

# **HARVEY'S FOUNDRY, HAYLE**

## **DRAFT CONSERVATION PLAN**

### **24 FOUNDRY SQUARE AND FORMER DRAWING OFFICE**

TR27 4HH



**PREPARED FOR**

**PENWITH DISTRICT COUNCIL**

**AND**

**HARVEY'S FOUNDRY TRUST**

**BY**

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**FEB 2002**

**HARVEY'S FOUNDRY, HAYLE**  
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**DRAWING OFFICE**

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## 1 SUMMARY

This conservation plan relates to two buildings which were the administrative offices and drawing office of the former Harvey's Foundry in Hayle, Cornwall. This 18<sup>th</sup>/19<sup>th</sup> century industrial site is the subject of a major heritage regeneration project, coordinated by Penwith District Council, the first phase of which is due to commence on site in the summer of 2002.

Harvey's Foundry operated from 1779 to 1903 producing plant and equipment for the Cornish mining industry, notably beam engines. It was one of the three most important Cornish foundries, exporting to many parts of the world and had close links with some of the great engineers of the industrial revolution such as Trevithick and Woolf. Harvey's other activities included shipping, ship building and general trading.

After the closure of the foundry, the buildings were put to various uses but gradually fell into decline, and with the exception of those which front onto Foundry Square are all now unused and in varying states of dereliction. The former office building (24 Foundry Square), the drawing office behind it and the associated structures which are the probable remains of the earliest furnace bases on the site are listed grade II\*. There are 8 grade II listed structures within the foundry regeneration site and 6 associated listed buildings in Foundry Square. The foundry site is within the Hayle Town Conservation Area, although its core is excluded from this designation. Harvey's Foundry has been identified as a key industrial site by the Cornwall Archaeological Unit (CAU) in a current bid for World Heritage Site status.

The foundry site lost much of its historic fabric and artefacts during the 20<sup>th</sup> century as a result of neglect, demolition and adaptation of buildings for other uses, although 24 Foundry Square and the former drawing office survived relatively intact. The underlying cause of this was the economic decline of the area combined with a lack of appreciation of the significance of the site. The current regeneration proposals have done much to eliminate these problems but the site will remain vulnerable until they have been properly implemented. Policies proposed for conserving and managing the site are

- The selection of appropriate uses for new and reused structures. For 24 Foundry Square and the former drawing office this has been satisfactorily resolved by the proposed conversion to an archive and office.
- Adoption of sound conservation practice in work to the historic structures.
- The review of the existing conservation area boundaries and the use of appropriate planning controls on adjoining sites in order to safeguard the character of the foundry site.

## **2 BACKGROUND**

### **2.1 Authorship and circumstances of the plan**

This plan relates to two buildings which are part of the former Harvey's Foundry in Hayle, Cornwall, an 18<sup>th</sup>/19<sup>th</sup> century industrial site which is of great historical significance. After closure of the foundry at the beginning of the 20<sup>th</sup> century, the buildings were put to various uses and gradually fell into decline, and in some instances dereliction and demolition, until in 1983 a local community initiative set in train a major project to conserve the surviving buildings and turn the site into a source of economic regeneration for the town of Hayle.

Since that date, a number of organisations have been involved in the project and several studies carried out and plans produced, as a result of which funding has been secured to enable the first phase of work on site to proceed.

The uses envisaged for the site as a whole are somewhat flexible but essentially comprise a museum/ heritage element including the display of large artefacts and the establishment of an archive relating to the history of the place, and the provision of workspaces and facilities for tourism and the arts.

The buildings with which this Conservation Plan is concerned are No 24 Foundry Square, formerly the foundry offices, and the former drawing office which is attached to No 24 and below which are the remains of what are probably the earliest foundry structures on the site. These, together with a new office/ workspace building on the former reservoir site constitute the first phase of the regeneration project.

The organisation principally responsible for the project is Penwith District Council. In addition to overall coordination, they have responsibility for securing and administering funding and site acquisition. In due course they will hand over the site to a trust that is to be formed from the Harvey's Foundry Development Group, which is described more fully below, and with which the Council are in close liaison. The buildings to which this report refers are in the ownership of the Council.

In October 2001, Penwith District Council appointed a consultant team to implement the first phase of the regeneration project, which also includes the preparation of a conservation plan for the whole site. This team consists of:

Stride Treglown	Architects and lead consultants
Smerdon and Jones	Quantity surveyors
Hoare Lea	M&E engineers
Airey and Coles	Structural Engineers
Parkes Lees Architects	Conservation architects

The Harvey's Foundry project site is partly within a conservation area and several of the structures are listed. Number 24 Foundry Square and the drawing office are listed grade II\*. The listing description is attached (Appendix 6)

The site is of great importance in the industrial history and archaeology of the region, and indeed the country, and is of considerable symbolic significance to the local community. At the same time, the standing structures have suffered from many decades of neglect and some are in a ruinous state, the local economy is depressed and the environment badly run down. The Harvey's Foundry project will bring together the economic and social regeneration of the area with the conservation of the site and buildings. The preparation of a conservation plan for the whole site is seen as essential to obtaining the optimum solution to the design and management of the project, the coordination of its diverse elements and the resolution of conflicting constraints.

## **2.2 The scope of the plan and limitations on the study**

Phase 1 of the regeneration project differs from subsequent phases in that it consists of the construction of a new building on a site which is apparently low in archaeological content (the reservoir) and reuse of the only complete and, until recently, occupied buildings, 24 Foundry Square and the former drawing office, whereas the other areas of the site contain either incomplete structures or areas where below ground archaeological investigation is required. It has therefore been decided to prepare a separate conservation plan for the existing phase 1 buildings. This will enable the design work to proceed on phase 1 in parallel with the preparation of the preparation of the conservation plan for the site as a whole.

The preparation of the plan has been coordinated for the consultant team by the conservation architects.

## **2.3 Relationship with other plans**

As mentioned above, this plan is being prepared in conjunction with a conservation plan for the whole of the Harvey's Foundry site. The Artefacts and Acquisitions Sub-Committee of the Harvey's Foundry Development Group, which includes the Museums Officer of Penwith District Council, is currently developing the policy for the collection of artefacts. The Cornwall County Archivist is also engaged in the preparation of a business plan for the archive which it is proposed to house in Number 24 Foundry Square and the drawing office.

## **2.4 The consultation process**

The implementation of Phase 1 of the project follows several years of investigation and planning by many organisations and individuals during which there has been extensive consultation. Relevant information from this process has been incorporated in a succession of reports which are listed in the bibliography and has been extracted for inclusion in this plan. In addition, information has been obtained from the District Council and Harvey's Foundry Development Group, to

whom the draft plan will be submitted for final comment. Consultation will also involve English Heritage, the Cornwall County Archivist and the Cornwall County Archaeological Unit.

## **2.5 Adoption of the plan by major stakeholders**

It is proposed that the plan will be formally adopted by Penwith District council, Harvey's Foundry Development Group and, when in existence, the trust to which management of the site will pass on completion of the project. The trust will also be the reviewing body for the Conservation Plan.

### **3 UNDERSTANDING THE ASSET**

#### **3.1 Brief history**

The industrial empire created by the Harvey family was central to the development of Hayle and its history is well documented in a number of publications which are listed in the bibliography, as well as previous reports produced for this project. It is not proposed to repeat this in detail, but a resume follows.

In 1779, John Harvey, the village blacksmith of Carnhell Green, near Camborne, opened a foundry at Hayle, the first in Cornwall to make cast iron pipes for mine drainage. He also traded in various goods and raw materials and was a ship owner from 1787. His son-in-law was Richard Trevithick, inventor of the first steam carriage, parts for which were made at Harvey's Foundry, and of the high-pressure steam engine.

After John Harvey's death in 1803, his son Henry took over and expanded the business, building steam engines for use in the mines, initially to Trevithick's designs and subsequently working with Arthur Woolf who became superintendent of the foundry in 1816, at which time it underwent a major rebuilding and expansion. In the same year, Trevithick left to pursue business interests in South America, leaving his wife Jane (Henry's sister) and their children without means of support. Subsequently, Henry took two of the sons into the business and in 1824 put Jane in charge of a newly built inn, the "old" White Hart Hotel in Foundry Square. In 1827, Trevithick returned from South America penniless and resumed work in the foundry but subsequently left Hayle again and died in 1833 in Dartford and was buried in a pauper's grave.

1816 also saw the start of one of many bitter disputes between Harveys and the nearby rival Cornish Copper Company over access for vessels in the Hayle estuary. Opinions differ as to the rights and wrongs of these conflicts. Having failed to reach agreement over shared use of shipping channels and quays, in 1818 Harvey straightened and deepened Penpol River and built his own quay in the face of legal and physical obstruction. The Cornish Copper Company built a quay opposite (the cause of a riot), which Harvey subsequently acquired in 1832 after lengthy legal dispute.

Rivalry was further fuelled when, following closure of their copper smelting activities, the Cornish Copper Company set up their own foundry in competition with Harveys. Further conflict arose when the Cornish Copper Company reduced the frequency of sluicing the channel making it difficult for large ships to enter the river. Harvey's response was to build a tidal pool and floodgates at Carnsew in 1834 to enable him to sluice the channel.

Harveys were engaged in milling from 1826 and in 1830 opened a grocery and hardware store. Production at the foundry was expanding and included

agricultural equipment, water wheels, gas lighting equipment and marine boilers. Lime burning, an activity of the foundry since the 1790s continued to thrive. Henry Harvey expanded his fleet of ships and in 1834 went into shipbuilding with the launch of the schooner *John Harvey*.

In 1833, Nicholas Oliver Harvey succeeded Arthur Woolf as Superintendent of the foundry. The size and efficiency of their engines increased and in 1838 the installation of a Harvey's engine at the East London Water Works opened up a new market. The Hayle Railway opened in the same year between Hayle Foundry and Redruth, the terminus being in Foundry Square. In the 1840s, Harvey's work included components for bridges, marine engines and a stationary engine for Brunel's atmospheric railway. They installed gas lighting in their premises in 1843.

Between 1843 and 1849, Harveys were involved in the building of the three largest pumping engines in the world, with 144-inch cylinders, to drain Haarlem Lake in Holland.

Prior to his death in 1850, Henry Harvey passed ownership of the business to his nephews and nieces, Harveys, Wests and Trevithicks. The Trevithicks subsequently withdrew and the firm was reconstituted with Nicholas and William Harvey, William and John West and William Rawlings as partners. The company's newly established business of building steamships thrived, one of their more famous ships being the *Cornubia*. In 1855 they purchased Porthleven Harbour and in succeeding years acquired premises in various parts of Cornwall, through which they conducted trade in coal, timber, building materials and china clay. Following receipt of further orders in London, they had premises beside the Thames. From the 1860s they exported equipment to South Africa and for a time had a branch there.

Nicholas Oliver Harvey died in 1861 and was succeeded by William Husband. In 1867 the Sandys, Carne and Vivian foundry, formerly the Cornish Copper Company, badly affected by declining economic conditions sold off their harbourside premises to Harveys, giving them complete control of the harbour and marking the end of the feud between the companies. The Copperhouse Foundry closed the following year and Harveys purchased its premises in 1875 and subsequently demolished them. The Cornish mining industry continued to decline but during the 1880s the effect on Harveys was offset by a large order from the Great Western Railway for pumping engines for the Severn tunnel. William Husband died in 1887.

After completion of the Severn tunnel project, the foundry made consistent losses and was supported by the firm's profitable trading activities. Eventually in 1903 the decision was taken to close the foundry and most of the machinery was sold for scrap. The effect on the town of Hayle was devastating. Harveys continued to trade in coal, timber and other goods, although their rope works closed in 1916

and they sold the last of their fleet of ships in 1933. Between the world wars they built up their trade as builders merchants and suppliers of domestic fittings. They subsequently became involved in timber engineering and other associated activities and in 1969 joined the UBM Group.

Harveys progressively withdrew from the Hayle foundry site. In 1960 they moved their offices out of 24 Foundry Square, the administrative hub of the foundry and shipyard since its heyday, into more up-to-date premises in the old boilermaker's shop, although this subsequently burnt down. The old office building was occupied by Slades metal Co and in the 1980s became '*Excalibur's Medieval Meadery*'. Penwith District Council acquired the building in 2000 as part of the current project.

### **3.2 Main Historical phases**

In 1995, the Cornwall Archaeological Unit produced an archaeological and historical evaluation of the Hayle Foundry site, including phase maps drawn to a common scale. This in turn referred to a time line held at the Cornwall Records Office taken from TR Harris' account of Harveys of Hayle. The CAU subsequently inspected 24 Foundry Square and recorded their findings in a letter of 4<sup>th</sup> June 1999 to Cllr Rob Lello (Appendix 7). Further phase maps were included in Harvey's Foundry Action Plan, Jan 2000 prepared by Gordon Lewis Associates. The parts of this information that are relevant to 24 Foundry Square and the former drawing office are set out in the following pages (paras. 3.2.1 to 3.2.6) and reference is also made to further published maps and the small number of illustrations and photographs of the buildings that have so far come to light. A phase plan of the buildings is included in Appendix 4.

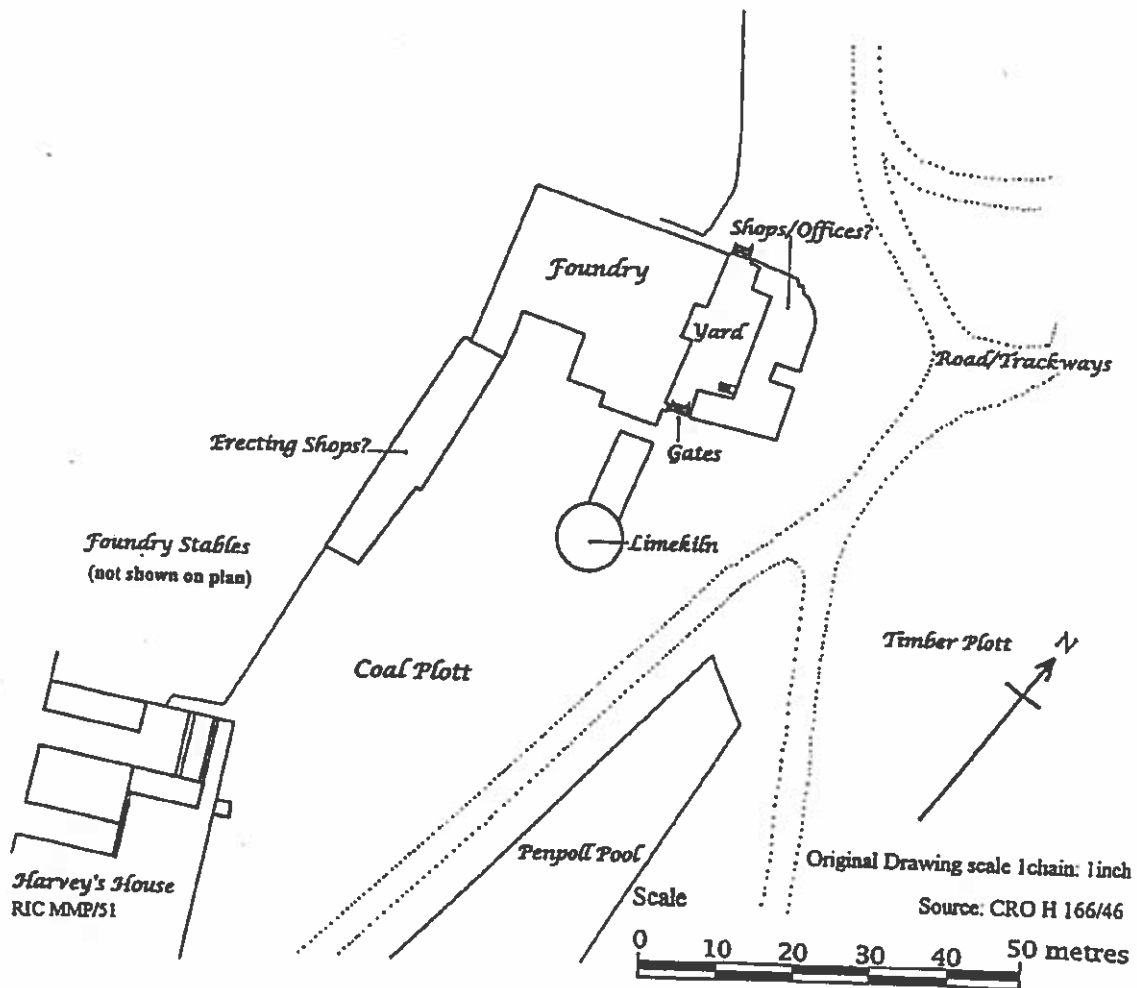
#### **3.2.1 Phase 1: 1779-1815 The Early Years**

A map of 1796 shows the foundry buildings to the west of the site of 24 Foundry Square. According to the CAU the foundry would have possessed at least one air (reverberatory) furnace and was producing iron and brass components for steam engines, iron pipes for pumps, cast stoves and a range of mining equipment. On a map of 1815 buildings are shown on the site of 24 Foundry Square and the adjoining 23 Foundry Square, facing what would have been the marshy head of the inlet. The CAU have interpreted these as being shops and offices. They were separated from the furnaces and casting floors by a courtyard which was gated at the north and south ends.

#### **Survivals:**

In their 1995 report the CAU were of the opinion that almost nothing survived from this early period but that the present-day arched entrance on the north side of no 24 was almost certainly on the site of the gated opening shown on the 1815 map. However, they revised this opinion in 1999, concluding that "The rear of the building preserves within it substantial remains of part of the original pre-1800 foundry including an oven, several arches, doorways fronting the original courtyard, a substantial part of the original yard, including cobbles and drains

(This was the principal entrance for many decades and was the principal access to the foundry) and a small part of the original office block looking onto the courtyard”.



### *The Foundry in 1815*

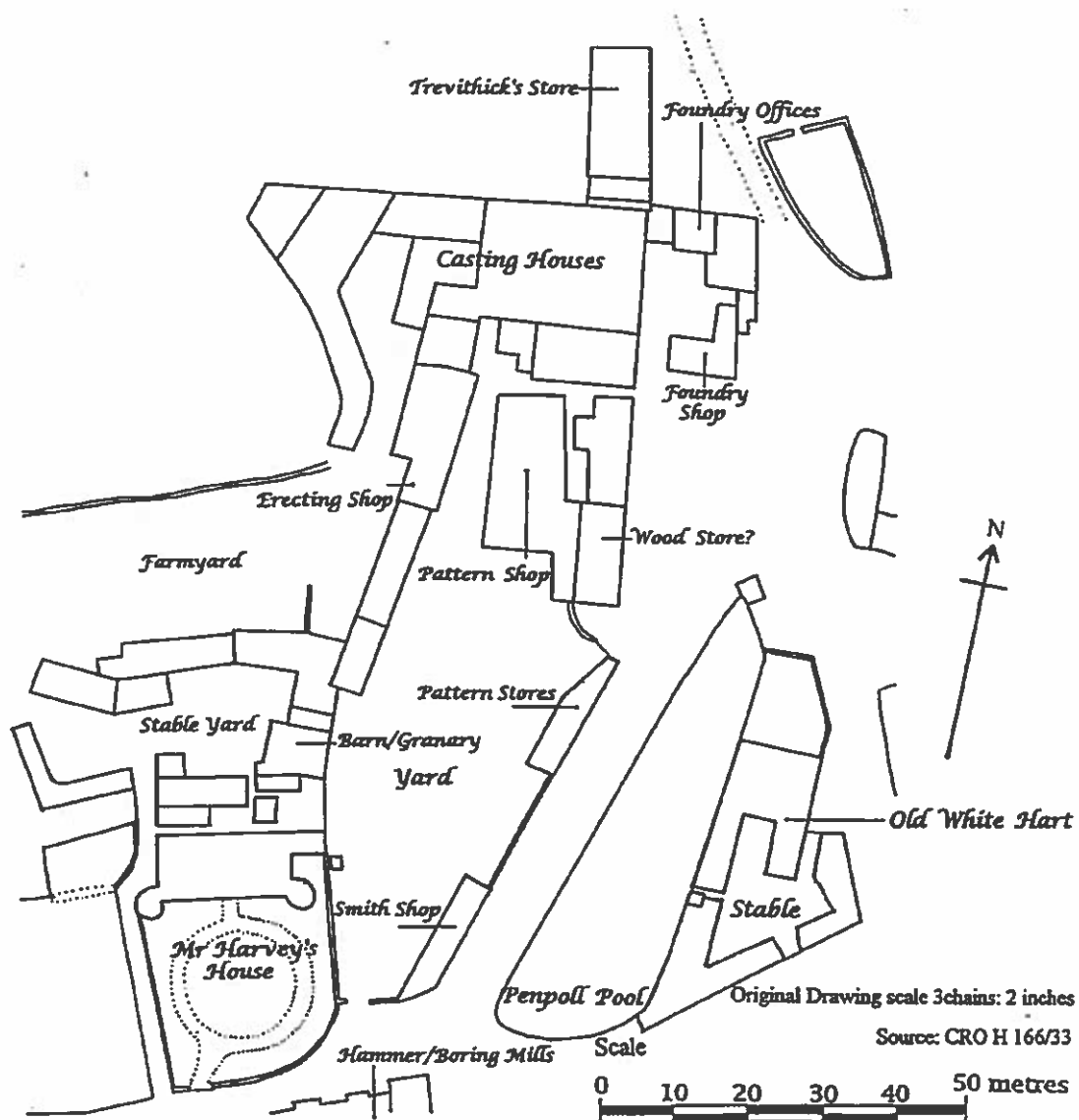
*From CAU Archaeological and Historical Evaluation 1995*

#### **3.2.2 Phase 2: 1816-1835 The Foundry Under Arthur Woolf**

By 1835 the foundry site had undergone considerable and crucial expansion under the leadership of Henry Harvey and Arthur Woolf, becoming a manufactory and engineering works rather than a small ironfounders. In 1816 the casting floors and foundry were enlarged, cupola furnaces being added by the 1820s. The building later known as Trevithick's Stores had been added to the north of the old foundry and offices were built over the original northern gateway.

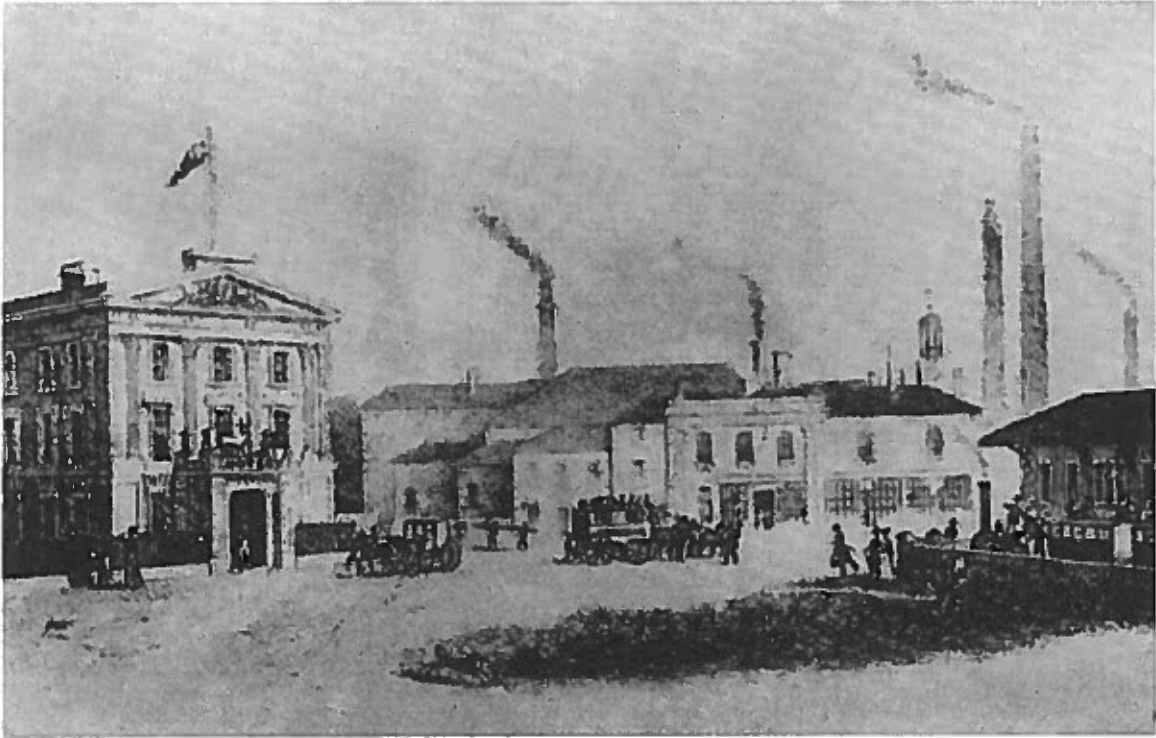
### Survivals:

The CAU note that the building next to the viaduct known as Trevithick's Stores appears to be a late 19<sup>th</sup> century rebuild of a structure dating from the ca 1830 period. It could however be that the rear (west) wall and the party wall with the foundry offices survive from the original building. It is also possible that the structure of the office staircase and toilets relates to this phase of the foundry. The plan form of the offices and foundry shop shown on the 1835 map differs from those on the 1815 and 1853 maps but the information which this gives is insufficient to indicate whether any of the surviving fabric of 24 Foundry Square dates from the second phase.

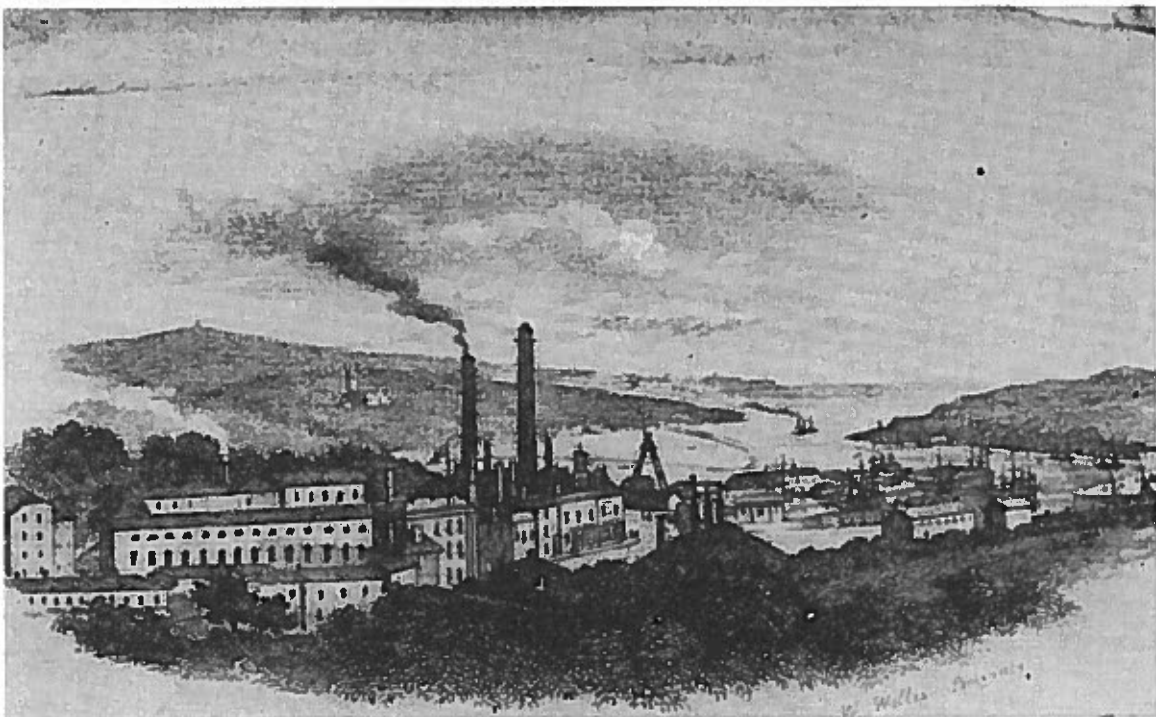


*The Foundry in 1835*

*From CAU Archaeological and Historical Investigation 1995*



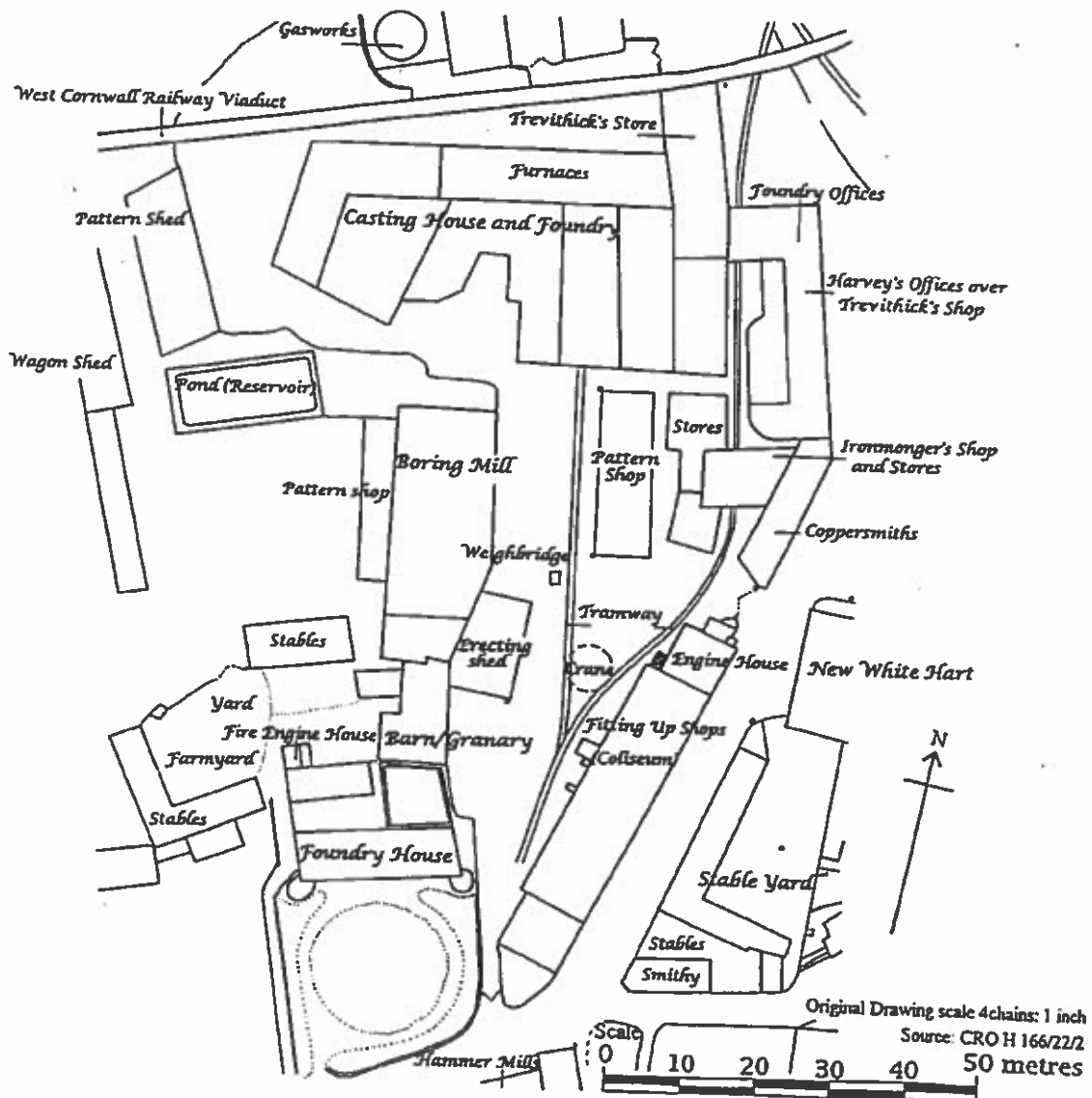
*Foundry Square circa 1845 looking towards the foundry with the office building on the right behind the station and the new White Hart on the left.*



*Hayle Harbour and Harvey's Foundry circa 1845. The cupola of the office building can be seen to the right of the foundry chimneys.*

### 3.2.3 Phase 3: 1836-1853 The Foundry at its Peak

Between the 1830s and 1850s the foundry underwent further change in response to the increased demand for large pumping engines. The iron foundry and casting floors were again expanded and the buildings fronting Foundry Square were redeveloped as a range of new Offices and Shops, with a new Ironmongers Shop built as an extension to the south. The railway line was extended from the quays into the foundry through the entrance arch on the north side, an event possibly linked to the building of the West Cornwall Railway viaduct across Foundry Square. The reconstitution of the partnership in 1852 after the death of Henry Harvey resulted in the separation of the Trevithicks' interests which included shops and stores facing Foundry Square.



*The Foundry in 1853*

*From CAU Archaeological and Historical Investigation 1995*



*Hayle circa 1852 with the newly constructed railway viaduct passing north of the foundry. This lithograph is broadly accurate but some details are incorrect.*

#### **Survivals:**

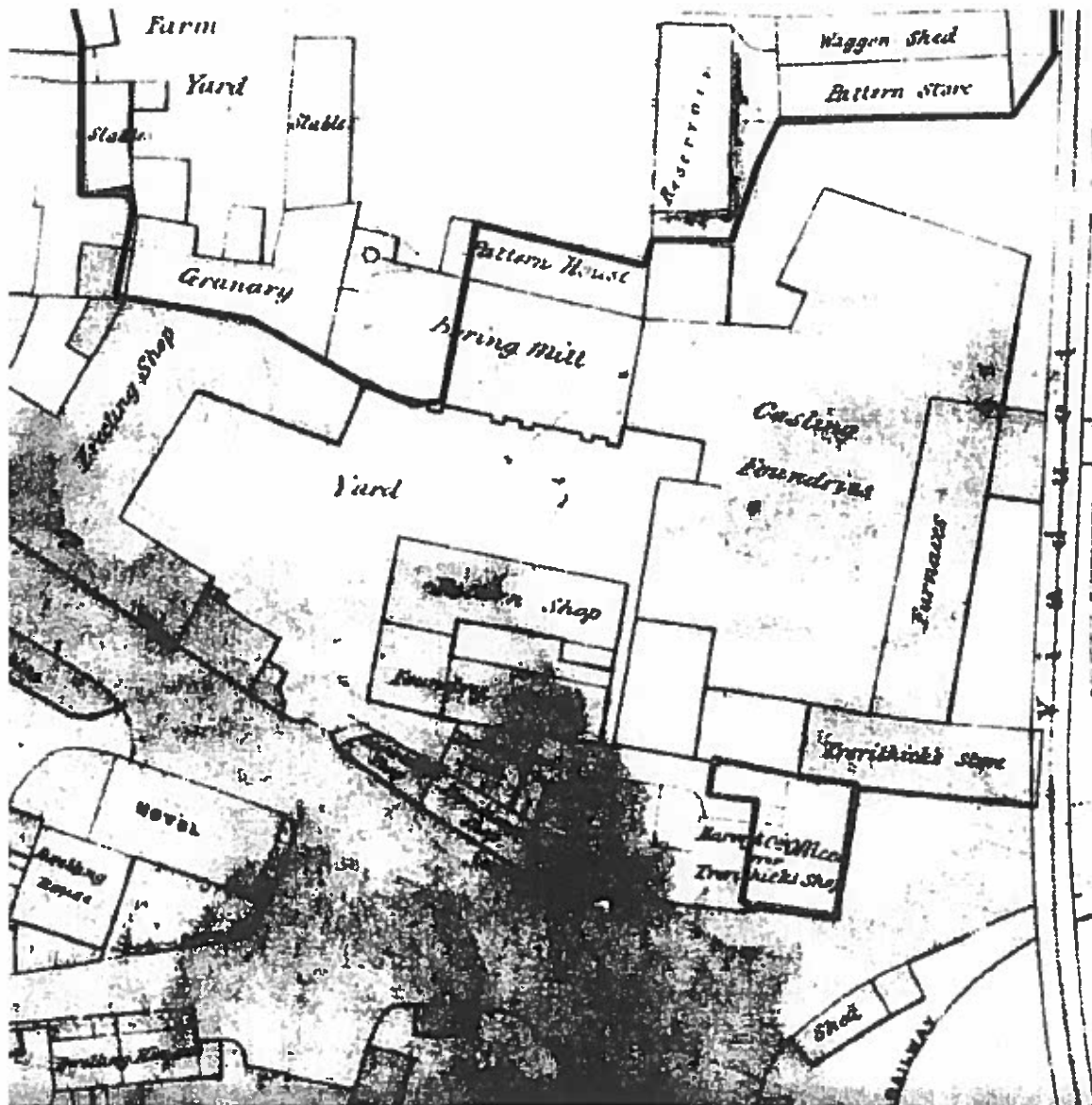
The CAU observe that the impact of this period on Foundry Square was far-reaching and much has survived to the present day. They note that the complex now consisting of *Excaliburs*, Barclays bank and Foundry House (18 to 24 Foundry Square) are all survivors from this phase, though in some cases altered.

In their June 1999 report, the CAU conclude that the main part of 24 Foundry Square is the pre-1845 new office block with clock tower. Presumably they interpret this as being post-1835 although they go on to say that part of the pre-1845 changes involved building over the northern part of the yard and carrying this on an arch (which still survives). This gateway was built over pre-1835, which raises the question of whether this was subsequently rebuilt. The window and ceiling heights of the upper storey compared with the eaves height of the west elevation facing the foundry yard tend to suggest such a rebuild.

It is also interesting to note that the present external east wall to the upper storey is timber framed and that this form of construction returns onto the north elevation to the extent of the former shop front. This suggests that the timber framed construction dates from the insertion of the shop front. The question remains, however, whether this was the shop front shown in the 1845 view of Foundry Square or that which replaced it and which appears in a photograph of about 1883 (see 3.2.4).

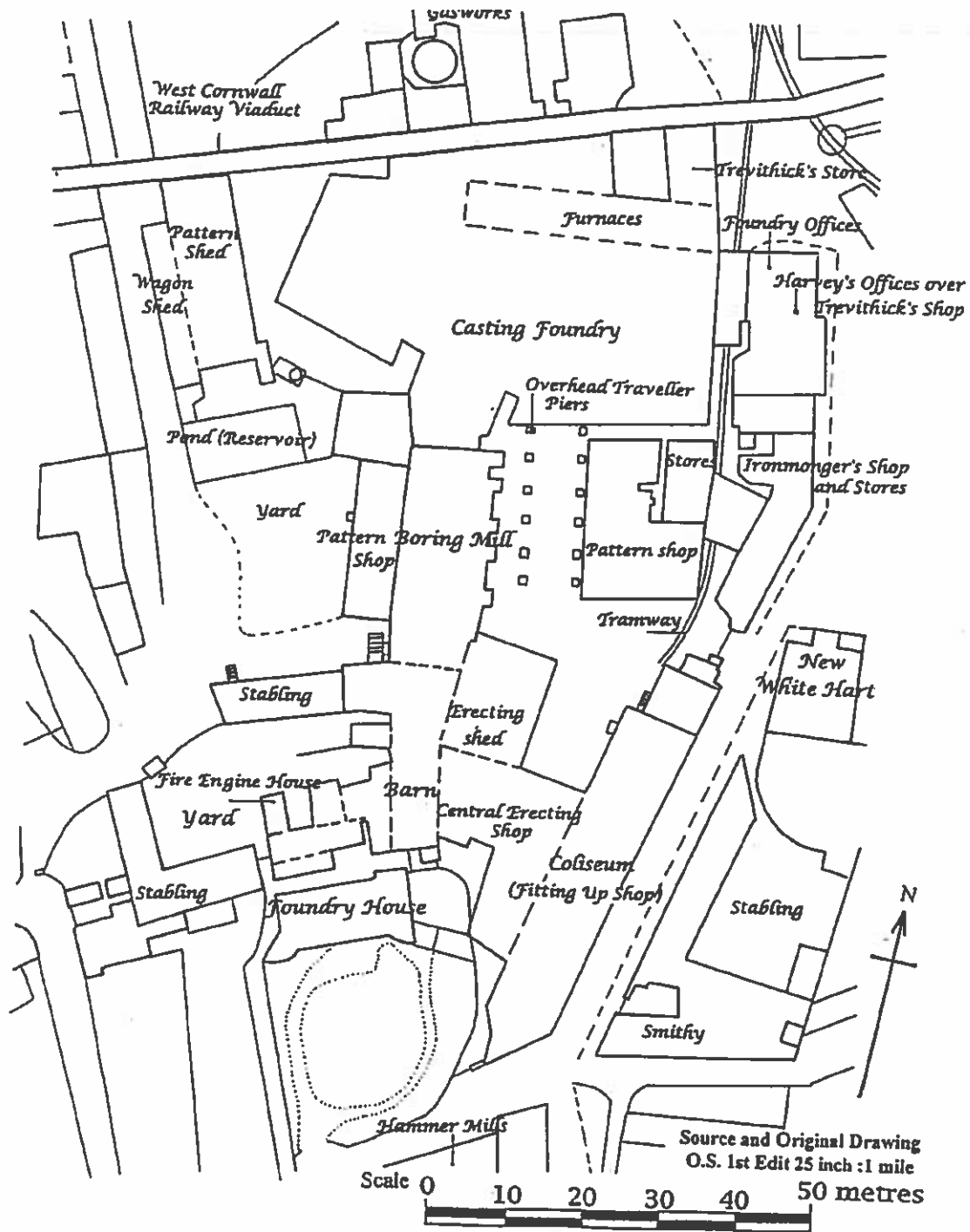


appear on the 1864 phase map but is on a copy of an 1864 map included in the CAU report of August 2001. The drawing office was therefore built before 1879 and quite possibly before 1864. The 1999 CAU report noted that the floor over the strong rooms behind the office stairs are constructed with Barlow rails and that such rails were used on the West Cornwall Railway and weren't replaced until late in the century, suggesting an approximate date for this part of the building. To be precise, the replacement of Barlow rails on the West Cornwall Railway commenced in 1861 and continued until at least 1865.



*Extract from a plan of the Foundry in 1864.*

*From CAU Historic Buildings Survey and Archaeological Evaluation 2001, Source CRO.*



### *The Foundry in 1879*

*From CAU Archaeological and Historical Investigation 1995*

#### **Survivals:**

The drawing office, and probably the ground floor strong rooms (and consequently the toilets above) survive from this period.

A recently discovered photograph shows the Foundry Square frontage of 24 Foundry Square, the adjacent *Emporium* (no 23) and Trevithicks' Stores (now Whites), and was taken when the railway viaduct had a timber deck, i.e. between 1852 and 1886, probably closer to the later date. This photograph shows a shop front to no 24 which must have replaced that shown in the 1845 illustration, having larger panes of glass and apparently lighter framing. The iron columns supporting the floor above can be clearly seen. Further investigation would be required to establish whether the timber framed structure to the upper storey replaced a masonry wall to allow the lightening of the shop front or whether it had existed in 1845. One obvious change since 1845 is the replacement of the first floor window in the left hand half of the east elevation by a pair of windows. An ornamental feature also appears below the window cills.



*View from Foundry Square, probably circa 1880 showing from left to right The Emporium, 24 Foundry Square, Trevithicks' Stores and the railway viaduct, which at this time still had its timber deck.*

*Photograph supplied by Mr A Blandford via Harvey's Foundry Development Group.*

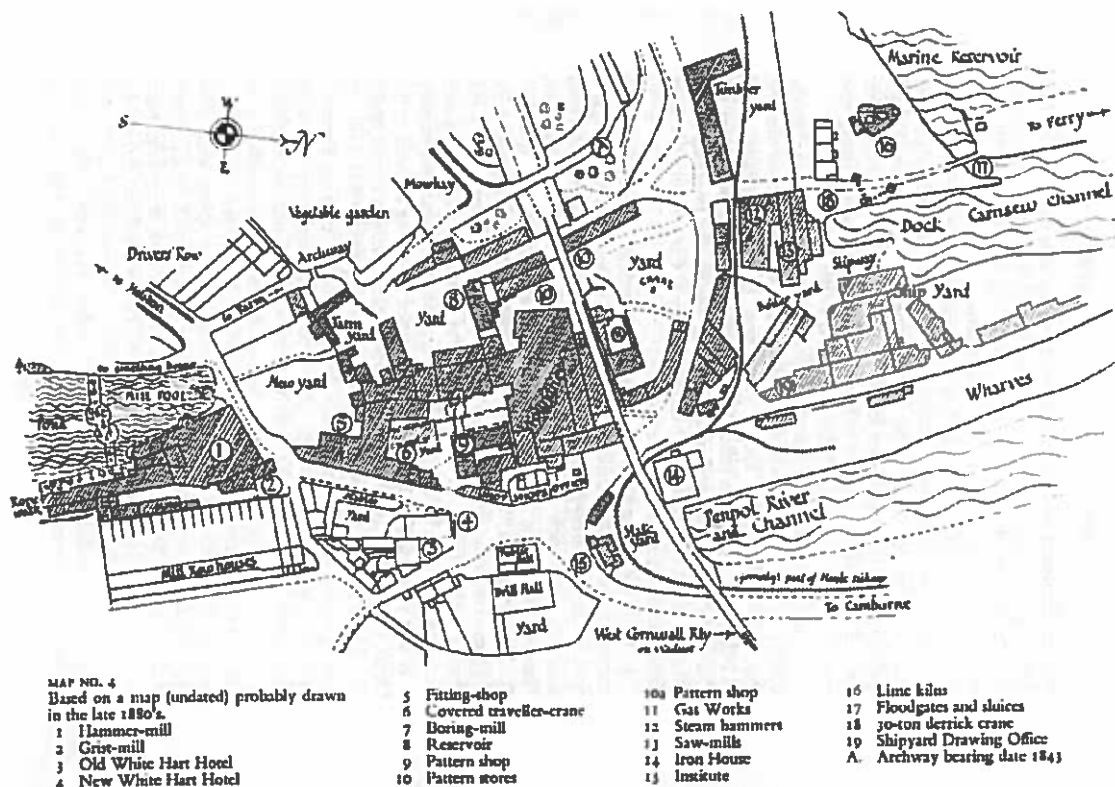
A further minor change which probably occurred during this phase was the elimination of a roof hip between 23 and 24 Foundry Square which appears in the 1845 illustration. The existence of this feature is confirmed by the survival of hip rafters in the roof space. Its removal may have been to eliminate a source of leaks but may have been carried out at the same time as the alterations mentioned above. It may also have been that there was more general re-slating, perhaps coinciding with works to the drawing office roof.

### 3.2.5 Phase 5: 1880-1903 Decline and Closure

During this period of decline there were few alterations to the site and the CAU note that on its closure in 1903 the foundry was much as it had been in 1880. The 1903 map seems however to indicate an extension to the southern end of the drawing office and this is confirmed by evidence in the surviving roof structure (see 3.3.4).

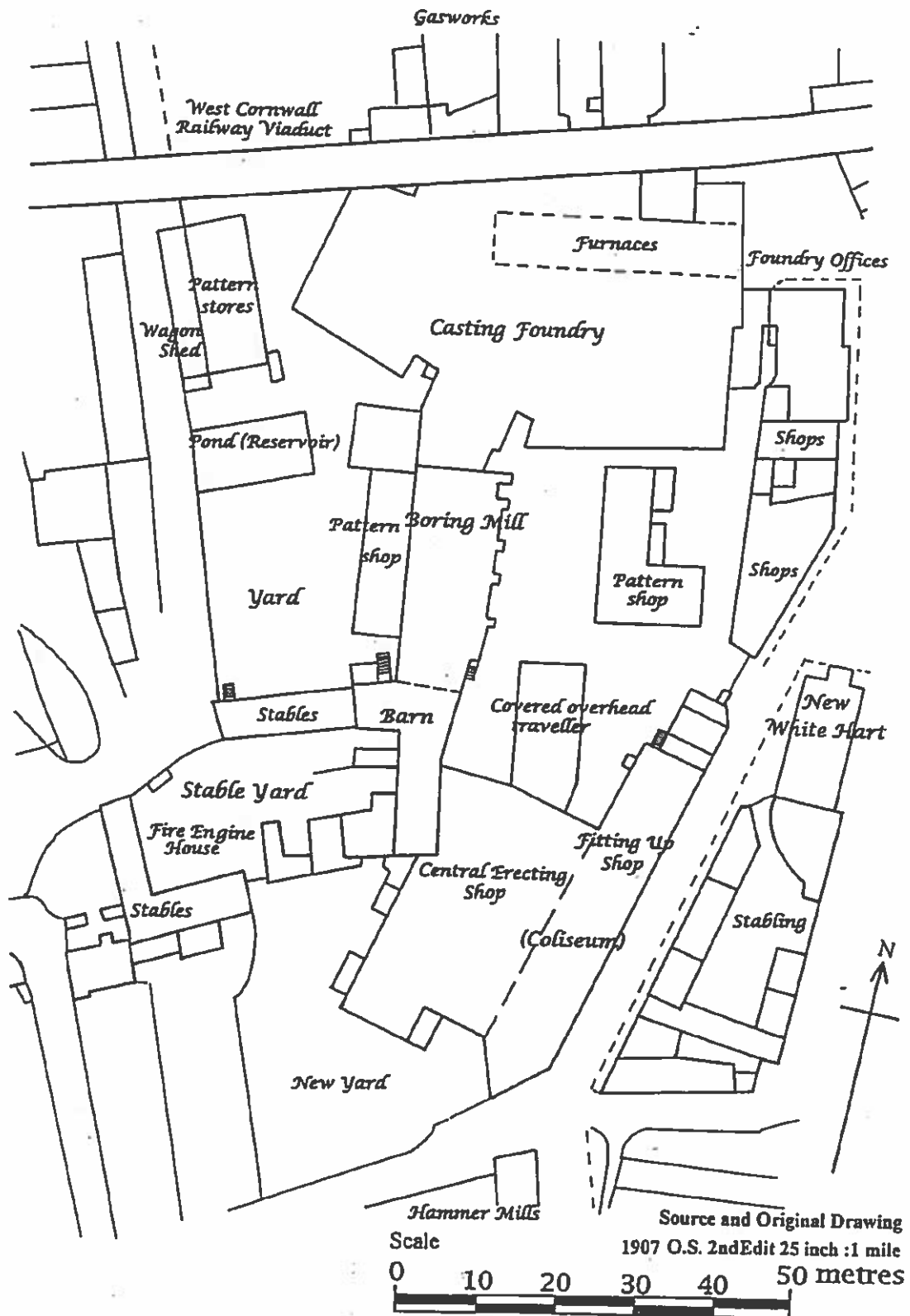
#### Survivals:

Other than the probable extension to the drawing office none of the present-day structures appear to date from this period.



*The Foundry in the late 1880s.*

*Source: E Vale. 'The Harveys of Hayle'*



*The Foundry in 1903*  
*From CAU Archaeological and Historical Investigation 1995*

### 3.2.6 1903 to the Present-day

Evidence for the dating of alterations to the building after 1903 is from inspection of the building, a few photographs, and personal recollections, principally of Mr Brian Sullivan, a highly respected local historian who worked in the building during the 1940s.

Before World War II, the ground floor of No 24 was Houses Grocery Store. In April 1941 the southern section was used as a first aid post and the shop front was replaced with blockwork. The drawing office was one large room until 1947 when the present partitions were inserted. The cupola to the clock tower was replaced with the current shingled roof in 1951.

The most radical changes to the building during this period are those made in the creation of *Excalibur's Medieval Meadery*. Most of these are cosmetic but a large section of the first floor to the main office has been removed and a staircase inserted, the space below the drawing office has been enclosed and a solid floor laid over the yard paving, and various walls and partitions added or altered.



*Foundry Square in 1920s/30s. The foundry offices are in the background, partly obscured by the old railway station.*

*Source: Cornish Studies Library, Redruth.*



*Hayle harbour from the air 1960*  
*Source: E Vale. 'The Harveys of Hayle'*



*Hayle viaduct in 1959 with the foundry in the background. 24 Foundry Square is on the left.*  
*Source: P Hay, 'Steaming Through Cornwall'*

### **3.3 Description of important features**

The building is illustrated in the survey drawings attached as Appendix 2 and recent photographs, Appendix 3. There are four main elements- the furnace bases and foundry yard, the staircase block, the main block containing the shops and offices, and the drawing office.

#### **3.3.1 Furnace bases and foundry yard**

It is apparent that the foundry buildings, which formerly stood along the west side of the office building, underwent a succession of modifications. An ad hoc collection of incomplete rubble masonry structures survives. At the northern end these form part of the lavatory and staircase block. They are built of a variety of types of stone, mainly granite, and incorporate what appears to be a furnace base and flue (in room G.14), and sections of red brick arches. A small room, G.13, survives as part of the supporting structure to the drawing office. It is roofed with corrugated sheeting, as is the space next to it, G.14, which is enclosed on the west side by a crude rubble wall built in the 1980s. Under the southern end of the drawing office is a section of rubble masonry wall within which are two openings with oak lintels. The direction of the chamfer on the reveals shows that this was the external east wall of one of the foundry buildings.

The yard between the former foundry buildings and offices is paved with granite setts and blocks of various types and sizes. Part of the area under the drawing office was enclosed with stud walling in the 1980s to create the bar of *Excalibur* and a solid floor with a polished granite finish laid over the setts. The tramway which ran the full length of the yard has been removed at some time leaving evidence in the changes in paving pattern. There are old cast iron drain covers in the paving. The northern end of the yard, G.01, is enclosed between two formerly gated brick arches with surviving pintles. The northern arch is infilled with a mock-medieval doorway, linked to a lobby, G.15, both inserted in the 1980s.

#### **3.3.2 Staircase block**

The north-western block of the building contains the main office entrance, stair and lavatories with strongrooms on the ground floor. The external walls on the west and south sides are part of the former foundry buildings referred to in 3.3.1. They are topped with crude parapets. The north wall is a party structure shared with Trevithick's Store. The east wall at ground floor level faces the former carriage entrance and is of rubble masonry containing the brick arched main office doorway, within which is a timber doorframe and over-panel. The missing door leaves are elsewhere in the building. The roof of the staircase block consists of two hipped roofs with recent slating and lead gutters, each with a timber framed glazed lantern.

The entrance leads directly into the stairway, G.16. There is a plain 'cantilevered' granite staircase with ornate cast iron newels and balusters supporting a wreathed mahogany handrail. The *Excalibur* alterations included the introduction of scrolled sections of reinforcing bar between the balusters. The staircase rises to

the main office and is lit by one of the roof lanterns, or would be had not the glazing been painted black.

A Panelled wooden door at the foot of the stair opens to reveal a panelled iron door to strongrooms, G.18 and 19. The floor over these is constructed with Barlow rails as described in 3.2.4.

At half landing level are the lavatories, which survive virtually unaltered since being fitted out in the late 19<sup>th</sup> century. The Floor is tiled in a geometric pattern with coloured tiles and there is glazed patterned wall tiling to dado height. A former Harveys' employee who worked in the building during the 1940s believes that the wall tiling was replaced during that period, having previously been green. The joinery is of varnished pine with brass ironmongery and most of the 19<sup>th</sup> century sanitary fittings survive. The tall space rises to the second lantern light. A small room off the upper flight of the stair was the women's lavatory in the 1940s.

### 3.3.3 Shop and offices

The main block of 24 Foundry Square contained a shop on the ground floor with offices above. The north and east elevations are rendered. The windows to the upper storey are six-over-six hornless timber sashes, the southern window to the east elevation being a pair of sash windows replacing the single window that appeared in the 1845 illustration. The ground floor windows to the north elevation are 16-pane fixed light timber framed, probably mid 20<sup>th</sup> century. The shop front shown in the photograph from the 1880s extended for the full width of the east elevation from the projecting façade of Number 23. The blockwork infill which replaced the shop front extends round onto the north elevation as far as a full height change of plane, probably indicating the return of the former shop front. The wall of the upper storey above is constructed of timber studwork, whereas that further west is of masonry.

The southern wall of Number 24 is the party wall with the bank. There are signs that it has been altered in the past, in particular that there were intercommunicating openings in both storeys.

The west elevation is of semi-coursed rubble masonry, although with signs of surviving render. The eaves level is lower than that on the elevations facing Foundry Square and therefore probably the pre-1845 level. There is a dormer window at first floor level, a small circular window opening at ground floor level with a 20<sup>th</sup> century square window, and a large doorway under a steel beam, partly infilled with panelling and an historic timber panelled door (which does not belong in this location). An external granite staircase rises against this wall, with an ornate, but damaged cast iron balustrade.

The shop wall facing the carriage entrance, also in rubble masonry, contains an entrance doorway, one reveal of which was partly demolished in the *Excalibur*

works, and a window, possibly formerly to a doorkeeper's room, now to lavatories.

The roof finish of Number 24 is of mortar-bedded scantle slates on laths nailed to rafters. The structure is of king post timber trusses supporting purlins. The north and east elevations have projecting eaves with plastered soffits and at the rear of the building the slope carries on down to a lower eaves. There are hipped dormers to the window in the rear (west) elevation and to the clock tower access. There are two red brick chimneystacks.

The clock tower is centred over the ridge of the main office and is of timber-framed construction clad with vertical slate hanging of local slate bedded on mortar. A shingled roof, which replaced the pre-1845 cupola, is secured to the previous roof flat with steel cables. The clock appears to be that shown in the 1845 illustration.

The ground floor of this section of the building is occupied by a single space, formerly a shop, with apparently 20<sup>th</sup> century sub-divisions to create lavatories and offices at the rear. A central double row of fluted Corinthian cast iron columns supports the main masonry wall above and a further row of plain circular cast iron columns supports one of the strongrooms. Sections of the granite plinth and cast iron columns to the shop front survive, partly concealed by the blockwork infill and plasterboard lining. These are consistent with the shop front shown in the photograph dating from the 1880s. The ground floor is of solid construction with tiling in a geometrical pattern surviving over at least part of the area. The central section is overlaid with a raised timber boarded floor. The ceilings and beam casings are a mixture of lath and plaster and plasterboard. A large area of the first floor was removed in the *Excalibur* works and a staircase inserted.

The main first floor area of Number 24 consists of two well-proportioned rooms with tall, shuttered sash windows. The former main office is of three bays and the former chairman's office of one bay with windows on two walls. Both rooms have chimneybreasts. The walls were formerly plastered, and some areas of dado panelling survive but most wall and ceiling surfaces are lined with fibreboard fixed over the plaster and some wall surfaces were stripped back to bare masonry in the *Excalibur* work. The studwork partition between the two rooms was also mutilated in this work. The surviving architraves have good quality mouldings and at least some of the panelled doors, although removed from their openings probably survive elsewhere in the building. The floor, partly removed as previously stated, is timber-boarded, the boarding to the chairman's office being of superior quality.

Opening off the main office are two strongrooms with double iron doors made to resemble panelled timber doors. The construction of the strongroom enclosures

incorporates sections of ships' plate. Each room contains a safe, one probably contemporary with their construction.

The smaller first floor area of Number 24 also contained offices, 1.04 and 1.05, which were converted to a kitchen. A glazed 19<sup>th</sup> century partition survives, albeit modified, between the two rooms. The walls and ceilings are lined with fibreboard, apparently fixed to the previous plaster finish.

The lobby, 1.07, to the external stair to the foundry yard was formerly open and the jamb of the previous external door survives. The roof is of corrugated iron and the external wall of makeshift lightweight construction containing a re-used panelled timber door. At the head of the main flight, the stair divides to form two short flights rising symmetrically to the office floor level. Half of the width of these flights has been bridged over to form level access between the two office areas. The ships' plate which forms the wall of strongroom 1.06 is visible in this lobby. A wooden ladder from the lobby gives access to the clock tower.

#### **3.3.4 Drawing office**

The former drawing office, 1.08 to 1.12, is a timber- framed first floor structure, built over the yard, originally with a simple rectangular plan which was subsequently extended by the addition of room 1.10, the plan of which is a parallelogram. The external walls are of timber studwork with a lath and plaster finish internally and lath and render externally over-clad with softwood boarding. All the elevations have tall six-over-six pane hornless sash windows.

The roof finish is of scantle slating, like that on the main roof, supported on a structure of timber trusses, purlins and rafters. The hip end structure of the first phase of the structure remains in the roof space as do some plastered studwork enclosures, the purpose of which has yet to be determined.

The supporting structure of the drawing office consists of large timber beams carrying the floor joists and the sole plates of the studwork. These in turn are supported on cast iron columns of various types (as used in the construction of beam engines), sections of walling from the former foundry buildings and a riveted iron beam at the junction with the main building,

The interior of the drawing office would have been a well-proportioned well-lit space before its subdivision with stud partitions. Some ceiling ventilators and fittings for gas lights are of interest.

## **4 ASSESSMENT OF SIGNIFICANCE**

### **4.1 Overall summary of significance**

The Harvey's Foundry Action Plan (Jan 2001), deals very fully with the significance of the foundry site as a whole, and quotes the CAU report of 1995. This is summarised as follows.

#### **4.1.1 Industrial history: national and international context**

At the end of the 18<sup>th</sup> century, with the expiry of Boulton and Watt's patent and the end of their monopoly on beam pumping and winding engines, the new Cornish foundries took advantage of the rapidly expanding market for mining equipment. Initially lacking in skill and experience, and dependent on expertise from South Wales, by 1830, the three leading Cornish foundries (Harveys, Perran and Copperhouse) were producing work equal to that anywhere in Britain and in another ten years were pre-eminent in their field, supplying engines to mines, ironworks and waterworks throughout the country, and deep mines in all other countries abroad.

The Cornish foundries were internationally renowned, on a par with the great railway workshops of Swindon and Crewe and the Clydeside shipbuilding yards. Harveys was arguably the greatest with its close association with the great engineers Trevithick, Woolf and West. The personal achievement of the country blacksmith John Harvey in setting up a pioneering industry on a green field site in a county where none similar existed, and that of his son Henry in making it one of the foremost engineering works in the world is unique in many respects. The remains of Harvey's Foundry are a monument both to Cornish skill and enterprise in the heat of the industrial revolution, that was for some fifty years pre-eminent in the world and represent the very reason for Hayle's existence.

#### **4.1.2 The Harvey 'Empire', the town of Hayle and the Cornish context.**

In addition to the foundry site, there are much more extensive remains of the Harvey enterprise in Hayle. These include:

Quays and wharves including Carnsew Quay, South Quay, Carnsew Pool, the shipyards and Griggs Quay.

Millpond Avenue industrial site, including hammer mills, boring mill, grist mills, ropewalk, and Mellanear smelter.

Large houses along Millpond Avenue built for John and Henry Harvey and other houses and cottages built to house directors, managers and workers in the enterprise at Millpond Avenue, Foundry Hill, Trellissick Road etc.

The two White Hart Hotel buildings, the market hall/public rooms, the school building in Foundry Hill and various demolished buildings.

The eccentric landscaping works of Henry Harvey in the 1840s around Carnsew fort, Foundry Hill walled gardens, the Plantation and Turnpike Road.

Although Harveys had a major influence on the western part of the town, their rivals, the Cornish Copper Company built up a bigger settlement focus at Copperhouse where there are significant remains such as quays, lock gates, a canal bridge and buildings, sadly largely cleared and not a coherent group. These add to the significance of the Harvey's Foundry site through their association with the story of Harveys as well as their contribution to the industrial archaeology of the context.

As already noted, Harveys played a crucial role in many aspects of industrial and commercial activities in Cornwall. In addition to steam engine manufacture and their other ironfounding business, they supplied coal and timbers to the mines, and were retail traders in grocery, drapery, ironmongery, bread and hardware. They had interests in many mines as well as shipping and shipbuilding, and have important association with the extensive sites and surviving structures of these industries.

#### **4.1.3 The significance of survivals on the Harvey's Foundry site**

Although the foundry buildings have been sadly depleted in number and scale during the last two or three decades, they still represent the most coherent group of industrial monuments in the town, and one of the best in Cornwall, and they still have a dominant role in the local townscape. Herein lies much of their quality and potential despite recent developments on the site which are at odds with the site history and character.

#### **4.2 Significance of 24 Foundry Square**

Number 24 Foundry Square and the former drawing office are of particular significance within the foundry site by virtue of being complete surviving buildings in the context of largely derelict industrial structures and having been the organisational centre of the Harvey 'Empire'. They incorporate on the west side the remains of what is probably the earliest foundry structure on the site, and facing Foundry Square the facade of the thriving mid 19<sup>th</sup> century enterprise to which the railway brought new significance.

Within the one building is concentrated a fascinating mixture of functions (office, bullion store, shop, foundry entrance and tramway, drawing office, and even consulate!), technologies in masonry, timber and iron, much of it created on the spot, and architectural styles from the severely functional to the stylishly ornate.

The office building with its clock tower is also an important feature in the townscape and a powerful symbol to the people of Hayle of their proud industrial past and aspirations for the future.

#### 4.3 Detailed breakdown of significance of components, 24 Foundry Square and former drawing office

With the exception of post-1903 modifications, which are generally of a makeshift nature reflecting the decline of the foundry, and in particular the *Excalibur* interventions, which are to say the very least inappropriate, most features of the building are important for a variety of reasons which are detailed below.

The remaining masonry of John Harvey's early foundry on the west side of the building is clearly of historical importance, and associated with it the rear elevation of No 24 and the yard paving which are also likely to date from an early phase.

The main building of Number 24 is a significant feature in the urban landscape with its quite elegantly proportioned rendered elevations facing onto Foundry Square and forming part of the composition with the projecting façade of Number 23, and its hipped scantle slated roof. Sadly it no longer addresses the square as it did when illustrated in 1845 due to the removal of its wide shop front and the domination of traffic.

The spaces of the main office on the first floor and the adjacent chairman's office have been sadly disfigured with 20<sup>th</sup> century adaptations including extensive fibreboard linings, the destruction of sections of partition, floor and plasterwork and the application of fake medieval details but underneath this are discernable very elegant spaces with fine sash windows, panelling and shutters.

The strongrooms both on the first floor, incorporating cast iron panelled doors and ships' plate and on the ground floor, ceiled over with Barlow rails, are of significance not only for their historical associations but also for their unusual, if not unique technology.

The most important features of the ground floor shop, which has also suffered from conversion to a mediaeval fantasy, are the cast iron columns supporting the main wall and strongroom above. These are noteworthy because the main row is of particularly fine fluted Corinthian columns probably of the type used for the waterworks pumping engines, and the others for more humble engines.

The pre-1845 clock tower and clock, even with its 1951 shingled roof which replaced the former cupola, is a significant architectural feature and symbol of the foundry. The clock mechanism appears to be complete and capable of being put in working order.

The whole of the timber drawing office structure, built over the former tramway and supported on cast iron columns, all of differing design, is an interesting and complete example of this type of building. The quality of the former single open space has been lost through sub-division but could be reinstated.

The ornately tiled lavatories with their Victorian sanitaryware, fine joinery and brass fittings survive virtually complete and in surprisingly good condition. This is of added interest because of the (apparently undocumented) story of its origins with a royal visit.

#### **4.4 Statutory status of all parts and how this contributes to significance**

The statutory status of the site and buildings is shown on a site plan in Appendix 5

There are no Scheduled Monuments within the Foundry site.

24 Foundry Square (10/100), the drawing office (10/99) and furnace bases (10/101) are all listed, formerly grade II, and from 2001 grade II\*

The following structures within the site are listed grade II: Stores/ Wagon shed (10/171), Cart Shed (10/172), Pattern Store (10/172), Stables (10/10001), Granary (Foundry Barn) (10/10001), Engine and Boiler House (10/10001), Boring Mill (10/10001), and Arch (10/90). In the Harvey's Foundry Action Plan (Jan 2000) it was suggested that other foundry structures were worthy of listing.

Listed buildings in use in Foundry Square and backing onto the foundry site are Whites Building (10/101), 22-3 Foundry Square (10/99), 21 Foundry Square (10/98), and 18-20 Foundry Square (10/97). Associated listed buildings in Foundry Square are both White Hart Hotels and the former Market House.

Most of the standing structures on the foundry site are within the Hayle Town Conservation Area but it was noted in the Harvey's Foundry Action Plan that much of the core of the site lies outside this, including some structures worthy of protection and likely archaeological remains. Preservation of the existing conservation area and the setting of listed buildings, the duty to propose enhancement measures and the attraction of grant aid were given as reasons for extending the conservation area into the core of the site, and such recommendations were being considered in the Hayle Historic Town Assessment undertaken by the CAU.

The CAU are preparing a bid to give World Heritage Site status to Cornwall's historic mining landscapes. They are currently (Feb 2002) drawing up the boundaries of the proposed sites and have stated that Harvey's Foundry will be one of the two foundries to be included to represent this aspect of Cornwall's industrial heritage, the other being Perran Foundry. The harbour and town of Hayle are also part of the current study but it is not yet known to what extent these will be included within the boundary.

The location of the site within the Hayle Town Conservation Area, the large number of listed buildings and structures within and associated with the site, and the prospective World Heritage Site designation all contribute greatly to the significance of the site.

## **5 DEFINING THE ISSUES (VULNERABILITY)**

### **5.1 Physical condition of the building and previous alterations**

As mentioned earlier in this report, since the closure of the foundry in 1903, the buildings on the site have suffered neglect and although 24 Foundry Square and the former drawing office have continued in use, they have not been well maintained and underwent inappropriate alterations in the 1980s. The underlying cause of this neglect and destruction has been the economic decline of the area. The establishment of the regeneration project has gone a long way to removing the threat of further damage to the heritage asset, although the fabric will continue to deteriorate until the project is fully implemented, and as recently as April 2000 some of the buildings were severely damaged by arson attacks. Furthermore, it is essential that the regeneration project follows sound conservation principles in works to historic fabric and that new uses on the site are appropriate.

The securing of funding for the first phase of the Harveys Foundry regeneration project will ensure the repair and conservation of 24 Foundry Square and the former drawing office and the removal of the *Excalibur* modifications. A condition survey has been carried out as part of the current project and a structural engineer's report prepared. Briefly their conclusions are as follows.

The structure of both No 24 and the drawing office is generally sound with the exception of the clock tower, which is in need of repair, holes cut in the main office floor and wall below as part of the *Excalibur* works, the undersizing of some first floor beams and joists, corrosion of the Barlow rails over the ground floor strongrooms, and defective masonry in the old foundry walls under the drawing office.

The timber roof structures are generally sound, as is much of the slating but there are failures in the drawing office roof coverings and clock tower and the defective finishes require renewal using existing sound materials. The glazed lanterns are in fair condition. One of the chimney stacks requires rebuilding. The leadwork is in need of attention.

The render to the north and east elevations is cracked and in some areas fixed to decayed battens. The west elevation to number 24 has lost its render and the masonry is deteriorating, as is that to the west and south elevations of the staircase block. The defective render and pointing to all these walls requires renewal. The boarded timber walls to the drawing office are in fair condition.

The windows appear generally in fair condition and are likely to require overhauling and minor repair. It is envisaged that the blocked up shop front will be reopened with a new glazed screen.

The rainwater goods are of plastic and will require replacement with cast iron.

The solid ground floor to the shop appears generally sound and dry but the tiling badly worn and damaged. It is proposed that the existing raised timber floor will be extended over the whole area. The granite sett paving to the carriage entrance requires cleaning and surface repair following removal of the overlaid polished granite floor. The granite stairs and landings are in reasonable condition.

The rear section of the first floor in the kitchen is affected by dry rot and the affected timber will need replacement following specialist treatment of the area. The missing sections of the first floor require reinstatement and under-sized structural members strengthening. Much of the floorboarding is worn and uneven. Some boards will need replacement, others repair and levelling.

Some internal masonry walls and studwork partitions have been damaged in the *Excalibur* works but the others are in reasonable condition and likely only to need minor repair. Late 20<sup>th</sup> century partitions should be removed.

Many of the plaster ceilings have been lined with fibreboard which should be removed. Extensive repairs will be required to the plasterwork.

Some of the internal joinery has been mutilated and will require repair, reinstatement and repainting. Repositioned doors should be returned to their former locations. The strongroom doors require overhauling and repainting.

Plaster finishes have been removed from some walls and should be reinstated. Other wall plaster has been lined with fibreboard which should be removed and the plasterwork repaired or renewed.

Few fittings remain except for those in the first floor lavatories which are suitable for refurbishment.

The electrical and mechanical services need complete renewal. The drainage system requires investigation.

## **5.2 Ownership, use and management**

Currently the foundry regeneration site is in divided ownership and one of the chief responsibilities of Penwith District Council is to acquire individual sites in such a way as to ensure the smooth progress of the project.

Number 24 Foundry Square and the former drawing office were acquired by Penwith District Council specifically for refurbishment and reuse in the Harveys Foundry regeneration project. It is proposed that the buildings will provide archive, office, display and retail accommodation for the County Record Office, Hayle Community Archive and Harvey's Foundry Trust, in addition to lettable office space. These uses are generally appropriate for the buildings, can be accommodated without detriment to the historic fabric and have the potential for providing a productive future for the buildings.

In due course, the management of these buildings, the new building proposed for the reservoir site, and subsequently the other buildings which form the Harvey's Foundry project will pass from the District Council to Harvey's Foundry Trust.

Number 24 and the former drawing office are currently isolated from the other buildings on the foundry site by Booker's Cash and Carry. The boundary of the site within the Council's ownership does not extend significantly beyond the built area and there is no provision for vehicle access. This matter is being addressed urgently by the Council's legal department. The adjoining owners generally support the project.

### **5.3 Resources**

The funding so far secured for the first phase of the Foundry project totals £1,896,065 which is drawn from Penwith DC, HERS, the RDA, English Heritage, the SRB, Cornwall County Council and the ERDF. This covers acquisition costs, other land clearance works, conservation and retention works, ground works and building costs, archaeological investigations and fees for 24 Foundry Square, the drawing office and the proposed building on the reservoir site. This will yield buildings which have the potential to be economically self sustaining.

The Cornwall County Archivist is currently pursuing funding for the archive functions proposed for 24 Foundry Square and revenue is projected from shop sales and the lettable floor space in the drawing office and new building.

### **5.4 External factors**

Future changes in the area around the foundry site could have major implications. The largest anticipated change is the proposed Hayle Harbour Development, the impact of which needs to be addressed through coordination between the parties and the appropriate exercise of planning controls.

The lack of conservation area status in the core of the foundry site leaves it theoretically vulnerable to undesirable future changes and this should be regularised.

The current isolation of the Foundry offices from the rest of the site was referred to in 5.2 above. The acquisition of Booker's Cash and Carry is currently being pursued which will achieve the necessary link.

The Harvey's Foundry Action Plan (Jan 2000) proposed that 24 Foundry Square should become the principal entrance to the Foundry Site on the assumption that its public face will look towards Foundry Square and visitors will approach on foot. However, Foundry Square is currently dominated by motor traffic and will require significant environmental upgrading in order for a civilised pedestrian approach to be created. It is essential for this to be pursued as an early priority.

It was also proposed in the Action Plan that a main car park should be located on the former gas works site to the north of the railway viaduct. The significance of this has now increased because of a recent approach from the potential developers of a major scheme for Hayle Harbour who have expressed the intention to cooperate with the Harvey's Foundry project and in particular to make the gas works site and its proposed car park the 'gateway' to both developments. There is consequently some uncertainty about the direction in which Number 24 will face, that is to say, whether it will form the principal entrance from Foundry Square or the point of exit from the Foundry site leading into the Square and the town beyond.

The answer to this will depend to some extent on the relative progress of the Foundry project and the Harbour scheme and at this stage the design of the facilities in Number 24 must accommodate both options. In either case, the location of the retail/ display centre and site management office in the former shop will be appropriate.

## **5.5 Understanding**

The deterioration, destructive reuse and partial demolition of the foundry buildings during much of the 20<sup>th</sup> century was partly due to lack of appreciation of the importance of the site. However, Harvey's Foundry is of great significance to many local people and the efforts of the Harvey's Foundry Development Group and others in recent years have ensured that its history has been thoroughly researched. In the evolution of the Foundry regeneration project, there has been further extensive historical and archaeological investigation, mainly by the Cornwall Archaeological Unit. The work of the current project team has brought further information to light with particular reference to the Foundry offices, mainly as a result of the detailed survey of the building but also including study of published and archive sources.

It is likely that further information could be located, in particular historical photographs and illustrations of the buildings, of which very few have so far been found. However, it is doubtful that this would contribute greatly to the decisions to be taken about the conservation and adaptation work. There is funding provision for further archaeological investigation during the of the works, for which a formal brief has to be agreed, but in informal discussions with the CAU it has been agreed that this will be limited to recording of historic fabric and artefacts exposed in the course of building operations.

The archives in the care of the CRO include documents that were previously kept in the Foundry Office and in a sense belong to it. Whether these are physically returned to the building or, as seems more likely, current practice dictates that they will be held centrally and digital versions of them kept in the Foundry archive, it is important for this historical link to be maintained and that research about the foundry can continue in situ.

## **5.6 Public and community expectations and access**

The Harvey's Foundry regeneration project is intended to bring the whole site into use for the activities described earlier, i.e. museum, heritage, archive, office and workspace functions, tourism and the arts. The success of the project will depend on the ability of the site to accommodate fairly large numbers of visitors and users.

As far as number 24 and the former drawing office are concerned, the archive and office areas will be subject to a level of use that can be accommodated relatively easily. The retail/ display area will be more heavily used but not so as to have an undue impact on the historic fabric.

The existing first floor lavatories could provide most of the anticipated requirements for the building and further services, including lavatories for disabled people could be provided in the existing ground floor area.

Access to the foundry site will be well provided for once the proposed car park is established north of the railway viaduct. The Phase 1 buildings will be put into use before this car park but there will be adequate pedestrian access to Number 24 from Foundry Square, which is quite well served by car parking. The area around No 24 is fairly level, so subject to suitable paved surfaces, access for disabled people will be satisfactory.

Within the buildings, access for disabled people is more of a problem. The existing staircases cannot be adapted to take stair lifts, the siting of a lift so as to avoid loss of historic fabric or visual impact on significant spaces is difficult, and the problem is exacerbated by the way the areas of the building are separated by the carriage entrance and the configuration of the steps to the rear office entrance.

## **5.7 Statutory controls**

Works to 24 Foundry Square and the former drawing office are subject to the usual requirements for planning permission and listed building consent as well as conservation area controls. Additional constraints are imposed by funding conditions including HERS. Compliance with the Building Regulations and fire safety regulations will also be required.

## **5.8 Areas of conflict**

The proposed use of 24 Foundry Square and the former drawing office as retail/ display, archive and lettable office space will require some modifications to the historic fabric, although the basic form of the building lends itself quite well to those uses. The accommodation can be divided logically into the three existing main areas, the public area in the former shop, the archive in the first floor offices (the most secure area) and lettable office space in the former drawing office. The matters which will need to be resolved are as follows.

The environmental standards and floor loadings imposed by the archives will require the upgrading of parts of the fabric, the introduction of mechanical plant and additional structural support. Current indications are that the scale of the proposal will be such that these will not have a major impact.

The question of means of escape in case of fire has been addressed. Present indications are that the existing staircase arrangement is acceptable, avoiding major alterations to the historic fabric.

Access to the first floor for disabled people can only be achieved with some adaptation to the historic fabric, for example by the insertion of a lift. This matter will need to be considered both in terms of the conflicting requirements of the Disability Discrimination Act and Listed Building legislation, and the likely usership of the archive and offices.

## **6 CONSERVATION POLICIES**

The major decision concerning the conservation of 24 Foundry Square and the former drawing office has already been taken and its implementation commenced. This is that the buildings should be repaired, upgraded and returned to economic use as part of the Harvey's Foundry regeneration project. The effectiveness of this will be dependent on conservation policies for the site as a whole, which will be addressed in a separate conservation plan and will include a review of the existing Conservation Area boundaries to take account of the regeneration works, and the requirement for planning applications on adjoining sites, including Hayle Harbour, to take account of the foundry. The policies that are relevant here concern simply the application of sound conservation practice to the repair and adaptation of the buildings. These are:

### **6.1 Preservation of what is significant**

The programme of works should be based on a thorough understanding of the historic development of the building and should preserve all that is significant in its architecture and historic fabric. Repairs should follow sound conservation practice including the use of matching materials, minimal intervention in the historic fabric, avoidance of untried methods and the honest but unobtrusive execution of repairs. Inappropriate additions and alterations carried out in the past could be removed, but only after careful consideration of the implications.

### **6.2 Restoration**

Where elements of the building which are important to its history have been lost in the past, these may be reinstated as part of the programme of repairs, provided that sufficient evidence exists for accurate reinstatement and no loss of historic fabric occurs. However, speculative reconstruction will not be justified.

### **6.3 New interventions**

New work should be clearly distinguishable from the historic fabric and should express modern needs in a modern language. It should relate to the old in a positive and responsive way and should be of a quality which matches that of the site in terms of design and materials.

### **6.4 Reversibility**

All work of repair or intervention should be executed in a manner which does not preclude later treatment or result in further loss of fabric.

## **7 IMPLEMENTATION AND REVIEW**

The implementation of the plan has already commenced with the commencement of work on the first phase of the Harvey's Foundry conservation plan. Work on site is due to commence in the summer of 2002. The body principally responsible for implementation is Penwith District Council.

A review is to be undertaken in 5 years time of the whole of the foundry site, by which time activities on the site and developments over a wider area of Hayle, in particular the Harbour, are likely to have brought about significant changes.

If all goes according to plan, the foundry site will by that time be under the control and management of the Harvey's Foundry Trust, which is to be formed from the Harvey's Foundry Development Group, but this will depend on the pace of the regeneration project and it may be that Penwith District council will still retain a direct involvement. The review will be the responsibility of the body which controls the site but the other 'stakeholders' will be involved.

The review will deal with all the issues covered by this conservation plan and will identify the need for any action or changes of policy relating to the changed conditions.

## 8 BIBLIOGRAPHY & SOURCES OF INFORMATION

Anthony GH, *The Hayle, West Cornwall and Helston Railways*, (The Oakwood Press, 1968)

Barton DB, *The Cornish Beam Engine*, (DB Barton Ltd, 1965)

Binding J, *Brunel's Cornish Viaducts*, Pendragon Books, 1993)

Bliss V, *The History of Hayle*, Penwith District Council. 1978)

Gordon Lewis Associates, *Harvey's Foundry Action Plan*, (Gordon Lewis Associates, 2000)

Harris TR, *Time Line Summary of Developments at Hayle Foundry (taken from TR Harris' 'Harveys of Hayle)'* (Unpublished manuscript at CRO, undated)

Harveys' Hayle Foundry, *Catalogue 1884*, (DB Barton Ltd, reprint, 1973)

Hay P, *Steaming Through Cornwall*, (Middleton Press, 1994)

Hayle Community Archive & Sullivan B, *Historic Hayle Trail*. (Hayle Pump Newsletter / Hayle Community Archive, 2000)

Holmes J, *The Archive Photographs Series: St Ives Bay*, (The Chalford Publishing Co Ltd, Glos. 1995)

Michell S, *The Early History of Hayle Foundry, 1770-1833*, (ed. J Hambley Rowe, undated)

Noall C, *The Book of Hayle*, (Barracuda Books, 1985)

Noall C, *Harveys 200 Years of Trading*, (UBM Harvey, 1979)

Rew M&M, *Images of England: Hayle*, (Tempus Publishing Co, Glos., 1998)

Smith JR & Buck C, *Foundry Square, Hayle: an Archaeological and Historical Evaluation*, (CAU, 1995)

Sullivan B, *Hayle Town Trail*, (Brian Sullivan, 1983)

Thomas N & Sturgess J, *Harvey's Foundry, Hayle, Cornwall: Historic Buildings Survey and Archaeological Evaluation*, (CAU, 2001)

Vale E, *The Harveys of Hayle*, (DB Barton Ltd, 1966)

## **9 APPENDICES**

App1 Location plan

App 2 Survey plans of 24 Foundry Sq and drawing office

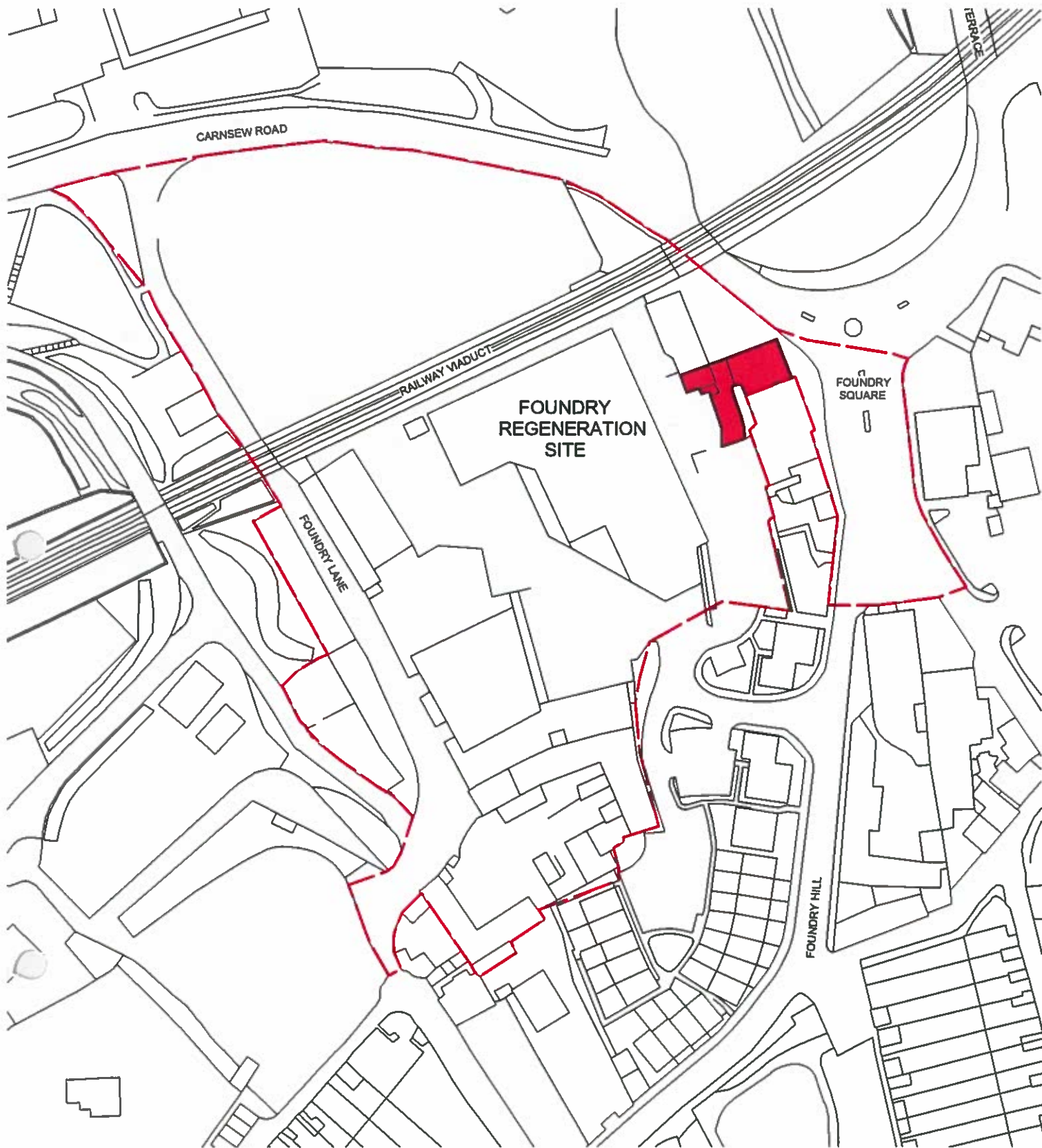
App 3 Recent photographs of the buildings

App 4 Phase plans of the buildings

App 5 Site plan showing statutory designations

App 6 Listing description of 24 Foundry Sq & drawing office

App 7 Letter from CAU to Cllr Lello 4/6/99



### Key

- Boundary of proposed regeneration site
- 24 Foundry Square & Former Drawing Office (Listed GII\*).

### Harvey's Foundry, Hayle

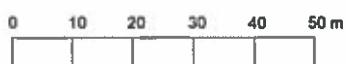
**Conservation Plan: 24 Foundry Square  
& Former drawing office**

### LOCATION PLAN

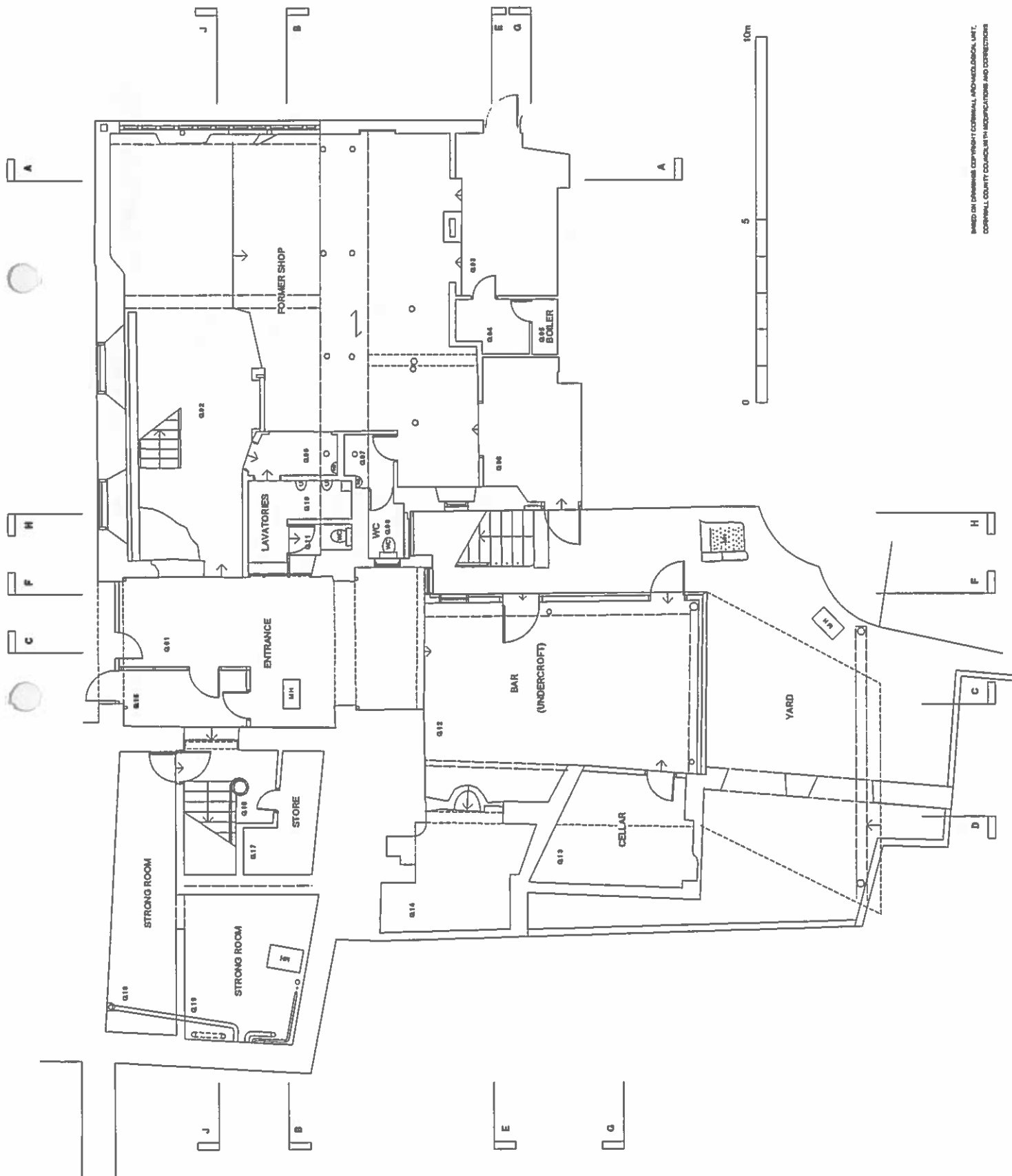
### Parkes Lees Architects Ltd

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Date	Feb 2002	Drawn
Scale	1:1250	
Job No.	Dwg. no.	Rev
001/44	101	



<b>HARVEY'S FOUNDRY, HAYLE FORMER FOUNDRY OFFICE BUILDING</b>		ground floor plan as existing	<b>Parkes Lees Architects Ltd</b> 4 Broad Street LAUNCESTON Cornwall PL15 8AD		Project Office 70005 01566 770000 www.parkeslees.co.uk	Date DEC 2001 Scale Job No. 001/44	Drawn MB Drawn 07 Rev A
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View of the former Harveys' office from Foundry Square with the former *Emporium* to the left and *Trevithicks' Stores* to the right beside the railway viaduct.



The former drawing office from the west. The structures in the foreground are the remains of the early foundry buildings.



View from the south with former drawing office in foreground, and lavatory block and former foundry bases beyond to the left.



The internal foundry courtyard looking towards rear staircase. The former drawing office is on the left, the undercroft beneath the timber structure having been enclosed in the 1980s. The west wall of the offices to the right, with low eaves and dormer window probably dates from the earliest phase of the foundry.



The former carriage entrance with the shop to the left and the main office entrance to the right behind the mock half timbered partition. Beyond is the undercroft to the drawing office which was enclosed in the 1980s to form a bar to the *Excalibur* restaurant.



View from the main entrance into the rear of the former shop area . The first floor office with 'mediaeval' styling is visible through a large hole in the floor, formed as part of the *Excalibur* works, as was the partial demolition of the masonry in the foreground.



Remains of early foundry structures including probable furnace bases beneath the drawing office. The polished granite floor and the rubble wall in the background are insertions from the 1980s.



The former shop area. The ornamental cast iron columns, which support the main structural wall above are probably of a type used on waterworks pumping engines. The plain columns support a first floor strong room. The staircase and 'half timbering' are insertions from the *Excalibur* works.



The main first floor office with 1980s 'adaptations' including the partial removal of the floor, insertion of staircase, 'mediaeval' styling and partial demolition of the partition to the former chairman's office beyond. The 19<sup>th</sup> century windows and shutter boxes remain intact.



Kitchen in former office area with remains of 19<sup>th</sup> cent. glazed partition.



Interior of the drawing office. This was formerly a single open area but was sub-divided in 1947.



19<sup>th</sup> century tiling and fittings in first floor lavatories.

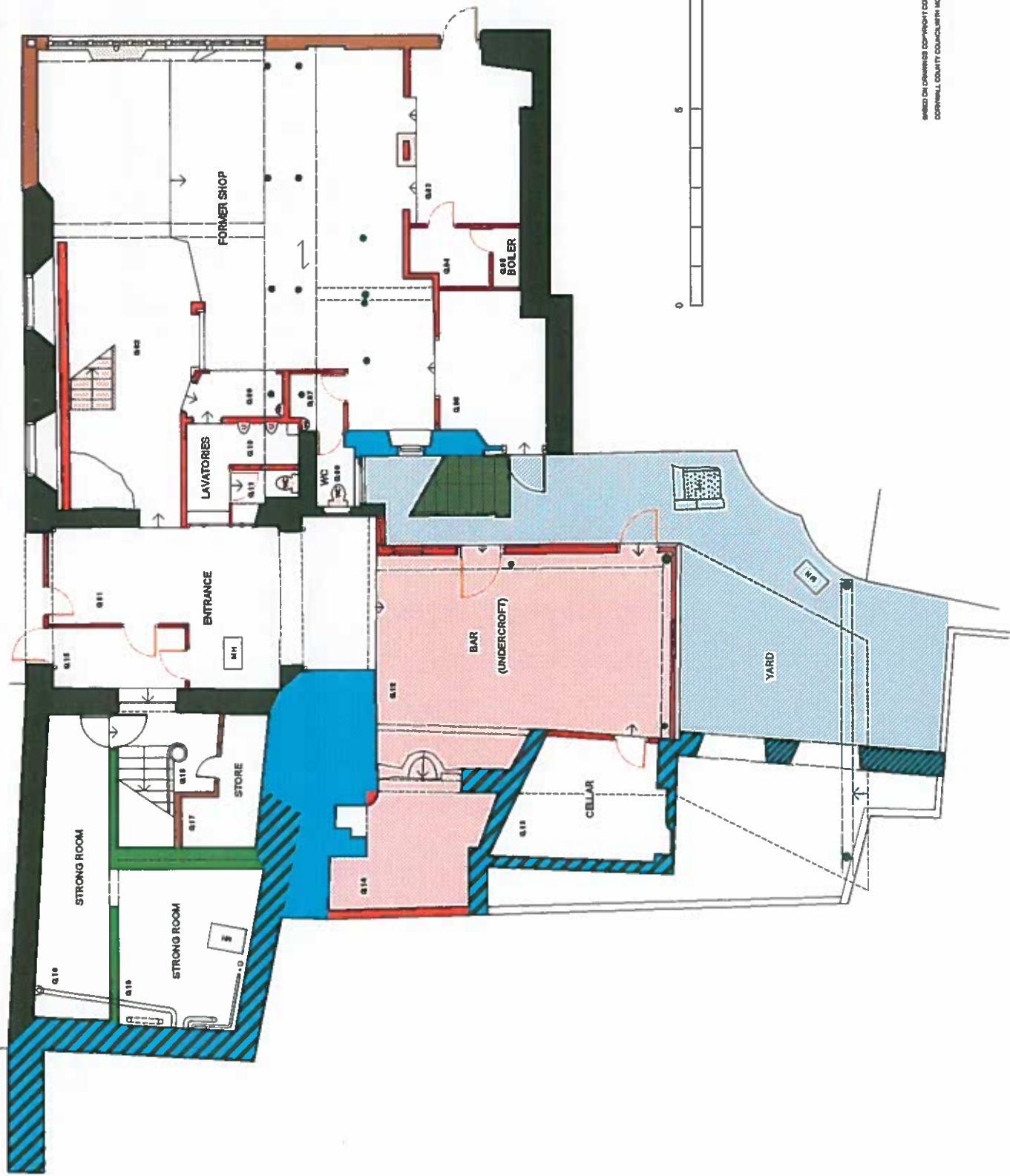


Interior of one of the first floor strong rooms.



The clock mechanism.

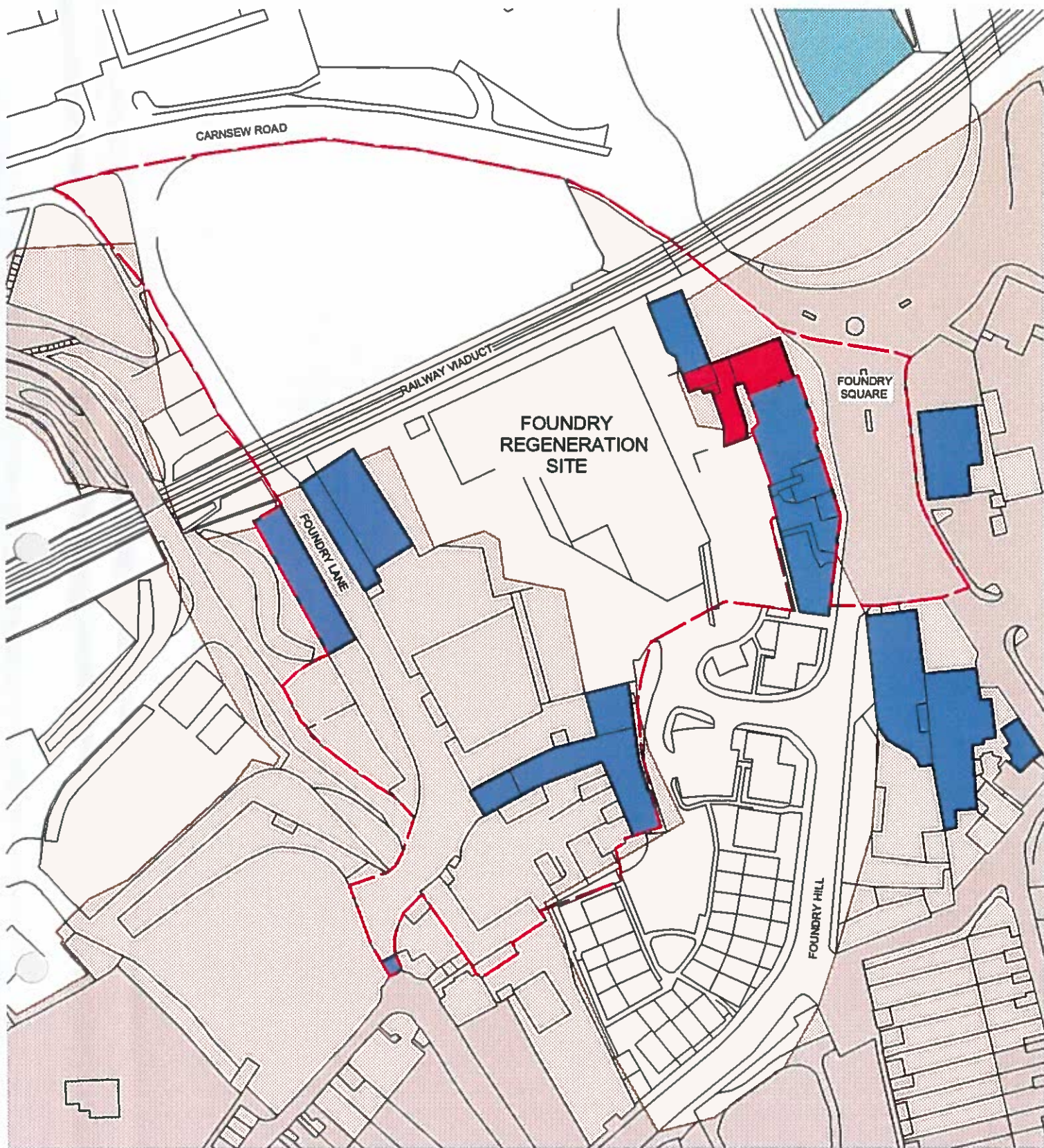
- 1779 - 1815
- MD C19TH
- LATE C19TH
- MD C20TH
- MODERN



HARVEY'S FOUNDRY, HAYLE FORMER FOUNDRY OFFICE BUILDING		ground floor plan historical phases (PRELIMINARY)		<b>Parkees Lees Architects Ltd</b> 4 Broad Street LAUNCESTON Cornwall PL11 3AD		Project No: 01/048 772005 e-mail: <a href="mailto:parkees.lees@plym.net">parkees.lees@plym.net</a> <a href="http://www.parkees.co.uk">www.parkees.co.uk</a>
Date	MAR 2002	Drawn	MAB	Scale		
Job No.	001144	Drawn No.	102	Rev		

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 CORNWALL COUNTY COUNCIL WITH MODIFICATIONS AND CORRECTIONS





### Key

- Boundary of proposed regeneration site
- 24 Foundry Square & Former Drawing Office (Listed GII\*).
- Other Listed Buildings
- Extent of Hayle Town Conservation Area

### Harvey's Foundry, Hayle

**Conservation Plan: 24 Foundry Square  
& Former drawing office**

### STATUTORY STATUS OF SITE & BUILDINGS

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Date	Feb 2002	Drawn
Scale	1:1250	
Job No.	Dwg. no.	Rev
001/44	104	

0 10 20 30 40 50 m



## Map Search



### Viewing an image and full List Description text

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No image available

Location : HAYLE, PENWITH, CORNWALL

IoE number : 070201

Date listed : 29 APR 1983

Date of last amendment : 29 APR 1983

HAYLE

FOUNDRY SQUARE (north  
west side),

SW 5437-5537

10/100

Hayle  
No 24 (premises occupied  
by  
Slades)  
11

29.4.1983  
GV

Offices. Circa early C19. Built as part of the headquarters of Harvey and Co. Stuccoed walls. Hipped grouted scantle slate roof. Brick chimney over axial wall of junction with rear left hand return. Slate-hung clock turret left of middle with moulded eaves cornice to pyramidal roof with gablet over each clock face. Plan: L-shaped plan. Shop at ground floor left, store, middle, carriage entrance on right. Offices above 4 bays long and including wing at right angles to rear left to where it adjoins No 23 q.v. Exterior: 4-window north front with large round-arched carriage doorway under the right-hand window. Window to each middle bay, blind left hand bay (ground floor). Original 12-pane hornless sashes to first floor (including left-hand return). Circa early C20 windows to ground floor openings. Left-hand return wall has wide shop window. Interior: not inspected.



Your ref:  
Our ref:  
Please ask for: Nicholas Johnson  
Telephone: 01872 323604

4 June 1999

Cllr Rob Lello

Dear Rob,

Excaliburs - 24 Foundry Square

Thank you for showing Steve Hartgroves, John Smith and myself around this former nightclub. As you gathered we are very excited about what we found.

We overlaid the 1815 plan of Harvey's original foundry (Plan number CRO H 166/46) on to our GIS Ordnance Survey Landline data. With a bit of manipulation we have achieved a very good fit and we are now very confident that what we have at Excaliburs is much more interesting than when the building was first listed in 1983. It is all the more extraordinary that so much has been allowed to happen here since the listing took place.

Harvey built his original foundry on the west shore of the Penpol inlet. The site was orientated north-south and consisted of five principal elements:

- To the west a foundry building with subsidiary buildings to the south.
- To the east and fronting what would have been the marshy head of the inlet was an office block.
- An open courtyard between the Foundry and the offices with gates at the north and south ends.
- Limekiln to the south.
- Harveys house at the south west corner of the site.

Excaliburs comprises the northern part of where the original officers, yard and foundry lay. Our examination of the building was necessarily brief but we can conclude the following:

- The rear of the building preserves within it substantial remains of part of the original pre-1800 Foundry including an oven, several arches, doorways fronting the original courtyard.
- A substantial part of the original yard, including cobbles, and drains. This is the principal entrance for many decades and was the principal access to the foundry.
- A small part of the original office block looking onto the courtyard.
- The main part of the property is the pre-1845 new office block with clock tower. The clock has an inscription that it was repaired in the 1890s.
- Part of the pre-1845 changes involved building over the northern part of the yard and carrying this on an arch (which still survives). At the same time (we presume) his machine elements were built on the 1st floor and supported by cast pillars

and the yard arch. These are armoured rooms with iron riveted and bolted plates on walls, floor and ceiling. The doors are metal panelled doors cast to resemble wooden doors. Another strong room at the back of the building is built behind the stairs and consists of a roof of Barlow rails. The West Cornwall Railway had such rails and they weren't replaced until late in the century.

- The wooden drawing office is pre 1880 in date and is in relatively good condition.

In summary therefore we have a pre-1880 drawing office, the pre-1845 Foundry office, much of the original courtyard floor surface and the corner of Harvey's original Foundry - all within Excaliburs. The rest of the Foundry lies under Bookers Cash and Carry and between there and Excaliburs. Excaliburs, therefore, contains the only surviving upstanding part of Harvey's original Foundry. It is also clear that there is perhaps as much as a metre of ground above the original floor levels within the area of the Cash and Carry. There is great archaeological potential here.

We never expected to find this. Of course the building needs a measured survey to sort it out further, but I believe we know enough to recommend three things.

1. The building should be recorded.
2. The building is recommended for re-assessment of its listing Grade to Grade II\*.
3. Acquisition, consolidation and beneficial re-use of the building.

The building, as it currently is, is of course amazing having been transformed into a medieval gothic fantasy land. Windows have been blocked up (but not removed) and part of the 1st floor has been cut away to create a large stairwell. We should not underestimate how much new stonework has been added, nor the poor state of much of the building.

One rarely gets a chance to re-discover the place where Richard Trevithick, Henry Harvey, Arthur Woolf, I.K. Brunel and the Hornblowers visited and was so much part of the burst of engineering genius at the turn of the 19th century. Unbelievably, beneath the surreal veneer of gothic polystyrene and paint lies part of the original works, the yard, the original entrance and the extraordinary strongrooms. Every possible effort should be made to conserve these remains. Because of the poor state of the building, acquisition, repair and re-use under the auspices of a Trust is probably the only viable option. Whilst the re-use of the building is likely to cover the maintenance costs thereafter, it is unlikely that the capital costs of repair can be viewed as an economic proposition and would therefore require substantial grant aid.

If you feel that the Foundry Trust has a lot on its plate, it may be worth talking to David Scott of the Cornwall Buildings Preservation Trust. The County Council were prominent in setting up this Trust many years ago and it has been responsible for the saving and restoring for re-use of a number of important buildings. Let me know if you would like to meet David Scott. They might be interested in the Furniture store as well.

With best wishes.

Nicholas Johnson  
County Archaeologist