

**A Historic Buildings Record
of
The Mill Pond, Hyde Drive, Ifield, Crawley,
West Sussex**



**Project No. 6621
Site Code: IPC 14
Report No. 2014181**

May 2014

Dr Michael Shapland

A Historic Buildings Record
of
The Mill Pond, Hyde Drive, Ifield, Crawley,
West Sussex

(NGR TQ 2450 3640)

Commissioned by
Jackson Civils Ltd

Project No. 6621

Site Code: IPC 14

Report No. 2014181

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SUMMARY

In May 2014 Archaeology South-East carried out a historic buildings record of the dam to Ifield Mill, Ifield, West Sussex (NGR TQ 2450 3640). The work was commissioned by Jackson Civils Ltd and requested by Crawley Borough Council, to be addressed as a condition placed on planning consent relating to works on the Ifield dam and associated spillway. These will include a new dam structure on the upstream face of the existing dam with a clay core from a borrow pit in the bed of the north pond, concrete revetments, and a new concrete auxiliary spillway and associated downstream structures.

The mill pond and dam owe their existence to Ifield Mill, which was first recorded as part of the Wealden iron industry in 1574. The present mill was last rebuilt in 1817, at which time the dam was refaced in brick and the extant mill race constructed. To the west, the spillway consists of a mid-19th century basin, a late 19th or early 20th century footbridge and a late 20th century weir. The dam itself consists of an earthen bank up to six metres in height, scattered with sandstone rubble relating to earlier phases of industrial activity on the site.

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1.0 INTRODUCTION

- 1.1 In May 2014 Archaeology South-East (a division of the Centre for Applied Archaeology, UCL) carried out a historic buildings record of The Mill Pond, Hyde Drive, Ifield, West Sussex RH11 0PL (NGR TQ 2450 3640; Figures 1 and 2).
- 1.2 The work was commissioned by Jackson Civils Ltd and requested by Crawley Borough Council, to be addressed as a condition placed on planning consent relating to works on the Ifield dam and associated spillway. These will include a new dam structure on the upstream face of the existing dam with a clay core from a borrow pit in the bed of the north pond, concrete revetments, and a new concrete auxiliary spillway and associated downstream structures (Figure 3). Condition 7 of CR/2013/0644/CC1 states that:

Archaeological Recording

The Developer shall arrange for an archaeological organisation or appropriately qualified archaeologists to observe the excavations and record archaeological evidence that may be uncovered as a result of the development in accordance with an Heritage Asset Mitigation Strategy With Written Scheme of Investigation document and timetable which shall be submitted to and approved by the Local Planning Authority prior to the commencement of excavation works.

Reason 24

In order to ensure that archaeological features deposits and artefacts revealed during development works will be adequately recorded in accordance with saved policy BN17 of the Crawley Borough Local Plan (2000).

2.0 SCOPE & METHODOLOGY

- 2.1 The recording involved the survey of the dam and spillway to Level 2 standard, as defined by English Heritage (2006) and set out in the Written Scheme of Investigation (Mason 2014). A plan of the structure has been reproduced as Figure 2.
- 2.2 This written description is supplemented by a photographic record of the structure, consisting of digital images duplicated with 35mm black and white photography. An index of the digital photography, together with location plans are included as an appendix to the report.
- 2.3 A desk-based assessment (Waterman Group 2013) has previously been prepared for the site, which has been used to inform the background research.

3.0 SITE LOCATION AND SETTING

- 3.1 The dam is located approximately a mile and a half west from the centre of Crawley, and less than a mile south of the historic centre of Ifield, in which parish it lies. The dam itself is located on Ifield Brook, and extends from 524450 136442 on its western side to 524595 136403 on its eastern, where it is truncated by a later railway embankment. The spillway is located towards the western end of the dam, whilst the mill pond extends some 600 metres to the south. The dam and pond serve Ifield Mill, the present structure of which dates to 1817. Ifield Mill House, a 16th century and later millers' residence, lies adjacent to the north.
- 3.2 The top of the dam lies at c. 71 metres above Ordnance Datum, descending to c. 65 metres on the path running along its northern side.

4.0 STATUTORY DESIGNATIONS

Listed Buildings

- 4.1 Ifield Mill and waterwheel is a Grade II listed building (List Entry Number: 1207630). Ifield Mill House is also Grade II listed (List Entry Number: 1180468). The associated dam and spillway are not specifically included in these designations, although their listing is implied within the curtilage of Ifield Mill.

5.0 HISTORIC BACKGROUND

- 5.1 What follows is drawn from the information and historic maps in the existing desk-based assessment (Waterman Group 2013). Ifield Mill is first recorded in 1574, as part of the ironworking industry which flourished in the Sussex Weald at this time. It was created by damming Ifield Brook to create a hammer pond, which ran the watermill to power the hammer for the adjacent forge. The pond was fed by three additional watercourses: Broadfield Brook, Douster Brook and Bewbush Brook. The mill lay on the site of the former forest of St Leonard, which served to fuel the forge, which was very probably located immediately adjacent to the mill .
- 5.2 Due to a decline in the local iron industry, the watermill was replaced by a corn mill in 1683. It was rebuilt to form the present structure in 1817, which incorporates the date plaque of its 1683 predecessor. The Arun Valley Line, which opened in 1848, bisected the mill pond and truncated the eastern end of the dam with its embankment, but the mill remained in operation until the early 1920s. Ownership passed to Crawley Borough Council, and it was restored to working order between 1974 and 2002. The waterwheel was reconditioned in 2008.

- 5.3 The earliest depiction of the dam dates to 1845, on a plan for the projected Arun Valley Line railway (Figure 4). It shows an outline of the dam's footprint, with a pedestrian pathway behind, together with Ifield Mill and Ifield Mill House. A small square structure, identified in later maps as a boathouse, occupies the western end of the dam. The location of the spillway is unchanged from the present, as is the race from the mill itself. Confusingly, a third watercourse appears to run beneath Ifield Mill House, which may have had an ancillary industrial function at this time. Similarities between this plan and the dam's present course indicate that the extant dam structure is being depicted, implying that it is at least of mid-19th century date.
- 5.4 The particular value of the 1845 plan is that it shows the site prior to the construction of the railway, including the interface between the main mill pond and the smaller pond at its north-east corner, which became infilled by the mid-20th century and is now occupied by houses.
- 5.5 The 1859 railway plan (Figure 4) shows the site in greater detail, including the mill and wheel pit, boathouse, and a more precise indication of the course and width of the dam. The watercourse apparently running beneath Ifield Mill House is still active. By this time, the eastern part of the dam is buried under the railway embankment, and the truncated north-east pond is fed from the main mill pond via a narrow channel. The 1865 plan of the embankment itself adds little to this picture (Waterman Group 2013).
- 5.6 The 1874 Ordnance Survey (OS) map shows the course of the dam as unchanged from 1845. The spillway is shown with the beginnings of its present bulbous pool; both spillway and mill race are marked 'sluice'. The watercourse beneath Ifield Mill House is no longer depicted. The 1897 (OS) map adds little to this picture, aside from depicting a small detached structure on the north-west corner of the mill, which had been removed by the mid-20th century.
- 5.7 The 1910 OS map is also little altered from 1874, showing the change in use of the mill from flour to corn and the increasing stagnation of the mill pond. The mill is noted as disused in the 1932 OS map, at which time a small footbridge had been built over the sluice pond. At the western end of the dam, a second structure is shown adjacent to the old boathouse.
- 5.8 The 1968 OS map shows that the mill had by then lost the small companion structure on its western side, but had been extended to the east, apparently resulting in alterations to the rear part of the dam. A footbridge had been constructed over the tail race. The rear section of the western part of the dam had apparently gained a retaining wall, and the nearby boat house demolished.
- 5.9 The next depiction of the site is spread over a pair of maps: the part of the site to the east of the mill was mapped in 1973, the western part in 1984. The most important change in the replacement of the old spillway with the

existing concrete weir, which has a small sluice gate on its eastern side. The pond to the rear has been reconfigured and the early 20th century footbridge removed. To the east, the old retaining wall of the dam had been replaced, or obscured, by the present an earthen bank. The mill's eastern annexe is still present in 1973, but is no longer extant.

6.0 DESCRIPTION OF THE STRUCTURE

- 6.1 The dam is presently 154 metres in length, although formerly extended further to the east prior to the construction of the Arun Valley Line railway in 1848. Its structure consists of an earthen bank across the northern side of the mill pond, which occupies a gently-sloping site down from the south-west to the north-east (Plates 1-3). The embankment is therefore less than two metres high, and shallow of slope, at its western end, rising to six metres' height at its eastern end. It is topped for most of its length by a flat walkway around two metres in width. Ifield Mill lies towards the centre of the structure (Plate 4).
- 6.2 The face of the dam is principally of brick, aside from its western end, where the spillway was replaced during the 1970s or early 1980s and the dam re-faced in concrete (Plate 5). Heavily overgrown, where visible the brick is mostly reddish-brown and laid in a header bond, topped by a coping course of header bonded bricks laid on-face (Plate 6). Marked 'FLB', they were produced by the Freshfield Lane Brickworks, Danehill, Sussex the bricks are the same as those from which the mill and wheel pit are constructed, suggesting that the dam was re-faced around the time the mill was rebuilt in 1817. Elsewhere, areas of red brick repair work presumably date to the later 20th century refurbishment of the site. Scattered around the dam embankment is a quantity of sandstone rubble, probably Tunbridge Wells Sand, which is the local geology to Crawley. This may have been the dam's facing material prior to 1817: a small section of this remains visible either side of the sluice gate to the mill race (Plates 7 and 8).
- 6.3 The dam has two major features, spillway towards its western end and the mill race near its middle. Nothing remains of the boathouse or associate structure at the western end of the dam, recorded on historic maps of the site, although it is depicted on an early photograph (Figure 5).
- 6.4 The present concrete-built spillway dates to the 1970s or early 1980s, and consists of a broad crested weir with a stepped cascade and a sluice gate (Plates 5 and 9). It enables the excess water to leave the mill pond in times of spate, discharging into Ifield Brook beneath a brick-built footbridge which survives from the spillway's rebuilding, and is of late 19th or early 20th century appearance (Plate 10). It has a brick parapet laid in English garden wall bond, with rounded brick coping and a simple brick plat-band by way of sole decoration on its visible north-facing elevation. Beyond, the water discharges into an ovoid pool which was constructed between 1859 and 1874 of the same Tunbridge Wells sandstone as lies scattered around the

dam embankment (Plate 11). Heightened in brick, presumably when the bridge was constructed, it was further modified along with the spillway in the 1970s or early 1980s.

- 6.5 The head race to the wheel pit near the middle of the dam is fronted by an iron sluice or penstock to a concave culvert of the same reddish-brown brick seen throughout the site (Plate 7). This has been repaired in the recent past, presumably during the mill's late 20th century refurbishment, but dates in its essentials to the rebuilding of the mill in 1817. It was relocated here from Hammonds Mill (near Clayton) when the latter was demolished in 1975, and fitted with a reproduction sluice gate was based on the nearby example at Bewbush Pond (Hill and Henbery 1979). This is flanked by thick stepped retaining walls of unadorned brick. Thereafter, the water is borne along a cast iron trough, which is supported by simple cast iron columns, the short distance to the overshot waterwheel itself (Plates 12 and 13).

7.0 DEPOSITION OF THE ARCHIVE

- 7.1 The project archive will be deposited with Crawley Museum, under the site code IPC 14. The archive will comprise all survey material collected and produced in undertaking the project.

8.0 ACKNOWLEDGEMENTS

- 8.1 Archaeology South-East would like to thank Jackson Civils Ltd for commissioning the work and providing the drawings and background information.

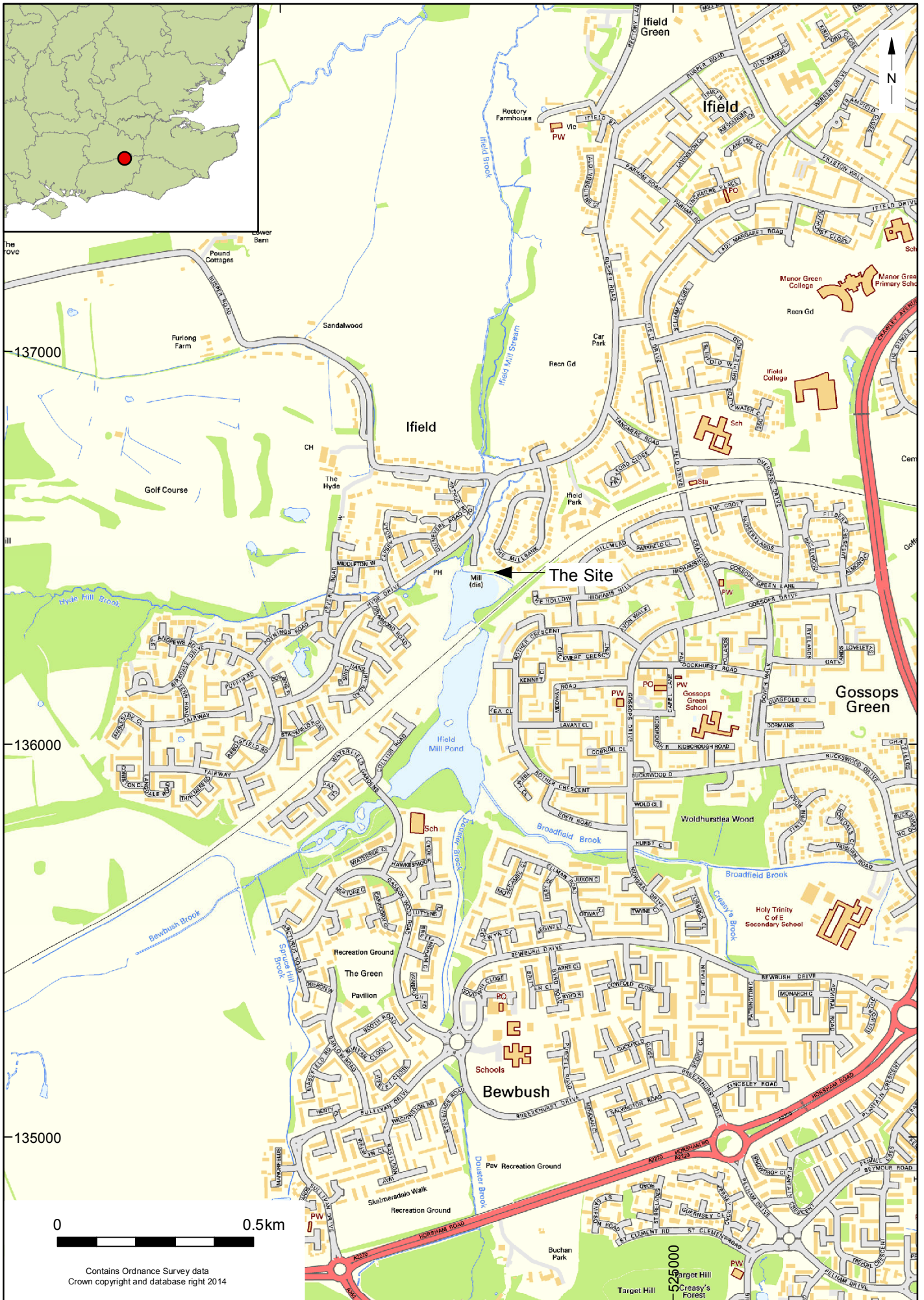
9.0 BIBLIOGRAPHY

English Heritage. 2006. *Understanding Historic Buildings: A Guide to Good Recording Practice*. Swindon: English Heritage.

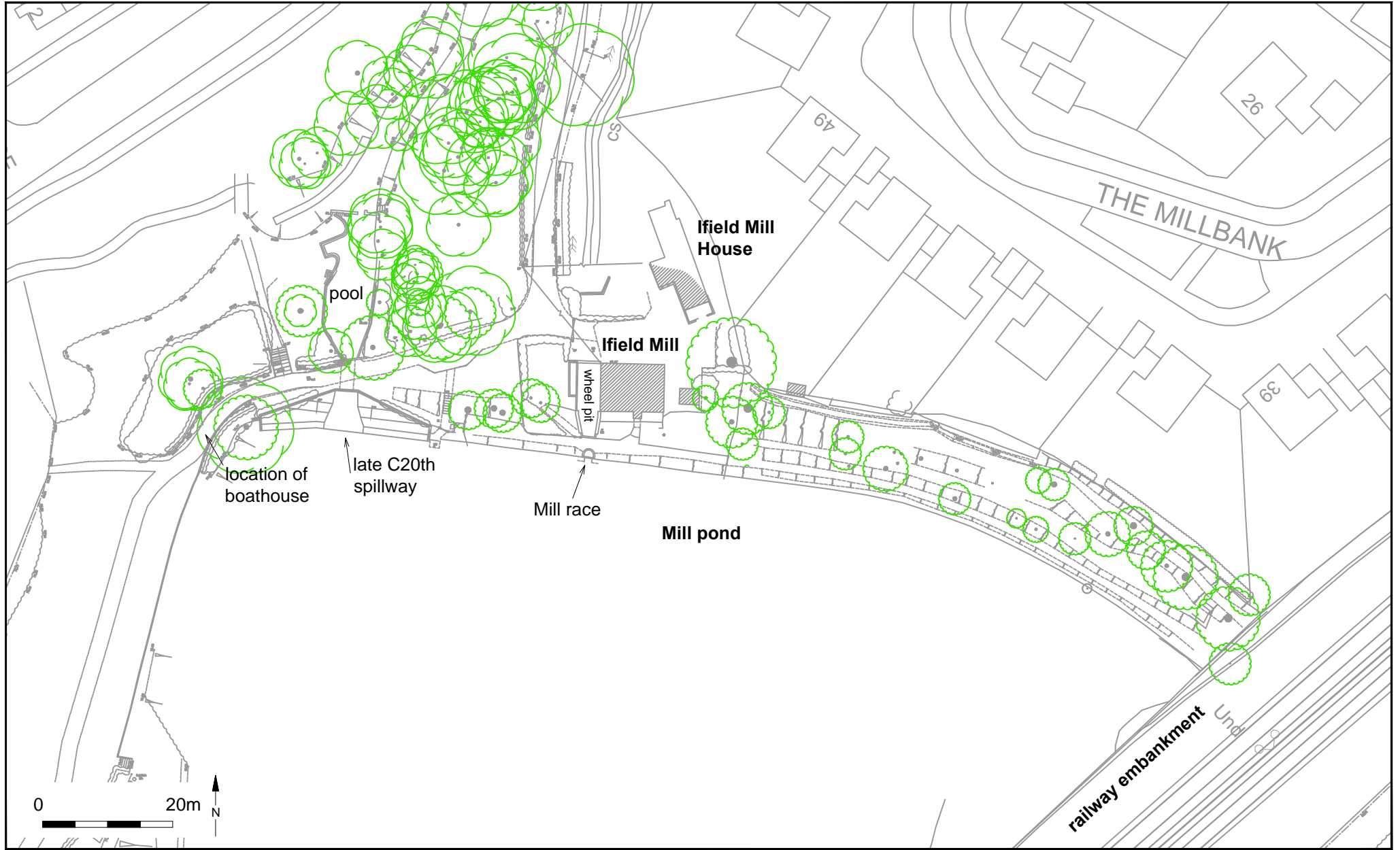
Hill, J. G. and Henbery, E. W., 1979. 'The Reconstruction of Ifield Mill. Part II: Restoration.' *Sussex Industrial History* 9, 2-7.

Mason, P., 2014. *The Mill Pond, Hyde Drive, Ifield, Crawley, West Sussex: Heritage Asset (Archaeological and Historic Building) Mitigation Strategy with Written Scheme of Investigation*. Archaeology South-East: Unpublished Report.

Waterman Group, 2013. *The Mill Pond: Heritage Desk-Based Assessment*. Bristol.



© Archaeology South-East		The Mill Pond, Hyde Drive, Ifield, Crawley		Fig. 1
Project Ref: 6621	May 2014	Site location		
Report Ref: 2014181	Drawn by: JLR			



© Archaeology South-East		The Mill Pond, Hyde Drive, Ifield		Fig. 2
Project Ref: 6621	April 2015	Site plan		
Report Ref: 2014181	Drawn by: MGS			

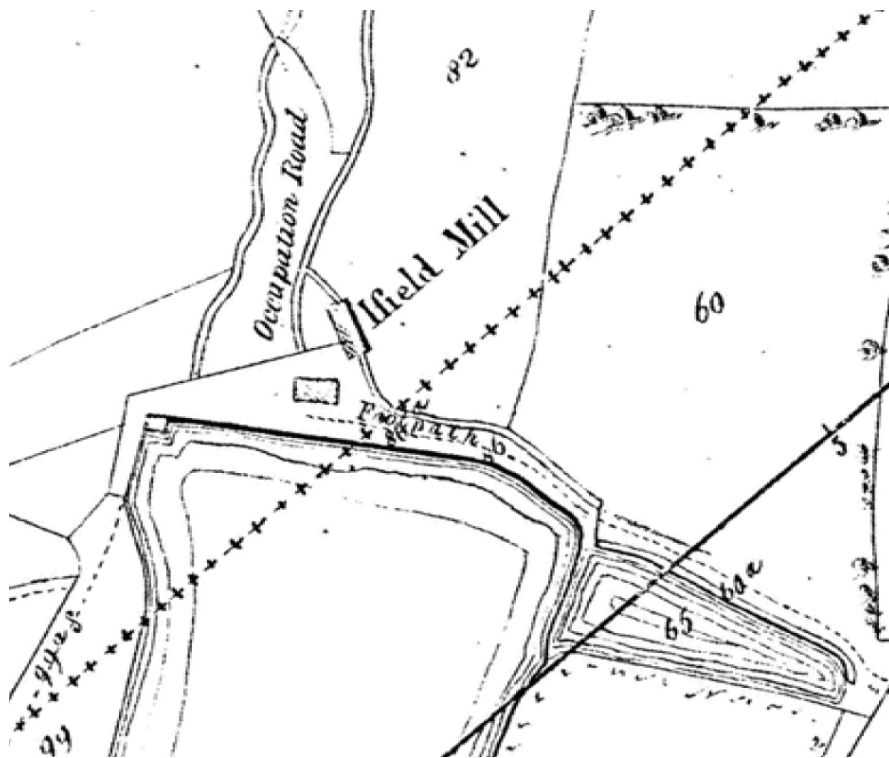


The site as existing (Waterman Group 2013)

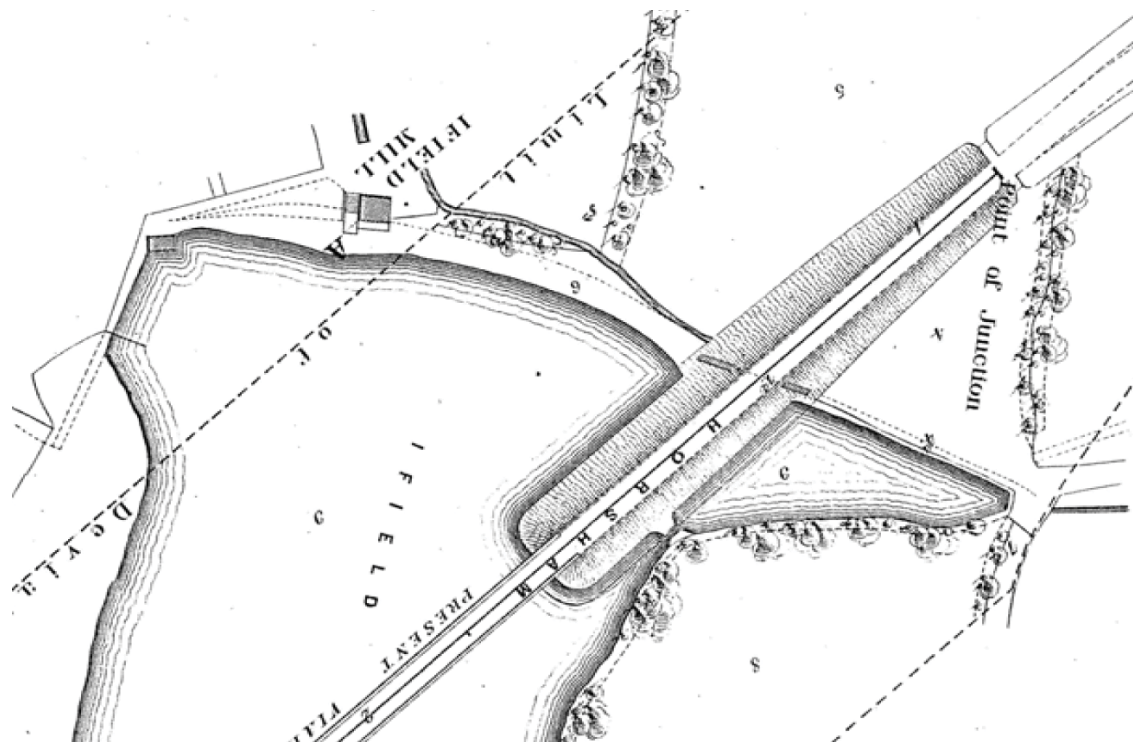


The site as proposed (Waterman Group 2013)

© Archaeology South-East		The Mill Pond, Hyde Drive, Ifield	Fig. 3
Project Ref: 6621	April 2015	The site as existing and proposed	
Report Ref: 2014181	Drawn by: MGS		



1845 plan of the site, from Network Rail (Waterman Group 2013)



1859 plan of the site, from Network Rail (Waterman Group 2013)

© Archaeology South-East		The Mill Pond, Hyde Drive, Ifield	Fig. 4
Project Ref: 6621	April 2015	Mid-19th century plans of the site	
Report Ref: 2014181	Drawn by: MGS		



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Project Ref: 6621

April 2015

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Drawn by: MGS

The Mill Pond, Hyde Drive, Ifield

19th century postcard of Ifield Mill

Fig. 5

PLATES



Plate 1 – General view of the Ifield Mill and dam, looking north-east



Plate 2 – The dam walkway, looking east



Plate 3 – The dam walkway, looking west from Ifield Mill



Plate 4 – Ifield Mill, looking south-east



Plate 5 – Concrete spillway, looking north-east



Plate 6 – Brick facing to eastern end of dam, looking north



Plate 7 – Penstock and brick culvert to head race, looking south-east



Plate 8 – Detail of head race Penstock, showing earlier sandstone foundations to later brick culvert



Plate 9 – Stepped weir and concrete spillway, looking south-west



Plate 10 – Brick footbridge to spillway, north elevation



Plate 11 – Sandstone and brick pond beyond spillway, looking north-west



Plate 12 – General view of wheel pit and head race, looking north-east



Plate 13 – General view of wheel pit and head race, looking south

APPENDIX 1: OASIS FORM

OASIS ID: ARCHAEO6-209259

Project details

Project name

The Mill Pond, Ifield, Crawley: Historic Buildings Record

Short description of the project

In May 2014 Archaeology South-East carried out a historic buildings record of the dam to Ifield Mill, Ifield, West Sussex. The work was commissioned by Jackson Civils Ltd and requested by Crawley Borough Council, to be addressed as a condition placed on planning consent relating to works on the Ifield dam and associated spillway. These will include a new dam structure on the upstream face of the existing dam with a clay core from a borrow pit in the bed of the north pond, concrete revetments, and a new concrete auxiliary spillway and associated downstream structures. The mill pond and dam owe their existence to Ifield Mill, which was first recorded as part of the Wealden iron industry in 1574. The present mill was last rebuilt in 1817, at which time the dam was refaced in brick and the extant mill race constructed. To the west, the spillway consists of a mid-19th century basin, a late 19th or early 20th century footbridge and a late 20th century weir. The dam itself consists of an earthen bank up to six metres in height, scattered with sandstone rubble relating to earlier phases of industrial activity on the site.

Project dates

Start: 01-04-2014 End: 30-04-2014

Previous/future work

No / Not known

Any associated project reference codes

6621 - Contracting Unit No.

Any associated project reference codes

IPC 14 - Sitecode

Type of project

Building Recording

Site status

Listed Building

Current Land use

Open Fresh Water 2 - Standing water

Monument type

MILL DAM Post Medieval

Monument type

MILL POND Post Medieval

Project location

Country

England

Site location

WEST SUSSEX CRAWLEY CRAWLEY The Mill Pond, Hyde Drive, Ifield, Crawley

Postcode

RH11 0PL

Study area

2500.00 Square metres

Site coordinates

TQ 2450 3640 51.1128114176 -0.221179096701 51 06 46 N 000 13 16 W Point

Height OD / Depth

Min: 65.00m Max: 71.00m

Project creators

Name of Organisation

Archaeology South-East

Project brief originator	Jackson Civils
Project design originator	Jackson Civils
Project director/manager	Paul Mason
Project supervisor	Michael Shapland
Type of sponsor/funding body	Crawley Borough Council
<u>Project archives</u>	
Physical Archive Exists?	No
Digital Archive recipient	Crawley Museum
Digital Archive ID	IPC 14
Digital Media available	"Images raster / digital photography"
Paper Archive recipient	Crawley Museum
Paper Archive ID	IPC 14
Paper Media available	"Plan", "Report"

Appendix 2: Index of Digital Photographs



6621-0001
Ifield Mill. Facing southeast



6621-0002
Ifield Mill date plaque. Facing south



6621-0003
Ifield Mill wheel pit. Facing south



6621-0004
Dam rear. Facing south



6621-0005
Dam rear. Facing southwest



6621-0006
Spillway. Facing southeast



6621-0007
Spillway. Facing east



6621-0008
Dam rear. Facing south



6621-0009
Pond west bank. Facing south



6621-0010
Spillway. Facing east



6621-0011
Dam and pond. Facing east



6621-0012
Spillway gate. Facing south



6621-0013
Dam walkway. Facing east



6621-0014
Pond. Facing south



6621-0015
Dam face. Facing west



6621-0016
Mill race. Facing northeast



6621-0017
Mill race. Facing north



6621-0018
Mill race. Facing north



6621-0019
Penstock. Facing southeast



6621-0020
Penstock. Facing south



6621-0021
Dam walkway. Facing west



6621-0022
Head race. Facing west



6621-0023
Dam walkway. Facing east



6621-0024
Dam and mill. Facing west



6621-0025
Dam face. Facing west



6621-0026
Dam face. Facing east



6621-0027
Dam. Facing east



6621-0028
Dam and railway. Facing east



6621-0029
Dam face. Facing west



6621-0030
Dam face. Facing west



6621-0031
Dam face. Facing northwest



6621-0032
Dam face. Facing northwest



6621-0033
Spillway bridge. Facing northwest



6621-0034
Spillway pond. Facing north



6621-0035
Spillway bridge. Facing southwest



6621-0036
Spillway bridge. Facing southwest



6621-0037
Spillway pond. Facing northwest



6621-0038
Spillway. Facing southwest



6621-0039
Spillway. Facing northeast



6621-0040
Pond bank. Facing south



6621-0041
Pond bank. Facing south



6621-0042
Pond bank. Facing south



6621-0043
Pond bank. Facing north



6621-0044
Pond. Facing northeast

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