



R & J Development site, Copperhouse, Hayle, Cornwall Archaeological Assessment



Cornwall Archaeological Unit

**R & J Development site
Copperhouse, Hayle, Cornwall
Archaeological Assessment**

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The views and recommendations expressed in this report are those of Cornwall Archaeological Unit and are presented in good faith on the basis of professional judgement and on information currently available.

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Cover illustration

The front cover illustration (CAU F59/92 SW 5708 3783, 15/7/2002) shows an aerial photograph of the oldest part of Copperhouse, the site of the Ropewalk and Cornish Copper Company (CCCo). The former CCCo site can now be seen to be entirely occupied by the large buildings of the former J & F Pool metal perforating factory site. The turn of the century terraced housing fronting Fore Street and the later factory buildings providing a completely different landscape character to that of the former heavy industrial workshops of the Cornish Copper Company.

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Contents

1	Summary	1
2	Introduction	3
2.1	Project background	3
2.2	Aims	3
2.3	Methods	4
2.3.1	Desk-based assessment	4
2.3.2	Fieldwork	4
3	Location, setting and characterisation	5
3.1	Location	5
3.2	Setting	5
3.3	Characterisation	6
4	Designations	8
4.1	International designations	8
4.2	National Statutory designations	9
4.2.1	Listed buildings	9
4.2.2	Other statutory designations	9
5	Policies	9
5.1	Background	9
5.2	Saved Penwith Local Plan Policies	10
5.3	Cornwall Council's (new) Local Plan	10
5.4	National Planning Policy Framework	11
5.5	World Heritage Site Management Plan (2013 – 2018)	11
6	Site history	12
6.1	Hayle	12
6.2	Copperhouse	18
6.3	Project area history	20
7	Site description and significance	21
7.1	Site description	21
7.1.1	General	21
7.1.2	J.F. Pool buildings	Error! Bookmark not defined.
7.1.3	Cornish Copper Company Smelting and Iron Works	27
7.1.4	Cornish Copper Company Smelting and Iron Works – below ground remains	29
7.2	Archaeological Potential	30
7.3	Site significance	32
8	Site Gazetteer Table	33
9	Impact assessment	37
10	Recommendations	40

11	References	42
11.1	Primary sources	42
11.2	Secondary sources	42
12	Project archive	43

List of Figures (reproduced at the end of the report)

Fig 1	Project area map
Fig 2	Statutory designation and landscape characterisation map
Fig 3	Map of Hayle (1791-1796).
Fig 4	Partial plan of Copperhouse Foundry (1835)
Fig 5	Map of Hayle (1842)
Fig 6	Ordnance Survey map of the study area (1877 1 st Edition).
Fig 7	Ordnance Survey map of the study area (1907 2 nd Edition).
Fig 8	Aerial photograph of the project area (1946)
Fig 9	J. F. Pool No's 1 – 3 Works (Third Edition OS Map).
Fig 10	Photograph of the J. F. Pool Works
Fig 11	Photograph of the J. F. Pool Works
Fig 12	Photograph of the interior of the J. F Pool No. 2 Works
Fig 13	Photograph of the interior of the J. F Pool No. 2 Works
Fig 14	Photograph of the former J. F Pool No. 2 Works
Fig 15	Photograph of the former J. F Pool No. 2 Works
Fig 16	Site Inventory map.
Fig 17	Proposed ground floor plan (Laurie Wood Associates).
Fig 18	Proposed site plan overlying sites of known archaeological features

Abbreviations

CAU	Cornwall Archaeological Unit
CCC	Cornwall Council
CCCo	Cornish Copper Company
CIfA	Chartered Institute for Archaeologists
CSUS	Cornwall and Scilly Urban Survey
CRO	Cornwall Record Office
HER	Cornwall and the Isles of Scilly Historic Environment Record
HES	Historic Environment Service
LB	Listed Building
NGR	National Grid Reference
NPPF	National Planning Policy Framework
OS	Ordnance Survey
RIC	Royal Institute of Cornwall
WHS	World Heritage Site

1 Summary

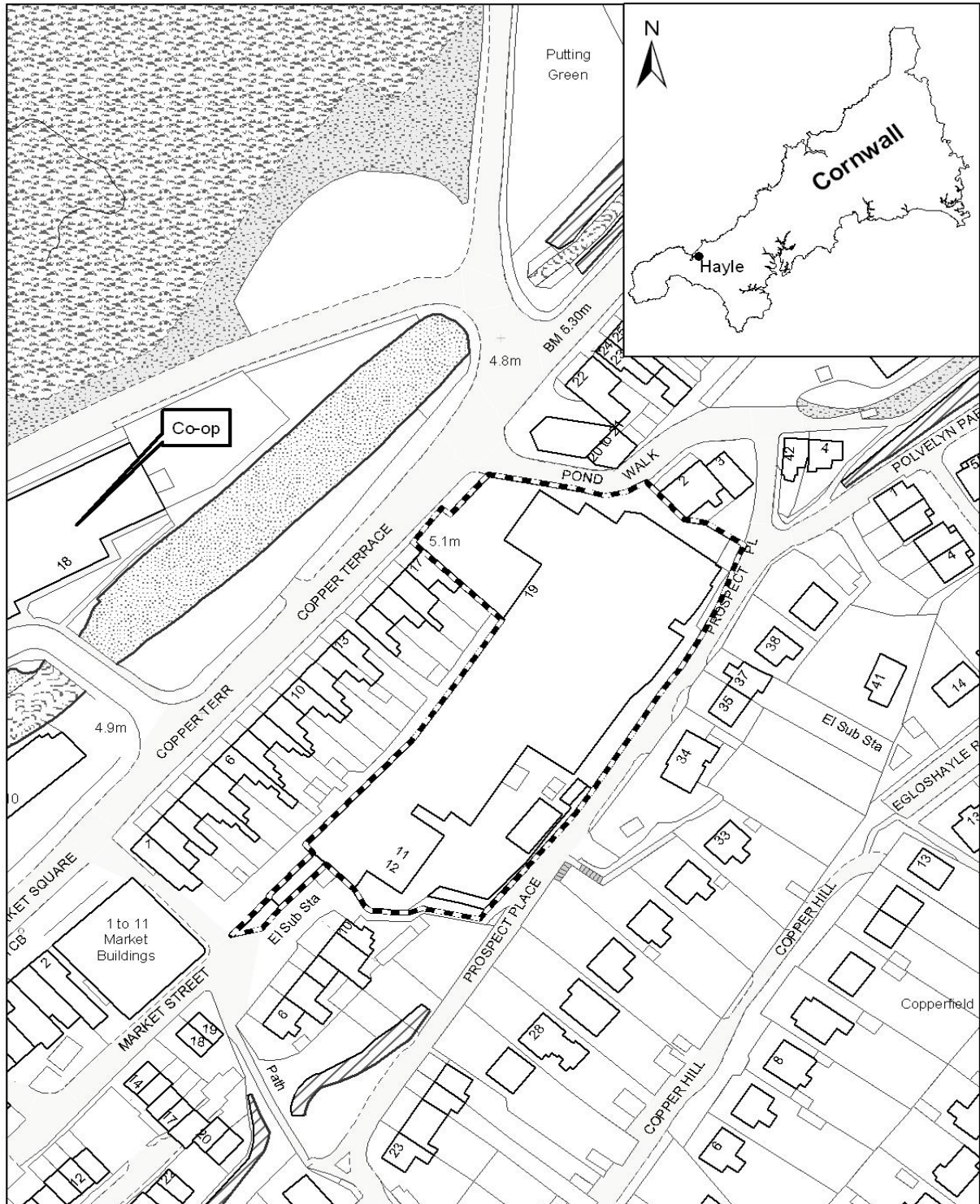
This project constitutes an archaeological assessment of a proposed land development project of 70 units (houses and flats), between the rear of Copper Terrace and Prospect Place Road. The desk based assessment is focussed on above and below-ground archaeological potential. Recommendations are made relating to the significance of the archaeological resource, in order to inform the project developers (R Maskell Ltd), and Cornwall Council (Planning/Advice) of the impact of their proposed scheme on the former site of the Cornish Copper Company foundry (1756 – 1869).

Within the project area, the archaeological resource takes three forms:

1. Historical and cartographic evidence for the siting and former functions of 18th/19th century Cornish Copper Company building remnants and related sites in the project area.
2. The potential for Palaeoenvironmental estuarine deposits below the sites of archaeological features in the northern portion of the site adjacent to Copper Terrace.
3. The nature and importance of the existing J & F Pool factory buildings occupying a large percentage of the site.

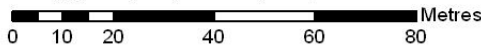
To summarise the history of the site: cartographic evidence appears to show that the site was utilised in a systematic way after 1756, but mainly after the Copperhouse Canal and Dock were built in 1769. The 1791 map (Fig 3) shows a number of Cornish Copper Company smelter buildings oriented north west to south east (bounded to the south east by the scoria block retaining wall), from the Market House and northwards along the road. The 1842 Tithe map (Fig 5) was produced after the Copper smelter company had ceased operating in 1819, but re-formed as the Cornish Copper Company (CCCo) with new Iron Works workshops and a new Iron Foundry further to the north east (out of the project area). There followed expansion of the project area site as one of Cornwall's foremost iron founders and Cornish steam engine assemblers. However, the closure of the Copperhouse Iron Foundry in 1869 and subsequent purchase by Harveys Iron Foundry seven years later was the death knell to a site that had been used for the manufacture of copper and iron products for the previous 120 years. The site was largely demolished by 1901 (see Fig 7) to make way for a new terrace of houses (Copper Terrace), leaving only a few examples of scoria block walls as the main visual evidence of its former site history. Prior to the First World War, J. F. Pool purchased the site behind Copper Terrace and built over the entire site over the next 50 years, creating the present buildings (No. 2 Works).

- The development is expected to have a significant impact upon any below-ground remains which are likely to include 18th and 19th century structures and deposits associated with the construction and use of parts of the former 18th century Copperhouse smelter buildings and parts of the later 19th century Copperhouse Iron works buildings. This may be partially mitigated by avoiding disturbance to these remains by re-siting the proposed buildings. If this is not possible, mitigation could be undertaken by the excavation of a small number of archaeological evaluation trenches to investigate the nature, extent and significance of the potential archaeological resource. This would inform both the site developer and the Cornwall Council Planning and Advice Team. If necessary the final recommended mitigation method option may also include the commission of an archaeological watching brief during site construction.
- The project area is adjacent to the World Heritage Site (WHS). The development proposals will have an impact on the setting of adjacent historic structures and related below ground deposits and therefore upon the World Heritage Site. It is therefore recommended that the proposals are discussed further with the World Heritage Site Planning and Advice team and possibly discussion as to an ICOMOS HIA.



Key
 Hayle Site

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Fig 1 Project area map

2 Introduction

2.1 Project background

In July 2015 Cornwall Archaeological Unit was commissioned by Terrence Kemmann-Lane (Planning and Development Consultant) on behalf of R Maskell Ltd, to undertake a desk based archaeological assessment of a site in Hayle, behind Copper Terrace (centred SW 5693 3801), currently occupied by substantial buildings formerly of the J & F Pool No. 2 Works, but now owned by R & J Supplies. A previous report (2006R048) was produced in 2006 for different developers at the same site – but this scheme did not obtain planning permission, and the site was not subsequently developed. The site is subject to development proposals that include demolition of the existing 20th century factory buildings and the construction of 70 units, comprising three houses, ten one bedroom flats and fifty seven two bedroom flats, and associated car parks (see Fig 17).

A project design for the original report for a desk based assessment was produced by Cornwall Council Historic Environment Service (HES) Projects section (dated 6/6/06). This was guided by a project brief from the Historic Environment Service (HES) Advice and Planning Team (Phil Copleston dated 17/5/06). The project design was subsequently agreed in July 2006 by HES (Advice and Planning). There has been no detailed project design for this subsequent report, simply a re-writing of parts of the report to include the latest scheme proposals (2015), updating the planning policies and describing the potential for site impacts and their mitigation.

The site is bounded by Copperhouse Terrace to the west, Pond Walk Road (and House No.2) to the north, the 18th century scoria block retaining wall to the east (adjacent to Prospect place Road), and the narrow scoria block path to the south (off prospect place Road). The site contains an amalgamation of substantial factory buildings constructed as the No 2 Works of the J & F Pool metal perforating works mainly between the two World Wars (c1914 to the 1960s), although re-roofing appears to have occurred since that date. The buildings are currently used as a warehouse, shop and distribution centre for summer tourist beach goods, etc.

The information provided by this survey will be used to inform project developer proposals that are being prepared by Laurie Wood Associates, on behalf of R. Maskell Ltd; to demolish the existing factory buildings and build a number of new three/four storey domestic buildings with car parking, of the archaeological impact of the scheme on site designations and underground archaeology.

2.2 Aims

The main detailed aims and objectives of this assessment report are to:

- Undertake desk based historical and cartographic research and field survey to a level sufficient to provide the client with the accurate location of surface and sub-surface archaeological features within the project area.
- Understand the development history of the project area within its local, regional and national context.
- Provide an assessment of the nature, extent and quality of survival of historic and archaeological features within the project area.
- To assess the nature, significance and character of the archaeological resource (national, regional and local importance), and potential for buried archaeology.
- To assess the impact of the development proposals on the importance and integrity of the historical and archaeological resource of the former site of the Cornish Copper Company (18th century smelter and 19th century iron founding works).
- To assess the significance of the archaeological resource and its contribution to Hayle's historic environment and historic character of Copperhouse.

- Produce a review of all previous archaeological and built environment studies of the area, and to collate all relevant designations and conservation policies that underpin re-development within the project area.
- Provide recommendations for the site and its components, including any requirement for further evaluative survey, excavation or information gathering, and for statutory or other forms of protection where appropriate.
- Produce a report outlining the findings of the assessment survey To set out proposals for mitigation (in particular, by design and archaeological recording), by minimising the impact upon the archaeological resource.
- Provide archaeological field and archive data for inclusion in Cornwall and the Isles of Scilly Sites and Monuments Register.

2.3 Methods

2.3.1 Desk-based assessment

During the desktop assessment databases and archives were consulted in order to obtain information about the history of the site and the structures and features that were known to have existed on it.

The main sources consulted are summarised as follows (refer to Section 11.0):

- Historical documents, plans and other published material held by the Cornwall County Records Office (Truro)
- Photographs: Historic Environment Service Photographic archive and Cornwall Council Aerial Photograph archive
- Cornwall and the Isles of Scilly Sites and Monuments Record
- Published histories (see Section 11.2)
- Aerial photographs (1946 - Fig 8 and 1996 - Fig 8) held by CCC
- Statutory and other planning designations for the site (CCC GIS)
- Previous detailed historical surveys of the area (Buck and Smith 1995)
- Hayle Estuary Historic Audit (Sept 1999 ref 43091.2)
- Hayle Historical Assessment (Cahill Partnership/CAU 2000)
- Hayle Historical Assessment Inventory (Cahill Partnership/CAU 2000)
- Cornwall and Scilly Urban Survey report on Hayle (HES 2005)
- Cornwall and West Devon Mining Landscape World Heritage Site Management plan 2013-2018

2.3.2 Fieldwork

- Detailed maps for use in the field were produced from the Ordnance Survey Landline Digital Mapping and amalgamated with information derived from historic maps (including the 1st and 2nd edition 1:2500 Ordnance Survey maps – Figs 6 and 7), County Record Office maps (CRO – Fig 4), a Royal Institution of Cornwall map (Fig 3), and other documentary sources.
- Field recording was based on a mixture of photography (digital) and annotated sketch recording with detailed notes.
- An NGR was noted for each site from the OS Landline. These were later recorded on the Cornwall County Council GIS (see Site Inventory map Fig 16).

3 Location, setting and characterisation

3.1 Location

The site (SW 5693 3801) is located on the southern side of the main road running through Hayle and the southern side of Copper Terrace, in the old Copperhouse heartland of Hayle Town and part of a linear conurbation extending along the road from Loggans Mill to the centre of Hayle in the west. Hayle is in the west of Cornwall (formerly Penwith district), and is very close to the north coast.

Fifteen sites within and close to the development have been identified from Cornwall and the Isles of Scilly Sites and Monuments Record (which are listed in Section 8.0). Within the project area (see Fig 1), the Hayle Historical Assessment (Cahill/CAU 2000) identified the following sites as being of extant historic fabric:

- Site 181 (Cornish Copper Company smelter/foundry building wall - PRN: 141054).
- Site 566 – PRN 140941 (Site 567 is adjacent - PRN 140935) - both scoria block wall remnants of the original smelter/foundry perimeter boundary.

In addition, within the project area the Hayle Historical Assessment (2000) identified Sites 198, 203 – 209 and 212 as being demolished or buried (all of which were former Cornish Copper Company (CCCo) Smelter or Iron Works buildings).

3.2 Setting

'Hayle is situated at the confluence of three streams, where they join and enter the sea; the Hayle River, the Penpol River, and the Angarrack Stream. The name "Hayle" itself is derived from the Celtic "heyl" meaning estuary (cf Helford). The shallow, broad estuary narrows considerably as it approaches the sea, for here it must cut through the Towans, a high expanse of sand dunes which borders the coast from Hayle to Gwithian. The estuary and creeks have silted and become very much shallower since the medieval period, largely as a result of tin-streaming and mining inland (St Erth was accessible to sea-going merchant ships before the 16th century). The Hayle estuary and Towans provide a setting of rare natural beauty for the later settlements of Lelant on the western shore, Phillack on the north, and Hayle town (as it was to become) on the southern shore' (Buck and Smith 1995, 5).

'The natural environment of Hayle is one of great variety, a unique blend of natural and man-made environments- farmland, marshes, sand dunes, river, mudflats, beach, bay, low lying moor – the importance of which is reflected in a series of statutory and local designations designed to protect and manage this landscape.

One of the special features of Hayle is its large open harbour which, while huge in itself, is still dwarfed by the scale of the estuary. The estuary and the various pools beyond the harbour, comprising mudflats and saltmarshes, provide a habitat for a wide variety of birds and plants. Copperhouse pool is an important feature within Hayle which is visually dominant when viewed from the east and also provides a constant reminder of the proximity of the estuary from within the built up area of the town.

While the broad expanse of estuary, glimpses of open seascapes, areas of dunes and moorland and agricultural vistas give an impression of great space, in reality the landscape is small in scale with a limited capacity to absorb development' (Cahill and CAU 2000, 19-20).

The project area is partly behind Copper Terrace and is mainly occupied by the former 20th century J F Pool metal factory buildings. Although the factory building architecture is markedly different from the surrounding 18th to 20th century domestic and former industrial buildings, its industrial function of large scale metal production follows that of its mid 18th century origins, with the Copperhouse district of Hayle as an industrial centre for over a quarter of a millennium.

3.3 Characterisation

In 1994 the whole of Cornwall was subjected to Historic Landscape Characterisation (HLC) in which each parcel was assigned to one of a number of HLC Zones according to its predominant historic landscape character.

The landscape characterisation within the project area consists of varying zone types (see Fig 2): the project area lies within an 'Urban' area (HER GIS layer 'Cornwall HLC Zones 1994') that has been characterised as 'Settlement older core (pre-1907)' (HER GIS layer 'Cornwall HLC Types 1994'). However to more accurately gauge the historical development of the site and environs of the Copperhouse area, reference should be made to the Hayle Historical Assessment and associated mapping (Cahill Partnership/CAU 2000), which shows the growth through time of the settlements – forming the character of the area that can be seen today.

The Cornwall and Scilly Urban Survey Project included Hayle, for which a report was produced in 2005 (Gillard and Newell 2005). The following text summarises the Copperhouse characterisation:

'Copperhouse is the commercial heart of Hayle. It retains a Market House of 1839 and a good collection of 19th century shopfronts. Historically an intensely industrial area, this use has reduced over time but an industrial character is retained in the surviving elements including the canal and dock, the continued warehouse/manufacture use of the former industrial sites and in the strong grid pattern of industrial housing laid out by the CCCo on the rising land to the south of Copperhouse Pool. A significant feature of the architecture of the area is the extensive use of scoria block, a by-product from the CCCo copper smelter located here in the 18th and 19th centuries.'

Issues:

The major historic industrial buildings in Copperhouse have been demolished, as have important early industrial housing. The industrial character of the sites is retained but is under threat from redevelopment pressure. Loss of this character risks the loss of the identity of the place and the understanding of why the settlement developed.

Elements of the CCCo survive but are not celebrated.

Recommendations:

Retain the industrial character of the CCCo sites. Conserve any remnant remains and investigate the archaeological potential of the site.

Celebrate the historic importance of Copperhouse and the CCCo'.

Hayle

The Hayle Historical Assessment (Cahill and CAU 2000, Section 8), assessed the historic character, importance and significance of Hayle. This has been summarised below:

'The character of Hayle is defined by its natural setting, its late development within an ancient landscape and settlement pattern, symbolised by the churches around the estuary, and its industrial and commercial history. What emerges is a settlement of great historical significance, contained within a landscape of equal merit'.

Copperhouse

The Hayle Historical Assessment (Cahill and CAU 2000, Section 8), assessed the historic character, importance and significance of Copperhouse, Hayle. This has been summarised below:

'The contrast between the strangely uncoordinated little groups in Foundry, and the full scale urban grid in Copperhouse is important and reflects the different development histories and character of the two areas. Fortunately this contrast has survived recent demolitions and infill development...There is some contrast between the slightly better quality workers' housing in Copperhouse, which uses the Hayle style detailing (for instance the south side of Bodriggy Street), and the ordinary cottages of simple render or exposed rubble stone and scoria...'

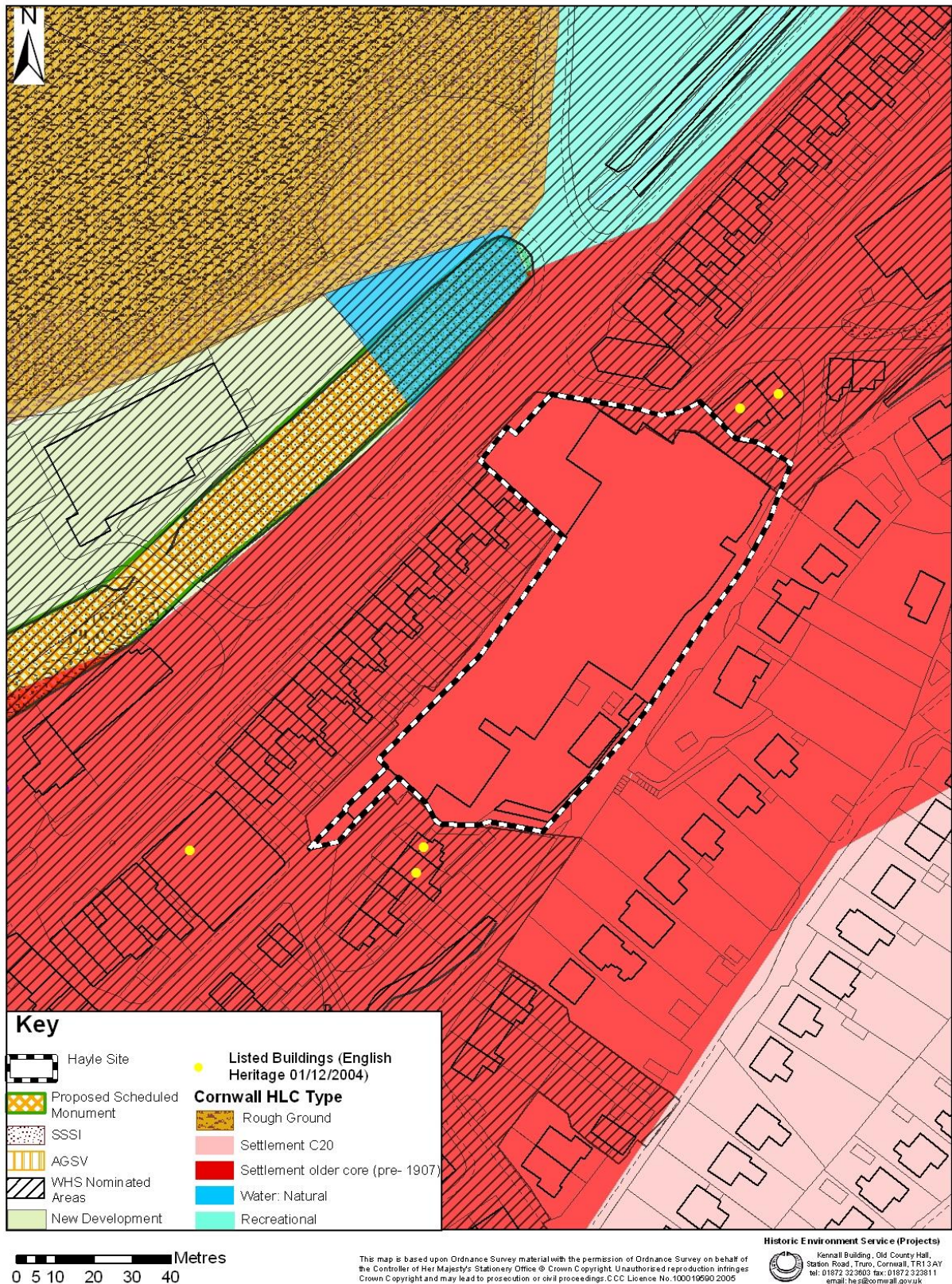


Fig 2 Statutory designation and landscape characterisation map

The predominance of rendered finishes in Hayle is due in large part to the extensive use of scoria blocks for building in Copperhouse, a characteristic and important feature, up until the closure of the copper smelter in 1819...The use of scoria stimulated the use of render, in order to cover the rather unpalatable blood-brown colour of the blocks, which must have been of dubious aesthetic value even in the 19th century. The use of rendered detail may also be due to the great number of large houses and other buildings that were built in the early 19th century, in what was then the fashionable Grecian detailed stuccoed style...Thus the 'Hayle style', typified by roughcast, with quoins, door surrounds and other details in rusticated or sometimes vermiculated stucco, seems to have developed in the 1820s and ran right through to be applied to early 20th century bungalows in the town.

Although the major historic industrial buildings in Copperhouse have been demolished, the scale of the 20th century factories and J & F Pool's metal works, still standing within the 18th century and 19th century enclosing walls of the CCCo yards, give an impression of what the original scale and character of the area must have been like. The industrial remains, including the wharves, are thus doubly significant. They are a monument to and represent, in a way perhaps unique in Cornwall, the integration of all the various industrial activities that, in the heat of the Industrial Revolution, made Cornish skill and enterprise, for at least some fifty years, pre-eminent in the world. They also represent the reason for Hayle's growth and prosperity.

Copperhouse remains the main retail centre in Hayle, where there are many fine surviving shopfronts which form an important element of its character. Some are certainly early 19th century, particularly those on the south side of Fore Street. Phillip's Butchers occupies a prominent and important position in the street on the corner of Market Square and Fore Street. Later 19th century examples are associated with the development of the north side of Fore Street, and the rebuilding of earlier buildings on the south side, although there is markedly better survival on the south side of the road.

(However) one of the most harmful development programmes in recent years has been the redevelopment of the area to the south of Market Square in Copperhouse. While the industrial remains of the Copperhouse complex, such as they are, appear to be under little immediate threat, and indeed retain substantial industrial character, the housing which was associated with the earliest (late 18th century) period of development here has been swept away. The site of Market Street, New Row, Trevassack Row and the chapel of 1816 is now a partially redeveloped housing scheme bearing only a limited relationship to the historic street pattern and building types which it replaced'.

4 Designations

4.1 International designations

The Cornish Mining World Heritage Site (WHS) seeks to demonstrate the international importance of the developments within mining and allied technologies which took place within Cornwall and West Devon during the last half of the 18th century and into the 19th century, establishing beyond doubt the contribution of this region to the development of the modern, industrialised world.

The World Heritage Site Management Plan 2013-2018 (2013, 31) statement of Outstanding Universal Value states: *'This mining port and industrial 'new town' was also the region's greatest steam engine manufacturing centre. The boundary has been drawn to capture the entire estuarine port setting (which contains an important maritime industrial infrastructure), and the historic core of Hayle town (including the remains of an internationally significant iron foundry) as guided by the existing Conservation Area designation'.*

The WHS areas in Cornwall, representative of the period of Cornish dominance of the mining world (c.1700-1860), includes the historic centre of Hayle and Copperhouse as a specific site (Area 2). The entire project area is set adjacent to the WHS boundary for

Hayle (see Fig 2), which surrounds it on three sides. The WHS is a statutory designated asset (protected by planning controls), although there are no specific statutory powers, it does have specific planning restrictions, and the NPPF accords greatest weight of all in planning matters to WHS assets.

4.2 National Statutory designations

4.2.1 Listed buildings

Figure 2 includes relevant designations within and close to the project area. There are no listed buildings within the project area; however close to the north and south limits of the project area are two Listed Buildings – both former CCCo Offices and both apparently built in the late 18th century. The building to the north (2, Pond Walk at SW 5697 3804) has the Listing No. 11/181 (PRN. 139207), and the building to the south (9-10, Market Street at SW 5697 3804) has the Listing No. 11/181 (PRN. 139204). Both sites shared the same history as the CCCo, except that now the foundry's buildings have gone, leaving these two sites somewhat isolated in context.

4.2.2 Other statutory designations

The Hayle Town Conservation Area covers the entire development site. In addition the SSSI (Hayle Estuary and Carrick Gladden), designated in 1993 and Area of Great Scientific Value (designated by Penwith District Council), has its southern boundary along the Copperhouse Canal south wall and is also a Cornwall Nature Conservation Site. Relevant designations arising from planning policies relating to the site are discussed in Section 5, and relate to saved Penwith Plans, the NPPF and the WHS Management Plan.

5 Policies

5.1 Background

From 1 April 2009, the six District Councils and the County Council became a unitary authority - Cornwall Council. Many of the planning policies that were used by the former districts have been **saved** until such time that a countywide Local Plan is adopted. These policies will be used to determine planning applications that are submitted to Cornwall Council, albeit that the national guidance of the NPPF will be given greatest weight in decision making if the saved policies are considered out-of-date.

The Secretary of State formally 'saved' a range of policies from the existing adopted Local Plan. Information on planning policy that continues to have some weight is available from each of the old District plans. Note that the Cornwall Structure Plan was revoked with the revocation of the Regional Spatial Strategy.

The saved Penwith Policies, the NPPF and the revised Cornwall and West Devon Mining Landscape World Heritage Site Management Plan, provide a range of relevant policies for the protection of the historic environment from the detailed level of an archaeological feature to county policies for the protection of the historic heritage of mine sites in Cornwall. The following policy abstracts (Section 5.2 to 5.5) are relevant policies from this range of documents.

The R & J Supplies building (formerly No. 2 Perfex building overlying the former Cornish Copper Company), is within the Hayle Conservation Area. The requirement for consent to demolish a building in a conservation area stems from the Town and Country Act 1990. The Enterprise and Regulatory Reform Act 2013 changed the consent required from Conservation Area Consent to planning permission.

5.2 Saved Penwith Local Plan Policies

The Penwith District Local Plan was adopted in February 2004, and a number of policies from this document were "saved" by the Secretary of State in September 2007. The Local Plan includes a number of policies for the protection and enhancement of the historic and natural environment, and to encourage economic regeneration. It is not proposed to discuss these in detail here, but reference should be made to the relevant Policies. In summary, the following policies apply:

CC1 - Protection of landscape character, etc.

CC2 - Proposals involving interpretation of landscape character, etc.

CC16 - Protection of areas of great historic value/archaeological remains of county importance

CC18 - Reclamation of derelict land/improvement of unsightly land

GD1 - Integration of development with surroundings (wider area/landscape impact and setting)

GD2 - The design and layout of development should [amongst others]: respect traditional patterns of development and styles, form and detailing; incorporate materials that are in keeping with the locality.

H3 (development control on previously developed land) and HG - Redevelopment behind Copper Terrace, Hayle. One of a number of specific policies relating to Hayle, part of a general regeneration and planning strategy.

TV1 - seeks to protect the setting and character of towns and villages and to ensure that new development is well integrated into the form of the settlement (National guidance places high priority on the re-use of previously developed and urban land and this is fully recognised in the Plan. However, within this approach it remains important to safeguard the amenity and character of urban areas if they are to remain attractive places to live).

TV15 - (preamble states that development) must make positive contribution to regeneration, and an improvement in attractiveness of built environment, and use be compatible with surroundings.

5.3 Cornwall Council's (new) Local Plan

In Cornwall the development plan comprises the 'saved' policies from the adopted Local Plan (in this case for Penwith 2004). The policies in the emerging Cornwall Local Plan are not part of the development plan and have limited weight because of the draft stage that the Local Plan has reached in the adoption process (the first version submitted to the Secretary of State on Friday 6 February 2015), but the policy and explanatory text does give a clear indication of the Council's direction of travel. However, the 'saved policies' of the Penwith 2004 Local Plan (Section 5.2) carry some weight, that weight depending upon the extent that these policies are consistent with the National Planning Policy Framework (Section 5.4).

'The emerging draft of the Local Plan for the submission to the Secretary of State seeks to address all aspects of land use planning including policies on minerals and waste developments. This draft contains a policy on the protection of the historic environment that applies to all development proposals:

Development proposals will need to retain Cornwall's local distinctiveness and character and protect and enhance Cornwall's historic environment and assets according to their international, national and local significance through the following measures;

- *Protect, conserve and enhance the historic environment of designated and undesignated heritage assets and their settings, including historic landscapes, settlements, Conservation Areas, marine environments, archaeological sites, parks and gardens and historic buildings*
- *Enhance and promote the outstanding universal value of the World Heritage Site and its setting; supporting the adopted management plan'.*

5.4 National Planning Policy Framework

The National Planning Policy Framework (NPPF) was published on 27 March 2012, replacing all the previous Planning Policy Statements, including PPS 5, as well as other planning guidance. Its central theme is the '*presumption in favour of sustainable development*', set out in twelve core land-use planning principles which underpin both plan-making and decision-taking.

Although matters relevant to the historic environment are scattered throughout these principles, particularly design, urban and countryside policies, it is the section on Conserving and Enhancing the Historic Environment which supersedes PPS 5, whilst following that document's significance-led approach to decision-taking.

5.5 World Heritage Site Management Plan (2013 – 2018)

The revised 2013–2018 World Heritage Site Management Plan policies remain unchanged from the original management plan (2005 – 2010), but have been re-ordered to refer back to the four core areas of activity set out in the World Heritage Convention; these are detailed below:

Protection:

Policies within this section are the basis for robust, long term protection for the WHS. This section includes the former Issues 4 *Strategic framework*, Issue 5 *Increasing protection*, and Issue 6 *Protecting the setting*.

Conservation & Enhancement:

Policies within this section relate to positive actions for improving the site's condition and distinctive character, and the integration of WHS priorities into wider regeneration agendas. This section includes the former Issues 7 *Sustainable development*, Issue 8 *Conservation of key components*, and Issue 9 *Curation of archives and collections*.

Presentation:

Policies within this section are designed to ensure that access to and enjoyment of the site is sustainable and equitable. This is the shared responsibility of public, private and third sector organisations. This section includes the former Issues 10 *Sustainable physical access*, Issue 11 *Increasing intellectual access*, Issue 12 *Coordinated marketing*, Issue 13 *Measuring economic outputs*, and Issue 14 *Community involvement*.

Transmit:

This section sets out policies aimed at increasing the understanding of the WHS and its Outstanding Universal Value (OUV). Understanding underpins appreciation and, ultimately motivation for conservation. This section includes the former Issues 11, 15 *Research and advocacy*, Issue 16 *Cultural distinctiveness*, and Issue 17 *International links*.

The following specific policies for this development site relate to the revised 2013-2018 WHS Management Plan:

Protection (Note: **Emphasis** added)

Policy P3: Planning authorities should ensure that new development protects, conserves and enhances the Site and its setting.

Policy P8: Developments outside the Site that will adversely affect its outstanding universal value will be resisted.

Conservation and Enhancement

Policy C1: Sustainable heritage-led regeneration should be promoted.

Policy C2: New development should add to the quality and distinctiveness of the site by being of high quality design and respectful of setting.

Policy C3: There should be a presumption in favour of retaining and re-using historic buildings which are important components of the World Heritage Site.

Policy C6: The conservation and continuing maintenance of the historic fabric of the site should be undertaken to the highest standards to ensure authenticity and integrity.

Policy C7: The historic character and distinctiveness of the Cornwall and West Devon mining landscape should be maintained.

6 Site history

6.1 Hayle

Excerpts reproduced from (Buck and Smith 1995):

The Hayle Estuary and its settlements have a long history, although Hayle Town is largely an 18th and 19th century creation. The story of the new town of Hayle is very complex, bound up as it is with the establishment and growth of two great firms, Harvey's of Hayle and the Cornish Copper Company. Hayle itself is as a result not in fact a single entity, but can be divided into at least three parts: *Phillack* the old churchtown, *Copperhouse* centred around the copper smelter and later Copperhouse Foundry, and *Foundry*, centred around John Harvey's foundry at the mouth of the Penpol creek.

As in most parts of Cornwall, human occupation around the Hayle estuary has probably been continuous since early in prehistory. In addition the estuary provided a safe harbour and a focus for trade and shipping. This is suggested by a number of sites and finds. The Iron Age hillfort at Carnsew is sited to overlook the estuary; it has recently been suggested that the existing graveyard of Lelant parish church may preserve the rectangular outline of a Roman fort. It is certainly well placed to control the estuary. The estuary was evidently an important focus for trade and contact in the early medieval period, especially in the 5th to 7th centuries AD. Finds of imported pottery of this date reflect international trade (tin perhaps traded for wine, oil, and pottery). These contacts probably facilitated the early development of Christianity; Phillack church has an important group of early Christian memorial stones, one of which, a chi-rho stone of the 5th century, is the earliest evidence for Christianity in the county. Another early Christian memorial stone, probably of the 5th century, is at the Carnsew fort; this, together with discovery of a Roman coin hoard, may suggest that the fort continued to be an important centre long after the end of the Iron Age.

In the 13th century Conerton manor passed to the Arundel family and remained in their possession until 1808 when it was purchased by a partner of the Cornish Copper Company. The first historical mention in documents of the word 'Hayle' occurs in 1265; in the 13th century many of the farming settlements bordering the estuary appear in documents for the first time, but most are likely to be much older. The earliest reference found for Trelassick is in 1302; Trevassack 1283; Penpol 1259; Riviere 1259; Venton League 1285; Carnsue 1350, with earlier mentions of Bodriggy in 1181 and Lugan in 1150. These settlements became tenements and large estates within the manor as feudalism died away, operating on a purely agricultural economic base. In the later medieval period, tin streaming became a major Cornish industry; huge amounts of waste sand and silts clogged up all the main estuaries, Hayle included. Leland, after seeing the estuary in c1533, commented on '*the Haven beyng barrid and syns chokid with tynne workes*', and that '*good talle shippes*' once came within bowshot of St Erth bridge. The cause of the problem was '*no greater tynne workes in al Cornewalle than be on Sir William Godolghan's land*' (8 miles upstream from Hayle). The problem of silting of the river bed and low tidal flow was to haunt Hayle for many years to come. But there was no large scale industrial development until the middle of the 18th century, as Fortescue Hitchin noted; in his parochial survey of 1735 '*one small solitary house*' stood on the ground soon to be covered by Copperhouse and latterly Hayle town.

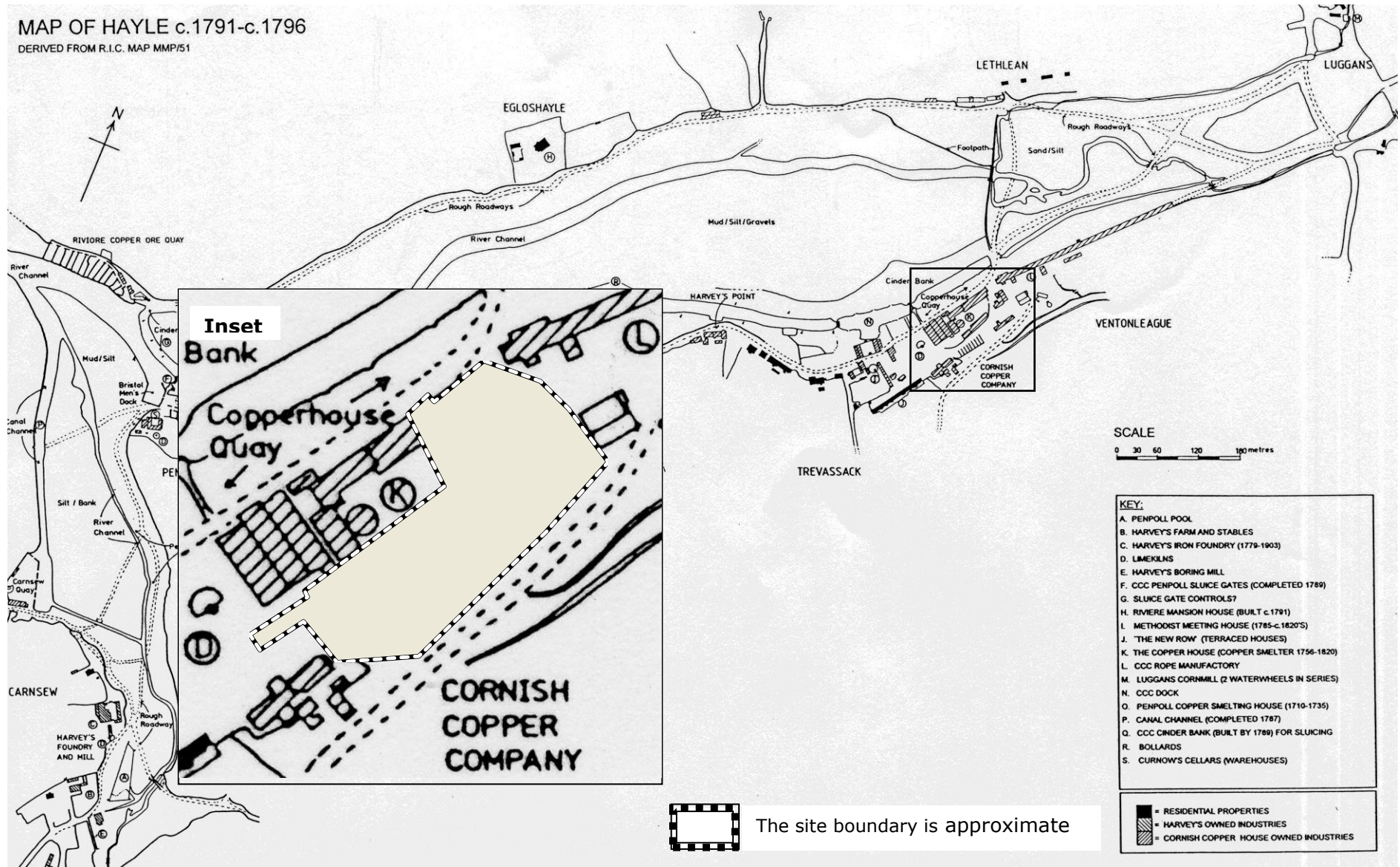


Fig 3 Map of Hayle (1791-1796). Reproduced from RIC (Courtney Library MMP/51)

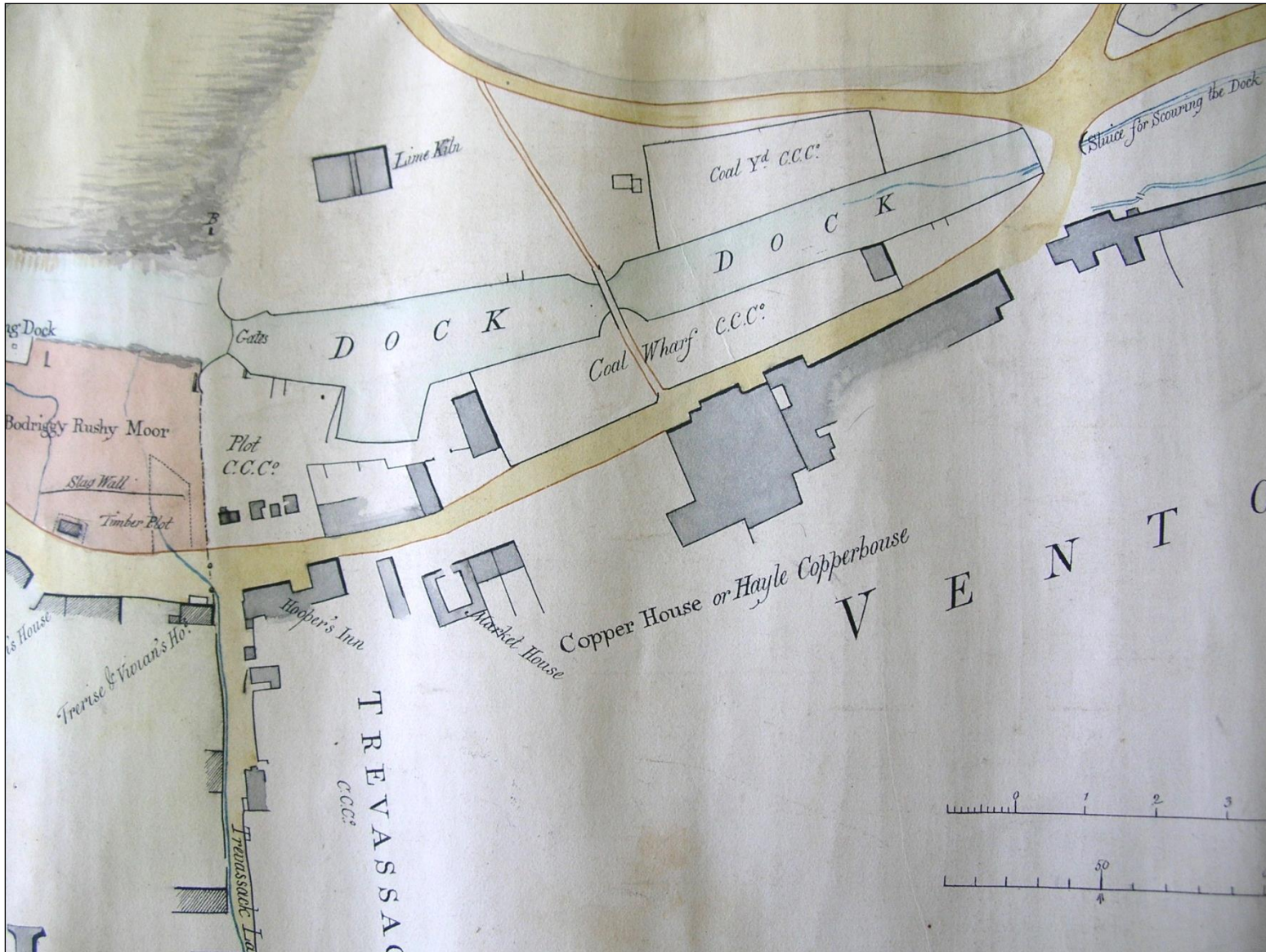


Fig 4 Partial plan of Copperhouse Foundry (1835) 'Bodriggy Wastrel Map' (CRO GBP3/12/1)

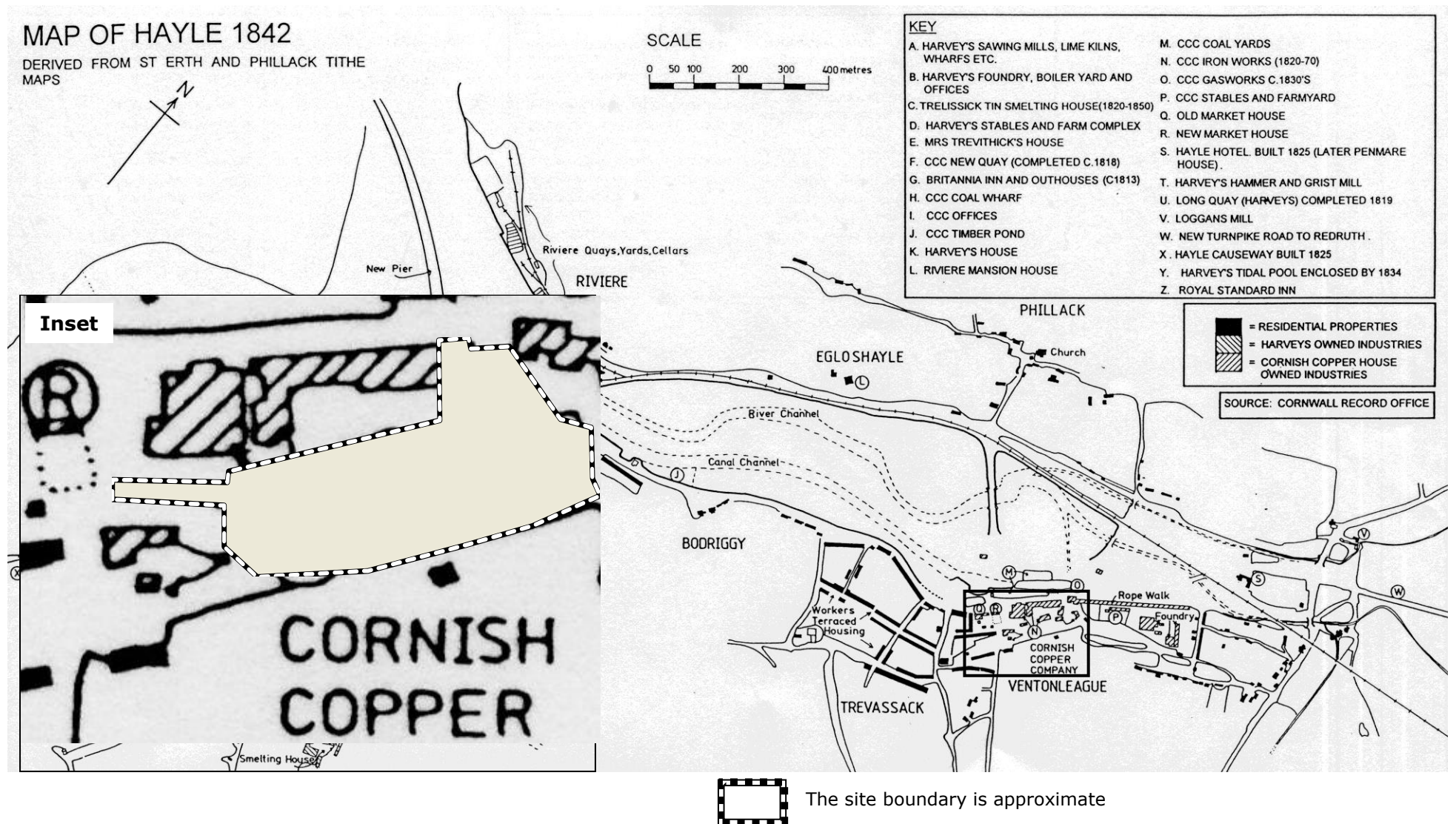
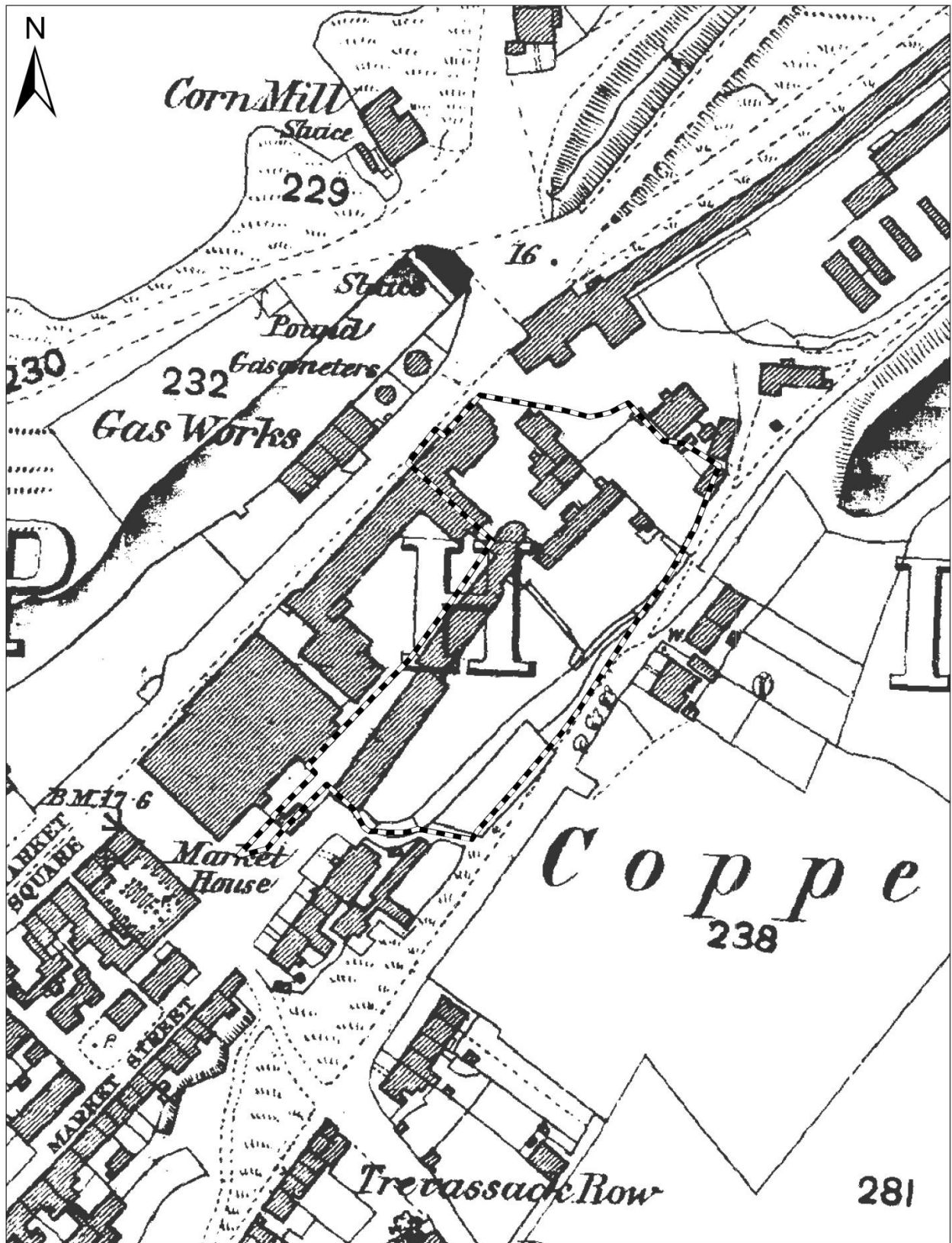


Fig 5 Map of Hayle (1842) Derived from St Erth and Phillack Tithe Maps



Key
 Hayle Site

0 5 10 20 30 40 Meters

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Fig 6 Ordnance Survey map of the study area (1877 1st Edition).

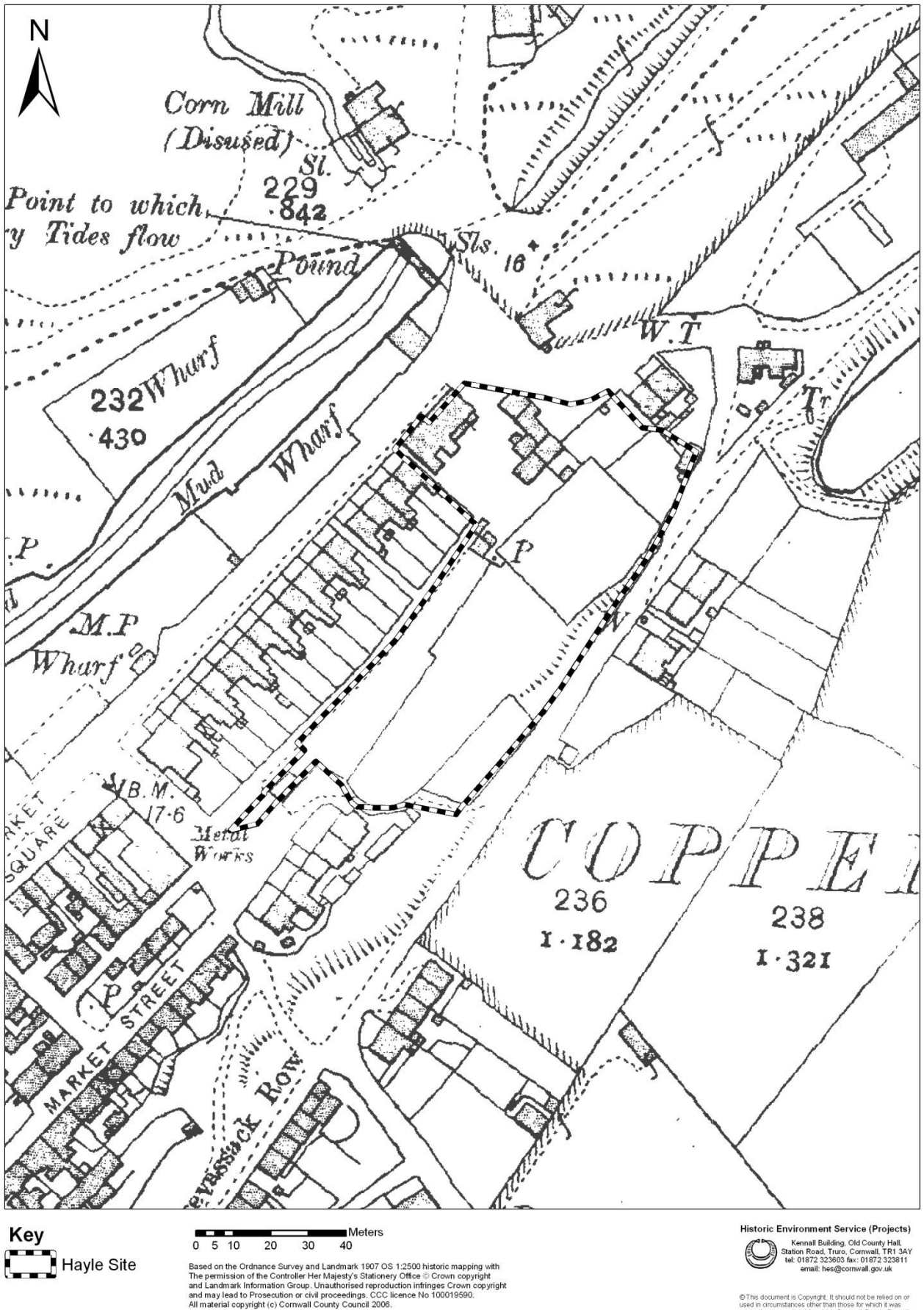


Fig 7 Ordnance Survey map of the study area (1907 2nd Edition).

Hayle's first industrial venture was a small copper smelter, set up near the lower end of Penpol creek in 1710. This closed by 1735, but paved the way for the establishment of Hayle as one of Cornwall's foremost industrial centres. From 1740, Hayle was increasingly used by local mines and traders for the import of coal, rope, bricks and other essentials. Quays were built in the narrows and at Carnsew, and although these could only be reached at high tide the mines supply business grew apace. By the 1750s there were over 500 mules and horses at Hayle, transporting supplies inland and returning laden with copper ore.

When Henry Harvey came to Hayle in 1779 to set up his foundry, there was little more than Carnsew Quay and a few cottages in the locality. At Copperhouse, near the smelter, there was at least a row of terraced houses and a public house; on the northern bank of the pool, even John Edward's Riviere House was yet to be built. Within the space of one hundred and twenty years Hayle Town as we know it today grew up around the harbour and the two great foundries, so that by 1900 the town plan and all the major buildings were in place. Since then, the history of Hayle Town has been one of decline and dereliction in the centre and expansion at the periphery, where new housing estates have engulfed the field patterns of the 19th century maps.

In retrospect, it is surprising how few worker's houses are evident on the c1790 map; the copper smelter, ropewalk, quays, and Harvey's foundry were all well established by this time and it is hard to imagine that all the workforce employed could have been accommodated in the houses available. Presumably, many made a daily journey from St Erth, Lelant and the surrounding area. By 1842 the situation was radically different. New terraces of housing had been built, including Penpol Terrace, Tremeadow Terrace, Hayle Terrace, St Johns Street, Bodriggy Street, and Caroline Row (all in place on the 1842 Tithe Map). The 1840s were generally a period of expansion and prosperity in Cornwall, and Hayle appears to have been no exception. Both foundries were approaching their zenith as pre-eminent engineering works, and the resulting increase in employment was reflected in public confidence for the future of Hayle.

The later years of the 19th century did not greatly change the town plan established by 1842. Copperhouse infilled rather than expanded, and was progressively physically joined to Foundry as housing lined the creek-side road. The most notable development on the 1907 map is the establishment of Foundry Square and its surrounding terraced houses, which mostly post-date the Tithe Map. Hayle had by this time acquired most of its public buildings, including the market halls at Copperhouse and Foundry (1839 and c1850), five non-conformist chapels, St Elwyn's Church (1888), and the Passmore Edwards Institute (1893).

As a direct result of Hayle's industrial development, the town is still composed of two distinct parts, identifiable as Foundry and Copperhouse; although both contain typical vernacular terraced housing the character of their commercial and public buildings still reflects the separate nature of their growth. The extensive use of scoria block as a building material in Copperhouse serves to strengthen the difference.

6.2 Copperhouse

Excerpts reproduced from (Buck and Smith 1995):

'In 1758 the Cornish Copper Company set up a copper smelter at Ventonleague on the southern shore of the Phillack estuary. The company had moved here from Carn Entral, Camborne, as the cost of transporting coal inland was proving prohibitive. The estuary at this point was very shallow, however, and in order to bring vessels right up to the works a canal was dug from the mouth of Penpol Creek up to Ventonleague. By the 1780s the company had become extremely successful, despite the opposition of the Welsh smelters; additional land was purchased on both sides of the creek, and two quays (North Quay and Carnsew Quay) had been acquired by 1789.

The process of copper smelting created large amounts of black, glassy waste slag, and this material was used to create additional land along the foreshore; slag infill was used

to build Sea Lane (or the Black Road) at the head of the canal, giving access to the northern shore and North Quay. Slag was also cast into building blocks (scoria blocks) which were used to construct many of the buildings at this end of Hayle, including the Black Bridge and the Copperhouse Chapel. Scoria block buildings are a characteristic and important feature of Hayle, although often now obscured by later rendering. The area around the works soon included terraces of housing for the workers at the smelter, shops, public houses and a chapel, known to all as 'Copperhouse'. Soon after 1769 Phillack Creek was impounded with sluices added at the lower end in 1789, creating a reservoir which could scour the harbour clear of sand. At the end of the 18th century there were 26 furnaces at the smelter, employing 150.

The Cornish Copper Company and the Harvey family were now locked in a bitter and drawn out dispute over rights to the waterfront at Carnsew and Penpol, a situation which was primarily engineered by the Copperhouse Company in an attempt to establish a monopoly of trade within Hayle. Although the dispute was eventually resolved, it affected the development of the harbour and quays in a way which is still evident today. The long rivalry also contributed to the distinctive, and different, identities of Copperhouse and Foundry.

In 1819 the Cornish Copper Company ceased to smelt copper ore and closed the furnaces, and the Welsh smelters were left with a virtual monopoly on the world's copper. Although the company still had the merchant trade and control of the majority of the quays, it needed to diversify in order to survive. The smelter buildings were converted internally to workshops, and a new iron foundry works was constructed to the north east which became the Copperhouse Foundry (furnaces and boring mill, etc.). In later years this foundry was known as Sandys, Carne and Vivian, or simply 'Copperhouse'. Other engineering and assembling works were carried out at the former smelter works site (i.e. the project area of this report). The Copperhouse foundry as a whole became one of the "big three" in Cornwall, ranked alongside Harvey's and Perran for the quality of their work and engineering expertise. Engines built by Copperhouse survive at Kew Bridge, Parkandillack and South Crofty; other notable commissions included parts for one of the Haarlem Meer engines in Holland, and suspension chain links for Brunel's Clifton Bridge.

By the 1860s the foundry, like others in the county, had few orders and was struggling to survive. Closure came in 1869; there was no buyer for the foundry itself (although the quays and other property were quickly acquired by Harvey's) until 1876, when Harvey's purchased the works at a very low price' (Buck and Smith 1995, 8 – 10). The machinery was then scrapped or removed and some of the main foundry buildings unroofed. The site remained derelict until the old smelter/iron works buildings (south of the Ropewalk), were demolished by 1901 by Jack Luke, a property developer (who had made his fortune prospecting in South Africa), and the land close to the road replaced by a terrace of houses, aptly named Copper Terrace. The former iron works buildings behind the new terrace also appear to have been demolished presumably at the same time (although a section of wall (Buildings 8 and 9) appears to have remained by 1907 – see Figs 16 and 7 respectively).

In 1862 James and Frederick Pool developed further the business (set up by their father also named James since 1848), of supplying the local community with ironmongery and tin ware. The sons started to specialise in woven wire mesh and metal sheet punching machines for screening, sieving and grading screens for mine ore dressing machinery. The No. 1 Works (named Jumbo Shop) were built in 1911 next to Chapel Lane, Copperhouse and housed the large machine presses. The Perfex Works (No 1 Works) were extended in 1946 and then again in the 1960's to accommodate the company's rapidly increasing business (including large 350 ton presses, bending rolls, guillotines and rotary shears, press brakes and large jig borers by 1970), fulfilling the demand for a variety of firstly government products for war materials and latterly for home markets (Fig 9 shows the site of these works).

The land behind the newly built Copper Terrace (the project area for this report) was progressively built over during the following half century (from approximately 1914 to the 1960's) to become the J. F. Pool (No 2 Works) Factory site (see Figs 9-11). This was built to house the fabrication, machine and fitting shops. The pattern shop was also housed here for casting parts for the company's stone screening and other equipment. During the Second World War the factory focussed on army products, munitions and sheet steel products for airplanes. This large site was also expanded to the north (near the former CCCo Offices) in the 1960's to accommodate the Sheet metal processing machines. The consolidation program of the mid 1980's saw the final closure of the No. 2 site and subsequent leasing of the entire site by R & J Supplies (beach tourist products shop and distribution centre), from the end of the 1990's to the present day.

In the late 1960's the No. 3 (Phoenix) Works were acquired. The site was the former CCCo Foundry (housing the furnaces and boring mill, etc.) and latterly the Phoenix Foundry, although it had been formerly used by the Ministry of Defence to store rations and equipment. The old building was first used by J. F. Pool as material stores, but then as business increased in the late 1970's, the building was demolished and a new purpose built stores built. By the early 1980's the company was spread over 16 acres with more than 10,000m of covered workshop and office areas. A major consolidation program (including many redundancies) was embarked upon to create a centralised purpose built production, finishing and administration facility at this site which had already been extended and modified to take product finishing. By 1985 the programme was completed and all other smaller premises had been sold. The company specialised in perforated and expanded metal manufacture in the late 1980's, but in 1987 the Pool family finally sold its business to the C.I. Group plc, a general industrial company based in Wolverhampton. This company in turn was purchase by another engineering business named Ash and Lacy Plc in 1995. Work at this site finally ended in the late 1990's. All of the J. F. Pool factory sites (Works 1 – 3) described above are shown on Figure 9.

6.3 Project area history

Figure 3, the 1791-6 map of Hayle shows the beginning of planned workers housing close to the main centres of industrial production and quays, namely between Ventonleague and Trevassack (Cornish Copper Company), Harvey's Point, Penpoll (Dock's and Quays), and Harveys Foundry at Carnsew. The Copperhouse Canal and Dock was built in 1769. This enabled sea going ships to come right up to the Copper House quays and the Dock, all close to the Copper Smelter. The site of the Copper Smelter had by the 1750s been created by excavating into the sides of the Phillack valley, forming a revetment retaining wall (approximately 7.0m high – see Site 11 – south end), of scoria block (although this does not appear to be shown on the map). The inset map (RIC MMP/51) shows the approximate project area site in greater detail. By the 1790s the map shows three pairs of long narrow buildings oriented from the north west next to the road. To the north east of this are two more buildings set parallel to the road and a further two more buildings against the base of the tall retaining wall (Site 11 – north end). A large round building may be a large copper smelter furnace or perhaps a limekiln (for a flux material). A series of copper ore/coal/limestone hutches on the south side of the site (against the retaining wall), may be related to the smelter operation and stored products to be fed into the smelter furnaces. Figure 4 the 1835 map of the CCCo Iron Works shows the main buildings next to the road but unfortunately did not include those to the south (within the project area). Unfortunately there were no maps seen at the County Record office detailing the individual functions of the CCCo iron works buildings – presumably they were destroyed when Harveys finally purchased the company and site in 1876 (although in developmental terms the 1842 Tithe map (Fig 5) and the 1877 OS Map (Fig 6) illustrate the two main phases).

By 1842 (over 20 years after the site had changed from copper smelting to an iron works), the amalgamated Tithe Maps of St Erth and Phillack (Fig 5), shows (with the exception of the Rope Walk), that many of the former Cornish Copper Smelting House

Buildings appear to have been retained, but presumably their function changed from smelting to an iron works. The new Iron Foundry (containing the brass furnace, the iron furnaces, the boring mill and the small pattern shop with carpenter's shop – Pascoe 1981, 127), was built below the northern end of the Rope Walk at Ventonleague (outside the project area), on a site later developed as the No. 3 J. F. Pool Works. At Trevassack, during the previous half a century many more workers terraced houses had been built south of Fore Street. The inset map shows the approximate project area site in greater detail.

The 1877 OS Map (Fig 6), eight years after the Cornwall Copper Company ceased to operate (and a year after Harveys purchased the site), shows a limited increase during the past 35 years in new building construction to the southern end of the original Smelter buildings, and smaller scale extensions to the buildings running parallel to the road. The two buildings immediately south of the large buildings next to the road shown on the 1842 Tithe Maps (Fig 5), have both been extended by 1877 to join up and form two long buildings. Within the project area, these buildings are numbered Sites 8 and 9 (in Fig 16). In addition buildings 1 – 3 have also been slightly extended or enlarged from the period 1842 to 1877.

The 1907 OS Map (Fig 7) shows the most dramatic change in the building topography of the project area for at least 150 years. The new Copper Terrace houses have been built over the demolished site of the former main smelter/iron works buildings. The southern wall of Buildings 8 and 9 appears to be extant (height unknown), although the rest of the building has gone (presumably also during the demolition of c1900). Building 1 had also gone, leaving buildings 2 and 3 as the only major remnants of the former buildings related to the operations of the Cornish Copper Company within the project area.

In common with many towns in Cornwall, the beginning of the 20th century was a period of relative stagnation, where the Cornish mining related industries had all but collapsed in a few cases and the related industries that had served the mining enterprises (foundries/ports/transport networks, etc.) had all but collapsed. Even the great Harveys Foundry at Carnsew (west Hayle), had diversified into shipbuilding in order to survive, but finally succumbed to close in 1903.

The 1947 aerial photograph (Fig 8) shows the site to be mainly filled by the J. F. Pool buildings after the Second World War period of expansion. The Third Edition OS Map (Fig 9) shows a similar distribution and layout of the J. F. Pool No. 2 Works factory buildings.

The front cover 2002 aerial photograph and Fig 16, the OS Landline Map shows the site as it is today, which differs little from the third edition map (Fig 9) or the earlier 1947 aerial photograph.

7 Site description and significance

7.1 Site description

7.1.1 General

The site (centred SW 5693 3801), comprises land approximately 70m at its widest point (adjacent to the Copperhouse Canal), and 125m from north east to south west for the main part of the site. The site project boundary on its northern side is adjacent to Pond Walk Rd and the Listed Building of No. 2 Pond Walk (11/181, PRN 139207 at SW 56973804). The eastern/southern project area boundary follows the west side of Prospect Place Rd, until the narrow scoria walled path is followed down to Market Street, forming the south western project area boundary. The western project area boundary is behind the end of the gardens of the Copper Terrace houses and adjacent to the end house of No. 17. This report does not cover the structural condition of the buildings.



Fig 8 Aerial photograph of the project area (1946) CCC/BKS/1946 A11 5063

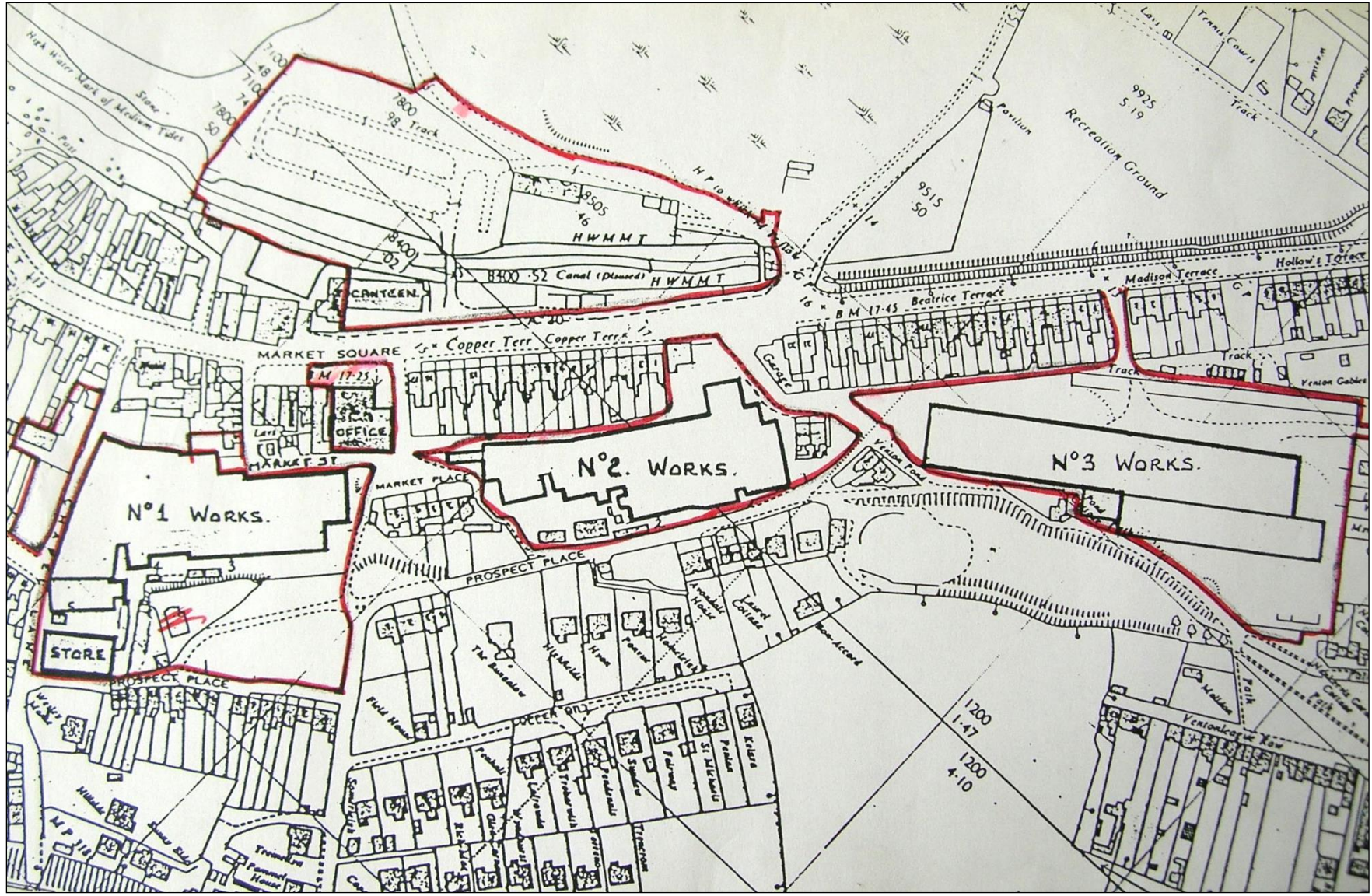


Fig 9 J. F. Pool No's 1 – 3 Works (Third Edition OS Map). Study area site is the No. 2 Works. Reproduced from CRO un-catalogued J. F. Pool Collection



Fig 10 Photograph of the J. F. Pool Works (Reproduced from CRO un-catalogued J. F. Pool Collection)

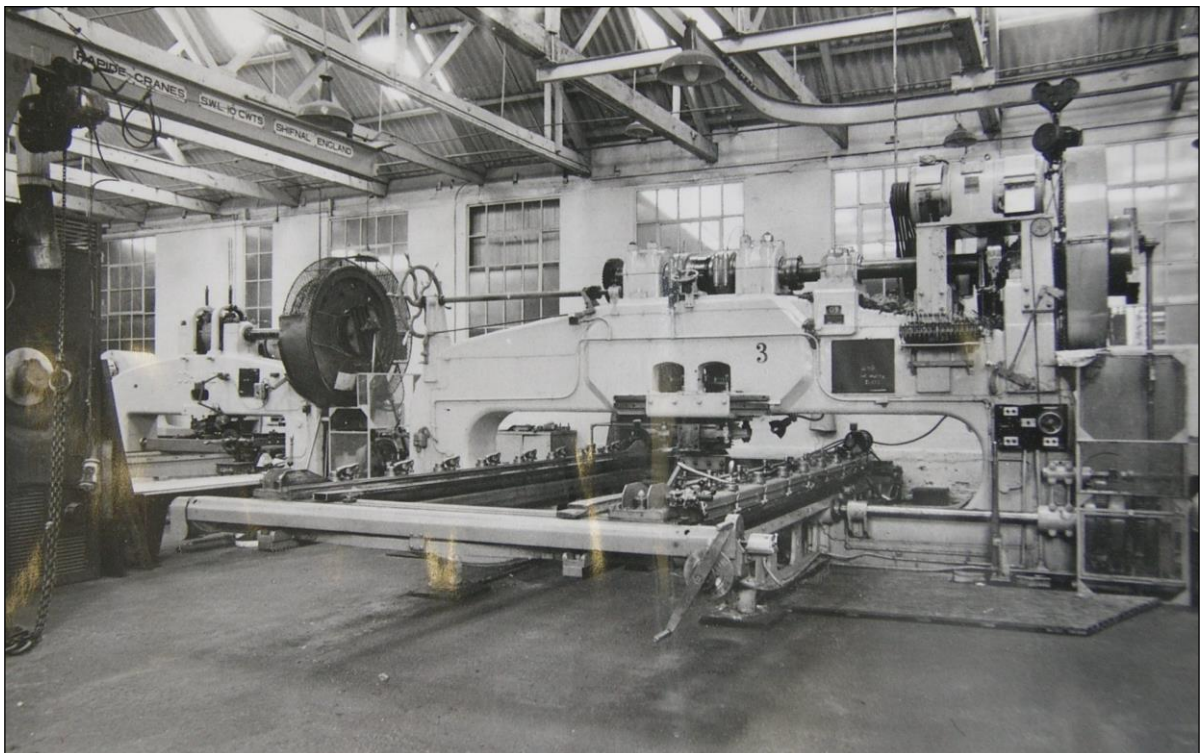


Fig 11 Photograph of the J. F. Pool Works (Reproduced from CRO un-catalogued J. F. Pool Collection)



Fig 12 Photograph of the interior of the J. F Pool No. 2 Works © CAU 2006



Fig 13 Photograph of the interior of the J. F Pool No. 2 Works © CAU 2006



Fig 14 Photograph of the former J. F Pool No. 2 Works © CAU 2006



Fig 15 Photograph of the former J. F Pool No. 2 Works © CAU 2006

7.1.2 J.F. Pool buildings

With the exception of the parking forecourt area in front of the concrete block extension with the sign 'R. & J Supplies', most of the remainder of the site has been filled by the former J. F. Pool factory buildings. The buildings appear to be constructed of concrete block walls with an external concrete render to a height of approximately 4.5m. The walls appear to have been strengthened with vertical steel straps at intervals which are now cracking and flaking, causing the external render to expand and also crack and fall from the building. Above the top of the block walls are 1.5m high vertical asbestos sheets (see Fig 14). Large windows have been set in the sides of the walls at 1.9m centres which are 1.3m in length and 2.3m high, with external timber framed wire cages to stop birds from getting into the factory building, but to allow ventilation. The roof also is constructed of pitched asbestos sheets with clear plastic sections added at intervals with rounded air vents (see Fig 15).

The interior of the buildings (see photographs reproduced in Figs 12 and 13), show signs not only of age (the roof is leaking badly at many locations), but of the use of the site over the previous 90 years reflecting the variety of technologies used in the manufacture of metal products. Figs 10 and 11 show the large machinery used in the latter decades (c1970s), housing large presses/rolls, etc. The final factory use of the buildings is reflected in Figs 12 and 13, showing the number of added concrete block partitions, and the preservation of the upper roof level lights and structural cross members. At ground level, industrial switching for each room can be seen and the numerous excavations into the concrete floors for new pipes/wiring, etc., and subsequent concrete patch infilling. The interior photographs also show how damp the building has become, causing the large number of cardboard boxes of tourist beach items (R & J Supplies), to rot and decay at a number of places.

A recent revised site assessment in July 2015 found that the building has been occasionally broken into and vandalised, whilst more roof lights are broken, letting water in at a variety of locations. However, the site and buildings remain essentially the same as observations made in this report during the 2006 site survey.

7.1.3 Cornish Copper Company Smelting and Iron Works

The only visible evidence for the Cornish Copper Company Smelting and Iron Works buildings are the scoria block remnants around the south and eastern boundaries of the site. However, apart from Site 12 (a fragmentary scoria block remnant of the former roadside boundary wall/building next to Copper Terrace), HES Site 13 is the only visible masonry of the former scoria block copper smelter building (the main site was demolished in c1900, to build Copper Terrace). This is located on the main west side of the J. F. Pool building which at a relatively recent date functioned as a garage repair and workshop (opposite the end gardens of Nos 6 to 9). The characteristic scoria block is approximately 2.0m high, with single paned windows (0.7m high) set on top of the wall, with a galvanised steel sheeting pitched roof. Near the southern end of the wall there is an original opening (2.6m wide) with granite quoin stones set at its north side. The quoins on the opposite side are missing. This wall (from cartographic evidence) appears to be the only surviving remnant of the CCCo Smelter/Iron Works. It appears to be the section of scoria wall that slightly juts out from the building line of the south side of the building, as shown on the 1791 and 1842 maps (Figs 3 and 5 respectively).

Adjacent to the scoria block building is a concrete block building (named Celtic Iron) 4.0m high, with a mono pitched galvanised roof, and to the south (Site 7) a low (mainly) concrete block wall 1.0m high for a length of 4.6m and then a lower section of wall 0.7m high for a length of 5.0m, obscured by vegetation.

The scoria block path boundary walls to the south (Cahill 2000, Site 567, HES Site 10) of the project area (between Prospect Place and Market Street), are built in the traditional style with rounded coping stones. The walls are approximately 1.5m high above ground level. Unfortunately there is a 5.0m section of walling along this narrow path that has gone and has been replaced by concrete block.

The eastern boundary of the site has been formed (to create the original Copper Smelting buildings and yard – see Fig 3), by excavating into the former valley side, and building a high retaining wall built of scoria blocks (HES Site 11). Close access to this was not possible but the angled wall is approximately 4.5m high (with water 'weep holes'), from the concrete floored rear yard to a narrow section of flat ground (approximately 0.7 to 1.0m wide), before the Prospect Place scoria block wall (also with rounded coping stones), can be seen (approximately 2.5m high from the narrow ground section, but only 1.5m high on the road side of the wall). This wall forms the upper boundary to the site along the length of Prospect Place, but is quite overgrown at its northern end and boundary return to the Listed Building of No. 2 Pond Walk.

The Hayle Historical Assessment report (Cahill and CAU 2000), describes in its site inventory section individual buildings in detail. These are reproduced in detail below for those sites which contain standing historic fabric (Note: HES sites in brackets refer to this report site gazetteer number – see Section 8).

Sites within the project area which are good examples of the standing historic fabric (Cahill and CAU 2000, Map 15e):

181 (HES Site 12)

HAYLE, COPPER TERRACE (Figs 15e, f)

WALL

SW56923803 PRN: 139202

Front of R. & J. Supplies. Fragments of Cornish Copper Company foundry building constructed from scoria block and granite, perhaps the only standing remains of the foundry itself.

566 (HES Site 11)

HAYLE, PROSPECT PLACE (Figs 15e, f)

WALL

SW56933790 PRN: 140941

Retaining walls and walled path. Late C18. Scoria block. These are the retaining walls to the former iron Foundry, and on the north side are of considerable height. A massive piece of engineering, and probably the largest single structure built of scoria blocks in the town. Along the west side of the site, a pathway descends from Prospect Place to Market Street and the former Foundry Offices [183], and is enclosed by scoria block walls.

567 (HES Site 10)

HAYLE, PROSPECT PLACE (Fig 15f)

WALL

SW56923791 PRN: 140935

Wall. On the south side of Prospect Place, opposite the retaining wall to the Foundry site, the embankment is partly revetted with stretches of scoria block walling.

The Hayle Historical Assessment (Cahill and CAU 2000, 49-50), also describes the structures in the main text report. These are reproduced in detail:

'Although substantial structures stood until 1978 (Phoenix Works), virtually nothing now survives of the buildings of the Copperhouse industrial complex, although the boundary walls and yards still define the layout of the site.

What does survive is a fragment [181] of the 18th century copper smelting complex. Built of scoria and granite, it is now a car park wall and is perhaps the only standing part of any of the buildings of the Copperhouse complex - the ropewalk wall [187], may actually be an enclosure wall rather than part of a building.

Much more substantial remains do survive of the boundary walls of various other parts of the Copperhouse sites. The massive northern boundary wall [187] and gateway of the early 19th century iron works [193] are constructed of scoria; the southern wall [495], less massively constructed, is of killas - the difference may be because the northern wall is actually part of the 18th century Ropewalk, although it is more likely that the southern wall shows later 19th century expansion of the site. Another massive wall of scoria [566] acts as a retaining wall to the older site - it is difficult to establish its exact period of build, parts (at the west end) may be 18th century, most of it may post-date the 1842 Tithe Map, even though it uses so much scoria. It acts as a retaining wall for Prospect Place to a very deep excavation of the hillside which clearly marks an expansion from the original smelter site on the foreshore, and may be part of the first phase of the iron works of the 1820s. At the west end is a walled path with steps leading down to the former CCCo offices [183]. The wall [567] on the south side of Prospect Place, which is also of scoria and retains the upper slope of the hill, is clearly shown on the 1842 Tithe Map, and suggests that the terracing of this hill was done by CCCo, with the intention of houses being built here - although only one [529] had been built by 1842, and not much more even by 1877, suggesting this activity may all date from the 1840s, when things had begun to slow down in Copperhouse'.

7.1.4 Cornish Copper Company Smelting and Iron Works – below ground remains

The Hayle Historical Assessment report (Cahill and CAU 2000), describes in its site inventory section individual buildings in detail. These are reproduced in detail below for those sites which are demolished or buried (Note: HES sites in brackets refer to this report site gazetteer number – see Section 8).

Sites within the project area which are demolished/buried (Cahill and CAU 2000, Map 16e):

198 (CAU Site 3)

HAYLE, COPPERHOUSE (Figs 16e, f)

BUILDING (site of)

SW56953802 PRN: 139219

This building appears to be shown on the 1842 Phillack Tithe Award but is most clearly defined on the 1877 1st edition OS. It was owned by the Cornish Copper Company.

203 (CAU Site 2)

HAYLE, COPPERHOUSE (Figs 16e, f)

BUILDING (site of)

SW56923803 PRN: 139224

This building was a component of the Cornish Copper Company smelting works as indicated on the 1791-96 map of Hayle (RIC MMP/51). It had disappeared by the time of the 1907 2nd Edition OS map having been built upon by Copper Terrace.

204 (CAU Site 2)

HAYLE, COPPERHOUSE (Figs 16e, f)

BUILDING (site of)

SW56923801 PRN: 139225

This building appears on the 1877 1st Edition OS map, probably having been joined to and incorporated into a complex that had started as the Cornish Copper Company smelting works but after 1820 was used principally as an iron foundry. It had disappeared by the time of the 1907 2nd Edition OS map with the building of Copper Terrace.

205 (CAU Site 9)

HAYLE, COPPERHOUSE (Figs 16e, f)

BUILDING (site of)

SW56933801 PRN: 139226

This building appears on the 1877 1st Edition OS map and was probably a component of the iron foundry that succeeded the copper smelting works, in 1820, in this area.

206 (CAU Site 9)

HAYLE, COPPERHOUSE (Figs 16e, f)

BUILDING (site of)

SW56933800 PRN: 139227

This building appears on the 1877 1st Edition OS map. It was part of the iron foundry complex that succeeded the copper smelting works in 1820.

207 (CAU Site 9)

HAYLE, COPPERHOUSE (Figs 16e, f)

BUILDING (site of)

SW56933799 PRN: 139228

This building appears to be shown on the 1791-96 map of Hayle (RIC MMP/51). It may have been part of the Cornish Copper Company smelting works that closed in 1819 and reused when the iron foundry succeeded. It had disappeared by the time of the 1907 2nd Edition OS map.

208 (CAU Site 8)

HAYLE, COPPERHOUSE (Figs 16e, f)

BUILDING (site of)

SW56913796 PRN: 139229

This building appears on the 1877 1st Edition OS map. It was probably a component of the iron foundry that succeeded the copper smelting works in this area, in 1820 through to 1870.

209 (CAU Site 7)

HAYLE, COPPERHOUSE (Figs 16e, f)

BUILDING (site of)

SW56963801 PRN: 139230

This building appears on the 1791-96 map of Hayle (RIC, MMP/51). Its function is presently unknown. It had disappeared by the time of the 1907 2nd Edition OS.

211 (CAU Site 3)

HAYLE, COPPERHOUSE (Figs 16e, f)

BUILDING (site of)

SW56943803 PRN: 139232

This part of the building complex appears to be the earliest, dating to the 1842 Tithe Award for Phillack. Later extensions seem to have been added by the time of the 1877 1st Edition OS map and possibly survive on the RAF aerial photographs of June 4, 1951.

212 (CAU Site 3)

HAYLE, COPPERHOUSE (Figs 16e, f)

BUILDING (site of)

SW56963802 PRN: 139233

The components of this complex (with [211]) appear on the 1877 1st Edition OS map and survive on the RAF aerial vertical photographs of June 4, 1951. Their function is presently unknown.

7.2 Archaeological Potential

1) *Palaeoenvironmental and medieval potential:*

- Construction of the original Cornish Copper Company Smelting Works (and later re-use of the site as the Iron Works) necessitated cutting into the Phillack estuary hillside (to a depth of approximately 7.0m), perhaps destroying much of the earlier archaeological evidence from a point approximately halfway across the site. However, the process of surfacing the northern part of the site adjacent to the road may well have sealed and preserved earlier archaeological features (Site 2) and possibly palaeoenvironmental estuarine peat deposits.

2) Cornish Copper Company Smelting and Iron Works:

- Reference to the historical maps presented in this report show the developmental progression from the late 18th century buildings of the Copper Smelter (Fig 3), to the development of the site as an Iron Works (Fig 5), to its final developmental phase as shown on Fig 6 in 1877. It should be noted however that the main buildings housing the heavier machinery (apart from the later iron furnaces and boring mill sited at the former No. 1 Works of J. F Pool), were demolished in 1900 to make way for the construction of Copper Terrace.
- Figure 16 (the site inventory map), shows the location of other smelter and iron works buildings within the project area. However, it is uncertain as to the nature, form and extent of the below ground remains of these buildings and what they can tell us about the development, history and function of each site. It is therefore difficult, on the present knowledge base, to assess the significance of the below-ground remains, and therefore also the impact of the development. Although ground excavations within the project area may reveal footings or other related functional evidence for these buildings, especially given the nature of the wide areas within the project area that consist of concrete floor slabs (which did not need deep foundations for their construction).

The Hayle Historical Assessment (Cahill and CAU 2000, 51), describes the archaeological potential of the Copperhouse site:

'Most of the core industrial complex at Copperhouse lies under 20th century rebuilding. This has had two main consequences. The first is that foundations of buildings, even houses, built in this century are likely to be deeper and more destructive of underlying layers than 18th or 19th century developments. Secondly, such buildings are likely to have a long potential life ahead of them, so that the opportunity for archaeological investigation is unlikely over large areas of these sites in the foreseeable future. Much of the material from the demolished buildings was used in the construction of the housing, as the re-used blocks of scoria in the rear elevations show, indicating that demolition to ground level was probably fairly complete.

However, there are certain caveats to this analysis which suggest that there is still potential for buried archaeological remains. In the first place, many of the earliest buildings known from map evidence lie under the gardens of Copper Terrace or the access lane behind it, including part of the original copper smelter [191], [199], [200], as well as some later elements [204]. Much of the site of the 18th century ropewalk [190] lies below the forecourt of the garage in Beatrice Terrace, or in the gardens of the Terrace and the alleys behind. The surviving wall [187] of the J & F Pool works yard may be part of the ropewalk, while the early farmyard [196] [611] is in this same undeveloped strip. Secondly, even in those areas covered by 20th century industrial buildings, within the two yards of the iron works still enclosed by massive walls [187], [495] [566], the main buildings are huge sheds with very large open floor areas, where concrete slab floors are likely to have been laid over fill and demolition material. Many of the structures demolished by the expanding Pool's works actually stood in the open yard around the main 20th century buildings.

For these reasons, it is likely that the footings and foundations of the 18th and 19th century buildings, and evidence of machinery fittings and casting floors and other industrial processes survive in some areas. If this is the case, then the potential exists to recover much information about almost all the major phases of the Copperhouse site from the early 19th century onwards when it turned to iron founding, and perhaps also

of some elements of the earliest phase of copper smelting. The most likely opportunities will arise on the closure, rebuilding or redundancy of the existing large 20th century structures in the two walled yards'.

7.3 Site significance

The project area map evidence shows the historical significance of this core heavy industrial area sited between the hillside and the 1769 Copperhouse Canal and Dock. The Cornish Copper Company used the project area throughout its history (1756 – 1869), and the site originated as the 'raison d'être' for the settlement pattern of this part of Hayle from the mid 18th century.

Archaeological significance:

Given the cartographic and documentary evidence presented in this report (and the detailed comments relating to the archaeological potential), this entire site has a high value in terms of the possible preservation of archaeological features relating to the Copperhouse industries. It is recognised however that foundations for buildings of the 18th and 19th centuries are not very deep, and so the archaeological resource is likely to be present within approximately 1.0m of the surface. However, given the present knowledge base, it is difficult to assess the significance of the below-ground remains, and therefore also the impact of the development until more information about the nature and extent of the archaeological below ground resource is known. In addition, there is a distinct possibility of potential palaeoenvironmental remains if waterlogged estuarine peats survive at depth within sand and silt deposits, particularly at the northern end of the site.

Visual significance:

Historically the project area is within an intensely industrial area, although this use has significantly reduced during the past decade. Its industrial character is retained in the surviving elements of the nearby canal and dock (both Scheduled Monuments), the continued warehouse use (by R & J Supplies) of the former J. F. Pool building, and in the strong grid pattern of industrial housing laid out by the CCCo on the rising land to the south of Copperhouse Pool.

A significant visual feature of the historic architecture of the area is the extensive use of scoria block, a by-product from the CCCo's copper smelter located here in the 18th and 19th centuries.

Although the former mid 20th century J. F. Pool (No. 2 Works) is testimony to being part of Hayle's last major industrial company, its dominant scale and large extent dwarf's what would have been the scale of the building footprints of the original 18th and 19th century buildings. *'the rows of industrial housing around Copperhouse only make sense if the industrial history of the area is understood – and that makes the few remnants of the industrial complex at Copperhouse even more precious in themselves'* (Cahill 2000, 16).

At present, the visual significance of the area is perhaps diminished by the negatively derelict character of the former J. F. Pool buildings and in terms of other adjacent 18th and 19th century domestic and nearby mid 18th century Copperhouse Wharf buildings, its visual significance is also negative.

Historic building significance:

'Originally a highly industrialised area, very little of the great CCCo engineering and foundry works still survive. The major industrial buildings have been lost but elements of the works survive and are all the more important for this... Although little from the historic industrial uses survive, the sites retain their industrial character with the surviving 18th and 19th century boundary walls continuing to define the layout and grain of the sites and the 20th century industrial units reflecting something of the original industrial character and scale. There is, however, pressure for redevelopment on these sites' (Hayle CSUS 2005, 46).

To a historian of the 20th century, the J. F. Pool buildings would be significant, both in terms of their design, architecture and form through the sites history, as well as the company's contribution to the continued development of Hayle, continuing its industrial focus through the 20th century, from its mid 18th century origins. However, in the 21st century these buildings (many 90 years old with cracking walls and leaking roofs), are not seen as being important to be re-used, repaired or adapted as there appears to be no demand for large scale industries in the centre of Hayle, rather a demand for new out of town shopping sites nearer the A30 to the north of Copperhouse.

The only historically significant building which remains on site is a section of scoria block masonry (HES Site 13, Fig 16), whose existing outer face was formerly the inner face of the central section of the southern wall of the copper smelter. This is the only remnant of the main copper smelter building (built in c1756), apart from perhaps the fragmentary wall remnant of HES Site 12.

The other significant sites are the scoria block boundary walls (HES Sites 10 and 11) which are all highly characteristic of the Copperhouse area of Hayle, and were contemporary with the operation of the copper smelter (1756-1820).

8 Site Gazetteer Table

Notes:

- 1) The District is Penwith and the Parish is Phillack.
- 2) All identified structures and sites are located by a 10 - figure grid reference. In most instances these relate to a point at the centre of the feature/structure. Linear features (walls, etc.), are given an **NGR** at both ends.
- 3) Cornwall County Council Sites and Monuments Record Primary Record Numbers (**PRN**) relevant to all of the sites within the project area are shown within the table.
- 4) Cahill (2000) site number refers to the Hayle Site Inventory report (Cahill and CAU 2000).
- 5) The extent of **survival** of each feature is noted. Each site is graded to denote its level of importance:
A: Site of national importance, **B:** Site of county or regional importance, **C:** Site of local importance.
- 5) The final section summarises each site's recommended mitigation for site development.
- 6) The site inventory map is shown in Figure 16.

Site No.	Name/description	NGR (SW)	PRN	Cahill (2000)	Survival	Grade	Recommended mitigation (assuming total development)
1	CCCO buildings (possibly offices). In existence by 1842 gone by 1907. Covered by J.F. Pool factory.	56960 38020	139230 139233	209	Unknown	C	Possible site evaluation trenching and an archaeological watching brief
2	CCCO buildings (Smelter/Iron Works). In existence by 1791 partially gone by 3 rd Edit. OS. Site now cleared and used as R & J Supplies car park.	56928 38035	139232	203	Unknown	C	Possible site evaluation trenching and an archaeological watching brief and collect Palaeoenvironmental deposits if present.

Site No.	Name/description	NGR (SW)	PRN	Cahill (2000)	Survival	Grade	Recommended mitigation (assuming total development)
3	CCCO buildings (known as 'Company's Yard'). In existence by 1791 gone by 3 rd Edit. OS. Site cleared but partially occupied by former J.F. Pool factory.	56951 38032	139219	198 211 212	Unknown	C	Possible site evaluation trenching and an archaeological watching brief
4	Small CCCO building. In existence by 1877 gone by 1907. Covered by J.F. Pool factory.	56977 38016			Unknown		Not a significant building
5	Small CCCO building. In existence by 1877 gone by 1907.	56972 38044			Unknown		Not a significant building
6	Small CCCO building. In existence by 1877 gone by 3 rd Edit. OS.	56992 38029			Unknown		Not a significant building
7	Small CCCO building. In existence by 1842 possibly gone by 3 rd Edit. OS. Lower walls visible on west side.	56882 37941			Extant low walls		Not a significant building
8	CCCO buildings (Smelter/Iron Works). In existence by 1842 gone by 1907. Covered by J.F. Pool factory.	5691 3796	139229	208	Unknown	B	Possible site evaluation trenching and an archaeological watching brief
9	CCCO buildings (Smelter/Iron Works). In existence by 1791 gone by 1907. Covered by J.F. Pool factory.	5693 3799	139228 139227 139226	206 207	Unknown	B	Possible site evaluation trenching and an archaeological watching brief
10	Pathway defined by scoria block walls. Probably in existence by 1791.	56904 37936 56936 37939		567	Mostly extant to full height	B	Retain scoria walls and repair if possible
11	Scoria block retaining wall and upper scoria block wall. Probably in existence by 1791.	56936 37939 56992 38023		566	Extant scoria walls	B	Retain scoria walls and repair if possible
12	Remnants of scoria block wall. Probably in existence by 1791.	56915 38032	139202	181	Remnants of scoria block walls	B	Retain scoria walls and repair if possible

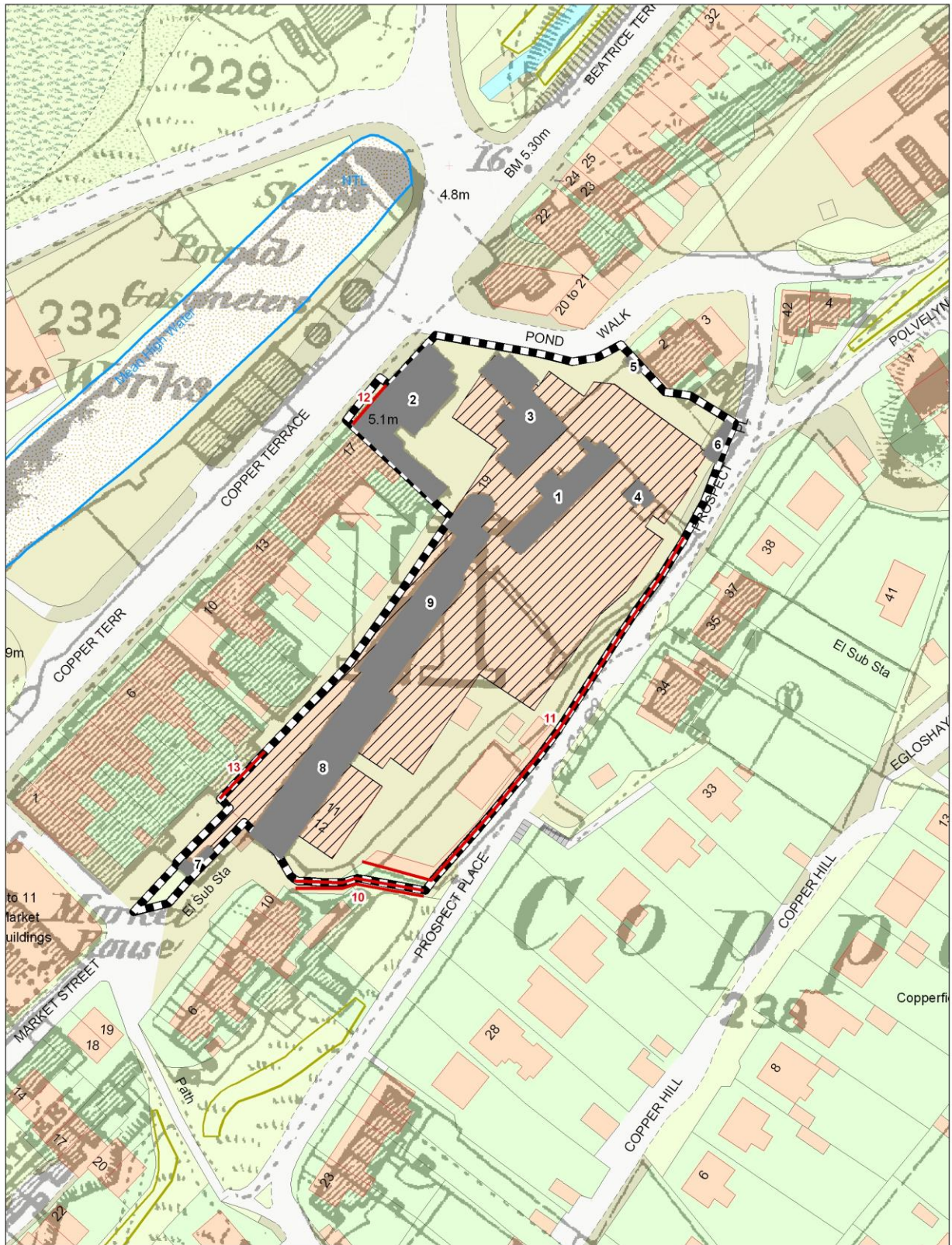
Site No.	Name/description	NGR (SW)	PRN	Cahill (2000)	Survival	Grade	Recommended mitigation (assuming total development)
13	Scoria block wall with granite quoin. Site is probably part of the original CCCO Smelter east wall dating from 1756).	56890 37953 56899 37965			Extant	B	Survey record prior to demolition but preferably retain scoria wall and granite quoins
14	Existing J. F. Pool buildings	5693 3801		205	Extant	C	Photographic survey prior to demolition

9 Impact assessment


The proposed development will have an impact both on the archaeological resource and the setting and character of the adjacent World Heritage Site:

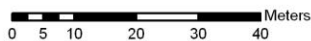
Archaeological resource:

- The proposed development of a number of 70 units (a combination of houses and flats) over the development site (see Fig 17), will have an impact upon the probable 18th and 19th century archaeological resource of the former Cornish Copper Company buildings and offices (specifically Sites 1, 2, 3, 4, 5, 6, 7, 8, 9 and 13 – compare Figs 16 and 18).
- The proposed residential development will necessitate complete demolition of the former J. F Pool (No. 2 Works) – a large concrete block and asbestos roofed building with concrete floors dominating the project area, dating at least from c1914 to the 1960s.
- The impact of the development on the archaeological resource will presumably be in the excavation and construction of site foundations for houses, flats and related garages and services. It is likely that excavation for these new foundations will destroy the archaeological resource which is probably located within 1.0m of the contemporary historic ground surface.
- The site location of related services for mains water, gas, electricity, sewage and drainage for this new development is not known nor are details of the proposed final site levels. The impact of the new site services on the archaeological resource cannot therefore be determined.
- In detail, the proposed development may have the following impact upon the known archaeological resource (shown as site numbers (refer Section 8 site gazetteer table and Fig 16) followed in brackets by site type and date).
- Figure 18 shows on plan the impact of the proposed development on the possible existing archaeological remains of the Copperhouse foundry.



Key

	Hayle Site		1880 buildings
	J&F Pool Building		HES sites



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Fig 16 Site Inventory map.

10 Impact assessment

The proposed development will have an impact both on the archaeological resource and the setting and character of the adjacent World Heritage Site:

Archaeological resource:

- The proposed development of a number of 70 units (a combination of houses and flats) over the development site (see Fig 17), will have an impact upon the probable 18th and 19th century archaeological resource of the former Cornish Copper Company buildings and offices (specifically Sites 1, 2, 3, 4, 5, 6, 7, 8, 9 and 13 – compare Figs 16 and 18).
- The proposed residential development will necessitate complete demolition of the former J. F Pool (No. 2 Works) – a large concrete block and asbestos roofed building with concrete floors dominating the project area, dating at least from c1914 to the 1960s.
- The impact of the development on the archaeological resource will presumably be in the excavation and construction of site foundations for houses, flats and related garages and services. It is likely that excavation for these new foundations will destroy the archaeological resource which is probably located within 1.0m of the contemporary historic ground surface.
- The site location of related services for mains water, gas, electricity, sewage and drainage for this new development is not known nor are details of the proposed final site levels. The impact of the new site services on the archaeological resource cannot therefore be determined.
- In detail, the proposed development may have the following impact upon the known archaeological resource (shown as site numbers (refer Section 8 site gazetteer table and Fig 16) followed in brackets by site type and date). Figure 18 shows on plan the impact of the proposed development on the possible existing archaeological remains of the Copperhouse foundry.

SEVERE:

- **Site 1** (Site of CCCo building (offices) c1842)
- **Site 2** (Site of CCCo building (Smelter/Iron Works) c1791)
- **Site 3** (Site of CCCo building (Company's Yard) c1791)
- **Site 4** (Site of CCCo building c1877)
- **Site 5** (Site of CCCo building c1877)
- **Site 6** (Site of CCCo building c1877)
- **Site 7** (Site of CCCo building c1842)
- **Site 8** (Site of CCCo building c1791/1842)
- **Site 9** (Site of CCCo building c1791/1842)
- **Site 13** (Scoria block wall remnant of Copper smelter)

NONE:

- **Site 10** (Path Scoria block walls)
- **Site 11** (Scoria block retaining wall and upper road wall)
- **Site 12** (Low Scoria block front wall)

POTENTIAL SITES:

- **Site 2** (Below ground archaeology and potential Palaeoenvironmental deposits)

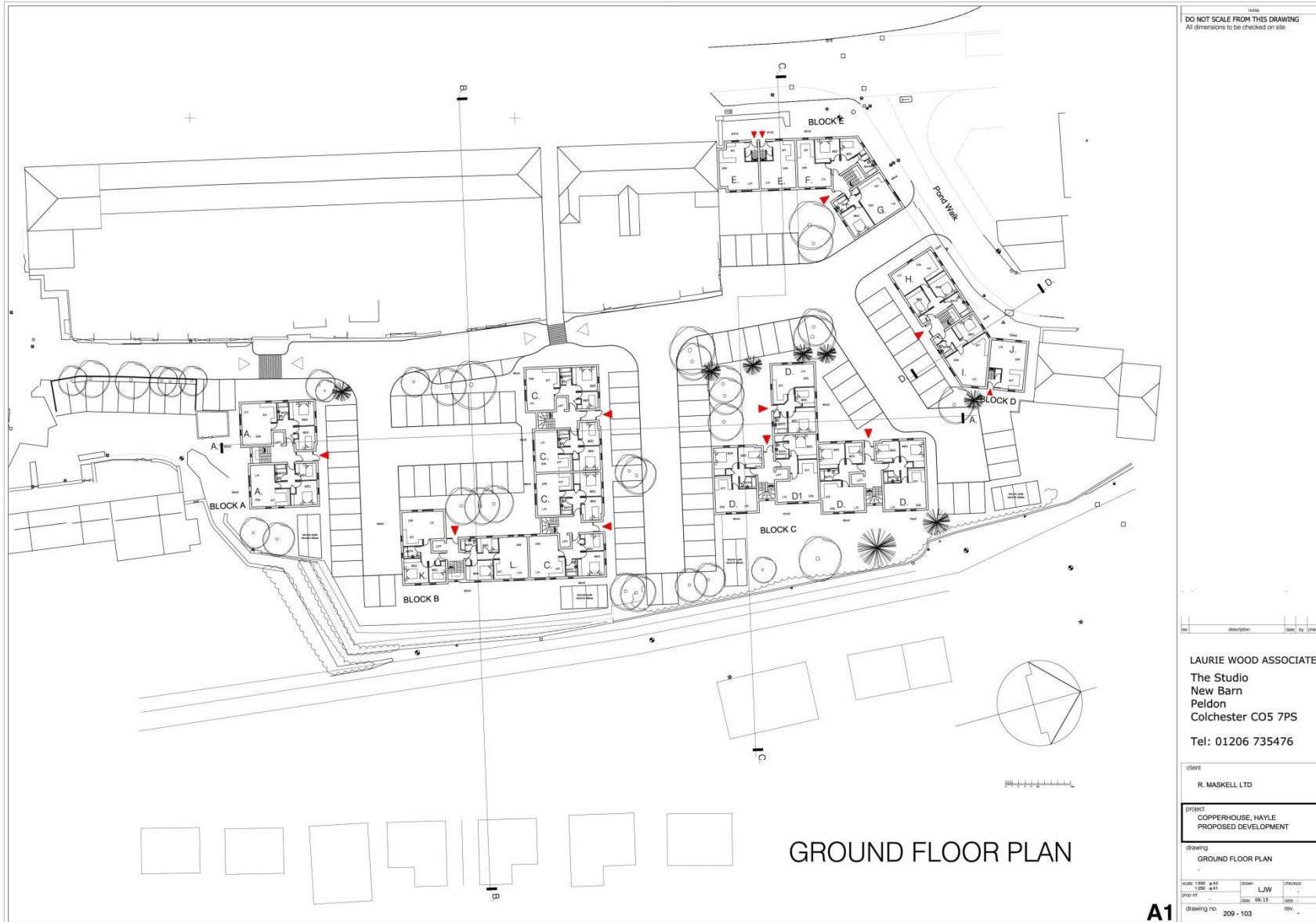


Fig 17 Proposed ground floor plan (Laurie Wood Associates).



Fig 18 Proposed site plan overlying sites of known archaeological features (Dark grey areas- Laurie Wood Associates).

Setting and character:

- Any proposed new site development will have an impact upon the setting, character and outstanding universal value of other buildings within the WHS area. Although it may be advantageous to liaise with the CCC (Phil Copleston - Advice and Planning Section), as part of a Pre-Application consultation. It is recommended that any new build reflects the inherent character, setting and architectural style of the adjacent properties of the Copperhouse area.
- Any proposed new site development may have an impact upon the setting and character of nearby Listed Buildings (both immediately north (No 2 Pond Walk) and south (9/10 Market Street), of the project area.

Summary:

Demolition of the main J. F Pool factory building within the project area and removal of the substantial concrete floor would provide an opportunity to ascertain the presence, nature and character of any remaining below ground archaeological features of the 18th and 19th century development of the former Cornish Copper Company site. An alternative mitigation however, is to reduce the impact of the development site on the potential archaeological resource by moving the proposed developments away from these archaeological features. Therefore, adequate provisions for mitigating the effect of the impact on below ground archaeological features and possible palaeoenvironmental deposits are recommended. Figure 18 shows the impact of the proposed development on known footprint sites of the former Copperhouse foundry.

As the nature, extent and quality of the below ground archaeological resource is not yet known, it is not possible to fully assess the nature and significance of the below ground impact of the development on the site. However, the presence of Scoria block boundary walls (mainly acting to retain the higher ground behind), are the only extant features remaining on site that specifically relate to the former Cornish Copper Company works – most of which are planned to be retained by the development company.

11 Recommendations

The recommendations that follow comprise an overall archaeological management strategy for the assessment study area. These have been formulated by considering a combination of documentary, cartographic, and field evidence within the study area. Recommendations for individual structures and features are contained in the Site Gazetteer (Section 8); this section provides the context within which those specific recommendations should be read.

The CSUS report on Hayle (2005) makes the following recommendations with regard to the Copperhouse area of Hayle:

1) Retain the industrial character of the CCCo sites. Conserve any remnant remains and investigate the archaeological potential of the site.

- The industrial use of these sites is the reason for the creation of the settlement. This importance should be reflected in the treatment of the sites. The industrial character and scale of the area should be retained in any future redevelopment.
- Historic boundary walls and other surviving remnants should be retained and conserved.
- Due to the high archaeological potential of these sites archaeological investigation and mitigation may be required as part of any future redevelopment.

2) Celebrate the historic importance of Copperhouse and the CCCo.

- The CCCo was the reason Copperhouse developed. This significance should be celebrated.
- *'The surviving fragment of the CCCo complex could be stabilised and conserved and its significance interpreted'* (Gillard and Newell 2005, 47-48).

The CSUS recommendations reproduced above are one of the key themes for regeneration to this historic part of Hayle and to utilise regeneration opportunities by retaining its industrial character and conserving any surviving remnants whilst investigating the archaeological potential of the site.

The proposed development on this site has the potential to be an enhancement to the historic environment, if it can ensure:

- that below-ground archaeological remains are either preserved through careful design or better understood through an appropriate level of recording (site evaluations/site excavations)
- that existing historic fabric is preserved and conserved
- that the development is designed to respect and enhance the historic character of the area

Archaeological and building recording

A Written Scheme of Investigation (WSI) should be produced and implemented, to be agreed by the Local Planning Authority (advised by Phil Copleston, Cornwall County Planning Advice Team), in advance of development taking place. This should be appropriate to the significance of the remains and the impact of the development and may include:

- **Building record:** Prior to demolition of the J. F Pool buildings (No. 2 Works) it is recommended that a general photographic survey and concise description of the buildings is undertaken, to include a plan showing where the photographs were taken.
- Other historic structures which may be affected by or destroyed by the works should also be recorded at an appropriate level (the scope for this will depend upon the impact of the final design).
- **Evaluation:** there is scope for the survival of significant below-ground remains associated with the Cornish Copper Company Smelting and Iron Works. At present the quality of survival and the potential and significance of the remains is not known, and therefore it is not possible to fully assess the extent and significance of impacts on this resource. It is therefore recommended that an archaeological site evaluation is undertaken through trial trenching. It is hoped this would clarify the nature, value and function of individual buildings to realise the archaeological potential of the site. This would enable the LPA and the Cornwall County Planning Advice Section to accurately assess the impact of the development proposals and guide proposals for an appropriate level of further archaeological recording (and/or for reducing impact through careful design mitigation, should this be possible at this late stage). The potential for palaeoenvironmental data to be collected from the north - west corner of the site could also be assessed.

Archaeological evaluation trenching could take place after the removal of the existing J. F Pool building and concrete floors. Following the evaluation an appropriate level of further archaeological recording would be determined and agreed, in liaison with the LPA and the Cornwall County Planning Advice Team, and the outline WSI could then be revised.

- **Further archaeological recording:** according to the outcome of the evaluation, the Written Scheme of Investigation should, as noted above, be revised and agreed with the Local Planning Authority. This could range from no further recording required, to monitoring and recording as the development proceeds, to a more formal excavation, as appropriate.

Preservation and conservation of historic features

- Retain, conserve and repair existing historic features, especially those features which relate to the use of the site by the Cornish Copper Company (1756 – 1869),

in particular extant remains of the Scoria block boundary and retaining walls (Sites 10 - 12).

- The development can provide an enhancement of the Copperhouse area by securing these sites, improving their conservation, and making them more visible and accessible than they are at present.

Design

The World Heritage Site Management Plan Strategic Policies (specifically Policy P3: **Planning authorities should ensure that new development protects, conserves and enhances the Site and its setting** and Policy C2: **New development should add to the quality and distinctiveness of the site by being of high quality design and respectful of setting**, are highly relevant to the development proposals for this site. Further advice with regard to these implications are available from Cornwall County (Planning and Advice Team – Phil Copleston).

The CSUS report on Hayle (2005) makes the following recommendations with regard to design implications for new build developments within the Copperhouse area of Hayle (specifically: **Recognise the quality and particular distinctive character of the historic built environment of Hayle, and achieve equally high quality and distinctiveness in all future new build and the public realm and Retain industrial character through redevelopment of industrial sites** (Gillard and Newell 2005, 40, 42 respectively see also Penwith Local Plan Policies, section 5.3.3 above). Further advice with regard to these implications are available in the first instance from the area Cornwall County Conservation Officer – Nina Paternoster).

12 References

12.1 Primary sources

- Cornwall and Scilly Sites and Monuments Record (CCC)
CRO: Plan of Bodriggy Wastrel 1835 (GBP 3/12/1)
DDH Plans of Copperhouse (166/29, 166/61, 268, 267 and 270)
F. J Pool Archive (CRO - uncatalogued)
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Ordnance Survey, c1907. *25 Inch Map* Second Edition (GIS theme, Landmark UK)
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13 Project archive

The CAU project number is **146510**

The project's documentary, digital, photographic and drawn archive is maintained by Cornwall Archaeological Unit, Cornwall Council, Fal Building, County Hall, Treyew Road, Truro, TR1 3AY.

Electronic data is stored in the following locations:

Project admin: G:\TWE\Waste & Env\Strat Waste & Land\Historic Environment\Projects\Sites\Sites H\Hayle Copperhouse REV Assessment 146510\Project admin

Digital photographs: R:\Historic Environment (Images)\Sites\Sites E-H\Hayle\Hayle Copperhouse 2006051

Report: G:\TWE\Waste & Env\Strat Waste & Land\Historic Environment\Projects\Sites\Sites H\Hayle Copperhouse REV Assessment 146510\R & J Development Site, Copperhouse (Revised).doc

English Heritage/ADS OASIS online reference: cornwall2-223757

