

GWPW/01



THE GAS WORKS, POWICK, WORCESTERSHIRE

Historic Building Recording

commissioned by Ken Francis

MH/13/0958 – Condition No.14

January 2015

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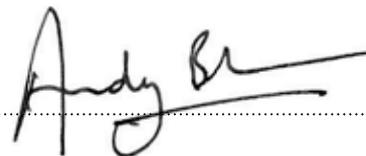
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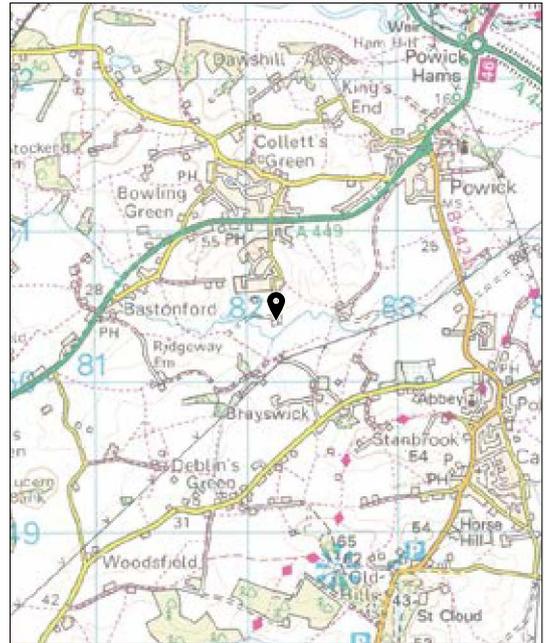
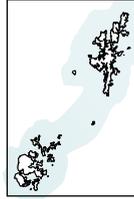
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GAS WORKS POWICK (GWPW/01)

land at Gas Works Site
Hospital Lane
Powick
Worcestershire

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scale 1:2,500 @ A4



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ILLUS 1
Site location

THE GAS WORKS, POWICK, WORCESTERSHIRE

Historic Building Recording

An historic building recording project was undertaken of the remains of the former gas works for Powick Lunatic Asylum. Most of the buildings had been partly demolished for safety reasons before the work was undertaken. This did not assist in the analysis of their function although architect's drawings produced prior to demolition proved to be of some use. Of the four buildings recorded only Building 1 provided information assisting in the analysis of the complex. It appears that this was the main gas works building serviced by surrounding storage areas. Originally of three bays with a cast iron truss and adjustable tie beam roof, the plant was probably located within the south side of the building lit by windows in its north. Coal was probably stored under open sided sheds around a courtyard to the south of this and a bay (now lost) to its east may have been used to store by-products from the process. The weight of the roof combined with later alterations subsequently appears to have caused the structure to fail.

1 INTRODUCTION

Worcestershire County Council granted planning permission for the redevelopment of a former Gas Works into three separate residential dwellings (Planning application MH/13/0958). However, a condition attached to this required the implementation of a program of archaeological historic building recording. A Written Scheme of Investigation (Boucher 2014) was submitted by Headland Archaeology (UK) Ltd and approved in writing prior to work commencing on site. This was for a scheme of recording in line with English Heritage (2006) Level 2/3.

The former gas works is located (**Illus 1**) on Hospital Lane, Powick, Worcestershire (NGR SO 8220 5041).

The work was commissioned by Ken Francis and site work conducted on the 12th of June 2014 by Headland Archaeology (UK) Ltd.

2 SITE LOCATION

The site is located approximately two miles to the southwest of the centre of Powick and immediately south of the former Powick Mental Hospital (previously Worcester County Pauper and Lunatic Asylum). It lies within a natural angle of Carey's Brook on a level platform (c. 27.58m OD) cut into a south facing slope at the southern end of Hospital lane. It is surrounded by grass land, trees and arable fields.

The natural geology beneath the site comprises Mudstone of the Sidmouth Formation a sedimentary bedrock formed approximately

217 to 250 million years ago in the Triassic period and indicative of a local environment previously characterised by hot deserts, this soft rock generally produces a rolling, lowland topography and free-draining brown soils (BGS).

3 AIMS AND OBJECTIVES

The objectives of the building recording were to:

- provide a detailed measured survey of the building(s) or elements thereof;
- provide a descriptive account and interpretation of the buildings, including discussion of its local, regional and national significance;
- identify and interpret subsurface remains related to the gasworks.

During the fieldwork and following discussions between the archaeological advisor to the planning authority and the developer it was agreed that the monitoring of ground works was not required. The third of these aims was not addressed following this.

4 METHOD

4.1 HISTORIC BUILDING RECORDING

The following has been extracted from the written scheme of investigation for the survey.



ILLUS 2

Extract from Ordnance Survey 1st edition map, 1885–87

ILLUS 3

Extract from Ordnance Survey 2nd edition map, 1904

ILLUS 4

Extract from Ordnance Survey 3rd edition map, 1927–28

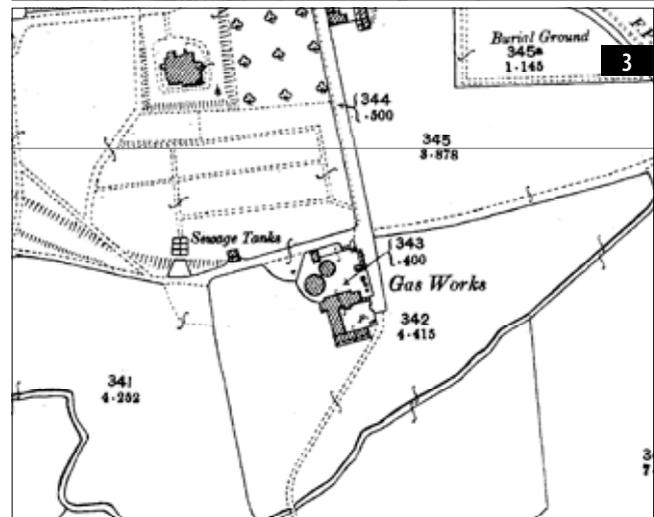
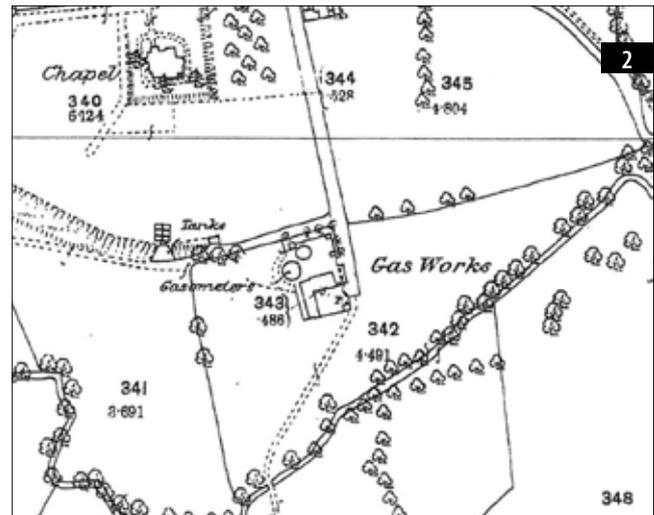
'Structures on site warrant a level of recording commensurate with English Heritage Level 2/3. It is proposed that the overall level of detail of the standing building survey will be broadly in line with Level 2 standards of recording (a descriptive record with annotation of existing scaled plans and general internal and external photography); however, a more detailed analytic (Level 3) record will be made where necessary, brick measurements, phasing relationships, documentary assessment, including:

- general external and internal photographs of the main building and any related structures that will be affected by the development;
- obtaining the client's own records and existing plans and elevation drawings of the site;
- a descriptive written record of these structures;
- annotated plans and elevations showing detail relevant to the interpretation of the main building and any phasing;
- more detailed photographic records of details within the standing historic building fabric that either assist in its interpretation or may be lost during development;
- documentary research using readily available primary and secondary sources to assist in the interpretation of the history and phasing of the building;
- drawn records will be produced by annotation of existing architect's plans and elevations based on measurements taken in the field. Existing drawings will be checked for accuracy. Locations of photos will be plotted on plans of each floor;
- where phasing occurs within the structure, this will be recorded and illustrated on the final plans, and accompanied in the final report by documentary research using copies of readily available sources.' (Boucher 2014)

On arrival at the site it rapidly became apparent that very little original fabric of the structures survived.

4.2 DOCUMENTARY RESEARCH

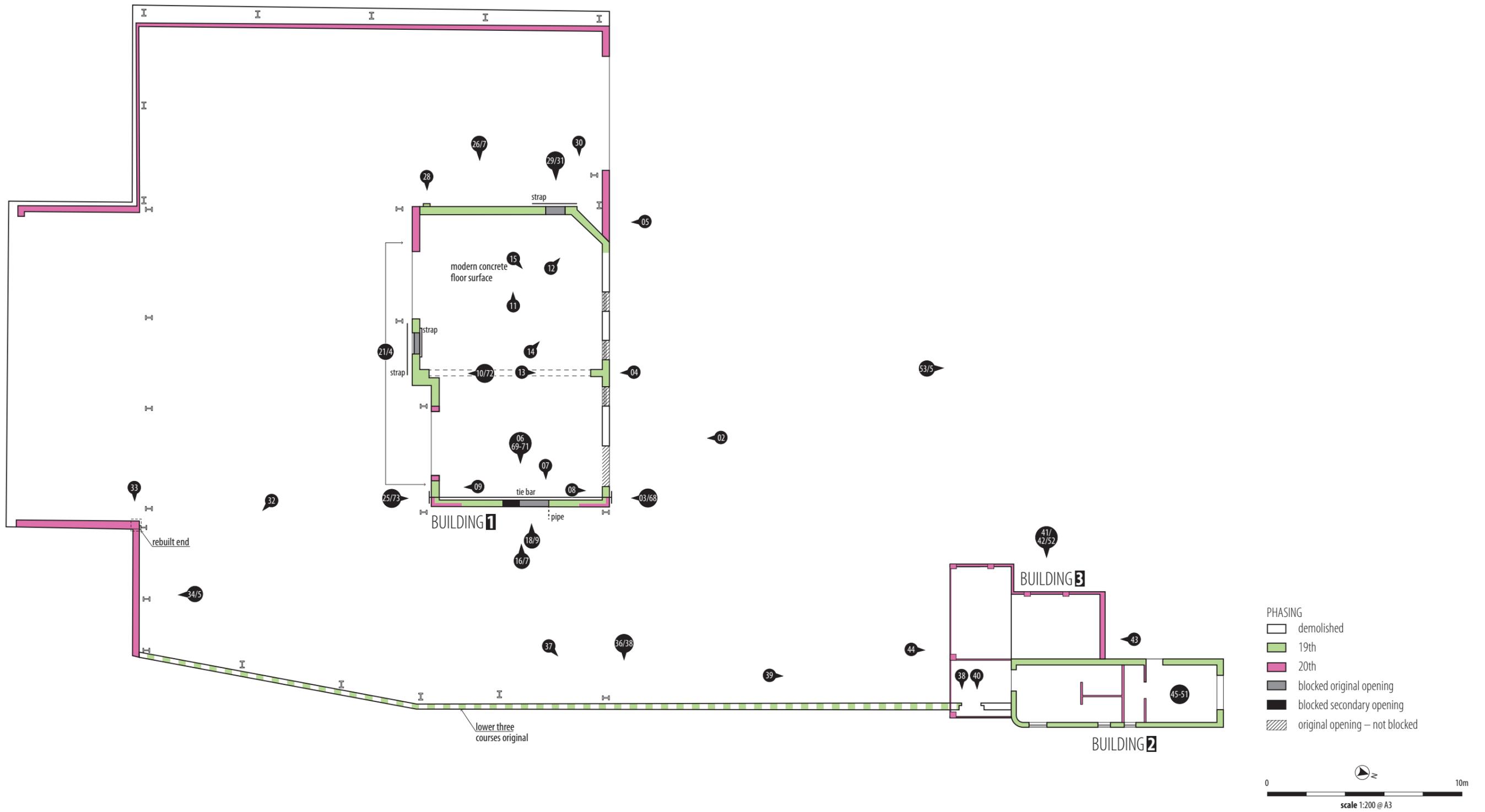
The Worcestershire Record Office and Worcester Library was visited and historic maps were consulted and searched for references relating to the former Gas works. Copies of local history books were also consulted, although given the very general nature of most of the texts that were likely to be relevant to the site there was little of direct relevance that could be obtained from the sources consulted.



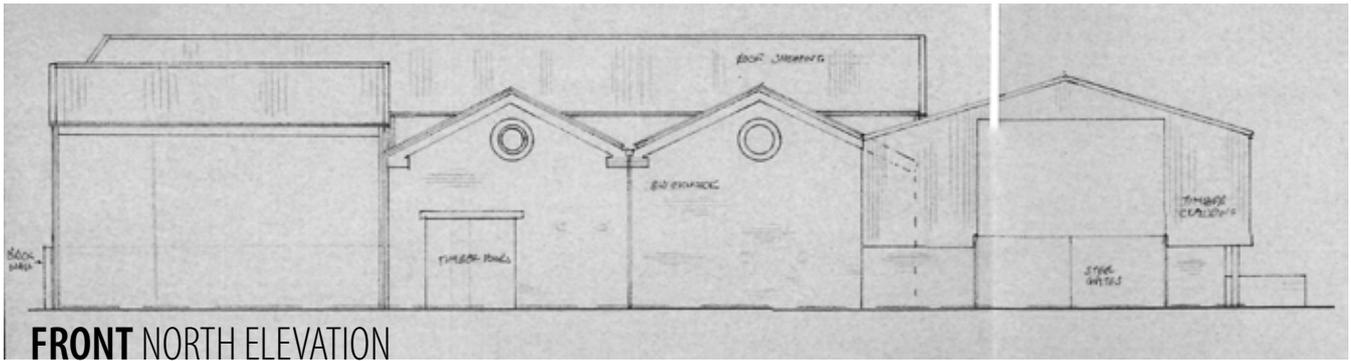
A Historic Environment Record (HER) search was carried out on the 10th of June 2014 on a 500m search area centred on the Old Gas Works. Within this area seven historic buildings dating to the 18th and 19th centuries were identified, one of which is grade II listed.

5 HISTORICAL BACKGROUND

Information relating to the archaeological and historical background to the site is limited due to the ancillary nature of the building.



ILLUS 5
Photographic location plan



ILLUS 6

North front elevation of Building 1

Therefore whilst its history is coupled to that of the former Powick Mental Hospital (previously Worcester County Pauper and Lunatic Asylum) historical accounts tend to focus on the latter establishment. Research indicates that between 1850 and 1950 there were between 2,000–4,000 private gas plants servicing a variety of institutions amongst which asylums were named (Hatheway and Doyle 2006).

The construction of the original hospital was conceived as an indirect response to the Municipal Acts of 1774 and 1808, which allowed county magistrates to inspect private asylums and to later build asylums at the expense of the county tax payers, a law that became mandatory through the implementation of the Lunacy Act of 1845. In October 1845, on the motion of the then Member of Parliament of Worcester, John Somerset-Beckington, the committee that sat at the Worcester Micaelmas Sessions

considered various schemes involving the consolidation of resources with neighbouring Hereford before committing to the construction of an Asylum for the care of pauper lunatics. The requirements for the construction of the Asylum stated that the building should be sited in 'an open and airy situation within 5 miles of Worcester Shire Hall' with a 'good supply of water'. A site was chosen that met the criteria and the land was purchased from a Mr Stallard for the price of £2,800. The commission to design the Asylum was given to Messers Hamilton and Medland, architects from Gloucester who designed an 'attractive Building in the Georgian Style'.

The asylum opened its doors on the 11th of August 1852 but was not completed until October 1853, the first patients were in fact credited with the manufacture of many of the bricks used in the



ILLUS 7

Section of Building 1 showing the asylum in the background (Photo 12)



ILLUS 8
General view of the iron roof trusses (Photo 60)



ILLUS 9
Detail showing iron riveted beam, removed from Building 1 (Photo 14)

construction of the building as well as laying out the terraced gardens within the grounds of the hospital.

No record was located to indicate the establishment of the gas works and whether it was conceived during the original design of the Asylum. However, there was a record indicating that the hospital was still lit by gas in the 1930's implying that the coal gas works was still functioning then. The use of coal gas or manufactured gas is recorded in Birmingham as early as 1805; therefore it is possible that the architects who designed the asylum could have incorporated gas lighting in their original design thus necessitating the construction of a coal gas works to service the hospital buildings.

The map progression for the area shows that the first recorded reference to the Gas works appears on the 1886 Ordnance Survey map (**Illus 2**). The site boundary reflects the modern day boundary of the site and possibly indicates that the three upstanding buildings were part of the gas works. By 1904 (**Illus 3**) the gasworks appears to have expanded with new ranges and a third gas holder with little alteration following that (**Illus 4**). The three large round gas holders located towards the north of the site no longer exist and the majority of the southern range of buildings has been removed, possibly as a result of the construction of the present modern steel framed buildings.

6 BUILDING SURVEY

The site of the former gas works has lost most of the original buildings shown on the historic mapping (mentioned above) due to the site having undergone uncontrolled redevelopment in the past. The associated gas holders and the southern range of buildings seen on the early mapping are no longer present as they appear to have been demolished and replaced with steel framed structures with concrete flooring. The three buildings that were possibly associated with the former gas works, and that do survive, are in various states of repair.

6.1 BUILDING 1

Building 1 (**Illus 5**) survives as a series of disconnected, but upstanding walls; the building has recently undergone a phase of controlled demolition for safety reasons, although plans and elevations were produced prior to this (**Illus 6**). The building was roughly rectangular in plan and what remains is an open two bay structure. Irregularities occur between the dimensions of the two bays (the eastern being narrower and shorter) as well as the north-western corner being chamfered (**Illus 7**). It measured 15.2m (E-W) by 10m and 9m in the case of the west and east bay respectively (N-S).

The walls of the building were constructed in red brick with a mixture of brick sizes averaging 230 x 100 x 80mm in English bond. There was an indication of more than one phase of re-pointing; the original appears to consist of a creamy brown buff mortar whilst the latter is similar to scotch mortar, a hard

gritty grey cement. A series of cast iron roof trusses (Illus 8) and a large iron beam have been removed and are currently stored within the site compound. These indicate that the roof super-structure was made of a series of cast iron roof trusses with pierced openings and rolled edge details with adjustable tie rods. There appear to have been three central trusses to each bay based on the remnants left on site.

The iron beam (no longer in situ) would have subdivided the building into its two bays at wall plate level (Illus 9).

North wall

The majority of the north wall had been demolished before recording could be undertaken, however, an architect's drawing had been produced of the elevation beforehand (Illus 6).

Prior to demolition the only apertures still in operation were a vehicle entrance at the east end of the elevation accessing the smaller of the two bays (c. 2.5m in width and 2.6m in height), two circular vents near the apex of the roof and what appear to be two lights on the east side of the larger bay (from the architect's plan). Although the outside face of the NE corner of the building appears to have been rebuilt (using 20th century bricks and more modern pointing) the location of the jamb for the first of these appears to survive in the front of the wall face near here, indicating that the doors swung outwards as might be expected (Illus 10). To the west of this opening there is evidence for a light with cut sand stone blocks positioned to form mounting points for shutter hinges (Illus 11) a detail seen within the surviving window opening on the west face (Illus 17) and reflecting a contemporary building style seen within other surviving buildings associated with the former hospital. An angled cut above the west jamb shows the position of the first springer for the window head arch, the stone sill has been lost. Located within the upper course a small portion of dentiled brick coursing remains, no evidence was observed to suggest that this detail continued round the building and may therefore be a detail that was displayed on the main elevation only (although this is possibly the only location with original brick work where such a feature could survive as it was not a string course). It is worth noting that the dentiled coursing seen here is also repeated within the fabric of Building 4 (Illus 24).

Given that the presence of a light (or window) to the west of the door is not shown on either the architect's plan or elevation then this may have been blocked.

South wall

Alongside much of this building very little remains of the south wall. Only two fragments of original masonry survive the largest being the central portion which included the supporting point of the now removed north south iron beam. This is also where the two bays meet and their different dimensions are evidenced by a dog leg in the wall at this point. The west end of the wall has been



ILLUS 10

Detail of the tie rod seen on the north wall of Building 1 (Photo 03)



ILLUS 11

Photo showing sand stone detailing around former window and dentiled brick coursing within Building 1 (Photo 04)



ILLUS 12
Low archway through the centre
of the south wall (Photo 10)



ILLUS 13
External detail of brick roof line within
southern wall of Building 1 (Photo 22)

reconstructed in white ash blocks and reflects a modern phase of construction or alteration to the original building, the east end is much altered through the rebuilding of the SE corner of the building and formation of a later entrance in the wall here.

It is only worth considering the evidence from the central portion of the wall. This contains a segmental arched opening approximately 1.2m wide with a height of 1.5m and later blocked using bricks 230 x 850 x 100mm (Illus 12). A single stone block lies just beneath the point at which the arch springs on its east side and the external, southern face, of the arch is rebated to half a brick's thickness with a stone block at half arch height on the west side of the arch (Illus 13). There appears to be a half skin brick wall to the east of the arched entrance on the inside of the building. This was not a full building height partition but there is no evidence to suggest it ran the width of the building as no stub wall is visible on the opposing fragment of wall (Illus 14). An iron tie rod is aligned east west above the blocked arch and ties into new brickwork forming a later entrance between this building and the sheds behind.

On its external face an angled line of bricks located towards the upper courses of the wall indicates the pitch of the original roof line providing further evidence that the building was originally roofed with a double pitch roof and gully (Illus 13). Beneath this and also illustrated is an angled metal strap about 0.5m below the eaves line of Building 1. This most likely acts as a tie beam meaning there is little evidence showing where the end of a structure that once abutted the south side of the building stopped. Given the lack of any wall scars it seems probable that at least the east side of this building was open.

East wall

The one and a half brick thick east wall of Building 1 is probably the most complicated and contains evidence of multiple blocked openings (Illus 15, 16). The primary opening appears to have been a large segmented arch also 1.2m wide by 1.5m high. This also has a small stone block beneath the point at which the north side of the arch springs. However, unlike its counterpart in the south wall it appears to have had a stone lintel, the arch above acting as a relieving arch. Its blocking has been keyed into the south jamb of the arch on its east face and both jambs on its west face. In the blocking of the latter a square opening (0.5m wide x 0.4m high) was left, later blocked with fire bricks. The east face behind this is also blocked using the same types of brick, but keyed into the surrounding blocking. Also in this face of the wall a smaller arched opening was inserted through both original wall, the end of the stone lintel (on this side) and the original blocking. This is located about 1.3m above current ground level and measured 0.4m x 0.4m. It did not pass through the entire thickness of the wall. One possibility is that this was a vent of some description, later blocked.

Within the fabric of the wall make up, towards its northern corner, a portion of the external (east) face appears to have been rebuilt, there is no evidence within the internal face to indicate a partial collapse of the north east corner of the building, suggesting that



ILLUS 14

Buttress at bay division point on the inside face of the north wall (Photo 13)

only the external face needed repair, or was altered when another connected building associated with the gas works was demolished (the cartographic evidence supports this).

West wall

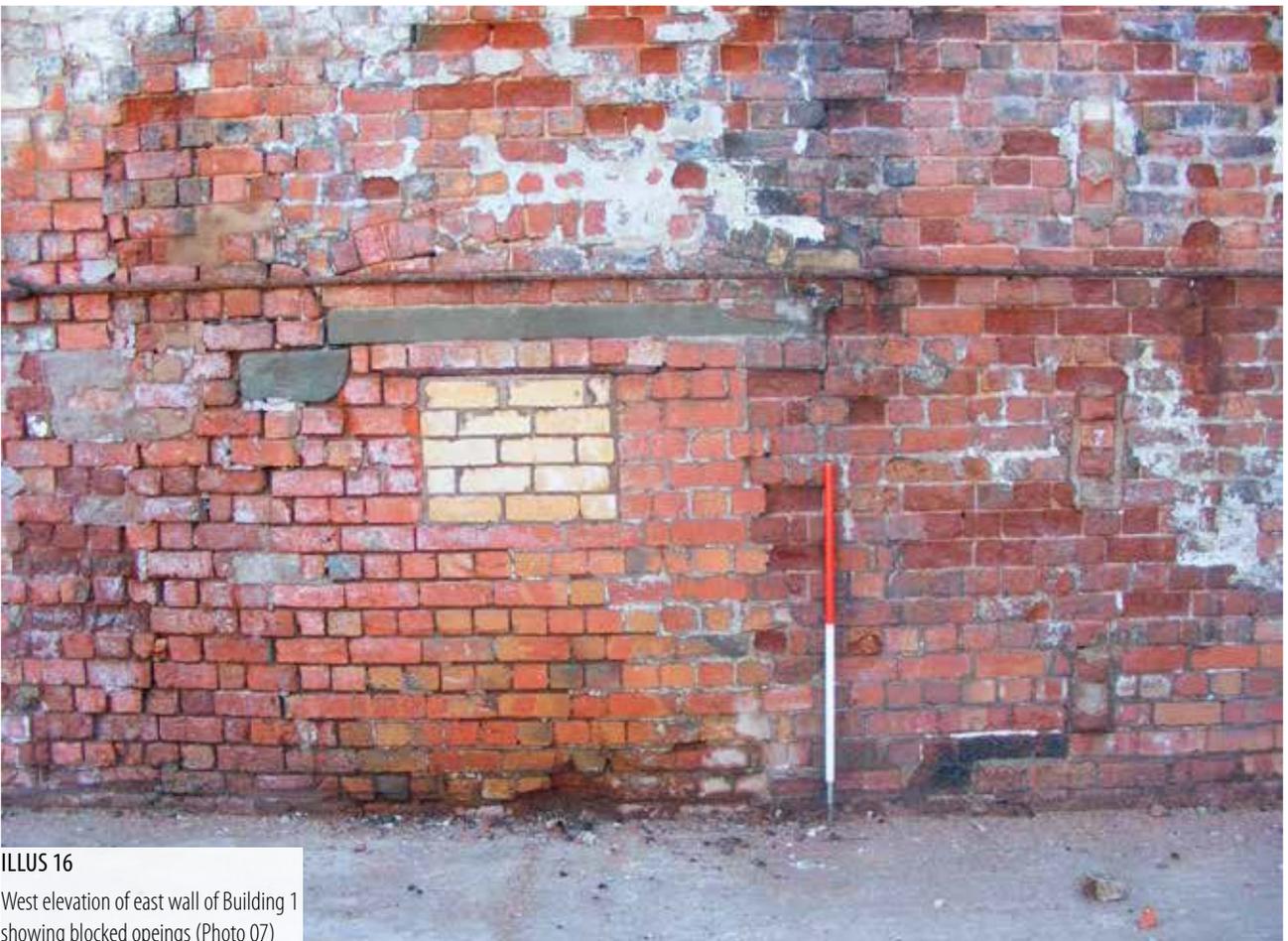
The west wall of Building 1 contains the only complete window opening within its surviving fabric (Illus 17). The window opening illustrates the detail afforded in the construction of the building, despite the original building being industrial in nature. The opening contains a chamfered sandstone sill with sand stone blocks positioned to accommodate opening shutters. Above a later partial, brick blocking an iron window frame survives forming a ten light opening with glass dimensions of 270 x 175mm. If this reflected the original glazing for the whole window then it would have contained a total of thirty glazed panels.

An enigmatic feature on the external face of this wall is a half brick thick, c. 1.2m high buttress capped with two courses of chamfered engineering blue bricks. The amount the buttress contributed to the structural integrity of the wall seems limited (Illus 18).

The internal fabric of the west wall (Illus 19) indicates that the building was painted with a white wash, the presence of various coatings indicating that the building was repainted on a regular basis. A rectangular patch (1 x 0.65m) of yellow bricks located towards the southern portion of the west wall suggests the location of a feature cut into this wall that was later blocked. It did not form an opening



ILLUS 15
General view of the east wall of Building 1 showing blockings and repairs (Photo 16)



ILLUS 16
West elevation of east wall of Building 1 showing blocked openings (Photo 07)

through the wall as there is no evidence for it on the external face. It could be that some part of the plant was located tight against this wall.

Secondary fixtures

The building has had to undergo remedial repairs to maintain its structural integrity. Apart from patches of rebuilding a number of tie bars were also observed. The largest was a three part iron tie rod with round spreading plates linking the north and south elevations on the inside of the east wall of the building (Illus 16). Also an external flat iron strap helps to secure the chamfered corner between the north and west elevations above the window opening (Illus 17) and as previously mentioned a small iron tie rod has been inserted on an east west alignment above the arch on the inside of the south wall (Illus 12). The latter suggests that the SW wall opening was a later feature that caused problems with the structural integrity of the building. The angled strap on the external face of the south wall has already been mentioned above (Illus 13).

Within the north east corner of the building a height of approximately 3m an iron shaped beam has been inserted across the corner. Given its location next to the door then it was probably inserted to help maintain the integrity of the building.

6.2 BUILDING 2

The building measures approximately 11 x 3.5m, is single storey with a single pitched roof and eaves sloping from approximately 4.9 x 2.5m. Constructed in red brick with an English bond and cemented with a creamy buff brown soft mortar, average brick measurements of 750 x 100 x 220mm indicated that the building was built in one phase.

The single pitch roof is constructed from machine cut timbers with a single purlin and two boxed in trusses forming three closed sections within the roof space (Illus 20).

The ceiling joists are not original and the ceiling has been replaced with modern materials. Original internal features appear to have been removed and the original window furniture has also been replaced with modern wooden side hung sash windows.

Elevations of both this and Building 3 are shown in Illus 21.

6.3 BUILDING 3

Building 3 has been demolished its only surviving remnants being a building scar within the west facing wall of Building 2 (Illus 22) and a small iron/steel double hung low level access door within the area of the now demolished north wall.

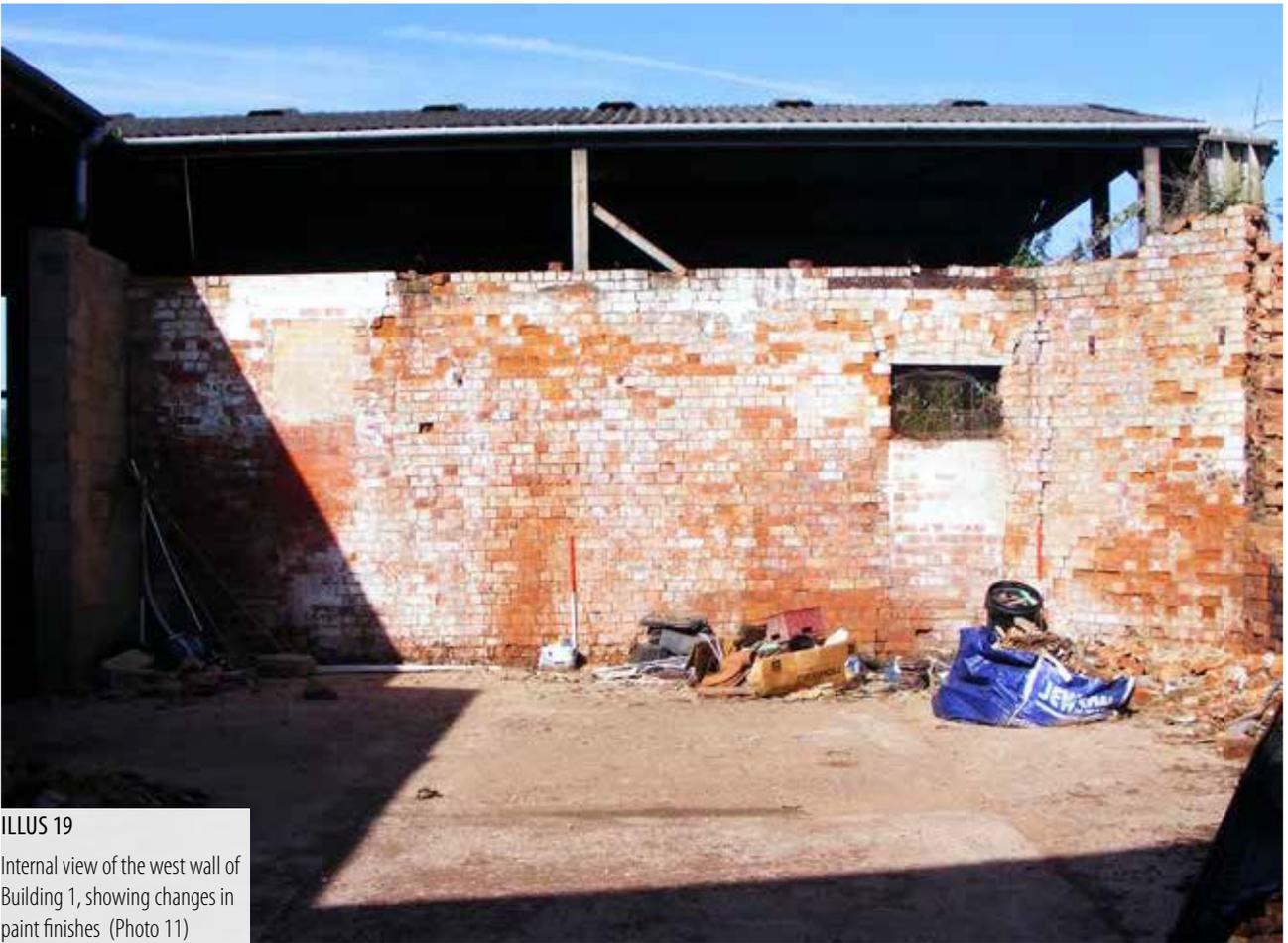
The building would have measured approximately 8 x 3.5m with an estimated height of 2.5m. No evidence survives to indicate the construction of the roof but the architect's



ILLUS 17
Detail of blocked window within Building 1, west wall (Photo 29)



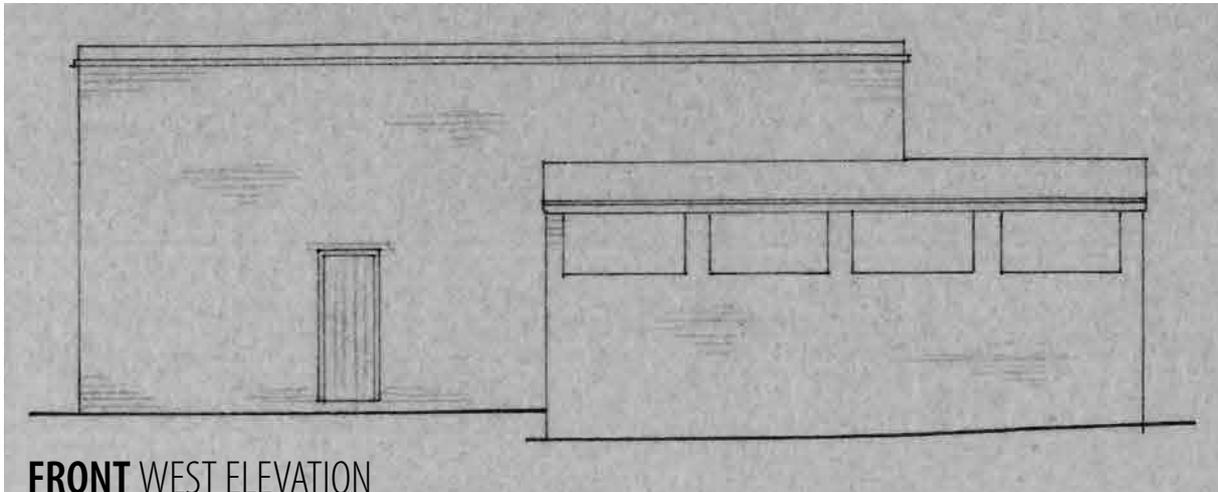
ILLUS 18
Detail of brick built buttress, west wall, Building 1 (Photo 28)



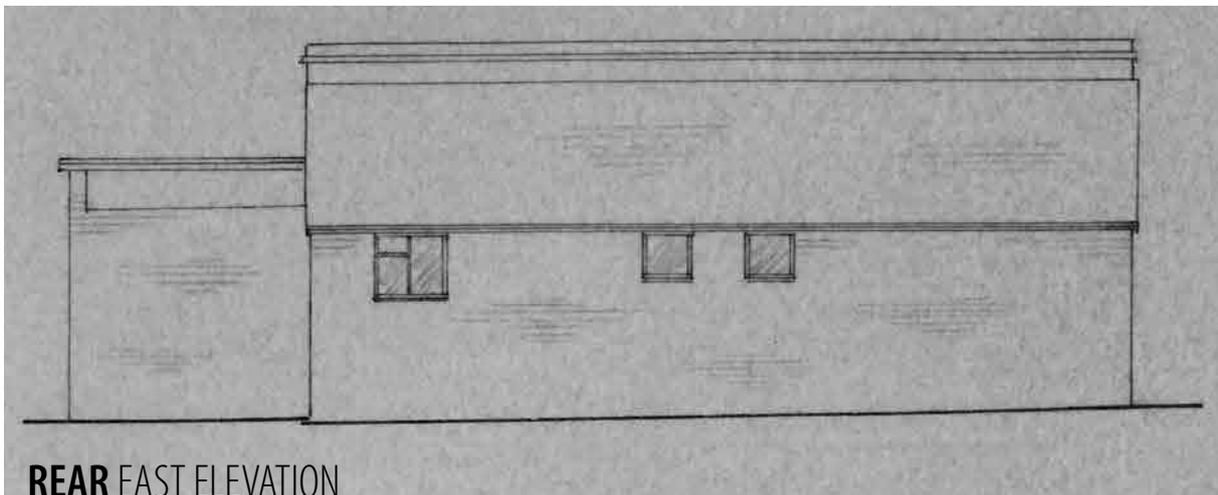
ILLUS 19
Internal view of the west wall of
Building 1, showing changes in
paint finishes (Photo 11)



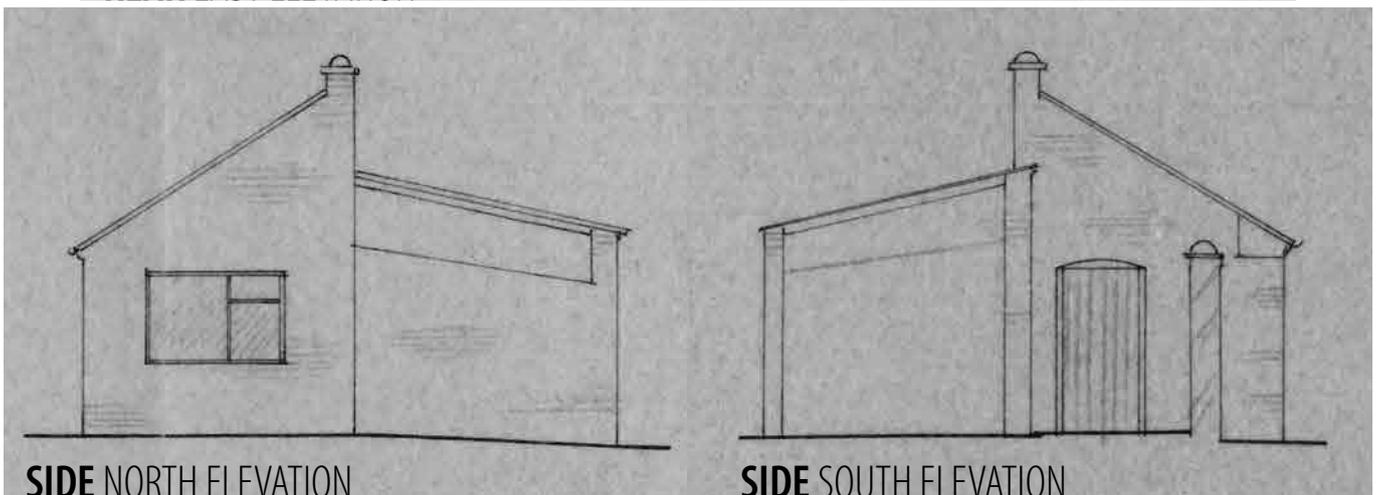
ILLUS 20
Internal roof details, Building 2 (Photo 51)



FRONT WEST ELEVATION



REAR EAST ELEVATION



SIDE NORTH ELEVATION

SIDE SOUTH ELEVATION

0 2.5m
scale 1:100 @ A4



ILLUS 22
Building scar left by the demolition of Building 3 (Photo 52)

drawing (Illus 21) shows it had a shallow pent roof. Surviving evidence indicates that the brick dimensions were 220 x 110 x 80mm and the construction of the building involved the use of 'H' section steel beams. The difference in brick (between this and other buildings on the site) and the use of steel beams suggests that the building was a later addition to the development of the site.

6.4 BUILDING 4

Building 4 is located on the northern boundary of the site. It is a small single story structure resembling a single garage with side hung double wooden doors with a concrete lintel above.

Measuring approximately 3 x 5m the building is constructed in red brick with a mixture of English bond and Flemish bond and a concrete floor. The building has an ornate dentiled brick course below the eaves, a feature reminiscent of the dentiled coursing seen on the surviving fabric of the north wall of Building 1. It had a double pitched roof covered in small blue grey slate tiles (Illus 23–24).

6.5 EXTERNAL WALLING

The area of the yard towards the west and south contains a line of brick walling defining the boundary. The brick walling is constructed in different bonding patterns indicating various stages of rebuilding some associated with the construction of the steel framed buildings present on the site. In some areas the lower courses of the walling used English bond as seen within the surviving walls of the gas works buildings. It is possible that at least a portion of the external

walling may relate to the original boundary of the site. A small rectangular, four light, opening was inserted in the south portion of the boundary wall, its function is unclear (Illus 25).

An interesting feature of an area of the upstanding boundary walling is the use of semi circular engineering blue bricks as a coping stone to the walling; it is possible that these bricks are reused from a now nonexistent building, the circular moulded bricks possibly originally forming a casing for buried pipe work

7 DISCUSSION

The remaining fabric of the buildings that were once associated with the former gas work for the Powick Hospital have undergone various phases of repair, alteration and subsequent demolition so that little is left in the form of original evidence to indicate the use and function the buildings once played in the production of coal gas for the aforementioned establishment.

The map progression illustrates that two of the surviving buildings are contemporary with the former gas works but does little to further illustrate the function of the buildings. The changes in use of the site over time have removed much of the original layout including the gas holders and the southern range of buildings. Those that remain do, however, provide some clues.

Building 1 is all that is left of the main gas works. Combining the information from its current plan and former elevation alongside the second edition Ordnance Survey map of 1904 (Illus 3) it would appear that it was a three bay structure at that time. Although there is no evidence on the ground the historic map suggests a degree of symmetry and therefore the third missing bay may well have at least partly mirrored the larger western one originally. The structure on the 1st edition map of 1886–7 (Illus 2) does not have quite the same form in plan as it did 20 years later. However, the presence of the now lost N-S range that must have abutted the west part of its south elevation is present on both implying that the core of these structures was original.

The chamfered corner of the building is not shown on the plans, but the gas holder that sits close to the building may well have necessitated this adaptation to allow people to pass between the two structures. The historic plans and architect's drawings imply that the roof overhung the small triangle that was left.

On the basis of the original features present within the building the following might be conjectured. This building being near the gas stores and constructed of brick and cast iron was probably the main gas production building. It had a principle access in the north elevation of what was originally the central bay. Next to this was a window, and on the basis of the architect's plan there were two further windows in the north elevation of the western bay; this latter section of the building also having a window to the south of its NW corner. The presence of the windows at the front of the building would imply that the main circulation would be along the north side



ILLUS 23
S facing elevation of
Building 4 (Photo 53)



ILLUS 24
Detail showing brick dentiled
course, Building 4 (Photo 55)



ILLUS 25

Small rectangular iron framed window within external yard walling (Photo 34)



ILLUS 26

Semi circular engineering bricks reused as capping 'stones' (Photo 38)

of the two bays and therefore any plant was likely to be housed in the southern half of these bays. Some further evidence for this can be observed in the central part of its south elevation. Here an arch is clearly too low to afford sensible access for workmen, also a low single skin wall separates this arch from the east bay (at least partly). One suggestion is that the wing to the south (no longer surviving) was an open sided coal store and the arch was located to barrow or cart fuel from this wing into the building where it was converted to gas.

So what type of plant might have been expected? The process can be briefly described as follows. Coal would undergo pyrolysis in a retort bench, the most basic being a cast iron vessel holding the coal with a pipe attached to it and suspended over an open fire. Even though fire clay retorts took over from the 1850's onwards, as a small gas works it is likely Powick continued to use ones made of cast iron. Various other apparatus would have been required for filtering (such as a hydraulic main) and condensing (the removal of water vapour) the gas, as well as extracting by-products such as coal tar, coke and ammonia and noxious chemicals like carbon monoxide and hydrogen sulphide. The more useful of these would need to have been stored somewhere prior to being taken off site.

Given the clearly contemporary construction of the two arches accessing Building A (Illus 12, 16) one explanation is that the shed to the south always stored the coal. This is supported by the later expansion of this facility when another building was added further to the south as mapped in the 1920's (Illus 4) and the need to store several weeks of fuel at a time. It was important that the coal be stored under cover as this reduced the risk of spontaneous combustion which could occur when the dust covering the coal was washed off and the pure fuel surface would then be exposed under pressure (which creates heat) in the coal heaps. The function of the third bay might therefore initially have been to store the by-products of the process such as coke and the low arch in the east wall was used to cart these away from the plant room. The operation of the building must have changed at some point as this arch was blocked and a pipe on the east side of it could suggest it was more directly involved in gas production following this blocking (Illus 15).

Between the dates of the two historic maps the amount of gas stored had increased as a larger gas holder is shown by 1928 (Illus 4), and the increase in coal storage through the addition of what was probably another store forming a south range around the court yard behind the works appears to support this.

At a much later date the insertion of larger openings through the brick work, combined with the weight of the roof are likely to have resulted in the need to insert tie beams to try and hold it together (although it is possible that with the weight of the roof and relatively thin walls these may have been required earlier). In either case these did not manage to fully address the problem and the building had to be demolished. Had this not been the case then the building may have been of regional significance, however, the few elements that survived at the time the survey was undertaken could only be viewed as now providing information of local significance.

The other associated buildings recorded provide little useful further information and are of local significance at the greatest.

It was agreed that the monitoring of groundwork would not significantly add to the understanding of the buildings and this was therefore not undertaken.

8 CONCLUSION

The nature of the remaining buildings on the site of the former gas works gives some information to allow analysis as to the original function in the production of coal gas for the former hospital buildings. It is clear that the building's function was utilitarian in nature, the use of iron beams and trusses illustrating this fact but the information within the surviving fabric only reveals a history of repair and addition, culminating in the removal of the majority of the original buildings for the construction of a series of steel framed storage sheds.

9 SOURCES

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10 APPENDICES

APPENDIX 1 PHOTOGRAPHIC REGISTER

Film	B/W	Colour	Digital	Direction	Description	Film	B/W	Colour	Digital	Direction	Description
01	37	37	01	—	Site identification	32	15	15	32	SE	General view of yard, internal
02	36	36	02	S	General view of the remains of the main building	33	14	14	33	E	Detail of yard wall
03	35	35	03	S	Detail of north wall, external	34	13	13	34	S	Detail of yard wall
04	34	34	04	S	Detail of north wall, external	35	—	—	35	S	Detail of yard wall
05	33	33	05	S	Detail of north wall, external	36	12	12	36	—	Detail of yard wall
06	32	32	06	E	Internal view of main building	37	11	11	37	—	Detail of yard wall
07	31	31	07	E	Detail of tie rod and door	38	10	10	38	—	Detail of yard wall
08	30	30	08	N	North wall, internal detail, main building	39	09	09	39	N	Yard wall, door and gatehouse building
09	29	29	09	S	South wall, internal detail, main building	40	08	08	40	N	Yard wall, door and gatehouse building
10	28	28	10	S	South wall, internal detail, main building	41	07	07	41	E	Gatehouse building, west wall – two parts
11	27	27	11	W	West wall, internal detail, main building	42	06	06	42	E	Gatehouse building, west wall – two parts
12	26	26	12	NW	Angled wall, internal detail, main building	43	05	05	43	S	Iron door in demolished building
13	25	25	13	N	North wall, internal detail, main building, beam support	44	—	—	44	N	Iron door in demolished building
14	24	24	14	—	Detail of removed main beam, main building	45	04	04	45	NE	Internal detail, gatehouse, north room
15	23	23	15	—	Detail of removed main beam, main building	46	—	—	46	S	Internal detail, gatehouse, north room
16	22	22	16	W	External detail, main building	47	—	—	47	E	Internal detail, gatehouse, north room
17	—	—	17	W	External detail, main building	48	03	03	48	N	Internal details, gatehouse, south room
18	21	21	18	W	Detail, external wall, main building	49	—	—	49	N	Internal details, gatehouse, south room
19	—	—	19	W	Detail, external wall, main building	50	—	—	50	E	Internal details, gatehouse, south room
20	—	—	20	W	Detail, external wall, main building	51	02	02	51	NE	Roof details, gatehouse
21	20	20	21	N	External wall, south, main building	52	01	01	52	W	Demolished wall line, gate house
22	19	19	22	N	External wall, south, main building						
23	—	—	23	N	External wall, south, main building, Detail						
24	—	—	24	N	External wall, south, main building, Detail						
25	—	—	25	N	External wall, south, main building, Detail						
26	18	18	26	E	West wall, external, main building						
27	—	—	27	E	West wall, external, main building						
28	17	17	28	E	West wall, external, detail, main building						
29	16	16	29	E	West wall, external, detail, main building						
30	—	—	30	E	Detail of tie rod						
31	—	—	31	E	Detail of tie rod						



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