

Heritage Statement

Altham Pumping Station

For Waterboy Ltd

National Grid Reference:
SD77413318

Dr Peter Wardle
20/July/2011

Document Reference Number 2011/1034

Heritage Statement:
Altham Waterworks
by
Dr Peter Wardle
20/July/2011
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1. Summary

This report describes the Pumping Station at Altham, Accrington which was constructed in 1907-8, being formally opened on the 2nd September 1908. Originally housing two steam-driven beam engines it consists of the Pumping Hall, Boiler Room and Coal Store. The style of building is characteristic of late 19th – early 20th century industrial architecture with construction in Accrington Nori bricks with stone dressing to the windows and doors.

The importance of the Altham Works can be judged against the English Heritage Listing Selection Guide which states that:

Stations built after 1860 must be selectively listed, choices being based on the survival of plant and on architectural interest, tempered by the degree of alteration

The following elements of the complex have been lost;

1. The upper storey and roof structure to the pumping hall
2. The lantern to the middle hall
3. The furnace chimneys
4. Upper storey arched windows
5. Structures to the rear
6. All original pumping equipment
7. Tiled floor surfaces

In addition there have been the following key alterations:

1. Extension to the North-East of the Building
2. Large roller doors to pumping hall
3. Internal sub-division
4. Addition of doors to coal store

Thus it cannot be seen that this building meets the criteria for listing. Its late date of construction would mean for example that it would be the most recent waterworks to be listed. It is to be contrasted with the The Bratch Waterworks, Wombourne, Staffordshire constructed in 1895 which survives intact complete with Victorian pumping equipment.

The fact that there are major structural issues means that there is little alternative to demolition.

2. The Basis of The Report.

This is a document describing and discussing all aspects of the historic environment (Conservation areas, Listed Buildings, Ancient Monuments and archaeological sites) in relation to the development proposal at the above location.

This follows the principles set out in:

Clark, K., 2003, Informed Conservation, English Heritage, London.

Planning Policy Statement 5 – Planning For the Historic Environment

English Heritage

PPS5 Planning for the Historic Environment: Historic Environment Planning Practice Guide

The basic premise of this is that:

all conservation decisions should be based upon research and information.

Conservation is about managing change not fossilisation of buildings, land or landscapes.

This report should be read in conjunction with the planning and listed building consent applications.

3. Introduction

3.1 The Client

This report was commissioned by Damian Entwistle for and on behalf of Waterboy Ltd who are the building's owners.

3.2 Confidentiality and Copyright

This document is to remain confidential for a period of 12 months or until it forms part of a formal planning application or until otherwise indicated by the client. The copyright of this report belongs to the Historic Environment Consultancy. No liability to third parties is accepted for advice and statements made in this report.

Location

Site Address:	Altham Pumping Station Simonstone, Burnley, Ribble
Post Code	BB12 7NL
County:	Lancashire
Grid Reference:	SD77413318

The location is shown in Figure 1



Figure 3 Site Visit
Dr Peter Wardle visited the site on the 8th July 2011.

3.3 Current Land Use

The site is former industrial land on which a disused pumping station is located.

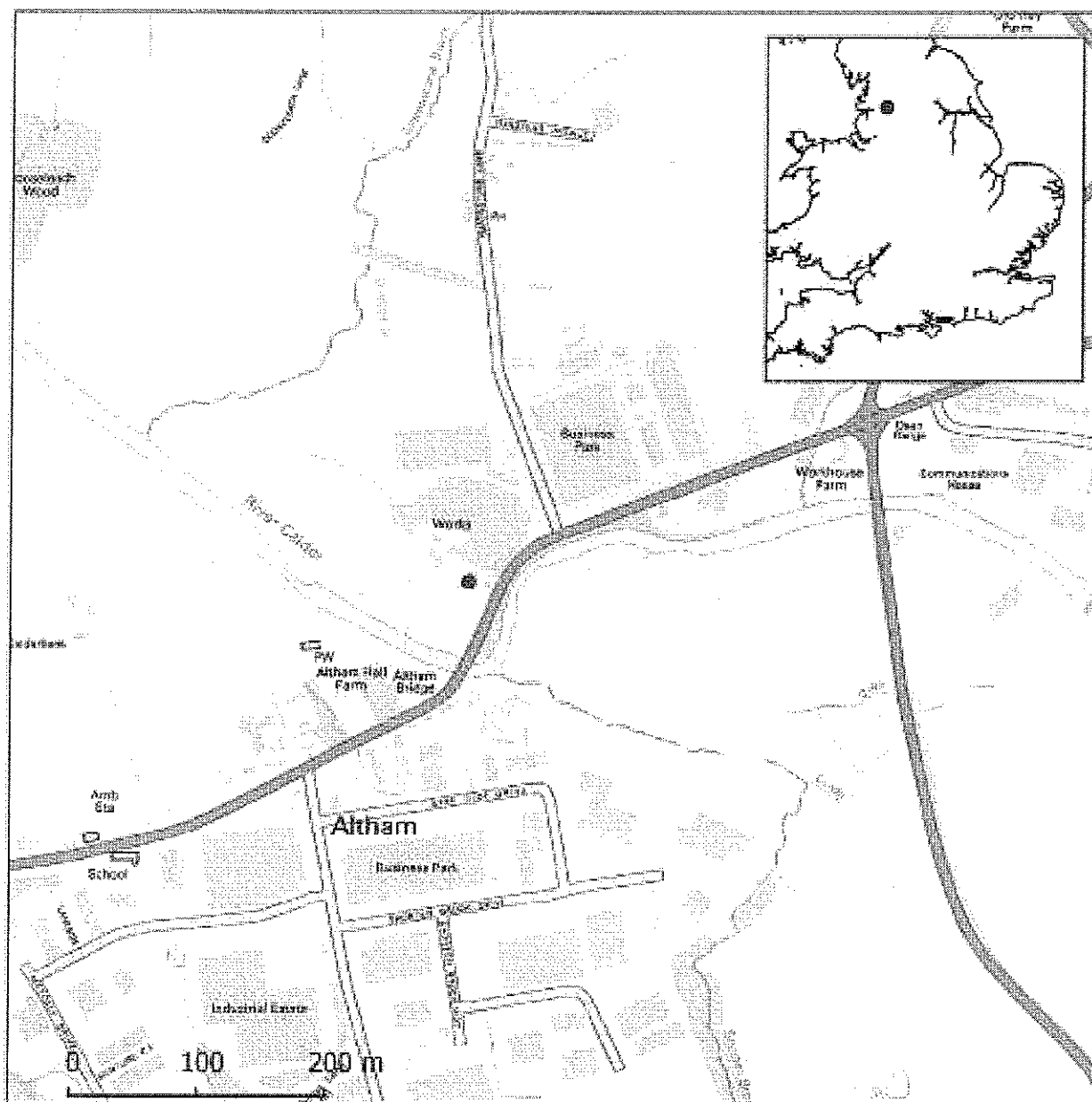


Figure 1: General Location Plan, 1:10000



Figure 3: Detailed Location Plan, 1:1000

4. The Building

The building is a disused pumping station. It was constructed in the 1900s as a pumping station, originally housing two steam-driven beam engines.

The building is oriented NNE – SSW although for the purposes of clarity in this report, the NNE side is referred to as north, SSW as south. The front of the building, the ESE elevation is referred to as east, and the rear (WNW) elevation as the west.

5. The Date of the Building

The building was constructed in 1907-8, being formally opened on the 2nd September 1908.

The style of building is characteristic of late 19th – early 20th century industrial architecture.

There is also a modern extension to the building.

The layout of the building is shown in the following plans:

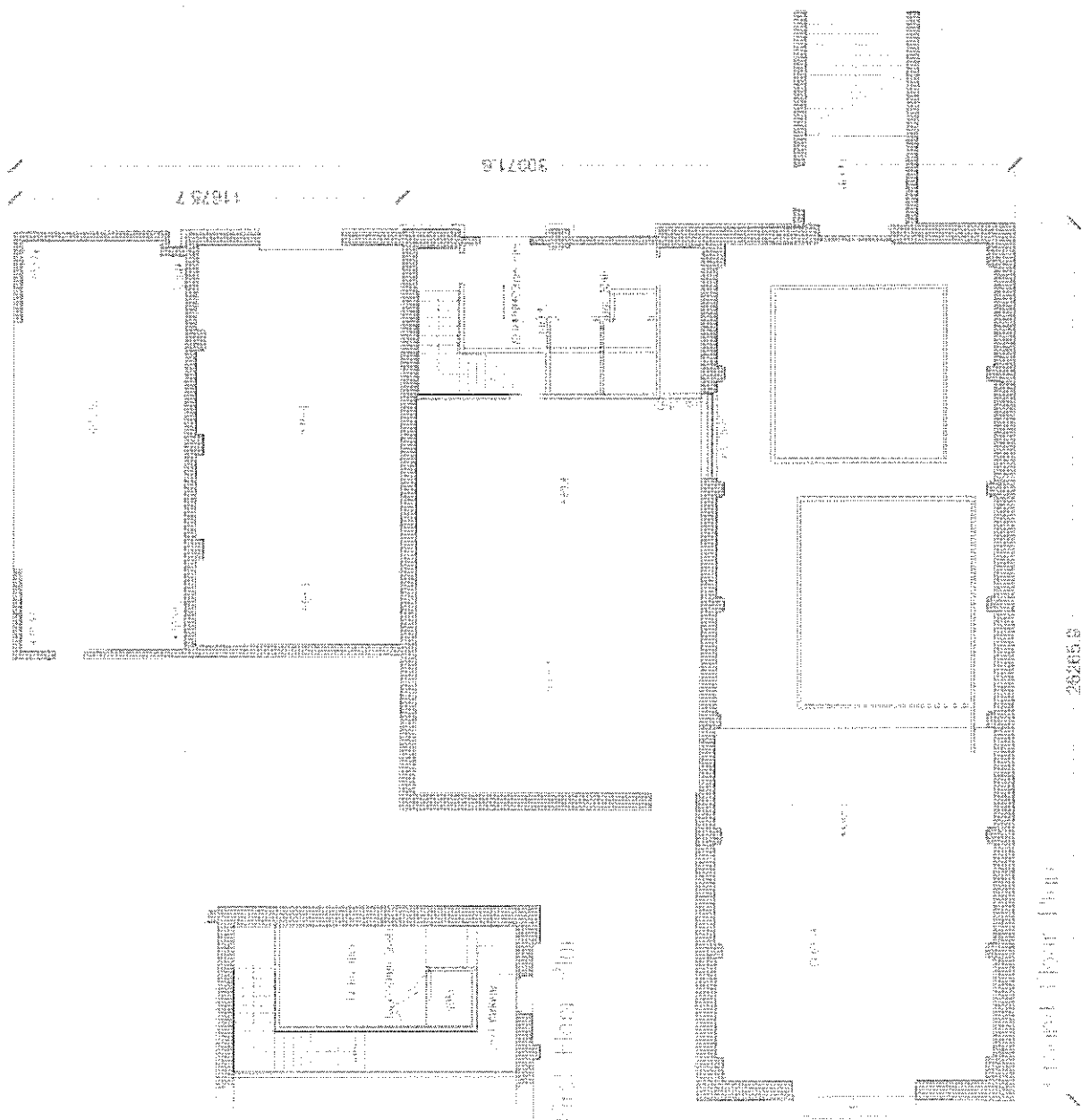


Figure 3 Floor plan, not to scale

6. Historic Background.

For some years in the late 1890s and early 1900s public consumption of water had been restricted. The whole water supply up to this period was obtained from reservoir catchment from outlying hills a source whose capacity could not be increased. In 1904 and 1905 established local reservoirs at one point had only 2 weeks supply of water caused growing population and exceptional droughts of the late 1890s.

In 1903, subterranean aquifers were discovered by engineers working at the Calder Mine not far from Altham in Simonstone.

In April 1904, Mr Bryan, Accrington District Gas & Water Board's engineer visited the mine and discovered that its capacity at the time was 60,000 gallons per hour.

Following a subsequent investigation by William Boyd Dawkins, FRS, KBE of the Geological and Mining Society, the water was deemed to be of "excellent potable quality".

Accrington District Gas & Water Board then obtained powers for the creation of a pumping station at Altham. In 1907, 2 boreholes were sunk and the pumping station construction began. The station was formally open September 2nd 1908 to pump "top up" water supplies to local reservoirs.

When the national grid was being established in Accrington & District in the 1930's, 40's and 50's, the main pumping house building was reduced in height by approximately 50%/roof and the middle building lost its skylight apex.

Altham Pumping Station – Site Occupation

1903	Water source discovered
1907	2 Boreholes sunk into the Middle Scout artesian aquifer 170ft below ground level
1908	Pumping station opened
1932	3rd borehole sunk into old Lawrence sandstone, 300 ft below ground level and electric pumps installed for this borehole.
	Top storey of building 1 and 2 roofs removed to accommodate overhead line storey/roof and the grid pylon
1956	Agreement reached with Manchester Corporation to branch off the Haweswater Aqueduct in consideration for permission to run pipeline through the district of Accrington.
	The agreement rendered use of pumping station for public water supply redundant
	North West Water board commence supply of water to Mullards in Simonstone for cooling processes in TV CRT manufacture
	The pumping station was refurbished. The beam engine and Lancashire boilers were removed and replaced by 4 electric submersible pumps
	Borehole 4 was sunk to increase yield to the adjacent Mullards manufacturing facility.
2004	Philips(Mullards) factory at Simonstone closes
2004	Water extraction at Altham ceases

2004 - 2009	Site used by United Utilities as a storage facility
2009	Site sold to Damian Entwistle



Figure 4 Reconstruction of the pumping house with the demolished sections added
The above image was supplied by Waterboy Ltd

7. The Exterior of The Building



Plate 1 The Front (East Elevation)

To the left, the former engine / pump house, centrally, the boiler house and to the right, the coal store. The yard in the foreground is of brick cobbles.

The general styling of the building reflects the grandeur bestowed on municipal and utility buildings seen throughout the 19th and early 20th centuries, up to the First World War. The ornamentation present is somewhat plainer than some other examples, for instance, The Bratch pumping station near Womborne, South Staffordshire (photographs appended).



Plate 2 Stone Steps



Plate 3 Front Elevation Door and Window

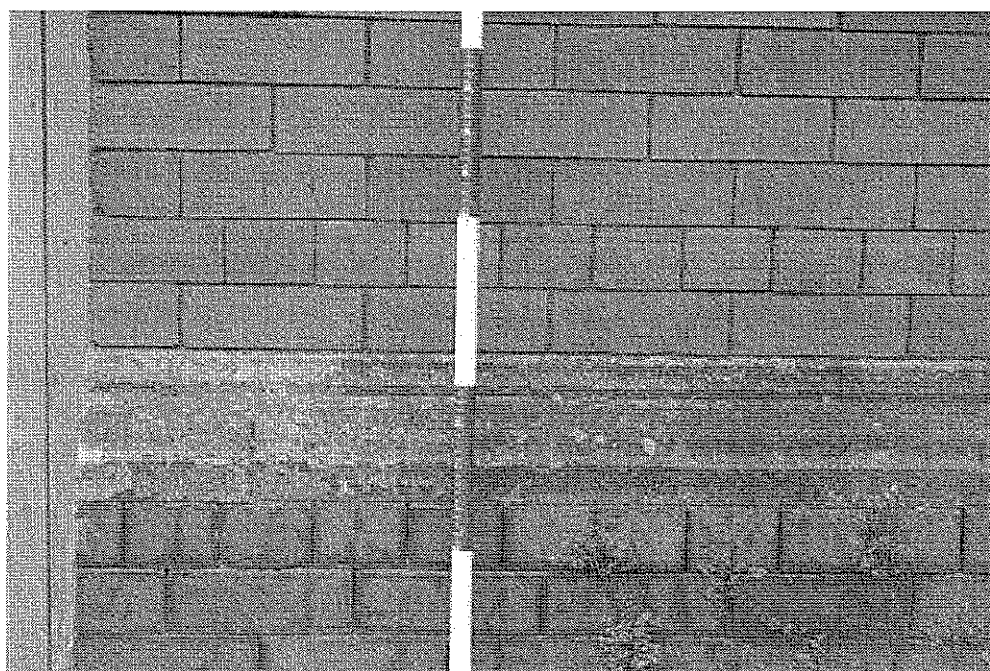


Plate 4 Stonework Detail



Plate 5 The South Elevation



Plate 6 South Elevation window and brick detail



Plate 7 The Rear (West Elevation)



Plate 8 The recent roller shutter door



Plate 9 Recent Extension

8. The Interior Ground Floor

8.1 Engine / Pump House



Plate 10 West Aspect



Plate 11 East Aspect

A mezzanine floor was once present in the engine house. This is apparent from the scars around the walls indicating the level of the previous ceiling. Doors are also present at the previous mezzanine level, now located high on the wall.

The roof structure of this part of the building is a variation on the Warren truss, with a slightly raised pitch. The trusses are constructed of rolled iron. The roof structure dates from the early 20th century when the building was reduced in height.



Plate 12 Showing where mezzanine floor has been removed



Plate 13 Blocked door and new opening

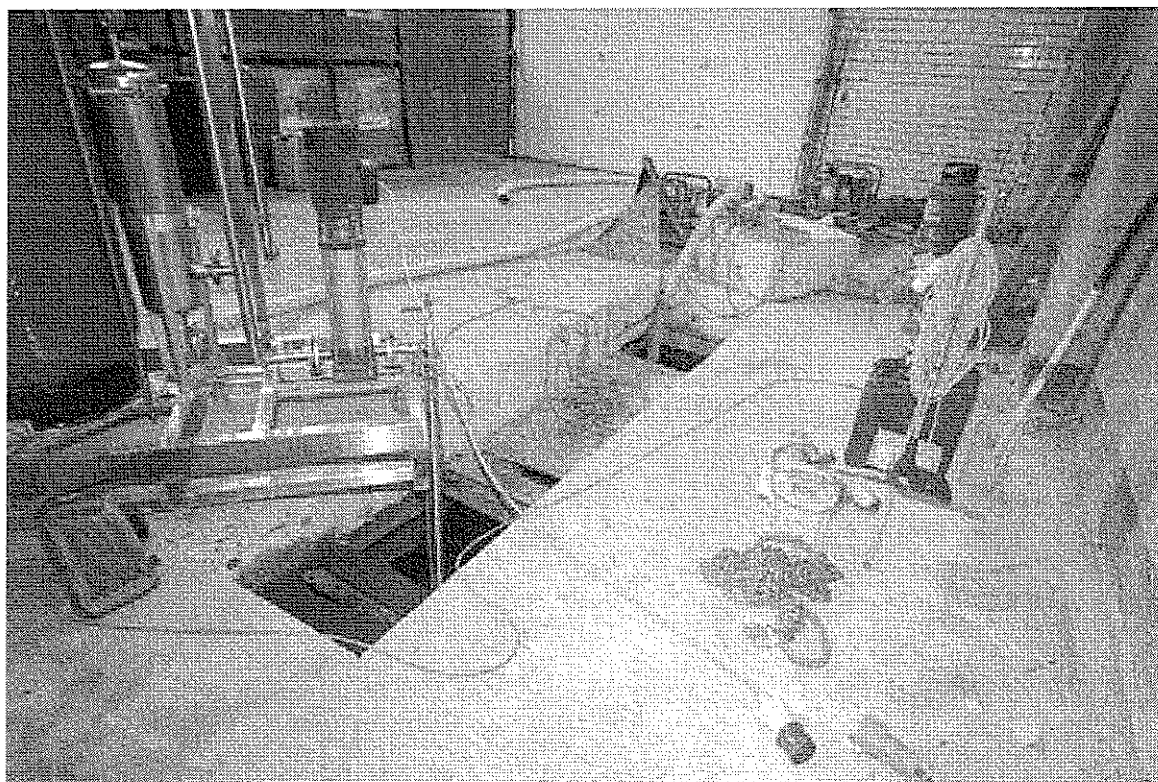


Plate 14 The well

8.2 Boiler Room

It is assumed that this hall was the boiler room as it is constructed from non-vitreous bricks.

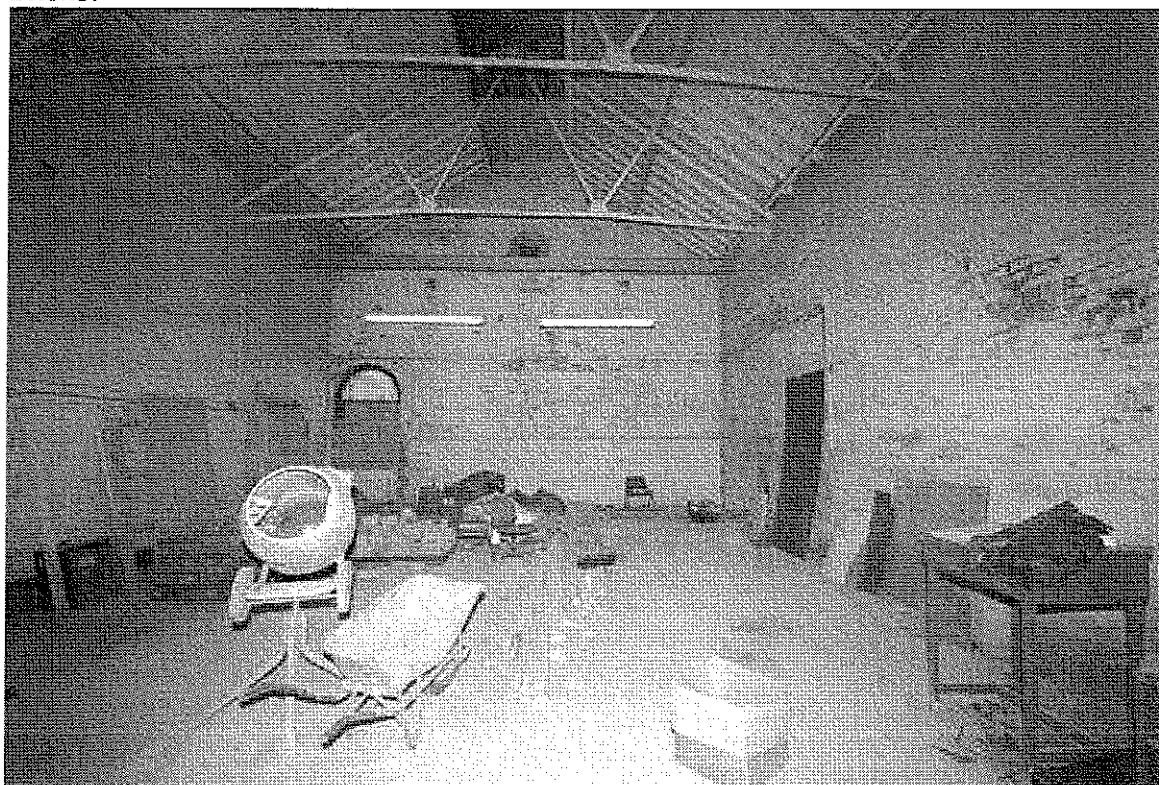


Plate 15 North West Aspect



Plate 16 South-East Aspect



Plate 17 Roof Structure North-West

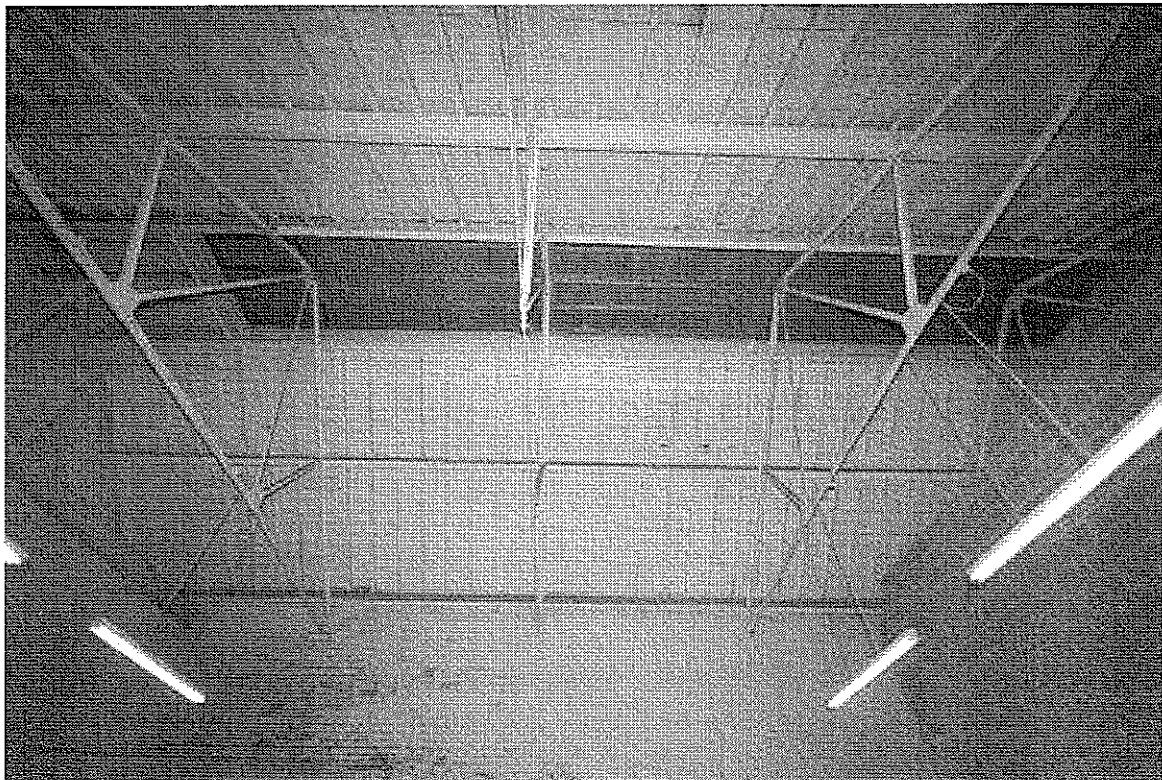


Plate 18 Roof Structure – South East

The roof trusses are of the triangular chord and strut form, fabricated from rolled angle steel joined with gusset plates.

This type of truss was developed following advances in engineered wood truss designs, notably the 'TRADA Truss' designed by the Timber Research and Development Association in the 1930s. The TRADA truss gained popularity after the Second World War owing to its very economical use of timber, which was in short supply following the conflict. The Faculty of the Built Environment at the University of Western England (Bristol) specifically identifies the TRADA truss as being characteristic of 1950s construction and indicates that in timber structures its use was somewhat short-lived, being popular until the 1960s when trussed rafters became the norm¹.

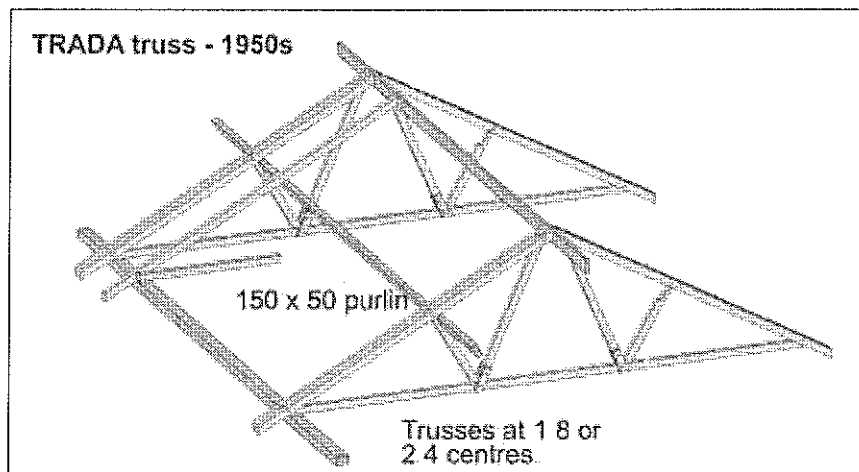


Figure 5: The TRADA truss, illustrated by Faculty of the Built Environment, UWE

¹ See https://environment7.uwe.ac.uk/resources/constructionsamples/Conweb/house_ages/elements/section5.htm

8.3 Coal Store

The Historic Photographs show this hall was the coal store.

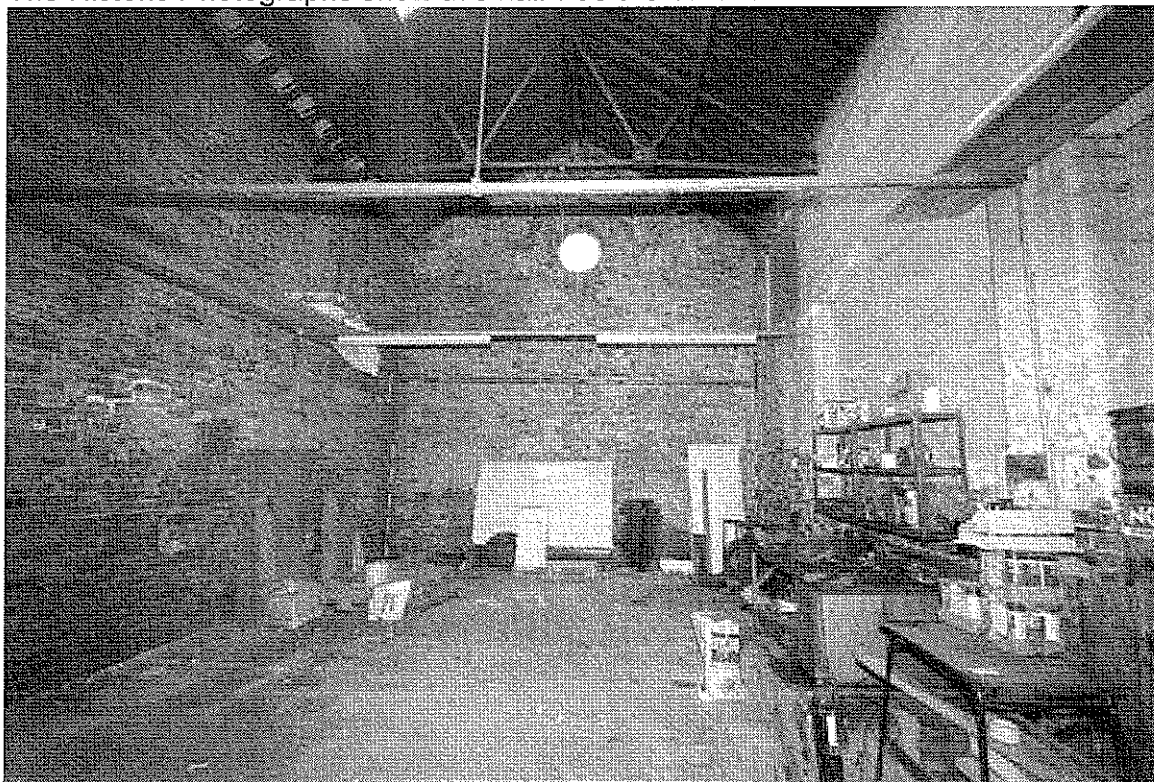


Plate 19 Coal Store – North-West Aspect

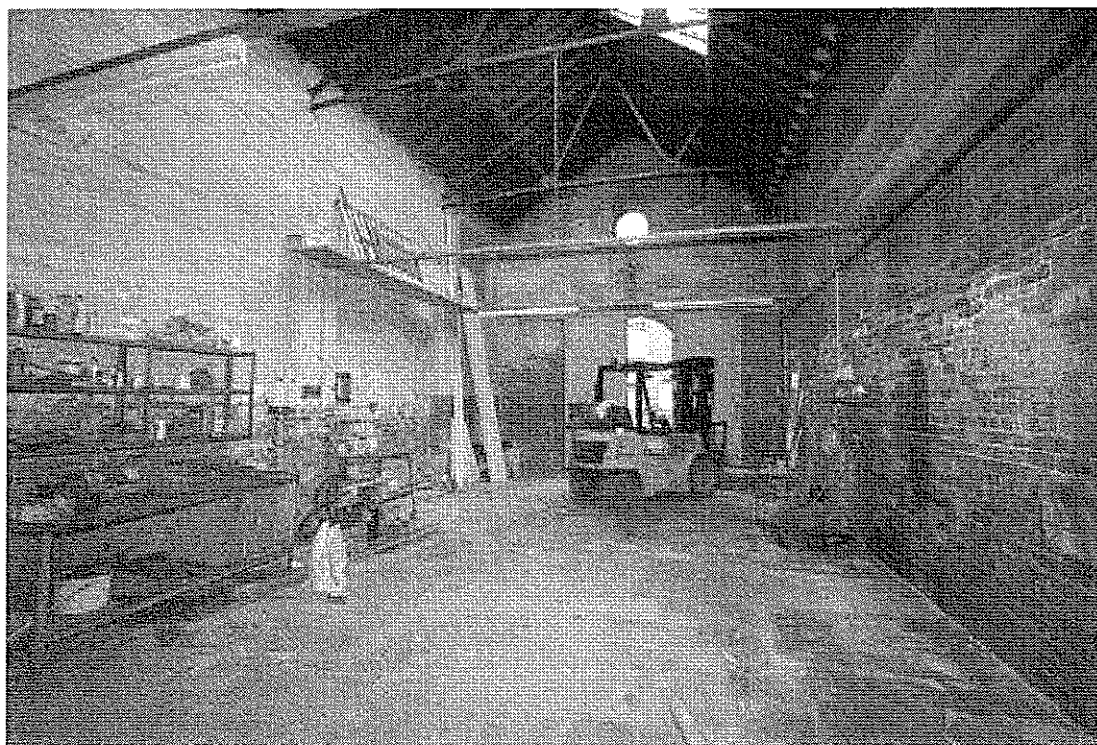


Plate 20 Coal Store –South-East Aspect

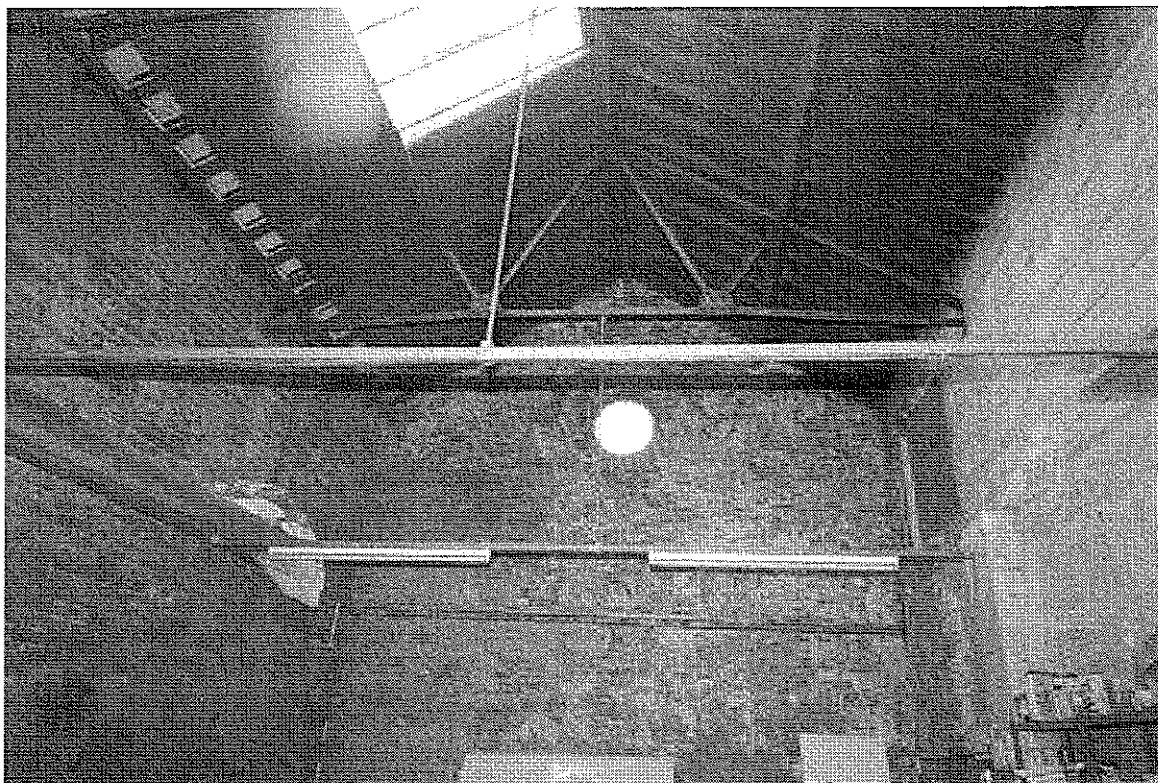


Plate 21 Coal Store North-West Aspect

8.4 Entrance Area

An entrance area has been constructed with modern breeze blocks.

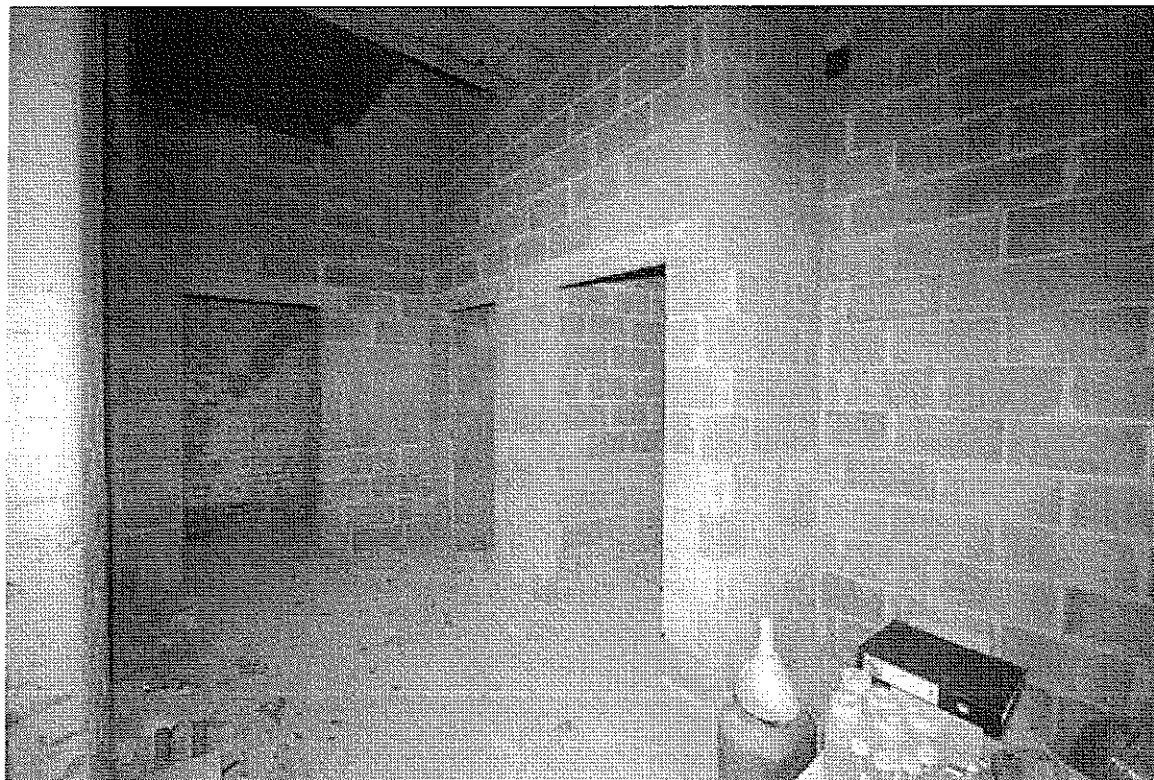


Plate 22 Entrance Area

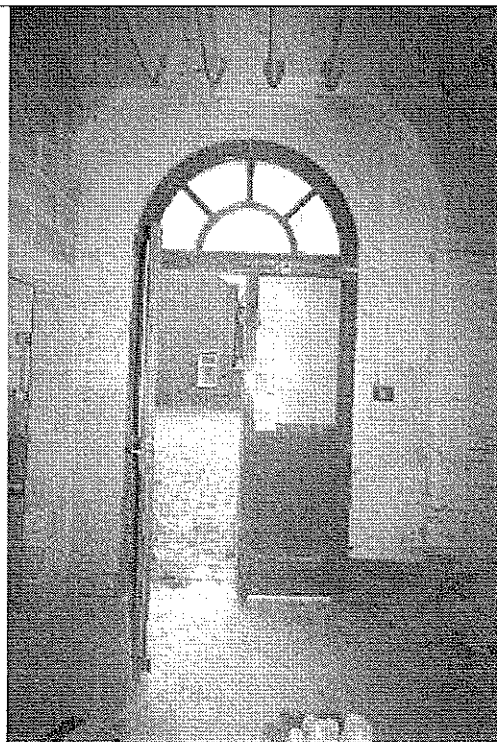


Plate 23 Entrance Door

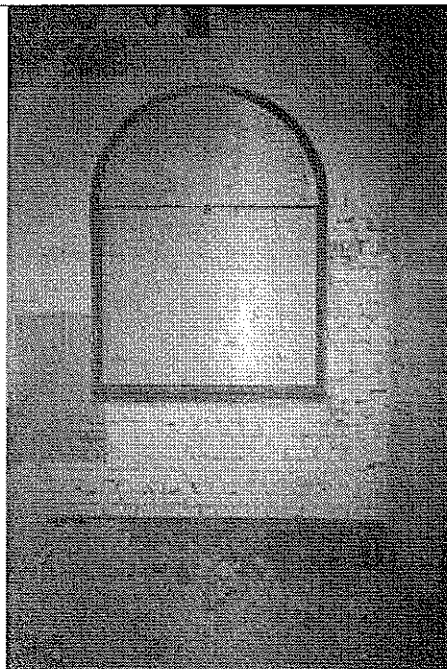


Plate 24: Window Front Elevation

8.5 Area under Steps

It is unclear what the function of this area was.

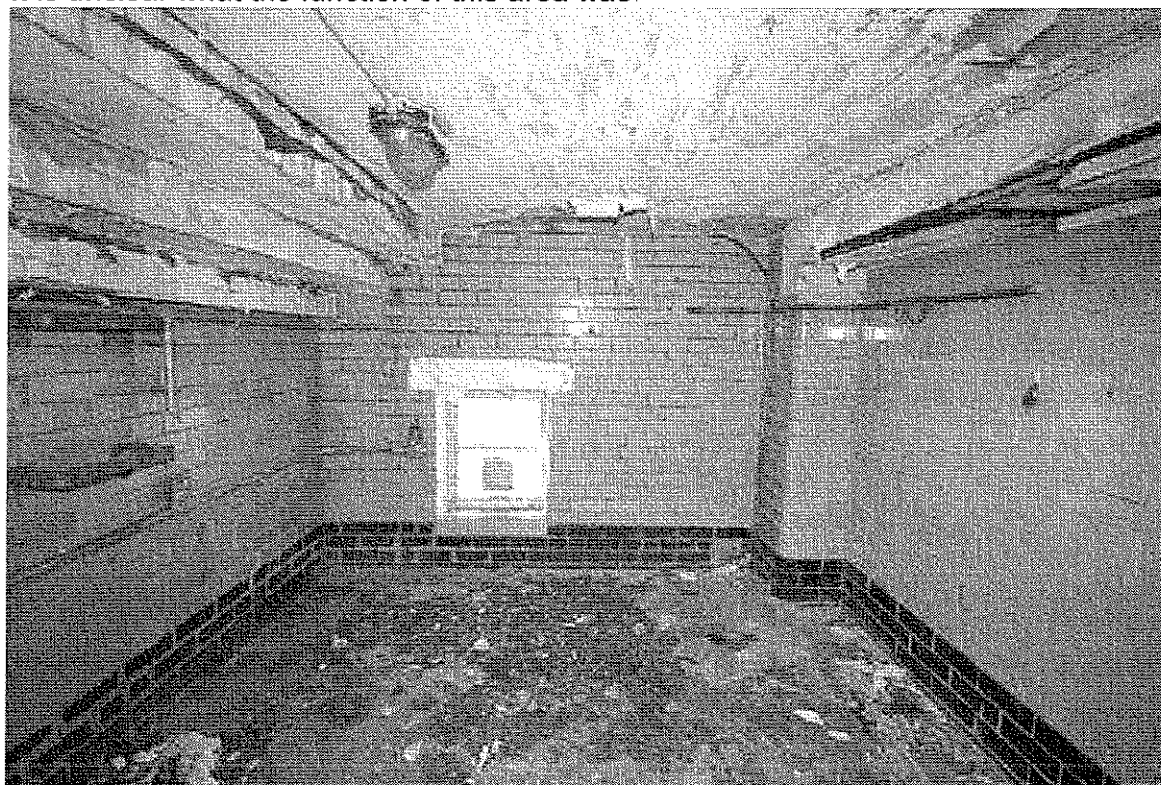


Plate 25 Area under Steps – South-West Aspect

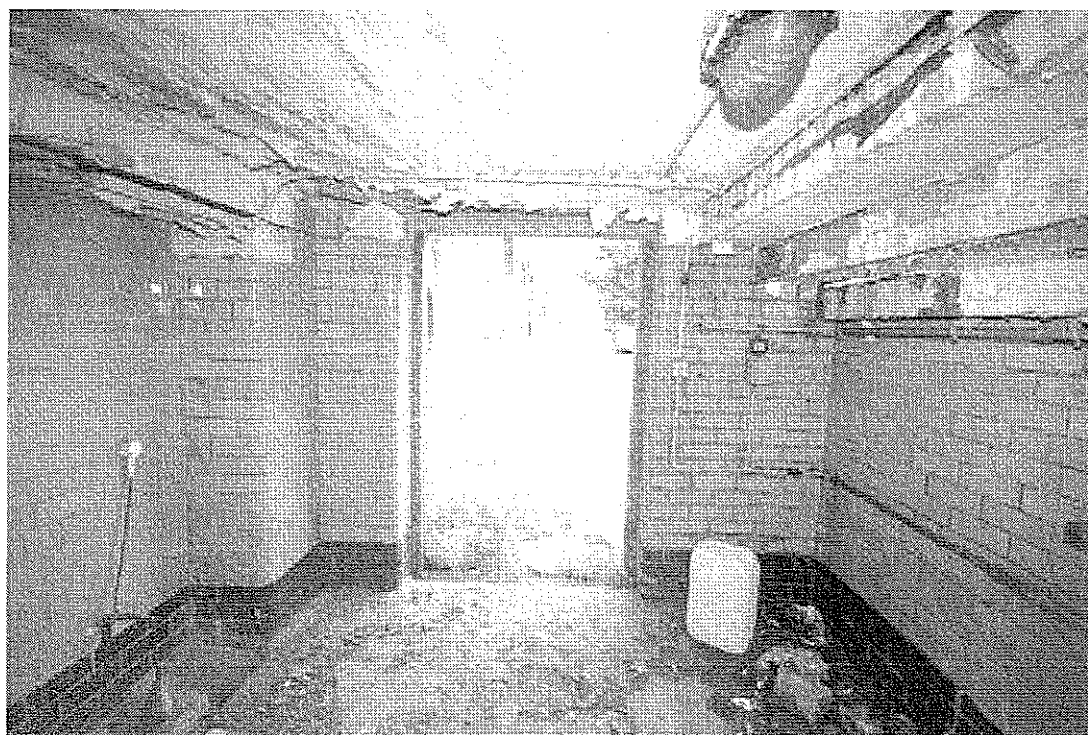


Plate 26 Area under steps North-East Aspect



Plate 27 Tiled Floor

9. Engine Dedication Plaque

Two engine dedication plaques are present in the main engine/pumping room the first to the original beam engine and the second to the replacement electric pump.



Plate 28 The 1908 Dedication Plaque

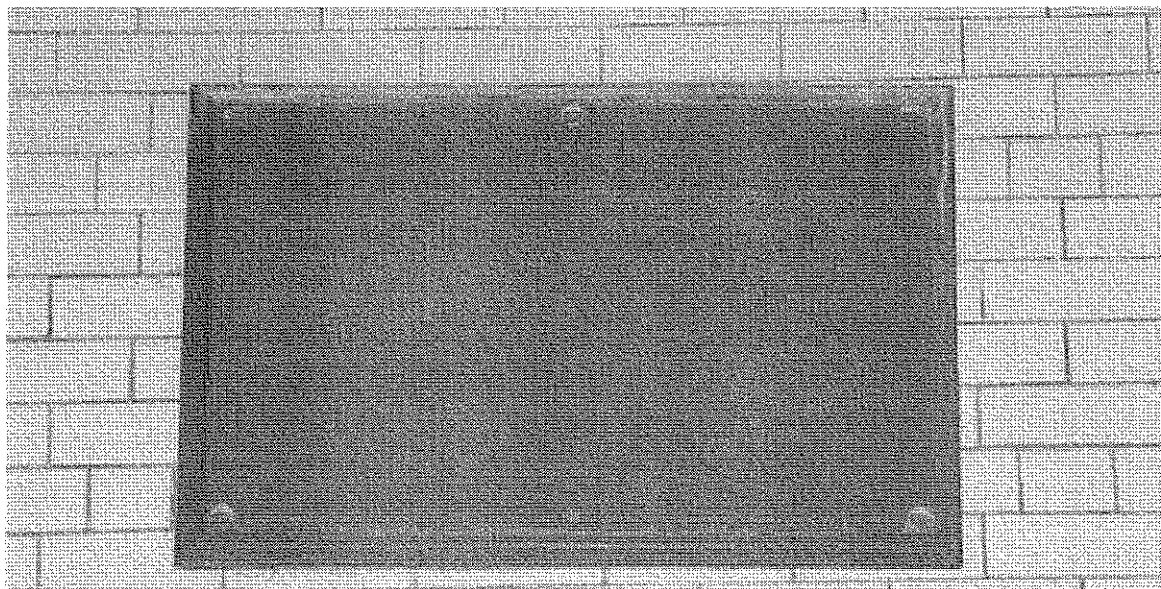


Plate 29 The 1957 Dedication Plaque

THESE WORKS WERE INAUGURATED ON THE 2 ND DAY OF SEPTEMBER 1908				
IN THE PRESENCE OF THE MEMBERS OF THE				
CONSTITUENT AUTHORITIES COUNCILLOR DOCTOR COUNSELL DEWHURST				
CHAIRMAN OF THE BOARD. NAMING THE ENGINE				
"BETSY"				
MEMBERS OF THE BOARD				
Alderman	JW Cunliffe		Councillor	R Mellooy
	JP Duckworth JP			Wm. Tattersall
	TE Nuttall JP			JW Cooper
	WH Rawson JP	Accrington		JC Parker
	AP Walmer			JE Allsopp
Councillor	DC Dewhurst			Thos. Noble JP
	JR Cameron			F H Greenhalgh
	JC Lupton JP			RH Place
The Following also were members of the board at the				
Initiation or during progress of the work				
Alderman	Thos Broughton JP		Councillor	Jas. Foster JP
	Thos Howell JP	Accrington		Thos. Hargreaves
	W Lee JP			T Clayton
				Jam. Hanson
				AE Roberts
				Richard W Grange
				Charles Manston
				A H Altner
				Engineer
				General Manager
				Clerk

Accrington District Water Board				
Altham Pumping Station				
This pumping station was re-equipped with new machinery				
Between 1955 and 1957 and was formally re-opened by				
Alderman WM Marriott JP on the 14 th Day of August 1957				
Members of the Board				
Councillor	J Birch		D Eglin JP	
	Chairman		WH Stokes	Church
	JA Duckworth JP		J Finch BEng JP	
	J Grimshaw		F Grundy JP	Clayton Le Moors
	R Liversage		J Dunn	
	J Pollard	Accrington	E Whalley	Great Harwood
	WM Sproul		JW Banks CC	
	A Wade		Vice-Chairman	Rishton
	W Wallwork		R Lightbown	
	Jack Gartsloe		?R Birch	Jackson ? MICE
	Clerk & Solicitor	Chief ? Officer	& Treasurer	Engineer & Manager

10. Cottages

The Cottages do not form part of the Application and were not inspected.

They were constructed for the staff of the waterworks and are contemporary.



Plate 30 Cottages Front Elevation



Plate 31 Cottages Rear and Side Elevation

10.1 Sub Station

The Building to the West of the Waterworks is used as an electricity sub-station was not therefore inspected.



Plate 32 Front Elevation Sub-Station



Plate 33 South Elevation Sub-station



Plate 34 The Sub-station and building associated with the adjoining colliery

10.2 Surrounding Land



Plate 35 The south west corner of the waterworks land



Plate 36 Stone Capped Wall Pier South-West corner of the land



Plate 37 Boundary Wall with stone capped pier



Plate 38 The yard area between the waterworks and cottages

11. Brick Catalogue

11.1 Accrington Nori Brick

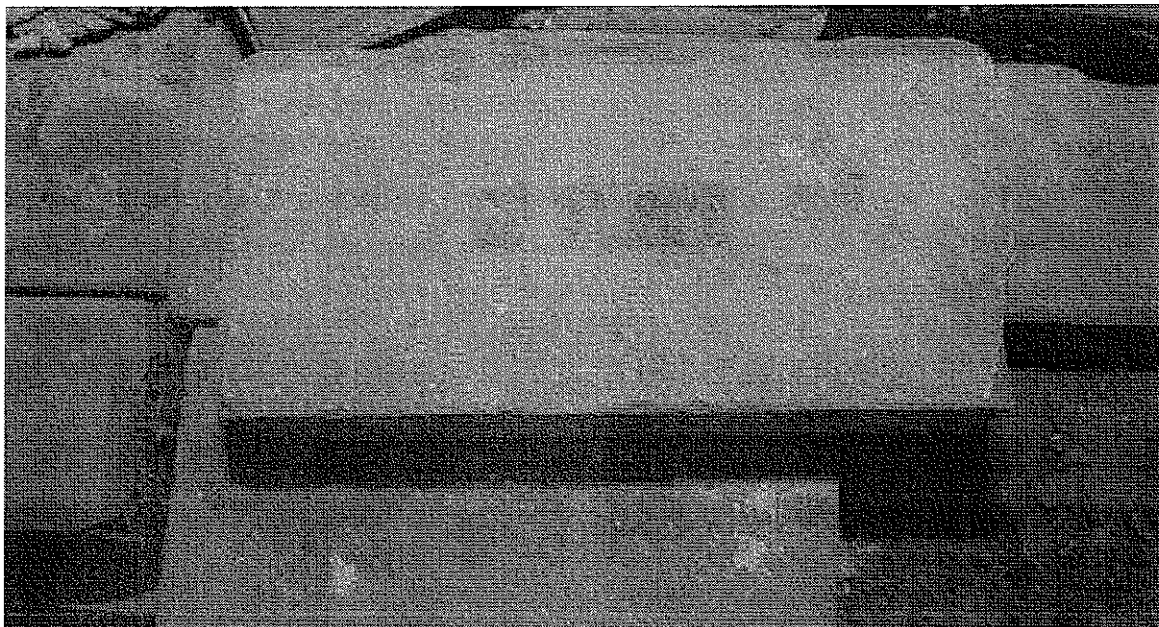


Plate 39 Brick 6 Accrington NORI

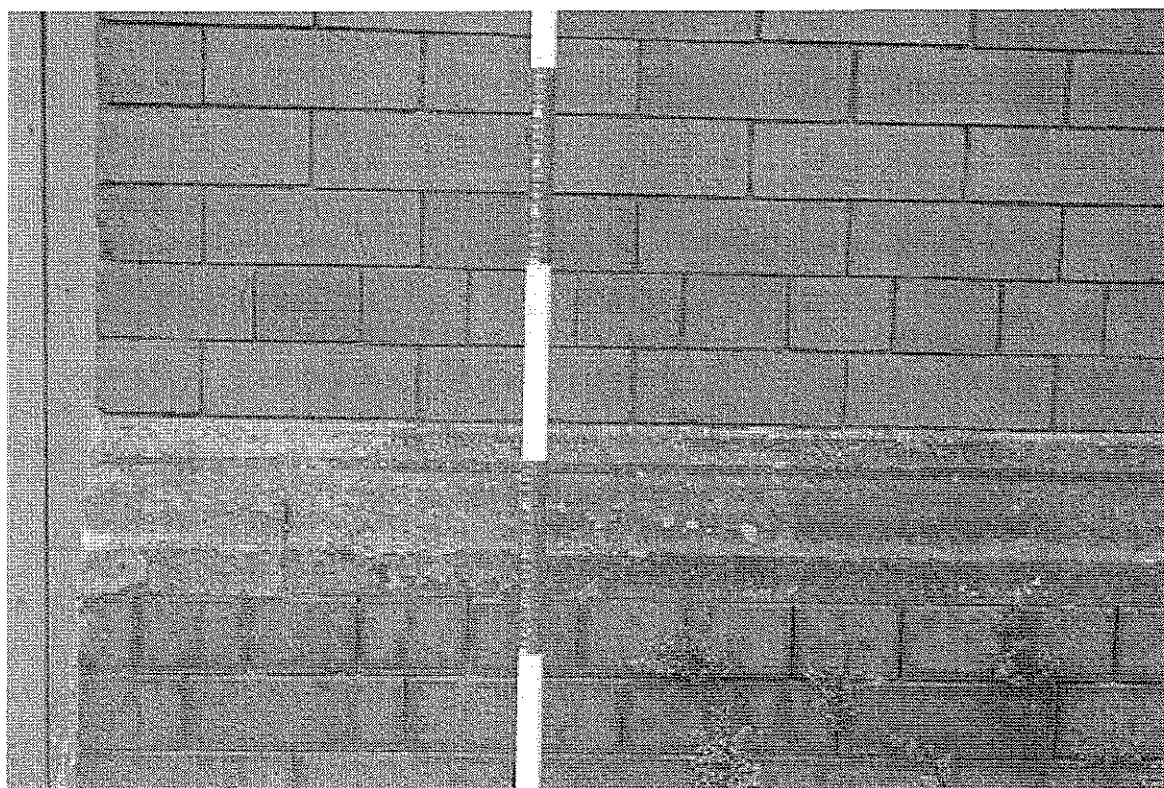


Plate 40 Brick 3 Accrington Nori Bricks



Plate 41 Brick 4 Brick 3 Accrington Nori Bricks

11.2 Light Blue Vitreous Brick



Plate 42 Brick 1 Light Blue Vitreous Brick

11.3 Shaws White Vitreous Brick

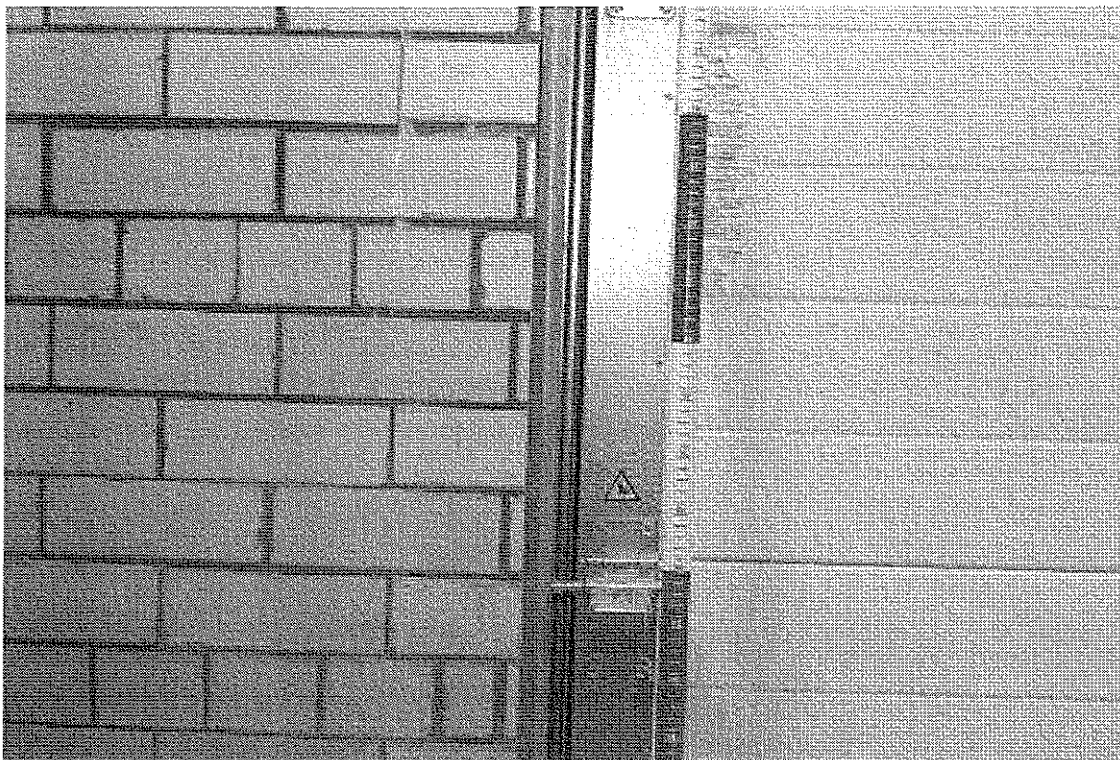


Plate 43 White Vitreous Brick



Plate 44 Shaws Vitreous Brick

11.4 Shaw

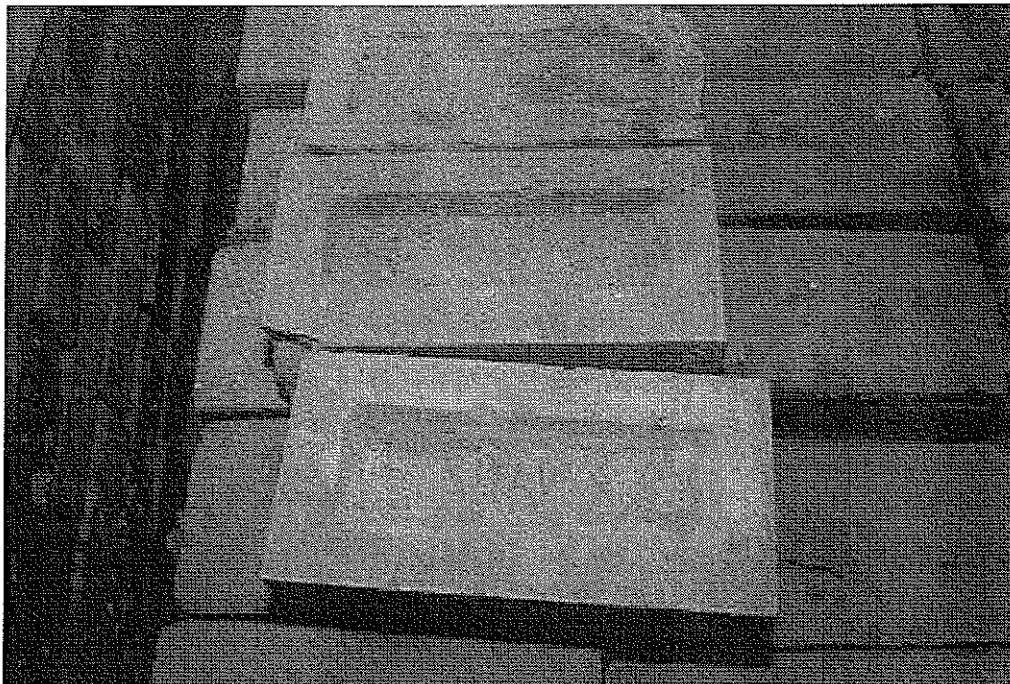


Plate 45 Shaws Brick

11.5 Enfield Plastic Brick



Plate 46 Enfield

11.6 Enfield & Co Brick

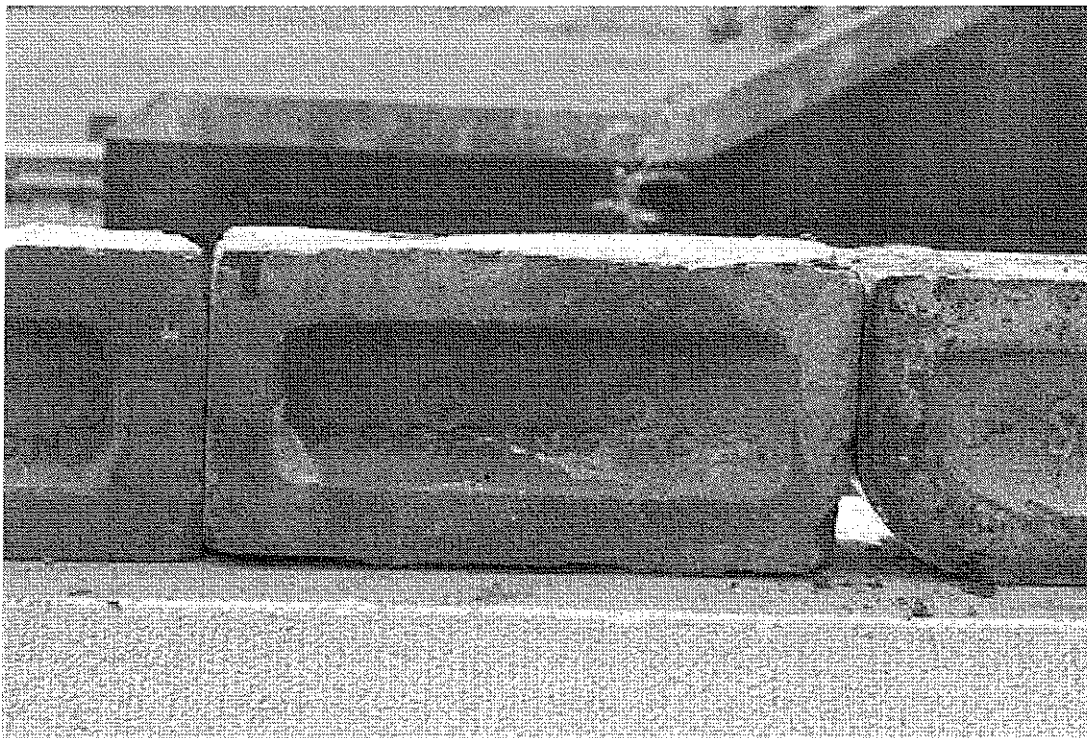


Plate 47 Enfield & Co Brick

12. Historic Images of the Building

The following historic images have been sourced from the collection of photographs held by Lancashire County Council:

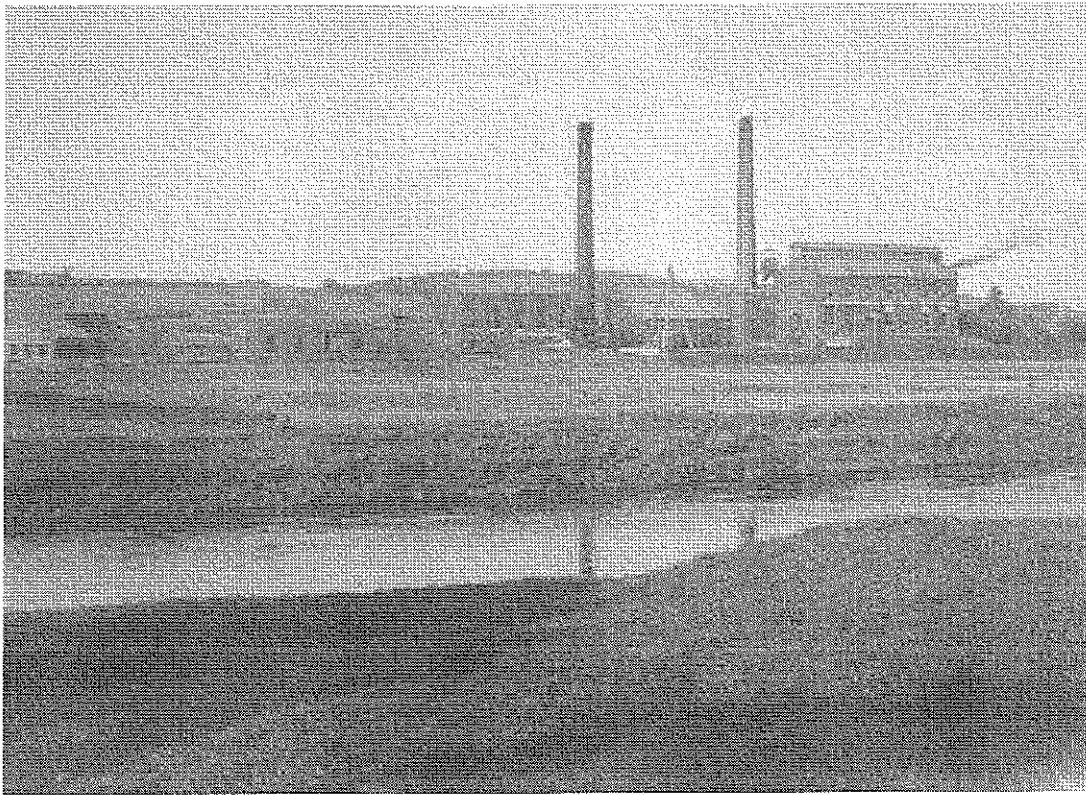


Plate 48 Undated circa 1907 Waterworks from The South West

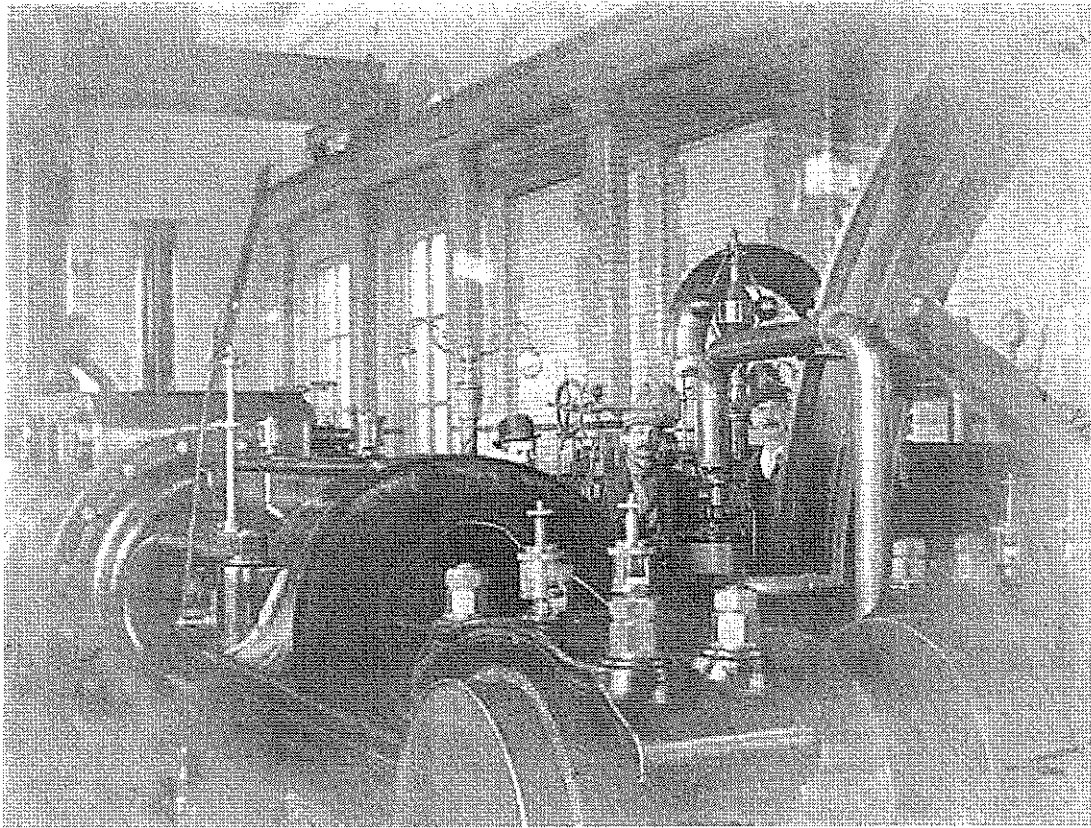


Plate 49 The interior of the engine house, taken at mezzanine level, 1909

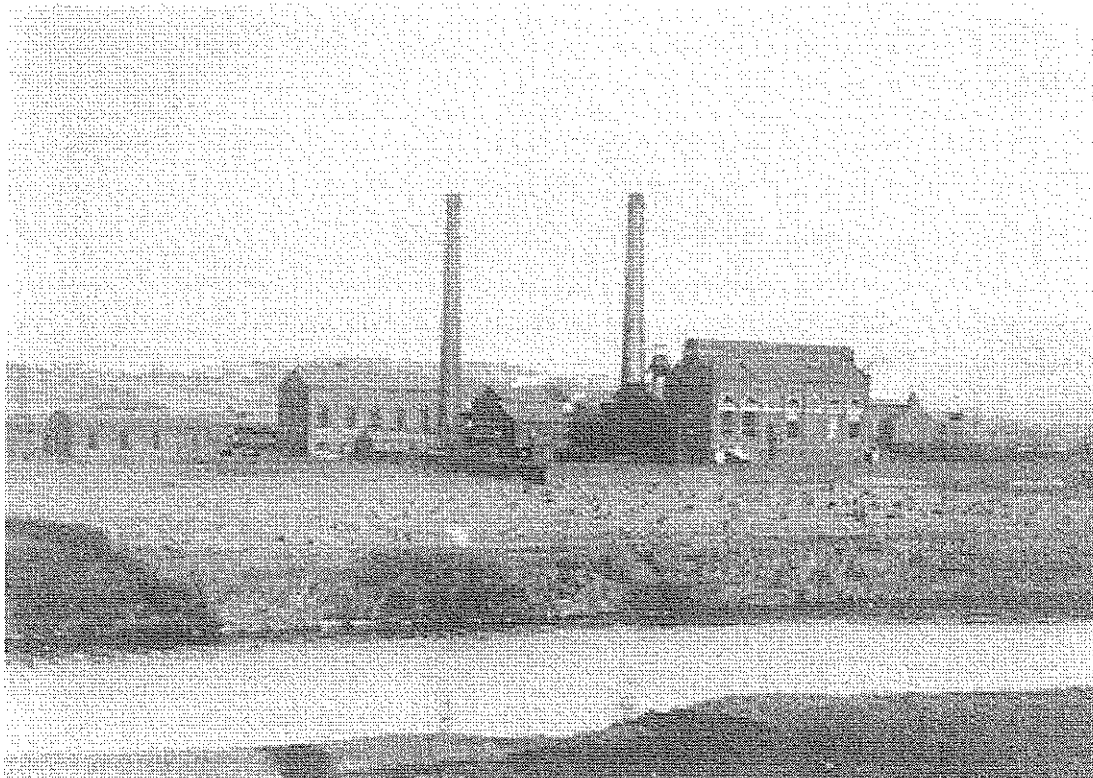


Plate 50 Undated The waterworks from the South West

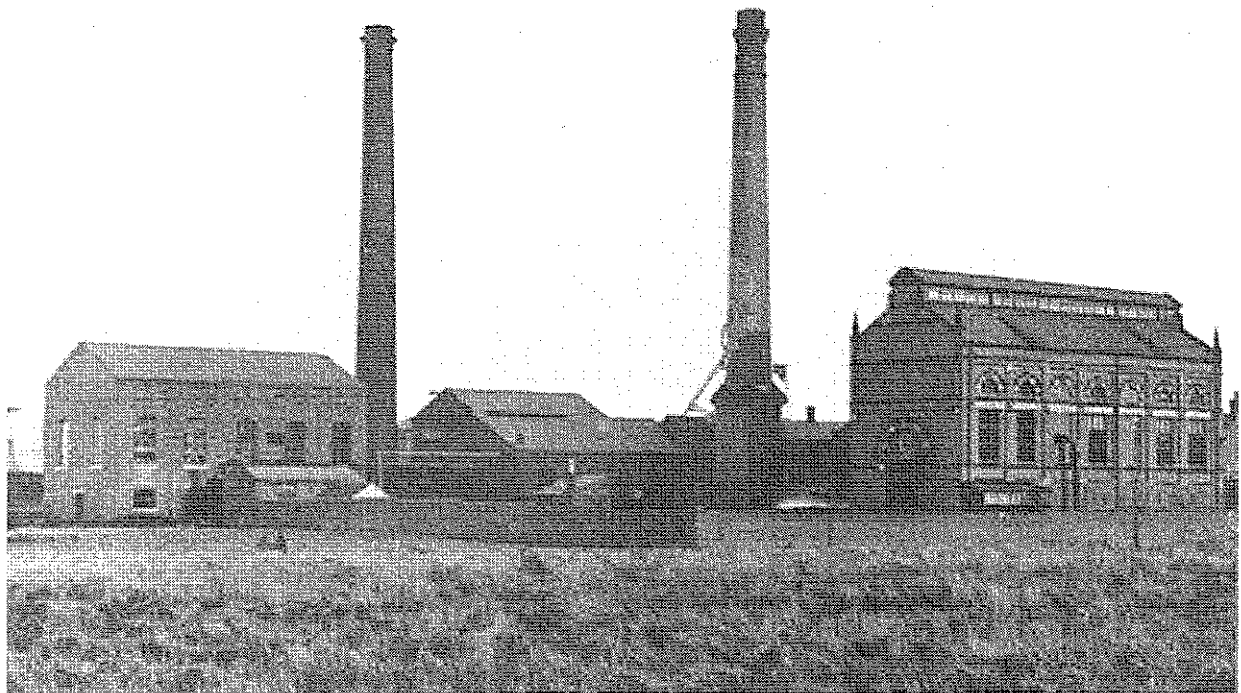


Plate 51 Undated The waterworks from the South West

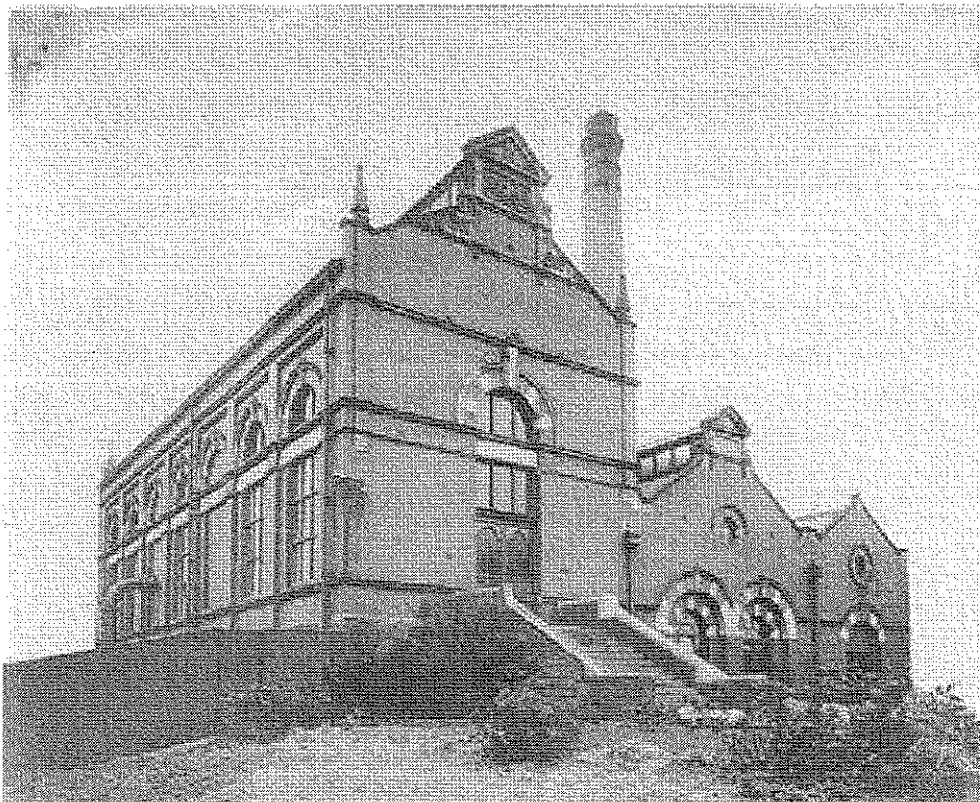


Plate 52 Undated South East Front Elevation



Plate 53 Undated South East Front Elevation

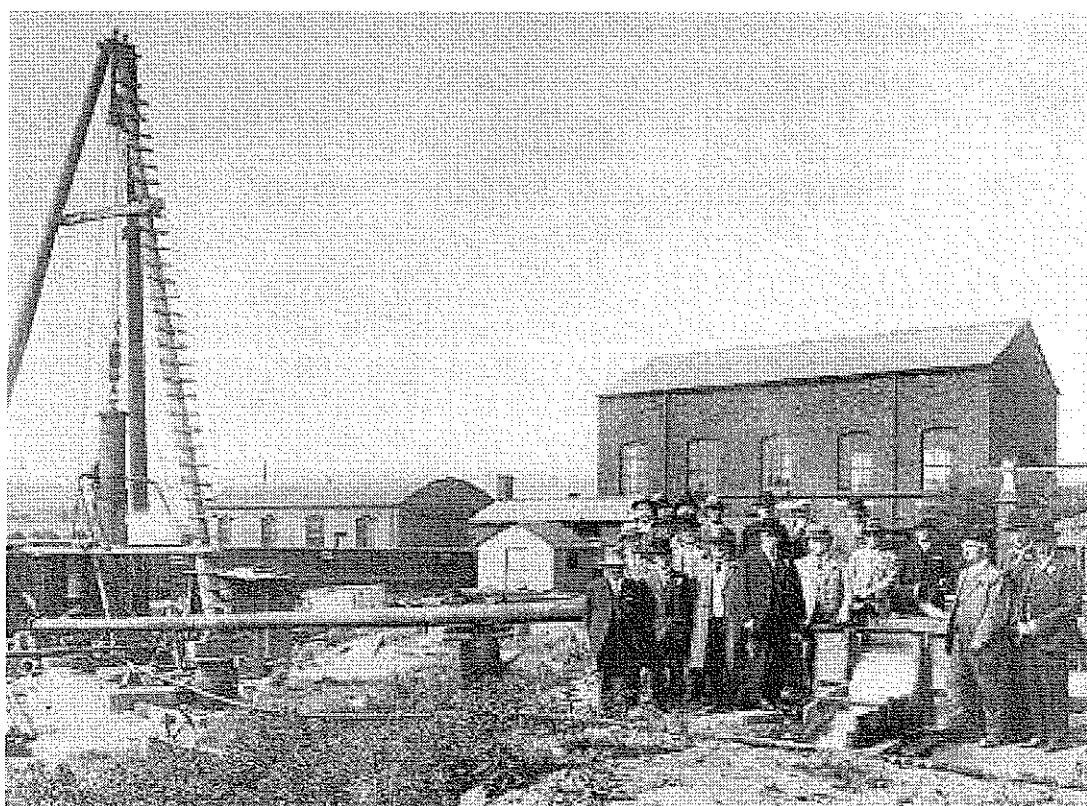


Plate 54 1907 Test pumping

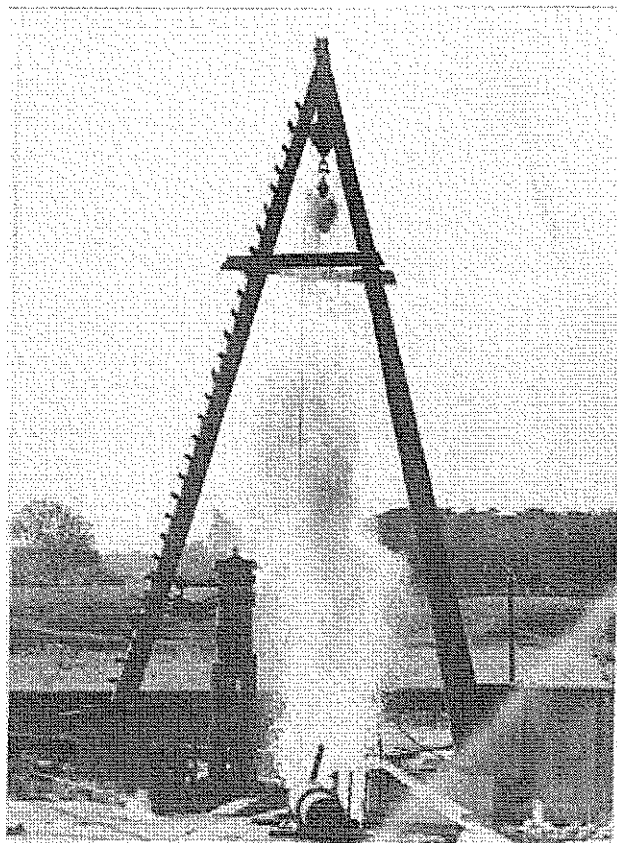


Plate 55 Exploding a charge in the borehole

13. The Condition of The Building

In 1998 English Heritage launched a new strategy for dealing with Listed Buildings which were at Risk in ***"Buildings at Risk – A new Strategy"***. This document sets out how the degree of risk that a building is subject to can be analysed. In every case a "vacant" building is the high risk category for each condition stage. English Heritage in ***"Buildings at Risk – A new Strategy"*** define the following categories of condition. The following table compares the current situation.

Very Bad means a building where there has been:

Criterion	Current Situation
structural failure or instability (where applicable)	Yes
a loss of significant areas of roof covering -	No
leading to major deterioration of the interior	No
or where there has been a major fire or	No
other disaster affecting most of the building.	No

Poor means a building or structure with

deteriorating masonry	Yes
and/or leaking roof	No
and/or defective rainwater goods,	Yes
accompanied by rot outbreaks within the building	No
General deterioration of most elements of the building fabric	Yes
including external joinery	Yes

Fair means

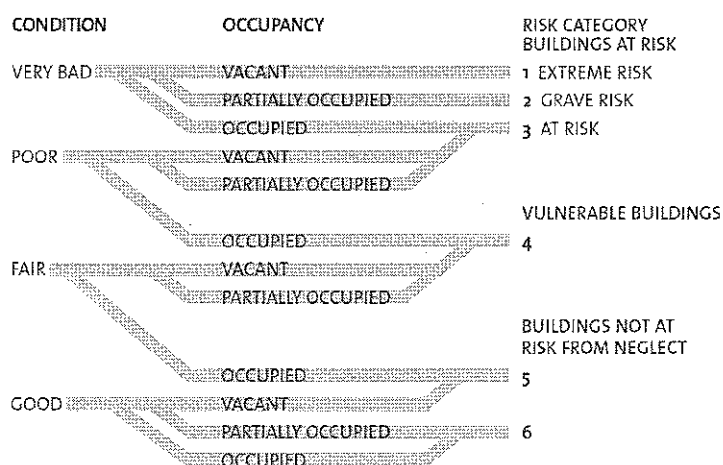
Structurally Sound	No
Minor Repairs required	Yes
Shows signs of a lack of general maintenance	Yes

Good means

Structurally Sound	No
Weathertight	No
No Significant Repairs Needed	No

Thus the condition of the building is **therefore** at best poor decaying into very bad and has clearly gone beyond the fair stage. The following chart shows how the different risk categories are defined.

English Heritage Risk Scale



As the building is only partially occupied the building, in English Heritage terms, is at best vulnerable or at risk and certainly is becoming at risk. The building is therefore At Risk. English Heritage also suggest that the rate of decay must be considered. In this case there is a real risk of rapid decay and in particular if vandalism occurs.

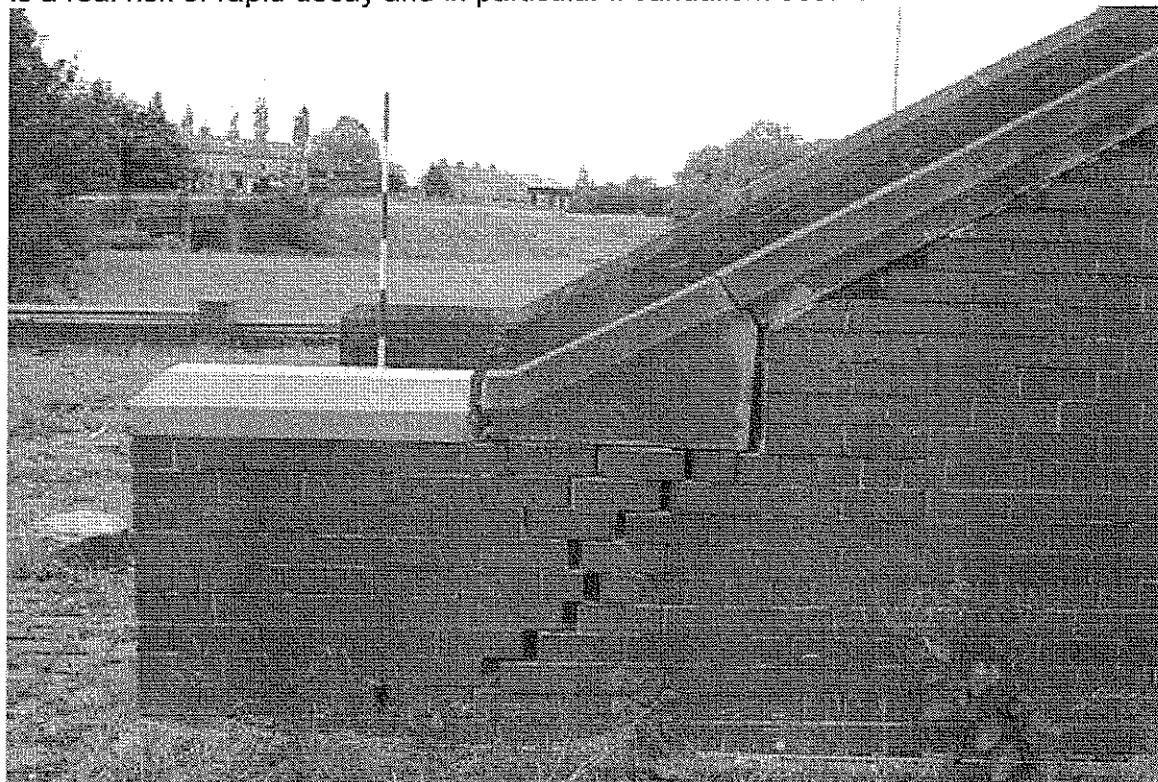


Plate 56 Structural Instability Steps Front Elevation

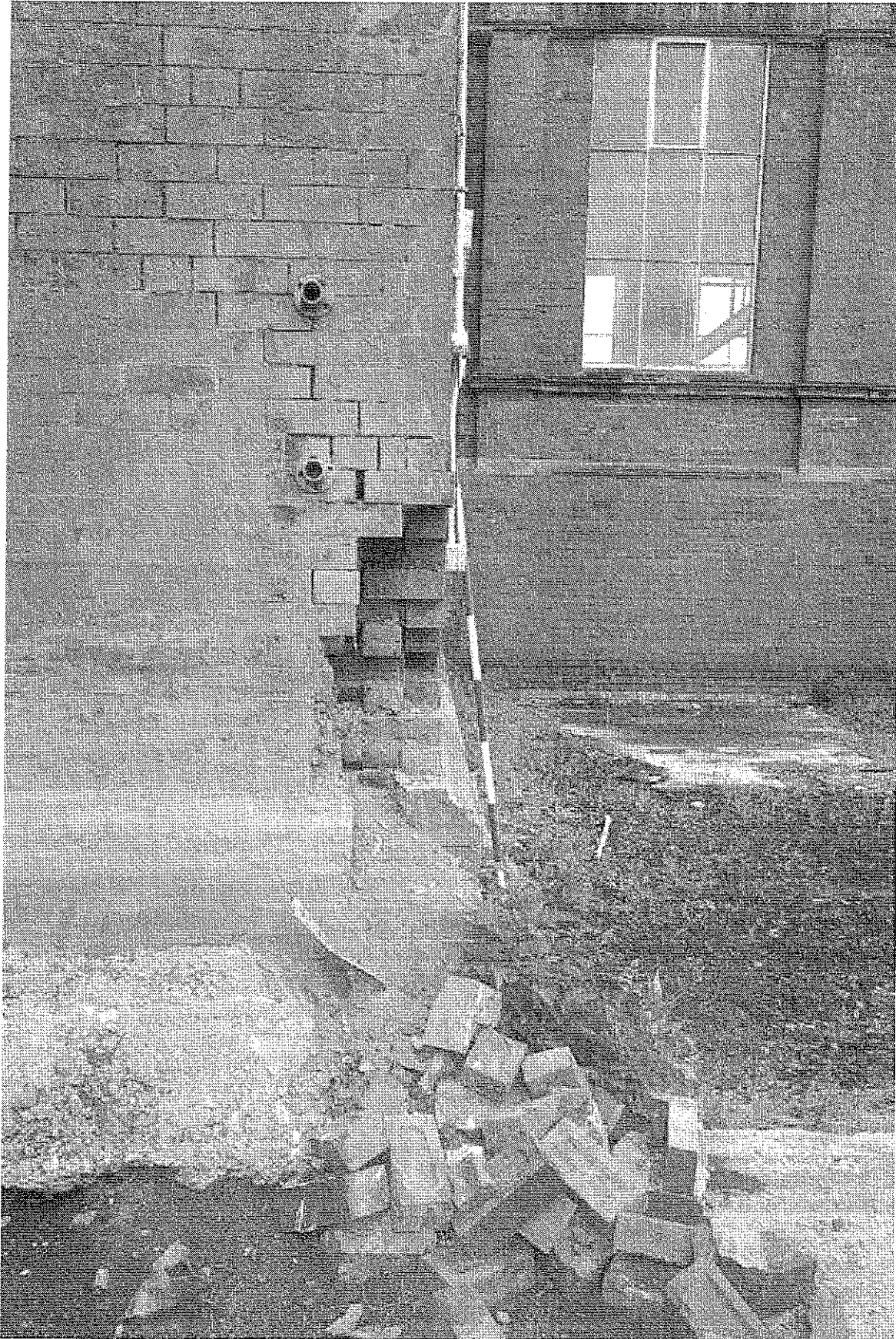


Plate 57 Structural failure West Elevation

14. The Importance of The Building

14.1 The Date of the Building

The DCMS 2010 document "*Principles of Selection for Listing Buildings*" states the reasons why buildings are listed. The date of a building is the simplest and most objective way of deciding if a building should be listed:

A key criterion is date which is as follows:

- before 1700, all buildings that contain a significant proportion of their original fabric are listed;
- from 1700 to 1840, most buildings are listed;
- after 1840, because of the greatly increased number of buildings erected and the much larger numbers that have survived, progressively greater selection is necessary;
- particularly careful selection is required for buildings from the period after 1945;
- buildings of less than 30 years old are normally listed only if they are of outstanding quality and under threat.

This building is dated to 1908 and it is unlikely that this building meets the listing criteria and that greater selectivity is needed.

14.2 Water Works Selection Criteria

English Heritage have recently published "designation Listing Selection Guide: Utilities and Communications Buildings" page 8 gives the selection Criteria for Waterworks

Waterworks England's oldest extant water-pumping beam engines (of 1820 onwards) are those at Kew (listed Grade I). Because of their rarity almost all surviving pumping houses (or stations) from before 1860 are listed: there are some half dozen from before 1850, and twenty plus from the 1850s. The decades between 1860 and 1930 were the most active years of waterworks' architecture. They saw the widespread use of steam engine pumping and most undertakings, both private and municipal, built impressive pumping stations. These buildings were public symbols of the investment of both local authorities and private companies and reflected the high value placed on the activity, and its association with health and town improvement

Waterworks often occupied large areas and these were often carefully landscaped with aesthetic and amenity considerations in mind. The most important, especially when associated with complete sets of buildings, may be eligible for inclusion on the Register of Parks and Gardens. Papplewick Pumping Station (Nottinghamshire) is an example, and here the Grade II pumping house stands within a Grade II registered landscape*

Pumping stations achieved an individual 'waterworks' style, an architectural response to requirements for light and ventilation, an identity that was maintained for over a hundred years notwithstanding changes in pumping technology, including the introduction of electricity. Stations built after 1860 must be selectively listed, choices being based on the survival of plant and on architectural interest, tempered by the degree of alteration.

As these are buildings erected to house mechanical plant, the survival of the original engine is of major significance for a waterworks: where they survive in near complete condition they are generally highly graded. Buildings from the period up to the Second World War are much smaller than those built for steam engines, and their external appearance is less distinctive.

Few are listable and no modern water supply buildings have been listed to date, the most recent being the Brede Valley Waterworks of 1900 in Brede, East Sussex

14.3 The Importance of the Waterworks

Thus the Altham Works can be judged on this basis: the key point in the above is as follows:

Stations built after 1860 must be selectively listed, choices being based on the survival of plant and on architectural interest, tempered by the degree of alteration

The following elements of the complex have been lost;

8. The upper storey and roof structure to the pumping hall
9. The lantern to the middle hall
10. The furnace chimneys
11. Upper storey arched windows
12. Structures to the rear
13. All original pumping equipment
14. Tiled floor surfaces

In addition there have been the following key alterations:

5. Extension to the North-East of the Building
6. Large roller doors to pumping hall
7. Internal sub-division
8. Addition of doors to coal store

Thus it cannot be seen that this building meets the criteria for listing. Its late date of construction would mean for example that it would be the most recent waterworks to be listed. It is to be contrasted with the The Bratch Waterworks, Wombourne, Staffordshire constructed in 1895 which survives intact complete with pumping equipment.

The fact that there are major structural issues means that there is little alternative to demolition.

15. Appendix: Photographs of The Bratch Pumping Station

The Bratch Pumping Station, near Womborne, South Staffordshire, was constructed in 1895, making it contemporary with the Altham site. The building is constructed in red brick with yellow brick decoration, and shows a far higher level of ornamentation than the building at Altham. The Bratch is listed to grade II*, listing number 1232411

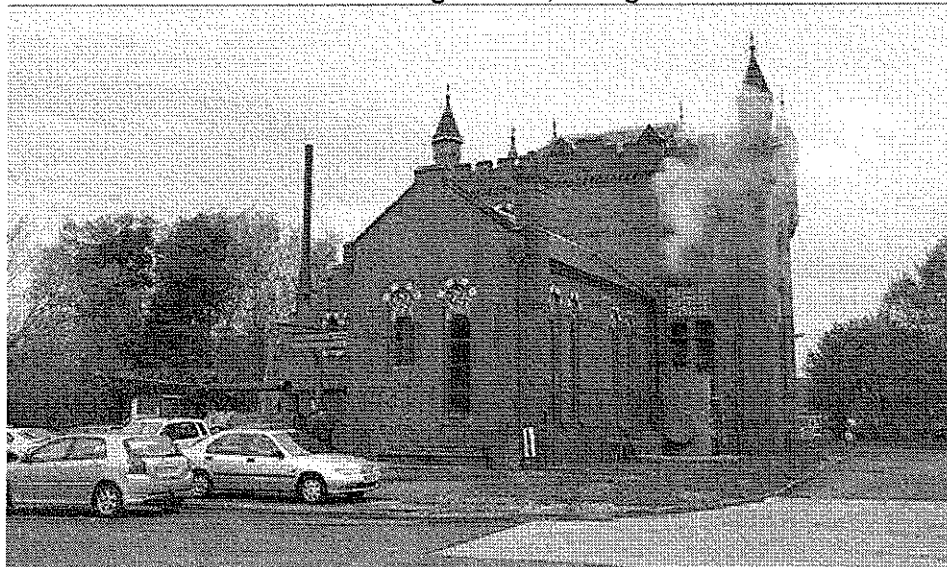


Plate 58 South – Rear Elevation

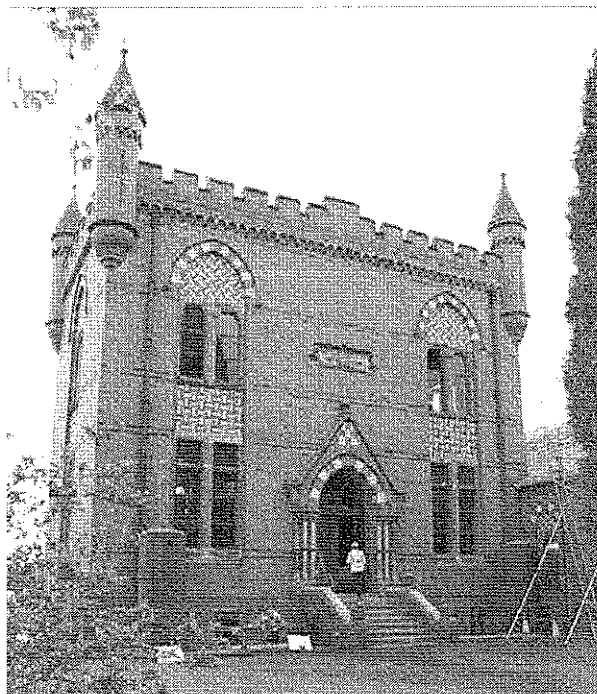


Plate 59 North Front Elevation

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