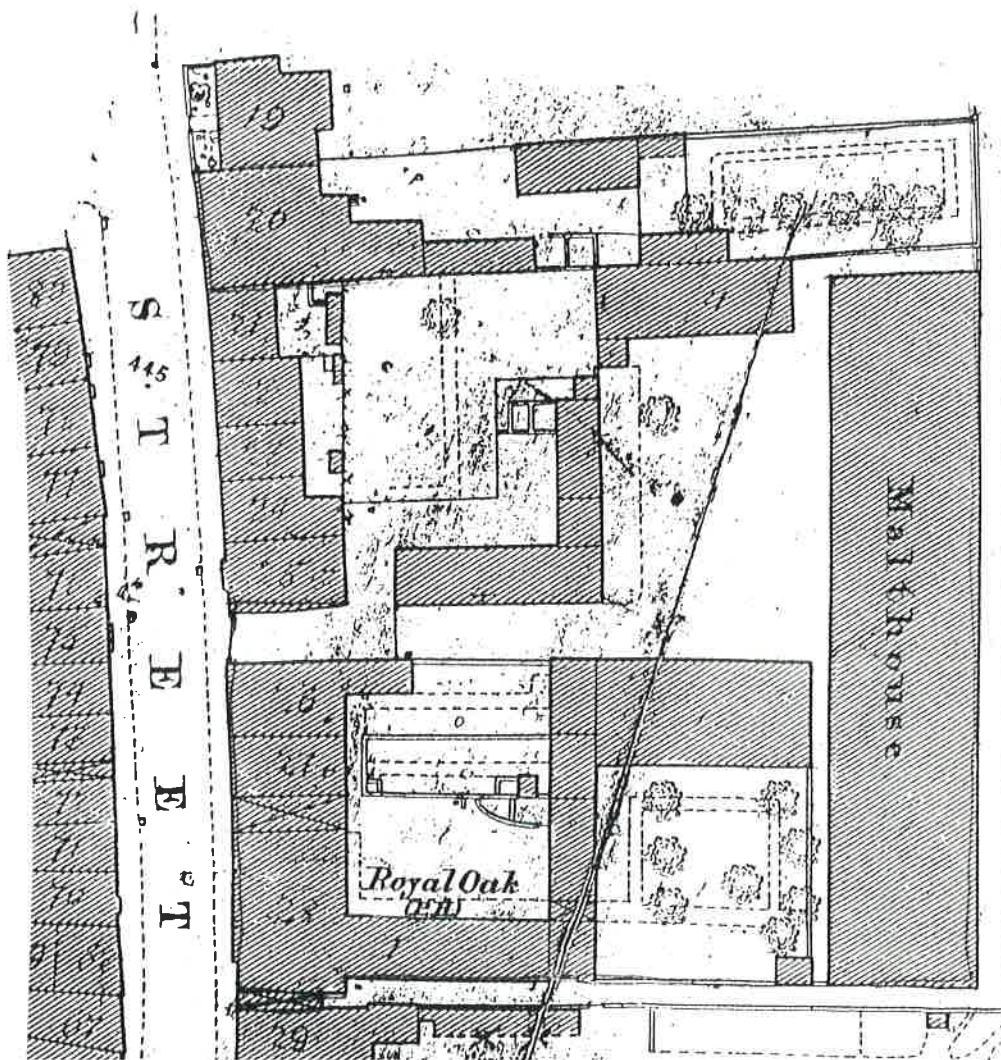


David Traherne Developments Ltd

# Rodwell's, Akeman Street Tring, Hertfordshire

DESK-TOP ARCHAEOLOGICAL ASSESSMENT  
AND BUILDING SURVEY



OXFORD ARCHAEOLOGICAL UNIT  
DECEMBER 1998

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### LIST OF CONTENTS

#### *Summary*

- 1 INTRODUCTION**
- 2 METHODOLOGY**
- 3 BACKGROUND**
- 4 DESK-TOP ARCHAEOLOGICAL ASSESSMENT**
  - 4.1 Introduction
  - 4.2 Past development on the site: map regression exercise
  - 4.3 Archaeological and historical background: a brief summary
  - 4.4 Malting on the site and a short history of the Rodwell's company
  - 4.5 Archaeological potential and impact of the development
- 5 THE MALTHOUSE: BUILDING ASSESSMENT**
  - 5.1 Introduction
  - 5.2 Summary of floor malting process
  - 5.3 Brief description of buildings
  - 5.4 Growing floors
  - 5.5 Steep
  - 5.6 Kiln
  - 5.7 Stowage to north of kiln
  - 5.8 Bottling plant
  - 5.9 Conclusion
  - 5.10 Impact on malthouse of the current development
- 6 27-28 AKEMAN STREET: BUILDING ASSESSMENT**
  - 6.1 Introduction
  - 6.2 Ground floor
  - 6.3 Former passageway
  - 6.4 Cellar
  - 6.5 First floor
  - 6.6 Roof structure
  - 6.7 Eastern projection
  - 6.8 27 Akeman Street
  - 6.9 Conclusion
  - 6.10 Impact on 27/28 Akeman Street of the current development
- 7 CONCLUSION**

#### *Bibliography and sources consulted*

**APPENDIX A** Photographic Register

**APPENDIX B** Known archaeology within 1km Study Area

<b>FIGURE 1</b>	Site location
<b>FIGURE 2</b>	Composite plan of development
<b>FIGURE 3</b>	Detail of Estate Map of Tring in the County of Hertford (1719)
<b>FIGURE 4</b>	Plan of the Parish (based on enclosure map) 1799
<b>FIGURE 5</b>	Plan of certain highways and footways in the parishes of Tring and Wiggington proposed to be stopped up ( <i>c</i> 1840)
<b>FIGURE 6</b>	Map of the estate of James Field (1843)
<b>FIGURE 7</b>	OS 1st edition 1:500 Scale map (1877)
<b>FIGURE 8</b>	OS 1st edition 6 inch map (1884)
<b>FIGURE 9</b>	OS 2nd edition 25 inch map (1897)
<b>FIGURE 10</b>	Tracing of OS 1:1250 Scale map (1897, partially revised 1912)
<b>FIGURE 11</b>	Ordnance Survey 2nd edition revised 25 inch map (1924)
<b>FIGURE 12</b>	OS 1:10,560 scale map (1960)
<b>FIGURE 13</b>	OS 1:2500 Scale map (1984)
<b>FIGURE 14</b>	Site plan
<b>FIGURE 15</b>	Malthouse: ground floor plan
<b>FIGURE 16</b>	Malthouse: first floor plan
<b>FIGURE 17</b>	27/28 Akeman Street: ground floor plan
<b>FIGURE 18</b>	27/28 Akeman Street: first floor plan
<b>FIGURE 19</b>	27/28 Akeman Street: roof plan
<b>FIGURE 20</b>	28 Akeman Street: possible plan of primary buildings

# Rodwell's, Akeman Street, Tring, Hertfordshire

## DESK-TOP ARCHAEOLOGICAL ASSESSMENT AND BUILDING SURVEY

### *Summary*

*An archaeological and building assessment was carried out on a site near the centre of Tring, containing a nineteenth century malthouse and a pair of buildings facing onto Akeman Street, which incorporated the partial remains of older structures, dating to the seventeenth or possibly sixteenth century. This work was supported by a desk-based assessment of documentary and cartographic sources of the area and buildings under consideration. The work was undertaken in advance of building works to inform any possible mitigation strategy.*

## **1 INTRODUCTION**

1.1.1 The Oxford Archaeological Unit (OAU) has been commissioned by David Traherne Developments Ltd to undertake a programme of archaeological desk-based assessment and building assessment at a site close to the centre of Tring, until recently used by Rodwells for the storage and distribution of drinks. This is in response to a planning application to convert the existing buildings to accommodation, including the demolition of several structures.

1.1.2 Due to the known interest of the site, but the uncertainty of the full significance of the buildings, Hertfordshire County Council's Archaeology Office (CAO) has recommended to Dacorum Borough Council that an assessment be made of the buildings and their significance. The assessment will then inform any additional mitigation recording felt to be necessary by the CAO.

## **2 METHODOLOGY**

2.1.1 The fieldwork of the project was divided into two stages. The first was undertaken on 7th and 8th October, before the previous owners had vacated the site, and covered the former malthouse and associated structures. The second stage was to analyse a number of areas of wall within 27/28 Akeman Street, where plaster had been stripped away to expose the structure behind. This was not possible before Rodwells had vacated the site and was undertaken on 16th and 17th November 1998.

2.1.2 The aim of the work was to provide an assessment of the buildings and archaeological potential of the site rather than to provide a full building recording survey. The building assessment was based on a survey of the site which consisted of photographs, drawings and other field notes. Due to the project not being primarily a recording exercise some recording notes and details were taken which have not been included in the descriptive part of this study. A list of the sources consulted in the desk-based survey is included later in this study.

## **3 BACKGROUND**

### **3.1 The site (Figure 1)**

3.1.1 The development site (NGR: SP924 112) is located within Tring, to the south of the town centre, on the east side of Akeman Street.

3.1.2 The roughly square site contains a nineteenth century malthouse, forming the eastern boundary of the site. This is immediately to the west of a narrow passageway, the south end of which continues in a perpendicular direction towards Akeman Street, forming the southern boundary of the site. At the south-west corner of the site, between the passage and the street is number 28 Akeman Street and immediately to the north is number 27. The other buildings facing onto the street, to the front of the site are not contained within the development area. The northern boundary is immediately to the south of a twentieth century road.

## **4 DESK-TOP ARCHAEOLOGICAL ASSESSMENT**

### **4.1 Introduction**

4.1.1 Various documentary and cartographic sources were consulted to provide evidence relating to the site. The results are included in this section but information gathered has also informed and been incorporated into other sections of the report.

#### **Geology of the area of proposed development**

4.1.2 The geology of the area of proposed development is Cretaceous Middle Chalk. This is white chalk with few flints.

#### **Sources Consulted**

4.1.3 Hertfordshire County Council Sites and Monuments Record (SMR) is the primary repository of information on all known archaeology in the area. The Oxford Archaeological Unit (OAU) requested a list of sites and finds within a 1km Study Area surrounding NGR SP 924 112. In addition the following sources were consulted:

- Hertfordshire Environment Department - Listed Buildings in Study Area;
- Hertfordshire Record Office - early maps;
- Hertfordshire Local Studies Library - local history and early photographs
- of Tring and Ordnance Survey (OS) maps;
- Bodleian Library - Ordnance Survey maps.
- A Rodwell's company album containing newspaper cuttings, old photographs and other ephemera

4.1.4 A full list of sources consulted is given at the back of the report. A request was made for any geotechnical data from David Traherne Developments Ltd but no such data had been collected from the site.

### **4.2 Past Development on the site: map regression exercise**

4.2.1 Figure 2 is a rough composite plan of all past development on the site as shown on the maps consulted (1713-1997). The colour codes indicate at which date buildings first appear.

#### **Estate Map of Tring in the County of Hertford. Surveyed by J Colbeck for William Gore Esquire (1719).**

4.2.2 This is the earliest map of the area of proposed development. It shows the site as uniform rectangular plots at the side of Akeman Street. The plots extend from the main road to a path or road along their east side (the path survives today and runs along the east side of the site beside the Electricity Sub-Station). Although individual buildings are depicted on this map,

and despite the plots' similar appearance to burgage plots, no buildings are shown on (or near) the site. The map suggests that the site may have been fields owned by various individuals prior to development of the street frontage along Akeman Street but physical evidence on the site strongly suggests that at least part of the surviving buildings predate this map and that the map must be selective in which buildings it indicates.

#### **Plan of the Parish (based on the enclosure map) (1799)**

- 4.2.3 This map reveals that the town has developed considerably along each of the main roads in the eighty years since the Estate Map of 1719. Street frontage has grown up along the sides of Akeman Street and buildings are shown within the area of proposed development. The west side of the site along Akeman Street has what appears to be a continuous line of properties. It is not possible to determine the exact number of buildings due to the poor quality of the map. A building (or buildings) are also shown on the western half of the southern edge of the site, beside a small lane which is still extant. Two buildings are shown in the centre of the area of proposed development (marked in yellow on Figure 2) and two, possibly three, buildings are shown in the centre/north part of the site. The eastern half of the site later occupied by the Malthouse is undeveloped.

#### **Plan of Certain Highways and Footways in the Parishes of Tring and Wiggington Proposed to be Stopped Up (c.1840)**

- 4.2.4 This is a large scale plan (c.1:10,000 scale) which only shows those buildings that line the sides of the main streets. Three, possibly four, individual buildings are shown along the west side of the area of proposed development (the Akeman Street frontage).

#### **Map of the Estate of James Field (1843)**

- 4.2.5 The Map of the Estate shows the site in detail. The south-west corner (28 Akeman Street) is occupied by the 'Royal Oak Premises'. The Royal Oak is a Public House. Beside it to the north, along Akeman Street are two thin burgage plots each consisting of a building on the street front and a garden to the rear. They are named as 'Victoria Cottage' (No 27) and 'Albert Cottage' (No 26). To the north of this appears to be a small lane off Akeman Street leading to an open yard in the centre of the eastern half of the area of proposed development. The map names property owners (John Brown, Skinner, Parish Officers and Late Rowe) in what may be burgage plots north of the small lane, but does not depict buildings. The eastern and central half of the site appears to have remained undeveloped.

#### **Ordnance Survey (OS) 1st Edition 1:500 Scale Map (1877)**

- 4.2.6 As with many larger towns the Ordnance Survey surveyed the town centre at a scale larger than the standard 25" scale generally used (a OS 1st Edition 25" Map was also published in 1877). The map shows the site in great detail; a large rectangular building named as 'The Malthouse' has appeared on the east side of the open yard (see above paragraph) and several other large buildings have been built in the middle of the proposed development site. The Royal Oak, Victoria Cottage and Albert Cottage to the north are unchanged. A square garden with trees lies between the Malthouse and the Royal Oak.

#### **Ordnance Survey 1st Edition 6" Map (1884)**

- 4.2.7 The scale of this map is too small to be of use. The Malthouse is shown on the map and is named.

**Ordnance Survey 2nd Edition 25" Map (1897)**

4.2.8 No change from the OS 1st Edition 25" Map (1877).

**Ordnance Survey 1:1250 Scale Map (specially enlarged for the Inland Revenue from the revision of 1897, and partially revised 1912)**

4.2.9 No change from the OS 1st Edition 25" Map (1877).

**Ordnance Survey 2nd Edition Revised 25" Map (1924)**

4.2.10 A rectangular building (partitioned at the southern end) has been built in the northern central half of the site (previously an open yard). No other changes from the OS 1st Edition 25" Map (1877).

**Ordnance Survey 1:10,560 Scale Map (1960)**

4.2.11 The scale of this map is too small to be of use. The general layout of the buildings within the area of proposed development appears to have remained unchanged since the OS 2nd Edition Revised 25" Map (1924).

**Ordnance Survey 1:10,000 Scale Map (1980)**

4.2.12 The scale of this map is too small to be of use. The Malthouse is shown as well as the buildings along the street front.

**Ordnance Survey 1:2,500 Scale Map (1982)**

4.2.13 This map shows that the general layout of the buildings within the area of proposed development has radically changed. The addition of two large roofed structures, covering the yard at the centre of the site has resulted in a single large building covering much of the site labelled as 'Depot'. The Royal Oak is unchanged from the layout shown on the Map of the Estate of James Field (1843), but it is not marked as a Public House. The properties along the street front have also remained unchanged since the OS 1st Edition 25" Map (1877).

**Ordnance Survey 1:2,500 Scale Map (1984)**

4.2.14 No change from the OS 1:2500 Scale Map of 1982.

**Ordnance Survey 1:1,250 Scale Map (1997)**

4.2.15 No change from the OS 1:2500 Scale Map of 1982.

4.2.16 Summary:

- The 1719 map shows that the road off which the site is located was one of Tring's main early north-south routes
- The street frontage of the development was well developed by 1799 and incorporated a courtyard to the rear
- 28 Akeman Street is shown as the Royal Oak Public House on each of the maps from 1843 to 1897
- The malthouse is first shown on the 1877 map with a complex of buildings between it and the Royal Oak



### 4.3 Archaeological and historical background: a brief summary

- 4.3.1 Other than a chance find of a Roman coin and Iron Age pottery, c.1km to the north-east of the site, there are no archaeological sites and finds earlier than the medieval period within a 1km Study Area around the proposed development site. This might be explained by the absence of archaeological investigation within the Study Area rather than an absence of past activity, especially considering the presence of Akeman Street Roman road, an important east-west thoroughfare from St. Albans (Verulamium) to Alchester close to the site. Although the address of the proposed development lies on Akeman Street this is a misnomer, being a north-south road perpendicular to the Roman road. There appears to be conflicting information regarding the exact line of the original Akeman Street through Tring because while the County's SMR states that the Roman road is now called Park Street, c 150 m south of the development site, the *Victoria County History* states that the Roman road has developed into Tring High Street, c 150 m north of the site.
- 4.3.2 There is a record of a Saxon manor at Tring. The manor of *Tring* or *Tringe Magna* was held before the Conquest by Engelric. At the time of the Domesday Survey (1086) it was held by Count Eustace of Boulogne, whose daughter and heir Maud married Stephen, later the King of England (VCH II, 282). Maud granted the manor to the abbey of St. Saviour's in Faversham. It was taken out of ecclesiastical hands during the reign of Henry VIII and later granted to various individuals.

### 4.4 Malting on the site and a short history of the Rodwell's company

- 4.4.1 The malthouse at the core of this study is known, from a plaque on the west wall of the building, to have been constructed in 1876 by John Brown of the Brewery Tring. The structure was said to have been designed by Brown, a dominant local figure who lived into his nineties, who had inherited the brewery in 1826, apparently just one year after its founding (SMR 5400). The brewery (SMR 5449) was located c 100 m to the north of the development site off the High Street and closed in c 1900. Brown must have been malting long before the construction of the malthouse in 1876, because he was listed as a maltster (along with auctioneer and brewer) in 1838 (Poole 1985). In 1899 the maltings came into the ownership of Rodwell's, a company established in 1843, who also owned a brewery on the opposite side of Akeman Street to the west of the proposed development area.
- 4.4.2 Rodwells ceased production of beer in the 1920s, deciding to concentrate on soft drink production and bottled beer distribution (Poole, 1985) and it was presumably at this time that the maltings ceased operations and that the several pubs owned by the company were sold. One of the pubs owned and operated by the company was number 28 Akeman Street (the Royal Oak) also covered by this study, and it was probably at this time that the building was converted to the company offices. The building is indicated as a public house on the 1912 Ordnance Survey map but not on the 1924 edition.
- 4.4.3 The 1924 Ordnance Survey map labels the main building on the site as a malthouse, suggesting that at this date the maltings was still in operation but this side of the business is shown to have been abandoned by 1927 by an article in *Town and Country News* on the site. The article highlights the company's production of soft drinks ('ginger stout', 'cream strawberry', 'raspberryade') and also includes several photographs showing the inside of the buildings at this time. The lower growing floors of the malthouse was already shown as being a storage area for bottled beer and soft drinks proving that production of malt had stopped. A bottling plant was also added to the west side of the original buildings and referred to and shown in the article. It seems highly likely that the article was a response to a

recent change in the company's operations and that it was around 1926/7 that the malting was abandoned, and that the bottling plant was constructed.

- 4.4.4 An open shed was added between the malthouse and the bottling plant, to cover the yard, probably in the 1960s. It is known to have been in place before 1975 when a fire destroyed much of the roof of the malthouse. The roof was rebuilt as a flat structure the following year together with a second open-sided shed enlarging the covered yard. Rodwell's invested in new bottling plant in 1981 to replace the old machinery but in 1993 soft drink manufacture was abandoned and the company concentrated on the distribution of alcoholic and soft drinks. Rodwell's are currently in the process of moving from Akeman Street but will continue operations from another site.
- 4.4.5 Another Malthouse, thought to be the oldest in the county (Crook 1967), lies c.100m to the north of the area of proposed development (SMR 5454). This malthouse was worked by Richard Harding in 1663 and continued in use until 1920. It has since been converted into dwellings. Associated with that Malthouse is an early 16th-century former open hall with crosswing (and 17th and 19th century additions).

#### **4.5 Archaeological potential and impact of development**

- 4.5.1 The presence of the Roman Akeman Street may have resulted in stray artefacts being deposited within the development area from the Romano-British and Anglo-Saxon periods but there is little suggestion of pre-Medieval settlement within the area or of a substantial settlement within Tring. The archaeological potential from before the Medieval period is therefore considered to be low. Being located along one of the main roads of the embryonic town of Tring it is likely that the street frontage was built upon relatively early in the town's development and the archaeological potential for this part of the site, from the Medieval period, is therefore relatively high. The 1799 map shows that a courtyard had developed on the site by this date, possibly developing from earlier buildings along the street frontage, and that the archaeological potential for the central area and along the southern boundary of the site is moderately high. There is no evidence of building to the east of the site until the construction of the malthouse and the archaeological potential for this area is low.
- 4.5.2 The standing building assessment has uncovered elements of a building which may date to the sixteenth or seventeenth century and it seems unlikely that these elements replaced earlier structures. This is due to the improbability of the town having already developed to such an extent that space restrictions necessitated demolition and rebuilding. Therefore it is not considered likely that evidence of earlier buildings would be found on the street front, other than those uncovered in the standing building part of this project, especially as the later cellars within the building will have removed any evidence.

#### **Impact on possible archaeological remains of current development proposals**

- 4.5.3 The likely impact on the possible archaeological remains (as distinct from the impact on the existing buildings) of the proposed development would appear to be relatively limited.
- 4.5.4 The only new buildings proposed are two garage structures, presumably with modest foundations, although they both appear to coincide with structures indicated on the 1799 map. The rest of the site, other than the retained buildings, is to be covered over with block paved car parking.

## **Potential for further documentary study**

- 4.5.5 There appears to be some limited potential for further documentary study. All the available maps and principal sources held at the county record office have been consulted but it may be that more in-depth research of documents such as title deeds and business records would prove fruitful. One other avenue which may provide useful information on the buildings facing onto Akeman Street is to locate and inspect any old photographs and post cards of Tring. Both *Tring in Old Picture Postcards* (Bass M and Fowler J, 1993) and *Around Tring* (Bass M and Fowler J, 1993) contain views of Akeman Street from the 1870s which do not appear to show numbers 27 and 28 but is likely that similar views exist which may show the buildings in this study.

## **5 THE MALTHOUSE: BUILDING ASSESSMENT**

### **5.1 Introduction**

- 5.1.1 As with the desk-top assessment the aim of the standing building assessment has been one of interpretation first and recording second. A substantial amount of recording has inevitably been done in order to allow the interpretation but the principal objective is to assess the buildings in terms of their age, survival, former use and significance. An industrial archaeological interpretation of the malthouse is part of this objective. Hertfordshire County Council's brief for the project anticipates that further recording work on the buildings 'would almost certainly be required' prior to the start of building works.
- 5.1.2 The assessment of the malthouse and its associated secondary structures has been broken down into four sections: the block to the south containing the growing floors; the kiln; the stowage to the north of the kiln; the bottling plant and other secondary structures. A short executive summary is included to the front of each section to highlight the main features of interest in each section of the building.

### **5.2 Summary of floor malting process**

- 5.2.1 An appreciation of the floor malting process and its impact on the building is of vital importance in understanding the malthouse and a short summary is therefore included here.
- After harvesting barley is stored in the malthouse (or separate building nearby).
  - The barley is then cleaned
  - The barley is then soaked in a large tank called a steep
  - In some maltings the soaked barley is then measured/assessed in a couch frame. This was only undertaken prior to the repeal of the malt tax in 1880
  - The grain is then spread out on the growing floor(s), 4-8 inches deep and allowed to begin the process of germination. It is turned and gradually moved along the growing floor towards the kiln (in the piece method) or laid in a long strip and left untouched (in the strip method)
  - The partially germinated barley (green malt) is then transferred to the kiln, spread on the kiln floor of perforated ceramic or cast iron tiles (or wedge wire) and heated to stop the germination process.
  - The malt is then removed, cleaned again and stored for at least a month, usually in the malthouse due to freshly kilned malt being unsuitable for brewing

### 5.3 General description

5.3.1 The malthouse is a two storey brick structure (English bond) c 17.2 m long x c 9.8 m wide with stowage and growing floors to either side of a pyramidal roofed kiln. The kiln and stowage roofs are slate covered while the primary pitched roof over the growing floors has been replaced by a modern flat roof. Each of the primary openings are beneath segmental, double-header brick arches with chamfered edges and sloped sills. The main block to the south of the kiln, which contains two growing floors and a storage loft (now lost), is ten bays long with in-filled ground and first floor windows to each bay of the east façade (Plate 8). The façade is further articulated by circular tie-bar plates between each bay. The plate furthest to the south is no longer in-situ due to the removal of the first floor structure to this end of the building following a fire in 1975 but an imprint confirms its former existence. It is significant to note that the bay furthest from the kiln is wider than other nine providing a clue to the internal layout within this area. Each of the first floor openings to the west façade have either been in-filled or enlarged to become a doorway. Five primary openings with secondary glazing survive to the ground floor. The small stowage to the north of the kiln is two bays long with two first floor openings to the east façade with primary cast iron glazing.

### 5.4 Growing floors (G1 and F1)

*Summary: The area to the south of the kiln housed the two growing floors. The lower growing floor retains the primary cast iron columns, five probably primary shutters to openings within the west elevation and evidence indicating that the steep was located to the south end of the lower growing floor. The primary first floor structure also survives. The primary roof to this section has been almost entirely replaced by a modern flat roof but a short section remains adjacent to the kiln.*

5.4.1 Many features confirm that this section would have housed the growing floors such as the large open floors (c 33.5 m x 9 m) and the regular squat openings to either façade. The relatively low floor to ceiling heights also indicate that this block contained the growing floors although the upper growing floor to ceiling height has been raised by the secondary flat roof (see below) and the height of the lower growing floor (2.42 m) is not so low as to cause difficulties in the building's conversion.

5.4.2 **Windows:** Good ventilation is of vital importance while the soaked barley is allowed to germinate and regularly spaced, squat windows (to allow for the low ceiling) are a classic identifying feature of a malting's growing floor (Plate 8). The yard (west) elevation has been altered and obscured by later adjoining buildings but the east elevation clearly confirms that these were the growing floors, incorporating ten former windows to either floor.

5.4.3 The windows appear to have been bricked-up when the building ceased operations as a maltings, or soon after, probably in the 1920s. This conclusion is based mainly on the difficulty of locating the former openings from examining the internal wall. Despite the walls not having been plastered the blocked windows are almost impossible to recognise from inside the building yet from the thick paint on the walls this is clearly not recent work. The fact that every opening was in-filled would appear to suggest that, as would be expected, the windows were not originally glazed. When the function of this section of the building changed from the growing floors of a malthouse to the storage areas of a drinks company, the windows would only have to be in-filled if they were unglazed. There appears to be no obvious reason why the openings would all be in-filled if they had been glazed. Presumably it was easier to brick them up than install glazing, and then rely on sufficient natural light from the opposite elevation.

- 5.4.4 **Shutters:** Each of the five primary openings to the west wall of the lower growing floor contain shutters formed by four horizontal timber members held by two verticals. They are horizontally hung from an arched timber piece filling the head of the opening. In addition to the requirement for good ventilation in a malthouse it was also important to maintain a tight control on the amount of sunlight entering the growing floors to ensure an even spread to the rate of germination across the floor. It is therefore usual to find shutters attached to the windows along growing floors. Those along the east façade (assuming there were some) have been removed due to the windows being in-filled but some remain in-situ to the west facade.
- 5.4.5 We can be almost certain that the shutters are primary features, because of a photograph taken in 1927 shortly after the maltings ceased operations and included in the article in *Town and Country News*. The photograph is of the area which had been the lower growing floor, and is taken from the north-east to show, most clearly, the window in the fifth bay from the south. A shutter, apparently identical to that surviving, is clearly shown propped open from below to reveal an apparently fixed set of angled, timber louvres within the opening with slats set at an angle to direct the air-flow towards the barley on the floor. The louvres were replaced, probably shortly after the photograph was taken, with fixed eight-light glazing, four lights either side of a central ovolo moulded bar. The glazing partially survives.
- 5.4.6 **Vents:** In addition to the former openings, the concern for controlled ventilation is also manifested in the number of small vents around the building, in storage areas as well as in the growing floors. On the east elevation of the growing floor there are two such vents either side of each former opening to the upper growing floor (20 in total) and there is a single vent beneath each of the openings to the lower growing floor. Each of the first floor vents is covered by an ornamental, cast iron vent cover (probably primary) while the ground floor vents are covered by plainer, secondary cast iron covers. It can be assumed that the lower vents are secondary, added when the windows were in-filled, partly because of the more modern design of cover and partly because the corresponding windows to the west elevation, which have not been in-filled do not have a vent beneath.
- 5.4.7 **Structure:** The lower growing floor of the malthouse (G1) appears to remain structurally relatively unaltered from the 1927 photograph and retains much of the primary structure. The first floor is supported by eight pairs of slender, circular cast-iron columns (diameter 14 cm at base 11 cm at head), supporting timber beams (30 cm deep x 17 cm wide) which are bolted to the head of the column (Plate 5). The use of cast iron columns, rather than timber posts, in nineteenth century maltings is typical, not just as a fire precaution but also due to danger of the soaked barley rotting the timber.
- 5.4.8 The joists are at 38 cm centres and are of relatively deep section (22 cm x 6 cm) to support the substantial weight of the soaked, germinating barley upstairs (Plate 5). The joists support partially replaced floorboards above with modern chip-boarding above that, forming the first floor surface. The 1927 photograph shows the columns, as existing together with apparently the same exposed beams and joists and a similar cement rendered floor (typical for the construction of a growing floor).
- 5.4.9 Joist trimming indicates a former hatch, c 1 m<sup>2</sup> (without hinge) within the first floor structure, adjacent to the kiln. This would presumably have allowed the raising of the piece from the lower growing floor to be thrown directly into the kiln. This feature is not visible from above due to the secondary chip boarding covering the floor.
- 5.4.10 **Roof:** The existing flat roof above the upper growing floor (Plates 11/13/14) consists of fibre panelling supported by RSJs, installed after the 1975 fire. To allow the construction of the flat roof, while also creating a more generous head-height within F1, the eaves have been

raised upward by *c* 1 m. This extension is indicated by a horizontal band of modern render. A short section of the primary pitched roof over the growing floors survives, projecting from the perpendicular slope of the adjacent kiln roof to confirm that the roof ridge and eaves height was the same as that surviving above the storage area on the opposite side of the kiln.

- 5.4.11 **Storage loft:** We know that there was formerly a storage loft above the two growing floors, contained in the double pitched roof space and lost in the fire. This is partly based on personal communication with several people still working in the yard who had worked there before the fire. The loft is said to have contained stable type bays for storing different materials with lacquered timber surfaces (pers comm Richard Reed) and this is confirmed by photographs in the local press at the time of the fire. These show the charred remains of the storage loft with full width dividing partitions and only a small, central doorway allowing access through the roof. The reports also state that, as expected, only storage areas were affected and that the areas were used largely for the storage of bulk sugar. A roof structure very similar to that surviving over the stowage is shown, with queen post trusses (allowing for a central walkway), three purlins to each pitch and a slate covering.
- 5.4.12 There is in addition surviving physical evidence relating to the storage loft. A simple timber ladder exists against the west wall, in the northern corner of the block containing the growing floors, rising from the ground floor to the level of the former storage loft, 2.08 m above the first floor level. There is a hatch and joist trimming visible from below, formerly providing access between ground and first floors. This is not visible from above having been floored over with modern chip-boarding. The steps are very simple and they would not have been the main access to the storage loft. During the field work a surviving employee referred to a staircase up from the first floor to the loft against the southern wall of the malthouse, where the section of floor was destroyed as part of the fire and not replaced. This probably explains the non-standard length of bay 10.
- 5.4.13 **Steep:** Having been stored in the malthouse after harvesting and then cleaned, the barley is soaked in a tank called a steep to allow it to absorb moisture. This may take between 60-72 hours, during which time the water is normally changed. In most maltings the steep is located on the lower growing floor at the opposite end to the kiln, although there are many variations to the basic type and in some the steep can be adjacent to the kiln. Early tanks were generally stone lined but by the second half of the nineteenth century, when this malthouse was constructed, it would be usual for the steep to be constructed of brick and probably with a cement render to the inner surfaces.
- 5.4.14 The steep in this malthouse does not survive but there is evidence to suggest that it was in the most likely and logical position, at the south end of the lower growing floor. At this end of the building, there is a horizontal rendered strip against the internal face of the southern gable end, adjacent to the ground (Plate 12). The rectangular strip is 73 cm tall x 2 cm deep x 6.66 m long and originates in the eastern corner of the building. There is also a similar rendered strip, of the same height and depth, adjoining along the eastern wall. It is *c* 2.22 m long and the two strips appear strongly to be the rear and side walls of a former tank.
- 5.4.15 There are also several imprints in the floor which may indicate the former steep walls, although they do not conclusively concur with the rendered strips along the walls. There is a slight but clear slope in the floor, *c* 40 cm wide, orientated north-south from the point on the south wall at which the rendered strip terminates. The floor height within the suspected steep is *c* 2 cm lower than on the opposite side of the suspected former wall. This line fits clearly with the render on the wall to indicate the length of the steep but the width is less obvious. There is a perpendicular imprint, apparently of a 40 cm wide wall, from the east wall of the malthouse to the north-south wall of the steep. The slight doubt is that the east-west imprint on the floor terminates slightly within the render strip on the east wall of the building, rather than immediately outside it as at the opposite corner of the suspected steep on the south wall.

There is a further east-west imprint on the floor, from the north-south mark to the east wall, suggesting a former wall 28 cm wide. This may indicate the former wall of the steep, suggesting a tank 4.4 m wide, although the rendered strip does not extend as far as this further wall.

5.4.16 **Couch frame:** Having been soaked in the steep the next stage in the maltings process, prior the later nineteenth century, was generally couching. This was where the soaked barley would be heaped in a couch frame and measured for tax purposes. The couch frame would be located adjacent to the steep and would generally consist of four corner posts supporting three fixed boarded sides and a fourth of removable slats. When the tax man had visited and measured the barley the fourth side was removed and the grain spread over the growing floor. However, the malt tax, which required this operation was repealed in 1880, four years after the construction of this malthouse. The couch frame may then have been removed although couching continued in some maltings due to the beneficial effect of heaping the grain and encouraging the start of germination. No clear evidence exists of a couch frame in this malthouse but it would have been adjacent to the steep and may be indicated by the imprints on the floor.

## 5.5 Kiln (Plate 7, 15, 16)

*Summary: No visible evidence survives of the furnace or the drying floor but the kiln retains its primary pyramid-shaped roof together with a pair of primary dormer openings to the west and east sides of the roof. The plastered inner lining to the kiln roof has been recently removed. Evidence suggests that the furnace was at a level beneath the existing ground floor surface and part of its structure may survive in-situ.*

5.5.1 **Kiln roof:** The former location of the kiln is made immediately apparent when viewing the building externally by the slate covered, pyramid shaped roof approximately at the building's two-third point, towards the north. The kiln is c 9.1 m x 7.35 m (at the existing first floor level) and the roof sweeps down on the east side to an eaves height c 70 cm below the eaves of the adjacent sections of building. The corresponding section of kiln wall to the west side has been raised to the adjacent eaves level, with a clearly secondary brick parapet wall thus hiding the primary eaves. When the production of malt ceased the kiln was incorporated into the rest of the building and used for general storage, with the removal of the kiln base and the insertion of a conventional first floor to replace the drying floor.

5.5.2 When the main field work for this assessment was undertaken the inner lining of the kiln was covered with hardboard (including a suspended ceiling) with only a few small sections removed to indicate the surface and structure beneath. The small areas which were exposed revealed that the kiln roof was lined with lath and plaster. When the second stage of the investigation was undertaken, primarily assessing the buildings on Akeman Street, the kiln lining had been removed which allowed a very brief visual inspection of the exposed timbers. Both the plastered surface, and the subsequently exposed timber rafters (7 cm x 5 cm @ 38 centres) were smoke stained, possibly partly resulting from the use of the kiln but probably principally due to the 1975 fire. The construction and form of the roof of the kiln above F2 is very typical for a malthouse. and all the indications are that it is the primary structure.

5.5.3 **Roof dormers:** A pair of dormer openings exist within the roof structure to east and west slopes, located c 2.4 m above the existing floor level and c 1.7 m high x 1.5 m wide (Plate 7/13/14). Each one is covered with vertical weatherboarding to the front with flashing to sides. Directly beneath each dormers is a small timber framed window, between eaves and first floor level, consisting of two casements with four square lights each (Plate 15). The

existence of such dormers is unusual, although the OAU has recently noted similar features on another malthouse at Abingdon Vineyard. The most likely interpretation is that they were opened after kilning to accelerate the cooling of the malt. The possibility that they were used to directly unload the kiln, which would allow the storage of malt on other sites or buildings, is unlikely due to their high level, although this would have some logic due to the limited space available for storage within the malthouse.

- 5.5.4 **Cowl:** Among the newspaper cuttings within the Rodwell's Company album were photographs immediately after the fire showing the charred roof above the former growing floors and the upstanding cowl above the kiln. The cowl appears to have been square on plan, with four vertical louvred sides immediately above the existing roof and below an open-topped pyramid shaped central section. A small, overhanging pyramid roof is raised above this opening to prevent rain entering the kiln.
- 5.5.5 **Kiln first floor (F2):** There are two centrally located first floor doorways within the north and south walls of the kiln at first floor level. That to the south is beneath a timber lintel and that to the north is beneath a modern RSJ. There are two blocked openings (98 cm wide) either side of the doorway to the south, formerly linking the kiln with the upper growing floor (Plate 1). Each former opening is suggested by a double header brick segmental arch within the wall and confirmed by butt joints beneath either side of each arch. The openings were presumably for loading the kiln with green malt and their location would appear to confirm that the drying floor (within the kiln) was roughly at the same height as the existing floor.
- 5.5.6 **Kiln ground floor (G2):** The area formerly housing the kiln base has been radically altered since the malting operations ceased. There is no surviving evidence of the kiln base, the floor having been covered over with a cement surface, and the west wall has been completely removed to be replaced by a single central pier and steel lintel. This has effectively linked the covered yard with the area of the former kiln base. The inserted first floor joists (15 cm deep) are supported by three east-west RSJs and one north-south RSJ. Due to the removal of the west wall the RSJs are supported to this side by iron straps suspended from the lintel forming the opening. There is a single central supporting brick pillar (58 cm x 46 cm) within the area of the former kiln and a former hatch (c 1 m x 1 m) in the secondary first floor structure, towards the south-west corner.
- 5.5.7 Evidence strongly suggests that the kiln floor and furnace were c 1 m beneath the present ground floor level, at a similar height to the floor of the coal cellars (see 5.6.5). It would be very unlikely that coal would be dropped down into this cellar for storage only to then be lifted up to a furnace at the existing ground floor. The sunken furnace would also fit much more logically with the present small ground floor to first floor height. If a brick (?) furnace was set upon the existing ground floor and a timber frame constructed radiating from this base to the first floor drying floor, the angle of the frame would have been too shallow to have been structurally sound. The top of the base must have been at a similar height, to the existing ground floor surface.
- 5.5.8 There must have been an opening/openings between the coal cellar (G3) and the furnace (G2) to allow the transfer of coal and there is some evidence of this. No openings were apparent on the north side of the wall, within G3, possibly due to the dark conditions and the wall having been thoroughly painted over. A recess, possibly suggesting the upper half of a doorway was however visible from the furnace room (G2).
- 5.5.9 An apparently primary doorway also exists between the lower growing floor (G1) and the furnace, again at the western end of the wall. That this door is primary is based on its timber lintel contrasting with the steel lintel above the secondary doorway at the centre of this wall.



The doorway would presumably have led to a set of stairs along the west wall leading down into the kiln area.

## 5.6 Stowage to north of kiln (F4)

*Summary: The stowage retains a sunken primary coal cellar adjacent to the furnace, a primary first floor into which the kiln would have been unloaded and the primary roof. Two primary cast iron framed windows survive to the east façade, together with elaborate, apparently primary, cast iron vent covers.*

- 5.6.1 The small stowage to the north of the kiln is two storeys tall with a sunken half-basement for the storage of fuel and first floor was for the storage of kilned malt. Due to the unsuitability of freshly kilned malt for brewing, the malt had to be stored for about a month and the small stowage area in this malthouse suggests that much of the kilned malt was stored in a separate building. It would not have been practical to use the larger storage loft above the growing floors for the storage of malt due to the kiln dividing the two areas (F4 and the storage loft). The size of the storage area is normal for a floor maltings such as this, owned by a local brewery with other structures within the town where the majority of the malt would be stored. We know from the 1877 map that the north end of the stowage (now adjoining the modern extension) was the end of the primary building and that the modern extension did not simply replace another building.
- 5.6.2 **Windows:** The only window openings to the east façade are two primary cast iron framed windows at the first floor each with twelve small glazing lights (Plate 7). The small-paned cast iron framed glazing contrasts with the remaining timber framed windows to the growing floors, although all the openings share the same lintel and sill details. As discussed earlier this is because it is believed that the windows to the growing floors had fixed louvres with shutters and were not glazed, clearly demonstrating the contrasting uses of the two sections. Also creating a distinction between the two areas are the pair of more elaborate cast iron vent covers either side of each of the first floor windows (four vents in total). Both types of vent cover appear old enough to be primary.
- 5.6.3 **Roof:** The roof to this section is primary and almost certainly the same design as that formerly above the growing floors, shown of the press photographs following the fire. There is a single soft-wood queen-post truss to the section of primary roof over the stowage, with iron ties beneath each queen-post, supporting three purlins to either pitch beneath timber boarding. The tie-beam rests on a timber wall plate (Plate 2). There is an apparently primary single skylight to the west pitch, with a central iron bar. It is believed that the same queen-post detail was used in the storage loft over the growing floors, as the design eases the movement of materials between bays.
- 5.6.4 **First floor:** The upper room in the stowage (F3) is reached externally by a timber staircase rising from the yard, with timber board panelling to south side, now enclosed by later full height modern panelling to create a stairwell. The staircase appears to probably be primary due to the double header brick segmental arch over the external entrance to it. The doorway must always have led to a staircase because adjacent to it there is a separate doorway (again with segmental arch) leading down into the cellar behind both entrances.
- 5.6.5 **Coal cellars (G3/4):** On the ground floor to the north of the former kiln furnace are two narrow brick lined rooms presumably originally for the storage of fuel for the adjacent kiln and more recently used as storage for bottled drinks. The floor of each room is set at a level beneath ground floor level and they are reached through immediately adjacent doorways from the western courtyard via sets of six steps. The outer room (G4) is c 9.5 m long and is wedge shaped, varying in width from about 2.7 to 3.1 m while the room adjacent to the kiln

(G3) is the same length and c 1.7 m wide. G3 has a brick paved floor which is 1.1 m below the existing floor level within the kiln (G2) while the floor within G4 is 88 cm below G2 and is formed of small stone blocks. The two spaces are linked by a central opening created by a rusty RSJ and two small (42 cm wide x 82 cm tall) low level openings either side of it with brick arch lintels.

- 5.6.6 The only two openings to the outside from the coal cellars are within the original gable end to the north, now enclosed by the modern extension. Each opening, through which coal would have been poured for storage, measures 79 cm x 95 cm and contains a stone sill projecting beyond the modern brick in-filling which is flush with the outer face of the wall and was apparently added at the same time as the extension. A pair of brick arches within this outer wall indicate the former existence of the openings. A timber board door, flush with the inner face of the wall, remains in-situ to each opening with a smaller opening formed within the door. This opening is covered internally by an iron hatch, supported by a pair of iron runners and raised by a handle. This smaller opening was presumably for ventilation because the inner face is covered by an iron grill of vertical bars.
- 5.6.7 The coal cellars were probably used for storing anthracite. This was the fuel most commonly used in such maltings due to the material's low smoke emissions.
- 5.6.8 The coal cellars are clearly primary, shown by the openings to the north wall, the curious and awkward mid-basement level and also by each of the two doorways within the west façade which have identical brick segmental arches to those found elsewhere in the primary structure. Also adjacent to these doorways is a third door beneath segmental brick arch accessing a timber staircase which leads to the first floor stowage. The horizontal trace of roof flashing can be seen above each of these three doors suggesting that before the existing roof covering over the yard was added there was a small lean-to located at this point.

## 5.7 Bottling plant and other structures (Plate 6, 9)

*Summary: The building which housed the bottling plant (no machinery in-situ) was constructed in the 1920s and appears to have possibly incorporated the cast iron columns from an previous structure.*

- 5.7.1 The bottling plant(G6/F5) was housed in a building adjoining the west side of the malthouse, added in the 1920s when the company appears to have simultaneously abandoned malting and begun bottling soft drinks. The plant is highlighted in an article in *Town and Country News* from July 1927 and it is logical to assume that the article was a response to a recent opening of the plant.
- 5.7.2 **Description:** The structure is essentially single storey with a small, central first floor room (F5: the syrup room) which is about half the length and half the width of the ground floor. The three ground floor walls are of brick (Flemish bond) and the structure is given the typical appearance of an early/mid-twentieth century workshop by the large metal framed windows. There are four windows to the south façade, each with 24 lights and three similar windows to the north wall, together with two doorways. The light weight first floor is clad in modern asbestos panels.
- 5.7.3 **Ground floor:** The ground floor is a single, open-plan space with two main iron/steel beams (north-south) supported by two cast iron columns (14 cm diameter). Timber bearers have been bolted to either side of the main RSJ supporting the first floor joists. A secondary timber post has been added to the west of the primary columns supporting a secondary steel beam (east-west). A photograph included in the *Town and Country News* article confirms

that this post is secondary and that originally there were three cast iron, circular columns with the third between the brick side piers, to the east of the existing post. In contrast to the low floor-to-ceiling heights of the growing floors the exposed joists within the bottling plant are 3.56 m above the concrete floor.

- 5.7.4 The northern half of the room is additionally lit by a secondary sky light. This is confirmed to be secondary by the photograph in the 1927 article which shows a steep north-south staircase rising to the small first floor syrup room. The original staircase has been replaced by a clearly secondary iron staircase against the west wall of the malthouse. This structure rises to a similarly constructed east-west walkway from a first floor opening created in the malthouse to the syrup room.
- 5.7.5 The room is currently used for storage but there are many marks and imprints on the concrete floor indicating the former layout of the bottling machinery. The original machinery is thought to have been installed in the mid-1920s, the article referring to a labelling machine, the filler and the production line. The photograph accompanying the article suggests that the machines were generally orientated north-south and, as might be expected, there were sets of rollers to transfer bottles along the production line. A new set of machinery is known to have been installed in 1981 (*Soft Drinks*, Jan 1981) and removed in 1993 when the company abandoned bottling on the site to concentrate on distribution. A closer examination of the floor markings may provide an indication of the layout of the machinery.
- 5.7.6 The tall circular cast iron columns, similar in design to the shorter columns within the malthouse, are untypical for a building constructed in the 1920s suggesting that the existing structure may represent the major rebuilding of an older structure. This is partially supported by the 1877 OS map which shows a building close to the footprint of the existing bottling plant, detached from the malthouse. The former building projects from the malthouse approximately the same distance as the bottling plant and its northern boundary is roughly in line with that existing but the building on the map is about half the width of the current structure. The existing cast iron columns are therefore approximately at the south wall of the previous structure, suggesting that they may have been part of a previous open-sided structure, which would have faced onto the garden to the rear of the Royal Oak Pub. The irregular spacing of the bays in the existing building also corresponds to the detached building shown on the map with a wider bay adjacent to the malthouse. It is not possible to undertake further analysis of the bottling plant to confirm whether the columns are from a previous structure and to determine whether other elements remain because following the fieldwork for this project the structure was demolished.
- 5.7.7 **First floor (F5):** The small first floor structure consists of a single truss (north-south) supporting a gabled roof. The truss is formed by right angled, cast iron members bolted together, with the outer ends of the truss attached to the central point of the east and west walls by horizontal iron bracing members. The ceiling is of tongue and groove boarding above the truss and the inner face of the walls are panelled. The name of the syrup room, together with its curious form perched on top of the bottling plant, are clearly indications of the rooms former function. It is logical to assume that tanks were stored upstairs which contained the soft drinks to be bottled, or the raw materials to create the drinks, and that this then fed down to the bottling machinery on the ground floor.
- 5.7.8 **Modern extension (G5/F4):** A modern extension has been added to the north of the original malthouse with concrete block to the inner face of the side and end walls with external brick facing to give a more united appearance with the older brick. The roof is also designed to blend with the external appearance of the existing building, sharing the same roof line and eaves design. The roof structure consists of seventeen light weight soft-wood trusses suggesting that it was built in the last thirty years. Similarly to the rest of the complex, the structure was used to store bottled and canned drinks prior to distribution.

5.7.9 **Covered yard:** The inner yard, enclosed on two sides by the malthouse and the bottling plant, was roofed over with a mid-twentieth century shed (1950/60s). The asbestos panelled double pitched roof is supported by seven cast-iron, light weight trusses. A second, similarly sized area to the west was roofed over in 1976 with a seven truss portal frame open to the west and south. The roof over this section is again of corrugated asbestos with several translucent panels.

## 5.8 Interpretation

5.8.1 Interpretation of the malthouse and the identification of the main elements of the structure is relatively straight-forward. Production of malt was only undertaken on this site between c 1876 and c 1920-7 and there does not appear to have been any major changes in the maltings operation during this period, which could potentially have clouded the interpretation. Many of the principal elements have been lost, such as the kiln, the drying floor, the steep and the storage loft but sufficient evidence of them remains to allow a reasonable understanding of the building and its operation.

5.8.2 The first stage of the malting process is the storage of barley and it is assumed that this was largely within the now destroyed storage loft above the growing floors. The next stage was steeping which was undertaken in the former tank at the south end of the ground floor. The soaked barley would then have been heaped in an adjacent couch frame (prior to 1880) and then spread over each of the growing floors. Having been gradually transferred along the growing floors the green malt would be thrown onto the drying floor of the kiln, that from the lower growing floor having first been hoisted through a hatch. After kilning the malt would be unloaded to allow it to be cleaned and dressed prior to storage. This would normally occur within the building. Here the stowage to the north of the kiln is rather small but this is not untypical. It is possible that this stowage represents enough malted barley for 1 months brewing.

5.8.3 It is useful to compare the malthouse with similar structures by attempting to place it within the typology of the buildings of the floor malting industry as generated by Amber Patrick (*Industrial Archaeology Review* Spring 1996). Through determining the layout of the malthouse and the location of its key elements (steep, kiln, growing floors, storage) it is possible to divide malthouses into specific groups or types, known as the Ware Pattern, the Newark Pattern, the Two Floor Pattern, the Multi-storey Pattern and the Hybrid Pattern. Although the malthouse at Tring does not fit completely into one of the types it is similar to a Hybrid Ware-Multi-storey, which is unsurprising due to Ware also being within Hertfordshire.

5.8.4 Although the malthouse is the main building of Industrial Archaeological interest at the site the significance of the bottling plant, added in the early twentieth century and representing the manufacturing industry into which Rodwell's moved, should also be noted. This appears to have incorporated a structure contemporary with the malthouse but this has now been demolished.

5.8.5 For a further assessment of the industrial buildings, particularly of their significance and importance see section 7.0 the overall project conclusion.

## 5.9 Impact on Malthouse of current development proposals

5.9.1 The current development proposes to retain the malthouse by converting it into eleven housing units and to create an open space between the malthouse and 27/28 Akeman Street

by demolishing the bottling plant and the two open sheds (some demolition already undertaken). The bottling plant is of some limited industrial archaeological interest containing evidence of the machinery of Rodwells' bottling plant and possible evidence (the columns) that the building may have been constructed from a building contemporary with the malthouse. Of lesser interest are the two sheds: the mid-twentieth century roof between the malthouse and the bottling plant and the later portal shed to the west, towards Akeman Street, erected in 1976.

- 5.9.2 To allow its conversion the impact on the malthouse will inevitably be substantial. The internal arrangement, particularly the open growing floors, will be lost to create the segmented housing units, each unit consisting of two bays of the building. Every other pair of cast iron columns will be lost, to be replaced by party walls between houses. The pairs of columns retained will be free-standing within each living/dining room to form a feature of the building's previous form.
- 5.9.3 Externally the impact will also be relatively substantial where many new features will be added to make the conversion of the building more practical. Some of these alterations will be re-instatements of previous features, most obviously the line of the pitched roof over the two growing floors to match the primary roof over the stowage. Several blocked openings are also to be re-opened to partially restore the building's original form, such as the door to the west wall of the lower growing floor, immediately adjacent to the kiln, and each of the windows to the east façade of the two growing floors.
- 5.9.4 The west façade, which has already been substantially altered by later developments, will be further amended with small extensions to most housing unit at ground floor level and new front doors to each house. The east façade will be less altered due to it facing onto a public footpath, thus preventing projections, and the only significant alteration will be the re-opening of each of the growing floor windows (mentioned above).
- 5.9.5 Internally the kiln has already lost its main features (the furnace and the drying floor) and its original form will be further lost by a central east-west wall dividing the space into two units. It is believed that the structure of the kiln roof will be retained if it is found to be structurally sound. The west wall of the kiln (ground floor) has already been removed in a previous development and this side will be slightly extended with the lowering of the roof line. The main external alteration to the kiln will be the removal of each of the existing dormers (which would have been located on the central dividing line between units) and their replacement with wider modern dormer windows (to the west roof slope) to increase the light into each first floor room.
- 5.9.6 Larger scale alterations will be made to the secondary (mid-twentieth century) extension to the north of the malthouse. The ground floor of this part of the building will extend to the west, beneath a catslide roof, large ground floor windows will be inserted together with roof dormers.
- 5.9.7 In general the impact of the proposed development on the malthouse and associated buildings will be substantial, to allow their conversion, but the development shows sensitivity to the nature of the building and does attempt to minimise this impact, for example by utilising existing openings, or re-opening blocked primary openings where possible. Externally the building's visual impact will also be enhanced by the re-instatement of the pitched roof over the growing floors.

## 6 27-28 AKEMAN STREET

*Summary:* Number 28 Akeman Street consists of an eighteenth/nineteenth century shell constructed around two or three older structures possibly dating from the late sixteenth and late seventeenth centuries. Number 27 is almost certainly of mid- to late-nineteenth century date, replacing a demolished previous structure.

### 6.1 Introduction

6.1.1 The documentary and cartographic evidence can do little more than to conclusively show that there were buildings on the site at the turn of the nineteenth century and it is therefore necessary to rely almost entirely on the physical inspection to gain clues as to the structure's age and previous form. To allow this a number of the building's internal surfaces were stripped out, in areas considered to have the greatest potential for significant features. It was also possible to inspect the roof structure through loft hatches.

### 6.2 General description

6.2.1 Numbers 27 and 28 Akeman Street are historically separate buildings, but most recently have been a single structure, acting as the Rodwell's company offices. The two properties are divided on the ground floor by a recently blocked passageway between Akeman Street and the rear courtyard. The shell of the two storey structure appears to be of early- to mid-nineteenth century date, judging by the brick facades and relatively large paned windows. The building is five bays wide to number 28 with a single bay to 27 and the section of the street (west) elevation facing number 28 has been covered by pebble-dash. There is a curved kink in this elevation between the first and second bays from the south, with slightly differently angled facades to each side.

6.2.2 The street (west) elevation (Plate 18) contains four timber framed windows to the ground floor of number 28, three probably dating from the early-twentieth century with glazed louvres to upper section and a sash probably dating from the early-nineteenth century. The ground floor window to number 28 is almost certainly primary, dating to the late-nineteenth century. The three first floor windows to the southern half of the street elevation have small panes and are probably of early nineteenth century date, while the two to the north are later, probably late-nineteenth century. The elevation has pebble-dash covering to number 28 with exposed brick to 27. The brick rear elevation (Plate 17) has three ground floor and two first floor timber framed windows, all apparently of a late nineteenth century date. The roof is covered with modern tiles to rear with slates to front and has an unusual line, strongly suggesting the building's phased development. Of particular interest is the central section, above the northern half of number 28, which has sharply different angles to the two slopes of its pitched roof.

### 6.3 Ground floor

*Summary:* Evidence within the ground floor of 28 Akeman Street suggests that the building was formerly two structurally distinct buildings either side of the central bay within G4. The northern building appears to have been stepped back from the existing street elevation by c 2.5 m and the street elevation of the southern building appears to have possibly been on a slightly different line to that existing. The ground floor of 28 Akeman Street retains several elements of the primary structure to the south of the structural break, such as the main beam along the spine, the beam to the street elevation, a post enclosed by a secondary chimney breast and floor joists. Comparison of the joists above the former passageway (G3) offer the clearest evidence that the building to the north was formerly substantially narrower than that existing.

- 6.3.1 The ground floor of 28 Akeman Street contains six main rooms and five small service rooms (stores, WCs etc). Much of the internal plaster has been removed to expose brickwork of a rough quality but regularly sized (eg c 22 x 6.5 x 11 cm) and almost certainly of nineteenth century date. The mortar is relatively soft.
- 6.3.2 **Joists within G4:** The joists to the south of the main east-west cross-beam supporting the first floor are older than those to the north and support a first floor level which appears from beneath to be c 15 cm lower than to the north. The first floor has clearly been raised to the south because in fact the difference in level is only c 3 cm. The older softwood joists are squatter in section (eg 10 cm x 10 cm) than the later softwood joists to the north (15 x 6 cm) and they are supported to the west by a timber beam, inset by c 0.7 m from the existing brick façade. This beam appears to possibly continue along the slightly different line of the stepped back section of the existing façade towards the south end. These joists are housed within the beam but are provided with additional support by small hand made iron spikes with a long flattened head. The main body of each spike is hammered into the beam while the flattened head has three small holes through which nails are driven into each joist.
- 6.3.3 **Primary frame within G4:** The exact age of this beam is unclear and any possible evidence of vertical posts to its underside is obscured by a later board beneath the beam. The beam must pre-date the existing street façade because there would clearly be no structural need for a beam at this point with a structural brick wall alongside it. In contrast there is no corresponding continuation of this north-south beam to the north of the cross beam and the joists here are supported by the external brick wall. This section of floor is presumably contemporary with the brick facade. Lath marks of the recently removed plaster ceiling are visible on the underside of both areas of joists. The softwood floor boards above could be of a similar date but they are of differing sizes, those to the north of the cross-beam being 22 cm wide compared to those to the south which are 13 cm wide.
- 6.3.4 An apparently primary softwood post exists at the eastern end of the cross-beam spanning G4. This post has been enclosed and made redundant by a secondary pier and fireplace. To the south of this post is another apparently primary, chamfered beam (25 cm tall x 27 cm wide) which spans the opening between G4 and G9. This formerly terminated at a (now missing) post, the site of which is indicated by mortice in east-west beam. There is a centrally located cut out section within this north-south beam, 8 cm deep x 1.59 m, with one square end and one angled end. This cut was presumably to allow a slightly greater head height through a doorway between rooms. A pair of modern RSJs have been inserted to either side of this beam, from the brick fireplace/pier to the external southern wall.
- 6.3.5 A beam extends west from the former post. This beam is composed of two pieces of timber jointed end to end with abutting stepped ends, the mirror image of each other. Circular peg holes suggest a former vertical post located about half way between the removed post and the wall facing the street. There are traces of other verticals once set beneath this beam. Another beam extends to the south of the post mentioned above, along the spine of the building and between a pair of RSJs, continuing over the external passageway. This beam is largely covered at ground floor level but the lifting of several first floor boards allowed an inspection from above (Plate 27; see 6.5.5).
- 6.3.6 Another distinction between the two sections either side of the main east-west beam within G4, although not necessarily evidence of the two sections being structurally distinct or of different dates, is that the secondary cellar is present only beneath the section to the south. The ground floor in the northern half of G4 is solid and tile covered. Examination of the ground floor joists over the cellar beneath the southern half, shows that all the joists within this area (above the cellar) are modern.

- 6.3.7 **G7, 8, 9:** The only section of the ground floor in which the underside of the first floor joists do not show evidence of laths is to the east within G7, G8 and G9. Recent removal of the plasterboard ceiling has exposed squat, black joists and a plastered ceiling held by laths between the joists. The joists lie in an east-west direction and continue up to a parallel black beam (18 cm x 18 cm) adjacent to the north wall of G7.
- 6.3.8 **Fireplaces:** There are two fireplaces in the ground floor rooms G4 and G5. These are clearly secondary, probably early nineteenth century. The fireplace/chimney breast in G4 encloses the primary post mentioned in 6.3.4. The fireplaces are each formed of red, regular machine-made bricks with a single brick thick segmental arch supported by an arched cast iron lintel (5 cm thick). They are remarkably narrow structures, the opening of that within G4 being 34 cm deep and the full structure only 58 cm deep, which minimises their effect on the ground floor plan. The flue is therefore necessarily almost vertical above the narrow fireplace. There are marks on the northern wall of G7 (the southern face of the chimney) to tentatively suggest that there was also a fireplace within this room, utilising the stack.
- 6.3.9 **Lean-to:** A small lean-to has been added to the south-east corner of the building, at the junction between the modern eastern projection and the section of first floor extending over the alleyway accessing Akeman Street. The roof timbers are of a significant age, possibly eighteenth century judging from their hand-sawn appearance.
- 6.3.10 **Former passageway (G3):** G3 was until recently a passageway dividing 27 from 28 Akeman Street which has been blocked with a brick wall to the west elevation and a concrete block wall inset by c 2.6 m from the east. The brick wall is shown to be secondary by the butts to the side walls of the passage, the stretcher bond (non-structural) and being set beneath a timber lintel. A straight joint within the north wall of the passage, directly beneath the north-south principal joist, suggests that the two halves of the room are structurally separate and this is confirmed by the clearly different common joists (east-west) to either side of the principal Plate 21/22).
- 6.3.11 **Joists within G3:** The joists to the west were not intended to be visible, being irregular (11 cm x 10 cm on average) and some retaining their bark. The older softwood joists to the east contrast sharply with those to the west being very regular with neatly chamfered edges and curved stops proving that these were certainly intended to be visible. Each joist to this side is of a squat section (12 cm high x 11 cm wide) and is coloured with a dark stain. The upper surface of each is much less regular, not being visible beneath the plastered ceiling inserted between joists.
- 6.3.12 It is also significant that of the seven joists the two outer ones are partially above the side walls and that the truncated ends of a series of laths are visible sandwiched between the underside of the joists and the top of the brick walls. This shows that the brick walls were inserted beneath the existing joists (with their plastered surface). This also shows that although the joists were expensively made and designed to be visible at some point it was decided to insert a lath and plaster ceiling to their underside. Also confirming that the floor to the two sides are of a different date (and that the floor to the east is older) is the arched timber padding members set upon the older joists to create a level first-floor surface by counteracting the sag within the joists.
- 6.3.13 Each joist to the east side of G3 is supported by, and housed within, a primary principal joist (23 cm deep) now located above the concrete block cross wall. Confirming that the beam and joists are of the same phase is a similar, but deeper (c 6 cm) chamfer, largely obscured by mortar relating to the concrete blocking, also with a curved stop towards the sides. The stop to the chamfer also appears to confirm that although the existing side walls are secondary the previous side walls were similarly located.



- 6.3.14 We can be fairly certain that the chamfered joists were not merely reused from another, higher status building, partly due to their regularity and neat fit within the building but also due to a series of carpenters marks on the southern face of each joist, immediately adjacent to the beam above the concrete block wall. There is a clear VIII on the northernmost joist, followed by a VII, VI and V on the succeeding joists. It is assumed that the series continues on the other joists but it was too dark when the inspection was made and the possible marks too faint to confirm their presence.
- 6.3.15 Cartographic evidence shows that G3 was a passageway in 1843 but whether it was originally constructed as a passage is less certain. It seems very unlikely that such high quality joists would be used in an external space such as a passage and also that a large passage (c 2.5 m wide x 2.33 m high) would have been required in a small dwelling such as this, particularly when it is likely that access to the rear would probably have been relatively easy when the structure was built. A passage such as this would only have been necessary either when some form of small scale manufacturing was undertaken to the rear or, as shown on the 1843 map number 28 was now operating as a pub. The 1799 map shows a yard to the rear, partially enclosed on each side, and such a passage would fit well within this arrangement.
- 6.3.16 There is evidence that not only was this part of the original building c 2.5 m narrower (east-west) than that existing but that G3 also extended c 0.5 m further to the south. The chamfered beam within G3, above the concrete block cross wall, continues 33 cm to the south, beyond the secondary east-west brick wall, into G5. The beam slots into another east-west beam (18 cm wide x 16 cm high) supported by the secondary brick north-south wall between G4 and G5. The evidence is inconclusive but it appears that the beam has been truncated immediately beyond the secondary brick wall. The location of this east-west beam fits neatly with other evidence of the former building, being half way between the northern wall of the passage (the southern boundary of number 27) and the structural division at the centre of number 28.

#### 6.4 Cellar (Plate 25)

*Summary: A secondary brick-lined cellar was added to the existing building, probably in the early-nineteenth century.*

- 6.4.1 A brick-lined cellar exists beneath the second bay from the south of number 28 Akeman Street and the secondary eastern projection. That the cellar is secondary is shown by the machine made bricks (C19th) lining the walls and floor and by several kinks in its outline to retain a solid base for the structure above. The two main kinks are beneath the primary post (enclosed by the secondary brick fireplace) at the central point on the ground floor and on the southern wall of the cellar. The bricks within this curved southern wall (and elsewhere) are large, outsize bricks (eg 25 cm x 12 cm), which could easily be mistaken for stones due to the thick white mould/damp residue covering them.
- 6.4.2 Four vaulted storage openings exist within the west wall of the cellar, the upper two apparently truncated by the construction of the modern ground floor. Two brick piers were also added to the central area of the cellar when the ground floor was installed. The only former opening apparent within the cellar, providing access from the outside was beneath the window in the east wall of G7. This former opening has been in-filled with modern brickwork above a timber lintel 79 cm above the cellar floor. The opening would clearly have risen above the ground floor height and was probably a loading hatch through which to roll barrels of beer and other supplies from the yard.

## 6.5 First floor

*Summary: The partial remains of the exposed primary timber frame exist in four walls to the south-east of the existing building.*

- 6.5.1 **Exposed frame:** The most obvious evidence of the age of the southern half of 28 Akeman Street are the surviving members of the primary building's exposed timber frame. The partial black-painted frame exists within four walls at the south-east corner of the Phase 1 building: the east-west wall adjacent to the staircase, the north wall of F8 and the north-south gable (?) end between the other two walls. (Plates 19, 21)
- 6.5.2 A tie-beam is present within the gable end (?) c 0.8 m above first floor level, which has been cut to allow a doorway to F10 and below which has been inserted an external window within F8. The tie-beam is supported to the south end by a post with jowl to its head adjacent to the junction with the staircase and by a post to the south of the doorway. The east-west frame adjacent to the stairs consists of a relatively slender horizontal, just beneath the tie-beam in the gable end, another horizontal at first floor level, a vertical post about half way up the stairs and a straight brace at the corner between the slender horizontal tie and the post at the junction with the gable end.
- 6.5.3 The visible timbers within F8 are complicated by the fact that it is believed that the north wall was formerly the external wall of the primary building and that the roof would have sloped down to the north. The internal partition between F8 and F6 is straightforward, consisting of a principal rafter and tie and there is a tie within the north wall, at the original eaves, which is also probably primary. The black-painted timber beneath the roof valley, however, must be secondary if this interpretation of the phasing of the structure is correct. The underside of a horizontal (east-west) beam is visible within F8, supported to each end by moulded timber corbels, which may be evidence of a second floor within this section.
- 6.5.4 There are several first floor changes of level, some of which may be significant and some less so. The theory that there was a division within the building at the central axis of number 28 is supported by a small (3 cm) step up from south to north above the division visible from below at ground floor level.
- 6.5.5 The lifting of several first-floor boards provides a clearer view of the primary, north-south beam, largely obscured by a covering board at ground floor level, between F9 and F6. This beam (20 x 15 cm) is severely warped and has a simple scarfed joint directly above the external passageway. The beam and scarf are also visible from beneath within the passage.

## 6.6 Roof structure

*Summary: The roof above number 28 divides into two and possibly three distinct structures, Phase 1, with two partially intact primary trusses, is to the south of the existing building corresponding to the visible timber frame at first floor level. The two trusses are set perpendicular to each other, suggesting that they may be separate builds, but they both appear to date to the late-sixteenth or early-seventeenth century. The Phase 2 roof retains the primary chunky ridge-piece, a primary purlin to each slope with primary rafters. The rafters to the west slope, which have been enclosed by a shallower secondary roof, confirm that the primary street facade was substantially inset from that existing. The Phase 2 roof appears to date to the late-seventeenth or early-eighteenth century.*

- 6.6.1 Other than the surviving exposed timbers at first floor level the strongest evidence for the age of the original buildings and for the structure's previous form is within the roof space. The roof structure above number 28 appears to divide into three and maybe four distinct sections. That above the eastern projection to number 28 (G12/F10) is relatively modern, replacing the totally removed former structure probably in the mid-twentieth century. The roof above the central section (Phase 2) of the building appears to indicate a distinct building of a considerable age (C17th/18th) and there is evidence towards the south, adjacent to the projection of one and maybe two structures forming the oldest part of the building (C16th/17th).
- 6.6.2 **Phase 1 roof:** Two partially remaining trusses survive from the Phase 1 roof. The first of these is perpendicular to the street and is above the cross-frame at first floor level with straight brace (Plates 32, 33). The roof to the south of this truss has been raised by *c* 1 m while that to the north has been re-profiled with a shallow western slope (see 6.6.9, 6.6.12) which truncates each of the primary principal rafters.
- 6.6.3 The remaining primary members of this truss consist of the cambered collar (25 x 12 cm), three struts beneath the collar (each *c* 15 x 10 cm) and two incomplete diminishing principal rafters, the eastern one of which appears to extend down adjacent to the staircase. All the members are pegged and set flush with the southern face. There is also evidence in the collar and principal rafter (notches in each which line up, together with holes within brick infilling) of the pair of former purlins which would have been clasped between the other members. There is additionally a secondary (late C19th/C20th) central post resting on the collar.
- 6.6.4 Possibly significantly the north face the truss is whitewashed, contrasting with the exposed timber to the south face, which may suggest that the north face was originally the external gabled end of a building extending to the south. This may mean that the Phase 1 building was that to the south and this was extended soon after with the east-west structure.
- 6.6.5 It appears that this truss would have related to a building with a street frontage on line with the existing section of the main façade to the south of the curved kink in the elevation. The truss is perpendicular to this section of the elevation and the principal rafter would have extended down to an eaves height lower than that existing.
- 6.6.6 The other Phase 1 truss (north-south) is set directly above the partition between F8 and F6. It is relatively intact with surviving collar (12 cm x 9 cm) immediately above the ceiling and two principal rafters, the northern one of which continues down into the first floor within the partition between F6 and F8 (showing that the collar is a collar rather than a tie-beam). A horizontal mortice (4 cm x 23 cm) cuts through the northern principal rafter, through which a tenon to the end of the collar passes. Notches in collar and principal rafter (Plate 24) accommodate a clasped purlin (11 cm x 9 cm) to either pitch (both in-situ) extending east from the truss to a brick partition at the truncated gable end adjacent to the modern projection. The bricks are set between a single central post and principal rafters and are of a rough quality and probably hand made.
- 6.6.7 The existence of a purlin to the northern slope extending as far as this truss, shows that the primary roof sloped down to the north side at least as far as this partition, echoing the slope on the southern side. Several primary rafters remain in-situ to the southern slope although they have been largely replaced with inserted secondary rafters.
- 6.6.8 The truss would have apparently related to a building, now partially overlain by the later extension, which would have extended east from the timber framed north wall of F8 and the wall to the south of the staircase. The fact that the building would have extended along this

line is strongly suggested externally by the apparently truncated gable between these points, now largely obscured by the narrower extension.

- 6.6.9 **Phase 2 roof:** A complicated roof form to the central section of the building, above F3, F4, F7 and the northern half of F6, is hinted at by the unusual roof profile visible externally. The roof ridge is *c* 1.25 m off-centre (*c* 2.4 m from east wall to ridge), while the eaves to each side remain at a similar height, thereby resulting in the eastern slope being substantially steeper than the western slope.
- 6.6.10 The existing ridge to this section of roof is supported by a thin, soft-wood, secondary ridge-piece (C19th?) immediately above the primary, chunky ridge-piece which has a section of *c* 15 cm x 15 cm. To the front (west) of the building the roof slates (above a modern felt covering) are supported by regular softwood rafters (C19th?) held at the secondary ridge-piece and set at a shallow angle.
- 6.6.11 The tiles to the rear (modern tiles, again above modern felt) are supported by older primary timber rafters, of a flat section and set at a steep angle. The rafters are supported by two primary purlins to the eastern slope, one within the roof space and one visible within F3 (Plate 26). When plasterboard was removed from the internal face of the slope within F3 the rafters were clearly visible, supported by the primary timber purlin (21 cm x 15 cm).
- 6.6.12 Beneath the secondary rafters forming the shallow western slope, is a series of redundant primary rafters (@ 35 cm centres) echoing the steeper slope of the eastern side of the roof (Plate 30/31). These rafters are irregular in shape and size but they are all of a flat section (eg 10 cm wide x 8 cm high) and they are set over and pegged into a primary purlin (23 cm deep) immediately above the joists and ceiling. It was not possible conclusively to tell whether the rafters are pegged into the primary ridge-piece or not.
- 6.6.13 The primary purlin to the western slope extends from the junction with the roof space of number 27 to the boundary at the central point of number 28. This corresponds to evidence elsewhere in the building suggesting that these two bays were a distinct separate building to the older structure to the south but curiously both ends of the purlin are cut at an angle to suggest that they were scarfed. This would imply that this roof form extended to either side. It is possible that this was so although it may be more likely that the purlin was reused from another building and that the scarfed ends relate to the previous structure.

## 6.7 Eastern projection

*Summary: The eastern projection is a modern building having replaced a former structure.*

- 6.7.1 The existing eastern projection is a modern structure (recent decades) constructed on the footprint of an older building. There is a single room to ground and first floors and, as has been detailed earlier, the cellar exists beneath the projection's full extent. The southern wall, adjacent to the passage along the southern site boundary, is of what appears to be nineteenth century brick and has clearly been incorporated from the previous structure. The other two external facades are of concrete block to the inside with modern brick external facing. The roof structure is also entirely of modern soft wood, abutting the primary structure above F8 and the staircase.
- 6.7.2 It is clear from the existence of the cellar beneath this structure that it replaced a previous building of at least mid-nineteenth century date and the map evidence shows that the previous structure/s were substantially longer than that existing. The 1877 map shows a well developed courtyard to the rear of the street fronting buildings with a *c* 17 m structure extending along the southern boundary, over the existing *c* 4 m projection. A similar

arrangement is also indicated on the 1843 map and the 1799 plan with a structure extending along this line, about half way between Akeman Street and the alleyway along the eastern site boundary. The 1843 map shows the same kink in the southern edge of the building to that shown on the 1877 plan and that existing today. This suggests that the 1843 structure was the same one to that existing in 1877. The 1799 plan is too indistinct to show whether the kink existed at this time or not.

- 6.7.3 A slight mystery within this area is the apparently truncated gable just to the north of, and partly overlain by, the existing projection. This feature would suggest that there may originally have been a projection to the north of that existing, which was demolished in the late eighteenth century to be replaced by a new structure (with a cellar), slightly off-set from the earlier which was itself demolished in the twentieth century to be replaced by the existing building.
- 6.7.4 It is assumed that although the previous building (late C18th) was substantially longer than that existing the cellar was much shorter and when the present building was constructed it was simply decided to enclose the existing cellar.

## 6.8 27 Akeman Street

*Summary: 27 Akeman Street appears to have been constructed in the late-nineteenth century to replace a totally demolished previous structure.*

- 6.8.1 It is known from the cartographic sources that there was a building on the site of number 27 from at least 1799, but the existing building post-dates this. There is no evidence in the building of a previous structure and such a building must have been totally demolished to be replaced by the existing building, probably in the late nineteenth century. Number 27 would have formerly been adjoined to the north by number 26 but this structure was demolished at some time after 1924 to allow the widening of the road to the rear of the street fronting buildings.
- 6.8.2 Number 27 is distinguished to the street facade by the exposed brick surface contrasting with the rendered facade to 28, although the two sections of elevation do share some detailing (semi-circular brick arch over doors, square headed lintel over windows formed of tapered bricks with arched underside).
- 6.8.3 Each main facade has a single timber framed casement window to either floor (primary to ground floor). The first floor surfaces within number 27 were all exposed to reveal internal partitions of brick nogging consistent with a late nineteenth century date.
- 6.8.4 Due to number 27 being a single phase building there is no need for the awkward contrast in the angle of roof pitches present in number 28. The roof is therefore more conventional with a slender central ridge-piece, joists and rafters with a single purlin to either slope. The timbers are all regular and machine cut.

## 6.9 Conclusion

- 6.9.1 It is clear from the evidence uncovered that 27/28 Akeman Street has had an interesting and complex development. A conclusive interpretation of that phased development is less easy to determine with certainty but it is possible to assess the evidence available and to reach some conclusions regarding the growth of the site with a degree of confidence.

- 6.9.2 The most basic conclusion to be reached is that the oldest surviving section of the building is the timber framed structure at the southern end of the site. There is a sufficient amount of the primary structure surviving to provide an indication of the building's size, form and dimensions. The two perpendicular trusses of a similar age suggesting that the building was formed of two wings, one facing the street and the other extending to the rear (east). There is a suggestion that the wing facing the street may be older (whitewashed north face of truss possibly being a gable end) but the two wings are clearly of a similar date and have been considered as a single phase.
- 6.9.3 Evidence tentatively suggests that the line of the street elevation of the Phase 1 building was on the slightly sharper angle of the southern-most section of wall, to the south of the curved kink. This is suggested by the east-west primary roof truss and surviving section of the corresponding cross frame, which is perpendicular to the sharper angle. It is also suggested by the apparently primary first floor beam, above the southern half of G4, which may have continued the inset line to the front of the building.
- 6.9.4 Also of a significant age, although structurally quite distinct, is the Phase 2 building contained within the northern half of number 28 Akeman Street. This building appears to have been inset by *c* 2.5 m from the existing road elevation while retaining the same line to the rear wall. The key pieces of evidence suggesting the narrower building are the contrasting joists within the former corridor (G3) and the enclosed rafters within the roof space. G3 appears to have originally been *c* 0.5 m wider (to the south) and it is suspected that it was originally an internal room. The former division (E-W) slightly to the south of that existing is indicated by the north-south beam extending from G3 to this axis and it fits more neatly within the pattern of the other bays of the building being located at the mid point of the Phase 2 building.
- 6.9.5 The Phase 1 building is clearly of a substantial age, possibly being originally constructed between the mid-sixteenth and mid-seventeenth century. Phase 2 appears to be slightly later, from the mid-seventeenth to mid-eighteenth century.
- 6.9.6 A large amount of conversion work followed in the late eighteenth/early nineteenth century which was probably largely undertaken at the same time and which is considered as Phase 3. This work consisted of: forming a single street elevation closer to the road; enclosing the Phase 1 roof by erecting a similarly angled structure above it; enclosing the western pitch of the Phase 2 roof with much shallower set rafters; inserting two ground floor fireplaces, apparently utilising the existing stack; digging a cellar beneath the southern half of the building; opening of the route through to the rear courtyard at the north of number 28.
- 6.9.7 It is likely that the majority of this work occurred when the conversion of the buildings to the Royal Oak pub was undertaken. The date at which this occurred is somewhat speculative. It is known from the map of the estate of James Field that in 1843 number 28 was operating as the Royal Oak pub and that the passageway between 27 and 28 was in existence, so the conversion can be assumed to have occurred by then. The only earlier map of value from 1799 appears to suggest that by this date the buildings had been widened to their existing width and that to the rear there was a courtyard to fit with the passageway. However the reproduction of this map is poor and great reliance should not be placed on its suggested evidence. The physical evidence, ie the apparent age of the brickwork and the roof timbers, looks nineteenth century and it is believed that the work was probably done in the first half of the nineteenth century, shortly before the 1843 map, and the evidence of the 1799 map is misleading.
- 6.9.8 The construction of 27 Akeman Street, replacing a previous building, appears to have been undertaken later in the nineteenth century and the small eastern projection was added to number 28 in the mid twentieth.

## **6.10 Impact on 27/28 Akeman Street of current development proposals**

- 6.10.1 The impact of the proposed development on 27/28 Akeman Street will not be particularly substantial, the building being already well suited to a conversion. The work will be primarily the removal of later partitions and wall surfaces and their replacement.
- 6.10.2 The building features of greatest interest, such as the frame adjacent to the stairs towards the south-east corner, the primary roof trusses and the chamfered joists within G3 will be retained. The chamfered joists and the exposed timber frame are structurally sound and will be retained as a feature to add character to the building. The surviving members of the primary roof trusses will almost certainly be retained because they are largely no longer structural, having been enclosed by a nineteenth century (?) roof, and to remove them would be expensive and unnecessary.

## **7 CONCLUSION**

- 7.1 As with many small towns brewing, and associated industries such as malting, was of importance within Tring until the early years of this century. The malthouse within this study is therefore a significant survival of that local trade and a local landmark which externally retains the distinctive, recognisable characteristics of a malthouse, such as the squat former openings to the east and the pyramidal roof of the former kiln.
- 7.2 The wider importance of the building is limited, however, by the features which have been lost. The most obvious of these are the storage loft, which has been insensitively replaced, the steep and the kiln furnace. Other primary features do survive, such as the cast iron ground floor columns and first floor structure but its significance is essentially that of a local landmark and a reminder of a former industry of Tring. This will be retained by the current development and enhanced by the restoration of the original roof line. A connection with the history of the building will also be established through the naming of the new development Brown's Maltings.
- 7.3 In contrast the significance of 27 and 28 Akeman Street is not in the shell of the building acting as a local landmark but the hidden older buildings obscured within a later shell. The relatively poor survival of the primary building inevitably limits its importance but the hidden structure provides very significant evidence regarding this building and the development of this part of Tring. The interest and importance of 28 Akeman Street is considerably greater than would be supposed by a quick external inspection.

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- Rodwells company album containing various items including: photocopied sheet entitled *That Tring Air* by Helen Poole (1985); various local press cuttings from January 1975; articles from *Town and Country News* July 1927, *International Bottler and Packer* Feb 1981, *Soft Drinks* January 1981.

### **Cartographic Sources**

Abbreviations: HRO = Hertfordshire Record Office. BOD = Bodleian Library, Oxford

- Estate Map of Tring in the County of Hertford. Surveyed by J Colbeck for William Gore Esquire (1719). Published in Richards 1974.
- Plan of the Parish (based on the enclosure map) (1799) HRO D/EX 234 P11
- Plan of Certain Highways and Footways in the Parishes of Tring and Wiggington Proposed to be Stopped Up (c.1840) HRO D/E/S P32
- Estate Map Belonging to the Trustees of the Late Earl of Bridgewater (c.1840) HRO 57340
- Map of the Estate of James Field (1843) HRO D/EBU P14
- Plan of Tring Showing Proposed Deviation of Turnpike (1844) HRO D/EBN P42
- Plan of Property in Tring (c.1850) HRO D/EBN P60
- Tring: Three Untitled Marginal Plans to Title Deeds (1865/66) HRO D/EX 381 T1
- Tring: One Untitled Marginal Plan to Title Deed (1878) HRO D/EX 381 T2
- Plan of Alterations to the Malthouse (1918) HRO D/EX 404 P19-20



Note: There is no Tithe Map or Award for Tring.

Ordnance Survey 1st Edition 25" Map (1877) Sheet XXV.14

Ordnance Survey 1st Edition 1:500 Scale Map (1877)

Ordnance Survey 1st Edition 6" Map (1884)

Ordnance Survey 2nd Edition 25" Map (1897)

Ordnance Survey 1:1250 Scale Map (specially enlarged for the Inland Revenue from the revision of 1897, and partially revised 1912) BOD C17/70a 517

Ordnance Survey 2nd Edition Revised 25" Map (1924)

Ordnance Survey 1:10,560 Scale Map (1960)

Ordnance Survey 1:10,000 Scale Map (1980)

Ordnance Survey 1:2,500 Scale Map (1982)

Ordnance Survey 1:2,500 Scale Map (1984)

Ordnance Survey 1:1,250 Scale Map (1997)

Geology Survey of Great Britain New Series Sheet 238.

## APPENDIX A PHOTOGRAPHIC REGISTER

### Film 1 (Black and white and colour)

Maltings

Neg No	View from	Context
1	S	F1 - general
2	SE	ditto and loading door
3	SE	F1 loading door
4	SW	F1 vent by kiln
5	SE	F1 ladder
6	S	F1 ladder and arch by door
7	S	ditto
8	S	F1 door and two arches
9	S	F1 arch to east of door
10	N	F1 general
11	SE	F2 - kiln exposed rafters
12	N	F2 door etc
13	NW	F2 corner
14	NW	F2 rafters etc by door
15	S	F2 other door
16	SE	F2 corner
17	W	F3 general
18	W	F3 roof
19	E	F3 truss
20	SW	F3 truss ties etc
21	E	F3 general
22	NE	F3 back to kiln door
23	NE	F4 concrete block and brick wall
24	N	F4 general
25	E	F5 corridor towards F5
26	SE	F5 windows etc
27	SE	F5 roof truss
28	NW	F5 general
29	W	ditto
30	N	F1 towards stairs
31	E	G1 blocked window in SW corner
32	S	G1 general
33	S	ditto
34	S	G1 hatch in plasterboard
35	N	G1 steep outline on wall
36	NW	G1 steep outline on floor

### Film 2 (Black and white and colour)

Maltings

Neg No	View from	Context
0	E	hatch G1 (to south of door)
1	SW	G1 column (E row 4th from S)
2	SW	G1 column head
3	W	G1 blocked window (4th from S)

4	NE	G1 double height general
5	E	G1 hatch
6	SW	G1 column head
7	N	G1 rafters
8	NE	G6 general
9	NE	G6 general
10	SW	G6 column head
11	SE	G6 general
12	E	Floor marks G6
13	W	G6 tie-bar and window
14	W	G6 stairs etc
15	S	G6 window and general
16	SE	G1 hole in ceiling
17	E	Door
18	N	General
19	SW	Door to G2 and hatch
20	E	Former external door
21	N	General
22	SW	door to kiln area from G1
23	W	External detail
24	W	ditto
25	W	ditto
26	W	Sign by loading door
27	W	Coal cellar doors
28	W	General external etc
29	W	ditto
30	W	Stairs
31	W	Gen external
32	N	ditto
33	W	ditto
34	N	ditto
35	W	ditto
36	W	ditto

### Film 3 (Black and white and colour)

Maltings external/coal cellar intenal

Neg No	View from	Context
1	W	Stairs
2	W	G3
3	SW	ditto
4	E	ditto
5	W	G4
6	W	ditto
7	SW	ditto
8	SW	ditto
9	SW	ditto
10	E	ditto
11	-	-
12	SW	External end
13	SE	Bullnose
14	SE	Windows next to bullnose
15	SE	General east elevation

16	E	First floor window
17	E	Ground floor window
18	N	Gen look back
19	S	ditto
20	E	kiln
21	E	kiln
22	E	kiln
23	S	kiln
24	SE	Windows at F3
25	E	ditto
26	NE	Gen
27	NE	Kiln cowl
28	NE	ditto
29	NE	ditto
30	NE	ditto
31	SE	Remaining pitched roof
32	NW	Cowl etc
33	W	Bottling plant
34	SW	ditto
35	W	Section by loo
36	S	Open shed

#### Film 4 (Black and white)

External shots, ground floor internal

Neg No	View from	Context
1	W	West elevation
2	W	ditto
3	W	ditto
4	W	ditto
5	SW	ditto
6	E	Passage
7	NW	West elevation
8	NW	ditto
9	NE	East elevation
10	NE	ditto
11	NE	ditto
12	E	ditto
13	W	Maltings – south end of west elevation
14	NE	General view of 27/28 Akeman Street
15	NE	ditto
16	NE	Details of east elevation
17	NE	ditto
18	NE	ditto
19	SW	G3
20	SW	ditto
21	SW	ditto
22	E	ditto
23	NE	ditto
24	W	ditto
25	SE	ditto
26	E	G5
27	E	ditto

28	W	G4 towards G5
29	W	G4
30	W	G4 towards G5
31	W	G4
32	SW	G4
33	S	G4
34	SE	G4
35	S	G4
36	NE	G7 towards G4

**Film 5 (Black and white)**

Internal ground floor, cellar, first floor

Neg No	View from	Context
1	S	G7
2	W	G7
3	NE	G10
4	S	G10 towards G4
5	W	G10 towards G11
6	NE	G11
7	W	G10 towards G11
8	E	G12
9	E	G12
10	SE	G12
11	E	Cellar - below G12
12	E	Cellar - below G12
13	W	Cellar - below G9
14	SW	Cellar - below G7
15	E	Cellar - below G4
17	N	Cellar - below G10
17	W	Cellar - below G9
18	W	Timber framing adjacent to stairs
19	SW	F6 towards stairs
20	SW	ditto
21	E	F6
22	SE	F6
23	SE	F6
24	W	Timber frame adjacent to stairs
25	S	F6
26	W	Timber frame adjacent to stairs
27	SW	F8
28	SW	F8
29	S	F8
30	SE	F8
31	W	F10
32	W	F6
33	NW	F6
34	NW	F6
35	S	Roof - above F9/south end of F6
36	S	ditto

**Film 6 (Black and white)**

Roof, first floor, exterior of maltings

<b>Neg No</b>	<b>View from</b>	<b>Context</b>
1	S	Roof above F9/F6 – primary truss
2	S	ditto
3	S	ditto
4	SW	Roof above F6
5	SW	ditto
6	NW	Primary roof truss above F6
7	S	Roof above F6
8	N	ditto
9	N	ditto
10	NW	Clasped purlin of truss above partition between F8 and F6
11	NW	ditto
12	N	Truss between F6 and F9
13	W	Clasped purlin of truss above partition between F8 and F6
14	SW	Redundant primary purlin above F6
15	NW	F6
18	SW	F6
17	N	Truss above F6
18	S	F4/5 towards F2
19	NE	F3
20	NW	F3 – primary purlin
21	NW	F3 – primary purlin
22	SW	F2
23	W	F2
24	SE	F1
25	N	F1
26	NW	Roof above F1/F2
27	NW	ditto
28	-	-
29	NW	Roof above F1/F2
30	NW	Roof above F3/4/5
31	W	ditto
32	W	ditto
33	NW	ditto
34	SW	West elevation of maltings
35	W	ditto
36	W	ditto

**Film 7 (Black and white)**

<b>Neg No</b>	<b>View from</b>	<b>Context</b>
2	W	West elevation of maltings
3	W	ditto
4	NW	ditto
5	SW	ditto
6	SW	ditto
7	NW	Area of former steep within maltings
8	NE	ditto
9	SE	Interior of first floor kiln
10	S	ditto

11	NW	ditto
12	N	ditto
13	N	ditto
14	N	ditto
15	N	ditto
16	W	Exterior of maltings
17	W	ditto
18	NW	ditto
19	NW	ditto
20	N	First floor beam exposed from above – south end of F6
21	E	ditto
22	S	ditto
23	E	F10
24	E	F10
25	W	F3
26	W	F3
27	W	F3
28	NW	G9
29	NW	G9
30	SW	G9
31	S	Primary truss over F6
32	S	ditto
33	N	ditto
34	W	Clasped purlin in truss over partition between F6/F8
35	S	Roof remains over F6
36	NW	F6
37	N	G10

**APPENDIX B: KNOWN ARCHAEOLOGY WITHIN 1KM STUDY AREA.**

Abbreviations:

OAU = Oxford Archaeological Unit

SMR = Sites and Monuments Record

OAU No.	Description	SMR NO.
1	Church of St Peter and St Paul. Large town church, Listed Grade II. Earliest part of church dates to 13th century (fabric and plan of nave and chancel).	4382
2	Milestone, 31 miles from London. Made from cast iron dated (on head plate) to 1826.	5028
3	Post-medieval brick pillar wall box.	5305
4	Former maltings built by John Brown, Brewer, 1876. Acquired by William Rodwell, brewer, in 1899 and used for the manufacture of mineral waters. Closed c.1930. Rodwell brewery stood on the opposite side of Akeman Street.	5400
5	The remains of Brown's Brewery, established c.1825, closed c.1900. Whole complex has been renovated.	5449
6	Former maltings and associated buildings consisting of an early 16th century former open hall with crosswing (17th and 19th century additions). The maltings were worked by Richard Harding in 1663 and continued in use until 1920. Now converted into dwellings.	5454
7	Post-medieval wall box located in house wall of 42 Akeman Street.	5515
8	Former silk mill. Established in 1824, still extant and with iron water-wheel (fed from a large lake). A row of single-floor cottages may have been used for employees.	5770
9	Bases of two shaft furnaces, with tapping pits and tapped slag, found during construction of A41 (M) by members of the Berks and District Archaeological Society in 1974. Shafts c.350mm and c.400mm in diameter. Surrounded by packed chalk.	6069
10	Iron Age pottery and a Roman coin found by chance in 1982.	6379
11	Former gasworks shown on the OS 2nd Edition Map of 1897. Several walls remain.	6889
12	Tring Park. Landscape park and woodland, 18th century with remains of late 19th century gardens. Generally open parkland with scattered mature trees. Ornamental buildings and formal garden layout may have been designed by Gibb and Bridgeman in the early 1700s. English Heritage Register of Parks and Gardens G1132.	7343
13	Former model farm buildings at Woodlands Farm. Post-medieval in date.	9429
14	Akeman Street Roman road. Important east-west thoroughfare from St. Albans (Verulamium) to Alchester. Although the proposed development site lies on 'Akeman Street' it is a misnomer and not actually part of Akeman Street Roman road, which runs along the line of Park Street c.150m to the south.	



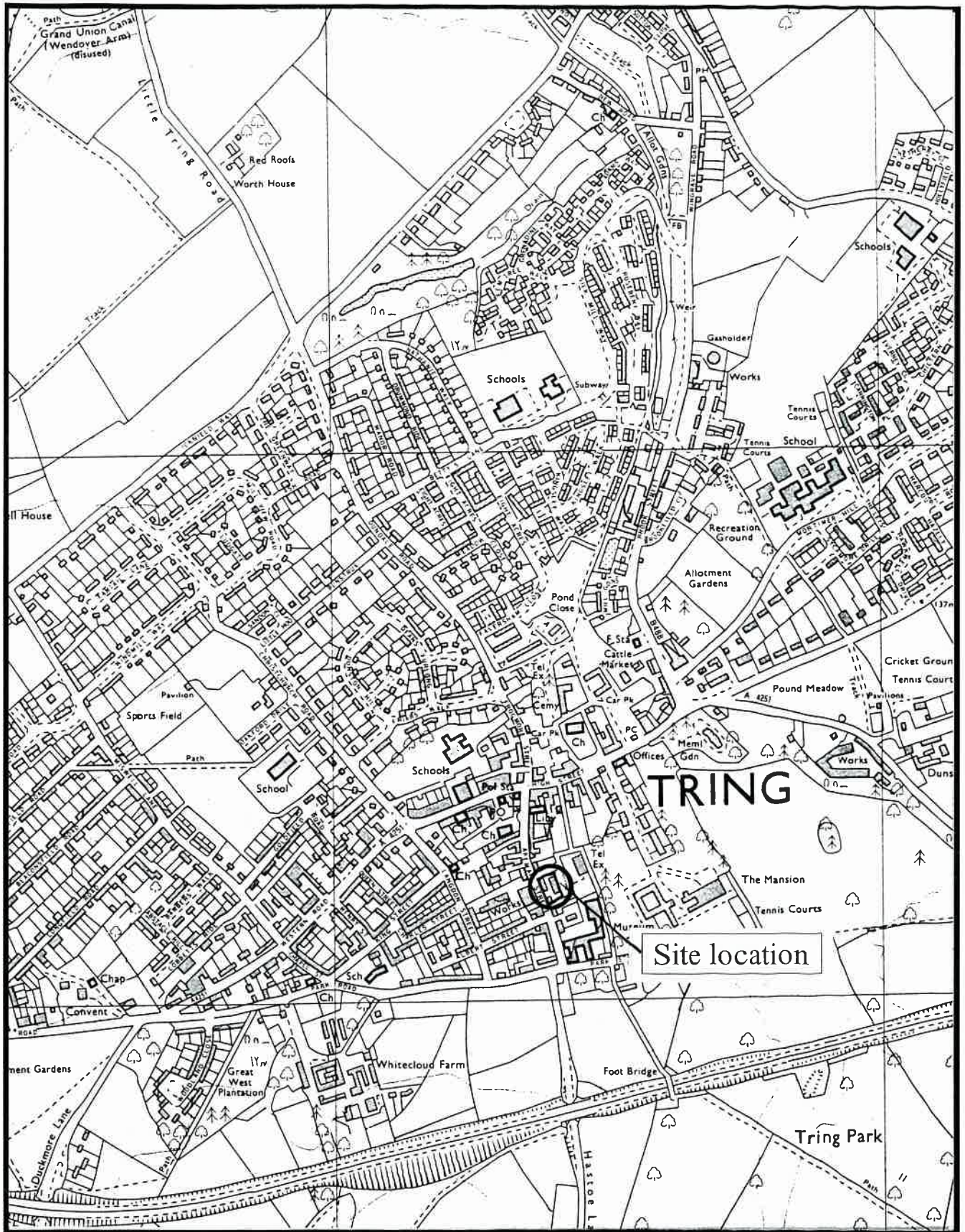


FIGURE 1 ORDNANCE SURVEY 1:10,000 SCALE MAP (1980)

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- Building shown on Estate Map of 1799 (not shown on subsequent maps)
- Building probably shown on Estate Map of 1799 but clearly shown on Estate Map of 1843.
- Building probably shown on Estate Map of 1799 but clearly shown on OS 1st Ed Map of 1877
- Building shown on Estate Map of 1843
- Building shown on OS 1st Edition Map of 1877
- Building shown on OS 2nd Edition 25" Map of 1897
- Building shown on OS 2nd Edition Revised 25" Map of 1924

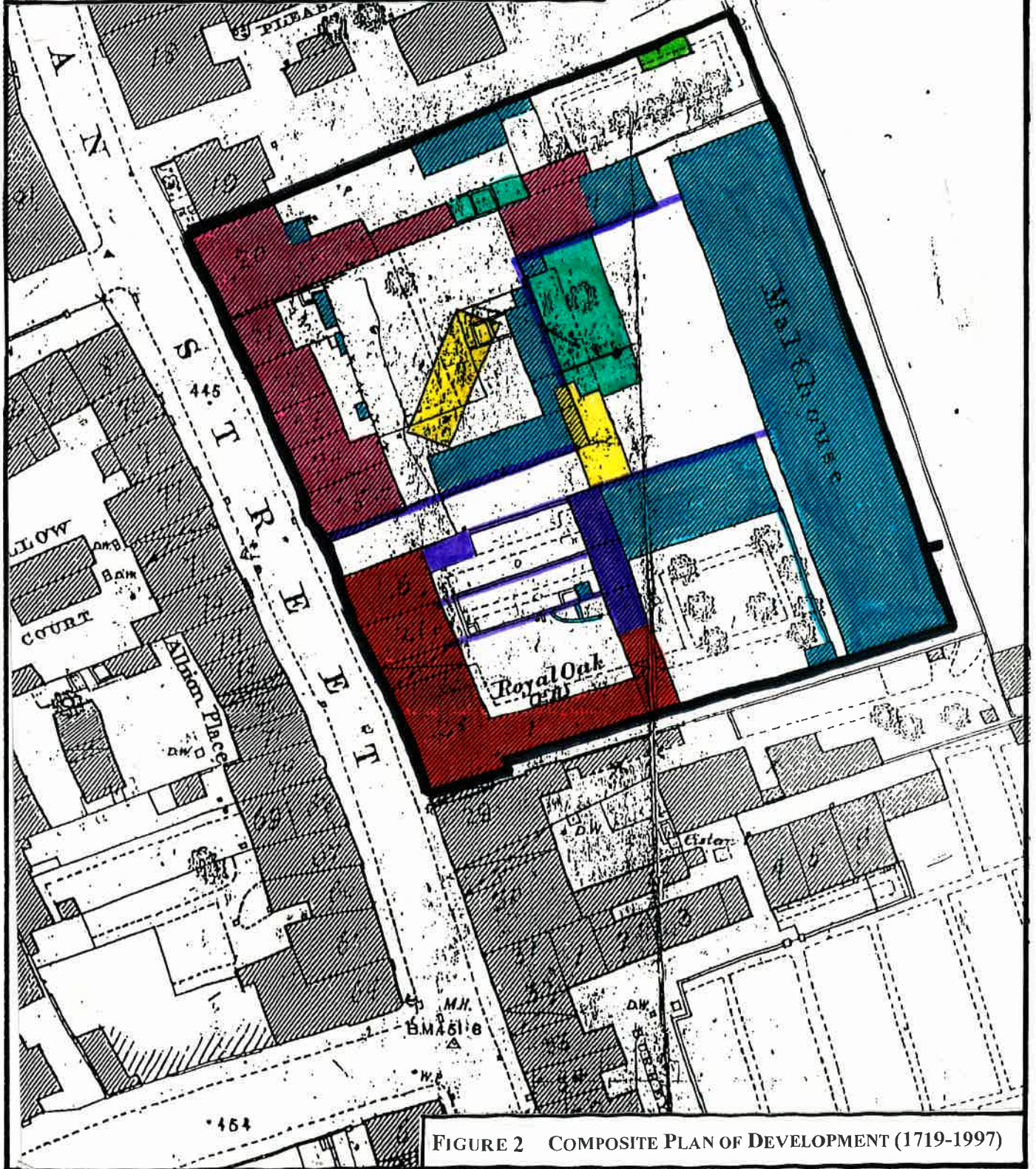


FIGURE 2 COMPOSITE PLAN OF DEVELOPMENT (1719-1997)

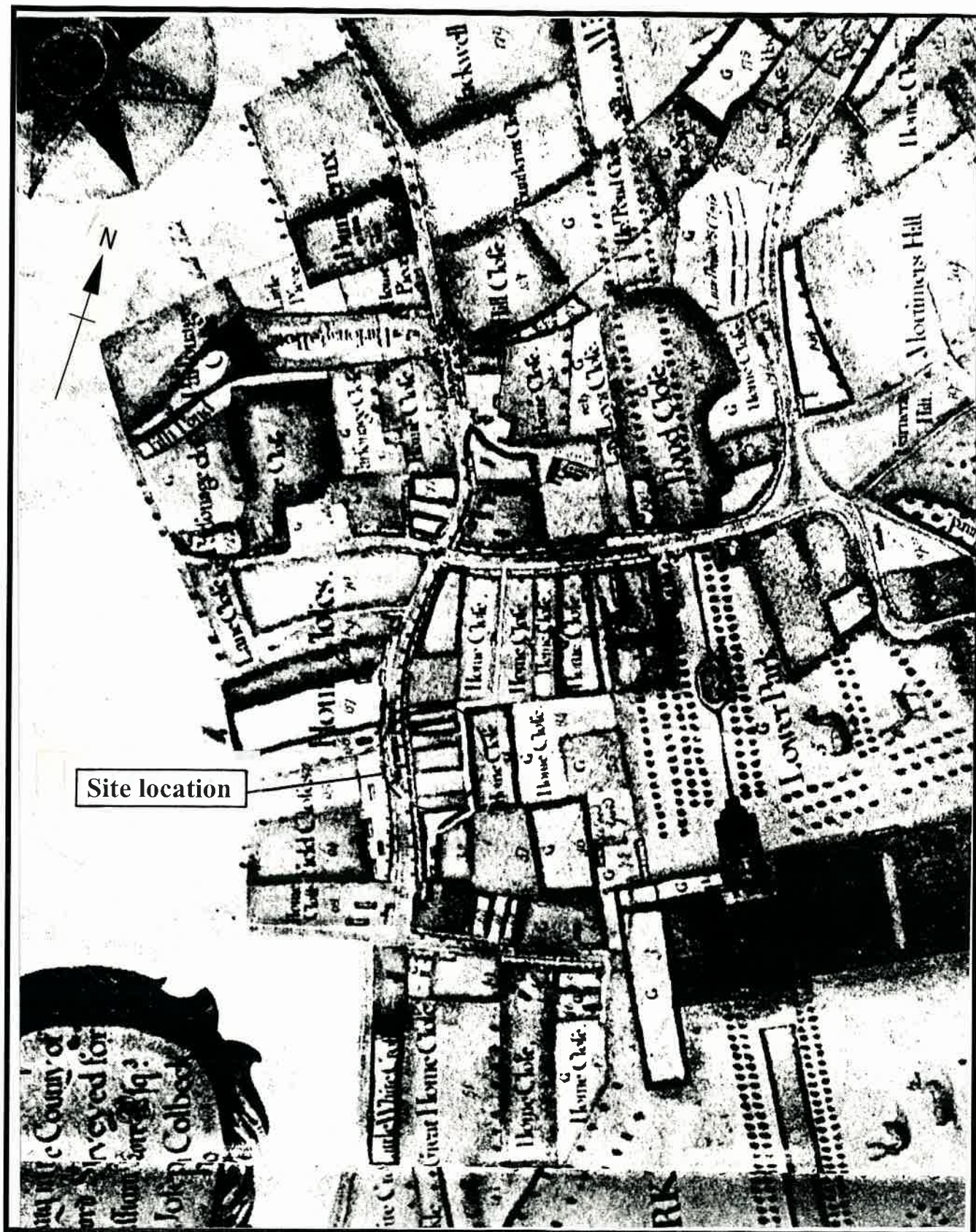


FIGURE 3 DETAIL OF ESTATE MAP OF TRING IN THE COUNTY OF HERTFORD. SURVEYED BY J COLBECK FOR WILLIAM GORE ESQUIRE (1719).

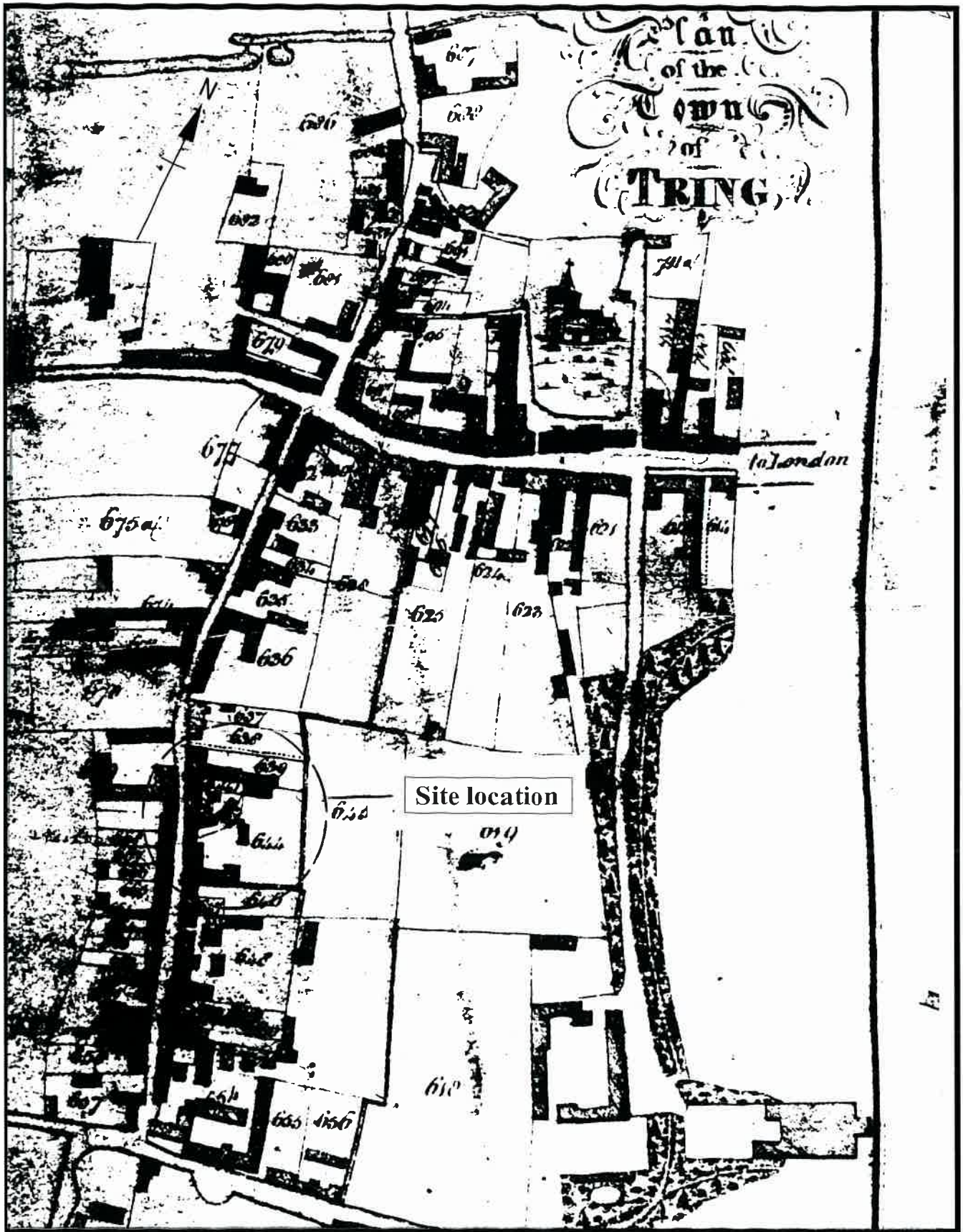


FIGURE 4. PLAN OF THE PARISH (BASED ON THE ENCLOSURE MAP) (1799)

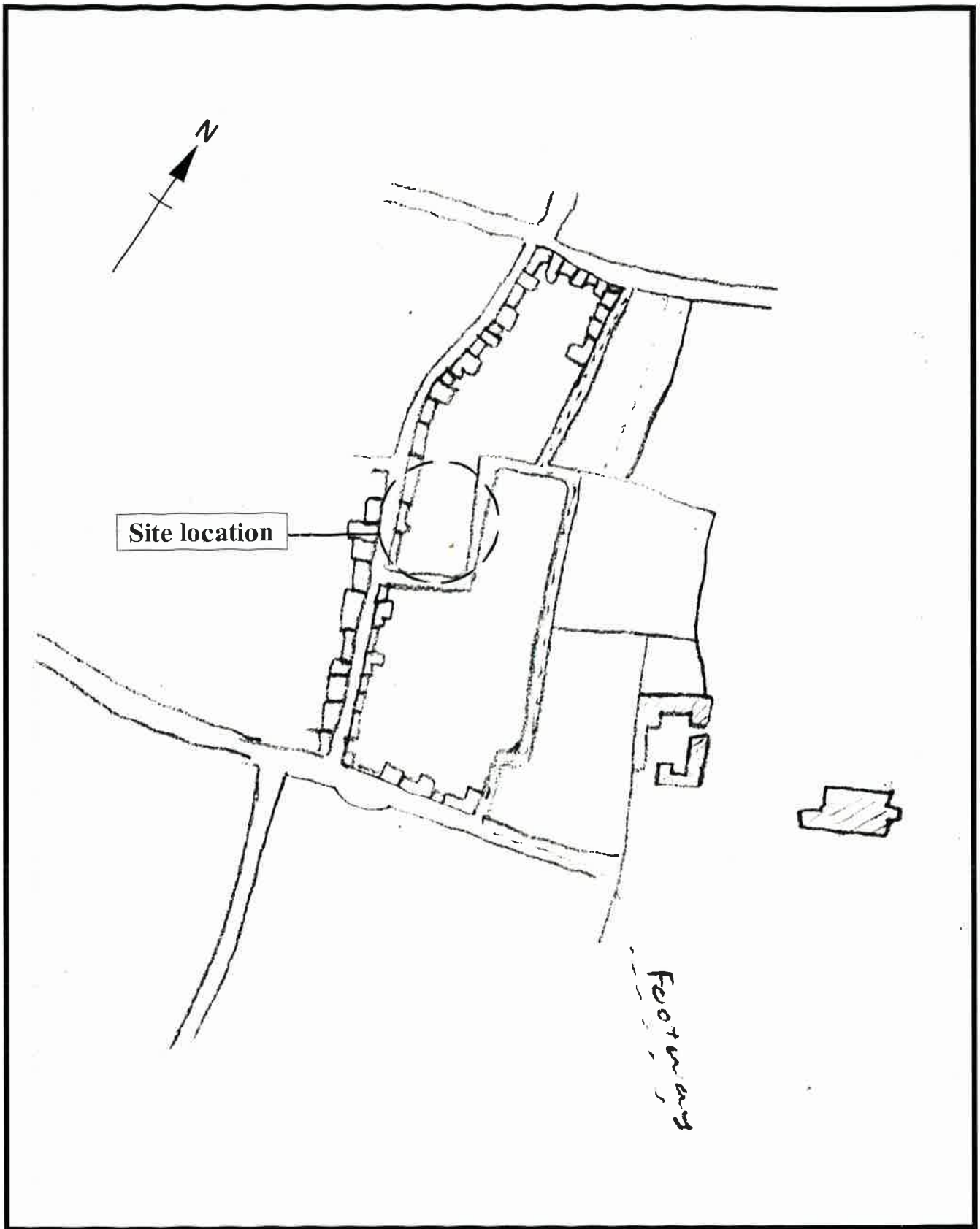


FIGURE 5. PLAN OF CERTAIN HIGHWAYS AND FOOTWAYS IN THE PARISHES OF TRING AND WIGGINGTON PROPOSED TO BE STOPPED UP (C.1840)

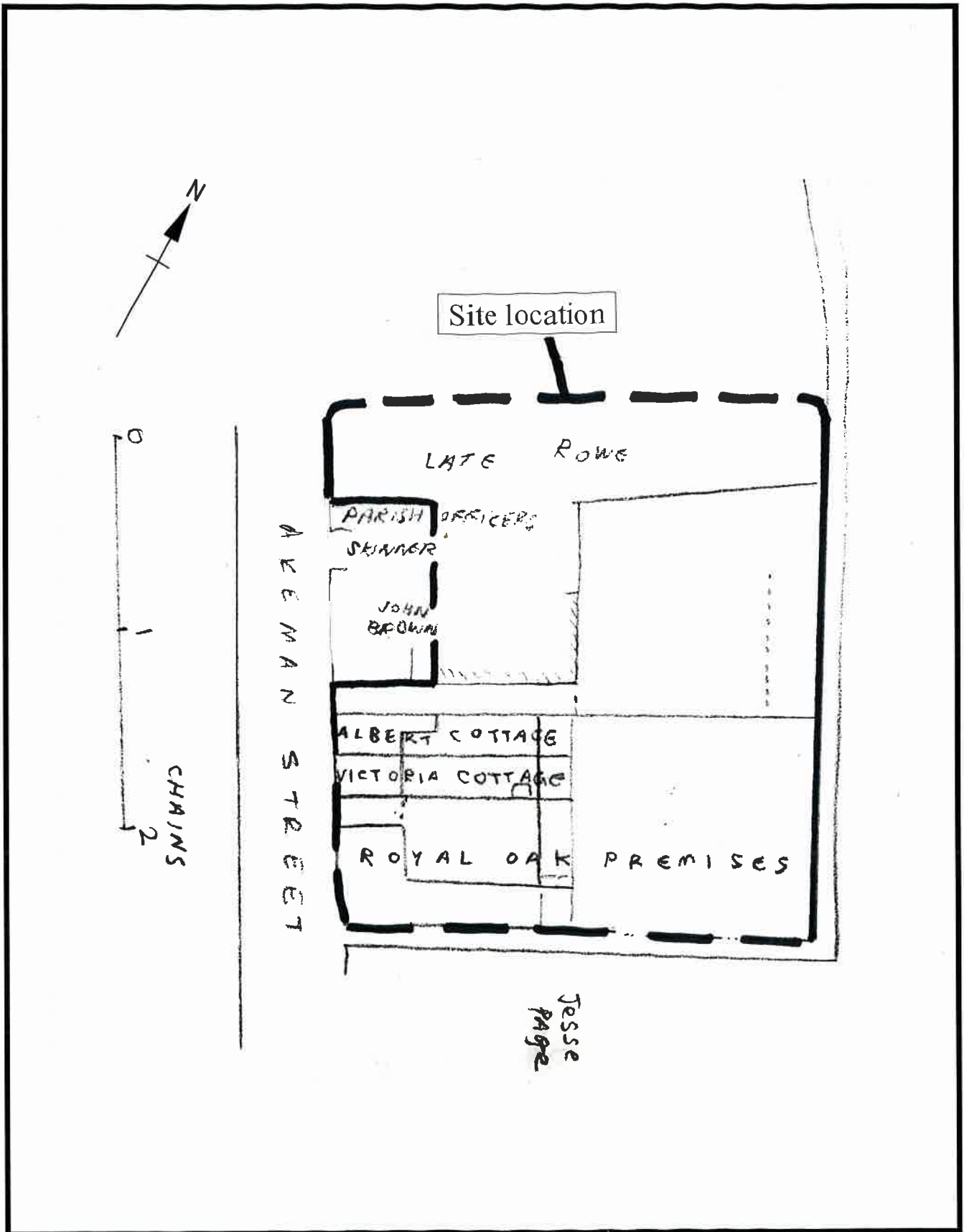


FIGURE 6 MAP OF THE ESTATE OF JAMES FIELD (1843)

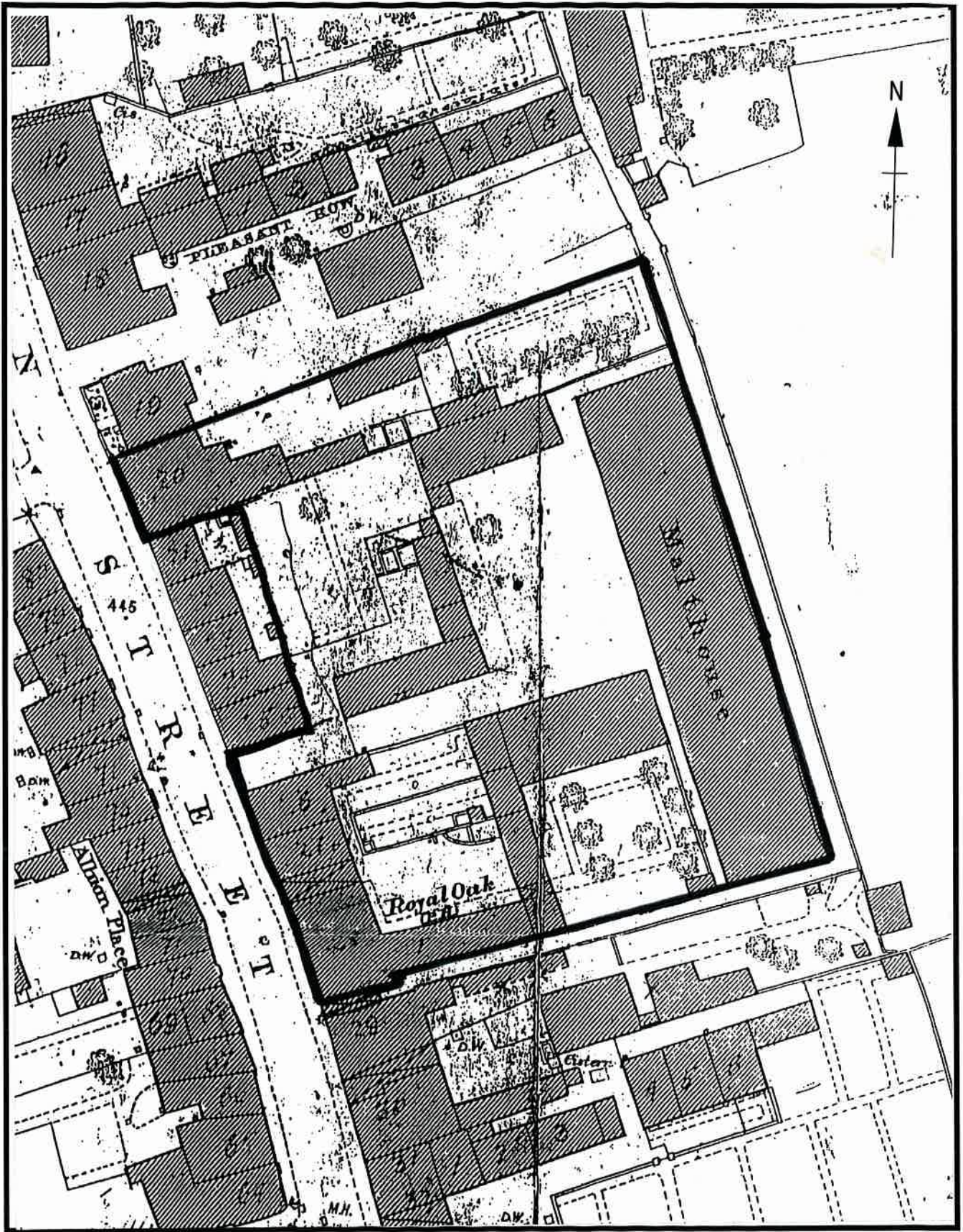


FIGURE 7. ORDNANCE SURVEY (OS) 1ST EDITION 1:500 SCALE MAP (1877)





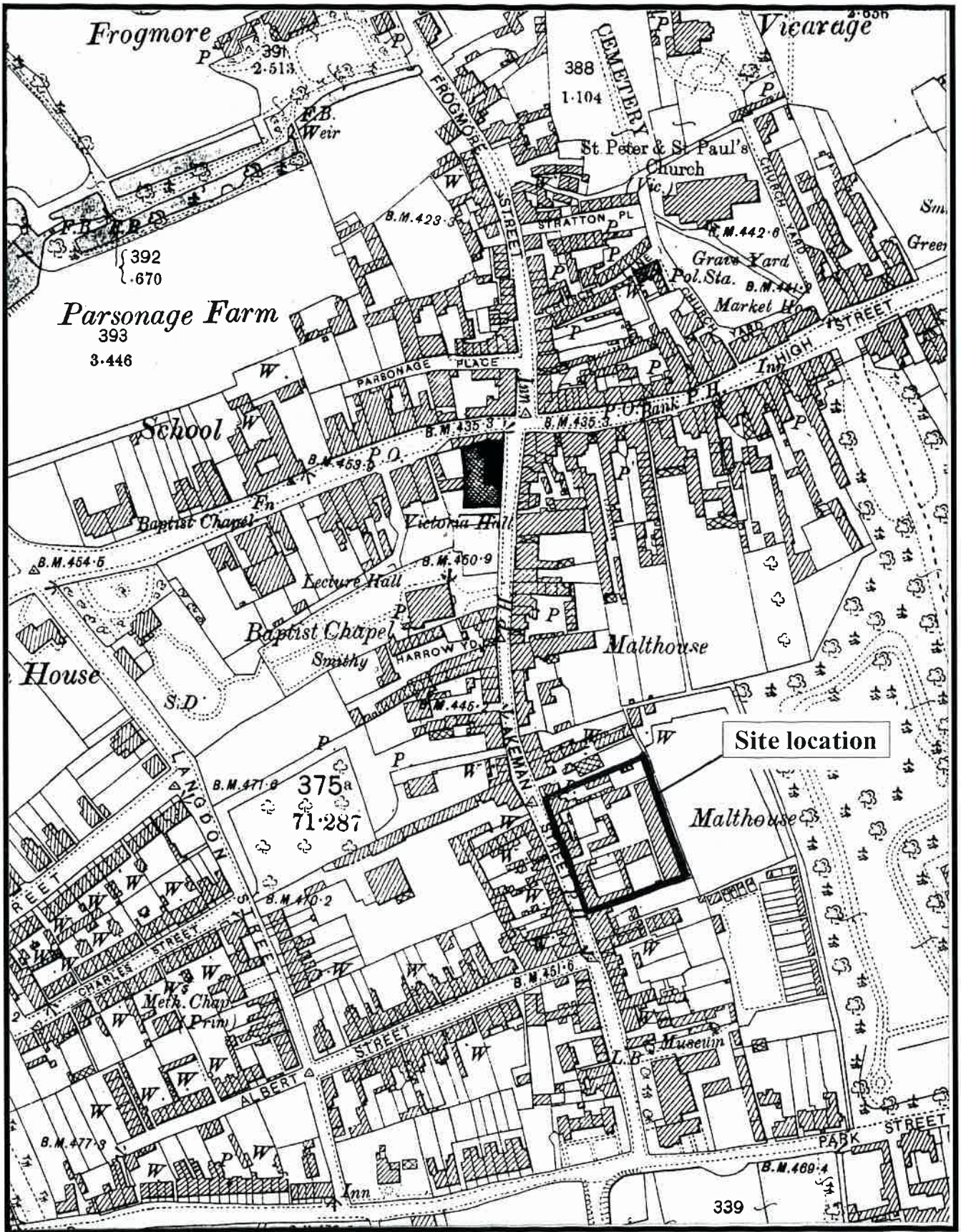


FIGURE 9 ORDNANCE SURVEY 2ND EDITION 25" MAP (1897)

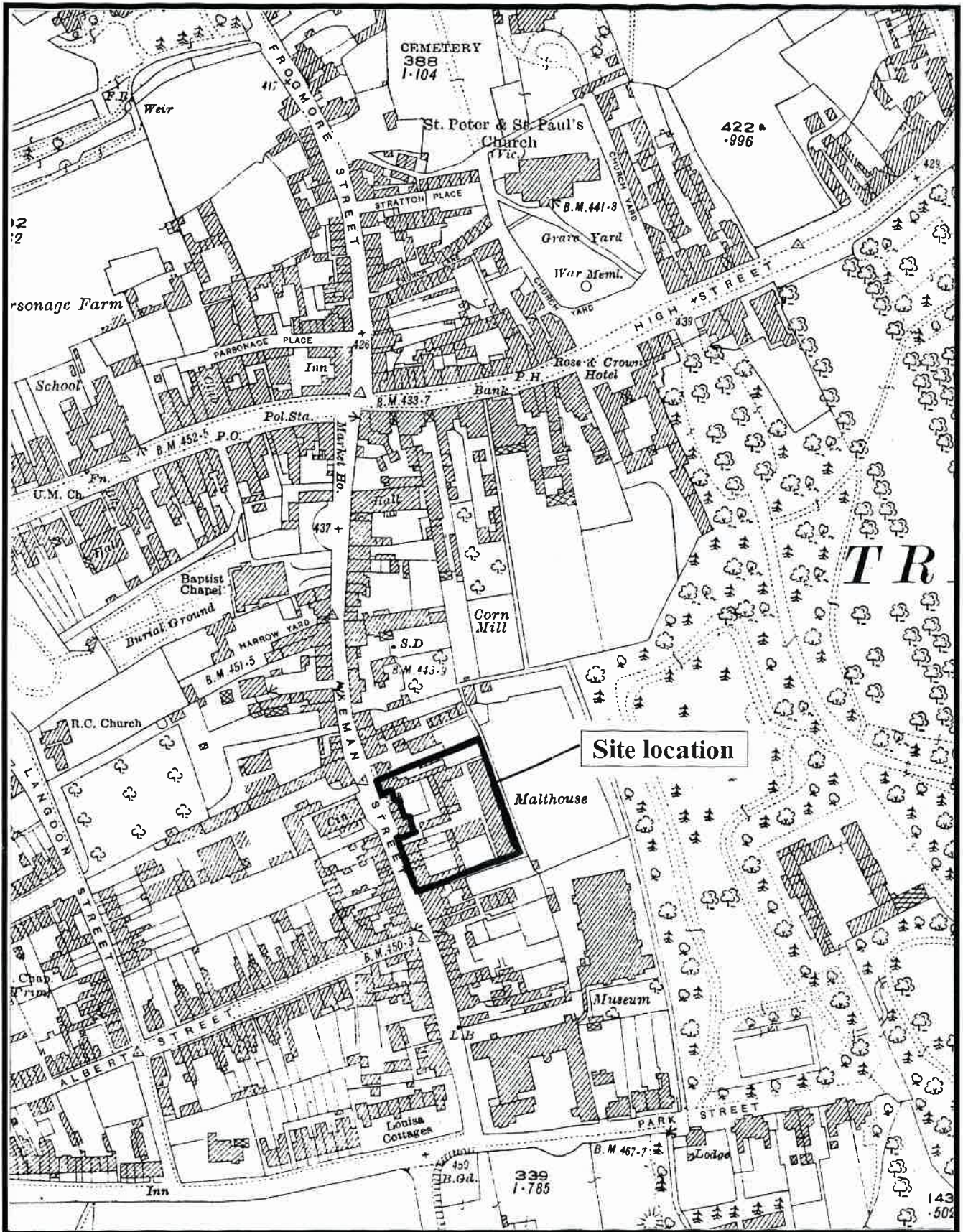


FIGURE 11 ORDNANCE SURVEY 2ND EDITION REVISED 25" MAP (1924)

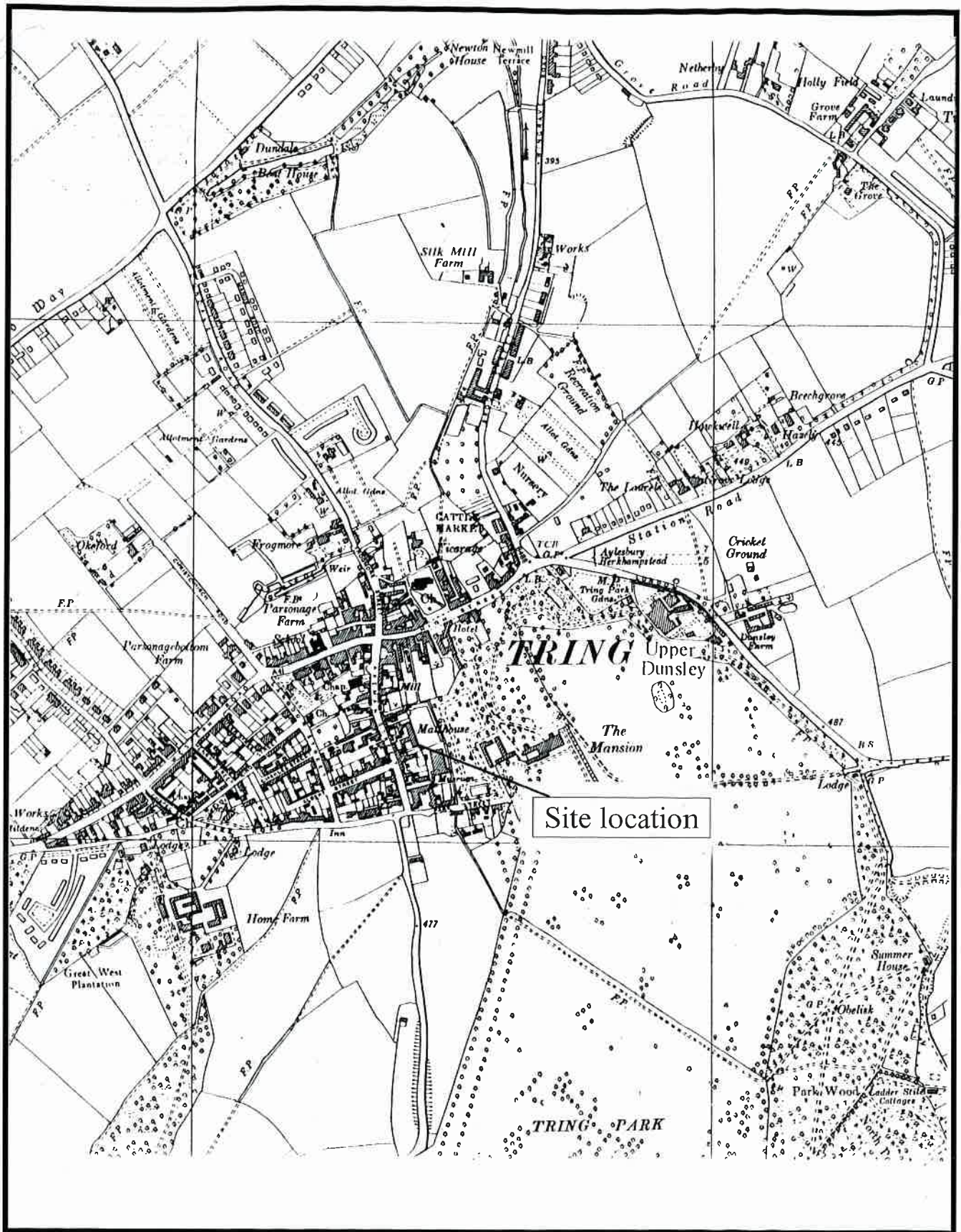


FIGURE 12 ORDNANCE SURVEY 1:10,560 SCALE MAP (1960)

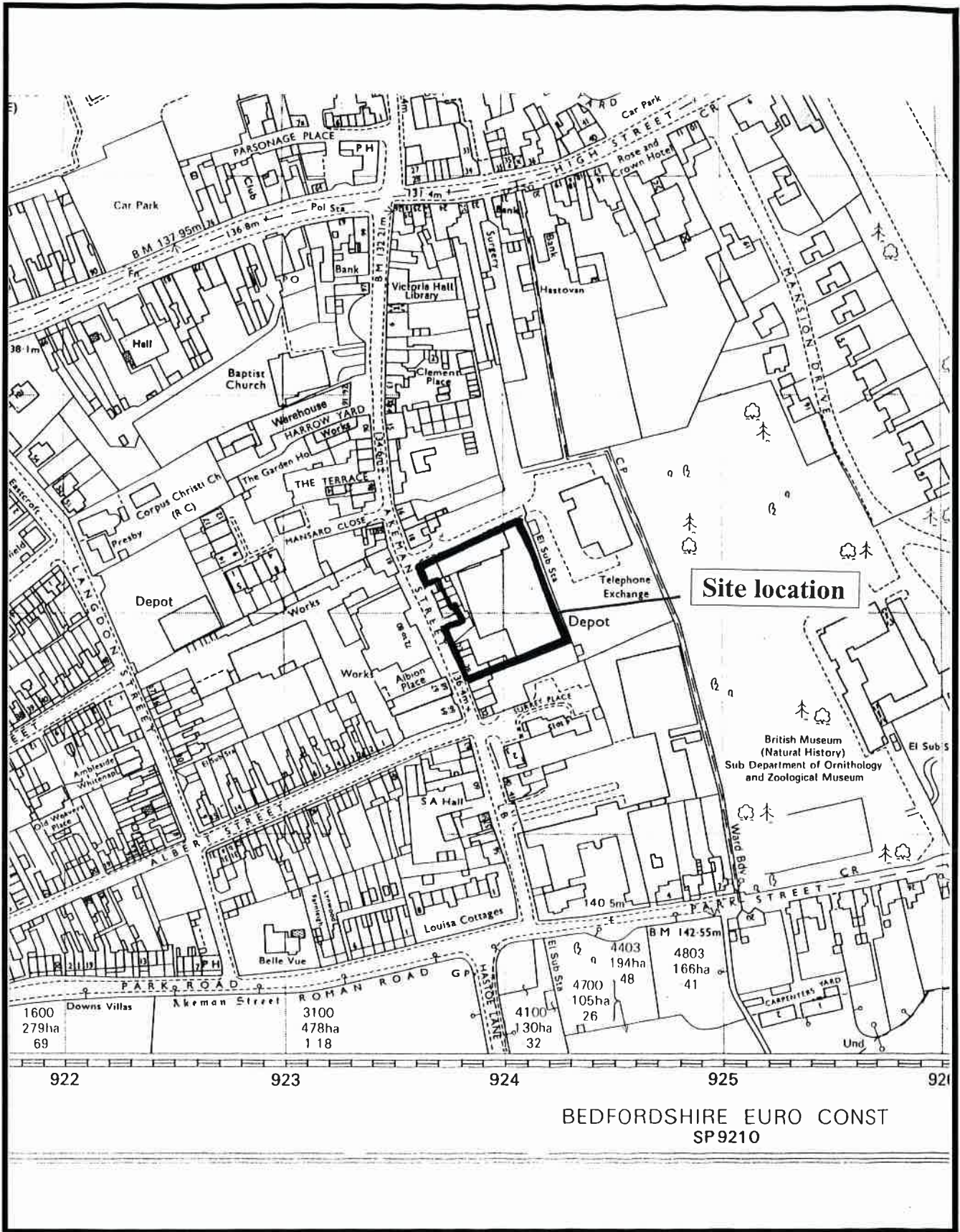


FIGURE 13 ORDNANCE SURVEY 1:2,500 SCALE MAP (1984)



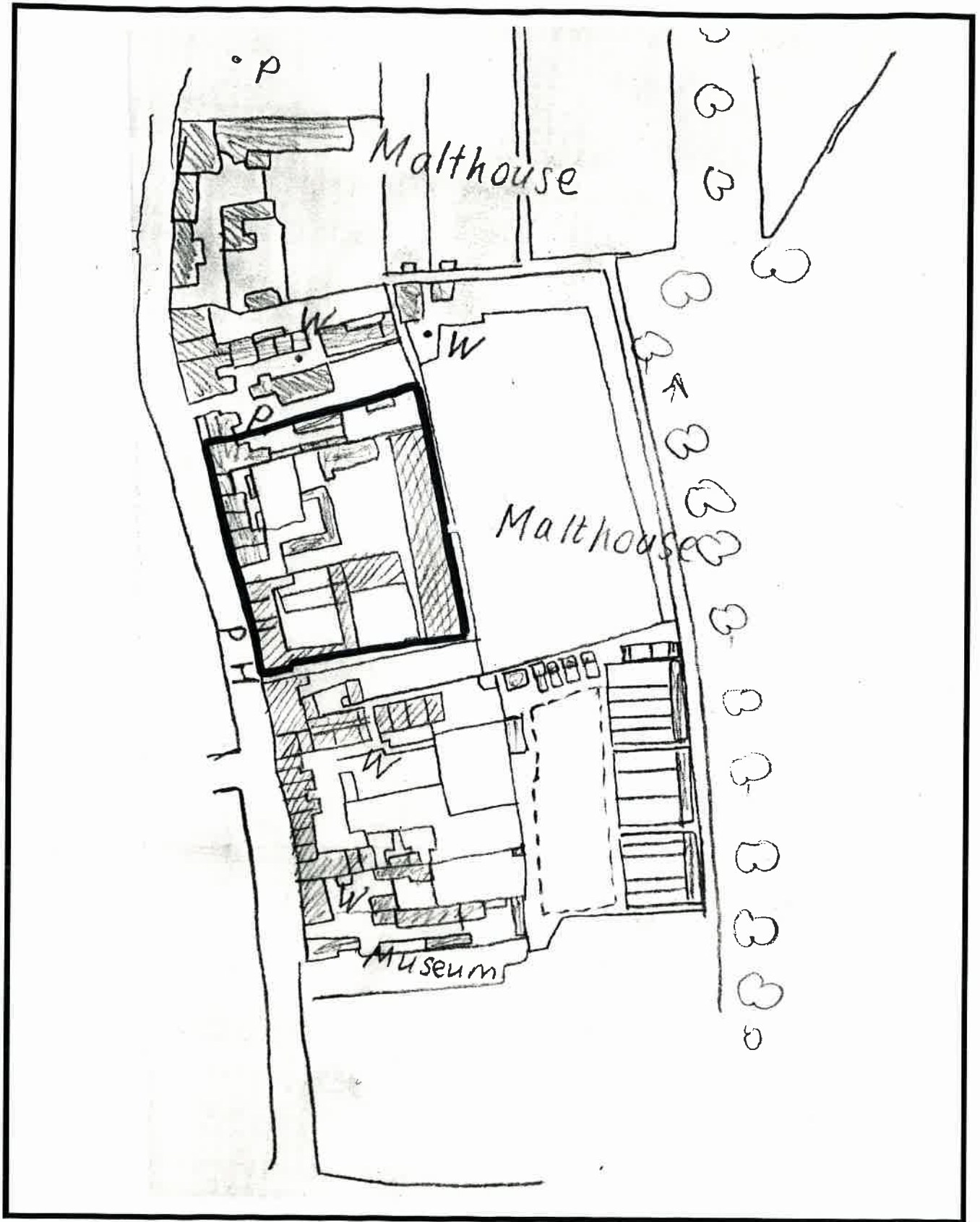
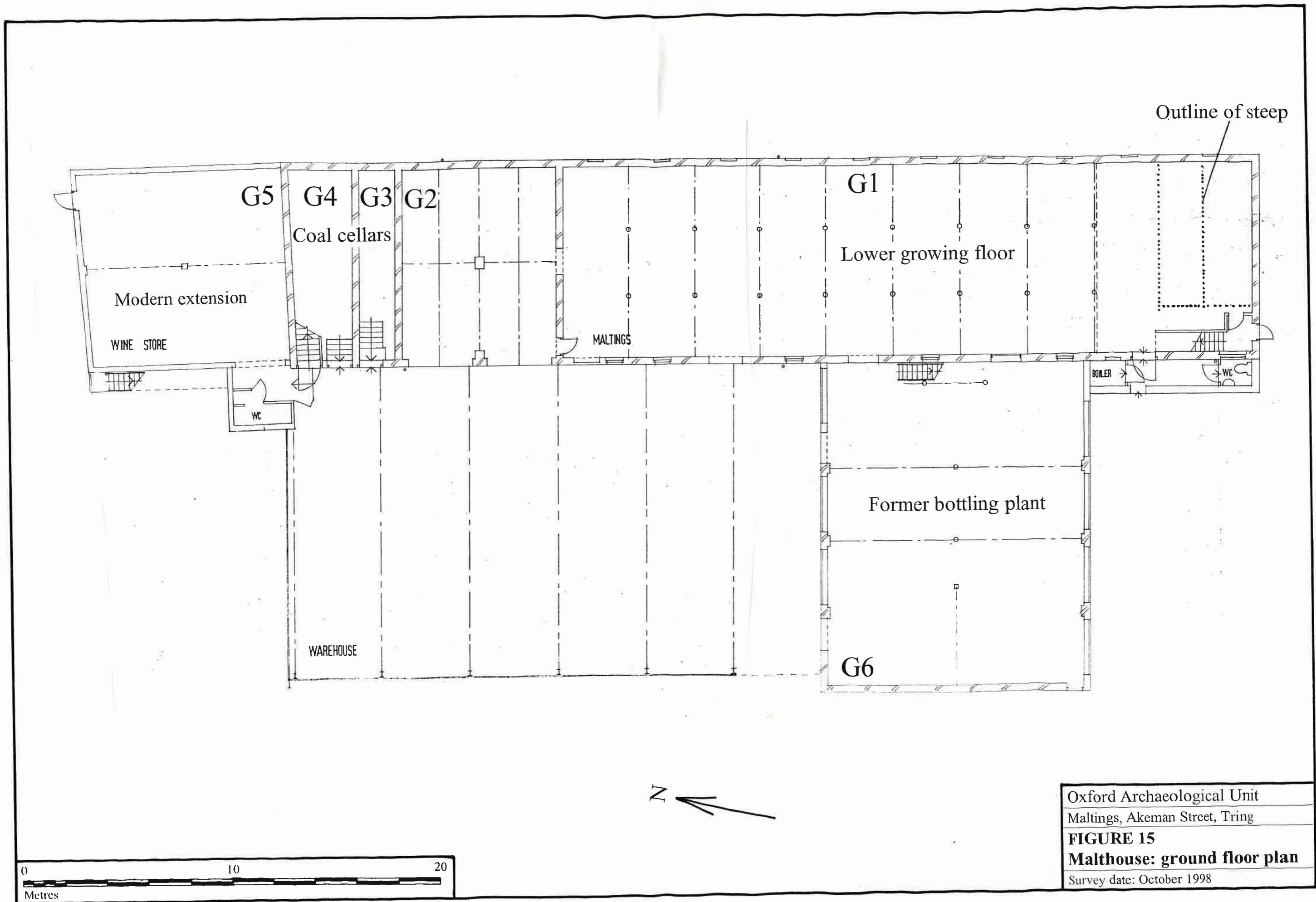
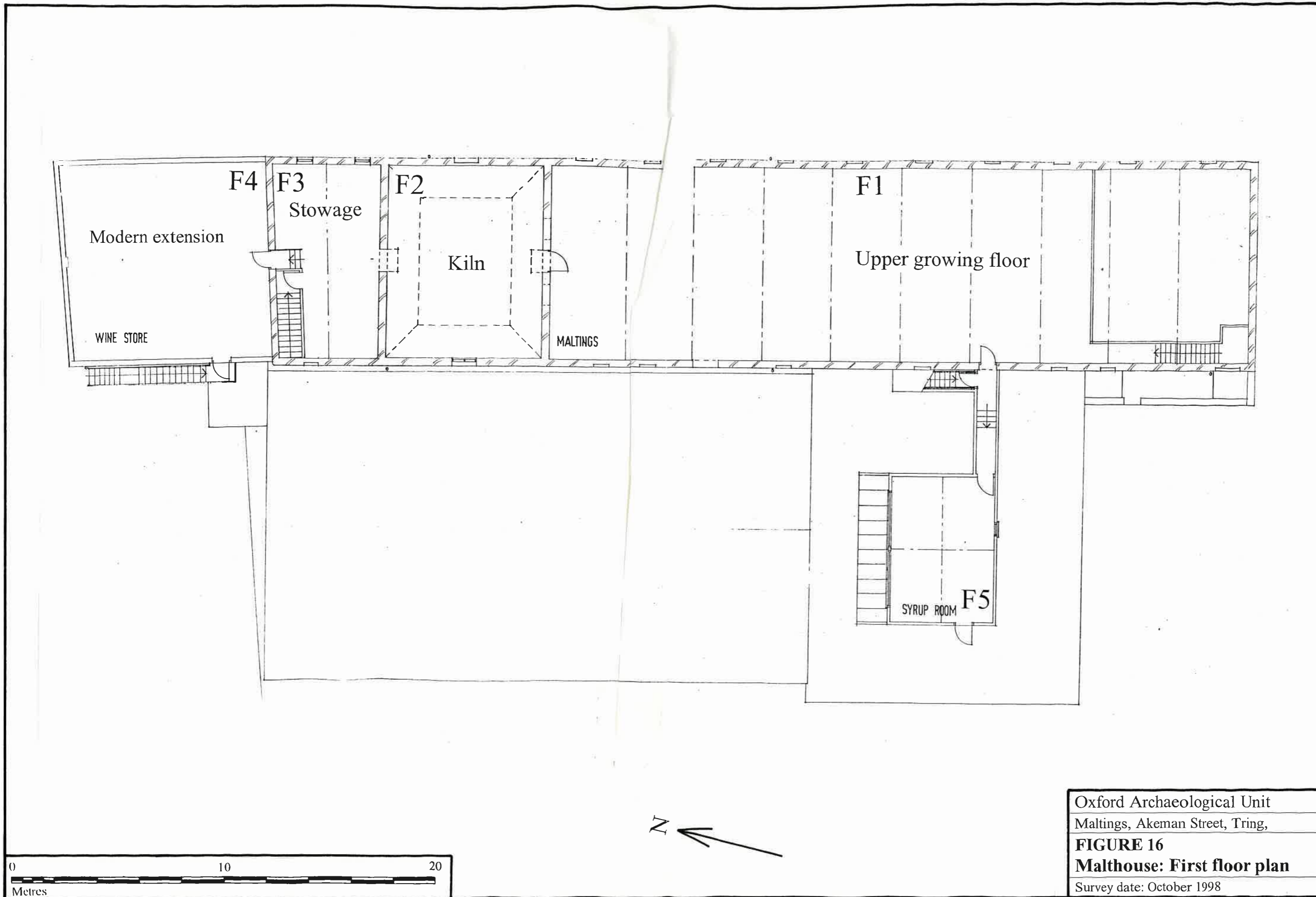


FIGURE 10 ORDNANCE SURVEY 1:1250 SCALE MAP (SPECIALLY ENLARGED FOR THE INLAND REVENUE FROM THE REVISION OF 1897, AND PARTIALLY REVISED 1912) -

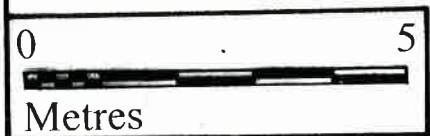
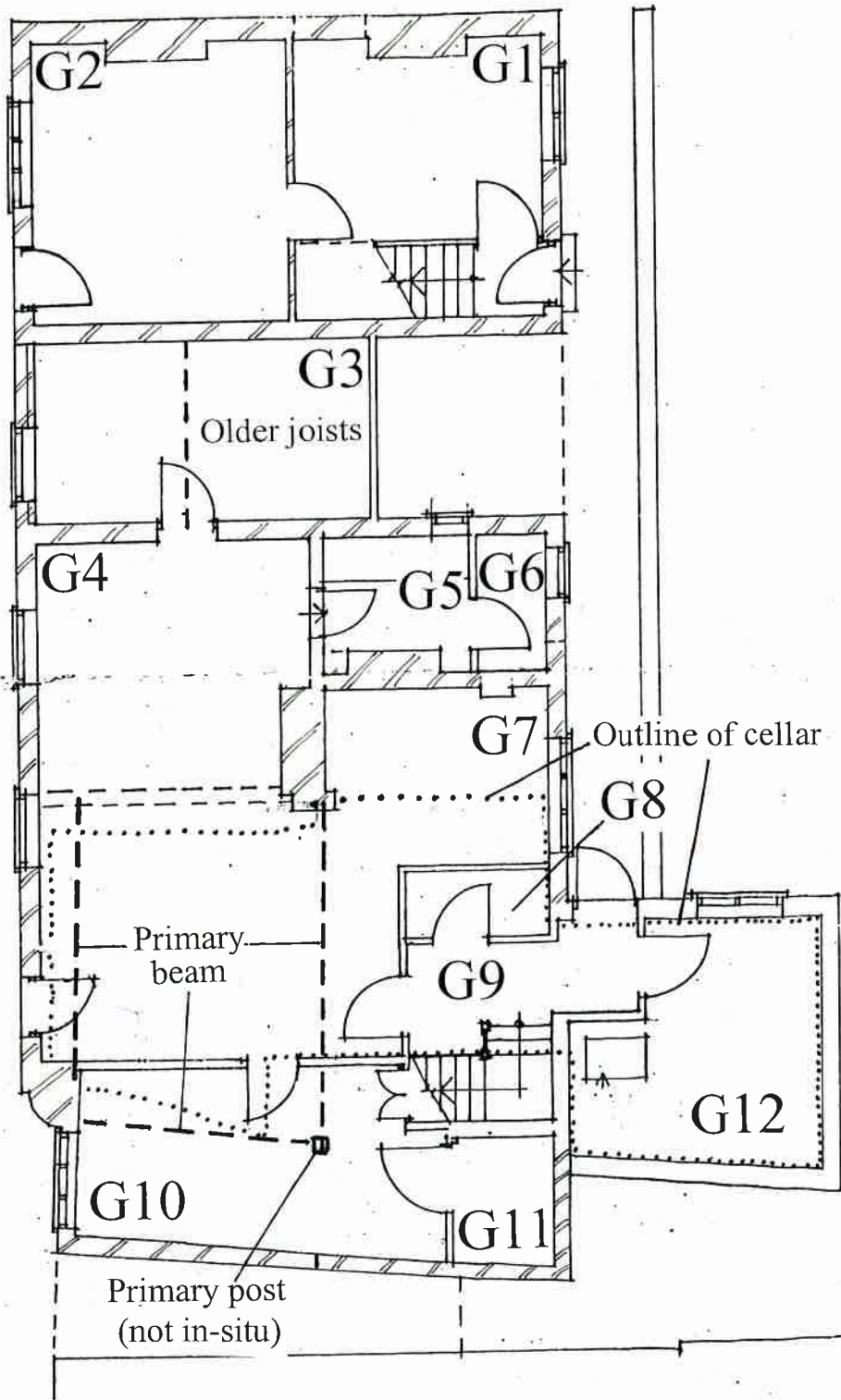


Oxford Archaeological Unit  
 Maltings, Akeman Street, Tring  
**FIGURE 15**  
**Malthouse: ground floor plan**  
 Survey date: October 1998

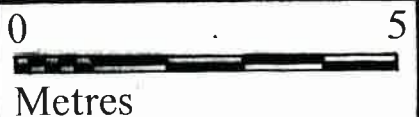
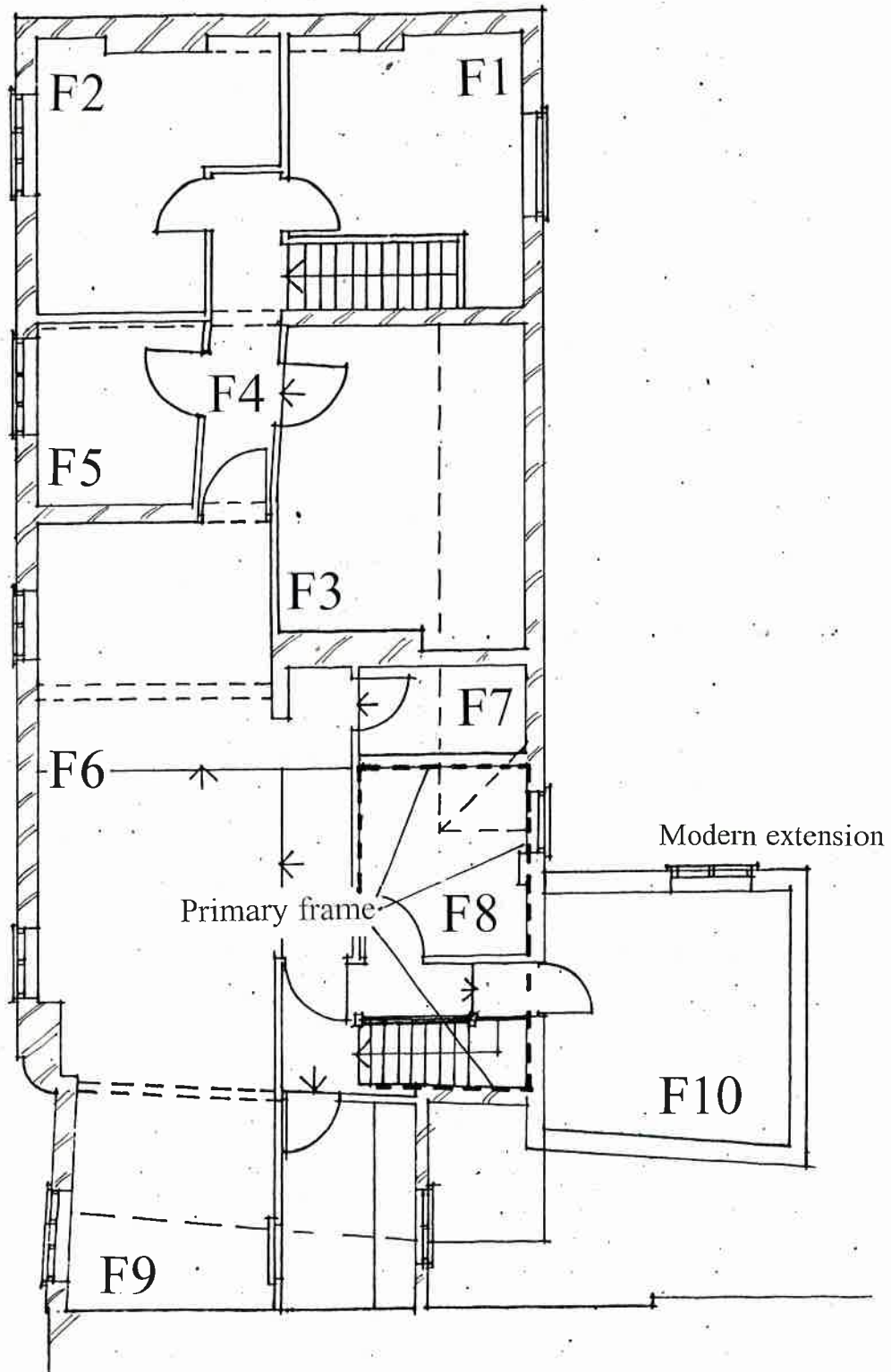


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 Maltings, Akeman Street, Tring,  
**FIGURE 16**  
**Malthouse: First floor plan**  
 Survey date: October 1998





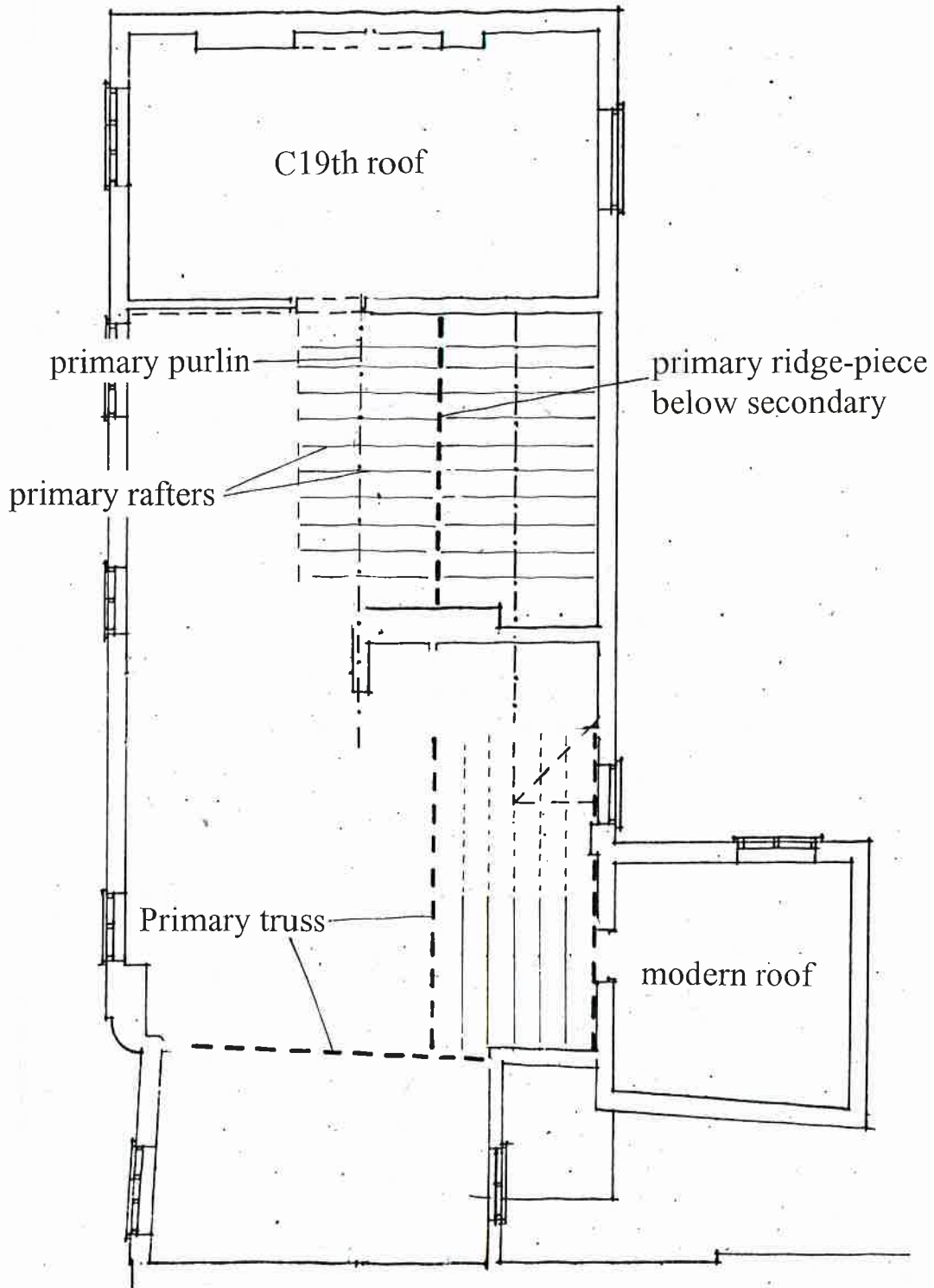
Oxford Archaeological Unit  
 Maltings, Akeman Street, Tring  
**FIGURE 17: 27/28 Akeman Street: ground floor plan**  
 Survey date: Oct 1998. Scale 1:100 at A4



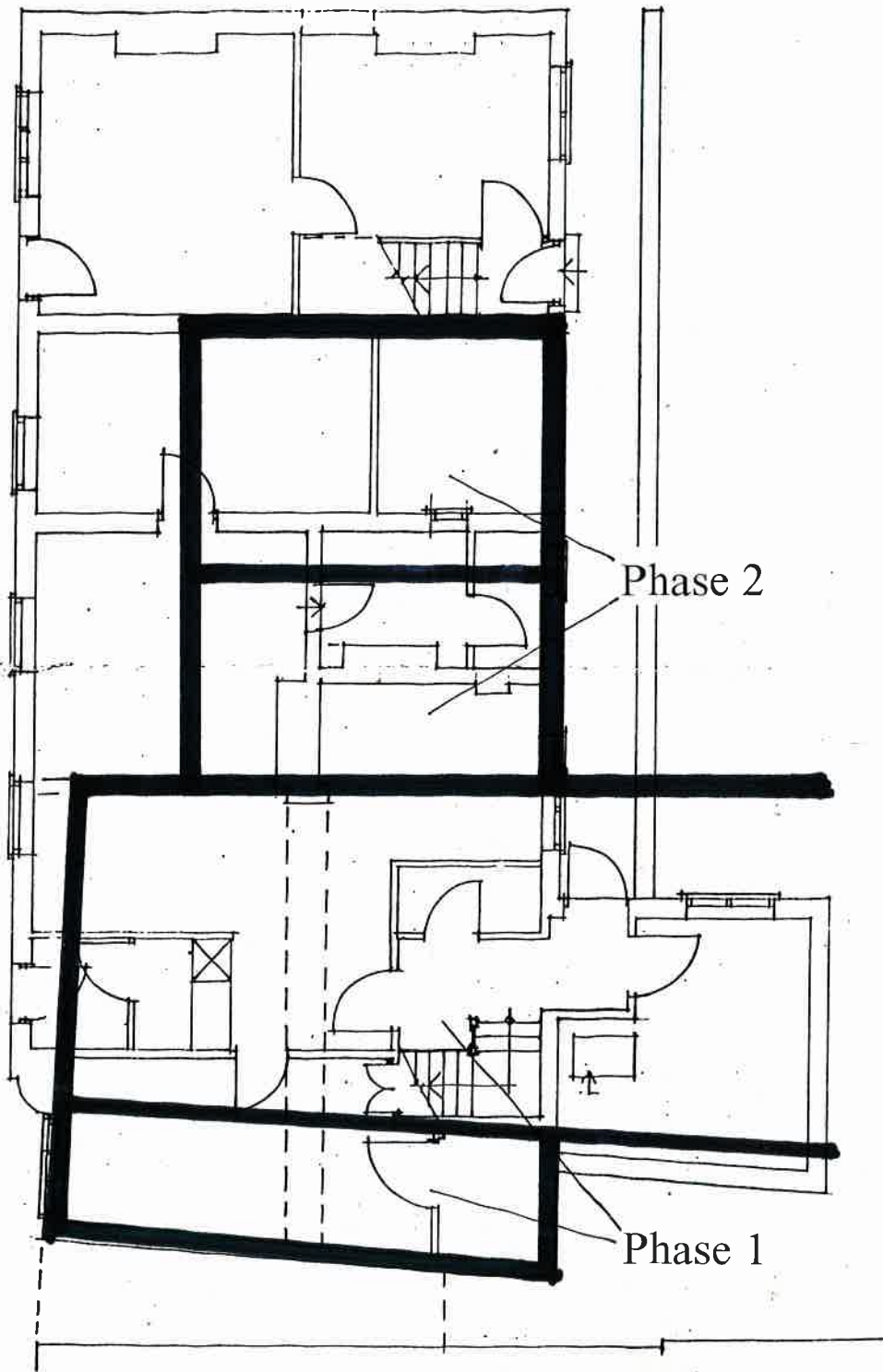
Oxford Archaeological Unit  
Maltings, Akeman Street, Tring,

**FIGURE 18: 27/28 Akeman Street: First floor plan**

Survey date: Oct 1998. Scale 1:100 at A4



Oxford Archaeological Unit  
 Maltings, Akeman Street, Tring  
**FIGURE 19: 27/28 Akeman Street: roof sketch**  
 Survey date: October 1998. Scale: 1:100 at A4



Phase 2

Phase 1



Oxford Archaeological Unit  
Maltings, Akeman Street, Tring  
**FIGURE 20: 27/28 Akeman St:  
possible primary buildings plan**  
Survey date: October 1998. Scale: 1:100 at A4