

APPENDIX 3

**ROYAL WORCESTER PORCELAIN WORKS,
HISTORICAL AND INDUSTRIAL RESEARCH OF THE
GROUP COMPOSED OF BUILDINGS W1, W2, Y, Z, X and X1**

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Buildings W1, W2, Y, Z, X and X1

Buildings W1, W2, Y and Z form one group lying at the south-east corner of the Royal Worcester Porcelain Works. They fall into two clear ranges which are partially defined by the date of the acquisition of the land on which they stand. Buildings W1 and W2 stand astride land acquired in February 1857 and August 1858 whilst Buildings Y and Z stand wholly on land acquired in August 1858

Outline development of Buildings W, X, Y and Z

A fair part of the area to be occupied by Building W1 and part of Z was originally developed by 1867 with five parallel gable-ended buildings with their short ends facing west (Figures 1 and 3).¹ Their functions were related to the production of slip. Thus apart from the Slip Kilns, there was roasting of flints, mixing and a bone house to the south away from the main areas. There was also a giant chimney stack through which the noxious fumes from bone burning were discharged (Figure 1). The storage of moulds also took place but soon after 1875 a long mould house was built parallel to Mill Street at the south and in the 1890s this was extended up to Prince's Drive (Buildings Y and Z). In the late 1880s the larger part of the W area was demolished and replaced by a Blacksmiths' Shop, a Fitters' Shop and a new Frit Kiln for roasting flint. In a vacant space to the west a long Potters' Shop was built to front onto Prince's Drive and at the other end (east) a boiler house was built and the area around the chimney modified to accommodate this change of use from bone burning.

Between 1898 and 1929 the only real changes were in the areas of Y and Z but the areas of W1 and W2 saw the main change post-war when all the 1890s buildings were demolished and replaced by the present buildings.

Development from 1858 to 1875

Considering that the whole area to be occupied by the W, X, Y and Z buildings was in the occupation of the company by 1858 it would be strange if some development had not taken place by the time the Board of Health map was compiled in 1867. By 1875 the composition is much the same except for a small addition to the south (Figures 1 and 2). We obtain an idea of how these buildings appeared by comparison with an historic photograph taken from the north-west (Figure 3).

The general function of the area then appears to have been devoted to the preparation of raw materials where there was easy access to the canal. All the buildings are gable-ended with these facing towards Prince's Drive. Running from north to south in order lay the 'Smithy' (which had disappeared by 1884) with next the three-storey Store/Plaster House (Mould Store) followed by the broader but lower Frit Kiln and Mixing House. Here flints, one of the main raw materials needed in making bone china, were roasted to make them more easily ground with the other ingredients into a paste in the Bone Mill. Figure 3 shows a chimney stack which might be that belonging to the Frit Kiln. Beyond lay the Slip Kilns where the mixture was reduced to a hard paste. Finally lay the Bone House where animal bones were reduced as another vital ingredient. Bone burning was an unsavoury business and was located as far as possible from the Works. In Figure 3 the Bone House cannot be seen and as it was not added until after November 1872² it is possible that the photograph predates this. However Figure 36 shows what it would have looked like around 1937 but by then a number of changes had been made to it (see

1 Board of Health Plan 1867 (not shown here)

2 Company Minute Book, Minute 1673 November 1872 (Worcester Porcelain Museum) hereafter shortened to 'Minute' (Worcester Porcelain Museum)

under 1875 to 1884). By 1937 it appears to have been in three parts with lean-to roofs to each).

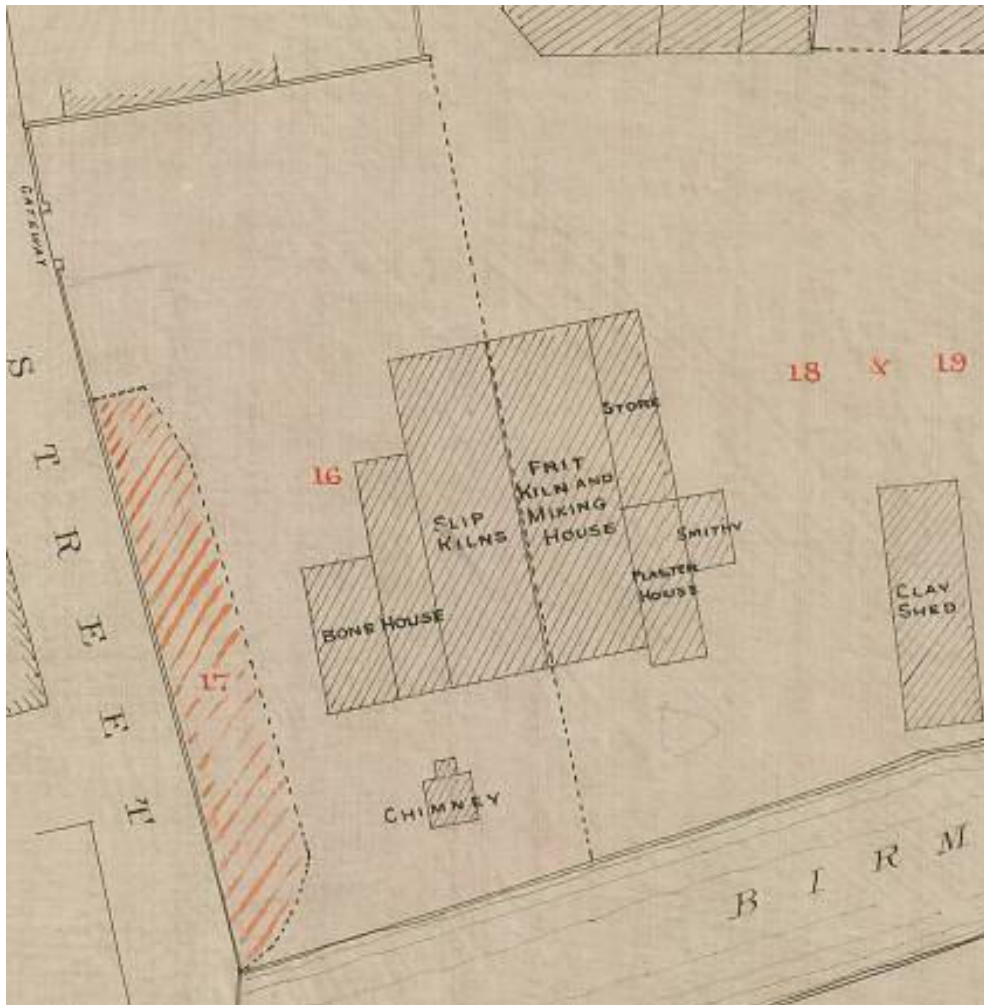


Figure 1: Plan of 1875 showing the area of W1 and W2 containing the 'Smithy', 'Stores/Plaster House', 'Frit Kilns and Mixing House' and 'Slip Kilns' and Y and Z containing the 'Bone House' and 'Chimney'³

3 Worcester Porcelain Museum 'Copied from the PLAN on the MORTGAGE dated 2 June 1875 and numbered and coloured to show the Title under which the various parts thereof are held'

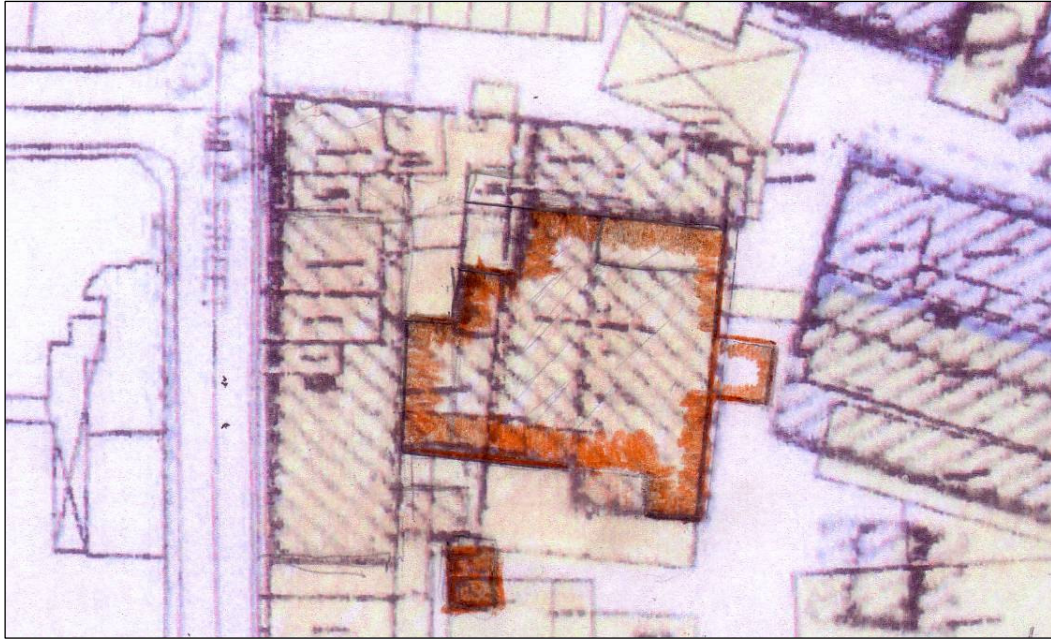


Figure 2: Extract from OS 25in map of 1902 showing the extent of W1, W2, Y and Z in 1875 is coloured orange. The footprint up to demolition in 2007 is coloured yellow.



Figure 3: The areas of Buildings W, Y and Z before 1884, looking from the north-west. Mill Street runs diagonally from right to left with the embryonic Albion Mill beyond. To the left (in parallel lines from left to right) lie the 'Store/Plaster House', the 'Frit Kilns and Mixing House' and 'Slip Kilns'. The Bone Houses lie behind (source: Worcester Porcelain Museum).

Development from 1875 to 1884

As the result of the growth in demand in some wares there was need to expand the works. As a result George Ford was appointed Works' architect in 1874 and charged in June 1875⁴ to design a single-storey mould shed to accommodate the accumulation of moulds. It was to be 100ft by 30ft and built against the boundary wall next to Mill Street but this was found to be too weak for the lean-to envisaged and George Ford was asked to prepare plans which he produced in September 1875 (Figure 7). The building shown in Figures 4 and 5 can be compared with Figure 6 which shows it was built on land coloured red. Some form of heating appears to have been required in the Mould House for drying purposes and Figures 4 and 5 show a small building at right angles abutting onto it in the chimney area – possibly this was a boiler or part of some other means of providing heat. If this is the case then the chimney was multi-functional serving the bone houses, kilns and for mould drying.

In Building Z and parts of Y there are remains of this 1875 building. On its eastern low gable end there are remnants of a low-placed dentil course and tumbled brickwork (Figure 8) which suggests a single-storey gable-ended building with similar characteristics to Ford's elevation (Figure 7).

The south wall (which lies parallel to Mill Street and joins at right angles) may be of the same build (Figure 9). It has interior pilasters and filled windows between, but this wall may have been reduced in height and the arches done away. Furthermore, the appearance of the wooden roof trusses suggests they are part of an older building. At a later date these trusses were adapted to make a central low loft (Figure 10). Although supported on the south side by the extant wall, the north wall was removed in 1937 and the ends of the tie-beam were then supported by steel columns. A telling fact is that this part is covered with slate where a cheaper material might be expected in 1929 when most of this part was revamped.⁵ Apart from the fact that the south wall may once have been taller all this adds up to a single-storey building by Ford.

In October 1884⁶ the Mould House was proposed for an extension of 28ft which would bring it up to Prince's Drive but this does not appear to have been done until after 1890 and before 1898 (see Figures 28 and 29). In this phase (July 1878)⁷ a small addition was made for bone burning at a cost of £25 and this is likely to be the small area shown on the 1884 OS map (Figure 4). In 1890 it was decided to add another storey to the bone house – "the ground floor of which to be used as a bricklayers shop and the room over for the carpenters".⁸

By the end of this phase a fair proportion of the area to be covered by Buildings W, Y and Z was filled between the north and south boundaries.

4 Minute 2031 June 1875 (Worcester Porcelain Museum)

5 In the early 1970s there was re-roofing of a similar area after a fire hollow ware kilns were housed. In 1977 the building was used as a mould store with a seconds ware store room on the mezzanine floor.

6 Minute 3302 October 1884 (Worcester Porcelain Museum)

7 Minute 2425 July 1878 (Worcester Porcelain Museum)

8 Minute 4196 March 1890 (Worcester Porcelain Museum)

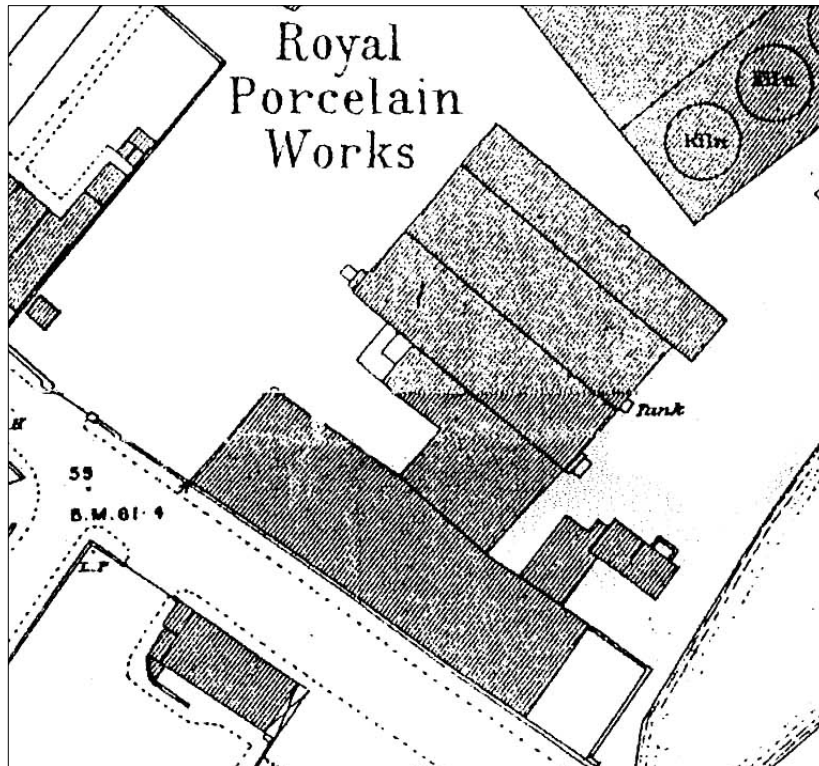


Figure 4: Buildings W, Y and Z in 1884 showing the new Mould House adjacent to Mill Street and a rectangular open piece of land. The small addition for bone burning can be seen adjoining the existing shed at the west (source: First Edition OS 25in to one mile map).

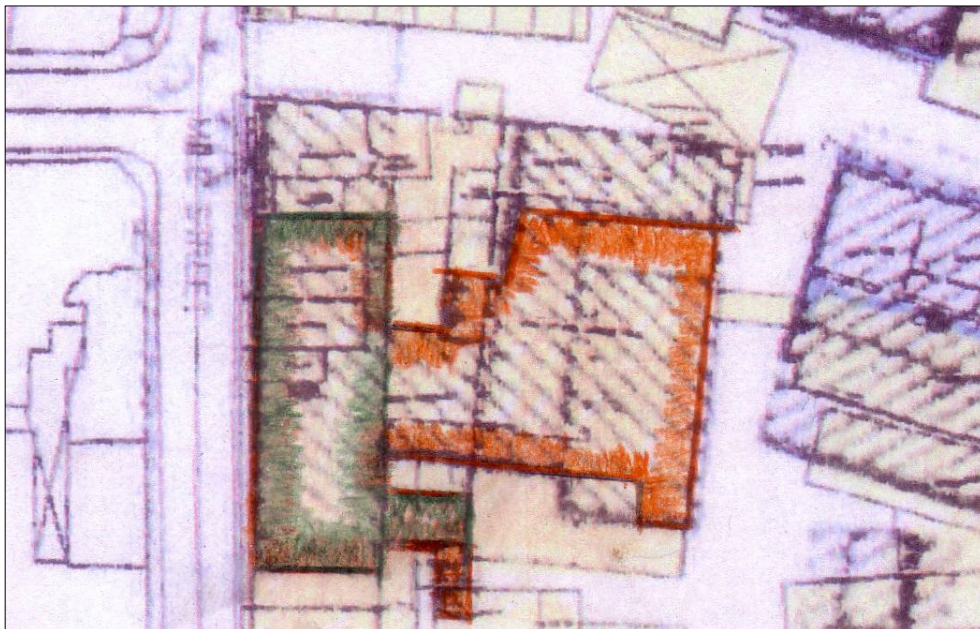


Figure 5: Extract from OS 25in map of 1902 showing the addition of a Mould Store in the area of Y and Z (coloured green). The area coloured orange is the pre-1875 site. The footprint up to demolition in 2007 is coloured yellow.



Figure 6: A plan of around 1885 showing similar detail (source: Worcester Porcelain Museum)

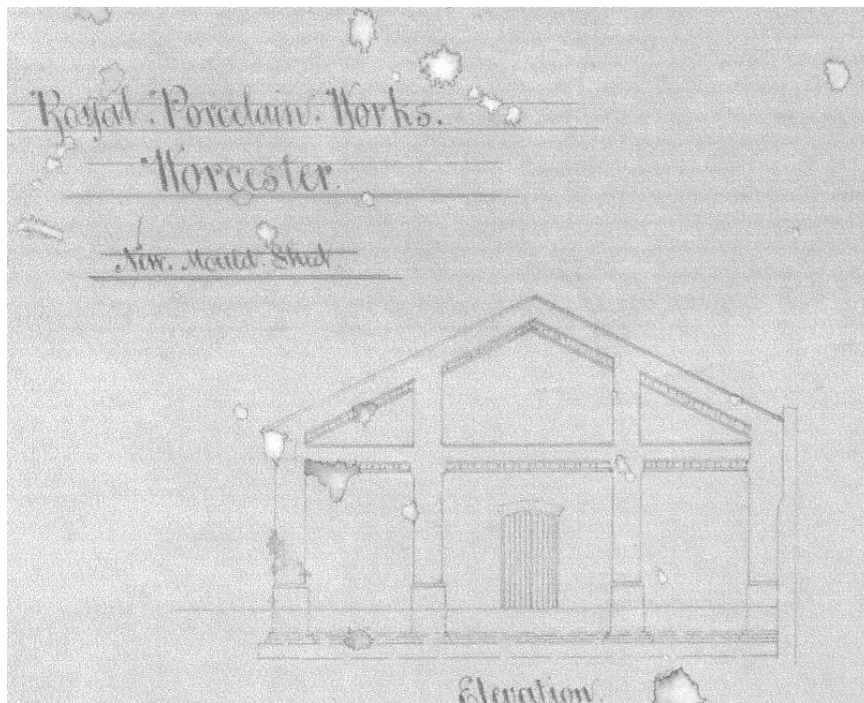


Figure 7: George Ford's elevation of September 1875 for the south building (source: Worcester Porcelain Museum)



Figure 8: Building Z. Dentil course on the east wall with ghost of gable end



Figure 9: The south wall showing pilasters



Figure 10: The adapted roof trusses of the 1875 building to make a central loft

Development from 1884 to 1898

By 1889 the Frit Kiln, Mixing House, Stores and Plaster House dating from before 1875 (Figure 12) were being considered for replacement (basically those occupying the areas of W1 and W2). The Plaster House (Mould Store) had already been replaced by the second half of the 1870s. The calcining kiln for flint was to be re-housed in a new building whilst a Blacksmiths' and Fitters' Shop were to be combined in another (see Figures 14 to 20) (the 'Smithy's' had been done away with by 1884). On the open area to the west, towards Prince's Drive, a new Potters' Shop was also being considered and, to the east, a new Boiler House (Figure 20) was to be added and the chimney stack which had served the bone house adapted for its use.⁹ Plans and elevations were evaluated into 1890 and a mixture of both alternatives implemented (Figure 13) and completed by 1898 but probably well before (the outline alternatives can be seen in Figures 11 and 12 From the alternatives presented by Thomas Sutton those shown in Figures 14 to 20 (included in summary on Figure 11) were adopted for the Blacksmiths' Shop, Fitters' Shop and Flint Kiln and for the Potters' Shop, those shown in Figures 22 to 27 and the summary shown on Figure 12.

9 Minute 4196 March 1890 (Worcester Porcelain Museum)

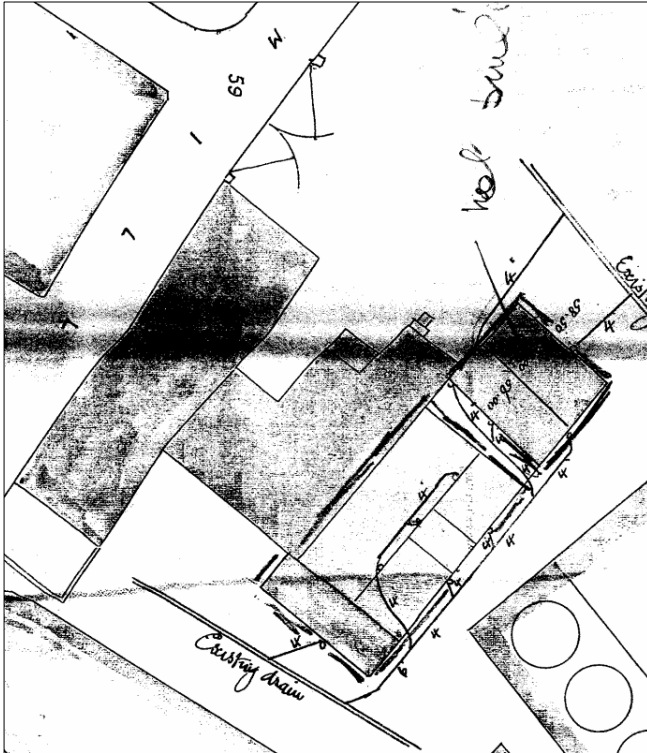


Figure 11: The first of two schemes proposed by Thomas Sutton in 1889 for the main part of areas W1 and W2. Note the excessive width for the gate onto Mill Street.¹⁰

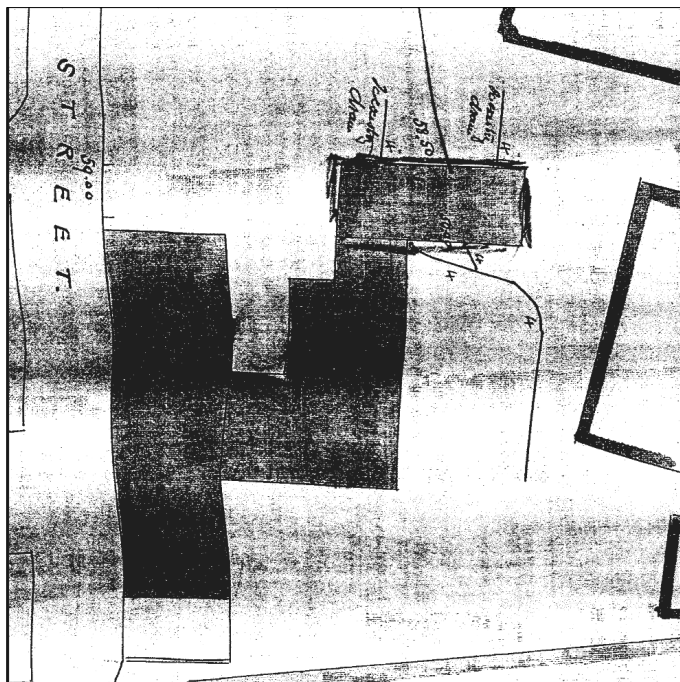


Figure 12: The second scheme proposed by Thomas Sutton in 1889 for the main part of areas W1 and W2.¹¹

10 City of Worcester Planning Application 1330 (26.6.1889)

11 City of Worcester Planning Application 1449 (15.3.1890)

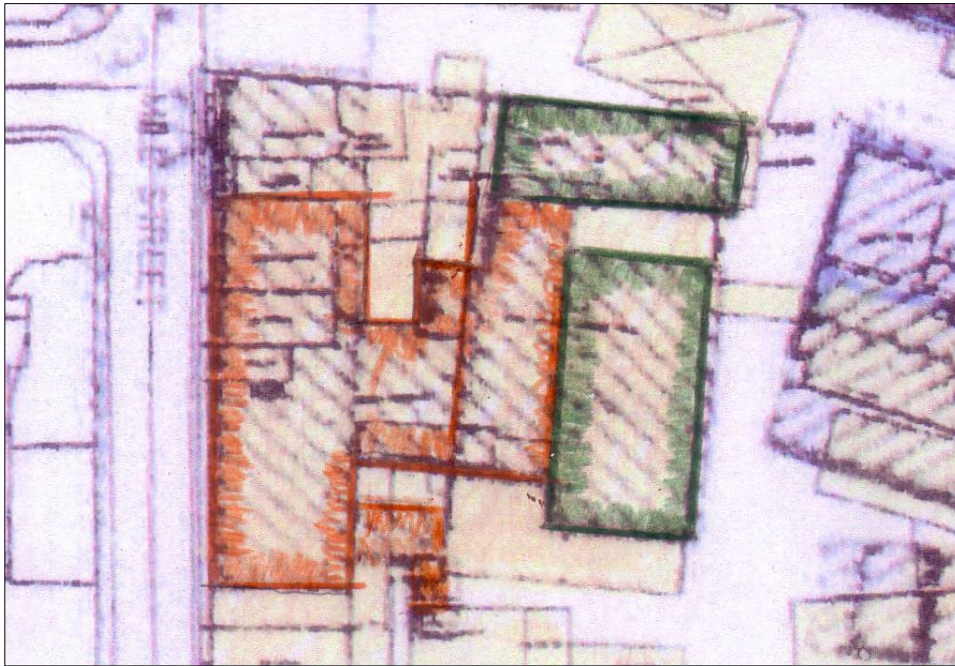


Figure 13: Extract from OS 25in map of 1902 showing the changes in the area of W (coloured green) by 1890 based on the combination of Figures 11 and 12. The area coloured orange is the existing site by 1875. The footprint up to demolition in 2007 is coloured yellow. For an aerial view see Figure 36.

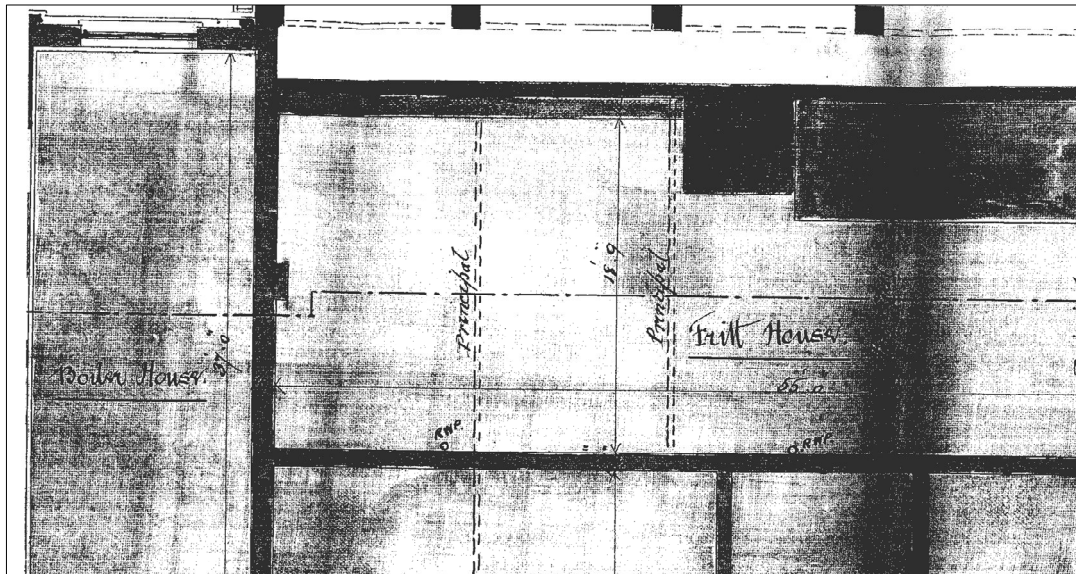


Figure 14: Plan of the 1889 adopted proposal for the replacement of the Frit Kiln, Mixing House, Stores and Plaster House. The Boiler lies to the left and the open yard running up to the Potters' Shop on the right (see Figure 1).¹²

12 City of Worcester Planning Application 1399 (26.6.1889)

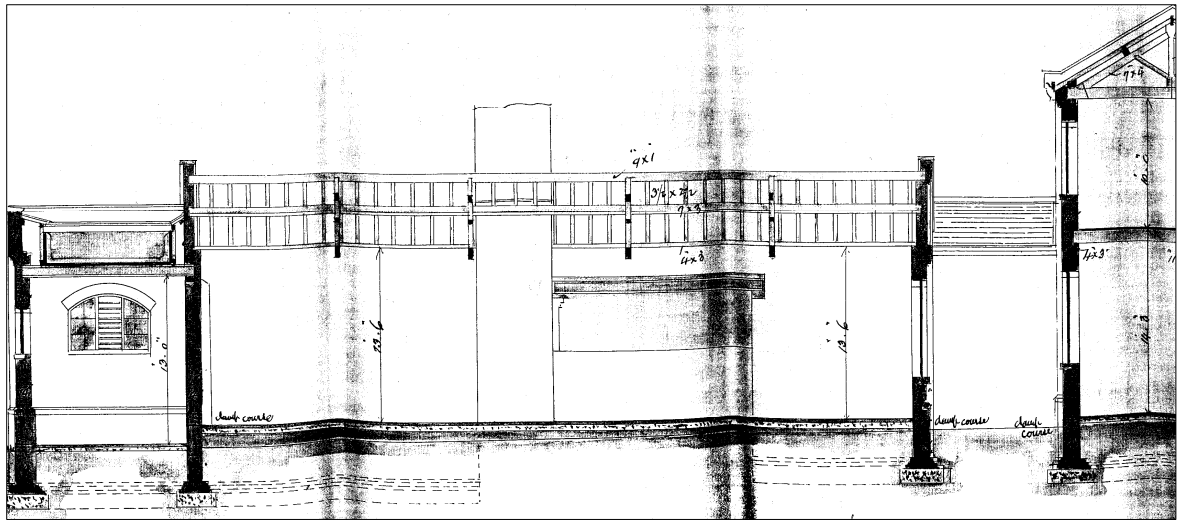


Figure 15: East to west section of the 1889 adopted proposal for the replacement of the Frit Kiln, Mixing House, Stores and Plaster House (see Figure 1). The Boiler House lies to the left. The chimney for the Frit Kiln lies in the centre.¹³

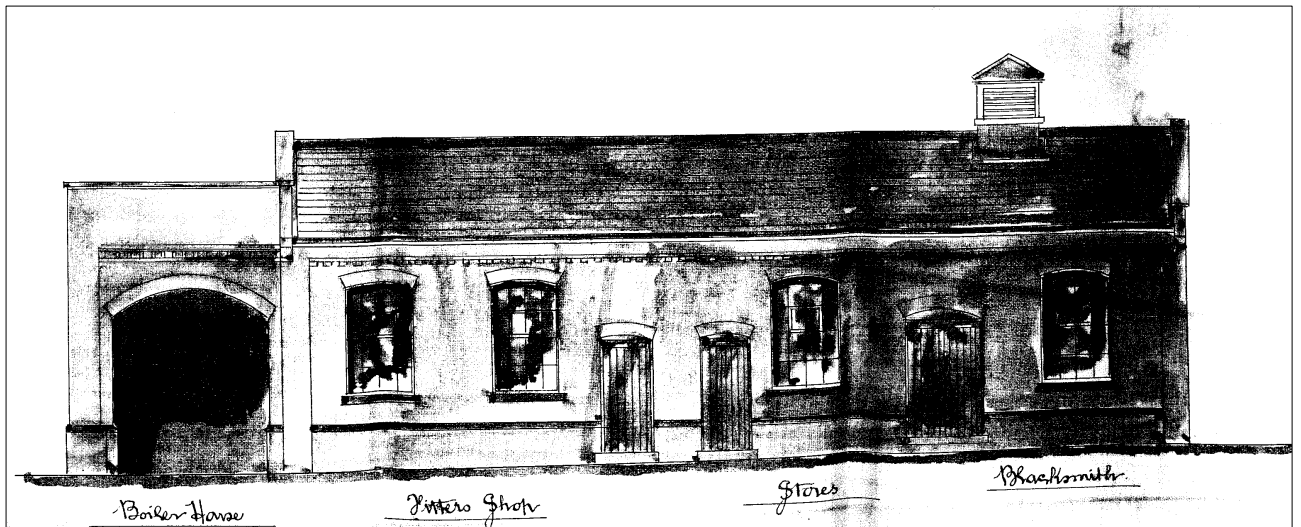


Figure 16: North elevation of the 1889 adopted proposal for the replacement of the Frit Kiln, Mixing House, Stores and Plaster House (see Figure 1). The Boiler House lies to the left.¹⁴

13 City of Worcester Planning Application 1399 (26.6.1889)

14 City of Worcester Planning Application 1399 (26.6.1889)

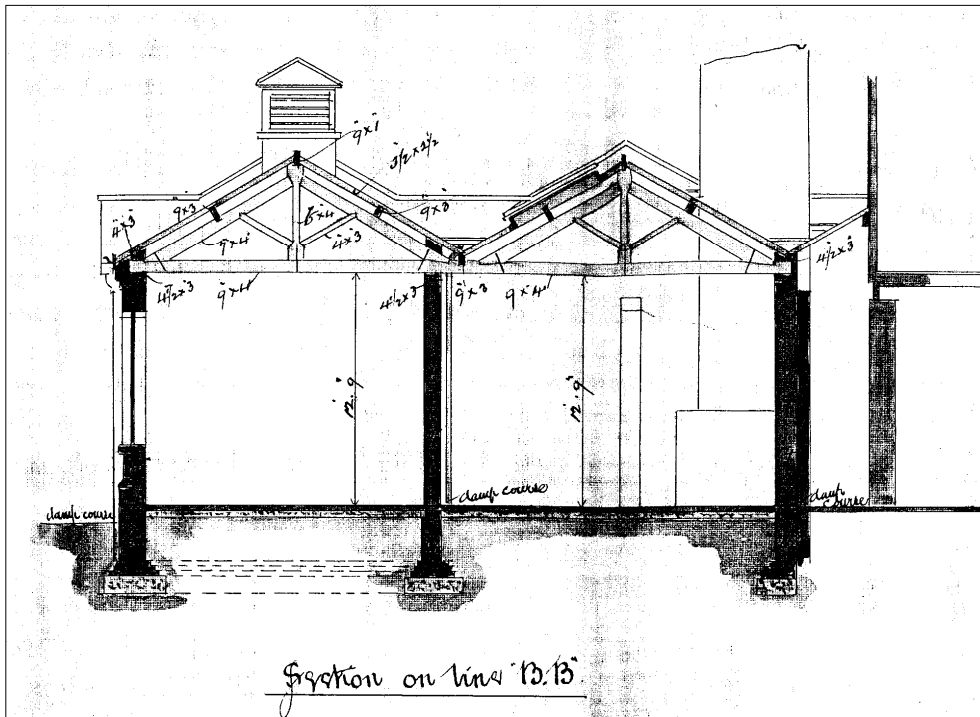


Figure 17: North to south section of 1889 adopted proposals with the Fitters' and Blacksmiths' Shops on the left and Frit Kiln with its chimney to the right¹⁵

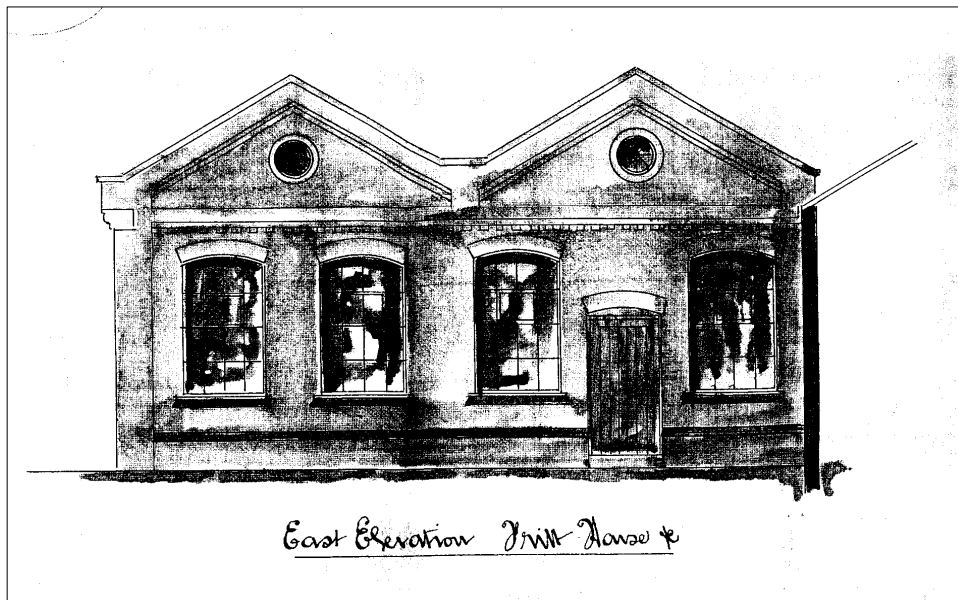


Figure 18: East elevation of the 1889 adopted proposal for the replacement of the Frit Kiln, Mixing House, Stores and Plaster House (Figure 1)¹⁶

15 City of Worcester Planning Application 1399 (26.6.1891)

16 City of Worcester Planning Application 1399 (26.6.1889)

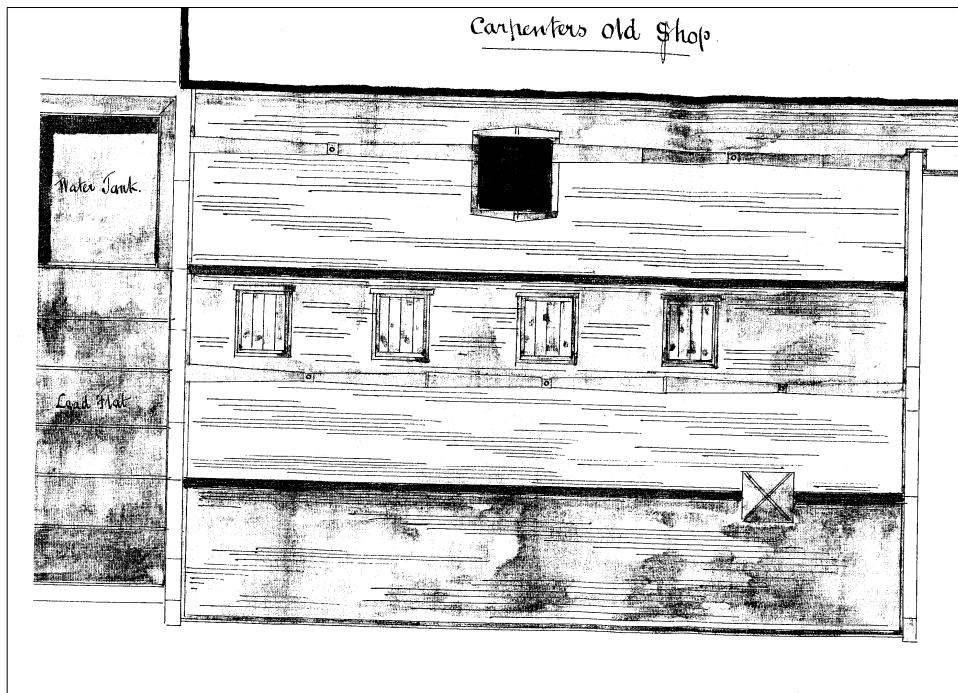


Figure 19: Roof plan for Figures 15 to 18. The Boiler House lies to the left. The chimney to the Frit Kiln lies in the centre top and that for the Blacksmiths' Shop bottom right.¹⁷

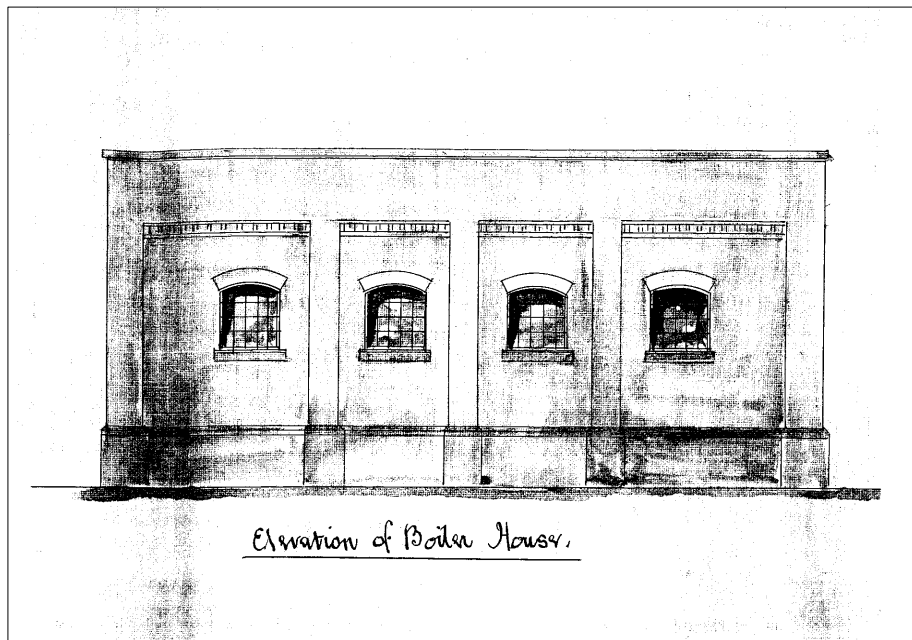


Figure 20: East elevation of the 1889 adopted proposal showing the Boiler House¹⁸

17 City of Worcester Planning Application 1399 (26.6.1889)

18 City of Worcester Planning Application 1399 (26.6.1889)

The Blacksmiths' Shop and Fitters' Shop (Figures 14 to 20) were placed in one of the twin single-storey gable-ended buildings with the Frit Kilns in the other to the south. Both were laid on the footprint of their predecessors but were slightly reduced at the west end to allow for a small court lying east of the new Potters' Shop (shown on Figures 13 and 14) so that light could enter. There was a tallish chimney for the Frit Kiln (see Figures 15, 17 and 19) and louver-type for the Blacksmiths' Shop (see Figures 21 and 22). In some respects these buildings echo the style established by George Ford.



Figure 21: Looking at the area of Buildings W1 and W2 from the east c1900.

The four windows of the Boiler House can just be seen at the bottom right. The gable-ended building is the Slip House with the main chimney to the left. Behind the Boiler House lie the new Frit House, Blacksmiths' and Fitters' Shops. The louvred chimney belongs to the Blacksmiths' Shop (right) and stack for the Frit Kiln (left) can be seen with the two-storey Potters Shop behind running from left to right (source: Worcester Porcelain Museum).



Figure 22: The Boiler House showing three of its four windows with the Slip House behind to the left (source: Worcester Porcelain Museum)

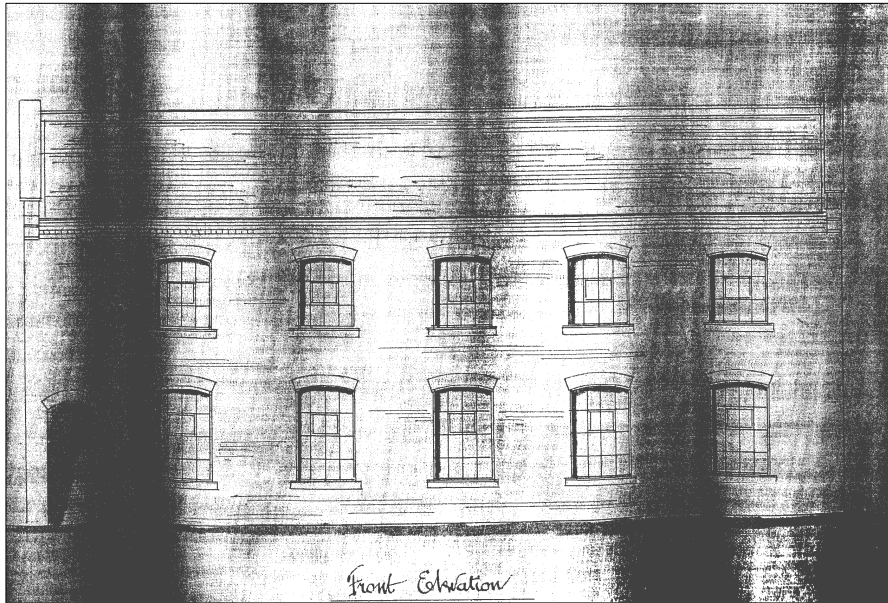


Figure 23: The west elevation of the Potters' Shop facing onto Prince's Drive as adopted¹⁹

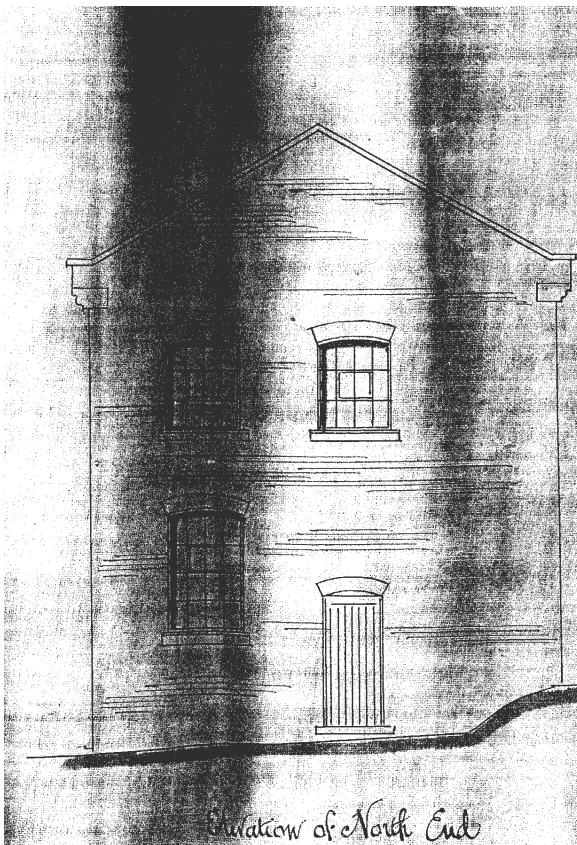


Figure 24: The north elevation of the Potters' Shop as adopted²⁰

19 City of Worcester Planning Application 1449 (15.3.1890)

20 City of Worcester Planning Application 1449 (15.3.1890)

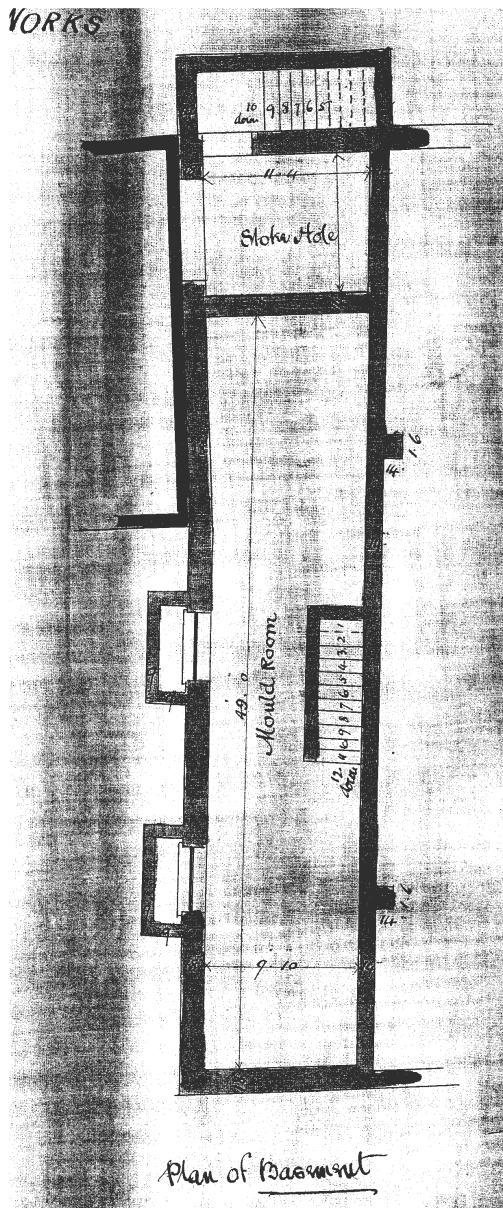


Figure 25: Basement plan for the Potters' Shop as adopted. Prince's Drive lies to the right.²¹

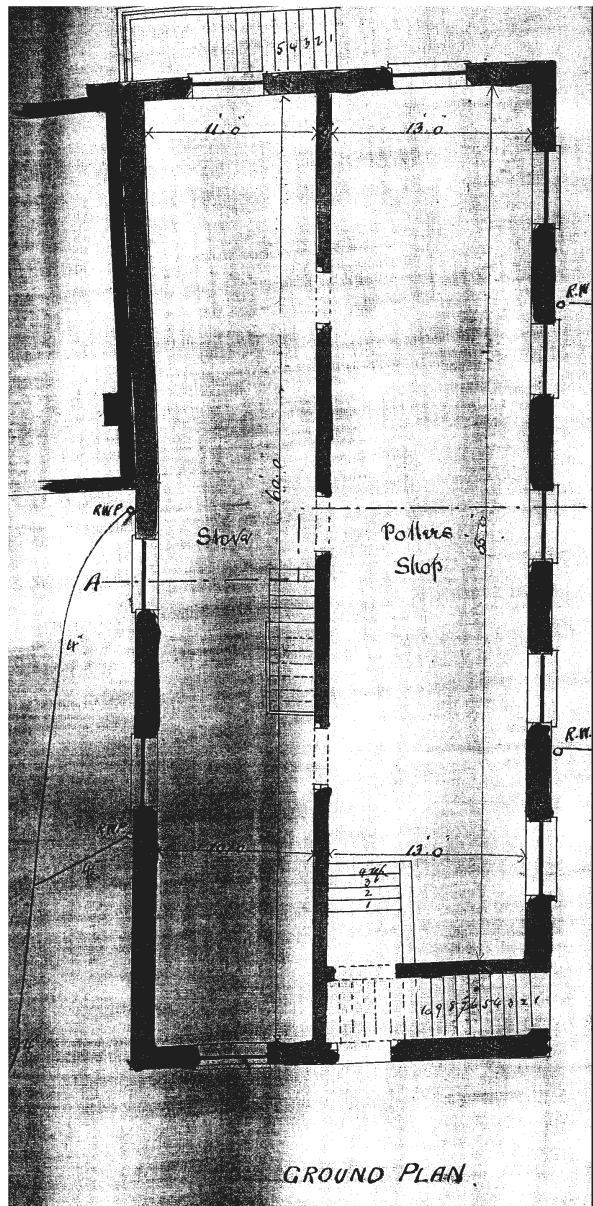


Figure 26: Ground floor plan of the Potters' Shop as adopted. Prince's Drive lies to the right.²²

21 City of Worcester Planning Application 1449 (15.3.1890)

22 City of Worcester Planning Application 1449 (15.3.1890)

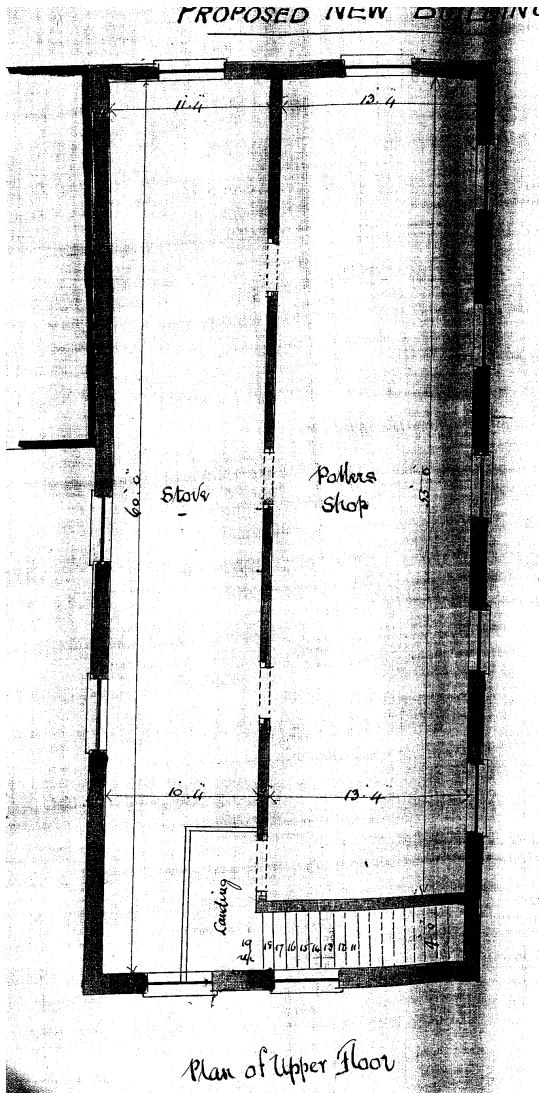


Figure 27: First floor plan of the Potters' Shop as adopted. Prince's Drive lies to the right.²³

For the Potters' Shop there had been a proposal for a twin-roofed building with a valley. This had similarities to those chosen for the other two buildings having been planned at the same time. However, a rather simpler alternative design was chosen (see Figures 23 to 27) which was for a two-storey gable-ended building (excluding a basement) fronting onto Prince's Drive and was of five bays with an internal staircase leading to the first floor (Figures 26 and 27). This building outlines the footprint of the west end of the later Building W1. Both the ground and first floors consisted of two long rooms making the whole building narrow. Thus there were two Potters' rooms both well lit from the west by the five windows to each floor. At the back (east) were two stores which were slightly narrower than the Potters Shops and here lighting was a problem where about half of the building abutted onto the Slip Kilns of 1875 (Figure 1). For this reason a small space was left between the rear and the Blacksmiths'/ Fitters' and Frit Kiln block and here two windows were placed on each floor.

The basement (Figure 25) lay directly beneath the Stores and was therefore exactly the same size. It was in two separate unconnected parts. At the south end was a 'Stoke Hole' reached by steps from the outside. The rest of the basement was devoted to a Mould Room reached by internal stairs from the Store above. Lighting for this was by two light wells below the two lights for each of the floors above. Part of the basement was used for the lift well for the later Building W1.

23 City of Worcester Planning Application 1449 (15.3.1890)



Figure 28: The W, Y and Z buildings in 1898 (source: Worcester Porcelain Museum)

As we have seen in October 1884 it had been proposed to extend the mould store which lay on the south side adjacent to Mill Street by 28ft. This was not completed by 1890 (see Figure 11) but was by 1898 (Figure 28) where it met the south gate. There is some debate concerning the exact position of this gate which appears to have been widened for the Royal visit in the 1880s (see below under ‘The Mould Store and Gatehouse’).

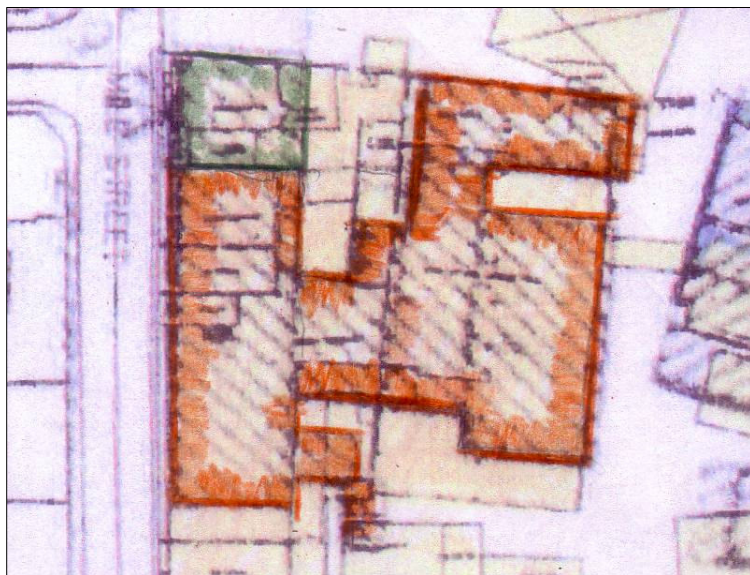


Figure 29: Extract from OS 25in map of 1902 showing the extension to the Mould Store (coloured green) by 1898. The area coloured orange is the existing site by 1890. The footprint up to demolition in 2007 is coloured yellow.

The redevelopments of 1929 at Buildings Y and Z

Developments after 1898 were limited until June 1929 plans were prepared to redevelop the southern half of Buildings Y and Z.²⁴ As a result it was decided to move the sagger plant from the glost area to near the mill entrance. To implement this, the southern half of Building Y was altered from a Mould Store to a single-storey 'Sagger Makers Place'. The eastern half (half of Building Z) was retained as a Mould Store (Figure 35) and a fair part of the 1876 building was possibly incorporated into the new build, including the north wall which was removed a few years later to make a single area (Figures 2 to 5). Finding sufficient storage for moulds was always a problem and it can be seen from Figure 33 that even using the rafters was resorted to. The only change to the footprint was made by the addition of a small wing where clay bins were installed (Figure 35). The flow of production would appear to be as follows – after weighing on the bridge²⁵ clay went to the clay bins in the added wing. From here it was mixed with 'grog' (old crocks) and then passed through the pug mill where it was squeezed. The sagger maker then produced the bottoms ('sagger maker's bottom knocker') and wrapped on the sides before they were passed to one of four stoves (Figures 33 and 35). The 1929 building was given a pediment to the front (Figures 30 to 35) which seems to echo the 1875 Mould House (see Figure 7). An additional wing was narrow and short and fell easy prey to the developments which followed a few years later.

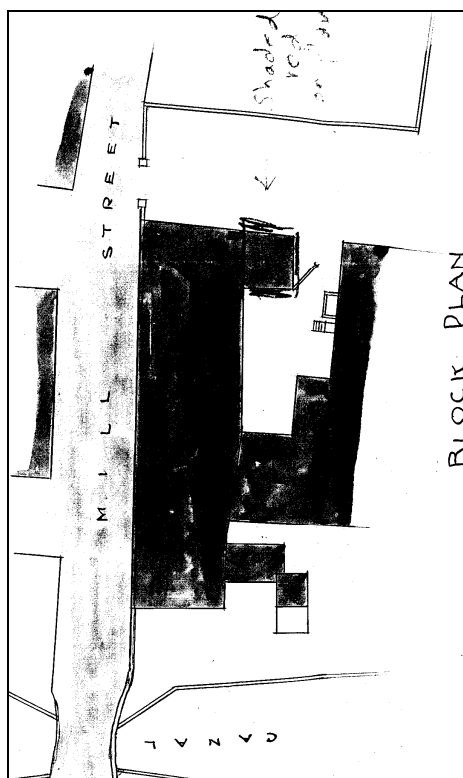


Figure 30: Redevelopment of Buildings Y and Z in 1929²⁶

24 Minute 9622 (Worcester Porcelain Museum)

25 Wagons were weighed full on the platform to the front of the 'Weighing Machine Office'. The tare weight was deducted from the laden weight to give the weight of the clay.

26 City of Worcester Planning Applications 1449 and 5657 (8.2.1929)

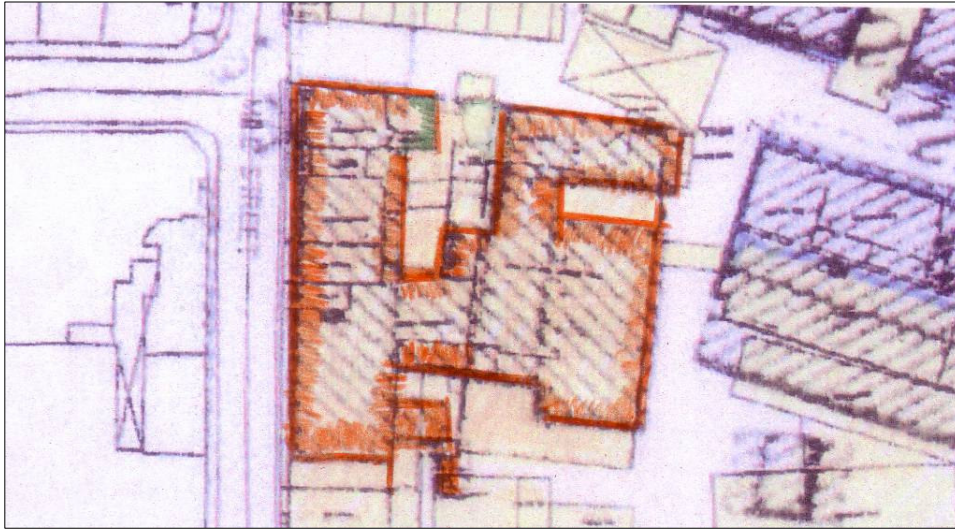


Figure 31: Extract from OS 25in map of 1902 showing the 1929 extension to the Mould Store (coloured green). At this time the Mould Store was completely redeveloped but lies on the original footprint thus it is coloured orange as the existing site of 1898. The footprint up to demolition in 2007 is coloured yellow.

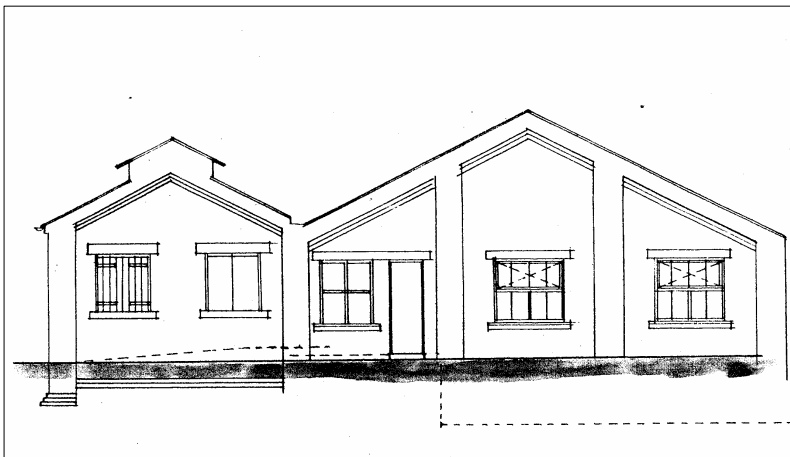


Figure 32: Building Y. Elevation onto Prince's Drive. To the left lies the Clay Bin wing with the weigh house in between (the separate door and window).²⁷

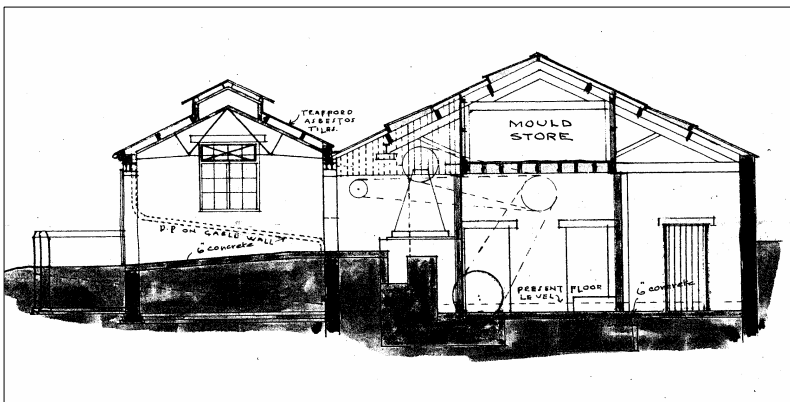


Figure 33: Building Y. Section through the elevation onto Prince's Drive. To the left lies the Clay Bin wing.²⁸

27 City of Worcester Planning Application 5657 (8.2.1929)

28 City of Worcester Planning Application 5657 (8.2.1929)



Figure 34: The 1929 front to Building Y. The gable ended building to the left was built around 1937.

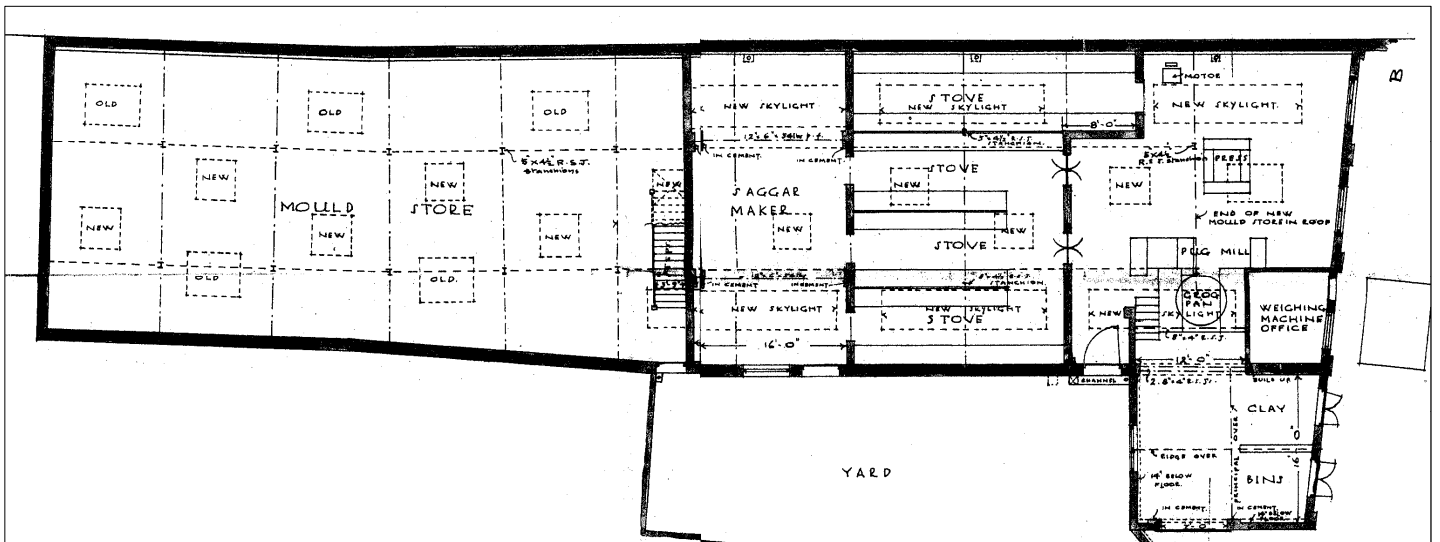


Figure 35: Buildings Y and Z ground floor plan of 1929. The right side faces onto Prince's Drive and Mill Street lies to the top. The wing to the right bottom (clay bins) lies beyond the 1898 boundary (see Figures 32 and 33). The Weigh House and bridge lie in the area nearest to the wing for weighing clay.²⁹

29 City of Worcester Planning Application 5657 (8.2.1929)

The redevelopments of 1937 at Buildings Y and Z

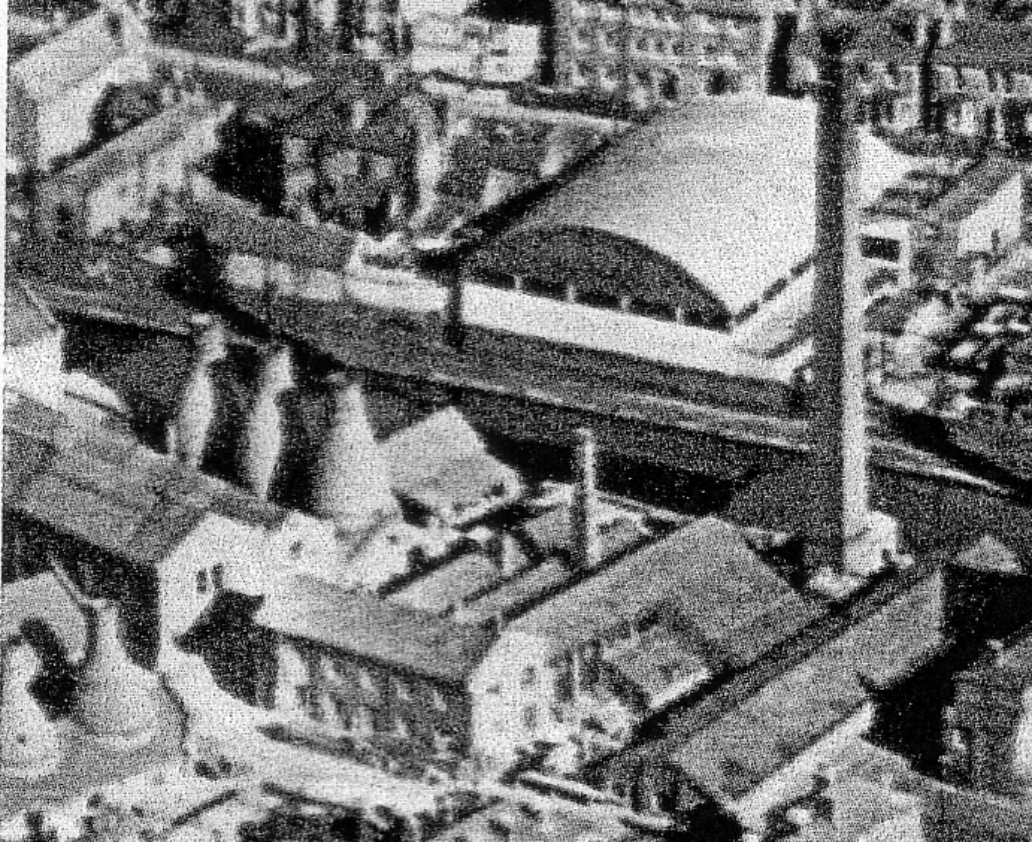


Figure 36: View from the south west taken before 1937 of the area of W, Y and Z (source: Worcester Porcelain Museum)

The Potters' Shop, with its five bays, faces onto Prince's Drive with the 1890s Blacksmiths' Shop and Fitters' Shop behind. Next to them, to the right, lies the Frit Kiln with its small chimney. To the right is the original Slip House (soon to be demolished to leave an open yard) which can be seen in Figure 36 as the tallest of the buildings. To the right again is the original Bone House, which is also to be demolished, with its enormous stack behind and finally George Ford's Mould Store with its 1929 front and it was this area which was developed next.³⁰ In 1937 there was some extensive demolition which removed the Bone House and the Slip Kilns as well as the recently built clay bins (Figures 37, 38 and 39). The northern part of Y and Z had, apart from the Bone Houses and clay bins, been pretty open anyway and possibly given over to storing and weathering raw materials, including bones.

30 source: Worcester Porcelain Museum

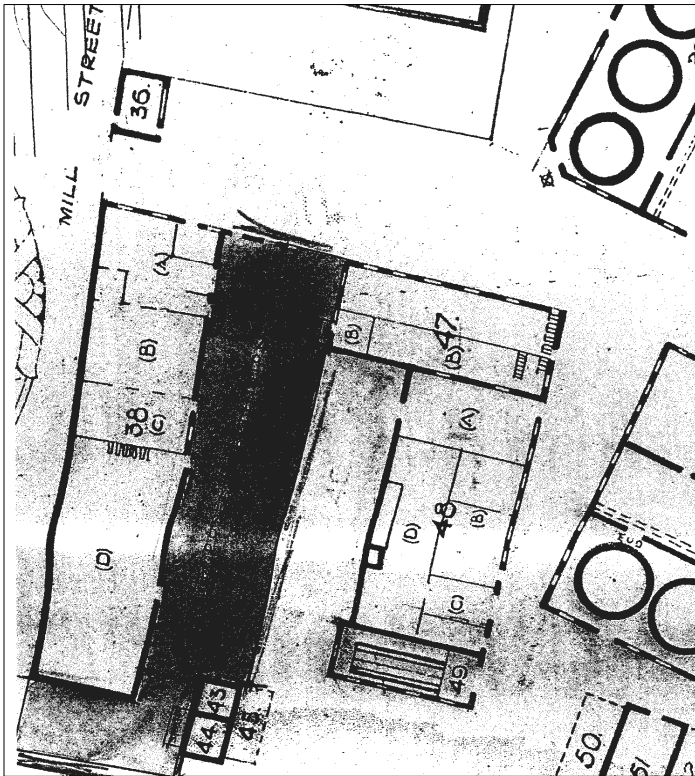


Figure 37: Redevelopment of Building Y and Z (northern section) in 1937³¹

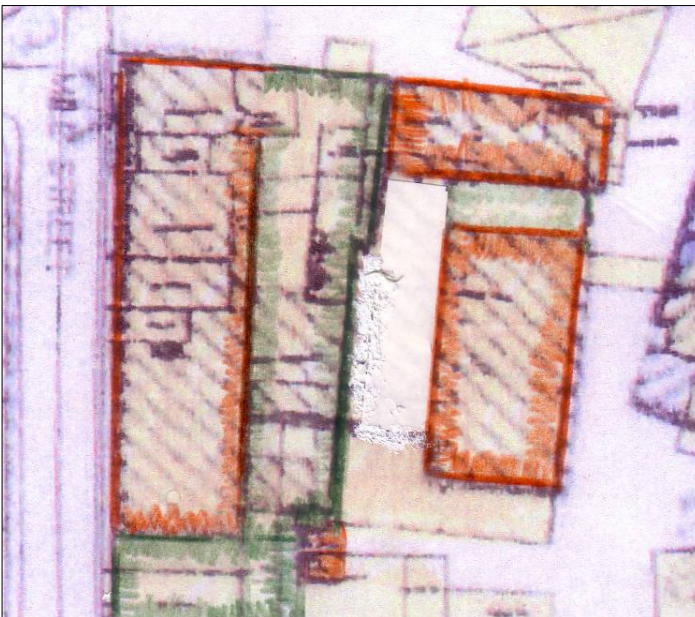


Figure 38: Extract from OS 25in map of 1902 showing the 1937 changes including the new build on the northern part of Y and Z (coloured green) and the cleared Slip Kilns

31 City of Worcester Application 7025 February to December 1937

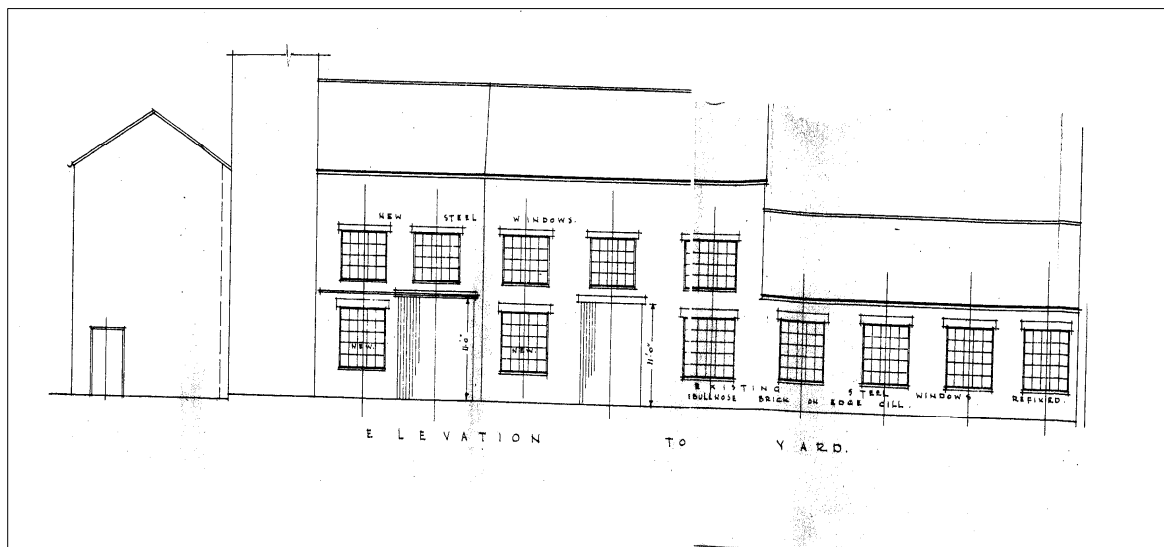


Figure 39: North elevation of Building Y and Z as planned in 1937. The front overlooks the removed Slip Kilns where an open yard now lay. The western part of that built in 1929 (which lay to the right) is not shown as it lay behind the gable-ended south elevation of the Potters' Shop built by 1898 (see Figure 24) The gable-ended building on the left can be seen in Figures 44 to 46). The stack was replaced to suit the new boilers (see under 'The Boilers' below).³²

It was onto this newly cleared space that a brand new building was erected with a partly two-storey and partly single-storey front facing onto the cleared area where the Slip Kilns had lain and was now a yard (see Figures 39 and 40) shows the incorporation of the 1929 rebuild including the removal of the northern wall which separated the two parts. The height of the front (Figure 41) and on what lay behind it. For instance Figures 42 and 43 show that the single-storey build of 1937 belongs to Building Y whilst the two-storey build belongs to Building Z. The 1929 building remained the same (except for the removal of the north wall into the 1937 build).

The bottom part fronts onto Prince's Drive and the top part is the cross-wing fronting onto the canal. The openings on the left can be rationalised with the windows shown in Figure 39. The doors were sliding and it seems likely that lorries were unloaded by crane from here. In the 1929 part six clay storage bins were built (right) beneath the loft (Figure 10) which had been adapted from the 1870s roof trusses. The sagger makers' area was now given over to 'Jolliers' and 'Presses' suggesting that cups and the like were now being made here.³³

³² City of Worcester Planning Application 7025, February to December 1937

³³ City of Worcester Planning Application 7025, February to December 1937

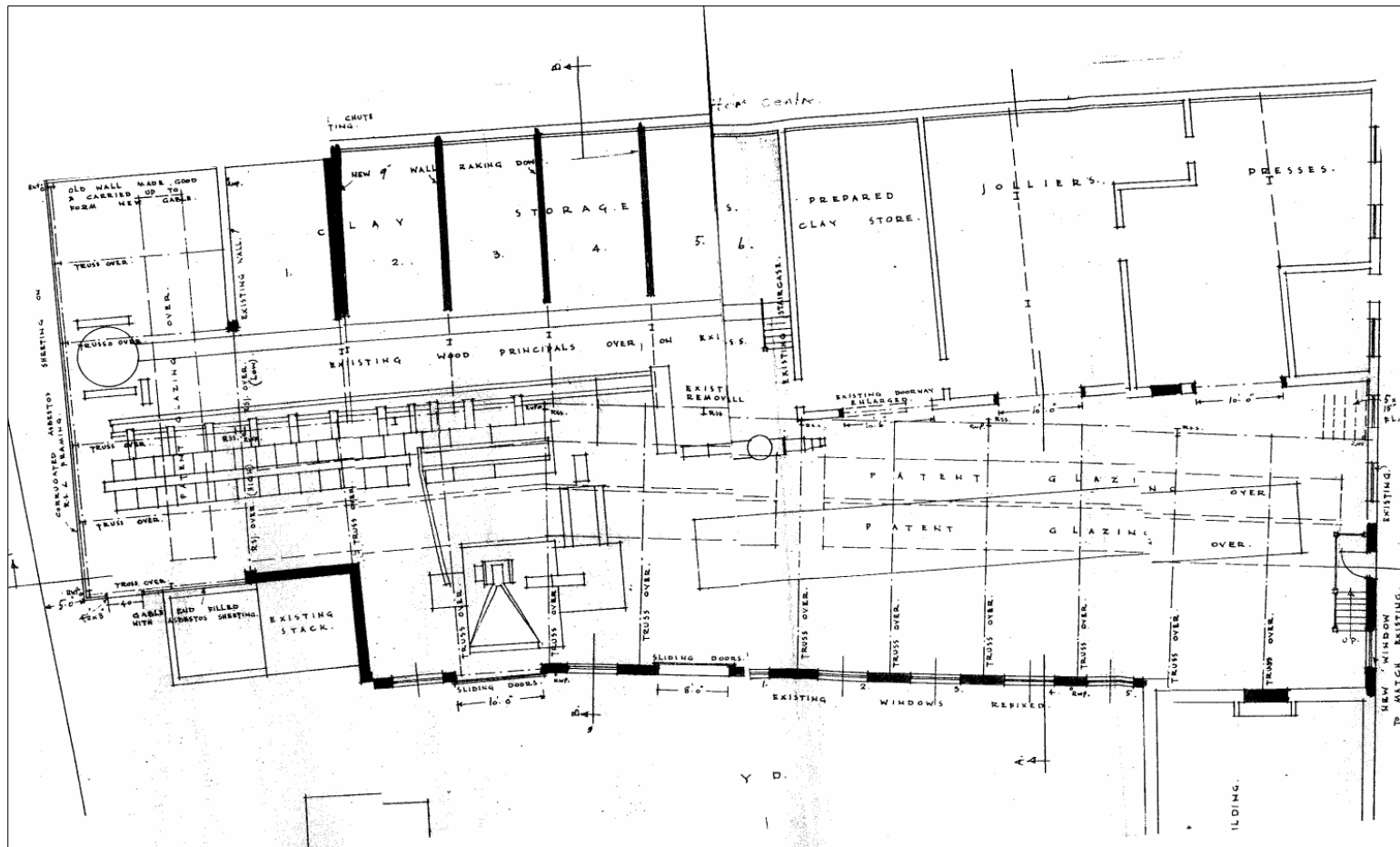


Figure 40: Plan of Buildings Y and Z showing reorganisation of the 1929 build (right) with where the Bone House had lain (left)³⁴

34 City of Worcester Planning Application 7025 February to December 1937

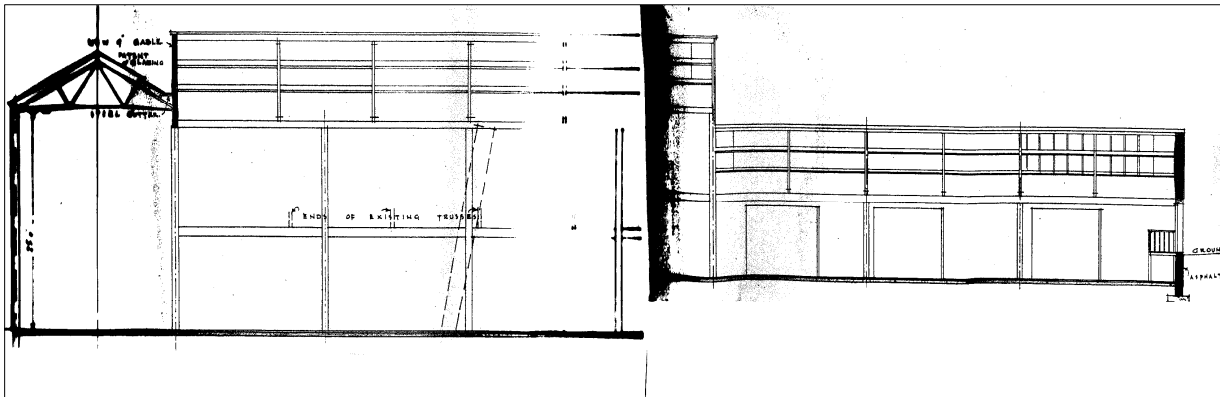


Figure 41: North section of Buildings Y (right and single-storey) and Z (left and two storeys). The cross-wing lies to the left and the Prince's Drive front on the right.³⁵

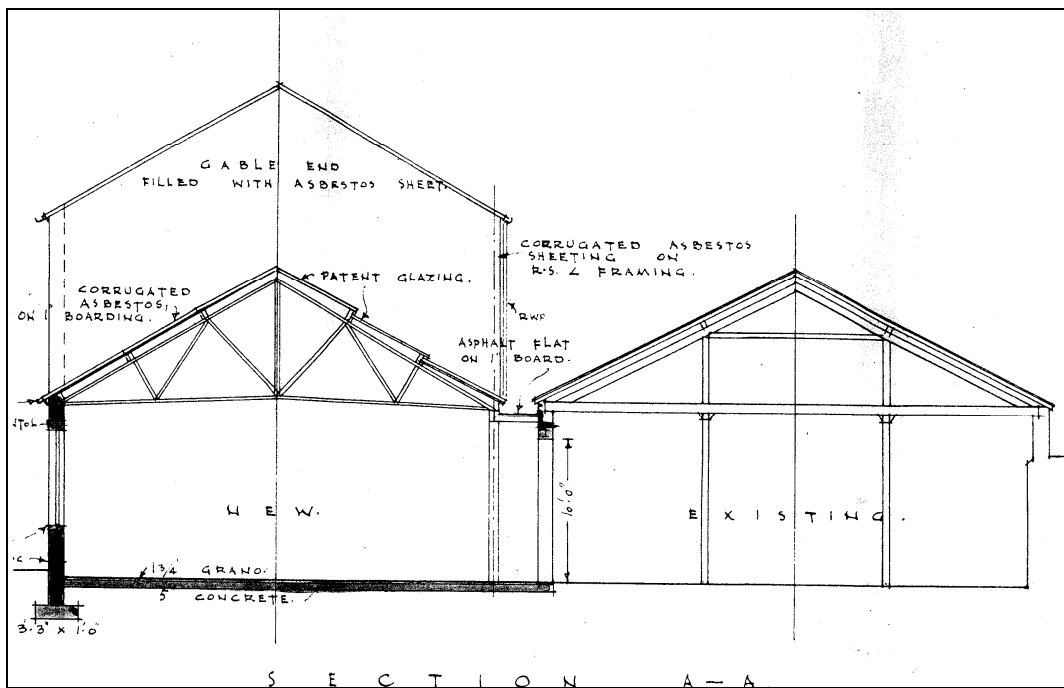


Figure 42: North to south section through Buildings Y (front) and Z (rear). The left gable of 1937 shows the two heights which can be rationalised with Figure 39. The single-storey build lies in Y and the two-storey in Z. The single-storey gable-ended building on the right was retained from 1929 (Figure 33).³⁶

35 City of Worcester Planning Application 7025 February to December 1937

36 City of Worcester Planning Application 7025 February to December 1937



Figure 43: Interior of the 1937 part of Buildings Y and Z looking west from the two-storey building (Z) into the single-storey Y which fronts onto Prince's Drive



Figure 44: Looking north-east in Building Z towards the division between Buildings W and Z showing the first storey filled windows of the 1937 north elevation which would formerly have looked onto a yard the other side. This became the common wall to Buildings W1 and W2.

A rectangular piece of land had been set aside adjoining the Mould Store at the east end towards the canal some time before 1884 (see Figure 4) but it was not until 1937 that attention was given to building here as part of the reconstruction of the northern area of Y and Z (Figures 41 to 45). This was built as a two-storey cross-wing shed on to the area of Z. The shed today dates from 1966 but follows the footprint of the original thus, apart from this, the areas of Y and Z remained externally much as they were from 1937 onward until the present day.

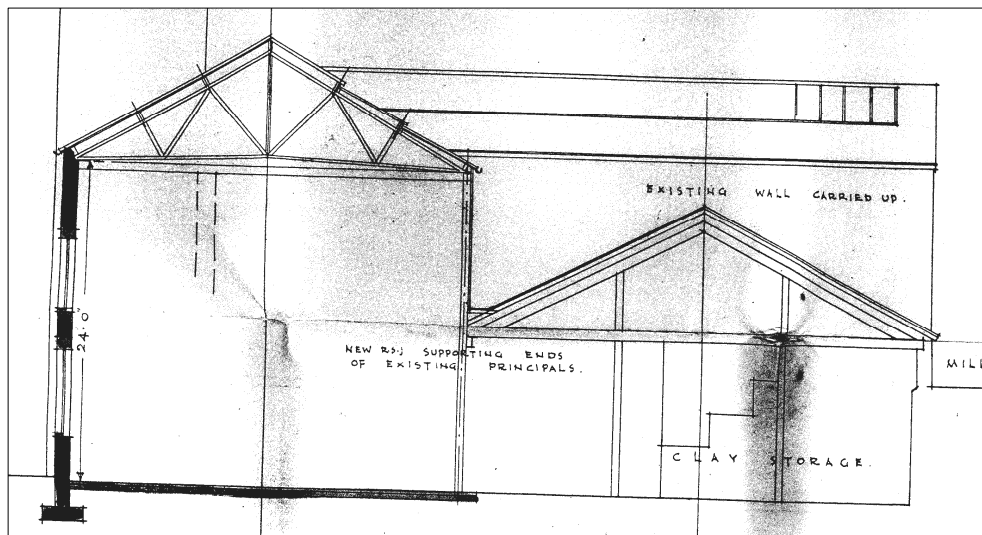


Figure 45: West elevation of Building Z as built in 1937. To the right is the single-storey 1929 shed where it ran into Building Z with the cross-wing behind which fronts onto the canal. This was built in the area earmarked for development in 1884 (see Figure 4).³⁷



Figure 46: The cross-wing built in the area earmarked in 1884



Figure 47: Interior of the cross-wing to Building Z. This was possible rebuilt in 1966 on the same footprint.

Changes from 1937 until the ‘great rebuild’ of W1 and W2

This phase includes the wartime period during which a tunnel kiln was installed (or planned) to run the length of Building Z towards the south for the production of steatite (see Figure 48, number 38). This would have lain in the northern half of Building Z which was of two storeys. There was possibly some kiln work installed in Y and Z in 1950.³⁸ A further wartime measure was the use of the basement to the Potters’ area as an Air Raid Shelter (Figure 49 – area marked red). In 1948 part of W1 (Figure 48, number 48) was altered for the production of special high temperature alumina products and improved sagger manufacture.³⁹ The six clay bins were retained beneath the loft with the 1870s roof trusses (Figure 48, number 39). The only real building activity appears to have been in the area of the Boiler House but this may have been a follow-on from the previous phase.



Figure 48: Wartime changes⁴⁰

38 Drawing LJA/50 (Worcester Porcelain Museum)

39 Minute 252 March 1948 (Worcester Porcelain Museum)

40 Detail from a numbered plan by ‘Sam N Cooke, Chartered Surveyor, Sun Buildings, Bennett Hill, Birmingham’ dated January 1941

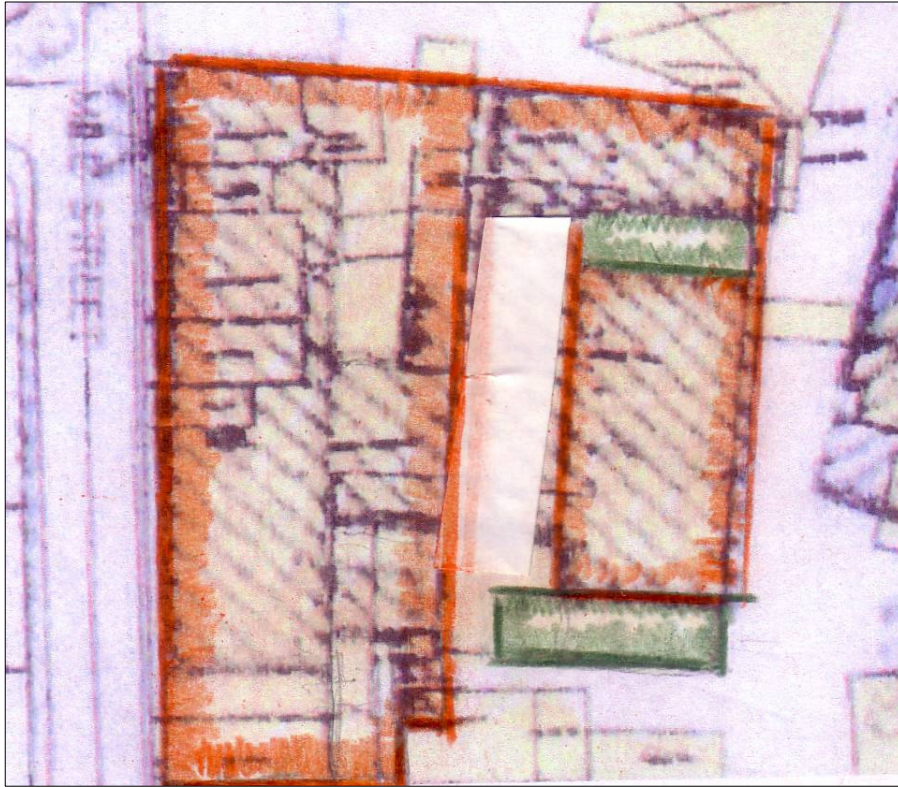


Figure 49: Extract from OS 25in map of 1902 showing the changes from 1937 to 1941 (coloured green)

The Boilers

Although the history of the boilers spans into two centuries it will be convenient to deal with them here. We have seen that some form of heat for drying moulds was needed in the Mould Store and how this might have been applied. It was suggested that waste heat from bone burning or a bespoke boiler could have been used, or both. In either case a tall chimney was handy.

The 1889 Boiler House (Figures 15 to 17) was 13ft 6in high (4.10 metres) and around 10ft wide (3 metres). This would only have been wide enough for a single 7ft diameter boiler. At the north end was an open stoking area. The roof was flat and covered with lead set into a parapet to hide the short water tank which lay at the south end. This was probably open topped as it appears to have been fed by rainwater discharged into it by guttering.

The single chimney stack lay some way from this Boiler House as part of Building Z having been originally located with bone burning in mind (see Figures 2 and 48, number 45). The chimney was causing problems in September 1923 when it was reported that it needed some repair work. As a result a new lightning conductor and ten iron bands were added for strengthening.⁴¹ By 1937 new boiler(s) were being considered – certainly the Company was making enquiries for Lancashire boilers in 1934 (Figures 51 and 52) and there was one of this type installed around 1937 (Figure 50).

41 Minute 8681 (Worcester Porcelain Museum)
© John van Laun Associates & Archenfield Archaeology Ltd 2008

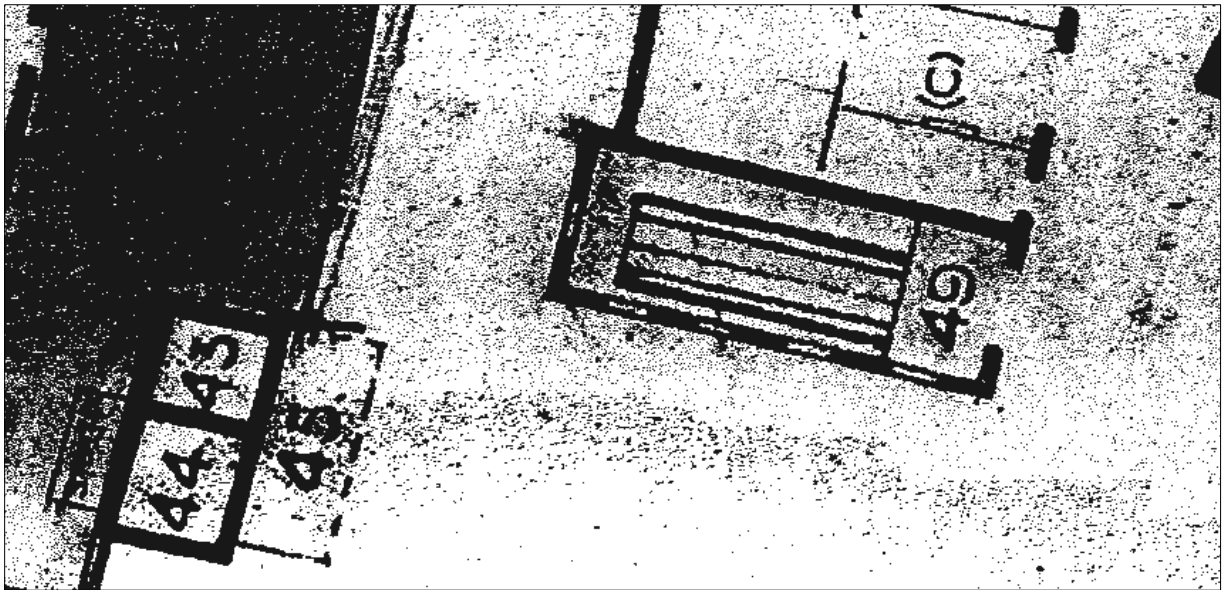


Figure 50: The Boiler House in 1937. The two flues suggest a single Lancashire boiler as shown in Figures 51 and 52.⁴²

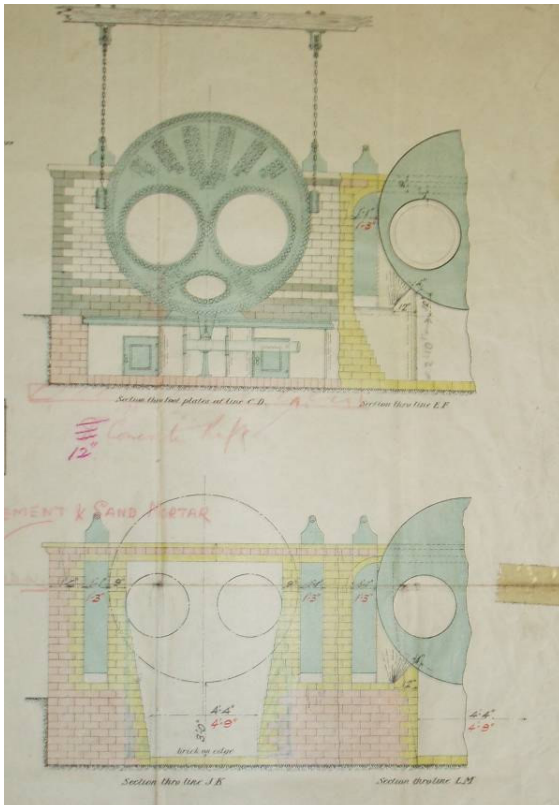


Figure 51: End elevation of a Lancashire boiler by the Scottish Boiler and General Insurance Company July 1934. This was possibly bought for the Boiler House in W2 (source: Worcester Porcelain Museum B2).

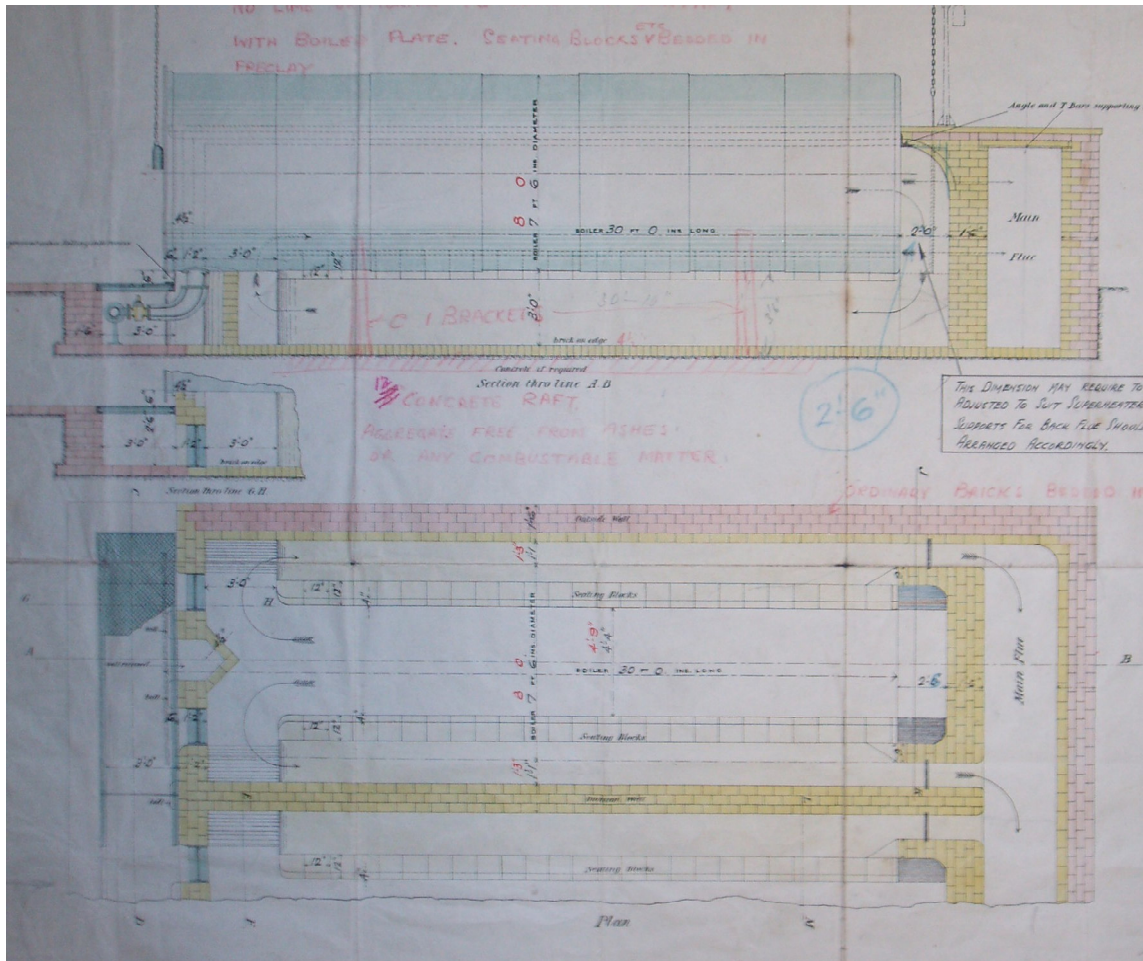


Figure 52: Plan and elevation of a Lancashire boiler by the Scottish Boiler and General Insurance Company July 1934. This was possibly bought for the Boiler House in W2 (see plan of 1937, Figure 50) (source: Worcester Porcelain Museum B2).

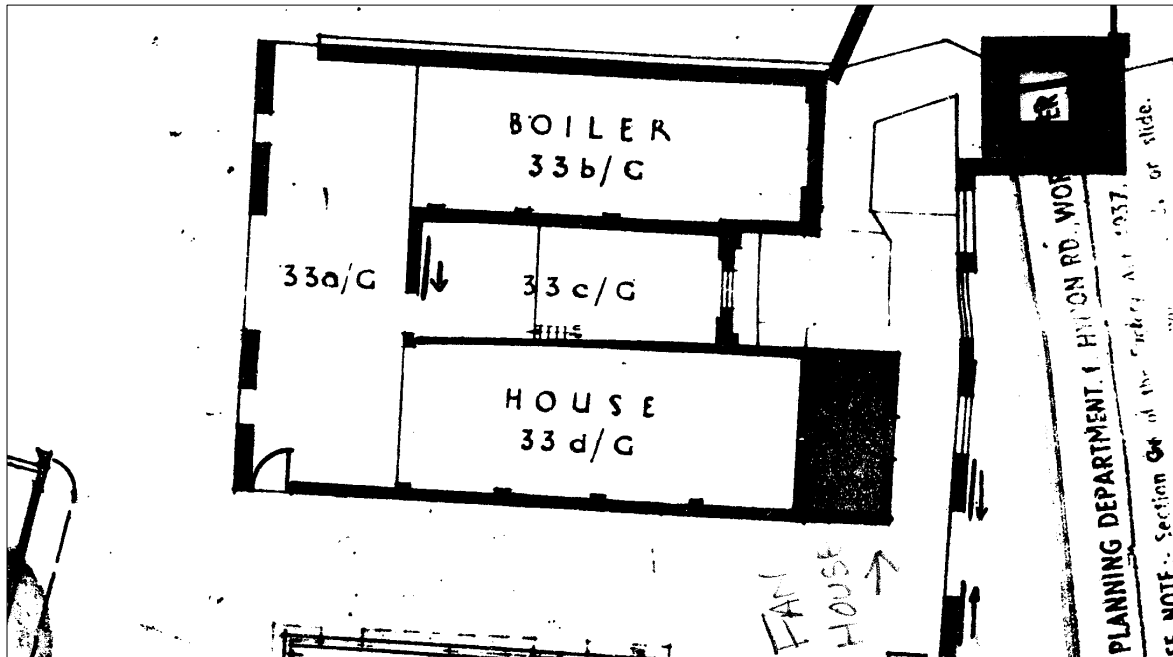


Figure 53: The 1950s boiler houses (east at top). The block to the bottom boiler (westerly) would have held the fan to assist draft⁴³

By 1941 there appear to be two boiler houses (Figures 49 and 50) one of which was no doubt the original of the 1890s. Plans of the 1960s show a different layout for two boilers (Figure 53) which were installed in the 1950s.⁴⁴ Although roughly on the footprint of the earlier ones these extend slightly beyond the east/west boundary. The western boiler was fan-assisted which suggests that there was difficulty in creating a draft for it.

Until 1984 the area of W2 was still occupied by the Boiler House but when the large W2 was built they were then moved into the cross-wing of Building Z. From here these gas-fired boilers continued to provide steam for processes and heating for both the Severn Street site and Albion Mill on the other side of Mill Street until removal in December 2002.

43 City of Worcester Planning Application 12645 (16.9.1960)

44 Pers com Wendy Cook of Worcester Porcelain Museum

The Building of W1 and W2

The location of these new buildings is shown in Figure 54. After the war there was little building activity apart from the boiler houses until July 1959 when the massive shed W1 was planned to cover the area of the Potters' Rooms, Blacksmiths' Shop, Fitters' Shop and Frit House. These were totally cleared but the basement to the Potters' Room partly retained to take the lift well. Plans and elevation of the building are shown in Figures 55 to 57 (exterior photographs can be seen in Figures 58 to 62 and interiors, Figures 63 to 67). There are no elevations for the south side as it shared a common wall here with Building Y. This was the part that was single-storey in the rebuild of 1937 (Figure 38), thus the new Building W1 not only replaced the 1890s buildings (Figure 12) but also the open yard created in 1937 from where the 1875 Slip Kilns lay (Figures 36 and 37).

Together with Building W2 it was known as the Potting Block with slip casting and assembling taking place on the first floor and the top floor given over to mould storage. After assemblage the unfinished products were taken across Prince's Drive by the bridge (Figures 62 and 63) into Building T where the tunnel kiln was located on the first floor for obvious convenience. Another bridge (Figures 59 to 61) crossed into Building K3 where moulds were stored, again for convenience.

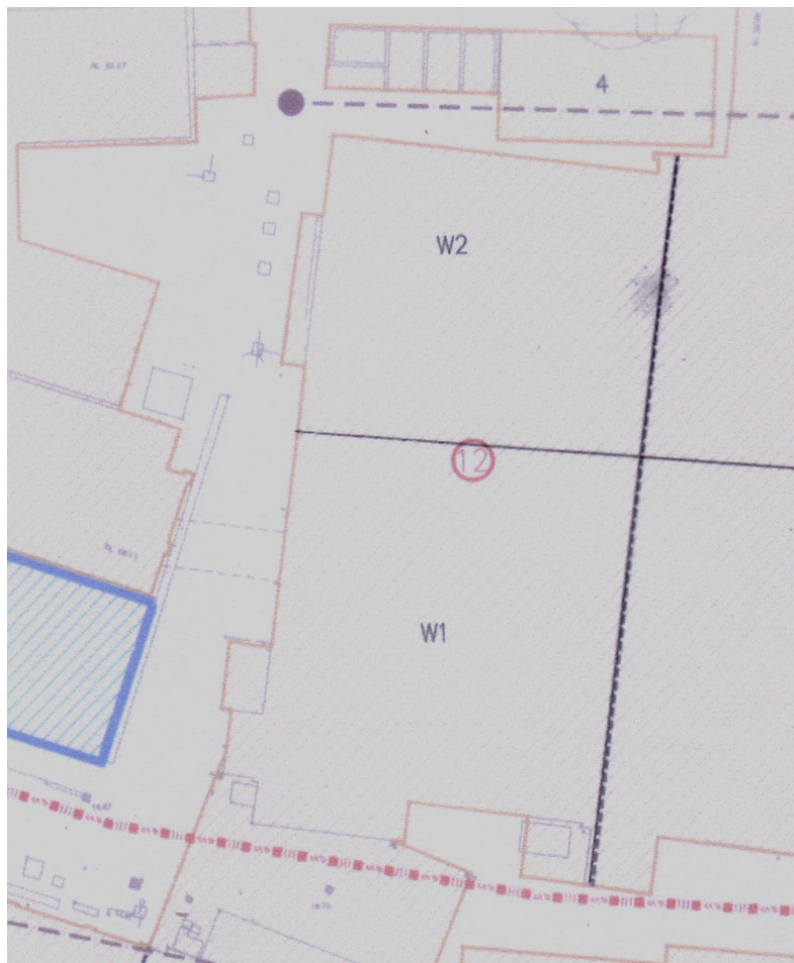


Figure 54: Building W1 (bottom) and W2 (top) (from drawings by Berkeley Homes' architects)

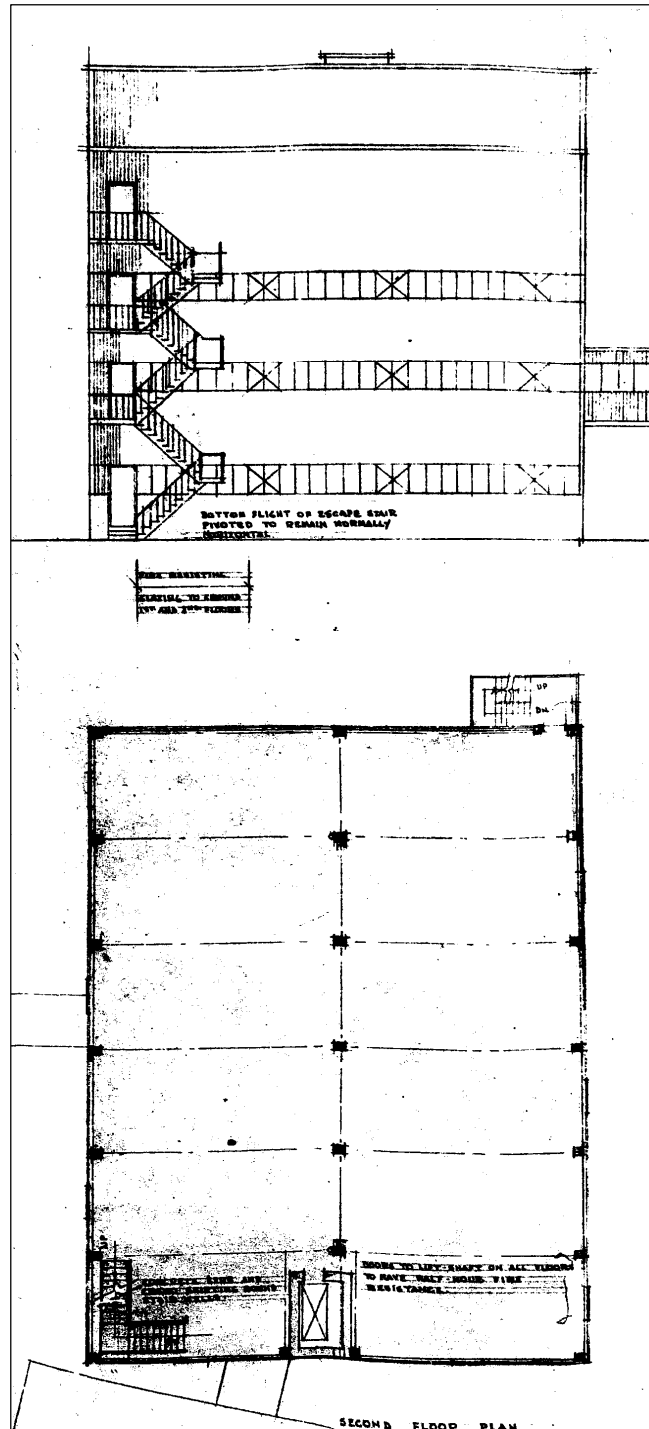


Figure 55: Building W1. Top: east elevation. Bottom: second floor plan. The rectangle at the bottom is for the lift.⁴⁵

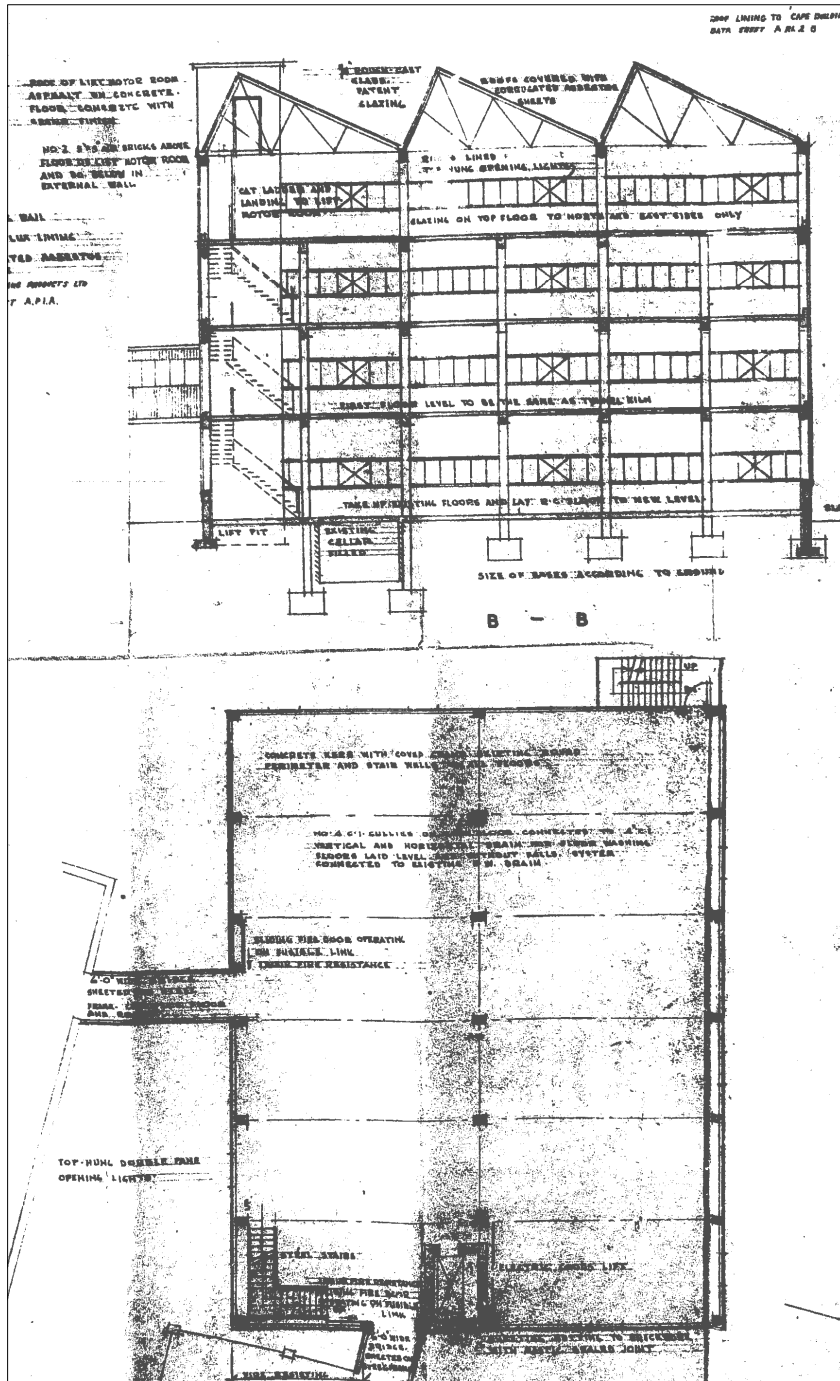


Figure 56: Building W1. Top: south elevation. Bottom: first floor plan.⁴⁶

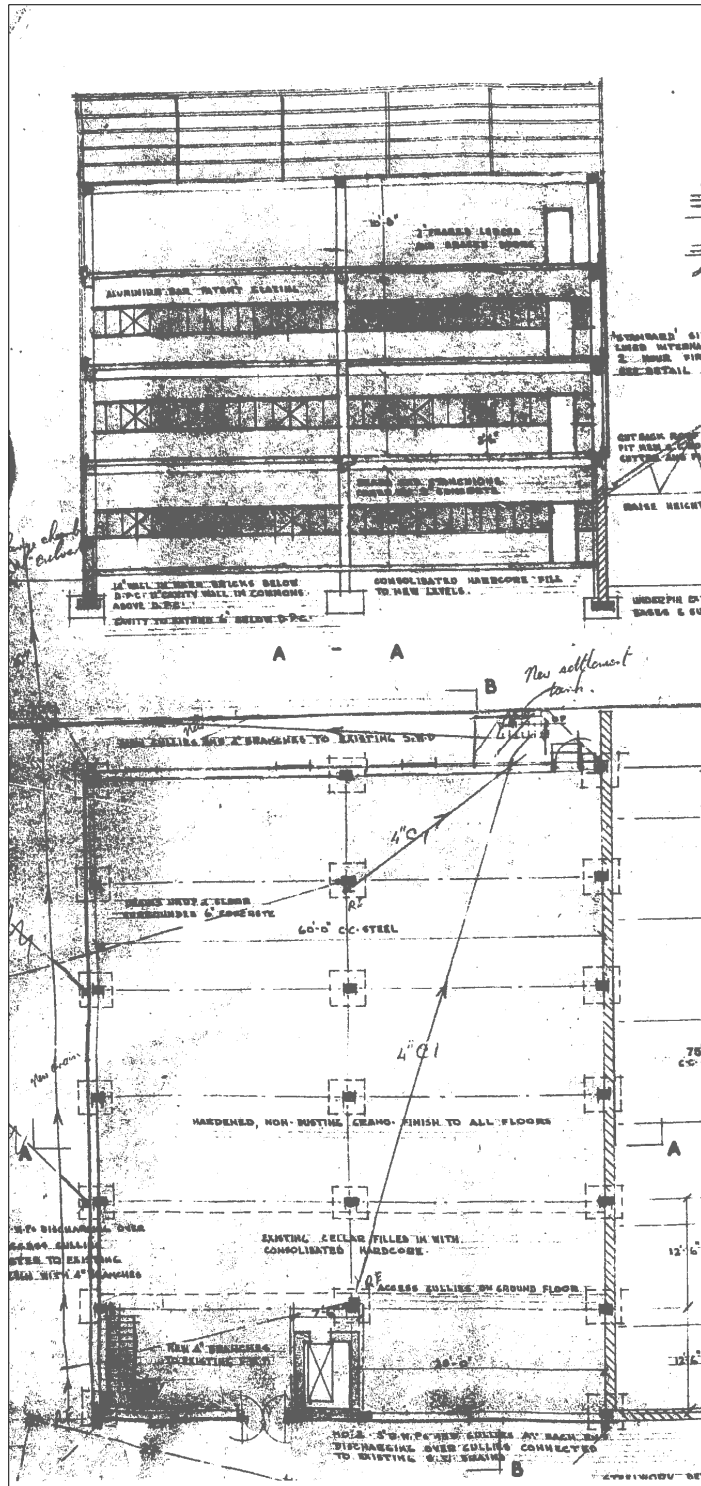


Figure 57: Building W1. Top: west elevation. Bottom: first floor plan.⁴⁷



Figure 58: North elevation. Building W1 (right) with Building W2 (the brown building to the left).



Figure 59: Building W1. Looking east towards the canal. The bridge joins to Building K3 on the left.



Figure 60: The bridge between Building K3 and W1, looking west



Figure 61: The bridge to Building K3 from Building W1



Figure 62: Building K2 (right), Building S (front) with the bridge from Building W1 into Building T (left)



Figure 63: General view of ground floor of Building W2



Figure 64: Ground floor of Building W2, looking north-west into Building W1



Figure 65: The roof of Building W1, looking north-east



Figure 66: The 'saw-tooth' roof of Building W1, looking south-west



Figure 67: The 'saw-tooth' roof of Building W1, looking south-west. Plate making was on the first floor (together with a tunnel kiln), the cup making shop on the second floor and mould storage on the third floor.

Building W2 was built partly on the eastern part of the Frit Kiln, the Fitters Shop and the Boiler House of the 1890s (see Figure 14) and the Boiler Houses of the 1940s and 1950s. The 1890s buildings were presumably demolished in the late 1950s when the modern Building W1 was erected. We have seen that the 1950s Boiler Houses remained until the new building was put up in 1984. Plans and elevations are shown as Figures 68 to 70 and exteriors as Figures 71 and 72.

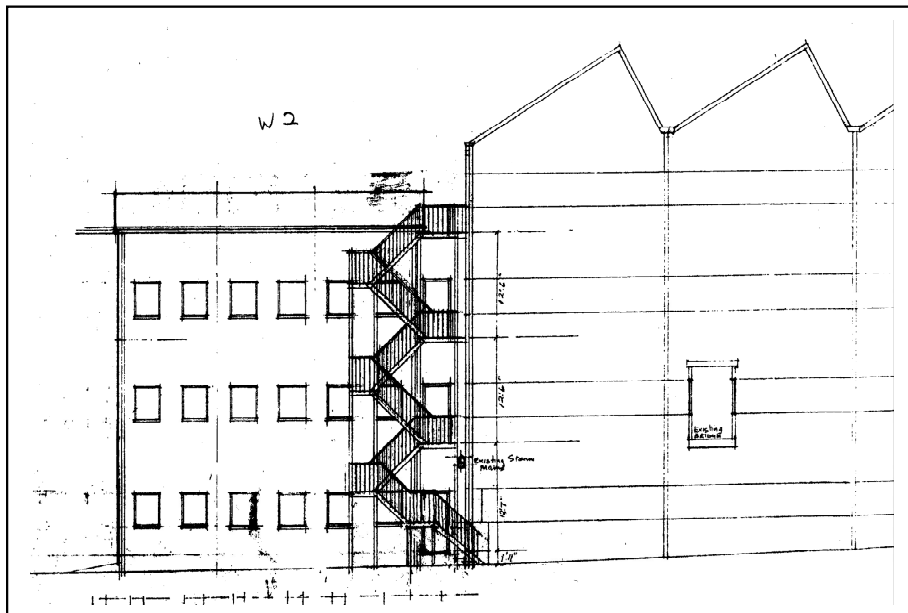
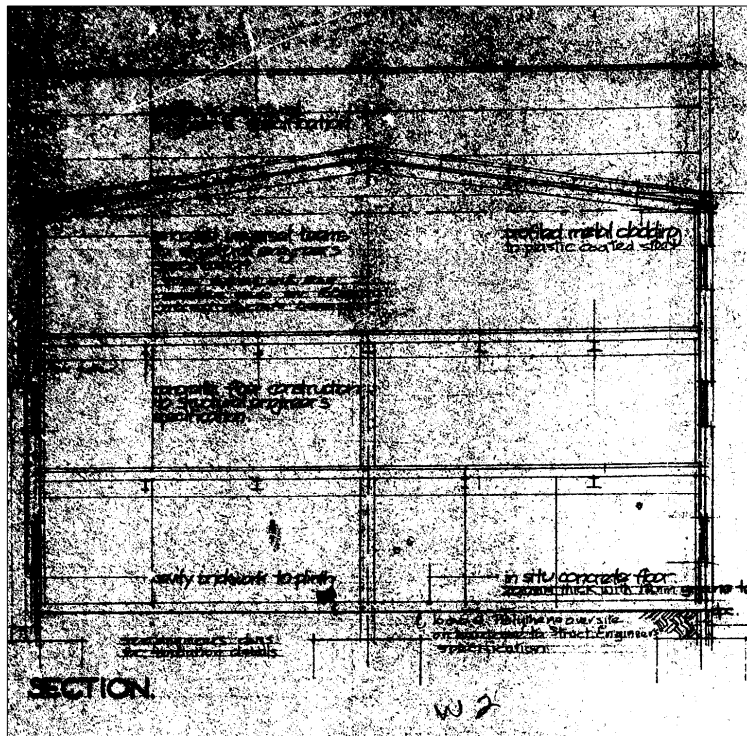


Figure 68: Building W2 north elevation⁴⁸



Building W2 north/south section⁴⁹

Figure 69:

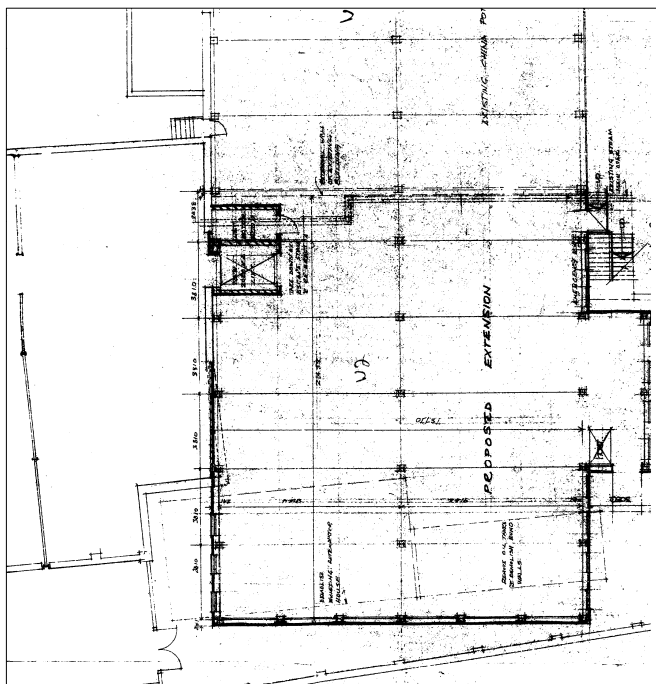


Figure 70: Building W2 plan. The extension to the right is the fire escape.⁵⁰

49 City of Worcester Planning Application 84/1079 (11.6.1984)

50 City of Worcester Planning Application 84/1079 (11.6.1984)



Figure 71: Building W2 with Building W1 beyond with the bridge into Building K3



Figure 72: Building W2 (right) looking towards the cross-wing to Building Z. The canal lies to the left. Behind it W2 to the canal were three large oil tanks and a single-storey alternator house, built in 1972 (of breeze blocks with a flat felt roof). The yard was used for storage of kiln furniture.

The Building X, the Mould Store and Building X1, the Gatehouse

So far little mention has been made of the gate and the Gatehouse. There was a gate here in 1875 and there must therefore have been a boundary wall. Until then the site boundary lay west of Prince's Drive where access to the site was via the Back Lodge around Building G. It was only when the site was expanded towards the canal that a boundary wall in the south part (and therefore a gate) was needed. Today the gate appears to be on the site of the original gateway but in 1889 (Figure 11) it seems to have been considerably wider. Figure 73 shows the gate at roughly the time of the Royal Visit with two small gates either side of the main double gate. Although the 1889 source shows only two gates over the whole space it seems likely that this is an error, and that it should have shown side gates which would then have taken up the whole space shown in 1889 leaving two piers in the centre. If this assumption is correct then the side gates were additions which were later lost, probably at the time that the extension to the Mould Store of the 1870s was made. If this is so this would account for the width shown in 1884 (Figure 4) and the surviving east pier to be seen today being on the original site whilst the Gatehouse occupies the area of the small west gate shown in the photograph (Figure 73).



Figure 73: The south gate before the Gatehouse (X1) and Building X were built. There was a small narrow doorway on both sides of the double back gates to the factory. These may pre-date the 1880s Royal Visit of the Prince and Princess of Wales. The building on the left occupies the site of W1 (Potters' Shop) and should not be confused with Building Y (source: Worcester Porcelain Museum).

The Gatehouse was in place by 1936 and its companion the Mould Store (Building X) at the same time. This chimes fairly well with the change of the 1870s Mould Store to a sagger house and the need to find an alternative.⁵¹

In 1941 alterations to the back lodge to “form a ‘Watchers Post” were suggested. This included barbed wire added to the wall and bricking up the doorway, but it is unlikely to have been carried through as the building remains as it was in 1941 prior to the suggested alterations. As a shadow factory, the Severn Street Works was a high security area during the war. Fire watches were kept every night and the factory even had its own Home Guard.

In the 1970s and 1980s Building X was used for ‘Rectification’ of imperfections in bone china models. Graham Darling specialised in the re-finishing of complex limited edition models to bring them up to Best Standard. From the 1980s the building was used again for mould storage.

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John van Laun PhD FSA MIFA

51 Schofield Co Incorporated Insurance Brokers Royal Mail House, Manchester and London January 1936