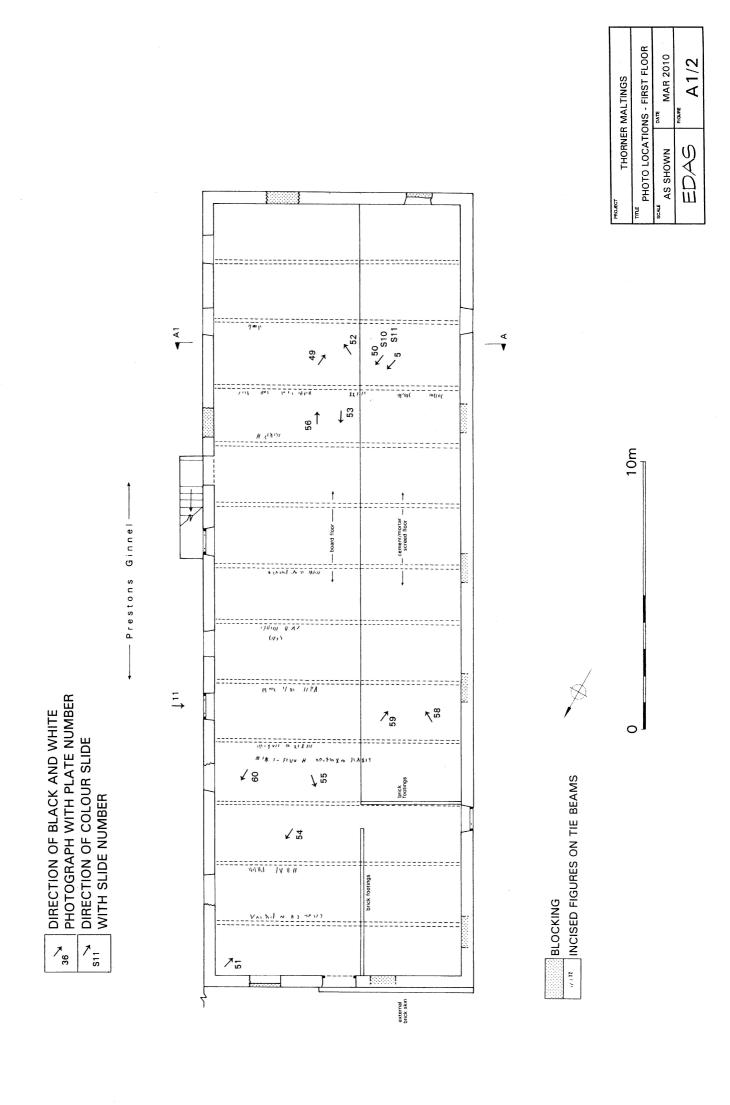


DIRECTION OF BLACK AND WHITE PHOTOGRAPH WITH PLATE NUMBER

**₹**0**4** 

A1/1

EDAG



# APPENDIX 2 WYAAS SPECIFICATION

## Specification For Building Recording The Maltings, off Main Street Thorner (SE 3781 4033)

Specification prepared on behalf of Leeds City Council at the request of the Archaeoscope (Planning Permission 33/168/03/CA)

#### 1 Summary

1.1 A building record (drawn and photographic survey) is required to identify and document items of archaeological and architectural interest prior to the demolition of this 19<sup>th</sup> century floor maltings. This specification for the necessary work has been prepared by the West Yorkshire Archaeology Advisory Service, the curators of the West Yorkshire Historic Environment Record.

NOTE: The requirements detailed in paragraphs 6.1.1 to 6.1.5 inclusive, 8.3 and 8.4 are to be met by the archaeological contractor **prior** to the commencement of fieldwork by completing and returning the attached form to the WY Archaeology Advisory Service.

## 2 Site Location and Description

#### 2.1 Location

(Grid ref. SE 3781 4033) The building is located on the south side of the narrow lane between 21A and 23 Main Street, Thorner.

## 2.2 Description

The building which forms the subject of this specification is stone-built with a part-brick gable end to the west. The ground floor is a half-basement. The area to be recorded is approximately 600 square meters. The building was in a part-derelict condition at the time of the last WYAAS site visit in 1997 - confirmation of structural condition should be sought from the developer's agent. The building is located within the Thorner Conservation Area.

#### 3 Planning Background

The site owners have obtained planning consent (Planning Application No. 33/168/03/CA) for demolition of this building and the construction of two houses on the plot. The WY Archaeology Advisory Service (as LCC's archaeological advisor) has prepared this specification in order to allow the owners, through their archaeological agents Archaeoscope (30 Rythergate, Cawood, York, YO8 3TP, contact Guy Hopkinson © 01757 268871, email guy@archaeoscope.org) to meet the terms of an archaeological condition which has been placed on the consent.

## 4 Archaeological Interest

#### 4.1 Historical Background

The building that forms the subject of this application appears to represent the remains of a traditional floor-maltings of the mid-19th century. Floor-malting began to be superseded by faster techniques in the late 19th century, and is now virtually obsolete. Surviving floor maltings, in **any** degree of preservation, are becoming extremely rare in West Yorkshire. There is map evidence to suggest that the Thorner example may in fact date from the first half of the century, in which case it would constitute the earliest feature of this type known to the WY Archaeology Advisory

Service to survive in the County. Although somewhat altered – the roof covering has been replaced - and apparently in poor structural condition at the time of the WYAAS site visit (07/1997), the building retained features apparently related to its use as a maltings, including a probable grain-soaking tank in the north-east corner of the building and characteristic and apparently original windows. The building appears to lack a kiln, but this requires verification on site. Kiln facilities and further malting floors may have been located on the northern side of the lane. The building is of archaeological interest both as a potential regionally early example of a small-scale maltings and because it exemplifies the type of small-scale industry which would formerly have flourished in the back burgage plots of this small agricultural settlement.

## 4.2 Impact of proposed development

Demolition of this building will destroy all elements of archaeological and historical interest.

## 5 Aims of the Project

5.1 The first aim of the proposed work is to identify and objectively record by means of photographs and annotated measured drawings any significant evidence for the original and subsequent historical form and functions of the building, and to place this record in the public domain by depositing it with the WY Historic Environment Record (Registry of Deeds, Newstead Road, Wakefield WF1 2DE).

5.2 The second aim of the proposed work is to analyse and interpret the building as an integrated system intended to perform a specialised function. The archaeologist on site should give particular attention to reconstructing as far as possible the functional arrangements and division of the buildings. The roles of historical plan form, technical layout and circulation should all be considered in this process of interpretation.

## 6 Recording Methodology

#### 6.1 General Instructions

6.1.1 Health and Safety The archaeologist on site will naturally operate with due regard for Health and Safety regulations. The contractors' attention is again drawn to the structural condition of the site. Prior to the commencement of any work on site (and preferably prior to submission of the tender) the archaeological contractor is required to carry out a Risk Assessment on these structures in accordance with the Health and Safety at Work Regulations. On the basis of this Risk Assessment, the contractor should then submit in writing to the WY Archaeology Advisory Service and to Archaeoscope a strategy for safe access, including any requirements for additional scaffolding, shoring, reinforced walkways, mechanical platforms etc. The contractor should also consider the possibility of applying remote measuring techniques. The contractor is expected to make a reasonable effort to execute the recording work. If a portion of the complex is legitimately judged to be inaccessible without breach of the Health and Safety at Work Regulations, even with the provision of additional reinforcement, then confirmation of this judgement by a competent and appropriately qualified individual or organisation must be submitted in writing to the West Yorkshire Archaeology Advisory Service. The archaeological contractor should identify any contaminants which constitute potential Health and Safety hazards (e.g. chemical drums, bird dung) and make arrangements with the client for decontamination/making safe as necessary and appropriate. The WY Archaeology Advisory Service and its officers cannot be held responsible for any accidents or injuries which may occur to outside contractors engaged to undertake this survey while attempting to conform to this specification.

## 6.1.2 Confirmation of adherence to specification

Prior to the commencement of any work, the archaeological contractor must confirm in writing adherence to this specification (using the attached form), or state in writing (with reasons) any specific proposals to vary the specification. Should the contractor wish to vary the specification, then written confirmation of the agreement of the WY Archaeology Advisory Service to any variations is required prior to work commencing. Unauthorised variations are made at the sole risk of the contractor (see para. 8.3, below). Modifications presented in the form of a re-written project brief will not be considered by the West Yorkshire Archaeology Advisory Service.

#### 6.1.3 Confirmation of timetable and contractor's qualifications

Prior to the commencement of *any work*, the archaeological contractor must provide WYAAS in writing with:

- a projected timetable for the site work
- details of project staff structure and numbers
- names and CVs of key project members (the project manager, site supervisor, any proposed specialists, sub-contractors etc.)

All project staff provided by the archaeological contractor must be suitably qualified and experienced for their roles in accordance with PPG 16 para. 21. In particular, staff involved in building recording should have proven expertise in the recording and analysis of industrial buildings. The timetable should be adequate to allow the work to be undertaken to the appropriate professional standard, subject to the ultimate judgement of WYAAS.

#### 6.1.4 Site preparation

Prior to the commencement of work on site the archaeological contractor should identify all removable modern material (including modern machinery) which may significantly obscure material requiring an archaeological record, and should contact the developer in order to make arrangements for their removal (if necessary, under archaeological supervision). It is not the intention of this specification that large-scale removal of material of this type should take place with the archaeological contractor's manpower or at that contractor's expense.

## 6.1.5 Documentary research

Prior to the commencement of work on site, the archaeological contractor should undertake a rapid map-regression exercise based on the readily-available map and photographic evidence held by the Leeds Local History Library (Central Library, Municipal Buildings, Calverley Street, Leeds LS1 3AB. Tel. 0113 247 8290) and the Leeds Office of the West Yorkshire Archive Service (Chapeltown Road, Sheepscar, Leeds LS7 3AP tel. 0113-214 5814 leeds@wyjs.org.uk), and a rapid examination of the available 19<sup>th</sup>- and 20<sup>th</sup>-century Trades and Postal directories, the appropriate census returns and all relevant secondary sources. This work is intended to inform

the archaeological recording by providing background information with regard to function and phasing. Please note that this exercise is not intended to be a formal

#### 6.2 Written Record

The archaeologist on site should carefully examine all parts of each building prior to the commencement of the drawn and photographic recording, in order to identify all features relevant to its original use and to obtain an overview of the development of the building and of the site as a whole. As part of this exercise, the archaeologist on site should produce written observations (e.g. on phasing; on building function) sufficient to permit the preparation of a report on the structure.

#### 6.3 Drawn Record

## 6.3.1 Drawings required

The drawn record should comprise:

- a plan of the ground floor of the building (1 drawing)
- a reconstructed plan of the first floor of the building, with reflected truss plan (1 drawing)
- a north-south section through the building, placed to include a typical truss (1 drawing)

Drawings should be made at an appropriate scale (not smaller than 1:100 for plans; not smaller than 1:50 for sections). The structures should be recorded as existing, but a clear distinction should be made on the final drawings between surviving asbuilt features and all material introduced in the structure during the late 20<sup>th</sup>-century.

#### 6.3.2 Provision for Additional Drawings

6.3.2a The recording requirements outlined above are based on a brief inspection of the site by the WY Archaeology Advisory Service. However, detailed examination and analysis of the site by the archaeological contractor may reveal features which merit detailed recording beyond what has been specifically required. In addition to what is requisite to complete the work specified above, the archaeological contractor should tender for a contingency period of one day recording on site (with two days drawing-up time off site – three days in total) in order that features so identified may be adequately recorded. This contingency should be clearly and separately identified in any tender document.

6.3.2b If features requiring additional drawing are identified during the course of work on site, the WY Archaeology Advisory Service should be contacted as soon as possible, and should be provided in writing with a schedule of proposed additional work. A site visit will then be arranged by the WYAAS to examine the features in question and to assess the need to apply the contingency (this visit will usually be combined with a routine monitoring visit). Implementation of the contingency will be at the decision of the West Yorkshire Archaeology Advisory Service, which will be issued in writing, if necessary in retrospect after site discussions.

## 6.3.3 Scope of record

All features of archaeological and architectural interest identified during the process of appraisal should be incorporated into, and clearly identified in, the final drawn record. Typically, items of interest would include:

- all as-built structural elements (including posts, columns, etc)
- truss positions and form

- any evidence for the presence of a kiln; if detected, evidence for firing and functioning of the kiln
- evidence for character and form of malthouse floors (including areas of significant floor wear)
- evidence for original arrangements for transmission of heat, and for ventilation
- position and character of steeping tanks and related features
- evidence for original access into the building and between floors, including original staircase positions
- original doors and windows; any associated shutters or other fittings
- evidence for original hoists/lifts/trapdoors or other lifting mechanisms

but this list should not be treated as exhaustive. The archaeologist on site should also identify and note:

- any significant changes in construction material this is intended to include significant changes in stone/brick type and size
- any blocked, altered or introduced openings
- evidence for phasing, and for historical additions or alterations to the building.

#### 6.3.4 Dimensional accuracy

Dimensional accuracy should accord with the normal requirements of the English Heritage Architecture and Survey Branch (at 1:20, measurements should be accurate to at least 10mm; at 1:50, to at least 20mm; at 1:100, to at least 50mm). Major features such as changes in structural material may be indicated in outline. The recording of individual stones or stone courses is not required unless greater detail is needed in order to adequately represent a particular feature of interest.

#### 6.3.5 Drawing method

The survey may be executed either by hand or by means of reflectorless EDM as appropriate. In accordance with national guidelines<sup>1</sup>, drawings executed on site should be made either on polyester-based film (minimum thickness 150 microns) with polymer-bonded leads of an appropriate thickness and density, or on acid-free or rag paper. If finished drawings are generated by means of CAD or a similar proven graphics package, recorders should ensure that the software employed is sufficiently advanced to provide different line-weight (point-size); this feature should then be used to articulate the depth of the drawings. What is required as an end product of the survey is a well-modelled and clear drawing; ambiguous flat-line drawings should be avoided. Drawing conventions should conform to English Heritage guidelines as laid out in English Heritage 2006, *Understanding Historic Buildings – a guide to good recording practice*, and the WYAAS would recommend that the CAD layering protocol detailed in the same volume (8.3, Table 2) should be adhered to.

#### 6.5 Photographic Record

#### 6.5.1 External photographs

An external photographic record should be made of all elevations of the building, from vantage points as nearly parallel to the elevation being photographed as is possible within the constraints of the site. The contractor should ensure that all

<sup>&</sup>lt;sup>1</sup> English Heritage 2006, Understanding Historic Buildings – a guide to good recording practice, 7.1.1ff

visible elements of each elevation are recorded photographically; this may require photographs from a number of vantage points. A general external photographic record should also be made which includes a number of oblique general views of the building from all sides, showing it in its setting. In addition, a 35mm general colour-slide survey of the building should also be provided (using a variety of wide-angle, medium and long-distance lenses). While it is not necessary to duplicate every black-and-white shot, the colour record should be sufficiently comprehensive to provide a good picture of the form and general appearance of the structure.

## 6.5.2 Internal photographs

A general internal photographic record should be made of the building. General views should be taken of each room or discrete internal space from a sufficient number of vantage points to adequately record the form, general appearance and manner of construction of each area photographed. In areas which are wholly modern in appearance, character and materials, a single shot to record current appearance will suffice.

#### 6.5.3 Detail photographs

In addition, detailed record shots should be made of all individual elements noted in section 6.3.3 above. Elements for which multiple examples exist (e.g. each type of roof truss, column or window frame) may be recorded by means of a single representative illustration. **N.B.** Detail photographs must be taken at medium-to-close range and be framed in such a way as to ensure that the element being photographed clearly constitutes the principal feature of the photograph.

#### 6.5.3 Equipment

General photographs should be taken with a Large Format camera (5" x 4" or 10" x 8") using a monorail tripod, or with a Medium Format camera which has perspective control, using a tripod. The contractor must have proven expertise in this type of work. Any detail photographs of structural elements should if possible be taken with a camera with perspective control. Other detail photographs may be taken with either a Medium Format or a 35mm camera. All detail photographs must contain a graduated photographic scale of appropriate dimensions (measuring tapes and surveying staffs are not considered to be acceptable scales in this context). A 2-metre ranging-rod, discretely positioned, should be included in a selection of general shots, sufficient to independently establish the scale of all elements of the building and its structure.

#### 6.5.5 Film stock

All record photographs to be black and white, using conventional silver-based film only, such as Ilford FP4 or HP5, or Delta 400 Pro (a recent replacement for HP5 in certain film sizes such as 220). Dye-based (chromogenic) films such as Ilford XP2 and Kodak T40CN are unacceptable due to poor archiving qualities. Digital photography is unacceptable due to unproven archiving qualities.

#### 6.5.6 Printing

6.5.6a Record photographs should be printed at a minimum of  $5" \times 4"$ . In addition, a small selection of photographs (the best of the exterior setting shots and interior shots) should be printed at  $10" \times 8"$ . Bracketed shots of identical viewpoints need not be reproduced, but all viewpoints must be represented within the report.

6.5.6b Prints may be executed digitally from scanned versions of the film negatives, and may be manipulated to improve print quality (but **not** in a manner which alters detail or perspective). All digital prints must be made on paper and with inks which are certified against fading or other deterioration for a period of 75 years or more when used in combination. If digital printing is employed, the contractor must supply details of the paper/inks used in writing to the WY Archaeology Advisory Service, with supporting documentation indicating their archival stability/durability. Written confirmation that the materials are acceptable must have been received from the WYAAS prior to the commencement of work on site.

## 6.5.7 Documentation

A photographic register detailing (as a minimum) location, direction and subject of shot must accompany the photographic record; a separate photographic register should be supplied for any colour slides. Position and direction of each photograph should be noted on a copy of the building plan, which should also be marked with a north pointer; separate plans should be annotated for each floor of each building

# 7. Post-Recording Work and Report Preparation

#### 7.1 After completion of fieldwork

Prior to the commencement of any other work on site, the archaeological contractor should arrange a meeting at the offices of the WY Archaeology Advisory Service to present a draft of the 1<sup>st</sup>- stage drawn record (fully labelled and at the scale specified above), a photo-location plan, and photographic contact prints adequately referenced to this plan (material supplied will be returned to the contractor). **N.B.** if full-sized prints or digital versions of contact sheets are supplied for this purpose, they must be accompanied by a sample of the processed negatives. If appropriate, the WY Archaeology Advisory Service will then confirm to Leeds Planning Services that fieldwork has been satisfactorily completed and that other work on site may commence (although discharge of the archaeological condition will not be recommended until a completed copy of the full report and photographic record has been received and approved by the West Yorkshire Archaeology Advisory Service).

## 7.2 Report Preparation

#### 7.2.1 Report format and content

A written report should be produced. This should include:

- an executive summary including dates of fieldwork, name of commissioning body, and a brief summary of the results including details of any significant finds
- an introduction outlining the reasons for the survey
- a brief architectural description of the building presented in a logical manner (as a walk around and through the building, starting with setting, then progressing to all sides of the structure in sequence, and finally to the interior from the ground floor up)
- a discussion placing the building in its local and historical contexts, describing and analysing its development. This analysis should consider the maltings as an integrated system intended to perform a specialised function, with particular attention being given to historical plan form, technical layout and process flow.

Both architectural description and historical/analytical discussion should be fully cross-referenced to the drawn and photographic record, sufficient to illustrate the major features of the site and the major points raised. It is not envisaged that the report is likely to be published, but it should be produced with sufficient care and attention to detail to be of academic use to future researchers. A copy of this specification and a quantified index to the field archive should also be bound into the back of the report. The cover sheet should include a centred eight-figure OS grid reference and the name of the township in which the site is located (Thorner).

## 7.2.2 Report Illustrations

Illustrations should include:

- a location map at a scale sufficient to allow clear identification of the maltings in relation to other buildings in the immediate area
- an overall keyed plan of the site showing the building in relation any related buildings which may have been demolished
- any relevant historic map editions, with the position and extent of the site clearly indicated
- a complete set of site drawings completed to publication standard, at the scale stipulated in Para. 6.3.1 above (unless otherwise agreed in writing by the West Yorkshire Archaeology Advisory Service)
- a complete set of site drawings at a legible scale, on which position and direction of each photograph has been noted
- · any additional illustrations pertinent to the site
- a complete set of good-quality laser copies of <u>all</u> photographs.

The latter should be bound into the report in the same logical sequence employed in the architectural description (Para. 7.2.1 above) and should be appropriately labelled (numbered, and captioned in full). When captioning, contractors should identify the individual photographs by means of a running sequence of numbers (e.g. Plate no. 1; Plate no. 2), and it is this numbering system which should be used in cross-referencing throughout the report and on the photographic plans. However, the relevant original film and frame number should be included in brackets at the end of each caption.

#### 7.3 Report deposition

#### 7.3.1 General considerations

7.3.1a The report should be supplied to the client and identical copies supplied to the West Yorkshire HER, the WY Archive Service and to the National Monuments Record (English Heritage, Kemble Drive, Swindon SN2 2GZ – for the attention of Mike Evans, Head of Archives). A recommendation from WYAAS for discharge of the archaeological condition is dependant upon receipt by WYAAS of a satisfactory report which has been prepared in accordance with this specification. Any comments made by WYAAS in response to the submission of an unsatisfactory report will be taken into account and will result in the reissue of a suitably edited report to all parties, within a timescale which has been agreed with WYAAS.

7.3.1bThe report copy supplied to the West Yorkshire HER should include a complete set of photographic prints (see Para. 7.3.2 below). The finished report should be supplied within eight weeks of completion of all fieldwork, unless otherwise agreed with the West Yorkshire Archaeology Advisory Service. The information

content of the report will become publicly accessible once deposited with the Advisory Service, unless confidentiality is explicitly requested, in which case it will become publicly accessible six months after deposit.

7.3.1c With the permission of the developer, the archaeological contractor are encouraged to consider the deposition of a copy of the report for this site with the appropriate Local History Library.

# 7.3.2 Deposition with WY Archaeology Advisory Service (West Yorkshire Historic Environment Record)

The report copy supplied to the WY Archaeology Advisory Service should also be accompanied by both the photographic negatives and a complete set of labelled photographic prints (mounted in KENRO display pockets or similar, and arranged in such a way that labelling is readily visible) bound in a form which will fit readily into a standard filing cabinet suspension file (not using hard-backed ring-binders). Labelling should be on the *back* of the print, in HB pencil or on applied printed labels and should include:

- film and frame number
- date recorded and photographer's name
- · name and address of building
- · national grid reference
- specific subject of photograph.

Negatives should be supplied in archivally stable mounts (KENRO display pockets or similar), and each page of negatives should be clearly labelled with the following:

- Township name
- · Site name and address
- Date of photographs (month/year)
- · Name of archaeological contractor
- Film number

Colour slides should be mounted, and the mounts suitably marked with — 'Thorner' (the Township name) with 'the Maltings' under, at the top of the slide; grid reference at the bottom; date of photograph at the right hand side of the mount; subject of photograph at the left hand side of the mount. Subject labelling may take the form of a numbered reference to the relevant photographic register. The slides should be supplied to the WY Archaeology Advisory Service in an appropriate, archivally stable slide hanger (for storage in a filing cabinet).

## 7.4 Summary for publication

The attached summary sheet should be completed and submitted to the WY Archaeology Advisory Service for inclusion in the summary of archaeological work in West Yorkshire published on the WYAAS website. During fieldwork monitoring visits WYAAS officers will take digital photographs which may be published on the Advisory Service's website as part of an ongoing strategy to enable public access to information about current fieldwork in the county.

## 7.5 Preparation and deposition of the archive

After the completion of all recording and post-recording work, a fully indexed field archive should be compiled consisting of all primary written documents and drawings, and a set of suitably labelled photographic contact sheets (only). Standards for archive compilation and transfer should conform to those outlined in *Archaeological Archives – a guide to best practice in creation, compilation, transfer and curation* (Archaeological Archives Forum, 2007). The field archive should be deposited with the Leeds Office of the West Yorkshire Archive Service (Chapeltown Road, Sheepscar, Leeds LS7 3AP tel. 0113-214 5814 leeds@wyjs.org.uk), and should be accompanied by a copy of the full report as detailed above. Deposition of the archive should be confirmed in writing to the WY Archaeology Advisory Service.

#### 8 General considerations

## 8.1 Technical queries

Any technical queries arising from this specification should be addressed to the WY Archaeology Advisory Service without delay.

## 8.2 Authorised alterations to specification by contractor

It should be noted that this specification is based upon records available in the West Yorkshire Historic Environment Record and on a brief examination of the site by the West Yorkshire Archaeology Advisory Service. Archaeological contractors submitting tenders should carry out an inspection of the site prior to submission. If, on first visiting the site or at any time during the course of the recording exercise, it appears in the archaeologist's professional judgement that

- i) a part or the whole of the site is not amenable to recording as detailed above, and/or
- ii) an alternative approach may be more appropriate or likely to produce more informative results, and/or
- iii) any features which should be recorded, as having a bearing on the interpretation of the structure, have been omitted from the specification,

then it is expected that the archaeologist will contact the WY Archaeology Advisory Service as a matter of urgency. If contractors have not yet been appointed, any variations which the WY Archaeology Advisory Service considers to be justifiable on archaeological grounds will be incorporated into a revised specification, which will then be re-issued to the developer for redistribution to the tendering contractors. If an appointment has already been made and site work is ongoing, the WY Archaeology Advisory Service will resolve the matter in liaison with the developer and the Local Planning Authority.

## 8.3 Unauthorised alterations to specification by contractor

It is the archaeological contractor's responsibility to ensure that they have obtained the West Yorkshire Archaeology Advisory Service's consent in writing to any variation of the specification prior to the commencement of on-site work or (where applicable) prior to the finalisation of the tender. Unauthorised variations may result in the WY Archaeology Advisory Service being unable to recommend discharge of the archaeological recording condition to the Local Planning Authority and are made solely at the risk of the contractor.

## 8.4 Monitoring

This exercise will be monitored as necessary and practicable by the WY Archaeology Advisory Service in its role as 'curator' of the county's archaeology. The Advisory Service should receive at least one week's notice in writing of the intention to start fieldwork. A copy of the contractor's Risk Assessment should accompany this notification.

## 8.5 Valid period of specification

This specification is valid for a period of one year from date of issue. After that time it may need to be revised to take into account new discoveries, changes in policy or the introduction of new working practices or techniques.

Any queries relating to this specification should be addressed to the WY Archaeology Advisory Service without delay.

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