

*THE
ROYAL GUNPOWDER FACTORY
WALTHAM ABBEY
(FORMER RARDE NORTH SITE)*

*PROPOSED "WESTERN FLANK" DEVELOPMENT AREA.
AREA H AND HIGHBRIDGE STREET
SCHEDULED ANCIENT MONUMENT.*

ARCHAEOLOGICAL REPORT

DECEMBER 1994

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CONSULTANT ARCHAEOLOGIST TO
MINISTRY OF DEFENCE*

Contents.

- Site Location.

- Report Area Location.

- Brief History of the RGPF North Site.

- Brief History of the Western Flank and Highbridge Street Area.

- Archaeology.

- Appendix A.

- References.

**WALTHAM ABBEY
ROYAL
GUNPOWDER FACTORY**

Chelmsford

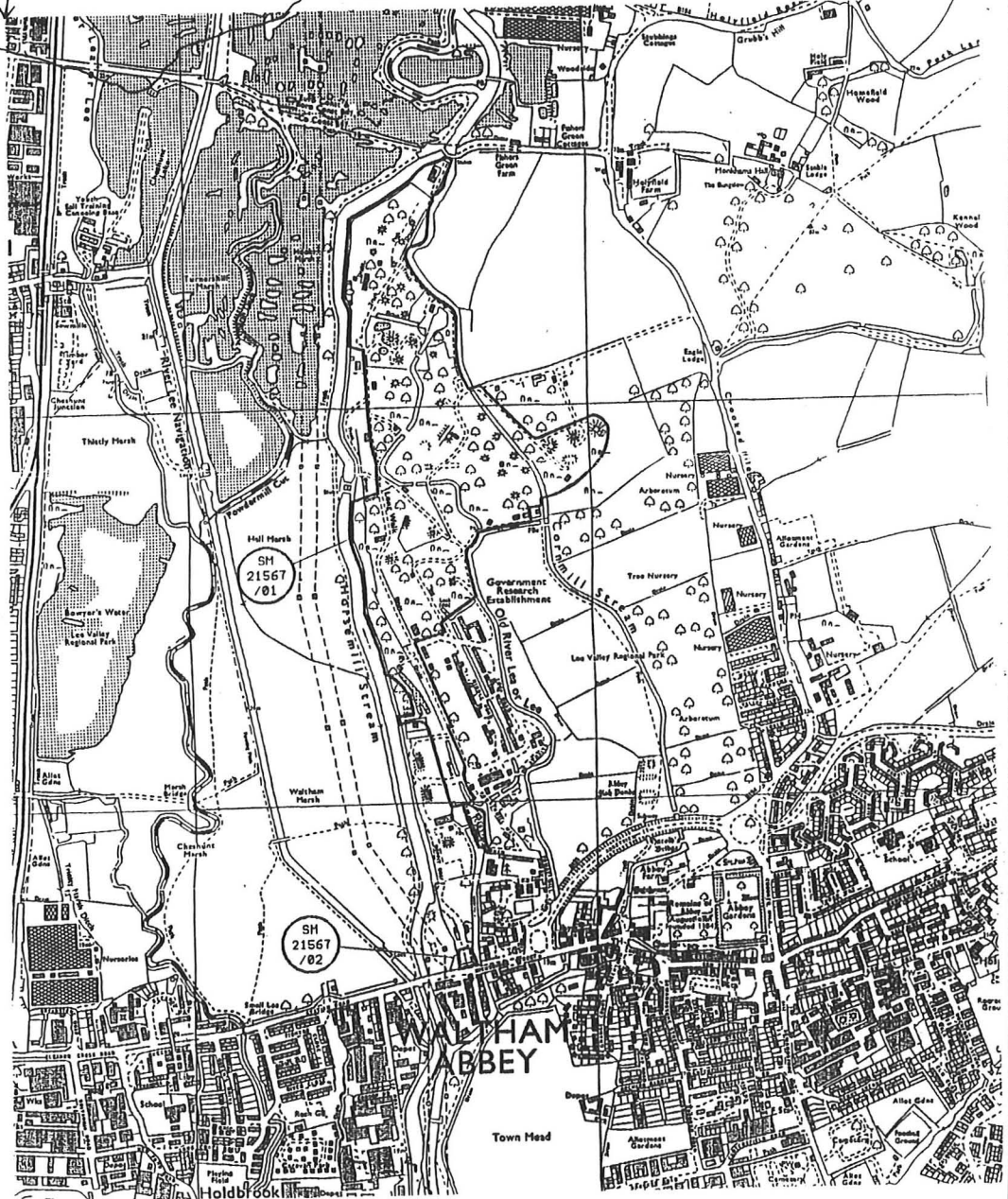
Greater
London



Waltham Abbey town
showing RGPF north
site

Figure 1

Not to Scale



Scheduling Proposal

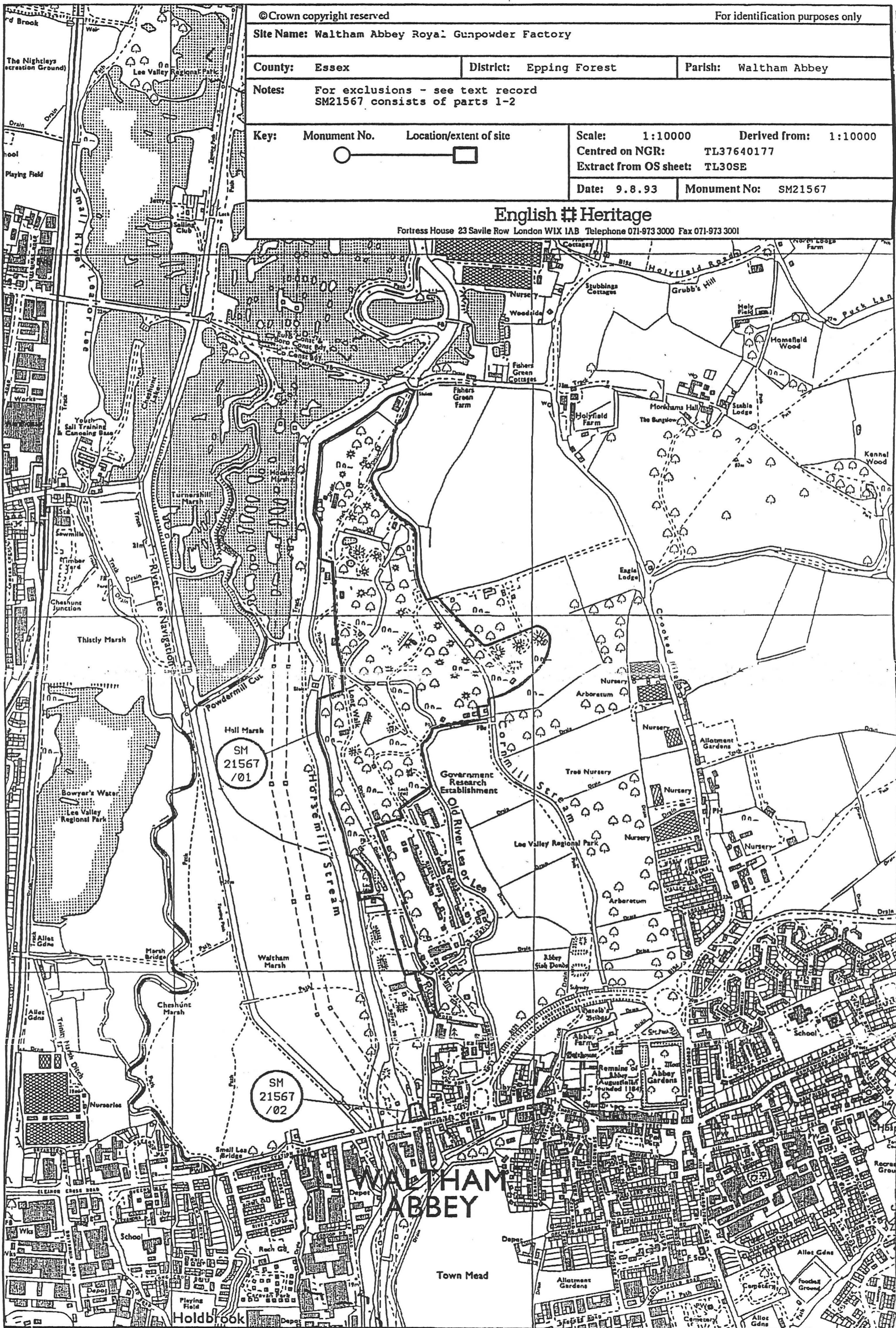


Figure 2

SITE LOCATION

| | | |
|----------|---|---------------|
| County | - | Essex |
| District | - | Epping Forest |
| Parish | - | Waltham Abbey |

National Grid Reference.

Waltham Abbey Royal Gunpowder Factory
(North Site) (TL30SE) TL376 015

The Waltham Abbey Royal Gunpowder Factory, more recently known as the Ministry of Defence's Royal Armaments Research and Development Establishment (RARDE) is located immediately to the North of the historic Essex town of Waltham Abbey.

The North site stretches for nearly two kilometres from Highbridge Street North/South along the Lea Valley to Fishers Green to the North. The perimeter fence compasses almost 75 hectares (190 acres). The factory is bounded on three sides by waterways; the Horsemill Stream to the North and West and by the Cornmill Stream and Old River Lea to the East.

The lower island and South site will not be covered in this report.

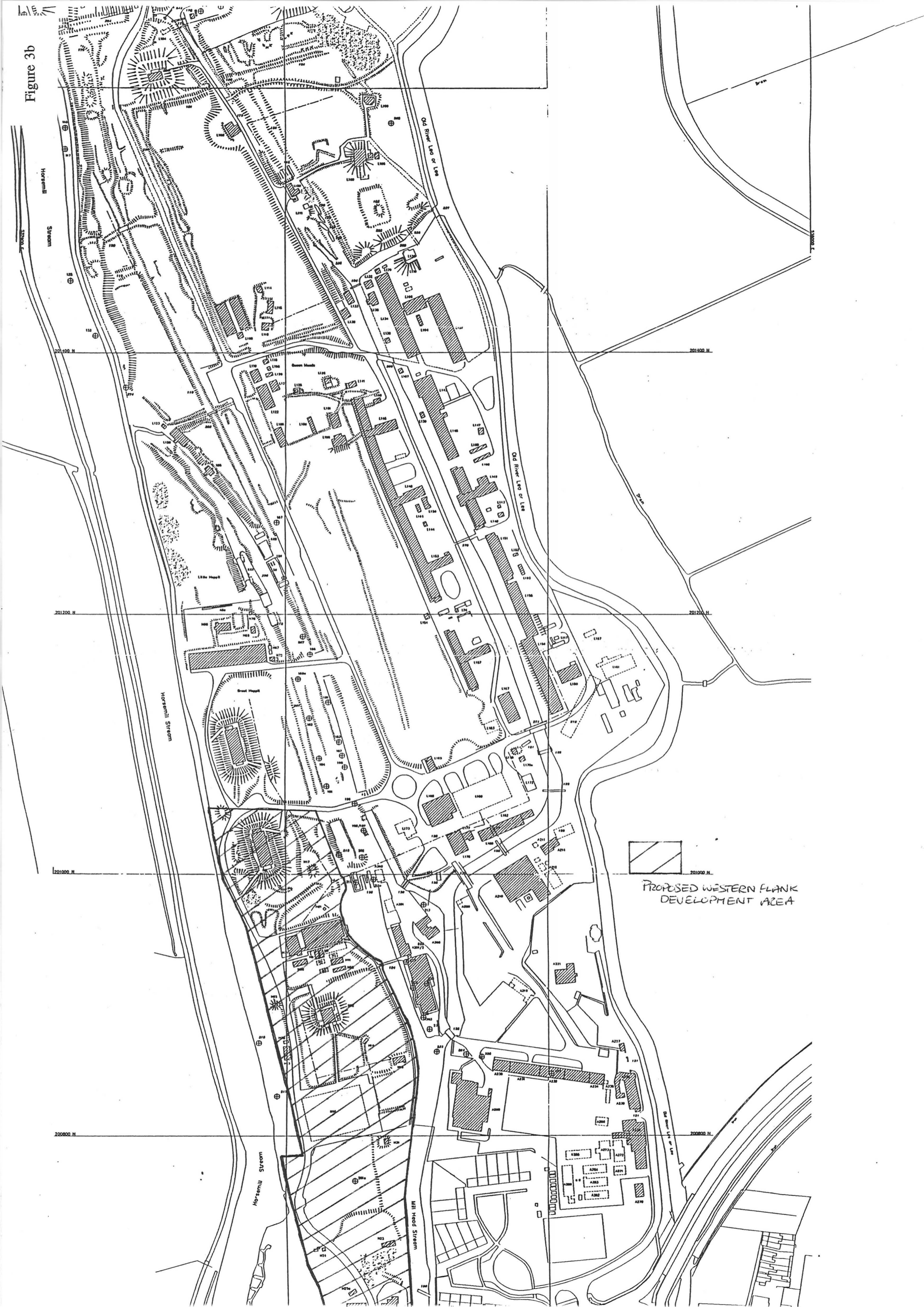
The surface geology is mixed river gravels overlying London clay.

The topography of the site has changed considerably over the last 300 years. Originally the land, excluding the New Hill area, was water meadow. As the factory developed so the area was partially drained by ditches and canals and traversed by raised causeways and the higher level water system. The nature of explosive process buildings, generally surrounded by earth blast mounds, has also



Figure 3a

Figure 3b



PROPOSED WESTERN FLANK
DEVELOPMENT AREA

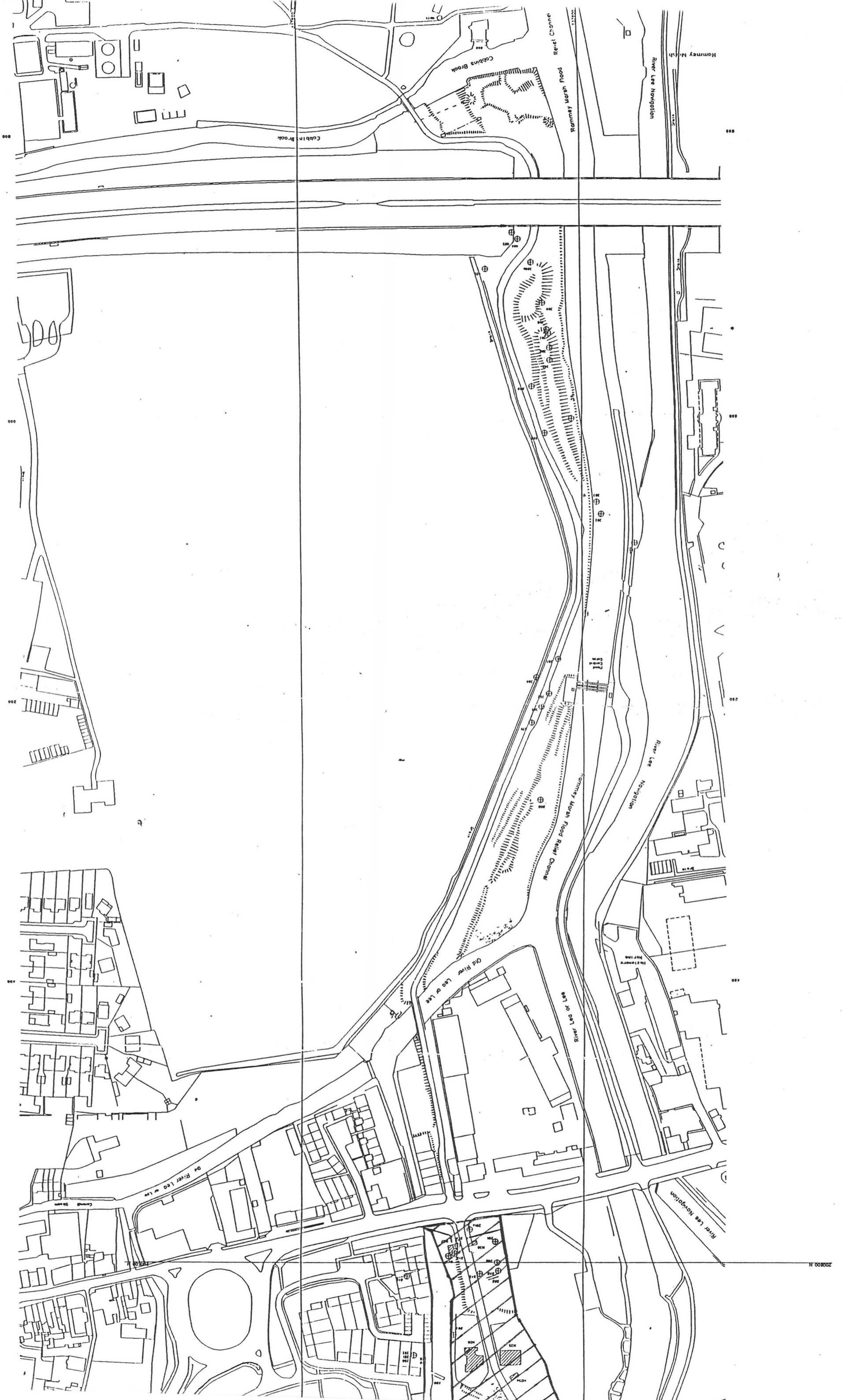


Figure 3c

given the site a dynamic appearance. The woodland which covers just over half the site is product of the manufacture of gunpowder. Alder, Willow and Black Dog Wood (Alder Buckthorn) plantations were set and coppiced creating an on site supply of wood for charcoal, one of the three ingredients of gunpowder.

Report Area Location: TL37650 00840

The area considered in this report will be referred to as the "Western Flank Development Area" (WFDA). This site encompasses approximately two thirds of the area known as H Area and includes the smaller of the two Scheduled Monuments (21567/2) located to the north of Highbridge Street gate. (See figure 2).

The WFDA is defined to the south by Highbridge Street which follows an east west route between the towns of Waltham Abbey and Waltham Cross, this is also the position of the main site gate. To the west the area is bounded by Horsemill Stream, to the east by Millhead Stream, Hoppit Pool and the lower section of the Millhead tail race RCHM301.

The east west site road called Hoppit Road forms the northern extent of the area.

No formal plan of the WFDA has been produced as yet so all boundary descriptions are preliminary (figure 3b and 3c).

The area was once known as Great Hoppit Island and the landscape has changed little over the last 300 years.

A BRIEF HISTORY OF THE ROYAL GUNPOWDER FACTORY,
WALTHAM ABBEY 1665 - 1994.

The Royal Gunpowder Factory has been involved in the research and manufacture of explosives for over 300 years. Initially producing Gunpowder, the site then developed to manufacture chemical based explosives and propellants and finally experimental development of explosive materials after the Second World War.

The first documented references to gunpowder production on the site came from two sources. One is a contract between Ralph Hudson a sub-tenant of the Waltham Mills, and the government, for the supply of gunpowder. The other is the first recorded death in the parish caused by an explosion within a mill, both date to 1665.

The early factory, based around a former fulling mill, probably situated to the south of the island site, quickly expanded to form the well established works depicted on the engraving by Farmer in 1735 (figure 4). The site continued to develop and became one of the principle suppliers of gunpowder to the Board of Ordnance. In the second half of the Eighteenth Century the Board became concerned about the quality, quantity and reliability of the black powder produced by these private firms. So much so that in 1759 the government purchased the Home Works at Faversham, the first Royal Gunpowder Factory. Later in 1787 they purchased the Waltham Abbey works. Almost immediately after, the demand for powder rose as a repercussion of the French Revolution and later the Napoleonic Wars. There was major expansion and investment including the development of the Lower Island site, a narrow strip of land to the south of the original site. In sharp contrast the first half of the Nineteenth Century, between 1820 and 1840 saw little new development.

This period of relative inactivity did not last, by the second half of the

- 1. A Horse Mill
- 2. The Corning and Glazing Engine
- 3. } Three Horse Mills
- 4. }
- 5. }
- 6. The Stables
- 7. The Coal Mill and Composition House

- 8. The Carpenters and Millwrights work house
- 9. The Clerks Counting house and the Watch house
- 10. The Loading house
- 11. } Two Stamping Mills
- 12. }
- 13. } Two Dumb Mills
- 14. }

- 15. The Charging house
- 16. The old Composition house
- 17. The Store house
- 18. The Dusting house
- 19. The Little Stove
- 20. Three Sun Stoves, or drying Leads
- 21. The great Stove



To John Walton Esq. Proprietor of these Mills this Plate is  humbly dedicated by his Obedient humble Servant J. Farmer.
Jas. Munds. Sculp.

R. West. delin. 1735

GENERAL VIEW OF THE FACTORY IN 1735
 (FROM FARMERS "HISTORY")

From Simmons W.H. 1963.

Century the demand for cannon powders for larger guns and for moulded powders in greater quantities resulted in rapid changes and innovations.

It was also in the latter half of the Nineteenth Century that tentative production of the new chemical explosive, Guncotton, took place. Manufacture of the new liquid explosive Nitroglycerine soon followed and by the last decade of the Nineteenth Century, Cordite, a mixture of guncotton (Nitrocellulose) and nitroglycerine was in production. Cordite was such a successful explosive, it quickly became the main service propellant and by 1900 the majority of the old gunpowder buildings on site were converted to make cordite.

At the same time as the shift to chemical based explosives the works expanded south with the purchase of the Quinton Hill works in the 1880's now known as South Site.

Initially the South Site consisted of a guncotton factory but nitroglycerine and cordite production areas followed shortly afterward.

Back on the North Site an acid factory and nitroglycerine facility were built in 1890's. The wet guncotton was produced on the South Site and barged up to the grand magazine where it was stored. Then it was moved down the site, north to south, from drying to mixing and pressing, finally resting at H12, the cordite reel magazine.

The First and Second World Wars naturally saw peaks in production and investment into the site. During the First World War the labour force rose to 5000 its greatest number, over half were women, working shifts to ensure continuous production.

A number of high explosive products were made at the RGPF even though the site was never a high explosive plant. Picric acid was produced in the 1870's and 1890's and later around 1910 Tetryl (C.E or Composition Exploding) was produced. Between the Wars important research was carried out on the safe and efficient production of TNT and RDX.

The sites proximity to urban areas and the continent forced its closure as a production site in 1943 in favour of the new purpose built Ordnance sites in Scotland and the North West of England.

The site reopened in 1945 after the war as a government research establishment, initially set up to research into liquid fuels for rockets and other applications. A plant was also constructed to develop plastic propellants for use in rocket motors. Over the next 30 years research into propellants, plastic and rubber propellants, polymers, properties of high explosives and many other aspects of energetic and inert materials, took place on North and South site.

By the 1960's Waltham Abbey was the sole government laboratory carrying out research on non nuclear explosives of every kind.

Many of the old cordite and gunpowder buildings were used as laboratories also some of the test beds were converted nineteenth century process buildings. A number of purpose built test beds were also constructed.

The site finally closed in June 1991 after 204 years of government service. Since 1992 a programme of decontamination and remediation has been carried out with the aim of putting the site to beneficial reuse in the public sector.

BRIEF HISTORY OF THE WESTERN FLANK DEVELOPMENT AREA
(HIGHBRIDGE STREET SAM AND AREA H).

Unlike most historical sites, the RGPF site at Waltham Abbey has an abundance of both documentary and cartographic information. The problem lies not in the normal struggle to find enough information to produce a brief history. On the contrary there is so much information that it is difficult to disseminate the mass to produce a short history of the area.

HIGHBRIDGE STREET SCHEDULED MONUMENT.

NATIONAL MONUMENT NUMBER 21567/2 (Figure 5).

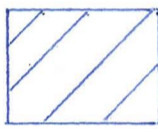
i) Buildings.

The earliest map of the area of Waltham Abbey and the site dates to around 1590. The only building depicted within the site location is a Fulling Mill positioned on the eastern bank of Millhead Stream, possibly within the Powdermill Lane Housing Area (please see relevant report).

Studying the engraving by J.Farmer, of 1735, the site is depicted as a well established manufactory, but still at this date the buildings owned by John Walton were restricted to the east bank of Millhead Stream (see figure 4).

By 1783 a canal and two buildings, relating to the site but separated geographically, had been built just north of the main Waltham Abbey/Waltham Cross road.

The canal branched off west from Millhead Stream and curved south forming a semi-circle of water with Millhead Stream to the east and Highbridge Street to the south. The function of this canal is unrecorded. On a map of the site dated to 1783 (figure 6), the canal widens considerably on the western side perhaps

 HIGHBRIDGE STREET SCHEDULED ANCIENT MONUMENT.

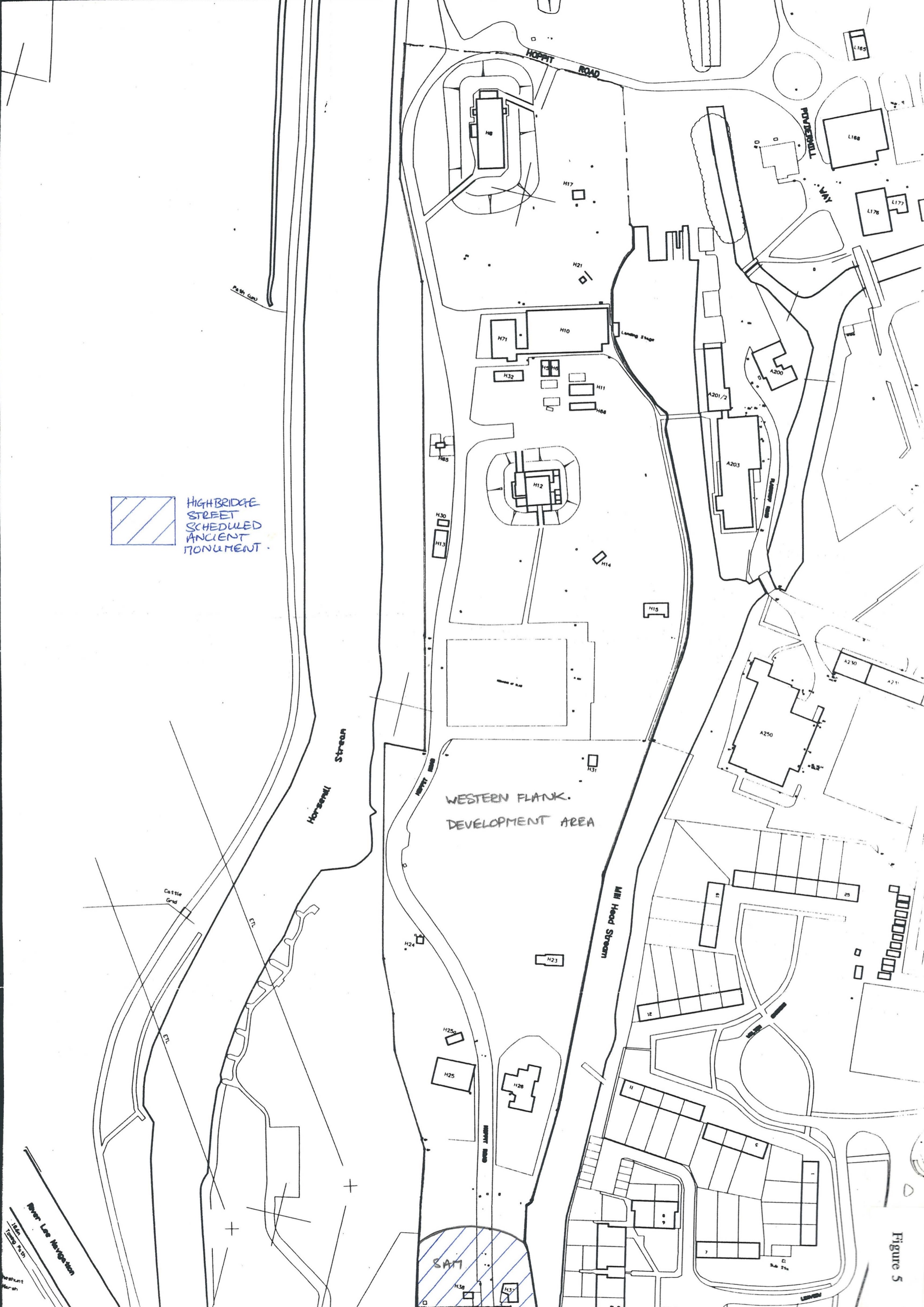
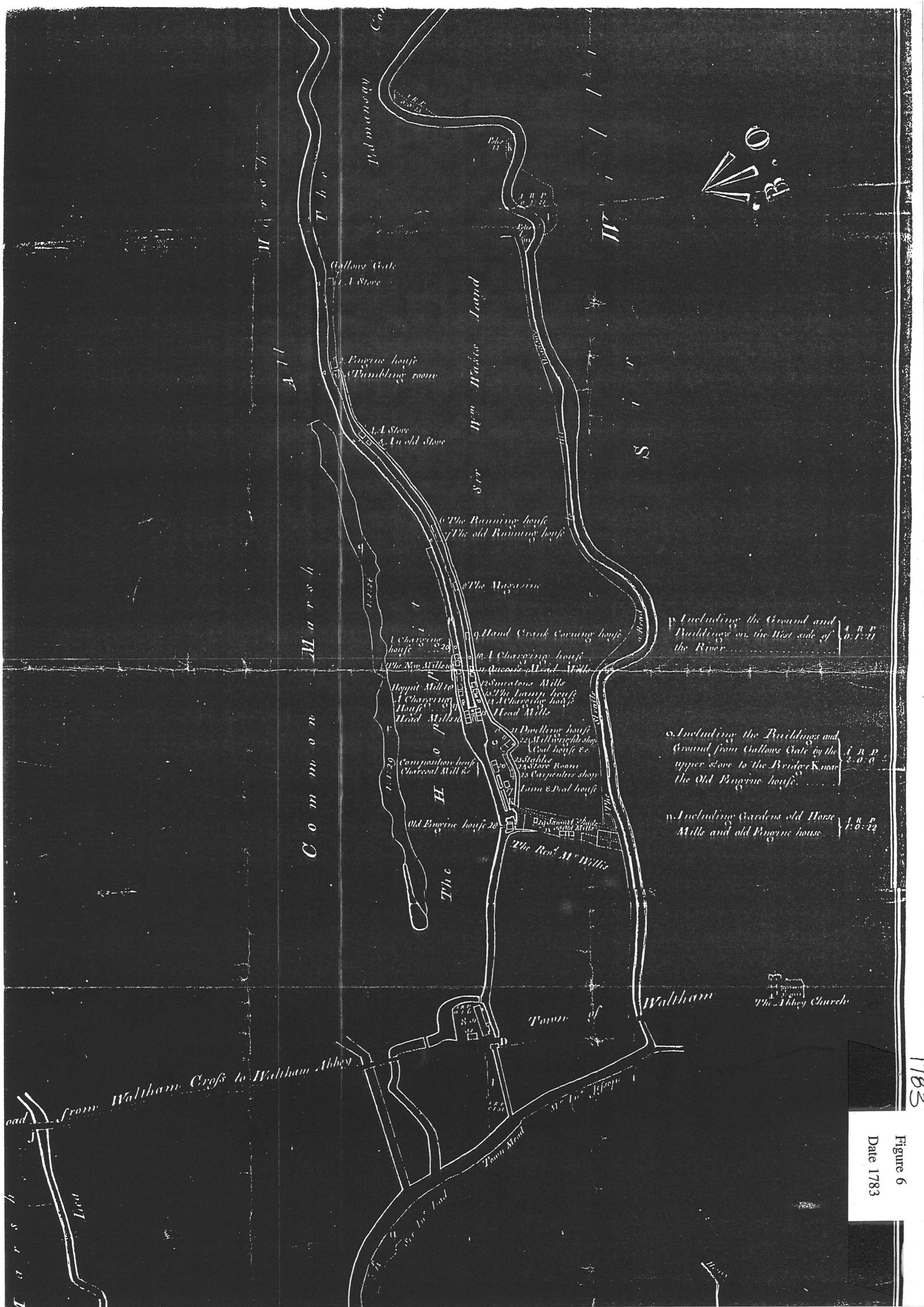


Figure 5



p. Including the Ground and Buildings on the West side of the River. A R P 0.1.31

o. Including the Buildings and Ground from Gallows Gate by the upper store to the Bridge near the Old Engine house. I. R. P. 2.0.0

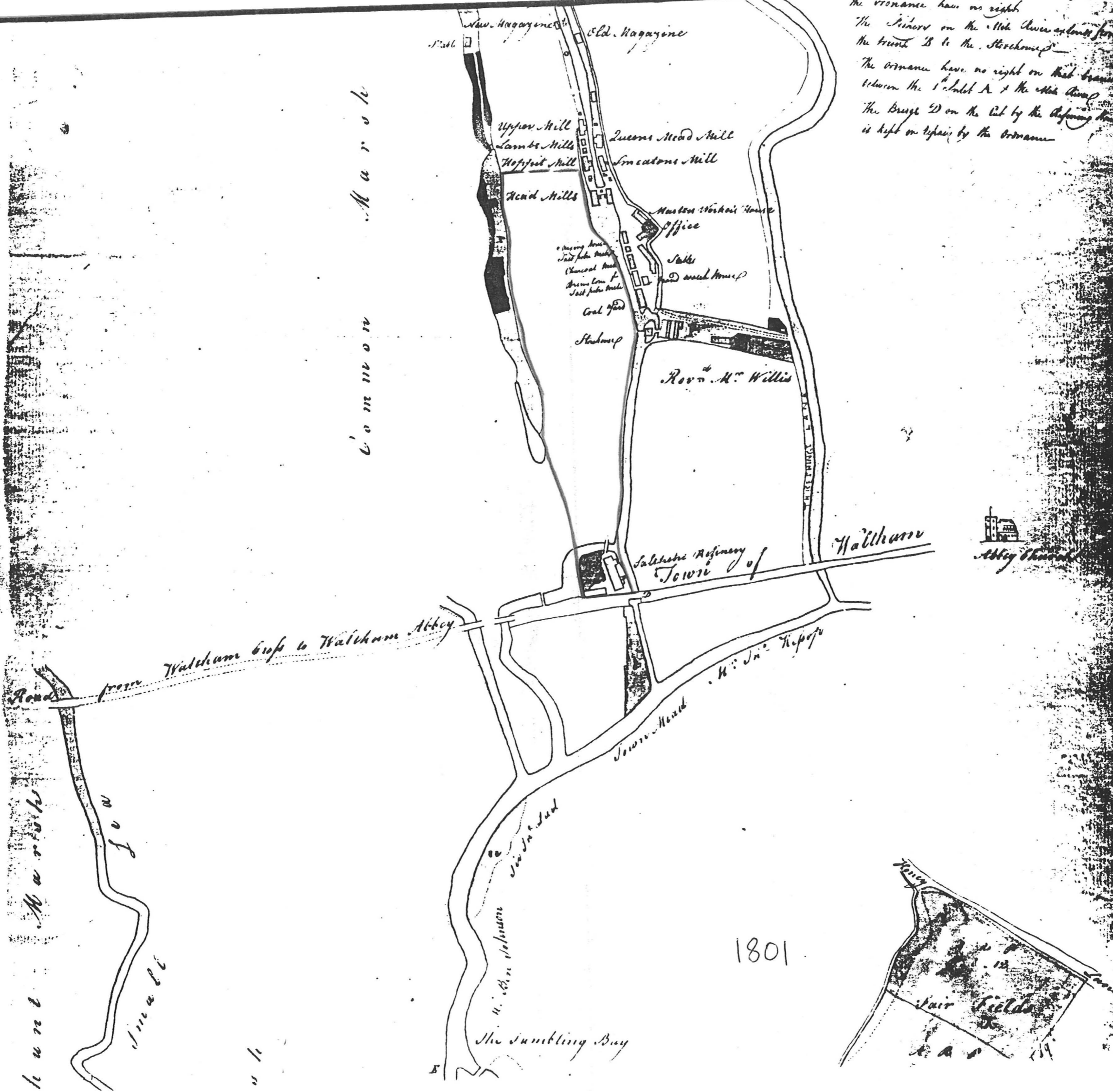
n. Including Gardens old Horse Mills and old Engine house. I. R. P. 1.0.22

1183

Figure 6
Date 1783

Figure 7
Date 1801

Reference: MR 580
1801
P.F. S.S.S.
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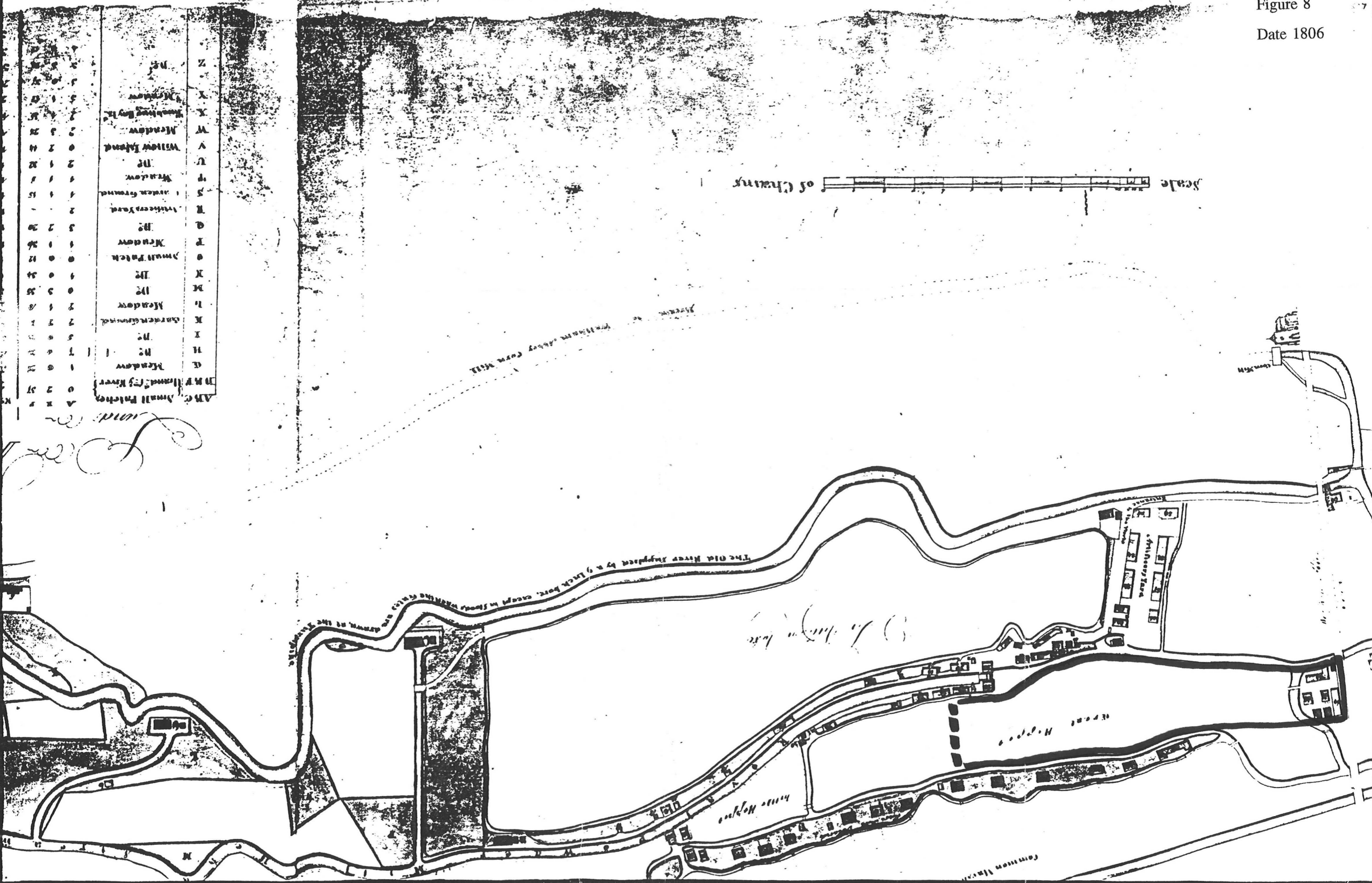


The Ordnance have no right on that branch between the 1st Canal & the 2nd Canal. The Bridge D on the left by the Refinery is kept on repair by the Ordnance.

Waltham

1801

Figure 8
 Date 1806



forming a basin.

The buildings 291a and RCHM311 were constructed some time before 1783 but the exact date is unknown. These buildings formed the saltpetre refinery where the raw saltpetre or grough saltpetre, imported from India or Italy, was refined before being used to produce gunpowder. (Please refer to Appendix A for detailed descriptions of buildings and canals).

This continued to be the extent of the refinery until the area was dramatically re-modelled between 1801 and 1806 when the larger of the two structures to the east was demolished and six new buildings were erected within the semi-circle. The canal itself (RCHM302) was modified at the same time, linking up with the now widened and re-directed Horsemill Stream (figure 7 and 8). This expansion of the saltpetre refinery reflects the development of the rest of the site at this time.

Since the French Revolution in 1789, an almost continuous state of war existed between England and France, consequently the demand for powder was high, in fact so high in the first decade of the 19th Century that 6 Horsemills were constructed on Horsemill Island which lay to the west of Great Hoppit. The Island was destroyed by the canalisation of Horsemill Stream in the 1970's.

The horse mills were a war time expediency, whilst easy and cheap to construct they did not make further demands on the already heavily burdened water system on site.

Around 1827, during a period of entrenchment after the Napoleonic Wars, there was little new development in the area (figure 9). Many of the Horsemills built 20 years earlier had been demolished leaving only three process buildings, these were later converted to stores and ancillary buildings and survived into the early 1900's.

At Highbridge Street little had changed in the layout of the buildings, except the apparent demolition of the main refinery building on the eastern side.

1827
PRO MPH 271

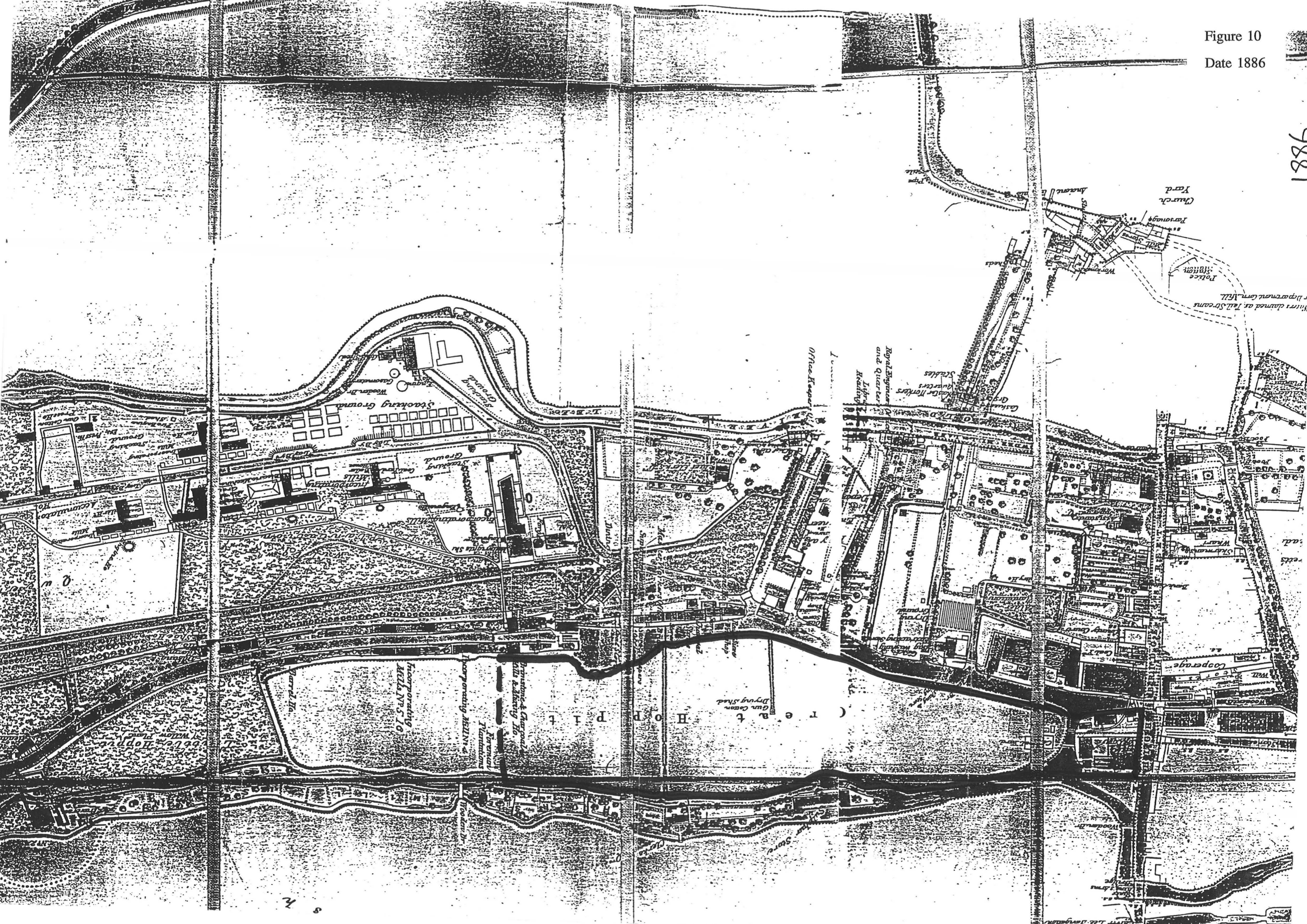
Horse Mill Island.



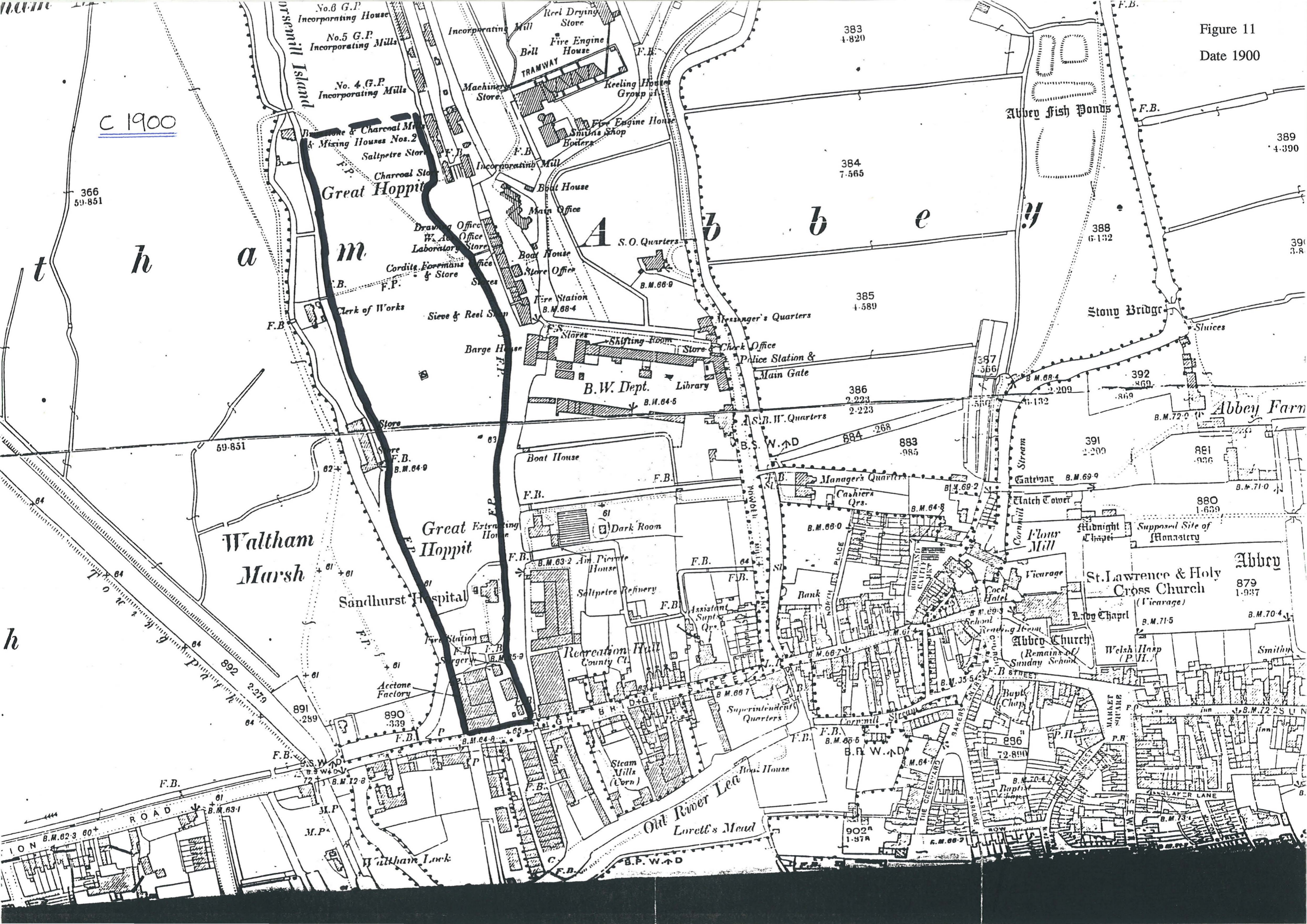
The Corn Mill.

Figure 9
Date 1827

Figure 10
Date 1886



C 1900



However, a new refinery, much larger than the original one had been constructed on the eastern bank of Millhead Stream. Over the next 30 years the function of refining saltpetre transferred over to the new site and the old refinery buildings were reused as stores for sulphur and the refined saltpetre.

In the 1860's some of these buildings were converted again to form part of the new guncotton factory. The main guncotton factory was situated to the south of the later saltpetre refinery on the east bank of Millhead Stream, abutting Highbridge Street.

As previously mentioned Horsemill Island continued in use during the later half of the 19th Century, not for explosive production but for storage of sulphur, administration and housing.

With the exception of a small Guncotton Drying Shed (RCHM343), Great Hoppit was yet to be developed and remained as pasture.

In the 1880's a coal yard and set of latrines (H28 and H27) were constructed to the north of canal RCHM302 to serve the guncotton and saltpetre plants to the south and east.

By 1900 the guncotton factory had moved to the purpose built compound on the South Site and the area around Highbridge Street gate was converted once more this time into an acetone factory. (See figure 11).

A surgery was erected to the east of the acetone plant and a hospital, the Sandhurst Hospital, built for the workers was also completed by the turn of the Century.

The Guncotton Drying Shed, the only structure on Great Hoppit, became redundant around 1890.

With the emergence of cordite as the main service propellant during the first decade of the 20th Century, and the subsequent conversion of the site to its production, a number of cordite process buildings were constructed in this area.

H7 and H8 constructed in 1904, were designed to dry the cordite reels.

1917



Figure 12
Date 1917

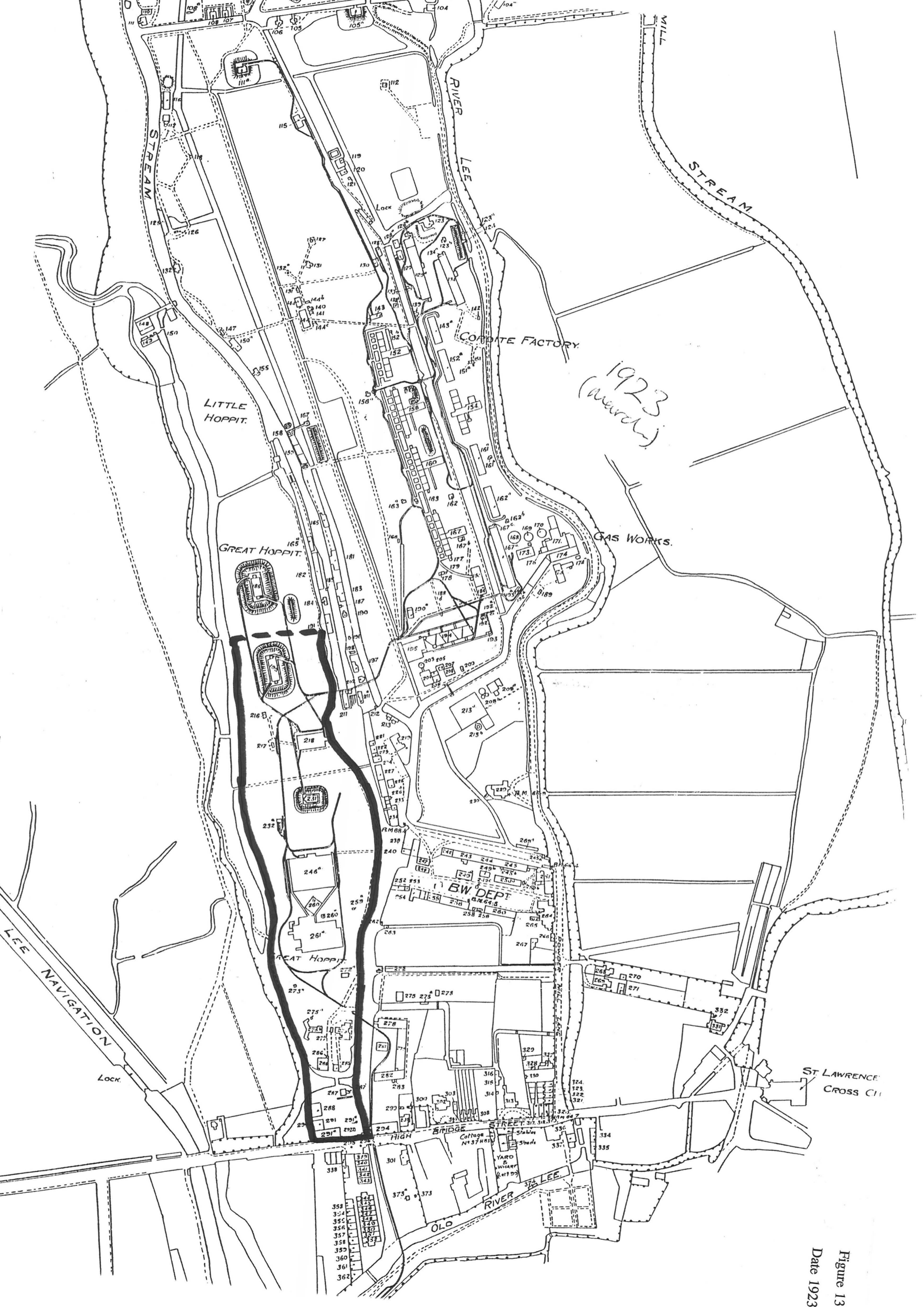


Figure 13
Date 1923



21,000

20,000



1963

E 31,000

A

REF.

AN

WALTHAM AB

H10 also built in 1904 was the cordite reeling house where the strands of extruded cordite were coiled onto copper reels. After drying, the cordite reels were taken to H12, built at the same time, which was the reel magazine where the propellant was stored before being transported to the various filling factories around the country.

During the First World War the womens hospital was erected opposite the Sandhurst hospital. Also during the Great War H16 and H19 were constructed, H16 was a Cordite Press House and H19 was the womens shifting and dining house. Both the new hospital and the shifting house were constructed in response to the dramatic increase of female labour at this time. During the war over half of the 5,000 workers at the factory were women.

This configuration of buildings remained the same for the rest of the factories life, apart from the addition of an air raid shelter (H15) during the Second World War (see figures 12 and 13).

After the closure of the site as a manufacturing facility and the subsequent re-opening as a research establishment in 1945 most of these buildings were converted to offices or experimental test laboratories. (Figure 14).

Many of the services, especially the steam routes and the railway system were removed after the war. The pipe stanctions and railway embankments remained until the recent decontamination operation.

ARCHAEOLOGY.

Minimal archaeological recording was necessary on this area of the site. With the exception of the Highbridge Street Scheduled Ancient Monument the buildings and landscape of Great Hoppit were developed in three distinct phases. There was no demolition (apart from Horsemill Island which will not be considered here) and subsequent over building so the stratigraphy was extremely simple and there were few possible buried structures.

Within the Highbridge Street SAM, where buried remains are numerous and the stratigraphy undoubtedly complex, little ground work has been carried out.

Apart from the former Sandhurst Hospital (H26) and the sewer pump house (H17) all the buildings were demolished during the decontamination operation. All had been recorded by the RCHME, some in greater detail by their Threatened Buildings section (please refer to Appendix A). Buildings have also been recorded by Carden and Godfrey as part of the condition survey.

The former process buildings were stripped out, burnt and then demolished other buildings were simply demolished.

Since the removal of the buildings approximately 0.5 to 1.0m of the surface soil and fill has been removed.

This exercise, as suspected, recovered very little archaeology. No buried structures were found. The few artifacts that were recovered (with the exception of a 'K' round test rocket motor) were identified as general domestic/industrial material of early/mid 20th Century date. No pieces specifically related to site processes.

In February/March 1994 the canal RCHM302 which traverses the site east/west above the SAM at Highbridge Street was excavated. The southern retaining wall was virtually intact between Millhead Stream and the site perimeter fence to the west.

The wall is constructed of red/yellow stocks layed in English bond. The wall survives to approximately 2m above the foundations. The foundations are, as with many other structures on site, timber piles with a heavy board across the pile heads onto which the brickwork is layed. The bottom 6 courses were splayed out in a stepped fashion.

On the northern side the revetment wall only survives to the east adjacent to Millhead Stream for approximately 5m.

The canal had been filled in the early 1970's and the make up of the fill supported this, nothing of historical value was recovered from the canal.

To the north and west during excavation for the new road, just south of the location of H25 (womans hospital), two timber lined, square pits were uncovered. Brief investigation showed that the pits were filled with a dark but loose soil high in organic matter. More interestingly a number of horse (Equid) bones were uncovered, some were burnt and throughout the fill material a large number of small snail shells were observed. The presence of large numbers of snail shells in a feature such as this is a common indicator of cess pits. Looking on the map these features appear to be in the same locations of the latrines, mentioned earlier, which served the saltpetre refinery and guncotton plant.

It therefore seems reasonable to suggest that these remains represent the cess pits for the latrines depicted and probably date to around 1850.

Further north more pits were uncovered approximately 0.5m from the surface. These clearly defined and regular features were dug into the natural clay and were filled with strongly aromatic dark material. Tests have shown the presence of hydrocarbons and tars, the actual material is unknown. Obviously dug to dump this material the date of these pits is unknown, and to what process this fill material was associated with is also a mystery.

Apart from the discovery of two short sections of narrow gauge railway during the surface scrape, no other archaeological features were uncovered.

This is an area of two extremes. The Highbridge Street SAM area is choked with archaeology where as Great Hoppit is archaeologically barren.

Any further development within the SAM must proceed with caution and provide for recording and excavation of the remains. Trawling the documentary sources first may save time and trouble in this situation. For instance, a number of plans show a deep, wide service trench apparently dug in the 1950's running under and following the line of the present road. If that trench could be found again and re-excavated it would be ideal for routing new services. This would dramatically reduce the impact of the archaeology of the SAM.

APPENDIX A.

**ROYAL COMMISSION ON THE HISTORICAL
MONUMENTS OF ENGLAND.**

**BUILDING COMPONENT SHEETS REFERRING TO
"WESTERN FLANK" DEVELOPMENT AREA.**

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THE ROYAL GUNPOWDER FACTORY - WALTHAM ABBEY

| | | | |
|--------------|------------|--------------|--------------------------|
| NUMBER H1 | OLD SERIES | RCHME NUMBER | N.G.R. TL 37638 00938 |
|--------------|------------|--------------|--------------------------|

| | | |
|------------------------|------------|----------|
| NAME/FUNCTION Store | START DATE | END DATE |
|------------------------|------------|----------|

NO PHOTOGRAPHY
AVAILABLE

| | |
|------------------------|--|
| CARTOGRAPHIC DEPICTION | DOCUMENTARY REFERENCES 1972 ERDE List ; Store 1992 RARDE List ; Store 1992 FBRC Store |
|------------------------|--|

| | |
|-------------------------|----------------------|
| PHOTOGRAPHY HISTORIC | PHOTOGRAPHY RCHME |
|-------------------------|----------------------|

RELATIONSHIPS WITH OTHER MONUMENTS
ASSOCIATED WITH: H2,H3,H5,H6,H10,H11,H32,H66,H72

CONDITION Demolished

DESCRIPTION

4) DIMENSIONS i) L 6.6m ii) W 2.92m

5) This modern building was demolished in 1992, a concrete floor slab remains.

THE ROYAL GUNPOWDER FACTORY - WALTHAM ABBEY

| | | | |
|--------------|------------|--------------|--------------------------|
| NUMBER H2 | OLD SERIES | RCHME NUMBER | N.G.R. TL 37625 00923 |
|--------------|------------|--------------|--------------------------|

| | | |
|------------------------|------------|----------|
| NAME/FUNCTION Store | START DATE | END DATE |
|------------------------|------------|----------|

NO PHOTOGRAPHY
AVAILABLE

CARTOGRAPHIC DEPICTION

DOCUMENTARY REFERENCES
 1972 ERDE List ; Store
 1992 RARDE List ; Store
 1992 FBRC Flammable Gas Store

PHOTOGRAPHY
HISTORIC

PHOTOGRAPHY
RCHME

RELATIONSHIPS WITH OTHER MONUMENTS

ASSOCIATED WITH: H1,H3,H6,H10,H11,H32,H66,H71

CONDITION Demolished

DESCRIPTION

- 4) DIMENSIONS i) L 6.1m ii) W 3m
- 5) Modern building demolished in 1992, concrete floor slab remains.

| THE ROYAL GUNPOWDER FACTORY - WALTHAM ABBEY | | | |
|--|------------|--|--------------------------|
| NUMBER H3 | OLD SERIES | RCHME NUMBER | N.G.R. TL 37629 00925 |
| NAME/FUNCTION Solvent store | | START DATE | END DATE |
| NO PHOTOGRAPHY AVAILABLE | | | |
| CARTOGRAPHIC DEPICTION | | DOCUMENTARY REFERENCES 1) FARDE list 1992 - Solvent store | |
| PHOTOGRAPHY HISTORIC | | PHOTOGRAPHY RCHME 1) 206/S/30 17 Mar 1993 Floor slab from East | |
| RELATIONSHIPS WITH OTHER MONUMENTS ASSOCIATED WITH: | | | |
| CONDITION Demolished | | | |
| DESCRIPTION 4) DIMENSIONS i) L 5.4m ii) W 3m 5) Modern building demolished in 1992, concrete floor slab remains. | | | |

THE ROYAL GUNPOWDER FACTORY - WALTHAM ABBEY

| | | | |
|--------------|------------|--------------|--------------------------|
| NUMBER H5 | OLD SERIES | RCHME NUMBER | N.G.R. TL 37628 00936 |
|--------------|------------|--------------|--------------------------|

| | | |
|------------------------|------------|----------|
| NAME/FUNCTION Store | START DATE | END DATE |
|------------------------|------------|----------|

NO PHOTOGRAPHY
AVAILABLE

| | |
|------------------------|--|
| CARTOGRAPHIC DEPICTION | DOCUMENTARY REFERENCES 1972 ERDE List ; Store 1992 RARDE List ; Store 1992 FBRC Radiation |
|------------------------|--|

| | |
|-------------------------|---|
| PHOTOGRAPHY HISTORIC | PHOTOGRAPHY RCHME 1) 206/S/36 17 Mar 1993 From East |
|-------------------------|---|

RELATIONSHIPS WITH OTHER MONUMENTS
ASSOCIATED WITH: H1,H2,H3,H6,H11,H32,H66,H71

CONDITION Good

DESCRIPTION

- 1) CONSTRUCTIONAL MATERIAL
 Pre-cast concrete slabs
- 2) ROOF MATERIALS AND STRUCTURE
 Corrugated asbestos
- 3) POWER SOURCE
 Electricity
- 4) DIMENSIONS i) L ii) W iii) HT
- 5) Modern garage.

THE ROYAL GUNPOWDER FACTORY - WALTHAM ABBEY

| | | | |
|--------------|------------|--------------|--------------------------|
| NUMBER H6 | OLD SERIES | RCHME NUMBER | N.G.R. TL 37620 00933 |
|--------------|------------|--------------|--------------------------|

| | | |
|------------------------|------------|----------|
| NAME/FUNCTION Store | START DATE | END DATE |
|------------------------|------------|----------|

NO PHOTOGRAPHY
AVAILABLE

| | |
|------------------------|--|
| CARTOGRAPHIC DEPICTION | DOCUMENTARY REFERENCES 1972 ERDE List ; Store 1992 RARDE List ; Store 1992 FBRC Radiation |
|------------------------|--|

| | |
|-------------------------|---|
| PHOTOGRAPHY HISTORIC | PHOTOGRAPHY RCHME 1) 206/S/36 17 Mar 1993 From East |
|-------------------------|---|

RELATIONSHIPS WITH OTHER MONUMENTS
ASSOCIATED WITH: H1,H2,H3,H5,H10,H11,H32,H66,H71

CONDITION Good

DESCRIPTION

- 1) CONSTRUCTIONAL MATERIAL
Pre-cast concrete slabs
- 2) ROOF MATERIALS AND STRUCTURE
Corrugated asbestos
- 3) POWER SOURCE
Electricity
- 4) DIMENSIONS i) L ii) W iii) HT
- 5) Modern garage.

THE ROYAL GUNPOWDER FACTORY - WALTHAM ABBEY

| | | | |
|--------------|-------------------|--------------|--------------------------|
| NUMBER H8 | OLD SERIES 199 | RCHME NUMBER | N.G.R. TL 37580 01018 |
|--------------|-------------------|--------------|--------------------------|

| | | |
|--|--------------------|----------|
| NAME/FUNCTION Cordite Reel drying stove Magazine | START DATE 1904 | END DATE |
|--|--------------------|----------|

NO PHOTOGRAPHY
AVAILABLE

| | |
|---|---|
| <p>CARTOGRAPHIC DEPICTION</p> <p>c1910 WASC 900/65 ; Reel Drying Stove No.2 c1910 WASC 900/79 ; Reel Drying Stove No.2 1917 WASC 900/70 ; Reel Drying Stove No.2 1917 WASC 900/72 ; 199 1919 WASC 900/74 ; 199 c1920 WASC 900/80 ; Reel Drying Stove No.2 1923 WASC 900/84 ; 199 1932 WASC 900/87 ; 199 > 1940 WASC 900/91A ; 199 1954 A - B.34 ; H8 c1960 WASC 900/94 ; H8 c1963 WASC 900/97 ; H8 1972 WASC 900/102 ; H8 1972 WASC 900/104 ; H8 1976 WASC 900/113 ; H8</p> | <p>DOCUMENTARY REFERENCES</p> <p>1908 RGPF Ledger WASC 1509 + WASC 1764 ; Reel Drying Stove, Truck Porch, Traverse built 1904 p20 c1925 RGPF Ledger WASC 1680 ; Reel Drying Stove, Truck Porch, Traverse H8 c1945 RGPF Ledger WASC 1508 ; Reel Drying Stove, Truck Porch, Traverse H8 1972 ERDE List ; Magazine 1916 1992 FARDE List ; Magazine 1992 FBRC Class 1 Explosives 1993 RCHME NBR No.91448</p> |
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| <p>PHOTOGRAPHY HISTORIC</p> <p>WASC 1655/66-68 Bomb damage No.2 reel store 15.10.1940 PRO Supply 5 311, 312, 314 Parachute bomb damage 15-Nov-1940</p> | <p>PHOTOGRAPHY RCHME</p> <p>1) 206/H/11 02 Feb 1993 From South East 206/T/33 17 Mar 1993 Earthen Traverse from South East 206/T/34 17 Mar 1993 From South 206/T/4 17 Mar 1993 Cordite Reel Stove from South West 206/T/5 17 Mar 1993 Showing Steam Pipes entering South East corner 2) BB92/26053 H8 Cordite Reel Magazine view from South West 4) 4788/14 06.05.1993</p> |
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RELATIONSHIPS WITH OTHER MONUMENTS

ASSOCIATED WITH: H7, H10, H12

CONDITION Good

DESCRIPTION

- 1) CONSTRUCTIONAL MATERIAL
Brick in English bond
- 2) ROOF MATERIALS AND STRUCTURE
Roofing felt over timber boards and Fink truss, originally Supply 5/863 314 shows galvanised metal covering.
- 3) POWER SOURCE
Electricity and formerly steam heat
- 4) DIMENSIONS i) L 26.75m ii) W 9.7m iii) HT eave 3.65m
- 5) See RCHME Threatened Buildings Section Report at the end of H7.

ROYAL COMMISSION ON THE HISTORICAL MONUMENTS OF ENGLAND

MOD Building Nos H7 and H8
Reel Drying Stoves
The Royal Gunpowder Factory
Waltham Abbey
Essex

NBR No: 91448
NGR: TL 37560 001100

These buildings are a matching pair of Reel Drying Stoves which were built in 1904 on the Great Hoppit site of the Royal Gunpowder Factory. They each contained a single large room with racks for drying cordite. Cordite reels were brought here for drying before reeling in a separate building (H10).

Of one storey, they each have a rectangular plan of eight bays and are constructed of yellow brick laid in English bond, with "truck porches" at the north and south ends.

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Situated on the Great Hoppit part of the site of the Royal Gunpowder Factory at Waltham Abbey, these buildings were built in 1904 as a pair of Reel Drying Stoves. Building No. H7 and Building no. H8 to its south were almost identical and were known as Reel Drying Stove 1 and Reel Drying Stove 2 respectively.¹ Cordite would have been pressed in other building such as the former gunpowder mill buildings, then dried in one of these Stoves before it was taken to a Reeling House for winding.

Surrounded by earth traverses on the Great Hoppit site of the Royal Gunpowder Factory, both buildings have overall dimensions of 26.65 x 9.57 metres, with a height to the eaves of 3.4 metres. They have a rectangular plan of eight bays, with "truck porches" at the north and south ends.²

The porches, to which tramways originally ran, each contain the remains of a "barrier board" approximately 200 mm high. As a safety precaution to prevent grit and dust entering the building, the 2 workers had to stand on a special "shoe board" and don leather over-boots before stepping over the barrier board into the building.³ From the porch, each building was entered on the north and south sides through a wide doorway which had a cambered head of brick.

Each building was a single large room containing racks for drying the cordite reels.⁴ When the buildings were first built in 1904, acetone was used in the cordite mixing process. The drying process was to remove the acetone from the cordite. Steam pipes, associated with the drying, entered the building at the north and south ends of the building, as witnessed by blocked round openings at the east and west sides of the north and south elevations.

The buildings are constructed of yellow brick laid in English bond and have plinths of chamfered brick which respect the

Although the buildings are aligned north-north-west to south-south-east, for clarity in this report they are described as if they were aligned north to south.

Ledger c1908, cat. WASC 1509 (PRO, Hayes Repository) and drawings of "Proposed Reel Stove, Great Hoppit, RGPF", undated, cat. H7.B.06 (MOD Central Disposals Unit, Chessington).

Although describing safety precautions on the site some four years before these Reel Drying Stoves were built, the function of shoe boards and barrier boards is outlined in an article "The Deadliest Spot near London" by Alfred Arkas in The Penny Pictorial Magazine, No. 35, Vol. 3, 3 February 1900, cat. WASC 412.

Drawings of "Proposed Reel Stove, Great Hoppit, RGPF", undated, cat. H7.B.06 (MOD Central Disposals Unit, Chessington).

porches. The porches were of corrugated iron.⁵ The roof trusses were of iron. The main roof of each building is hipped and has a zinc covering, and the porch roofs are almost flat.⁶

There were windows at approximately every second bay on the east and west elevations of both buildings. The windows have red-brick arched heads and brick closers and were part of the original phase of construction.⁷ On the outside of each window was an electric light.⁸

Alterations made to Building No. H8 include the replacement of the corrugated iron fabric of the porches with timber fabric, the insertion of a small window with a flat head and closers on the east elevation, the subsequent blocking of all the windows, and the insertion of a partition wall in stretcher-bond brick. A new timber porch on the west elevation.⁹ The doors from the porch are in the position of an earlier window. Interrupting the plinth on both the east and west elevations is a small addition with a lead-lined floor and a lean-to roof.¹⁰

In Building No. H7 double doors with cambered heads at the north and south sides have been replaced by square-headed double doors of steel. A steel door was also added on the east elevation. All the windows were blocked. New roofing was added to both buildings in c1940, following bomb damage.¹¹

At least latterly the buildings have been used as stores. The interiors were not inspected at the time of this survey.

Surveyed March 1993
Report by R L Burgess

Ledger c1908, cat. WASC 1509 (PRO, Hayes Repository) and drawings of "Proposed Reel Stove, Great Hoppit, RGPF", undated, cat. H7.B.06 (MOD Central Disposals Unit, Chessington).

Ledger c1908, cat. WASC 1509 (PRO, Hayes Repository) and drawings of "Proposed Reel Stove, Great Hoppit, RGPF", undated, cat. H7.B.06 (MOD Central Disposals Unit, Chessington).

Drawings of "Proposed Reel Stove, Great Hoppit, RGPF", undated, cat. H7.B.06 (MOD Central Disposals Unit, Chessington).

Drawings of "Proposed Reel Stove, Great Hoppit, RGPF", undated, cat. H7.B.06 (MOD Central Disposals Unit, Chessington).

Drawing of Reel Stove No. 2: "Additional Loading Porch" on west side, with barrier board, shoe box and gunmetal rails, dated 10/1/1941, cat. H8.B.15 (MOD Central Disposals Unit, Chessington).

The interior of the addition on the west side was not inspected.

Bomb damage no. 2 reel store 15/10/1940, cat. WASC 1655/66-68.

Drawing showing details of new roofing, dated 7.12.1940, cat. H7.B.04 (MOD Central Disposals Unit, Chessington).

THE ROYAL GUNPOWDER FACTORY - WALTHAM ABBEY

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| NUMBER H10 | OLD SERIES 218 | RCHME NUMBER | N.G.R. TL 37630 00952 |
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|---|----------------------------|--------------------------|
| NAME/FUNCTION Cordite Reeling house Laboratory area | START DATE 1904 1950 | END DATE 1945 1992 |
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NO PHOTOGRAPHY
AVAILABLE

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| <p>CARTOGRAPHIC DEPICTION</p> <p>c1910 WASC 900/65 ; Reeling House c1910 WASC 900/79 ; Reeling House 1917 WASC 900/70 1917 WASC 900/72 ; 218 1919 WASC 900/74 ; 218 c1920 WASC 900/80 ; 218 1923 WASC 900/84 ; 218 1932 WASC 900/87 ; 218 > 1940 WASC 900/91A ; 218 1954 A - B.34 ; H10 c1960 WASC 900/94 ; H10 c1963 WASC 900/97 ; H10 1972 WASC 900/102 ; H10 1972 WASC 900/104 ; H10 1976 WASC 900/113 ; H10</p> | <p>DOCUMENTARY REFERENCES</p> <p>1908 RGPF Ledger WASC 1509 + WASC 1764 ; Reeling House/Engine House built 1904 p24 c1925 RGPF Ledger WASC 1680 ; Reeling House/Engine House H10 c1945 RGPF Ledger WASC 1508 ; Reeling House/Engine House H10</p> <p>Plans: H10 B01 - B18 ; Plans and Elevations 1951 to 1984</p> <p>1972 ERDE List ; Lab Area 1992 RARDE List ; Lab Area 1992 FBRC Explosives laboratory 1993 RCHME NBR No.91472</p> |
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| <p>PHOTOGRAPHY HISTORIC</p> | <p>PHOTOGRAPHY RCHME</p> <p>1) 206/I/35 01 Feb 1993 From South West 206/K/4 01 Feb 1993 From South West 206/S/35 17 Mar 1993 From South East</p> <p>2) BB92/26045 H10 Cordite Reeling House Laboratory view from South East BB92/26354 H10 Reeling House Plan & Elevations (Chessington)</p> |
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| <p>RELATIONSHIPS WITH OTHER MONUMENTS</p> <p>ASSOCIATED WITH: primary H7, H8, H12 : secondary H1,H2,H3,H5,H6,H11,H21,H32,H66,H71</p> |
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| <p>CONDITION Good</p> |
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DESCRIPTION

1) CONSTRUCTIONAL MATERIAL
Brick in English bond

2) ROOF MATERIALS AND STRUCTURE
Roofing felt over double gable with glass roof lights

3) POWER SOURCE
Electricity and steam heat

4) DIMENSIONS i) L 30.85m ii) W 16.38m iii) HT estimate 5m

5) The building has a double gable with a central dividing spine wall. It is split into four bays by three partition walls. The wooden panel between each of the partitions is modern and relates to last use of the building as a laboratory.

ROYAL COMMISSION ON THE HISTORICAL MONUMENTS OF ENGLAND

MOD Building No. H10
Reeling House
The Royal Gunpowder Factory
Waltham Abbey
Essex

NBR No: 91472
NGR: TL 37630 00952

Built in 1904 as a Reeling House, this single storey building has a double-pile rectangular plan and a double-gable roof. The main part of the building is of four bays by two bays, around which a covered way creates a further narrow bay on all sides. Reeling of cordite strands took place in three of the four main bays. The covered western end was a tram stop. In the covered eastern end was an engine house and off its east side was a landing stage beside the canal.

The main walls are of yellow brick laid in English bond. Less substantial, the north and south sides of the building were of timber construction. The roof is of iron with bolted timber purlins. The engine house is weatherboarded.

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Situated on the Great Hoppit part of the site of the Royal Gunpowder Factory at Waltham Abbey, the Reeling House was in built in 1904.¹² The cordite would have been pressed in other buildings such as the former gunpowder incorporating mills, then dried in the Reel Drying Stoves (H7 or H8), before it was brought to this Reeling House for winding strands of cordite on reels by machinery.¹³

Rectangular in plan, the building is of 30.85 x 16.38 metres and has a height of 16.38 metres. The main part of the building is of four bays by two bays, around which a covered way creates a further narrow bay on all sides. Of the main bays, the eastern one is a single room, whereas the other three main bays were divided at the centre to form six rooms which carried reeling machinery.¹⁴ The covered north and south sides were an open corridor. The covered west end had tramways entering from the north and south sides which terminated at a 'shoe board' in the centre.¹⁵ Here workers would have had to don special leather over-boots before stepping over a barrier board into a corridor and around to either the north and south sides where there are two doors to each room.¹⁶ At the eastern end of the building, another tramway approached from the north side to an engine house, which provided power for the building. East of this was a covered landing stage beside the canal, where the cordite reels would have been transferred to a barge and transported to other parts of the site.¹⁷

The five partition walls, which are aligned north to south, and the central dividing wall, aligned east to west, are constructed

Ledger c1908, cat. WASC 1509, (PRO, Hayes Repository).

Although describing the process carried out on a building on the south site of the Gunpowder Factory, an article in written in 1900 explains the process of reeling the cordite: The cordite issues from the machine in the shape of a continuous yellowish-brown thread of varying thicknesses. It is wound on brass reels by machinery. The various sizes are cut by machinery into lengths, each representing the regulation charge for the guns for which they are to be used. (The Penny Pictorial Magazine, No. 35, Vol. 3, Week Ending 3 February 1900, cat. WASC 412).

An undated and uncatalogued ink drawing of proposed Reeling House, Great Hoppit, shows these six rooms with reeling machinery secured to the floor with Lewis bolts. (PRO, Hayes Repository).

Drawing of Plan and Sections of Reeling House, Great Hoppit, RGPF Waltham Abbey, cat. H10.B.02 (MOD Central Disposals Unit, Chessington).

Although describing the process carried out on a building on the south site of the Gunpowder Factory, an article in written in 1900 outlines how workers had to done these immense leather over-boots whilst standing on the shoe board, before they were permitted to cross the wooden barrier into the building. (The Penny Pictorial Magazine, No. 35, Vol. 3, Week Ending 3 February 1900, cat. WASC 412).

The reels may have been transported to magazines on the south site of the Gunpowder Factory and then off site for packing.

of yellow brick laid in English bond. The interior brick walls were rendered in cement. The north and south walls are of timber and glass. The relatively insubstantial side walls and roof could be easily replaced in the event of an explosion.¹⁸ The corridors on the north and south sides were originally open. At their outer sides are a row of cast iron columns, upon which the principals of the roof trusses rest.

The roof is constructed of iron with bolted timber purlins and has a zinc covering.¹⁹ It has a double gable form, comprising four pairs of trusses. The inner principals rest on the central brick wall or, in the case of the easternmost main bay, on an RSJ. The outer principals extend lower to rest on the columns on the north and south sides, thereby creating a covering for the corridor. At the west side the iron roof extends to form a hipped roof over the tramway. The engine house at the east end is timber and has a lean-to roof.

The tie beams of the trusses carried a pair of steam pipes which ran the entire length of the building.²⁰ The tie beams of the trusses in the six reeling rooms also carried shafting for the reeling machinery. The machinery was secured to the floor with Lewis bolts.²¹ The floor may have been lead-covered²² and that of the engine house was concrete.²³ The building was lit both by side windows and skylights and by electric lighting.²⁴

By 1917 the building appears to have ceased functioning as a Reeling House and was used as a Women's Shifting Room and Landing Site.²⁵ In c1951 it was converted into laboratories.²⁶ The covered way beside the engine house appears to have been enclosed, using yellow brick in stretcher bond, at this date.²⁷ The open corridors on the north and south sides were enclosed in c1969.²⁸

Surveyed March 1993
Report by R L Burgess

"A Handbook of the Manufacture and Proof of Gunpowder, as carried on at the Royal Gunpowder Factory, Waltham Abbey," by Captain F M Smith, Royal Artillery, Assistant Superintendent. London, 1870, p43.

Ledger c1908, cat. WASC 1509 (PRO, Hayes Repository).

Drawing of Plan and Sections of Reeling House, Great Hoppit, RGPF Waltham Abbey, cat. H10.B.02 (MOD Central Disposals Unit, Chessington).

An undated and uncatalogued ink drawing of proposed Reeling House, Great Hoppit, (PRO, Hayes Repository).

The ledger of c1908 (cat. WASC 1509) states that the floor of the reeling house was lead-covered but an undated and uncatalogued drawing also at Hayes PRO shows a cement concrete floor (PRO, Hayes Repository).

Ledger c1908, cat. WASC 1509 (PRO, Hayes Repository).

Undated and uncatalogued ink drawing of proposed Reeling House, Great Hoppit (PRO, Hayes Repository).

Site plan of Royal Gunpowder Factory at Waltham Abbey, 1:2500, as named 13 September 1917, revised March 1919 and March 1923, cat. WASC 900/84.

Drawing dated 1/1/1951 showing benches for alterations to laboratories, cat. H10.B.01 (MOD Central Disposals Unit, Chessington).

Plans dated 11/6/1951 for enclosure for rectifier at east end of the building, cat. H.10.B.06. (MOD Central Disposals Unit, Chessington).

Drawing dated 16/5/1969 showing enclosure of verandahs on the building, cat. H10.B.09A (MOD Central Disposals Unit, Chessington).

THE ROYAL GUNPOWDER FACTORY - WALTHAM ABBEY

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| NUMBER H11 | OLD SERIES | RCHME NUMBER | N.G.R. TL 37640 00932 |
|---------------|------------|--------------|--------------------------|

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|---|---------------------|------------------|
| NAME/FUNCTION Solvent and chemical store | START DATE 1940? | END DATE 1992 |
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NO PHOTOGRAPHY
AVAILABLE

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| <p>CARTOGRAPHIC DEPICTION</p> <p>> 1940 WASC 900/91A 1954 A - B.34 ; H11 c1960 WASC 900/94 ; H11 c1963 WASC 900/97 ; H11 1972 WASC 900/102 ; H11 1972 WASC 900/104 ; H11 1976 WASC 900/113 ; H11</p> | <p>DOCUMENTARY REFERENCES</p> <p>1972 ERDE List ; Solvent and Chemical Store 1992 RARDE List ; Solvent and Chemical Store 1992 FBRC List ; H11 ?</p> |
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| <p>PHOTOGRAPHY HISTORIC</p> | <p>PHOTOGRAPHY RCHME</p> <p>1) 206/K/8 01 Feb 1993 Waste 206/K/9 01 Feb 1993 From East 206/S/32 17 Mar 1993 From East</p> |
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RELATIONSHIPS WITH OTHER MONUMENTS

ASSOCIATED WITH: H1, H2, H3, H5, H32, H66, H71

CONDITION Fair

DESCRIPTION

- 1) **CONSTRUCTIONAL MATERIAL**
 Concrete over corrugated iron sheeting

- 2) **ROOF MATERIALS AND STRUCTURE**
 Concrete

- 3) **POWER SOURCE**
 -

- 4) **DIMENSIONS** i) L 9.1m ii) W 4.1m iii) HT 2.4m

- 5) The structure is semi-circular in shape formed from cast concrete 6" in thickness over corrugated iron. The floor is also concrete into which is set a H girder along the centre line of the building.

The building is presumed to be identical to L197 and RCHME 167.

H11 was demolished in August 1993

THE ROYAL GUNPOWDER FACTORY - WALTHAM ABBEY

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|---------------|-------------------|--------------|--------------------------|
| NUMBER H12 | OLD SERIES 231 | RCHME NUMBER | N.G.R. TL 37630 00890 |
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| NAME/FUNCTION Cordite Reel Magazine No.1 Proof Stand | START DATE 1904 1947 | END DATE 1947 198? |
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NO PHOTOGRAPHY
AVAILABLE

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| <p>CARTOGRAPHIC DEPICTION</p> <p>c1910 WASC 900/65 ; 231 c1910 WASC 900/79 ; 231 1917 WASC 900/70 ; 231 1917 WASC 900/72 ; 231 1919 WASC 900/74 ; 231 c1920 WASC 900/80 ; 231 1923 WASC 900/84 ; 231 1932 WASC 900/87 ; 231 > 1940 WASC 900/91A ; 231 1954 A - B.34 ; H12 c1960 WASC 900/94 ; H12 c1963 WASC 900/97 ; H12 1972 WASC 900/102 ; H12 1972 WASC 900/104 ; H12 1976 WASC 900/113 ; H12</p> | <p>DOCUMENTARY REFERENCES</p> <p>1908 RGPF Ledger WASC 1509 + WASC 1764 ; Reel Magazine built 1904 p26 c1925 RGPF Ledger WASC 1680 ; Reel Magazine (H12) c1945 RGPF Ledger WASC 1508 ; Reel Magazine (H12)</p> <p>1946-50 H12 B01 - B13 Plans and Elevations 1947 'The Chemical Research and Development Department its Programme and Facilities CRDD 21 May 1947 (12 page internal document describes proof stand No.1) 1972 ERDE List ; Reel Magazine/Firing Point 1992 RARDE List ; Reel Magazine/Firing Point 1993 RCHME NBR No.91464</p> |
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PHOTOGRAPHY
HISTORIC

PHOTOGRAPHY
RCHME

- 1) 206/I/25 01 Feb 1993 Detail along Eastern side
- 206/I/26 01 Feb 1993 East Firing Bay
- 206/I/27 01 Feb 1993 West Firing Bay
- 206/I/28 01 Feb 1993 from South West
- 206/I/29 01 Feb 1993 Safety Barrier
- 206/I/36 01 Feb 1993 From South East
- 206/S/18 17 Mar 1993 Firing Point from South
- 206/S/21 17 Mar 1993 Firing Point West side
- 206/S/22 17 Mar 1993 Firing Point West chamber
- 206/S/23 17 Mar 1993 Firing Point East side
- 206/S/24 17 Mar 1993 Firing Point East side
- 206/S/25 17 Mar 1993 Firing Point roof detail from South East
- 206/S/26 17 Mar 1993 Barrier to North Entrance from South
- 206/S/27 17 Mar 1993 Interior of Firing Point from North
- 206/S/28 17 Mar 1993 Showing Internal Northern wall
- 206/T/35 17 Mar 1993 Firing Point from South

- 2) BB92/26046 H12 Cordite Reel Magazine/Firing Point from South East
- BB92/26047 H12 Cordite Reel Magazine East Chamber from South East
- BB92/26048 H12 Cordite Reel Magazine West Chamber from South West
- BB92/26049 H12 Cordite Reel Magazine West Chamber from South West
- BB92/26050 H12 Cordite Reel Magazine East passage from South West
- BB92/26051 H12 Cordite Reel Magazine West passage from North West
- BB92/26189 H12 Firing Bay, central Control and Observation room
- BB92/26357 H12 Drawing H12.B.01 Proof stand plan 12.April 1947 (Chessington)

RELATIONSHIPS WITH OTHER MONUMENTS

ASSOCIATED WITH: primary H7, H8, H10 : secondary H14,H54,H65

CONDITION Fair

DESCRIPTION

- 1) CONSTRUCTIONAL MATERIAL
Original structure brick in English bond, later additions concrete and breeze block

- 2) ROOF MATERIALS AND STRUCTURE
Central control room flat concrete slab, remainder corrugated iron over RSJs

- 3) POWER SOURCE
Electricity and steam heat

- 4) DIMENSIONS i) L 17.05m ii) W 13.7m iii) HT 2.85m

- 5) Historic artifacts - lights from firing bays, some of the control room equipment and 'tub' with associated pipe work along eastern passage barriers.

See attached RCHME Threatened Buildings Section report.

ROYAL COMMISSION ON THE HISTORICAL MONUMENTS OF ENGLAND

MOD Building No. H12
Reel Magazine
The Royal Gunpowder Factory
Waltham Abbey
Essex

NBR No: 91464
NGR: TL 37630 00890

Built in 1904 as a Reel Magazine for storing reels of cordite, this single storey building originally had a rectangular plan and is surrounded by a tall earth traverse. It is constructed of yellow brick laid in English bond.

By c1946 the building was converted into a Firing Point and the fabric was reinforced. It then had more of a U-shaped plan contained two firing rooms, two control rooms and a central command room, and contained monopropellant proof stand(s). Bunkers were added at the east and west sides.

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Building H12 was built in 1904 as a Reel Magazine.²⁹ It is situated on the Great Hoppit part of the Gunpowder Factory site, approximately 60 metres to the south of a Reeling House (H10) of the same date. North of that Reel House are a pair of Reel Drying Stoves (H7 and H8) which were also part of that same 1904 building phase. All these buildings relate to cordite production. After pressing, cordite would have been brought to the Reel Drying Stoves for drying, then taken to the Reeling House for winding strands of cordite, before being brought to this Reel Magazine for storage.

Constructed of yellow brick laid in English bond, the building is surrounded by a tall earth traverse. On the exterior of the traverse, a signal bridge gives access to an opening on the north-west side of the traverse to the building.³⁰

The building was originally rectangular in plan, 37'3" x 22'3" (approximately 11 x 6.5 m) with a projection, 16' x 8'3" (approximately 4.8 x 2.4 m) on the west side.³¹ The main rectangular block is single-storeyed, 13'9" (approximately 4 m) in height and had a gabled roof, and the projection was slightly lower and had a lean-to roof.³² The latter may have functioned as a shoe porch, like those in the contemporary buildings H7, H8 and H10, whereby special leather over-boots would have had to have been put on before entering the building to protect it from grit.³³ Heavy-duty lighting may belong to the original phase or may be secondary. The building was still used as a Reel Magazine by 1923.³⁴

In around 1946-8 the building was converted to a Firing Point and its fabric reinforced as a result.³⁵ In 1945 the Explosives

Ledger c1908, cat. WASC 1509 (PRO, Hayes Repository).

The opening in the traverse is part of the original 1904 phase, and it is shown in the Ledger of c1908, but the actual signal bridge with its barrier may belong to a later phase, cat. WASC 1509 (PRO, Hayes Repository).

The building is aligned north-north-west to south-south-east but for clarity in this report it is described as if it was aligned north to south.

Ledger c1908, cat. WASC 1509 (PRO, Hayes Repository).

Although describing the process carried out on a building on the south site of the Gunpowder Factory, an article in written in 1900 outlines how workers had to done these immense leather over-boots whilst standing on the shoe board, before they were permitted to cross the wooden barrier into the building. (The Penny Pictorial Magazine, No. 35, Vol. 3, Week Ending 3 February 1900, cat. WASC 412).

Site plan of Royal Gunpowder Factory at Waltham Abbey, 1:2500, as named 13 September 1917, revised March 1919 and March 1923, cat. WASC 900/84.

Drawings of ground floor plan and schedules of fabric and reinforcement, dated 12/4/1946, cat. H.12.B.01 (MOD Central Disposals Unit, Chessington). Drawings showing monopropellant proof stand and armour steel screen to motor, dated 21/6/1948, cat. H.12.B.12 (MOD Central Disposals Unit, Chessington).

Research and Development Establishment (ERDE) had taken over the site of the former Gunpowder Factory.³⁶ The Establishment was the sole Government laboratory responsible for research on, and development of, non-nuclear military explosives.³⁷ These were tested vigorously in a number of buildings on the whole of the site. It is not certain which types of explosives were tested in the former Reel Magazine but it is likely that they had less impact than some of the high explosives that had to be tested in specially designed structures, for example at the northern part of the site.³⁸

After conversion to a Firing Point in c1946-8, building H12 comprised two control rooms at its northern end, a central command room, with firing rooms on the east and west sides. Probably at this time the roof was replaced and the projection with lean-to roof was also removed or replaced. The command room and control rooms have a flat roof and the firing rooms are at the present time without roofs, although presumably they were covered originally. Bunkers were added on the exterior of the north and south sides. Looking onto the firing rooms, the sides of the command room and the south end of the control rooms have heavy-duty inspection windows for observing the explosions. Iron rails are positioned diagonally against the inner walls of the firing rooms. They are possibly part of the reinforcement of the building.³⁹ There are concrete beds in the firing rooms.

The firing area was later extended further southward by the addition of walls of red brick and breeze block.

Surveyed March 1993
Report by R L Burgess

"The Explosives Research and Development Establishment, Waltham Abbey", Research Establishments in Europe: 48, reprinted from Chemistry and Industry, 1965, pp320-327.

"The Explosives Research and Development Establishment, Waltham Abbey", Research Establishments in Europe: 48, reprinted from Chemistry and Industry, 1965, pp320-327.

The various types of explosives are described in an article, "The Explosives Research and Development Establishment, Waltham Abbey", Research Establishments in Europe: 48, reprinted from Chemistry and Industry, 1965, pp320-327.

A drawing dated 8/8/1947 shows a Proof Stand No. 1 and the position of these wall rails, cat. H12.B.06, (MOD Central Disposals Unit, Chessington).

THE ROYAL GUNPOWDER FACTORY - WALTHAM ABBEY

| | | | |
|---------------|-------------------------|--------------|--------------------------|
| NUMBER H13 | OLD SERIES HE13/232a | RCHME NUMBER | N.G.R. TL 37600 00862 |
|---------------|-------------------------|--------------|--------------------------|

| | | |
|--|-----------------------------|---------------------------|
| NAME/FUNCTION Narrow gauge Locomotive shed Metal store | START DATE 1916 1950? | END DATE 1950? 1992 |
|--|-----------------------------|---------------------------|

NO PHOTOGRAPHY
AVAILABLE

CARTOGRAPHIC DEPICTION

1917 WASC 900/68 ; Engine House
 1917 WASC 900/70 ; Locomotive House
 1917 WASC 900/72 ; 232a
 1919 WASC 900/74 ; 232a
 c1920 WASC 900/80 ; 232a
 1923 WASC 900/84 ; 232a
 1932 WASC 900/87 ; 232a
 > 1940 WASC 900/91A ; HE13
 1954 A - B.34 ; H13
 c1960 WASC 900/94 ; H13
 c1963 WASC 900/97 ; H13
 1972 WASC 900/102 ; H13
 1972 WASC 900/104 ; H13
 1976 WASC 900/113 ; H13

DOCUMENTARY REFERENCES

Plan;
 H13 B01 - 30/12/1961 ; Details of Engine House

 1972 ERDE List ; Engine Shed/Metal Store
 1992 RARDE List ; Engine Shed/Metal Store

 1992 FBRC List ; Metal Store

**PHOTOGRAPHY
HISTORIC**

**PHOTOGRAPHY
RCHME**

1) 206/I/32 01 Feb 1993 From South East
 206/S/19 17 Mar 1993 Narrow gauge 18" Locomotive
 shed from South
 206/T/36 17 Mar 1993 Locomotive shed from South
 2) BB92/26042 H13 Narrow Gauge Locomotive Shed &
 Metal store from South East
 BB92/26043 H13 Narrow Gauge Locomotive Shed &
 Metal store interior from South East

RELATIONSHIPS WITH OTHER MONUMENTS

ASSOCIATED WITH:

CONDITION Good

DESCRIPTION

1) CONSTRUCTIONAL MATERIAL
Brick

2) ROOF MATERIALS AND STRUCTURE
Slate over timber boards ???

3) POWER SOURCE
Electricity

4) DIMENSIONS i) L 10.25m ii) W 4.75m iii) HT 2.5m

5) Single storey narrow gauge locomotive shed with gabled ends north and south and three double windows along either side. The building is entered from the south through hinged doors under a concrete lintel. Attached to the exterior wall to the left of the entrance is a metal contraband box. Inside two 18" gauge rails survive insitu.

Historic artifacts: Small enamel sign on north wall, contraband box Western exterior wall.

THE ROYAL GUNPOWDER FACTORY - WALTHAM ABBEY

| | | | |
|---------------|------------|--------------|--------------------------|
| NUMBER H14 | OLD SERIES | RCHME NUMBER | N.G.R. TL 37660 00871 |
|---------------|------------|--------------|--------------------------|

| | | |
|-----------------------------|---------------------|------------------|
| NAME/FUNCTION Store shed | START DATE 1960? | END DATE 1992 |
|-----------------------------|---------------------|------------------|

NO PHOTOGRAPHY
AVAILABLE

CARTOGRAPHIC DEPICTION

c1963 WASC 900/97 ; H14
 1972 WASC 900/102 ; H14
 1972 WASC 900/104 ; H14
 1976 WASC 900/113 ; H14

DOCUMENTARY REFERENCES

1972 ERDE List ; Store Shed
 1992 RARDE List ; Store Shed

**PHOTOGRAPHY
HISTORIC**

**PHOTOGRAPHY
RCHME**

1) 206//30 01 Feb 1993 From South
 206/K/10 01 Feb 1993 From South West
 206/S/14 16 Mar 1993 From South West
 206/S/15 16 Mar 1993 Waste
 206/S/16 16 Mar 1993 Waste
 206/S/17 17 Mar 1993 Waste

RELATIONSHIPS WITH OTHER MONUMENTS

ASSOCIATED WITH: H12

CONDITION Good

DESCRIPTION

- 1) CONSTRUCTIONAL MATERIAL
Breeze block
- 2) ROOF MATERIALS AND STRUCTURE
Flat concrete slab
- 3) POWER SOURCE
Electricity
- 4) DIMENSIONS i) L 4.7m ii) W 2.3m iii) HT 2.5m
- 5) A small breeze block building with double wooden doors on its south west side and a single wooden door to the north east. Demolished August 1993.

THE ROYAL GUNPOWDER FACTORY - WALTHAM ABBEY

| | | | |
|---------------|------------|--------------|--------------------------|
| NUMBER H15 | OLD SERIES | RCHME NUMBER | N.G.R. TL 37620 01006 |
|---------------|------------|--------------|--------------------------|

| | | |
|---|---------------------|------------------|
| NAME/FUNCTION Air raid shelter Store glass technology | START DATE 1940? | END DATE 1992 |
|---|---------------------|------------------|

NO PHOTOGRAPHY
AVAILABLE

| | |
|--|--|
| <p>CARTOGRAPHIC DEPICTION</p> <p>> 1940 WASC 900/91A 1954 A - B.34 ; H15 c1960 WASC 900/94 ; H15 c1963 WASC 900/97 ; H15 1972 WASC 900/102 ; H15 1972 WASC 900/104 ; H15 1976 WASC 900/113 ; H15</p> | <p>DOCUMENTARY REFERENCES</p> <p>1972 ERDE List ; Concrete Air Raid Shelter 1992 RARDE List ; Concrete Air Raid Shelter</p> |
|--|--|

| | |
|---------------------------------|--|
| <p>PHOTOGRAPHY HISTORIC</p> | <p>PHOTOGRAPHY RCHME</p> <p>1) 206/K/11 01 Feb 1993 From South 206/I/31 01 Feb 1993 From South 206/S/12 16 Mar 1993 Air Raid Shelter from South West</p> |
|---------------------------------|--|

RELATIONSHIPS WITH OTHER MONUMENTS

ASSOCIATED WITH:

CONDITION Good

DESCRIPTION

- 1) CONSTRUCTIONAL MATERIAL
 Concrete
- 2) ROOF MATERIALS AND STRUCTURE
 Flat 9" concrete slab
- 3) POWER SOURCE
 Electricity
- 4) DIMENSIONS i) L 9.23m ii) W 5.2m iii) HT 2.44m
- 5) Concrete air raid shelter with two staggered entrances on the south side. Traces of wavy camouflage paint remain on the exterior.
 Demolished August 1993.

THE ROYAL GUNPOWDER FACTORY - WALTHAM ABBEY

| | | | |
|---------------|--------------------|--------------|--------------------------|
| NUMBER H16 | OLD SERIES 246a | RCHME NUMBER | N.G.R. TL 37620 01006 |
|---------------|--------------------|--------------|--------------------------|

| | | |
|--|---------------------------------|-----------------------|
| NAME/FUNCTION Press House No.10 Cordite Press House Electronics glass blowers heat transfer | START DATE 1916 1950? | END DATE 1950? |
|--|---------------------------------|-----------------------|

NO PHOTOGRAPHY
AVAILABLE

CARTOGRAPHIC DEPICTION

1916 WASC 900/66a ; Cordite Press House
 1917 WASC 900/68 ; Cordite Press House
 1917 WASC 900/70 ; 246a
 1917 WASC 900/72 ; 246a
 1919 WASC 900/74 ; 246a
 c1920 WASC 900/80 ; 246a
 1923 WASC 900/84 ; 246a
 1932 WASC 900/87 ; 246a
 > 1940 WASC 900/91A
 1954 A - B.34 ; H16
 c1960 WASC 900/94 ; H16
 c1963 WASC 900/97 ; H16
 1972 WASC 900/102 ; H16
 1972 WASC 900/104 ; H16
 1976 WASC 900/113 ; H16

DOCUMENTARY REFERENCES

c1925 RGPF Ledger WASC 1680 ; Press House No.10
 c1945 RGPF Ledger WASC 1508 ; Press House No.10

 Plans;
 H16 B01 - B43 ; Plan and Elevations 1916 to 1975

 1938 Text Book of Explosives 1938 H.M.S.O
 ChpXV p99-111 Figs 15.2-9
 1972 ERDE List ; Cordite Press House
 1992 RARDE List ; Cordite Press House

PHOTOGRAPHY HISTORIC

PHOTOGRAPHY RCHME

1) 206/S/11 16 Mar 1993 Site of used for Waste Sorting
 206/H/7 02 Feb 1993 From South waste dump over

RELATIONSHIPS WITH OTHER MONUMENTS

ASSOCIATED WITH: H19

CONDITION Demolished

DESCRIPTION

The building has been demolished, the concrete floor slab at the time of survey was being used for the storage of contaminated waste and was therefore unavailable for inspection.

THE ROYAL GUNPOWDER FACTORY - WALTHAM ABBEY

| | | | |
|--|------------|---|--------------------------|
| NUMBER H17 | OLD SERIES | RCHME NUMBER | N.G.R. TL 37620 01006 |
| NAME/FUNCTION Sewer pump house | | START DATE 1960? | END DATE 1992 |
| NO PHOTOGRAPHY AVAILABLE | | | |
| CARTOGRAPHIC DEPICTION c1960 WASC 900/94 c1963 WASC 900/97 ; H17 1972 WASC 900/102 ; H17 1972 WASC 900/104 ; H17 1976 WASC 900/113 ; H17 | | DOCUMENTARY REFERENCES 1972 ERDE List ; Sewer Pump House 1992 RARDE List ; Sewer Pump House | |
| PHOTOGRAPHY HISTORIC | | PHOTOGRAPHY RCHME 1) 206/H/10 02 Feb 1993 From 206/T/3 17 Mar 1993 From South West | |
| RELATIONSHIPS WITH OTHER MONUMENTS ASSOCIATED WITH: H24, H31, L126, L170 | | | |
| CONDITION Good | | | |
| DESCRIPTION 1) CONSTRUCTIONAL MATERIAL Brick 2) ROOF MATERIALS AND STRUCTURE Roofing felt over timbers boards supported on a RSJ 3) POWER SOURCE Electricity 4) DIMENSIONS i) L 4.32m ii) W 3.4m iii) HT 2.85m 5) The rectangular brick pump house is set on a small earthen mound. The building is entered through a single blue door on the west side and is lit by a window on the north side. Inside the building the two pumps remain. | | | |

THE ROYAL GUNPOWDER FACTORY - WALTHAM ABBEY

| | | | |
|---------------|--------------------|--------------|--------------------------|
| NUMBER H19 | OLD SERIES 261a | RCHME NUMBER | N.G.R. TL 37650 00750 |
|---------------|--------------------|--------------|--------------------------|

| | | |
|---|------------------------|-------------------|
| NAME/FUNCTION Womens Shifting & Dining Room Shifting and Dining House | START DATE 1914-18? | END DATE 1970? |
|---|------------------------|-------------------|

NO PHOTOGRAPHY
AVAILABLE

| | |
|---|--|
| <p>CARTOGRAPHIC DEPICTION</p> <p>1919 WASC 900/74 c1920 WASC 900/80 1923 WASC 900/84 ; 261a 1932 WASC 900/87 ; 261a > 1940 WASC 900/91A ; H19 1954 A - B.34 ; H19 c1960 WASC 900/94 ; H19 c1963 WASC 900/97 ; H19</p> | <p>DOCUMENTARY REFERENCES</p> <p>c1925 RGPF Ledger WASC 1680 ; Womens Shifting & Dining Room c1945 RGPF Ledger WASC 1508 ; Womens Shifting & Dining Room 1972 ERDE List ; Shifting and Dining Room 1992 RARDE List ; Shifting and Dining Room</p> |
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|-------------------------|----------------------|
| PHOTOGRAPHY HISTORIC | PHOTOGRAPHY RCHME |
|-------------------------|----------------------|

RELATIONSHIPS WITH OTHER MONUMENTS

ASSOCIATED WITH: H16

CONDITION Demolished

DESCRIPTION

5) No surface remains are visible.

THE ROYAL GUNPOWDER FACTORY - WALTHAM ABBEY

| | | | |
|---------------|------------|--------------|--------------------------|
| NUMBER H21 | OLD SERIES | RCHME NUMBER | N.G.R. TL 37680 00755 |
|---------------|------------|--------------|--------------------------|

| | | |
|---------------------------|---------------------|----------|
| NAME/FUNCTION Magazine | START DATE 1957? | END DATE |
|---------------------------|---------------------|----------|

NO PHOTOGRAPHY

AVAILABLE

| | |
|--|---|
| <p>CARTOGRAPHIC DEPICTION</p> <p>1954 A - B.34 c1960 WASC 900/94 ; H21 c1963 WASC 900/97 ; H21 1972 WASC 900/102 ; H21 1972 WASC 900/104 ; H21 1976 WASC 900/113 ; H21</p> | <p>DOCUMENTARY REFERENCES</p> <p>Plans; H21 B01 -B02 Plans and Elevations 1982</p> <p>1972 ERDE List ; Magazine 1992 RARDE List ; Magazine</p> |
|--|---|

| | |
|---------------------------------|---|
| <p>PHOTOGRAPHY HISTORIC</p> | <p>PHOTOGRAPHY RCHME 1) 206/H/9 02 Feb 1993 From South East 206/T/2 17 Mar 1993 From South East</p> |
|---------------------------------|---|

RELATIONSHIPS WITH OTHER MONUMENTS

ASSOCIATED WITH: H10

CONDITION Good

DESCRIPTION

- 1) CONSTRUCTIONAL MATERIAL
 Brick
- 2) ROOF MATERIALS AND STRUCTURE
 Corrugated translucent plastic
- 3) POWER SOURCE
 Electricity
- 4) DIMENSIONS i) L 1.9m ii) W 1.9m iii) HT 2.7m
- 5) The building is square with a single red door on the eastern side shielded by a brick wall 4.3m in length and 2.3m high. The building is protected by a lightning conductor. At the building the path to H10 may be closed by a red and white plastic chain.
 Demolished August 1993.

THE ROYAL GUNPOWDER FACTORY - WALTHAM ABBEY

| | | | |
|-----------------|------------|--------------|--------------------------|
| NUMBER H21/1 | OLD SERIES | RCHME NUMBER | N.G.R. TL 37680 00757 |
|-----------------|------------|--------------|--------------------------|

| | | |
|---------------------------|-------------------------|---------------------|
| NAME/FUNCTION Building | START DATE post 1945 | END DATE by 1972 |
|---------------------------|-------------------------|---------------------|

NO PHOTOGRAPHY
AVAILABLE

| | |
|--|------------------------|
| CARTOGRAPHIC DEPICTION 1960 Drg NoLSG/8: H21 1967 O.S. Plan TL 3700 NE | DOCUMENTARY REFERENCES |
|--|------------------------|

| | |
|-------------------------|----------------------|
| PHOTOGRAPHY HISTORIC | PHOTOGRAPHY RCHME |
|-------------------------|----------------------|

RELATIONSHIPS WITH OTHER MONUMENTS
ASSOCIATED WITH: H22

CONDITION Demolished

DESCRIPTION

- 1) CONSTRUCTIONAL MATERIAL

- 2) ROOF MATERIALS AND STRUCTURE

- 3) POWER SOURCE

- 4) DIMENSIONS i) L ii) W iii) HT

- 5) The number H21 was re-allocated to a later building.

THE ROYAL GUNPOWDER FACTORY - WALTHAM ABBEY

| | | | |
|---|-------------------------|------------------------|--------------------------|
| NUMBER H22 | OLD SERIES | RCHME NUMBER | N.G.R. TL 37680 00742 |
| NAME/FUNCTION Building | START DATE post 1945 | END DATE by 1967 | |
| NO PHOTOGRAPHY AVAILABLE | | | |
| CARTOGRAPHIC DEPICTION 1960 Drg No LSG/8; H22 | | DOCUMENTARY REFERENCES | |
| PHOTOGRAPHY HISTORIC | | PHOTOGRAPHY RCHME | |
| RELATIONSHIPS WITH OTHER MONUMENTS ASSOCIATED WITH: H21/1 | | | |
| CONDITION Demolished | | | |
| DESCRIPTION 1) CONSTRUCTIONAL MATERIAL 2) ROOF MATERIALS AND STRUCTURE 3) POWER SOURCE 4) DIMENSIONS i) L ii) W iii) HT 5) No surface remains of this building were seen. | | | |

THE ROYAL GUNPOWDER FACTORY - WALTHAM ABBEY

| | | | |
|---|--------------------|--|--------------------------|
| NUMBER H23 | OLD SERIES 272A | RCHME NUMBER | N.G.R. TL 37676 00718 |
| NAME/FUNCTION Work takers office Storage shed | | START DATE 1918 | END DATE |
| NO PHOTOGRAPHY AVAILABLE | | | |
| CARTOGRAPHIC DEPICTION 1917 WASC 900/70 ; Work Takers Office 1917 WASC 900/72 ; 272a 1919 WASC 900/74 ; 272a c1920 WASC 900/80 ; 272a 1923 WASC 900/84 ; 272a 1932 WASC 900/87 ; 272a > 1940 WASC 900/91A ; H23 1954 A - B.34 c1960 WASC 900/94 ; H23 c1963 WASC 900/97 ; H23 1972 WASC 900/102 ; H23 1972 WASC 900/104 ; H23 1976 WASC 900/113 ; H23 | | DOCUMENTARY REFERENCES c1925 RGPF Ledger WASC 1680 ; Work Takers Office c1945 RGPF Ledger WASC 1508 ; Work Takers Office 1972 ERDE List ; Storage Shed 1992 RARDE List ; Storage Shed | |
| PHOTOGRAPHY HISTORIC | | PHOTOGRAPHY RCHME 1) 206/H/5 02 Feb 1993 From South East 206/S/1 16 Mar 1993 From South East | |
| RELATIONSHIPS WITH OTHER MONUMENTS ASSOCIATED WITH: | | | |
| CONDITION Good | | | |
| DESCRIPTION 1) CONSTRUCTIONAL MATERIAL Brick 2) ROOF MATERIALS AND STRUCTURE Roofing felt over timber boards 3) POWER SOURCE Electricity 4) DIMENSIONS i) L 10.7m ii) W 4.1m iii) HT gable 3.9m 5) A single storey brick gabled building, the building was entered from the eastern side through a single door flanked on either side by small windows. The building is lit by a row of windows on the north and south sides and a window on the west side. There is a further door into the rear of the building on the south side. Demolished August 1993. | | | |

THE ROYAL GUNPOWDER FACTORY - WALTHAM ABBEY

| | | | |
|---------------|--------------------|--------------|--------------------------|
| NUMBER H24 | OLD SERIES 273A | RCHME NUMBER | N.G.R. TL 37630 00712 |
|---------------|--------------------|--------------|--------------------------|

| | | |
|------------------------------------|--------------------|------------------|
| NAME/FUNCTION Sewage pump house | START DATE 1916 | END DATE 1992 |
|------------------------------------|--------------------|------------------|

NO PHOTOGRAPHY
AVAILABLE

| | |
|---|---|
| <p>CARTOGRAPHIC DEPICTION</p> <p>1917 WASC 900/70 ; Pump 1917 WASC 900/72 ; 273a 1919 WASC 900/74 ; 273a c1920 WASC 900/80 ; 273a 1923 WASC 900/84 ; 273a 1932 WASC 900/87 ; 273a > 1940 WASC 900/91A ; 273a 1954 A - B.34 ; H24 c1960 WASC 900/94 ; H24 c1963 WASC 900/97 ; H24 1972 WASC 900/102 ; H24 1972 WASC 900/104 ; H24 1976 WASC 900/113 ; H24</p> | <p>DOCUMENTARY REFERENCES</p> <p>Plan; H24 B01 - 1916 ; Drawing Great Hoppit - Details of Sewage Tank Pump</p> <p>1972 ERDE List ; Sewage Pump House 1992 RARDE List ; Sewage Pump House</p> |
|---|---|

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|---------------------------------|--|
| <p>PHOTOGRAPHY HISTORIC</p> | <p>PHOTOGRAPHY RCHME 1) 206/I/37 01 Feb 1993 From South East 206/S/3 16 Mar 1993 From North East</p> |
|---------------------------------|--|

RELATIONSHIPS WITH OTHER MONUMENTS

ASSOCIATED WITH: H17,H31,L126,L170

CONDITION Good

DESCRIPTION

- 1) CONSTRUCTIONAL MATERIAL
Brick
- 2) ROOF MATERIALS AND STRUCTURE
Flat concrete slab
- 3) POWER SOURCE
Electricity
- 4) DIMENSIONS i) L 2.58m ii) W 2.57m iii) HT 2.45m
- 5) The pump house is a small brick building with a single door on the north side.
Demolished August 1993.

THE ROYAL GUNPOWDER FACTORY - WALTHAM ABBEY

| | | | |
|--|--------------------|---|--------------------------|
| NUMBER H25 | OLD SERIES 275b | RCHME NUMBER | N.G.R. TL 37660 00665 |
| NAME/FUNCTION Womens Hospital Flats | | START DATE 1916 1947 | END DATE 1947 |
| NO PHOTOGRAPHY AVAILABLE | | | |
| <p>CARTOGRAPHIC DEPICTION</p> <p>1916 WASC 900/66a ; Hospital and Extension 1916 WASC 900/67a ; Hospital and Extension 1917 WASC 900/68 ; Womens Hospital 1917 WASC 900/70 ;Womens Hospital (Remains of) 1917 WASC 900/72 ; 275b 1919 WASC 900/74 ; 275b c1920 WASC 900/80 ; 275b 1923 WASC 900/84 ; 275b 1932 WASC 900/87 ; 275b > 1940 WASC 900/91A ; H25 1954 A - B.34 ; H25 c1960 WASC 900/94 ; H25 c1963 WASC 900/97 ; H25 1972 WASC 900/102 ; H25 1972 WASC 900/104 ; H25 1976 WASC 900/113 ; H25</p> | | <p>DOCUMENTARY REFERENCES</p> <p>c1925 RGPF Ledger WASC 1680 ; Womens Hospital c1945 RGPF Ledger WASC 1508 ; Womens Hospital</p> <p>Plans; H25 B01 - B16 ; Plan and Elevations 1916 to 1947</p> <p>1972 ERDE List ; Old Surgery/Womens Hospital 1992 RARDE List ; Old Surgery/Womens Hospital</p> <p>1993 RCHME NO.91450</p> | |
| <p>PHOTOGRAPHY HISTORIC WASC 1350 Sandhurst Hospital</p> | | <p>PHOTOGRAPHY RCHME</p> <p>1) 206/H/1 02 Feb 1993 Womens Hospital from South East 206/S/5 16 Mar 1993 Womens Hospital from South East</p> <p>2) BB92/26039 H25 Womens Hospital view from North West BB92/26040 H25 Womens Hospital view from North East BB92/26041 H25 Womens Hospital view from South East BB92/26228 H25 Interior of Womens Hospital Ground floor North West room,view from West. BB92/26229 H25 Interior of Womens Hospital view of stairs from first floor landing from South.</p> | |
| <p>RELATIONSHIPS WITH OTHER MONUMENTS</p> <p>ASSOCIATED WITH: H25a, H26</p> | | | |

CONDITION Fair

DESCRIPTION

- 1) CONSTRUCTIONAL MATERIAL
Weather board over timber frame
- 2) ROOF MATERIALS AND STRUCTURE
Asbestos? tiles
- 3) POWER SOURCE
Electricity
- 4) DIMENSIONS i) L 12m ii) W 10.3m iii) HT estimate 6m
- 5) See attached RCHME Threatened Buildings Section report
Demolished August 1993

ROYAL COMMISSION ON THE HISTORICAL MONUMENTS OF ENGLAND

MOD Building No. H25
Women's Hospital
The Royal Gunpowder Factory
Waltham Abbey
Essex

NBR No: 91450
NGR: TL 37660 00665

Built in 1916-17 as the Women's Hospital on site at the Royal Gunpowder Factory, building number H25 is a wood-framed building with a weatherboard exterior. It originally had a Y-shaped plan and comprised a two-storeyed rectangular main range with a pair of single-storey wards at the rear.

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The Women's Hospital is situated approximately 25 metres to the west of the other hospital on site at the Gunpowder Factory, the Sandhurst Hospital (H26).

Built in c1916-17, it originally had a Y-shaped plan which comprised a main two-storeyed range and two single-storey wings projecting on the south-west and north-west sides.⁴⁰ Only the central two-storeyed range survives. It is 12 x 10.3 metres in plan, and approximately six metres to the gable.

Entered through a doorway on the east front, the ground floor of the main range contains an entrance hall (approximately 1.5 metres wide), with two main rooms on each side. The heated south-east front room was the nurses' sitting room. West of this is an unheated room which functioned as a "dark room", and toward the south-west end of the hall there are toilets, a bathroom, linen stores and cupboards. On the north side of the entrance hall is a north-east front room which was a kitchen and had a range on its north wall. Entered by both the hall and the kitchen, an unheated room on the west side of the kitchen was the scullery. It contains a larder, sink and hot water system and there is a on its north wall is a back door. West of the scullery is a staircase to the first floor. The north-west room, which is of one storey and has a flat roof with skylights, was the operating room.

The six rooms on the first floor were three nurses bedrooms, matron's bedroom, servants bedroom and bathroom.

The single-storeyed western end of the building has been demolished. At the end of the main entrance hall there was a corridor leading to a ward in each of the two wings. On the west side of the corridor was a nurses duty room which had inspection windows looking out to the wards on the north and south sides. Each ward contained four beds and had, on the east side, a verandah, lobby and wc.

A wood-framed building with a weatherboard exterior, the Women's Hospital has a concrete plinth around the east, south and north sides. The roof is of standard rafter construction, with no trusses, and has plain timber bargeboards and tile coverings on the exterior.

The entrance door is set back beyond an arched frame which is flush with the house front. The windows and entrance arch have flat hoods with moulded corbels. The windows for the ward wings were double-hung sashes.

The staircase on the north side of the entrance hall is a dog-leg stair with winders. It has plain balusters and newels posts and a rounded handrail against the wall, following the rise of the stairs. The stair is lit by a pair of six-panelled windows. Most of the fireplaces in the building appear to have had bead and reel decoration.

Plans and Elevations of Women's Hospital, dated 31/7/1916, cat. H25.B.02 (MOD Central Disposals Unit, Cheshington).

The building ceased to be used as a hospital around the middle of this century. Plans dated 1947 show a proposed conversion of the building, including the wards, into four flats.⁴¹ The removal of the western wings did not take place until some time after 1972.⁴²

A separate brick structure on the north side of the house is divided into four sheds with four doors on its south side. It appears to be secondary and probably functioned as a coal store and general shed.

Main Reference: Plans and Elevations of Women's Hospital, dated 31/7/1916, cat. H25.B.02 (MOD Central Disposals Unit, Chessington).

Surveyed March 1993
Report by R L Burgess

Plan showing proposed conversion of the hospital into four flats, dated 20/1/1947 (amended 25/1/1947, cat. H25.B.16 (MOD Central Disposals Unit, Chessington).

Map of "ERDE Waltham Abbey", North site; scale 1:2500, April 1972.

THE ROYAL GUNPOWDER FACTORY - WALTHAM ABBEY

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|----------------|------------|--------------|--------------------------|
| NUMBER H25a | OLD SERIES | RCHME NUMBER | N.G.R. TL 37650 00681 |
|----------------|------------|--------------|--------------------------|

| | | |
|-------------------------------|--------------------|----------|
| NAME/FUNCTION Toilet block | START DATE 1916 | END DATE |
|-------------------------------|--------------------|----------|

NO PHOTOGRAPHY
AVAILABLE

| | |
|------------------------|------------------------|
| CARTOGRAPHIC DEPICTION | DOCUMENTARY REFERENCES |
|------------------------|------------------------|

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|-------------------------|---|
| PHOTOGRAPHY HISTORIC | PHOTOGRAPHY RCHME 1) 206/H/4 02 Feb 1993 From South West 206/S/4 16 Mar 1993 From East |
|-------------------------|---|

RELATIONSHIPS WITH OTHER MONUMENTS

ASSOCIATED WITH: H25

CONDITION Fair

DESCRIPTION

- 1) CONSTRUCTIONAL MATERIAL
Brick
 - 2) ROOF MATERIALS AND STRUCTURE
Roofing felt over timber boards
 - 3) POWER SOURCE
None
 - 4) DIMENSIONS i) L 6.2m ii) W 2.95m iii) HT 3.2m
 - 5) Small single gabled toilet block, four single doors on the south side. The western cubicle retains an ash pit while the others are floored. There is a single door on the rear of the building at the western end.
- Demolished August 1993.

THE ROYAL GUNPOWDER FACTORY - WALTHAM ABBEY

| | | | |
|--|-----------------------------|---|--------------------------|
| NUMBER H26 | OLD SERIES | RCHME NUMBER | N.G.R. TL 37678 00669 |
| NAME/FUNCTION Sandhurst Hospital Flats | START DATE 1894 1947? | END DATE 1947? | |
| NO PHOTOGRAPHY AVAILABLE | | | |
| <p>CARTOGRAPHIC DEPICTION</p> <p>1897 WASC 900/53C c1910 WASC 900/65 ; Hospital c1910 WASC 900/79 ; Hospital 1917 WASC 900/70 ; Mens Hospital 1917 WASC 900/72 ; Mens Hospital 1919 WASC 900/74 ; 276 c1920 WASC 900/80 ; 276 1923 WASC 900/84 ; 276 1932 WASC 900/87 ; 276 > 1940 WASC 900/91A ; 276 1954 A - B.34 ; H26 c1960 WASC 900/94 ; H26 c1963 WASC 900/97 ; H26 1972 WASC 900/102 ; H26 1972 WASC 900/104 ; H26 1976 WASC 900/113 ; H26</p> | | <p>DOCUMENTARY REFERENCES</p> <p>1908 RGPF Ledger WASC 1509 + WASC 1764 ; Hospital built 1895 p31 c1925 RGPF Ledger WASC 1680 ; Hospital (H26) c1945 RGPF Ledger WASC 1508 ; Hospital</p> <p>Plans; H26 B01 - B05 Plans and Elevations 1894 to 1949</p> <p>1972 ERDE List ; Residential/Old Sandhurst Hospital 1992 RARDE List ; Residential/Old Sandhurst Hospital</p> <p>1993 RCHME NBR No.91449</p> | |
| <p>PHOTOGRAPHY HISTORIC</p> <p>1) Strand Magazine 1895</p> <p>2) PRO Supply 5/860 104 189? Eastern elevation</p> | | <p>PHOTOGRAPHY RCHME</p> <p>1) 206/H/2 02 Feb 1993 Sandhurst Hospital from South 206/N/12 12 Mar 1993 Sandhurst Hospital from South East 206/S/6 16 Mar 1993 Sandhurst Hospital 1894 plaque 206/S/7 16 Mar 1993 Sandhurst Hospital from South East</p> <p>2) BB92/26037 H26 Sandhurst Hospital built 1894 view from South West BB92/26038 H26 Sandhurst Hospital built 1894 view from South East BB92/26230 H26 Sandhurst Hospital 1894 Interior,ground floor North room,view from West.</p> | |
| <p>RELATIONSHIPS WITH OTHER MONUMENTS</p> <p>ASSOCIATED WITH: H25</p> | | | |
| <p>CONDITION Good</p> | | | |

DESCRIPTION

- 1) CONSTRUCTIONAL MATERIAL
Brick
- 2) ROOF MATERIALS AND STRUCTURE
Tile
- 3) POWER SOURCE
Electricity
- 4) DIMENSIONS i) L 17.4m ii) W 13.1m iii) HT estimate 7m
- 5) A terracotta plaque on the east wall has the following legend 'Sandhurst Hospital 1894'.

See attached RCHME Threatened Buildings Section report.

ROYAL COMMISSION ON THE HISTORICAL MONUMENTS OF ENGLAND

MOD Building No. H26
Sandhurst Hospital
The Royal Gunpowder Factory
Waltham Abbey
Essex

NBR No: 91449
NGR: TL 37678 00669

The Sandhurst Hospital was built in 1894 as a short-stay surgery for injured workmen at the Royal Gunpowder Factory. It contained two wards, containing six or seven beds in total, three nurses' rooms, a cook's room, a kitchen, a scullery, and a store. The building is constructed of yellow brick with red brick bands, and has a timber verandah and timber trussed gables. It has a T-shaped plan, the central part of which rises to two storeys.

-oo0o-

Named after Lord Sandhurst, who officially opened the building shortly after it was completed in 1894,⁴³ the new hospital was described in 1895 as standing "... close to one of the myriad streams that intersect the vast grounds of the factory, and is intended solely for the benefit of injured workmen".⁴⁴

T-shaped in plan, the overall dimensions of the building are 17.4 x 13.1 metres. The height of the central two-storeyed block is approximately seven metres. Behind a verandah on the east side of the building, the main entrance led to a lobby which, in turn, led to the ground floor rooms and to stairs to the first floor. On the south side of the lobby is a heated room which was the nurse's room, with a window on its south wall for viewing a ward at the southern end of the building. This ward, which contained four beds, has a fireplace on its north wall and a projection off its west side for a sink and earth closet. A heated room on the north-east side of the lobby was a ward for two or three beds. The projecting western side of the building contains rooms which were originally a kitchen, a cook's room, a scullery, a bathroom and a store. At the north-west end of the lobby is a straight staircase with winders at the top and bottom. Beside the stair is a back door leading to an outside earth closet and sink.

The first floor rooms were two nurses' rooms, only the south one of which was heated, and a linen closet.

The building is constructed of yellow brick which is laid in English bond except in the western projections, at the back of the building, where the bricks are in Flemish bond. There is a plinth of chamfered black brick and above, at approximately one metre up from the ground level, a band of red brick. On the east front are two further bands of red brick below the eaves. The windows have cambered heads of rubbed red-brick and chamfers to the bricks at the sides.

Timber features in the building include posts of the verandah, which are of chamfered timber with moulded timber braces, trussed gables at the south sides of the east and west elevations, and the staircase which has turned newel posts and plain balusters. The doors are four-panelled.

The roof, which is tile-covered, has gables at the north and south ends, a lean-to for the verandah, and hips for both the projection at the centre of the west elevation and the two-storeyed block.

Later alterations to the building relate to its conversion to two dwellings. The main entrance doorway on the east elevation was blocked, and a new doorway inserted on the west elevation for the new dwelling at the south end. The dwelling at the northern end of the building, which included the first floor rooms, was entered both by the original back door on the north side and by double doors which were inserted in place of a three-light window on the east elevation.

A stone plaque on the east front reads 'Sandhurst Hospital 1894'.

"How Explosives are Made" by William G. Fitzgerald, The Strand Magazine, Vol IX Jan- June 1895.

References

Drawings of plans and elevations of Cottage Hospital, Waltham Abbey, dated 1893 - H-26/2 and H26/3 (cat. H26.B.04), MOD Central Disposals Unit, Chessington.

Surveyed March 1993
Report by R L Burgess

THE ROYAL GUNPOWDER FACTORY - WALTHAM ABBEY

| | | | |
|--|-------------------|--|--------------------------|
| NUMBER H27/H28 | OLD SERIES 286 | RCHME NUMBER | N.G.R. TL 37663 00629 |
| NAME/FUNCTION Coal Yard & Latrines | | START DATE | END DATE by 1967 |
| NO PHOTOGRAPHY AVAILABLE | | | |
| CARTOGRAPHIC DEPICTION 1886 WASC/38; Coalyard c1900 WASC/79; Firestation 1923 WASC/84; Coalyard & Latrines 1954 A-B.35; H28 1960 Drg No LSG/9; Concrete Base & Latrines | | DOCUMENTARY REFERENCES 1908 RGPF Ledger WASC 1509 + WASC 1764; EC built 1903 p32 | |
| PHOTOGRAPHY HISTORIC | | PHOTOGRAPHY RCHME | |
| RELATIONSHIPS WITH OTHER MONUMENTS ASSOCIATED WITH: | | | |
| CONDITION Demolished | | | |
| DESCRIPTION 1) CONSTRUCTIONAL MATERIAL 2) ROOF MATERIALS AND STRUCTURE 3) POWER SOURCE 4) DIMENSIONS i) L ii) W iii) HT 5) | | | |

THE ROYAL GUNPOWDER FACTORY - WALTHAM ABBEY

| | | | |
|---------------|-------------------|--------------|--------------------------|
| NUMBER H29 | OLD SERIES 287 | RCHME NUMBER | N.G.R. TL 37685 00608 |
|---------------|-------------------|--------------|--------------------------|

| | | |
|--------------------------|--------------------|---------------------|
| NAME/FUNCTION Surgery | START DATE 1872 | END DATE by 1972 |
|--------------------------|--------------------|---------------------|

NO PHOTOGRAPHY
AVAILABLE

CARTOGRAPHIC DEPICTION

c1900 WASC 900/79; Surgery
1923 WASC 900/84; 287 Surgery
1954 A-B.35; H29
1960 Drg No LJG/9; H29
1967 O.S. No LGJ/9; H29

DOCUMENTARY REFERENCES

1900 RGPF Ledger WASC 1509 Surgery built 1872
p32

PHOTOGRAPHY
HISTORIC

PHOTOGRAPHY
RCHME

RELATIONSHIPS WITH OTHER MONUMENTS

ASSOCIATED WITH:

CONDITION Demolished

DESCRIPTION

- 1) CONSTRUCTIONAL MATERIAL
- 2) ROOF MATERIALS AND STRUCTURE
- 3) POWER SOURCE
- 4) DIMENSIONS i) L ii) W iii) HT
- 5) No surface remains. Inspection of service trench in the rear indicates that upto 1m of rubble may be heaped over the site of the surgery.

THE ROYAL GUNPOWDER FACTORY - WALTHAM ABBEY

| | | | |
|---------------|------------|--------------|--------------------------|
| NUMBER H30 | OLD SERIES | RCHME NUMBER | N.G.R. TL 37604 00867 |
|---------------|------------|--------------|--------------------------|

| | | |
|--------------------------------|---------------------|------------------|
| NAME/FUNCTION Solvent store | START DATE 1970? | END DATE 1992 |
|--------------------------------|---------------------|------------------|

NO PHOTOGRAPHY
AVAILABLE

| | |
|---|--|
| <p>CARTOGRAPHIC DEPICTION</p> <p>1972 WASC 900/102 ; H30 1972 WASC 900/104 ; H30 1976 WASC 900/113 ; H30</p> | <p>DOCUMENTARY REFERENCES</p> <p>1972 ERDE List ; Solvent Store 1992 FARDE List ; Solvent Store</p> |
|---|--|

| | |
|---------------------------------|---|
| <p>PHOTOGRAPHY HISTORIC</p> | <p>PHOTOGRAPHY RCHME</p> <p>1) 206/I/33 01 Feb 1993 From East 206/S/20 17 Mar 1993 From East</p> |
|---------------------------------|---|

RELATIONSHIPS WITH OTHER MONUMENTS

ASSOCIATED WITH:

CONDITION Fair

DESCRIPTION

- 1) CONSTRUCTIONAL MATERIAL
 Corrugated iron over steel frame

- 2) ROOF MATERIALS AND STRUCTURE
 Corrugated iron

- 3) POWER SOURCE
 None

- 4) DIMENSIONS i) L 4.1m ii) W 2.2m iii) HT 2.1m

- 5) Small rectangular store with metal mesh gate to east, demolished August 1993.

THE ROYAL GUNPOWDER FACTORY - WALTHAM ABBEY

| | | | |
|---|------------|---|--------------------------|
| NUMBER H31 | OLD SERIES | RCHME NUMBER | N.G.R. TL 37675 00795 |
| NAME/FUNCTION Sewer pump house | | START DATE 1956 | END DATE |
| NO PHOTOGRAPHY AVAILABLE | | | |
| CARTOGRAPHIC DEPICTION c1963 WASC 900/97 ; H31 1972 WASC 900/102 ; H31 1972 WASC 900/104 ; H31 1976 WASC 900/113 ; H31 | | DOCUMENTARY REFERENCES Plans; H66 B01 - B02 Plans and Elevations 1950 to 1951 1972 ERDE List ; Sewer Pump House 1992 RARDE List ; Sewer Pump House | |
| PHOTOGRAPHY HISTORIC | | PHOTOGRAPHY RCHME 1) 206/H/6 02 Feb 1993 From South West 206/S/2 16 Mar 1993 From North East | |
| RELATIONSHIPS WITH OTHER MONUMENTS ASSOCIATED WITH: H17, H24, L126, L170 | | | |
| CONDITION Good | | | |
| DESCRIPTION 1) CONSTRUCTIONAL MATERIAL Brick 2) ROOF MATERIALS AND STRUCTURE Roofing felt over timber boards 3) POWER SOURCE Electricity 4) DIMENSIONS i) L 4.4m ii) W 3.5m iii) HT 2.79m 5) The pump house is a small rectangular building set on a low earthen mound. The building is entered through a single door on the north side, demolished August 1993. | | | |

THE ROYAL GUNPOWDER FACTORY - WALTHAM ABBEY

| | | | |
|--|------------|---|--------------------------|
| NUMBER H32 | OLD SERIES | RCHME NUMBER | N.G.R. TL 37608 00928 |
| NAME/FUNCTION Portacabin offices | | START DATE 198? | END DATE |
| NO PHOTOGRAPHY AVAILABLE | | | |
| CARTOGRAPHIC DEPICTION | | DOCUMENTARY REFERENCES | |
| | | 1972 ERDE List ; Portacabin Offices 1992 RARDE List ; Portacabin Offices 1992 FBRC Office | |
| PHOTOGRAPHY HISTORIC | | PHOTOGRAPHY RCHME | |
| RELATIONSHIPS WITH OTHER MONUMENTS | | | |
| ASSOCIATED WITH: H1, H2, H3, H5, H6, H10, H11, H32, H66, H71 | | | |
| CONDITION Good | | | |
| DESCRIPTION Modern portacabin not described. | | | |

THE ROYAL GUNPOWDER FACTORY - WALTHAM ABBEY

| | | | |
|--|------------|--|--------------------------|
| NUMBER H37 | OLD SERIES | RCHME NUMBER | N.G.R. TL 37692 00591 |
| NAME/FUNCTION Police gate house | | START DATE 1964 | END DATE |
| NO PHOTOGRAPHY AVAILABLE | | | |
| CARTOGRAPHIC DEPICTION > 1940 WASC 900/91A ; H37? 1954 A - B.34 ; H37 c1960 WASC 900/94 ; H37 c1963 WASC 900/97 ; H37 1972 WASC 900/102 ; H37 1972 WASC 900/104 ; H37 1976 WASC 900/113 ; H37 | | DOCUMENTARY EVIDENCE Plans; H37 B01 - B09 Plans and Elevations 1963 to 1971 1972 ERDE List ; Old Police Gatehouse 1992 RARDE List ; Old Police Gatehouse | |
| PHOTOGRAPHY HISTORIC | | PHOTOGRAPHY RCHME 1) 206/S/10 16 Mar 1993 Police lodge from North | |
| RELATIONSHIPS WITH OTHER MONUMENTS ASSOCIATED WITH: H38 OVERLIES: RCHME 311? RCHME 314? | | | |
| CONDITION Fair | | | |
| DESCRIPTION 1) CONSTRUCTIONAL MATERIAL Brick 2) ROOF MATERIALS AND STRUCTURE Flat concrete roof 3) POWER SOURCE Electricity 4) DIMENSIONS i) L 7.3m ii) W 5.93m iii) HT 2.7m 5) L shaped building, all the opening were boarded over at the time of survey. Demolished August 1993. | | | |

THE ROYAL GUNPOWDER FACTORY - WALTHAM ABBEY

| | | | |
|--|------------|---|--------------------------|
| NUMBER H38 | OLD SERIES | RCHME NUMBER | N.G.R. TL 37677 00586 |
| NAME/FUNCTION Gas meter house | | START DATE 1963 | END DATE 1992? |
| NO PHOTOGRAPHY AVAILABLE | | | |
| CARTOGRAPHIC DEPICTION c1960 WASC 900/94 ; H38 c1963 WASC 900/97 ; H38 1972 WASC 900/102 ; H38 1972 WASC 900/104 ; H38 1976 WASC 900/113 ; H38 | | DOCUMENTARY REFERENCES Plans H.37.B.01 22.1.63 1972 ERDE List ; Old Gas Meter House 1992 RARDE List ; Old Gas Meter House | |
| PHOTOGRAPHY HISTORIC | | PHOTOGRAPHY RCHME 1) 206/K/12 01 Feb 1993 From South West 206/S/8 16 Mar 1993 From East | |
| RELATIONSHIPS WITH OTHER MONUMENTS ASSOCIATED WITH: H37 | | | |
| CONDITION Fair | | | |
| DESCRIPTION 1) CONSTRUCTIONAL MATERIAL Brick 2) ROOF MATERIALS AND STRUCTURE Flat concrete slab 3) POWER SOURCE Electricity and gas 4) DIMENSIONS i) L 3.9m ii) W 2.45m iii) HT 2.8m 5) Single storey valve house with a single blue door on the eastern side. Demolished August 1993. | | | |

THE ROYAL GUNPOWDER FACTORY - WALTHAM ABBEY

| | | | |
|---------------|------------|--------------|--------------------------|
| NUMBER H54 | OLD SERIES | RCHME NUMBER | N.G.R. TL 37673 00909 |
|---------------|------------|--------------|--------------------------|

| | | |
|---------------------------|-------------------------|---------------------|
| NAME/FUNCTION Building | START DATE Post 1945 | END DATE by 1967 |
|---------------------------|-------------------------|---------------------|

NO PHOTOGRAPHY
AVAILABLE

| | |
|--|------------------------|
| CARTOGRAPHIC DEPICTION 1960 Drg No LSG/8; H54 | DOCUMENTARY REFERENCES |
|--|------------------------|

| | |
|-------------------------|----------------------|
| PHOTOGRAPHY HISTORIC | PHOTOGRAPHY RCHME |
|-------------------------|----------------------|

RELATIONSHIPS WITH OTHER MONUMENTS
ASSOCIATED WITH: H12?

CONDITION Demolished

DESCRIPTION

- 1) CONSTRUCTIONAL MATERIAL

- 2) ROOF MATERIALS AND STRUCTURE

- 3) POWER SOURCE

- 4) DIMENSIONS i) L ii) W iii) HT

- 5) No surface remains of this building were seen.

THE ROYAL GUNPOWDER FACTORY - WALTHAM ABBEY

| | | | |
|---------------|------------|--------------|--------------------------|
| NUMBER H64 | OLD SERIES | RCHME NUMBER | N.G.R. TL 37673 00909 |
|---------------|------------|--------------|--------------------------|

| | | |
|---|---------------------|----------|
| NAME/FUNCTION Process Water Supply To Building H12 | START DATE 1948? | END DATE |
|---|---------------------|----------|

NO PHOTOGRAPHY
AVAILABLE

| | |
|--|---|
| CARTOGRAPHIC DEPICTION 1972 WASC 900/102 ; H64 1972 WASC 900/104 ; H64 | DOCUMENTARY REFERENCES Plans; H64 B01 - B03 Plans and Elevations 1948 |
|--|---|

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|-------------------------|----------------------|
| PHOTOGRAPHY HISTORIC | PHOTOGRAPHY RCHME |
|-------------------------|----------------------|

RELATIONSHIPS WITH OTHER MONUMENTS

ASSOCIATED WITH:

CONDITION Demolished

DESCRIPTION

5) No surface remains

THE ROYAL GUNPOWDER FACTORY - WALTHAM ABBEY

| | | | |
|---------------|------------|--------------|--------------------------|
| NUMBER H65 | OLD SERIES | RCHME NUMBER | N.G.R. TL 37592 00900 |
|---------------|------------|--------------|--------------------------|

| | | |
|---------------------------------------|--------------------|------------------|
| NAME/FUNCTION Liquid fuel magazine | START DATE 1949 | END DATE 1992 |
|---------------------------------------|--------------------|------------------|

NO PHOTOGRAPHY
AVAILABLE

CARTOGRAPHIC DEPICTION

1972 WASC 900/102 ; H65
1972 WASC 900/104 ; H65
1976 WASC 900/113 ; H65

DOCUMENTARY REFERENCES

Plan;
H65 B01 - 18/4/1949 ; Layout of Dithekite Store

1972 ERDE List ; Small Concrete Shelter
1992 RARDE List ; Locker Magazine

PHOTOGRAPHY
HISTORIC

PHOTOGRAPHY
RCHME

1) 206/I/34 01 Feb 1993 From South
206/T/37 17 Mar 1993 From South East

RELATIONSHIPS WITH OTHER MONUMENTS

ASSOCIATED WITH: H12

CONDITION Good

DESCRIPTION

- 1) CONSTRUCTIONAL MATERIAL
Breeze block
- 2) ROOF MATERIALS AND STRUCTURE
Corrugated asbestos
- 3) POWER SOURCE
None
- 4) DIMENSIONS i) L 3.3m ii) W 1.9m iii) HT 2.5m
- 5) The fuel magazine is a small rectangular breeze block structure with an entrance on the northern side, set within an earthen mound.

THE ROYAL GUNPOWDER FACTORY - WALTHAM ABBEY

| | | | |
|---------------|------------|--------------|--------------------------|
| NUMBER H66 | OLD SERIES | RCHME NUMBER | N.G.R. TL 37640 00924 |
|---------------|------------|--------------|--------------------------|

| | | |
|----------------------------------|---------------------|------------------|
| NAME/FUNCTION Locker Magazine | START DATE 1950? | END DATE 1992 |
|----------------------------------|---------------------|------------------|

NO PHOTOGRAPHY
AVAILABLE

| | |
|--|--|
| CARTOGRAPHIC DEPICTION | DOCUMENTARY REFERENCES |
| c1960 WASC 900/94 ; H66 c1963 WASC 900/97 ; H66 1972 WASC 900/102 ; H66 1972 WASC 900/104 ; H66 1976 WASC 900/113 ; H66 | Plans; H66 B01 - B02 ; Plans and Elevations 1950 to 1951 1972 ERDE List ; Locker Magazine 1992 RARDE List ; Locker Magazine 1992 FBRC Class 1 Explosives |

| | |
|-------------------------|---|
| PHOTOGRAPHY HISTORIC | PHOTOGRAPHY RCHME 1) 206/K/3 01 Feb 1993 From South West 206/K/7 01 Feb 1993 North side from West 206/S/29 17 Mar 1993 Locker Magazine Interior from West 206/S/31 17 Mar 1993 Locker Magazine from North East 2)BB92/26044 From North West |
|-------------------------|---|

RELATIONSHIPS WITH OTHER MONUMENTS

ASSOCIATED WITH: H10

CONDITION Good

DESCRIPTION

- 1) CONSTRUCTIONAL MATERIAL
 Brick
- 2) ROOF MATERIALS AND STRUCTURE
 Corrugated asbestos
- 3) POWER SOURCE
 Electricity
- 4) DIMENSIONS i) L 9.8m ii) W 2.6m iii) HT Gable 3.05m
- 5) The magazine is brick built with gabled ends. The magazine was entered through single doors painted red at either end of the northern side. Adjacent to each door on the outside of the building is a small shelf. The building is protected by a copper lightning conductor. Internally are six magazine lockers along the northern side of the building.
 Demolished August 1993.

THE ROYAL GUNPOWDER FACTORY - WALTHAM ABBEY

| | | | |
|---------------|------------|--------------|--------------------------|
| NUMBER H71 | OLD SERIES | RCHME NUMBER | N.G.R. TL 37610 00943 |
|---------------|------------|--------------|--------------------------|

| | | |
|---|--------------------|----------|
| NAME/FUNCTION Offices for propellant section | START DATE 1956 | END DATE |
|---|--------------------|----------|

NO PHOTOGRAPHY
AVAILABLE

| | |
|--|--|
| <p>CARTOGRAPHIC DEPICTION</p> <p>c1960 WASC 900/94 ; H71 c1963 WASC 900/97 ; H71 1972 WASC 900/102 ; H71 1972 WASC 900/104 ; H71 1976 WASC 900/113 ; H71</p> | <p>DOCUMENTARY REFERENCES</p> <p>Plans; H71 B01 - B10 ; Plans and Elevations 1956 to 1970</p> <p>1972 ERDE List ; Offices Adjoining H10 1992 RARDE List ; Offices Adjoining H10 1992 FBRC Office</p> |
|--|--|

| | |
|--|--|
| <p>PHOTOGRAPHY HISTORIC</p> | <p>PHOTOGRAPHY RCHME</p> <p>1) 206/H/8 02 Feb 1993 From South West 206/T/1 17 Mar 1993 From South West</p> |
|--|--|

RELATIONSHIPS WITH OTHER MONUMENTS

ASSOCIATED WITH: H1, H2, H3, H5, H6, H10, H11, H66

CONDITION Good

DESCRIPTION

- 1) **CONSTRUCTIONAL MATERIAL**
Brick

- 2) **ROOF MATERIALS AND STRUCTURE**
Roofing felt over flat roof

- 3) **POWER SOURCE**
Electricity and steam heat

- 4) **DIMENSIONS** i) L 14.5m ii) W 9.3m iii) HT 3.1m

- 5) The offices are joined to H10 by a short corridor. Entry to the offices was also gained through double doors on the north and south sides. The full length of the western side of the building is glazed while the eastern side is lit by smaller windows.

THE ROYAL GUNPOWDER FACTORY - WALTHAM ABBEY

| | | | |
|--|--|---|--------------------------|
| NUMBER | OLD SERIES 288 | RCHME NUMBER | N.G.R. TL 37660 00600 |
| NAME/FUNCTION Saltpetre Refinery Building Store House Guncotton Refining House Acetate of Lime Store Clean Store | START DATE 1801-06 1827 1865? 1900? by 1923 | END DATE 1827 1865? 1900? by 1923 | |
| <p>NO PHOTOGRAPHY AVAILABLE</p> | | | |
| <p>CARTOGRAPHIC DEPICTION</p> <p>18067 WO 78/1352 + MR 580 1827 WASC 900/04 + MPHH 271 ; Store House 1830 WO55 2694 1830 WASC 900/05 c1830 WASC 900/06 c1835 WASC 900/07 1861-1868 WASC 900/10A 1865 WASC 900/13 1865 WASC 900/14 1871 SUPP5 682 1865 WASC 900/38 + SUPP5 975 ; General Store 1865 WASC 900/41A 1865 WASC 900/42 1897 WASC 900/53C c1900 WASC 900/79 ; Acetone Factory c1910 WASC 900/65 c1910 WASC 900/79 1917 WASC 900/70 1917 WASC 900/72 1919 WASC 900/74 c1920 WASC 900/80 1923 WASC 900/84 ; General Store 1932 WASC 900/87; 288 > 1940 WASC 900/91a 1954 A-B.34; HS30 c1960 WASC 900/94; H30</p> | | <p>DOCUMENTARY REFERENCES</p> <p>1807 Statement of Property WO55 2694 1830 Statement of Property WO55 2351 1841 Statement of Property WO55 2856 1851 Statement of Property WO55 3027 1908 RGPF Ledger WASC 1509 + WASC 1764 ; Acetone Factory c1925 RGPF Ledger WASC 1680 ; Acetone Factory c1945 RGPF Ledger WASC 1508 ; Acetone Factory</p> | |
| <p>PHOTOGRAPHY HISTORIC</p> | | <p>PHOTOGRAPHY RCHME</p> <p>1) BB92/26036 From Northeast</p> | |

RELATIONSHIPS WITH OTHER MONUMENTS

ASSOCIATED WITH: 288, 291

CONDITION Demolished

DESCRIPTION

No Surface Remains

288 probably represents the original structure

THE ROYAL GUNPOWDER FACTORY - WALTHAM ABBEY

| | | | |
|--------|--------------------|--------------|--------------------------|
| NUMBER | OLD SERIES 291a | RCHME NUMBER | N.G.R. TL 37680 00577 |
|--------|--------------------|--------------|--------------------------|

| | | |
|--|---|---|
| NAME/FUNCTION Building (part of Saltpetre refinery) Crystallising House Gun Cotton Factory (part of) Acetone Factory (part of) Timber Store | START DATE pre 1783 1827 by 1863 c1900 by 1923 | END DATE 1827 by 1863 c1900 by 1923 |
|--|---|---|

NO PHOTOGRAPHY
AVAILABLE

| | |
|---|---|
| CARTOGRAPHIC DEPICTION | DOCUMENTARY REFERENCES |
| <p>1783 WASC 900/01 + MR 593 1783 WASC 900/01A 1801 WASC 900/58 + MR 580 1806? WO 78/1352 + MR 580 1827 WASC 900/04 + MPH 271 ; Crystallising House 1830 WO55 2694 1830 WASC 900/05 c1830 WASC 900/06 c1835 WASC 900/07 1861-1868 WASC 900/10A 1865 WASC 900/13 1865 WASC 900/14 1871 SUPP5 682 1865 WASC 900/38 + SUPP5 975 ; Gun Cotton 1865 WASC 900/41A 1865 WASC 900/42 1897 WASC 900/53C c1910 WASC 900/65 c1910 WASC 900/79 1917 WASC 900/70 1917 WASC 900/72 1919 WASC 900/74 c1920 WASC 900/80 1923 WASC 900/84 ; Timber Store > 1940 WASC 900/91A 1954 A - B.34</p> | <p>1807 Statement of Property WO55 2694; 14 Saltpetre Crystallising 1830 Statement of Property WO55 2351; 26 Crystallising House 1830 Drayson F Plan and Elevation p2 1841 Statement of Property WO55 2856; 26 Crystallising House 1851 Statement of Property WO55 3027; 62 Crystallising House 1908 RGPF Ledger WASC 1509; 291 Acetate of Lime and Drum Store</p> |

| | |
|-------------------------|----------------------|
| PHOTOGRAPHY HISTORIC | PHOTOGRAPHY RCHME |
|-------------------------|----------------------|

RELATIONSHIPS WITH OTHER MONUMENTS:

ASSOCIATED WITH: 288, 291, RCHME 313, RCHME 315

CONDITION Demolished

DESCRIPTION

No Surface Remains
Probable that 291a represents a later 20th Century building with earlier underlying structures

THE ROYAL GUNPOWDER FACTORY - WALTHAM ABBEY

| | | | |
|--------|------------|---------------------|--------------------------|
| NUMBER | OLD SERIES | RCHME NUMBER 311 | N.G.R. TL 37694 00596 |
|--------|------------|---------------------|--------------------------|

| | | |
|-------------------------------------|------------------------|---------------------|
| NAME/FUNCTION Saltpetre Refinery | START DATE pre 1783 | END DATE by 1806 |
|-------------------------------------|------------------------|---------------------|

NO PHOTOGRAPHY
AVAILABLE

| | |
|--|------------------------|
| CARTOGRAPHIC DEPICTION 1783 WASC 900/01 + MR 593 1783 WASC 900/01A 1801 WASC 900/58 + MR 580 | DOCUMENTARY REFERENCES |
|--|------------------------|

| | |
|-------------------------|----------------------|
| PHOTOGRAPHY HISTORIC | PHOTOGRAPHY RCHME |
|-------------------------|----------------------|

RELATIONSHIPS WITH OTHER MONUMENTS

UNDERLIES: RCHME312? H37?

CONDITION Demolished

DESCRIPTION

No Surface Remains

THE ROYAL GUNPOWDER FACTORY - WALTHAM ABBEY

| | | | |
|--|------------------------|----------------------|--------------------------|
| NUMBER | OLD SERIES | RCHME NUMBER 312 | N.G.R. TL 37690 00594 |
| NAME/FUNCTION Saltpetre Refinery Building | START DATE 1801-06 | END DATE pre 1827 | |
| NO PHOTOGRAPHY AVAILABLE | | | |
| CARTOGRAPHIC DEPICTION 1806 WO 78/1352 + MR 580 ; | DOCUMENTARY REFERENCES | | |
| PHOTOGRAPHY HISTORIC | PHOTOGRAPHY RCHME | | |
| RELATIONSHIPS WITH OTHER MONUMENTS OVERLIES: RCHME 311? | | | |
| CONDITION Demolished | | | |
| DESCRIPTION No Surface Remains | | | |

THE ROYAL GUNPOWDER FACTORY - WALTHAM ABBEY

| | | | |
|--|--|---|--|
| NUMBER | OLD SERIES | RCHME NUMBER 313 | N.G.R. TL 37672 00608 |
| NAME/FUNCTION Saltpetre Refinery Building Sulphur Refining House Gun Cotton Building Acetone Factory | | START DATE 1801-06 1827 1865? c1900 | END DATE 1827 1865? 1900? |
| NO PHOTOGRAPHY AVAILABLE | | | |
| CARTOGRAPHIC DEPICTION | | DOCUMENTARY REFERENCES | |
| 1806? | WO 78/1352 + MR 580 | 1807 | Statement of Property WO55 2694 |
| 1827 | WASC 900/04 + MPH 271 ; Sulphur Refining House | 1830 | Statement of Property WO55 2351; 30 Sulphur Refining House |
| 1830 | WO55 2694 | 1841 | Statement of Property WO55 2856; 30 Sulphur Refining House |
| 1830 | WASC 900/05 | 1851 | Statement of Property WO55 3027 |
| c1830 | WASC 900/06 | 1830 | Drayson.F. Drwgs 6 & 7 Sulphur by Fusion |
| c1835 | WASC 900/07 | | |
| 1861-1868 | WASC 900/10A | | |
| 1865 | WASC 900/13 | | |
| 1865 | WASC 900/14 | | |
| 1871 | SUPP5 682 | | |
| 1888 | WASC 900/38 + SUPP5 975 ; Gun Cotton | | |
| 1900 | WASC 900/79 Acetone Factory | | |
| PHOTOGRAPHY HISTORIC | | PHOTOGRAPHY RCHME | |
| RELATIONSHIPS WITH OTHER MONUMENTS | | | |
| ASSOCIATED WITH: 288, 291, 291A, RCHME 315 | | | |
| CONDITION Demolished | | | |
| DESCRIPTION | | | |
| No Surface Remains | | | |

| THE ROYAL GUNPOWDER FACTORY - WALTHAM ABBEY | | | |
|---|------------|------------------------|--------------------------|
| NUMBER | OLD SERIES | RCHME NUMBER 314 | N.G.R. TL 37687 00589 |
| NAME/FUNCTION Building | | START DATE 1827-65 | END DATE 1890? |
| NO PHOTOGRAPHY AVAILABLE | | | |
| CARTOGRAPHIC DEPICTION 1865 WASC 900/38 + SUPP5 975 | | DOCUMENTARY REFERENCES | |
| PHOTOGRAPHY HISTORIC | | PHOTOGRAPHY RCHME | |
| RELATIONSHIPS WITH OTHER MONUMENTS UNDERLIES: H37? | | | |
| CONDITION Demolished | | | |
| DESCRIPTION No Surface Remains. Function of this building is unknown possibly associated with Guncotton Factory. | | | |

THE ROYAL GUNPOWDER FACTORY - WALTHAM ABBEY

| | | | |
|--|------------|---|---------------------------|
| NUMBER | OLD SERIES | RCHME NUMBER 315 | N.G.R. TL 37658 00606 |
| NAME/FUNCTION Copper Smiths Forge & Engine House Guncotton Factory Acetone Factory | | START DATE 1806-27 1863 c1900 | END DATE 1863 c1900 |
| NO PHOTOGRAPHY AVAILABLE | | | |
| CARTOGRAPHIC DEPICTION | | DOCUMENTARY REFERENCES | |
| 1827 WASC 900/04 + MPH 271 ; Copper Smiths Forge 1830 WO55 2694 1830 WASC 900/05 c1830 WASC 900/06 c1835 WASC 900/07 1861-1868 WASC 900/10A 1865 WASC 900/13 1865 WASC 900/14 1871 SUPP5 682 1865 WASC 900/38 + SUPP5 975 | | 1807 WO55/2351 1830 WO55/2694; 29 Forge & Engine House 1841 WO55/2856; 29 Forge & Engine House 1851 WO55/3027; 59 Forge & Engine House | |
| PHOTOGRAPHY HISTORIC | | PHOTOGRAPHY RCHME | |
| RELATIONSHIPS WITH OTHER MONUMENTS ASSOCIATED WITH: 288, 291, 291A, RCHME 313 | | | |
| CONDITION Demolished | | | |
| DESCRIPTION | | | |
| No Surface Remains. A building on its site was later incorporated into the Guncotton and later Acetone Factory. It is not known whether the original structure survived or if a new building was constructed. | | | |

THE ROYAL GUNPOWDER FACTORY - WALTHAM ABBEY

| | | | |
|--|---------------------------------------|---|--------------------------|
| NUMBER | OLD SERIES 261 | RCHME NUMBER 317 | N.G.R. TL 37580 00790 |
| NAME/FUNCTION Stable for Contact Horses Sulphur Storehouse Acetone Store | START DATE 1801-06 1818 1898 | END DATE 1818 1898 by 1923 | |
| NO PHOTOGRAPHY AVAILABLE | | | |
| CARTOGRAPHIC DEPICTION | | DOCUMENTARY REFERENCES | |
| 1806 WO 78/1352 + MR 580 1827 WASC 900/04 + MPHH 271 ; Sulphur Storehouse, late Stable for Contact Horses 1830 WO55 2694 1830 WASC 900/05 c1830 WASC 900/06 c1835 WASC 900/07 1861-1868 WASC 900/10A 1865 WASC 900/13 1865 WASC 900/14 1871 SUPP5 682 1865 WASC 900/38 + SUPP5 975 ; Store House 1865 WASC 900/41A 1865 WASC 900/42 1897 WASC 900/53C | | 1808 Engraving, Powder Mills Waltham Abbey ERG Mint Binder 1808 1908 Ledger Acetone Store built before 1850 p29. | |
| PHOTOGRAPHY HISTORIC | | PHOTOGRAPHY RCHME | |
| RELATIONSHIPS WITH OTHER MONUMENTS Unknown | | | |
| CONDITION Demolished | | | |
| DESCRIPTION No Surface Remains, may survive as a buried feature on the West bank of Horsemill Stream. | | | |

THE ROYAL GUNPOWDER FACTORY - WALTHAM ABBEY

| | | | |
|--------|------------|---------------------|--------------------------|
| NUMBER | OLD SERIES | RCHME NUMBER 318 | N.G.R. TL 37542 00880 |
|--------|------------|---------------------|--------------------------|

| | | |
|---|--------------------------------|----------------------------|
| NAME/FUNCTION Master Workers Dwelling Clerks Quarters | START DATE 1806-27 1865? | END DATE 1865? 1900? |
|---|--------------------------------|----------------------------|

NO PHOTOGRAPHY
AVAILABLE

| | |
|---|-------------------------------|
| <p>CARTOGRAPHIC DEPICTION</p> <p>1827 WASC 900/04 + MPHH 271 ; Late Master Workers Dwelling</p> <p>1830 WO55 2694</p> <p>1830 WASC 900/05</p> <p>c1830 WASC 900/06</p> <p>c1835 WASC 900/07</p> <p>1861-1868 WASC 900/10A</p> <p>1865 WASC 900/13</p> <p>1865 WASC 900/14</p> <p>1871 SUPP5 682</p> <p>1865 WASC 900/38 + SUPP5 975 ; Clerks Qtrs</p> <p>1865 WASC 900/41A</p> <p>1865 WASC 900/42</p> <p>1897 WASC 900/53C</p> | <p>DOCUMENTARY REFERENCES</p> |
|---|-------------------------------|

| | |
|-------------------------|----------------------|
| PHOTOGRAPHY HISTORIC | PHOTOGRAPHY RCHME |
|-------------------------|----------------------|

RELATIONSHIPS WITH OTHER MONUMENTS Unknown

CONDITION Demolished

DESCRIPTION

No Surface Remains

THE ROYAL GUNPOWDER FACTORY - WALTHAM ABBEY

| | | | |
|--------|------------|---------------------|--------------------------|
| NUMBER | OLD SERIES | RCHME NUMBER 319 | N.G.R. TL 37530 01024 |
|--------|------------|---------------------|--------------------------|

| | | |
|--|-----------------------|---------------------|
| NAME/FUNCTION Dwelling of the 2nd Clerk,Storekeepers Dept | START DATE 1806-27 | END DATE pre1865 |
|--|-----------------------|---------------------|

NO PHOTOGRAPHY
AVAILABLE

| | |
|---|------------------------|
| CARTOGRAPHIC DEPICTION 1827 WASC 900/04 + MPHH 271 ; Dwelling of the 2nd Clerk,Storekeepers Dept | DOCUMENTARY REFERENCES |
|---|------------------------|

| | |
|-------------------------|----------------------|
| PHOTOGRAPHY HISTORIC | PHOTOGRAPHY RCHME |
|-------------------------|----------------------|

RELATIONSHIPS WITH OTHER MONUMENTS

CONDITION Destroyed

DESCRIPTION

May survive as buried feature on West side of Millhead Stream.

THE ROYAL GUNPOWDER FACTORY - WALTHAM ABBEY

| | | | |
|--------|------------|---------------------|--------------------------|
| NUMBER | OLD SERIES | RCHME NUMBER 320 | N.G.R. TL 37560 00950 |
|--------|------------|---------------------|--------------------------|

| | | |
|------------------------------|-----------------------|-------------------|
| NAME/FUNCTION Watch House | START DATE 1806-27 | END DATE 1900? |
|------------------------------|-----------------------|-------------------|

NO PHOTOGRAPHY
AVAILABLE

| | |
|--|--------------------------------------|
| <p>CARTOGRAPHIC DEPICTION</p> <p>1827 WASC 900/04 + MPH 271 ; Watch House 1830 WO55 2694 1830 WASC 900/05 c1830 WASC 900/06 c1835 WASC 900/07 1861-1868 WASC 900/10A 1865 WASC 900/13 1865 WASC 900/14 1871 SUPP5 682 1865 WASC 900/38 + SUPP5 975</p> | <p>DOCUMENTARY REFERENCES</p> |
|--|--------------------------------------|

| | |
|--|-------------------------------------|
| <p>PHOTOGRAPHY HISTORIC</p> | <p>PHOTOGRAPHY RCHME</p> |
|--|-------------------------------------|

RELATIONSHIPS WITH OTHER MONUMENTS

CONDITION Demolished

DESCRIPTION

No Surface Remains

THE ROYAL GUNPOWDER FACTORY - WALTHAM ABBEY

NUMBER

OLD SERIES

RCHME NUMBER
340

N.G.R.
TL 37600 00825

NAME/FUNCTION
Building

START DATE
post 1945

END DATE
by 1972

NO PHOTOGRAPHY
AVAILABLE

CARTOGRAPHIC DEPICTION

1967 O.S. TL 3700 NE 1:1250

DOCUMENTARY REFERENCES

PHOTOGRAPHY
HISTORIC

PHOTOGRAPHY
RCHME

RELATIONSHIPS WITH OTHER MONUMENTS

ASSOCIATED WITH: H16

CONDITION

Demolished

DESCRIPTION

- 1) CONSTRUCTIONAL MATERIAL
- 2) ROOF MATERIALS AND STRUCTURE
- 3) POWER SOURCE
- 4) DIMENSIONS i) L ii) W iii) HT
- 5) The building is depicted by the O.S. as having an earthwork traverse against its North and South walls.

THE ROYAL GUNPOWDER FACTORY - WALTHAM ABBEY

| | | | |
|--------|------------|---------------------|--------------------------|
| NUMBER | OLD SERIES | RCHME NUMBER 341 | N.G.R. TL 37607 00811 |
|--------|------------|---------------------|--------------------------|

| | | |
|---------------------------|-------------------------|---------------------|
| NAME/FUNCTION Building | START DATE post 1945 | END DATE by 1972 |
|---------------------------|-------------------------|---------------------|

NO PHOTOGRAPHY
AVAILABLE

| | |
|--|------------------------|
| CARTOGRAPHIC DEPICTION 1967 O.S. TL 3700 NE | DOCUMENTARY REFERENCES |
|--|------------------------|

| | |
|-------------------------|----------------------|
| PHOTOGRAPHY HISTORIC | PHOTOGRAPHY RCHME |
|-------------------------|----------------------|

RELATIONSHIPS WITH OTHER MONUMENTS

ASSOCIATED WITH: H16

CONDITION Demolished

DESCRIPTION

- 1) CONSTRUCTIONAL MATERIAL

- 2) ROOF MATERIALS AND STRUCTURE

- 3) POWER SOURCE

- 4) DIMENSIONS i) L ii) W iii) HT

- 5)

THE ROYAL GUNPOWDER FACTORY - WALTHAM ABBEY

| | | | |
|--------|------------|---------------------|--------------------------|
| NUMBER | OLD SERIES | RCHME NUMBER 342 | N.G.R. TL 37608 00806 |
|--------|------------|---------------------|--------------------------|

| | | |
|---------------------------|-------------------------|---------------------|
| NAME/FUNCTION Building | START DATE post 1945 | END DATE by 1972 |
|---------------------------|-------------------------|---------------------|

NO PHOTOGRAPHY
AVAILABLE

| | |
|---|------------------------|
| CARTOGRAPHIC DEPICTION 1967 O.S. TL 37 00 NE | DOCUMENTARY REFERENCES |
|---|------------------------|

| | |
|-------------------------|----------------------|
| PHOTOGRAPHY HISTORIC | PHOTOGRAPHY RCHME |
|-------------------------|----------------------|

RELATIONSHIPS WITH OTHER MONUMENTS
ASSOCIATED WITH: H16

CONDITION Demolished

DESCRIPTION

- 1) CONSTRUCTIONAL MATERIAL

- 2) ROOF MATERIALS AND STRUCTURE

- 3) POWER SOURCE

- 4) DIMENSIONS i) L ii) W iii) HT

- 5)

THE ROYAL GUNPOWDER FACTORY - WALTHAM ABBEY

| | | | |
|--------|------------|---------------------|--------------------------|
| NUMBER | OLD SERIES | RCHME NUMBER 343 | N.G.R. TL 37637 00871 |
|--------|------------|---------------------|--------------------------|

| | | |
|--|---------------------|-------------------|
| NAME/FUNCTION Guncotton Drying Shed | START DATE 1872? | END DATE 1904? |
|--|---------------------|-------------------|

NO PHOTOGRAPHY
AVAILABLE

| | |
|--|------------------------|
| CARTOGRAPHIC DEPICTION 1886 WASC 900/38 1897 O.S. Essex XLIX.14 c1900 WASC 900/79 | DOCUMENTARY REFERENCES |
|--|------------------------|

| | |
|-------------------------|----------------------|
| PHOTOGRAPHY HISTORIC | PHOTOGRAPHY RCHME |
|-------------------------|----------------------|

RELATIONSHIPS WITH OTHER MONUMENTS

ASSOCIATED WITH: Guncotton Factory 288,291,291a, RCHME 313

CONDITION Demolished

DESCRIPTION

- 1) CONSTRUCTIONAL MATERIAL

- 2) ROOF MATERIALS AND STRUCTURE

- 3) POWER SOURCE

- 4) DIMENSIONS i) L ii) W iii) HT

- 5) No surface remains. Owing to the small size of this building the N.G.R. can only be regarded as an approximate siting. The shed probably went out of use when guncotton production began on the South site. The building is shown on mapping until circa 1900 and was probably demolished during the redevelopment of this area for cordite production in 1904.

References.

1994 Royal Commission on the Historical Monuments of England, Keele office. Synthesis report and component sheets of the 1993 RCHME Field Survey of Waltham Abbey Royal Gunpowder Factory.

1994 Carden and Godfrey, Condition Survey of Waltham Abbey RARDE (North Site).

